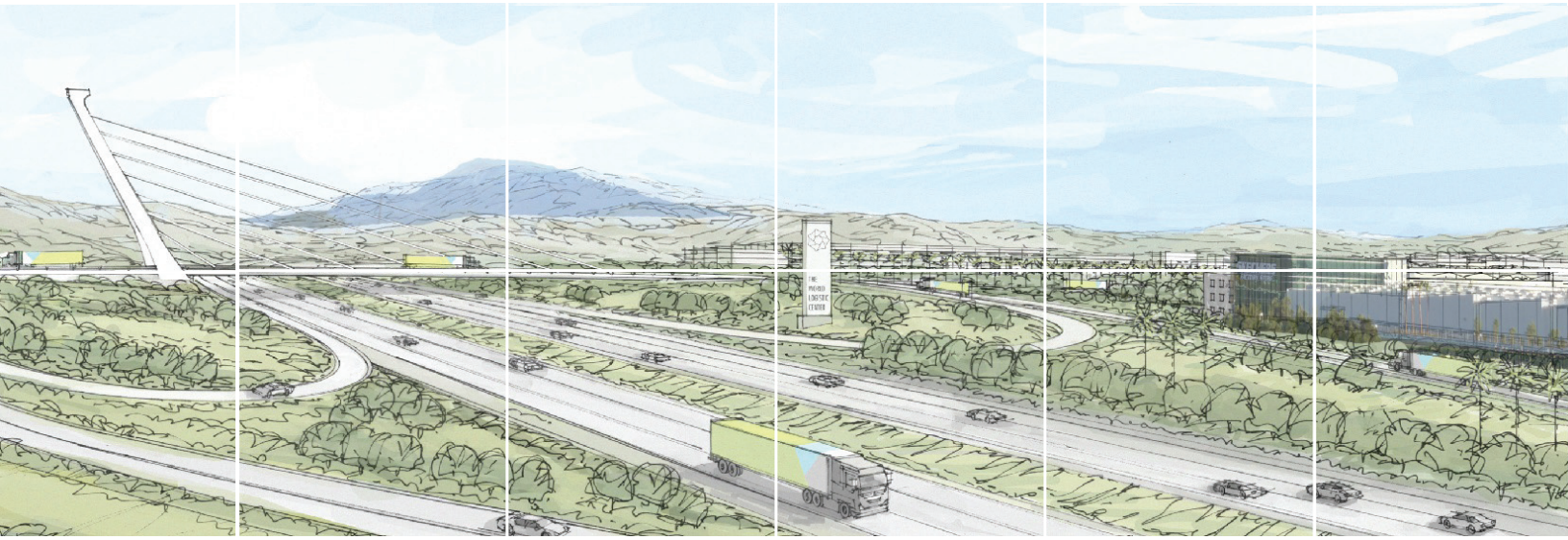
THE WORLD LOGISTICS CENTER™ ®

Final Programmatic Environmental Impact Report

Volume 1 - Response to Comments



State Clearinghouse No. 2012021045

City of Moreno Valley
Riverside County, California

May 2015

LSA

FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT REPORT

Volume 1 – Responses to Comments

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CITY OF MORENO VALLEY

RIVERSIDE COUNTY, CALIFORNIA

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May 2015

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**** Appendices are referenced here but are contained in FEIR Volume 2***

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Acronyms and Abbreviations

§	Section
§§	Subsection
°C	degrees Celsius
°F	degrees Fahrenheit
µg/m^3	Micrograms per cubic meter
AAQS	Ambient Air Quality Standards
AB	Assembly Bill
ACC	Andrew Chang and Company
ACM	Asbestos-Containing Material
ACOE	Army Corps of Engineers
ADT	Average Vehicle Trips per Day
AF	acre-feet
AFRES	Air Force Reserve
AFV	Alternative Fuel Vehicle
AFY	acre feet per year
AICUZ	Air Installation Compatible Use Zone
ALUC	Airport Land Use Commission
ALUP	Airport Land Use Plan
AMI	Acute Myocardial Infarction
amsl	above mean sea level
A-P Act	*Alquist-Priolo Earthquake Fault Zoning Act*
APN	Assessor's Parcel Number
APU	Auxiliary Power Units
AQMP	Air Quality Management Plan
ASCE	American Society of Civil Engineers
AST	Aboveground Storage Tank
AVR	Average Vehicle Ridership
Basin	South Coast Air Basin
BAU	Business As Usual

BDCP	Bay Delta Conservation Plan
BLS	Bureau of Labor Statistics
BMP	Best Management Practice
BP	Business Park
BUOW	Burrowing Owls
BV&A	Bear Valley and Alessandro Development Company
BVIC	Bear Valley Irrigation Company
BVLWC	Bear Valley Land and Water Company
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CalFire	California Department of Forestry and Fire Protection
CalGreen Code	California Green Building Standards Code
California Register	California Register of Historic Resources
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CAPSSA	Criteria Area Plant Species Survey Area
CARB	California Air Resources Board
CASQA	California Stormwater Quality Association
CASSA	Criteria Area Species Survey Area
CAT	California Climate Action Team
CBC	California Building Code
CBD	Center for Biological Diversity
CBOC	California Burrowing Owl Consortium
CBSC	California Building Standards Commission
CCAA	California Clean Air Act
CCAEJ	Center for Community Action and Environmental Justice
CCR	California Code of Regulations

CC&Rs	Covenants, Conditions and Restrictions
CDE	California Department of Education
CDFG	California Department of Fish and Game, former name of the California Department of Fish and Wildlife
CDFW	California Department of Fish and Wildlife, formerly known as the California Department of Fish and Game
CDGB	Community Development Block Grant
CDMG	California Department of Mines and Geology
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response Compensation Liability Act
CESA	California Endangered Species Act
CFCs	chlorofluorocarbons
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CFS	calls for service
cfs	cubic feet per second
CGP	Construction General Permit
CGS	California Geological Survey
CH_4	Methane
CHP	California Highway Patrol
CIP	Capital Improvement Plan
CIWMB	California Integrated Waste Management Board
CLUP	Comprehensive Land Use Plan
CMP	Corrugated Metal Pipe
CMP	Riverside County Congestion Management Program
CNDDB	California Natural Diversity Data Base
CNEL	Community Noise Equivalent Level
CNG	Compressed Natural Gas
CNPS	California Native Plant Society

CNPSEI	California Native Plant Society Electronic Inventory
CNRP	Comprehensive Nutrient Reduction Plan
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
COA	Coordinated Operations Agreement
CPD	(HUD Office of) Community and Planning Development
CPUC	California Public Utilities Commission
CRA	California Resource Agency
CRA	Cultural Resource Assessment
CSC	California Species of Concern
CUPA	Certified Unified Program Agency
CUWCC	California Urban Water Conservation Council
CVC	California Vehicle Code
CVP	Central Valley Project
CWA	(Federal) Clean Water Act
CWC	California Water Code
DA	Development Agreement
DAMP	Drainage Area Management Plan
dB	decibel
dBA	decibel on the A-weighted scale
DBESP	Determination of a Biologically Equivalent or Superior Preservation
DCIA	Directly Connected Impervious Area
DDE	Dichlorodiphenyldichloroethylene
DDT	Dichlorodiphenyltrichloroethane
DE	Diesel Emissions
DEH	Department of Environmental Health
DEIR	Draft Environmental Impact Report
DFG	Department of Fish and Game
DHS	(California) Department of Health Services

DIF	Development Impact Fee
DMM	Demand Management Measure
DMP	Drainage Master Plan
DOC	(California) Department of Conservation
DOF	(California) Department of Finance
DPR	Department of Parks and Recreation
DPM	Diesel Particulate Matter
DTA	David Taussig & Associates, Inc.
DTSC	(California) Department of Toxic Substance Control
DWR	(California) Department of Water Resources
e.g.	*exemplī grātiā*, for example
EB	Eastbound
ECSD	Edgemont Community Services District
EDD	Employment Development Department
EDR	Environmental Data Resources
EHL	Endangered Habitats League
EIA	Energy Information Administration
EIC	Eastern Information Center
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EMFAC	Emissions Factor Model 2014
EMWD	Eastern Municipal Water District
EPA	U.S. Environmental Protection Agency
EPAct	Energy Policy Act
ESA	Environmental Site Assessment
ESG	Emergency Solutions Grant
ETAAC	Economic and Technology Advancement Advisory Committee
FAA	Federal Aviation Administration
FAR	Floor to Area Ratio
FEIR	Final Environmental Impact Report

FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FLMV	Friends for a Livable Moreno Valley
FMMP	Farmland Mapping and Monitoring Program
fps	feet per second
ft	foot/feet
FTA	Federal Transit Administration
FTE	full-time equivalent
FTIP	Federal Transportation Improvement Program
GCC	Global Climate Change
GHG	Greenhouse gas
GIS	Geographic Information Systems
GPA	General Plan Amendment
gpd	gallons per day
gpf	gallons per flush
GSR	Gilman Spring Road
GWP	Global Warming Potential
GVW	Gross Vehicle Weight
HANS	Habitat Evaluation and Acquisition Negotiation Strategy
HCD	(California) Department of Housing and Community Development
HCM	*Highway Capacity Manual*
HCP	Habitat Conservation Plan
HCS	Highway Capacity Software
HFCP	Highland Fairview Corporate Park
HHWE	Household Hazardous Waste Element
HI	Hazard Indices
HMB	Hazardous Materials Branch

HMBEP	Hazardous Materials Business Emergency Plan
HMMA	Hazardous Materials Management Act
HMMP	Habitat Mitigation and Monitoring Plan
HNL	Hourly Noise Level
HOME	HOME Investment Partnership
HOPWA	Housing Opportunities for Persons with AIDS
hp	horsepower
HRA	Health Risk Assessment
HSA	Hydrologic Subarea
HSC	Health and Safety Code
HUD	Housing and Urban Development
HVAC	Heating, Ventilating, and Air Conditioning
HWCL	Hazardous Waste Control Law
Hz	hertz
i.e.	*id est*, that is
ICF	ICF International
IMPLAN	Impact Analysis for Planning
IN-132	San Timoteo Canyon Rd/Alessandro Rd.
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd.
IN-135	W. Crescent Ave./Alessandro Rd
IN-136	W. Sunset Dr. Alessandro Rd
IN-95	Alessandro/Arlington/Chicago Intersection
IPCC	United Nations Intergovernmental Panel on Climate Change
IRP	Integrated Resources Plan
IS	Initial Study
IT	Information Technology
ITE	Institute of Transportation Engineers
JD	Jurisdictional Delineation
JPR	Joint Project Review
kV	kilovolt

LA	Los Angeles
LAFCO	Local Agency Formation Commission
LAFCO	Riverside County's Local Agency Formation Commission
LAPM	Los Angeles pocket mouse
LB	Long Beach
LBP	Lead-Based Paint
LBRMP	Logistic Building Runoff Management Plan
lbs	pounds
LCC	Land Capability Classification
LD	Logistics Development
L_{dn}	day-night average noise
LE	Land Evaluation
LED	Light-Emitting Diode
LEED	Leadership in Energy and Environmental Design
L_{eq}	Equivalent continuous sound level (L_{eq})
LESA	(California) Land Evaluation and Site Assessments
LHP	Local Hiring Program
LHMP	Local Hazard Mitigation Plan
LI	Light Industrial
LID	Low Impact Development
LL	Light Logistics
L_{max}	maximum noise level
LNG	Liquefied Natural Gas
LNG/CNG	liquefied natural gas/compressed natural gas
LOS	Level of Service
LPS	Low Pressure Sodium
LPSRA	Lake Perris State Recreation Area
LSA	LSA Associates, Inc.
LST	Local Significance Threshold
MARB	March Air Reserve Base

MATES	Multiple Air Toxics Exposure Study
MBA	Michael Brandman Associates
MBTA	Migratory Bird Treaty Act
MC	Municipal Code
MCP	Mid County Parkway
Metropolitan	Metropolitan Water District of Southern California
MERV	Minimum Energy Reporting Value
mgd	million gallons per day
MHSP	Moreno Highlands Specific Plan
MICR	maximum individual cancer risk
MIP	March Inland Port
MJPA	March Joint Powers Authority
MLD	Most Likely Descendant
MM	Mitigation Measure
mm/yr	millimeters per year
MMDP	Moreno Master Drainage Plan
MMRP	Mitigation Monitoring and Reporting Program
mmt	million metric tons
MOU	Memorandum of Understanding
mpg	miles per gallon
mph	miles per hour
MPO	Metropolitan Planning Organization
MPOA	Master Property Owners Association
MPT	Master Plan of Trails
MRZ	Mineral Resource Zone
MS4	Municipal Separate Storm Sewer Systems
MSHCP	(Western Riverside County) Multiple Species Habitat Conservation Plan
mt	metric tons
mty	metric tons per year
MV	Moreno Valley

MVEU	Moreno Valley Electric Utility
MVFD	Moreno Valley Fire Department
MVHS	Moreno Valley Historical Society
MVPD	Moreno Valley Police Department
MVRWRF	Moreno Valley Regional Water Reclamation Facility
MVU	Moreno Valley Utility
MVUSD	Moreno Valley Unified School District
MW	megawatt
MWh	megawatt-hours
N_2O	nitrous oxide
NA	Native American
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NAIOP	National Association of Industrial and Office Properties
National Register	National Register of Historic Places
NB	Northbound
NCCP	Natural Communities Conservation Plan
NDDB	Natural Diversity Data Base
NDFE	Nondisposal Facility Element
NEPA	National Environmental Policy Act
NEPSSA	Narrow Endemic Plant Species Survey Area
NFIP	National Flood Insurance Program
NFPA	National Fire Protection Association
NHPA	National Historic Preservation Act
NHTSA	Highway Traffic and Safety Administration
NMFS	National Marine Fisheries Service
NO_2	Nitrogen Dioxide
NOC	Notice of Completion
NOI	Notice of Intent
NOP	Notice of Preparation

NO_X	Oxides of Nitrogen
NPDES	National Pollutant Discharge Elimination System
NRCP	Noise Reduction Compliance Plan
NRCS	Natural Resource Conservation Service
NRDC	Natural Resources Defense Council
NWP	National Wildlife Permit
O_3	Ozone
OCP	organo-chloro-phosphate
OEHHA	Office of Environmental Health Hazard Assessment
OES	Occupational Employment Statistics
OHP	Office of Historic Preservation
OHWM	Ordinary High Water Mark
OMB	(White House) Office of Management and Budget
OPR	Office of Planning and Research
OS	Open Space
OSHA	Occupational Safety and Health Administration
PA	Planning Area
PA&ED	Project Approval and Environmental Documentation
PAH	Polycyclic Aromatic Hydrocarbon
Pb	Lead
PCBs	polychlorinated biphenyls
PCE	Passenger Car Equivalents
PEA	Preliminary Environmental Assessment
PM_{10}	Particulate Matter with a Diameter of 10 Microns or Less
$PM_{2.5}$	Particulate Matter with a Diameter of 2.5 Microns or Less
POA	Property Owners Association
POLA	Port of Los Angles
POLB	Port of Long Beach
POTWs	Publicly Owned Treatment Works

POU	Publically Owned Utility
ppb	parts per billion
ppm	parts per million
PQP	Public Quasi-Public
PSB	Public Safety Building
PUC	Public Utilities Code
PVC	Polyvinyl Chloride
PVCCSP	Perris Valley Commerce Center Specific Plan
PVSC	Perris Valley Storm Channel
PWC	Public Works Committee
PWQMP	Preliminary Water Quality Management Plan
PZ	Pressure Zone
q.v.	*quod vidē*, which see (presented elsewhere in the document)
QSP	Qualified SWPPP Practitioner
RCA	Resource Conservation Authority
RCB	reinforced concrete box
RCC	Riverside Community College
RCFCWCD	Riverside County Flood Control and Water Conservation District
RCFD	Riverside County Fire Department
RCIP	Riverside County Integrated Project
RCIWMP	Riverside Countywide Integrated Waste Management Plan
RCP	Regional Comprehensive Plan
RCRA	Resource Conservation and Recovery Act
RCSD	Riverside County Sheriff's Department
RCTC	Riverside County Transportation Commission
REL	reference exposure level
RHNA	Regional Housing Needs Assessment
RivTAM	Riverside County Traffic Analysis Model
ROG	Reactive Organic Gas
ROW	Right of Way

RPR	(California) Rare Plant Ranking
RPS	Renewables Portfolio Standard
RPW	Relatively Permanent Water
RSHA	Regional System of Highways and Arterials
RTA	Riverside Transit Agency
RTC	Response to Comments
RTIP	Regional Transportation Improvement Plan
RTP	Regional Transportation Plan
RUWMP	Regional Urban Water Management Plan
RWQCB	Regional Water Quality Control Board
SA	Site Assessment
SAA	Streambed Alteration Agreement
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SB	Southbound
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCG	Southern California Gas Company
SCGC	Southern California Gas Company
SCS	Sustainable Communities Strategy
SDG&E	San Diego Gas and Electric
SEDAB	Southeast Desert Air Basin
sf	square foot/feet
SF_6	Sulfur Hexafluoride
SHMA	Seismic Hazards Mapping Act
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SJUSD	San Jacinto Unified School District
SJWA	San Jacinto Wildlife Area

SKR	Stephen's kangaroo rat
SKR HCP	Stephen's kangaroo rat Habitat Conservation Plan
SMARA	Surface Mining and Reclamation Act
SO_2	Sulfur Dioxide
SO_X	Sulfur Oxides
SP	Service Population
SR-60	State Route 60
SRA	State Recreation Area
SRRE	Source Reduction and Recycling Element
SSURGO	Soil Survey Geographic
STC	Sound Transmission Class
SWANCC	Solid Waste Agency of North Cook County
SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan
SWQCB	State Water Quality Control Board
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
TAF	thousand acre-feet
TASAS	Traffic Accident Surveillance and Analysis System
TAZ	Traffic Analysis Zones
TCL	Tri-county Conservation League
TCM	Transportation Control Measures
TCP	Traditional Cultural Place
TDM	Transportation Demand Management
TDS	Total Dissolved Solids
TEU	Twenty-foot Equivalent Unit
TIA	Traffic Impact Analysis
TIS	Traffic Impact Study
TLMA	Riverside County Transportation and Land Use Management Agency

TMDL	Total Maximum Daily Load
TNW	Traditional Navigable Water
TOD	Transit-Oriented Development
TOG	Total organic gas
tpy	tons per year
TRB	Transportation Research Board
TRI	Toxics Release Inventory
TUMF	Transportation Uniform Mitigation Fee
UBC	Uniform Building Code
UC	University of California
UCLA	University of California Los Angeles
UFP	ultrafine particles
UNFCCC	United Nations Framework Convention on Climate Change
USACE	United States Army Corps of Engineers
USC	University of Southern California
USDA	United States Department of Agriculture
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGBC	United States Green Building Council
USGS	United States Geological Survey
UST	Underground Storage Tank
UWMP	Urban Water Management Plan
VAE	voluntarily associated entity
VAV	Variable Air Volume
VIA	Visual Impact Assessment
VICS	Voluntary Interindustry Commerce Solutions
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds
VRP	Visibility-Reducing Particles

VT/KSF/day	vehicular trips per thousand square feet per day
WB	Westbound
WDR	Wastewater Discharge Requirement
WLA	Wildlife Area
WLC	World Logistics Center
WLCSP	World Logistics Center Specific Plan
WQMP	Water Quality Management Plan
WRCOG	Western Riverside Council of Governments
WSA	Water Supply Assessment
WSP	Water Shortage Plan
ZOI	Zone of Influence

GLOSSARY OF GENERAL TERMS

Acre-Foot. An acre-foot is the quantity of volume of water that covers one acre to a depth of one foot; equal to 43,560 cubic feet or 325,851 gallons.

Aesthetics. The perception of artistic elements, or elements in the natural or human-made environment that is pleasing to the eye.

Air Quality Criteria. Air quality criteria are the levels of pollution and length of exposure at which adverse effects on health and welfare occur.

Air Quality Standards. Air quality standards are the prescribed level of pollutants in the outside air that cannot be exceeded legally during a specified time in a specified geographical area.

Ambient Noise. Ambient noise is the composite of noise from all sources near and far. The ambient noise level constitutes the normal or existing level of environmental noise at a given location.

Applicant. An applicant is a person who proposes to carry out a project that needs a lease, permit, license, certificate, or other entitlement, for use or financial assistance from one or more public agencies.

Arterial. An arterial is a major street carrying the traffic of local and collector streets to and from freeways and other major streets, with controlled intersections and generally providing direct access to non-residential properties.

Attainment. Attainment means that there is compliance with State and Federal ambient air quality standards within an air basin.

A-Weighted Decibel (dBA). The dB on the A-weighted scale is the sound level obtained by use of A-weighting. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.

California Environmental Quality Act (CEQA). Enacted in 1970, CEQA requires State and local agencies to estimate and evaluate the environmental implications of their actions. It aims to prevent environmental effects of the agency actions by requiring agencies, when feasible, to avoid or reduce the significant environmental impacts of their decisions. If a proposed activity has the potential for a

significant adverse environmental impact, an environmental impact report (EIR) must be prepared and certified as to its adequacy before taking action on the proposed project (*California Public Resources Code* §§21000 et seq.)

Capacity. The maximum rate of flow at which vehicles can be reasonably expected to traverse a point or uniform segment of a lane or roadway during a specified time period under prevailing roadway, traffic, and control conditions.

Collector. Relatively low-speed, low-volume street that provides circulation within and between neighborhoods. Collectors usually serve short trips and are intended for collecting trips from local streets and distributing them to the arterial network.

Community Noise Equivalent Level (CNEL). A 24-hour energy equivalent level derived from a variety of single-noise events, with weighting factors of 5 and 10 dBA applied to the evening (7 p.m. to 10 p.m.) and nighttime (10 p.m. to 7 a.m.) periods, respectively, to allow for greater sensitivity to noise during these hours.

Congestion Management Plan (CMP). A mechanism employing growth management techniques, including traffic level of service requirements, standards for public transit, trip reduction programs involving transportation systems management and jobs/housing balance strategies, and capital improvement programming, for the purpose of controlling and/or reducing the cumulative regional traffic impacts of development.

Cumulative Impact. As used in CEQA, the total impact resulting from the accumulated impacts of individual projects or programs over time.

Current OEHHA Guidance. Guidance recommended by the OEHHA for estimating cancer risks based on a 30-year exposure duration for sensitive receptors and a 25-year exposure duration for worker receptors; this guidance incorporates age sensitivity factors for sensitive receptors

Current SCAQMD Guidance. Guidance recommended by the SCAQMD for estimating cancer risks based on a 70-year exposure duration for sensitive receptors and a 40-year exposure duration for worker receptors; this guidance does not incorporate age sensitivity factors

Day-Night Average Level (L_{dn}). The average equivalent A-weighted sound level during a 24-hour day, obtained after the addition of 10 decibels to sound levels in the night after 10 p.m. and before 7 a.m. (Note: CNEL and L_{dn} represent daily levels of noise exposure averaged on an annual or daily basis, while L_{eq} represents the equivalent energy noise exposure for a shorter time period, typically one hour.)

Decibel (dB). The decibel (dB) is the unit of level that denotes the ratio between two quantities that are proportional to power; the number of decibels is 10 times the logarithm (to the base 10) of this ratio.

Emission Standard. The maximum amount of pollutant legally permitted to be discharged from a single source, either mobile or stationary.

Environment. In CEQA, the environment are “the physical conditions which exist within the area which will be affected by a proposed project, including land, air, water, mineral, flora, fauna, noise, and objects of historic or aesthetic significance.”

Environmental Impact Report (EIR). A report required pursuant to the California Environmental Quality Act that assesses all the environmental characteristics of an area, determines what effects or impacts will result if the area is altered or disturbed by a proposed action, and identifies alternatives or other measures to avoid or reduce those impacts.

Equivalent Energy Level (L_{eq}). L_{eq} is the sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. L_{eq} is typically computed over 1-hour, 8-hour, and 24-hour sample periods.

Feasible. To be feasible, according to CEQA, means to be capable of being accomplished in a successful manner within a reasonable time taking into account economic, environmental, social, and technological factors.

Findings. Findings required by CEQA are the conclusions made regarding the significance of a project in light of its environmental impacts. A Statement of Overriding Considerations does not obviate the need to make other required CEQA findings.

Floor Area Ratio (FAR). The FAR is the gross floor area permitted on a site divided by the total net area of the site, expressed in decimals to one or two places. For example, on a site with 10,000 net square feet of land area, a floor area ratio of 1.0 will allow a maximum of 10,000 gross square feet of building floor area to be built. On the same site, an FAR of 1.5 would allow 15,000 square feet of floor area; an FAR of 2.0 would allow 20,000 square feet; and an FAR of 0.5 would allow 5,000 square feet. Also commonly used in zoning, FARs typically are applied on a parcel-by-parcel basis as opposed to an average FAR for an entire land use or zoning district.

Floor Area, Gross. The sum of the horizontal areas of the several floors of a building measured from the exterior face of exterior walls, or from the centerline of a wall separating two buildings, but not including any space where the floor-to-ceiling height is less than six feet. Some cities exclude specific kinds of space (e.g., elevator shafts and parking decks) from the calculation of gross floor area.

Freeway. A freeway is a high-speed, high-capacity, limited-access road serving regional and countywide travel. Such roads are free of tolls, as contrasted with turnpikes or other toll roads. Freeways generally are used for long trips between major land use generators. Major streets cross at a different grade level.

Incorporation by Reference. "Incorporation by reference" is a CEQA term meaning reliance on a previous environmental document for some portion of the environmental analysis of a project. See *CEQA Guidelines* §15150.

Initial Study. An Initial Study is a preliminary CEQA analysis that can be prepared by a Lead Agency to determine whether an EIR or Negative Declaration must be prepared, and identifying the significant environmental effects to be analyzed in an EIR.

Land Use. Any land use is the determination by a governing authority of the use to which land within its jurisdiction may be put so as to promote the most advantageous development of the community.

Lead Agency. The lead agency is the public agency that has the principal responsibility for carrying out or approving a project. The Lead Agency decides whether an EIR or Negative Declaration is required for a project, and causes the appropriate document to be prepared.

Level of Service (LOS). LOS is a qualitative measure describing operational conditions within a traffic stream and how motorists and/or passengers perceive them.

Maximum Noise Level (L_{max}). The maximum A-weighted sound levels measured on a sound level meter, during a designated time interval, using fast time averaging.

Mitigation Measure. A mitigation measure is a change in a project designed to avoid, minimize, rectify, reduce, or compensate for a significant environmental impact.

Mitigation Monitoring and Reporting Program (MMRP). When a lead agency adopts a mitigated negative declaration or an EIR, it must adopt a program of monitoring or reporting which will ensure that mitigation measures are implemented. (See CEQA Statute §21081.6(a) and *CEQA Guidelines* §§15091(d) and 15097.)

Noise. Noise is any sound that is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying (unwanted sound).

Noise Contours. Noise contours are lines drawn about a noise source indicating equal levels of noise exposure.

Notice of Determination (NOD). An NOD is a brief notice filed with the State Clearinghouse to document project approval. The filing of the NOD starts the statute of limitations period. (See *CEQA Guidelines* §15373.)

Notice of Preparation (NOP). An NOP is a brief notice to notify the public, Responsible and Trustee Agencies that an EIR is being prepared for a project. The notice serves to solicit guidance from those agencies and the public about the scope and content of the environmental information to be included in the EIR. (See *CEQA Guidelines* §15375.)

Peak Hour. The hour of highest traffic volume on a given section of roadway between 7:00 a.m. and 9:00 a.m. or between 4:00 p.m. and 6:00 p.m.

Programmatic EIR. A programmatic EIR is an EIR that examines the impacts that would result from a conceptual plan or policy action envisioned by the lead agency, which is carried out at a more general level of analysis based upon the development information available. (See C*EQA Guidelines* §15161.)

Project. According to CEQA, a project is the whole of an action that has the potential to result in significant environmental change in the environment, directly or ultimately. (See *CEQA Guidelines* §15378.)

Project Description. A project description describes the basic characteristics of the project including location, need for the project, project objectives, technical and environmental characteristics, project size and design, project phasing and required permits. The level of detail provided in the project description varies according to the type of environmental document prepared.

Project EIR. A project EIR is an EIR that examines the impacts that would result from development of a specific project. (See C*EQA Guidelines* §15161.)

Public Hearing. A public hearing is a mechanism for providing the public an opportunity to comment on and present evidence relating to a proposed project and its Draft EIR.

Responsible Agencies. According to CEQA, responsible agencies are all public agencies other than the Lead Agency that have discretionary approval power over the project. (See *CEQA Guidelines* §15381.)

Reviewing Agencies. Reviewing agencies are local, State, and Federal agencies with jurisdiction over the project area or resources potentially affected by the project. Cities and counties are also considered reviewing agencies.

Scoping Meeting. A scoping meeting is an optional meeting pursuant to CEQA in which the lead agency meets with members of the public or agency representatives after the Notice of Preparation has been issued to discuss environmental issues related to a project. Scoping sessions provide the opportunity to discuss environmental issues, project alternatives and potential mitigation measures that may warrant in-depth analysis in the environmental review process.

Sensitive Receptors. Sensitive receptors are people or institutions with people that are particularly susceptible to illness from environmental pollution, such as the elderly, very young children, people already weakened by illness (e.g., asthmatics), and persons engaged in strenuous exercise.

Significant Effect on the Environment. A significant effect on the environment means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance (*CEQA Guidelines* §15382).

Thresholds of Significance. Thresholds of significance are criteria for each environmental issue area to assist with determinations of significance of project impacts. They are based on *CEQA Guidelines* Appendix G.

Trustee Agency. According to CEQA, a Trustee agency is a State agency that has jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California. (See *CEQA Guidelines* §15386.)

Volume (Transportation). The volume of traffic is the total number of vehicles that pass over a given point or section of a roadway during a given time interval. Volumes may be expressed in terms of annual, daily, hourly, or sub-hourly periods.

Wastewater. Wastewater is water carrying dissolved or suspended solids from homes, farms, businesses, and industries. The wastewater treatment process includes any process that modifies characteristics of the wastewater, usually for the purpose of meeting effluent standards.

Zoning. Regulation by zone districts of the height, use, and area of structures, the use of land, and the density of population and intensity of allowable uses.

GLOSSARY OF PROJECT-SPECIFIC DEFINITIONS

The following definitions are excerpts from Section 3.4, *Project Description*.

Annexation Area: This term refers to an 85-acre parcel located adjacent to Gilman Springs Road that is to be annexed into the City of Moreno Valley. The parcel is already within the City's adopted Sphere of Influence adopted on November 21, 1985.

CDFW Conservation Buffer Area: This term refers to a 910-acre parcel owned by the State of California as part of the San Jacinto Wildlife Area (SJWA). This land is within the City of Moreno Valley and is included in the approved Moreno Highlands Specific Plan. That plan designates this property for a broad mix of urban uses including suburban residential, schools, parks, and roads. This land was purchased by the State in 1991 to act as a buffer between the sensitive biological resources of the SJWA and the future urban development under the Moreno Highlands Specific Plan. This land has been actively farmed for many decades and most of it remains in active production. The southwestern portion contains areas of non-native grasslands, although aerial photographs show that this area has been intermittently tilled over the last 80 years. This property is included in the General Plan Amendment and the Zone Change to replace the current urban land uses that are permitted and replace them with Open Space and Public Facility designations. This property is not within the proposed World Logistics Center Specific Plan. This Buffer Area is a large part of the "Other Project Areas" described herein.

General Plan Amendment: One of the proposed entitlements is a General Plan Amendment (GPA) that will permit the establishment of logistics land uses on the 3,714-acre property located east of Redlands and south of SR-60. The following General Plan Elements will be amended: Community Development; Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and General Plan Goals and Objectives. The GPA will replace the current Moreno Highland Specific Plan/General Plan Designations with the following land use designations: (a) 2,610 acres for high cube logistics development; (b) 1,084 acres of Open Space; and (c) 20 acres for Public Facilities.

Moreno Highlands Specific Plan: This term refers to the currently approved Specific Plan that covers 3,038 acres of the project area. This Specific Plan permits the development of a master planned, mixed-use community consisting of up to 7,763 residential dwelling units and approximately 603 acres of business, retail, institutional, and other uses. This development will be replaced with the World Logistics Center Specific Plan and 1,104 acres of Open Space and Public Facilities uses.

Off-site Analysis Zone: This term refers to an approximately 1,000-foot wide zone adjacent to the south and east boundaries of the Specific Plan area that was studied by Michael Brandman Associates (MBA) as part of the assessment of potential impacts on biological resources. It covers approximately 1,637.5 acres.

Off-site Improvement Areas: Development under the Specific Plan will require construction of a number of offsite infrastructure improvements covering approximately 104 acres of land adjacent to the Specific Plan Site including, but not limited to the following facilities (see Figure 3.7):

Debris Basins easterly of Gilman Springs Road;

Water reservoirs and access roads located northeast, north, and west of the project site;

SR-60 interchange improvements; and

Roadway, water, sewer, drainage, and utility improvements extending north and west from the project.

Other Project Areas: The San Diego Gas & Electric Company (SDG&E) and the Southern California Gas Company (SCGC) own a total of 194 acres of land immediately south of the Specific Plan site. These properties are included in the proposed General Plan Amendment and the Zone Change to designate them for Open Space and Public Facilities uses. These designations are consistent with present uses. These properties are not within the proposed World Logistics Specific Plan. Approximately 174 acres of the land owned by SDG&E will be designated as Open Space. Nineteen acres of SDG&E land and one acre of SCGC land will be designated as Public Facilities.

Project Site or Project Area: This term refers to the entire 3,818-acre area covered by the EIR encompassed by: (a) the Specific Plan Area (2,610 acres); (b) the CDFW Conservation Buffer Area (910 acres); c) the Public Facilities Lands area (194 aces); and (d) the Off-site Improvement Area on 104 acres.

Proposed Project or World Logistics Center Project: General term applied to all of the entitlements outlined above that are addressed in this EIR, including:

WLC Specific Plan .....2,610 acres
General Plan Amendment.....3,714 acres
Zone Change .....3,714 acres
Tentative Parcel Map .....1,539 acres
Annexation .....85 acres
Off-site improvements.....104 acres

Specific Plan Site: Approximately 2,610 acres of the project area are included in the proposed World Logistics Center (WLC) Specific Plan, located generally south of the SR-60 Freeway, east of Redlands Boulevard, west of Gilman Springs Road, and north of the San Jacinto Wildlife Area.

State Lands: Refers to lands owned by the State of California and includes the San Jacinto Wildlife Area (SJWA) located south of the Specific Plan Site, and the Lake Perris State Recreation Area (LPSRA) located southwesterly of the Specific Plan Site.

Tentative Parcel Map Area: A Tentative Parcel Map is being processed to subdivide 1,539 acres of the project for financing purposes only. This property is owned by the project applicant. Approval of the map will confer no development rights to the property.

WLC Specific Plan: The WLC Specific Plan proposes a master-planned logistics campus to include up to 40.4 million square feet of high-cube logistics warehousing, up to 200,000 square feet of light logistics uses, a site for “logistics support” allowed as a special use and 74.3 acres of Open Space in the southwest corner of the site. The Specific Plan includes extensive development standards, design guidelines and review procedures for all development within the project.

World Logistics Center Project: The term refers to all related development and planning activities currently proposed by Highland Fairview in the Rancho Belago area of the eastern end of the City of Moreno Valley. The WLC property is generally located south of the State Route 60 freeway, east of Redlands Boulevard, west of Gilman Springs Road, and north of Mystic Lake and the San Jacinto Wildlife Area.

Zone Change: The project includes a Zone Change covering 3,714 acres which will designate 1,084 acres of land for Open Space (CDFW and SDG&E properties), 20 acres for Public Facilities (SDG&E, SCGC properties) and 2,610 acres for the World Logistics Center Specific Plan.

1.0 INTRODUCTION

The Final Environmental Impact Report (FEIR) for the proposed World Logistics Center Project (WLC) comprises the following documents:

- Volume 1 – Response to Comments and the Mitigation Monitoring and Reporting Program;
- Volume 2 – Revised Draft EIR and Appendices (with corrections);
- Volume 3 – Revised Draft EIR and Appendices (clean);
- Volume 4 – Original Draft EIR and Appendices; and
- Volume 5 – Findings, Statement of Overriding Considerations, Staff Reports, and Resolutions.

The purpose of this FEIR Volume 1 is to respond to all comments received by the City of Moreno Valley (City) regarding the environmental information and analyses contained in the Draft EIR (DEIR). Additionally, any corrections to the text and figures of the DEIR generated either from responses to comments or independently by the City, are indicated in responses to comments contained in FEIR Volume 1. FEIR Volume 2 provides the DEIR revised to show or indicate all changes to the DEIR text and appendices, with changes shown in strikeout/underline format and notes in the text where appropriate. To assist the reader, FEIR Volume 3 provides the Revised DEIR in a clean format with all changes incorporated. FEIR Volume 4 consists of the original DEIR and appendices for comparison and has not been modified to reflect any changes outlined in FEIR Volumes 1 or 2. Finally, FEIR Volume 5 provides the legal processing requirements of California Environmental Quality Act (CEQA) in terms of the findings and statement of overriding considerations, as well as the supporting staff reports and City Council resolutions.

1.1 CONTENT AND FORMAT

Subsequent to this introductory section, Section 2.0 contains copies of each comment letter received on the DEIR, along with annotated responses to each comment contained within the letters. Section 3 of this document contains the Mitigation Monitoring and Reporting Program (MMRP).

1.2 PUBLIC REVIEW OF THE DEIR

As required by the CEQA Guidelines Section 15087, a Notice of Completion (NOC) of the DEIR State Clearinghouse No. 2012021045 for the World Logistics Center Project was filed with the California Office of Planning and Research State Clearinghouse on February 5, 2013. The DEIR was circulated for public review for a period of 63 days, from February 5, 2013 to April 8, 2013. Copies of the DEIR were distributed to all Responsible Agencies and to the State Clearinghouse in addition to various public agencies, citizen groups, and interested individuals. Copies of the DEIR were also made available for public review at the City Planning Department, at one area library, and on the internet.

A total of one-hundred and forty-four (144) comment letters were received during the public review period commenting on the EIR and WLC project. Twenty-three (23) of the comment letters received were from Federal, State, regional, or local agencies. Fifteen (15) comment letters were received from private organizations or conservation groups, and one-hundred and five (106) letters were received from individuals. In addition, several letters/emails from individuals and one letter from the City of Redlands were received well after the close of the public review period. However, all letters

that commented on the DEIR or on CEQA issues have been responded to in Section 2.0 of this document.

1.3 POINT OF CONTACT

The Lead Agency for this Project is the City of Moreno Valley. Any questions or comments regarding the preparation of this document, its assumptions, or its conclusions, should be referred to:

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and
Mark Gross, Senior Planner
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1.4 CHANGES TO THE WLC PROJECT

The DEIR is a programmatic document that examined the development of 41.6 million square feet of logistics warehousing and related uses on the WLC site without any specific building footprints or development characteristics. The primary change in the WLC Project is the total Specific Plan area has been reduced from 2,710 acres to 2,610 acres (3.7 percent reduction) due to the removal of 100 acres in the southwest corner of the Specific Plan. This results in a reduction of 1 million square feet of logistics warehousing which is now 40.6 million square feet down 2.4 percent from the original 41.6 million square feet.

The revised land uses of the WLC project, including the WLC Specific Plan (WLCSP), are outlined in Table 1.A and shown in Figure 1-1. In addition, the Specific Plan land use plan was divided into sixteen (16) Planning Areas based on traffic impact zones which allows for more accurate estimates of potential traffic and air quality impacts of the WLC Project. The specific land use of each planning area is outlined in Table 1.B and shown in Figure 1-2.

The Circulation Plan has remained relatively the same as under the original plan but Street C has been relocated further east and south due to the removal of 100 acres at the southwest corner of the Specific Plan area, and to allow for a more direct connection to the existing Cactus Avenue at the southwest corner of the WLC property.

In the original plan, a trail was proposed along the edge of the Open Space area in the southwestern portion of the site to connect to existing trails along Redlands Boulevard and Cactus Avenue to the west and planned trails within the San Jacinto Wildlife Area and Mystic Lake to the south. In response to changes to the proposed project and concerns expressed by Native Americans, the trail in the revised plan has been moved away from the northern boundary of the Open Space area to reduce potential impacts to the Mt. Russell foothills. This change is shown in Figure 1-3.

Table 1.A: WLC Project Characteristics (Original and Revised)

Area/Land Use	Original Project		Revised Project	
	Acres	Square Footage	Acres	Square Footage
World Logistics Center Specific Plan (WLCSP)				
LD Logistics Development[1]	2,606	41,400,000	2,382.8	40,400,000
LL Light Logistics	29	200,000	37.1	200,000
OS Open Space	75	—	74.3	—
ROW[2]	—	—	115.8	
WLCSP Total	**2,710**	**41,600,000**	**2,610.0**	**40,600,000**
Other Project Areas				
California Department of Fish and Wildlife	910	—	910	—
San Diego Gas and Electric – Open Space	174	—	174	—
San Diego Gas and Electric – Facility	19	—	19	—
Southern California Gas Company – Facility	1	—	1	—
Other Areas Total	**1,104**	**—**	**1,104**	**—**
Off-site Improvement Areas	**104**	**—**	**104**	**—**
TOTAL WLC PROJECT AREA **Floor Area Ratio (FAR)[3]**	**3,918** **NA**	**41,600,000** **0.352**	**3,818** **NA**	**40,600,000** **0.357**

1 Included in LD zone with 3,000 square feet of "logistics support" in Planning Area 22 at northeast corner of Theodore and Eucalyptus.
2 Right-of-Way included in each land use category
3 Floor Area Ratio (FAR) is gross building area divided by gross site area

The WLC implementation schedule was revised or extended from 10 to 15 years, so Phase 1 is now scheduled for completion in 2022 rather than in 2017, or from approximately 2015 to 2022, compared to the five-year time period assumed in the DEIR (i.e., 2012 to 2017). Phase 2 is scheduled from approximately 2023 to 2030. Therefore, the quantitative impact analyses for 2017 in the original DEIR were eliminated in the revised DEIR (see FEIR Volume 2).

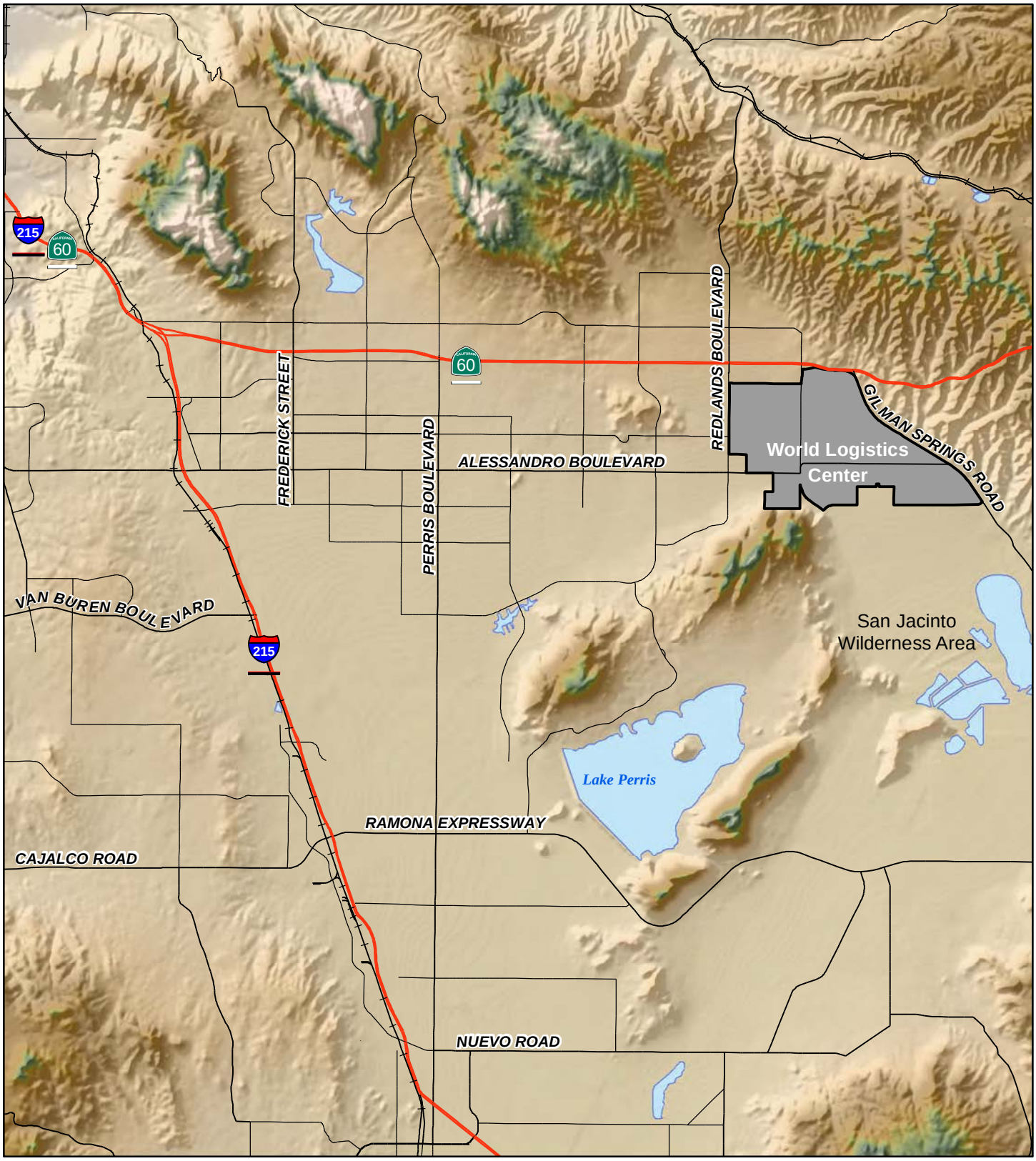
The revised Specific Plan also makes a specific commitment to achieving the equivalent of "LEED Certified[1] in terms of sustainability and energy conservation. However, due to the time involved in obtaining LEED certification, the Specific Plan indicates development within the WLCSP will comply with the "LEED Certified" level of LEED requirements but may not necessarily obtain actual LEED certification.

Additional design is also being done on the Drainage 9 "corridor" to allow for wildlife movement as well as flood and erosion control.

1 Leadership in Energy and Environmental Design program managed by the U.S. Green Building Council (GBC).

Table 1.B: WLC Project Land Uses by Planning Areas

Planning Area (PA)	Land Use Designation	Area (acres)	Building (square feet)
Logistics Development (LD)			
1	LD	77.8	1,100,000
2	LD	193.5	4,200,000
3	LD	120.3	1,600,000
4	LD	301.5	5,600,000
5	LD	64.2	600,000
6	LD	115.3	500,000
7	LD	10.3	50,000
8	LD	142.9	2,150,000
9	LD	485.8	10,400,000
10	LD	139.9	2,200,000
11	LD	500.0	8,000,000
12	LD	231.3	3,500,000
Subtotal		**2,382.8**	**40,400,000**
Light Logistics (LL)			
20	LL	16.1	45,500
21	LL	10.5	77,250
22	LL	10.5	77,250
Subtotal		**37.1**	**200,000**
Open Space (OS)			
30	OS	74.3	—
Other			
ROW		115.8	—
Total		**2,610.0**	**40,600,000**



LSA

FIGURE 1.1

0 5,000 10,000

FEET

SOURCE: USGS DEM; Thomas Bros, 2009

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World Logistics Center Specific Plan Project
FEIR Volume 1 WLC Project

Revised WLC Project Area

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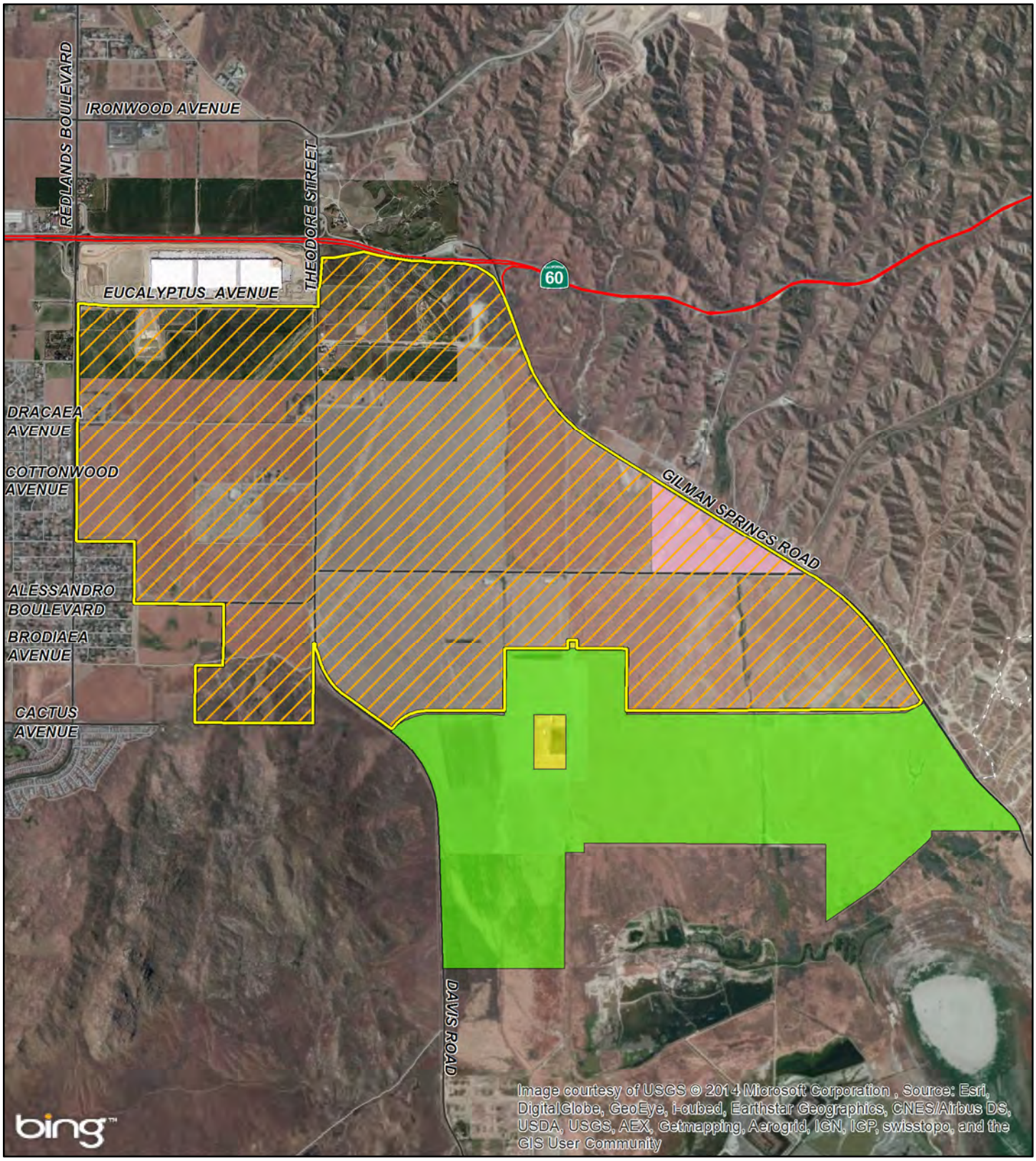

LSA

FIGURE 1,2

N

0 1,500 3,000
FEET

- Project Boundary
- Specific Plan
- CDFW Land - Open Space
- Public Utility
- Annexation Area

World Logistics Center Specific Plan Project
Environmental Impact Report

Component Areas

SOURCE: ESRI World Imagery, 2010; Bing Maps, 2010; Google Maps, 2011.

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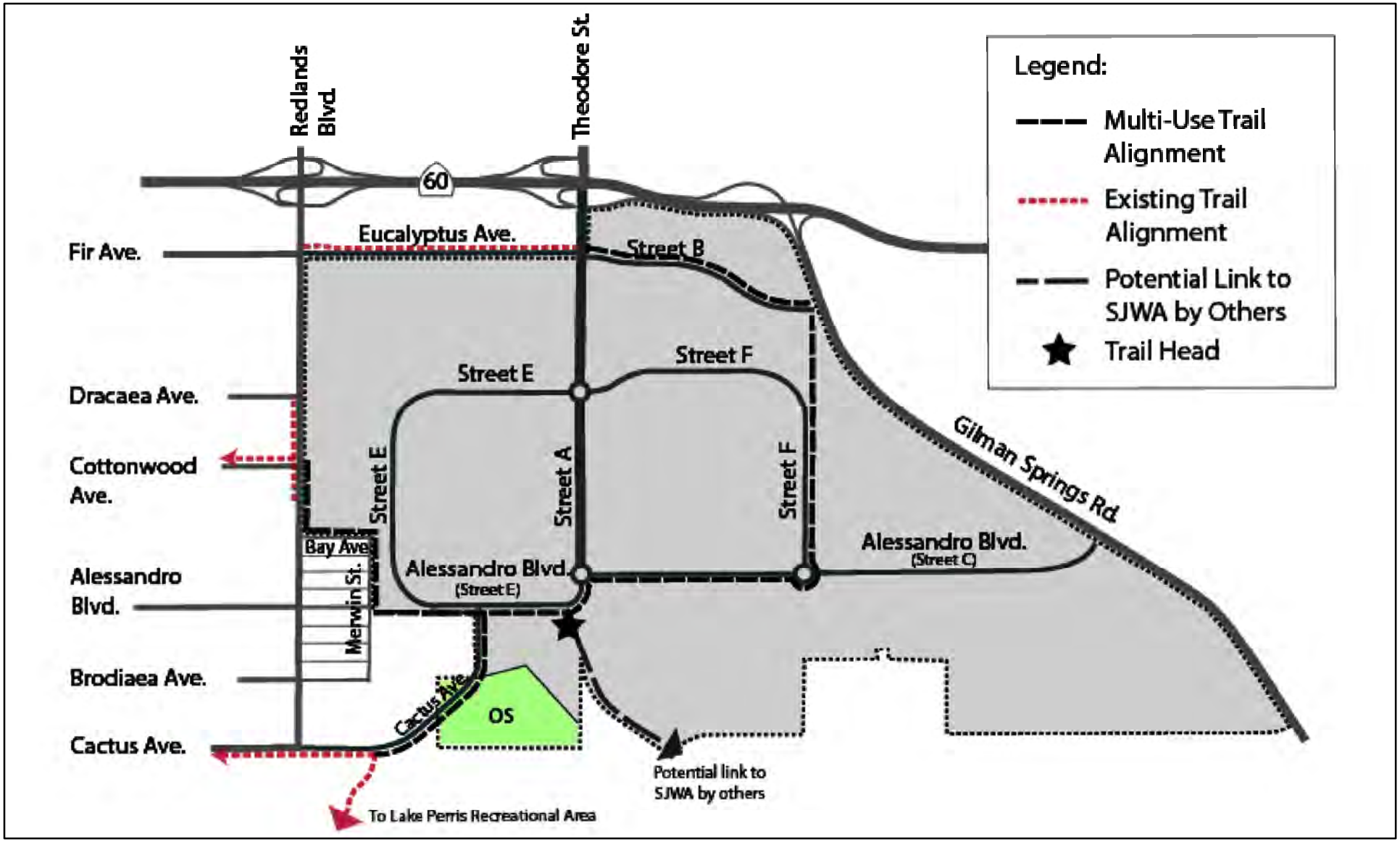

LSA

FIGURE 1.3

N

0 1,300 2,600

FEET

World Logistics Center Specific Plan Project
Environmental Impact Report

Revised Trail Location

SOURCE: World Logistics Center Specific Plan, HF, September, 2014.

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1.5 PROJECT OBJECTIVES[L1]

Based on comments received on the DEIR, the project objectives have been slightly modified as shown below to more accurately reflect the planned future services provided by the WLC project and to clarify the project objectives relative to the evaluation of project alternatives (additional text shown in double underline, deleted text shown in strikeout):

- Create substantial employment opportunities for the citizens of Moreno Valley and surrounding communities.
- Provide the land use designation and infrastructure plan necessary to meet current market demands and to support the City's Economic Development Action Plan.
- Create a major logistics center ~~in Rancho Belago~~ with good regional and freeway access.
- Establish design standards and development guidelines to ensure a consistent and attractive appearance throughout the entire project.
- Establish a master plan for the entire project area to ensure that the project is efficient and business-friendly, accommodating the next-generation of logistics buildings.
- Provide a major logistics center to accommodate a portion of the ever-expanding trade volumes at the Ports of Los Angeles and Long Beach.
- Create a project that will provide a balanced approach to the City's responsibilities of fiscal viability, economic expansion, and environmental integrity.
- Provide the infrastructure improvements required to meet project needs in an efficient and cost-effective manner.
- Encourage new development consistent with regional and municipal service capabilities.
- Significantly improve the City's jobs/housing balance and help reduce unemployment within the City.
- Provide thousands of construction job opportunities during the project's build-out phase.
- Provide appropriate transitions or setbacks between on-site and off-site uses.

1.5.1 City's Economic Development Action Plan Objectives

In 2011, the City adopted an Economic Development Action Plan (EDAP) that outlined the following general objectives:

Objectives for Economic Development

• Create jobs locally and address City's high unemployment rate

• Address the Community's jobs to housing imbalance

• Strengthen and broaden the local economic foundation by attracting quality businesses

• Enhance City revenue generation from sources such as sales tax, property tax, transient occupancy tax, and utility tax – all aimed at improving quality of life in Moreno Valley

Eastern Moreno Valley–Rancho Belago

• Prime area of Community with large undeveloped areas.

• Skechers USA opening has generated interest by other prospective corporate users.

• Nearly 20-year old Moreno Highlands Specific Plan to expire in 2012

• Highest and Best land uses should be evaluated to address City's jobs to housing imbalance

Survey of Inland Region Industrial/Business Park Zoning (Percent Allocation of Cities Land Area for Job Producing Land Uses)

• Ontario 25.3%

• Perris 21.7%

• San Bernardino 18.0%

• Chino 17.1%

• Fontana 17.0%

• Rancho Cucamonga 15.3%

• Riverside 15.2%

• Corona 11.4%

• Moreno Valley 9.0%

In 2013, the EDAP was replaced and included the following specific objectives related to the World Logistics Center:

World Logistics Center at Rancho Belago

- Collaborate with Highland Fairview in the development of the World Logistics Center—a 41.6 million S.F. master planned corporate park proposed to be developed on 2,700 acres in the Rancho Belago area of eastern Moreno Valley.
- Process an Environmental Impact Report and preliminary development plans for the World Logistics Center in eastern Moreno Valley—south of SR 60 and east of Redlands Boulevard to Gilman Springs Road.
- Assist in the drafting of a Specific Plan that will guide the orderly development for of World Logistics Center.
- Cooperate with Highland Fairview in the formulation of a Development Agreement to create a public-private partnership to help facilitate the development of new public infrastructure in eastern Moreno Valley associated with the World Logistics Center including roads, trails, utilities, storm water protection and fire protection facilities.
- Work with Highland Fairview in branding the World Logistics Center as one of the largest e-commerce focused development projects in the U.S.

1.6 CHANGES TO THE EIR TECHNICAL STUDIES

Subsequent to circulation of the Draft EIR, several project changes, as outlined in Section 1.4, were made that needed to be reflected in the EIR technical studies. In addition, several of the EIR technical studies were revised in response to comments made on the DEIR. The following summarizes the major changes to the DEIR technical studies.

1.6.1 Agricultural Resources Study

- ***Project Changes*** (100 acres less project area).
- ***Revise LESA[2] Model*** calculation area to remove state conservation areas (no development) and modify Zone of Influence based on DEIR comments.
- ***Add offsite agricultural easement*** based on productivity as mitigation in response to DEIR comments.
- **SUMMARY.** Revision of the LESA model now indicates significant agricultural impact is loss of unique farmland only, and not the loss of locally important farmland. New offsite mitigation will reduce these impacts to less than significant levels.

1.6.2 Air Quality/Health Risks

For a complete summary of the changes and additional details, please refer to the FEIR Air Quality Section 4.3.3 (Methodology).

General Changes

- Project changes (***100 acres less project area, 1 million square feet less building area, phasing increased from 10 to 15 years, addition of fire station***).
- ***Incorporate revised data from Traffic Impact Assessment*** (see 1.6.9 below).
- ***Mitigation measures were refined*** and new measures were added.
- A discussion of ***ultrafine particles*** was added to Section 4.3; however, emissions were not estimated in either the DEIR or the FEIR.

Construction Emissions

- ***New Version of CalEEMod[3]***. The construction emissions were originally estimated with CalEEMod version 2011.1.1; the revised analysis estimates emissions using CalEEMod version 2013.2.2, the most recent version.
- ***Extended Construction Period, Refined Construction Equipment, Refined Phasing.*** In the DEIR, construction was assumed to occur over 10 years; in the revised analysis, construction is assumed to occur over 15 years. This change necessitated refinements in the construction equipment and phasing. Please refer to Section 4.3.3 for details.

Operational Emissions

- ***Trip Lengths and Model for Motor Vehicle Emissions***. Forecasted traffic volumes contained in the revised Traffic Impact Analysis were used to estimate the project's motor vehicle emissions instead of 50 miles per truck trip and the CalEEMod default trip lengths for local trips used in the DEIR. The traffic model provided estimates of project traffic volumes for nearly 500 individual freeway and surface street roadway segments segregated by vehicle class as passenger cars, light heavy duty trucks, medium heavy duty trucks, and heavy-heavy duty trucks. This revised methodology provides a much more accurate estimate of the project's operational mobile source vehicle miles traveled and resulting emissions. In addition, in the DEIR, regional motor vehicle emissions were estimated by CalEEMod, whereas in the revised analysis, emissions are estimated by detailed calculations prepared by Michael Brandman Associates – FirstCarbon Solutions using information from the project's traffic study, including the segment traffic volumes, length, and vehicle mix, as well as speed-specific emission factors from EMFAC2014.

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2 (California) Land Evaluation and Site Assessments
3 California Emissions Estimator Model

- ***Updated Emission Factors***. The EMFAC2014 mobile source emission model was applied to all vehicle classes in the revised analysis. In the estimate of regional emissions provided in the Draft EIR, the medium and heavy-duty diesel trucks applied the EMFAC2011 model emission factors and the other vehicle classes used the default EMFAC2007 emission factors embedded in the older version of CalEEMod (version 2011). This was because CalEEMod version 2011 was the approved model at the time for estimating regional emissions. The estimate of localized air emissions in the Draft EIR included the most recent emission factors from EMFAC2011.
- ***More Onsite Emissions Sources***. Additional sources of operational emissions were also accounted for in this revised analysis including standby diesel generators, fork lifts, and yard trucks.

Local Significance Threshold (LST) Analysis

- ***Revisions to the Traffic Volumes***. The operational assessment of localized impacts reflects the changes in traffic volumes associated with the reduction of project size and realignment of roadway segments that are within and border the project's boundaries.
- ***Changes in Construction Schedule***. The analysis in the DEIR assumed a construction schedule of 10 years, whereas the revised assessment is based on a 15-year construction schedule. The changes in construction schedule both by year and location within the project were accounted for under the revised, extended project development schedule for estimating the emissions subject to the (LST) assessment.
- ***Emission Source Configuration***: The analysis in the DEIR of the off-road construction equipment exhaust was represented in the air dispersion model as a large area source that covered the construction area. The revised analysis represents the off-road construction exhaust emission source as a series of contiguous volume sources which is consistent with the South Coast Air Quality Management District (SCAQMD) methodology for LST assessments.
- ***Operational Truck Idling***. The analysis in the DEIR assumed that each heavy duty truck that accessed the site during operation idled for a total of 15 minutes per day. In the revised analysis, each truck was assumed to idle for 5 minutes per day consistent with the California Air Resources Board's Air Toxic Control Measure that limits such idling to 5 minutes. Further, the requirements of Mitigation Measure 4.3.6.3B restricts idling to 3 minutes or less.

Health Risk Assessment

- ***Revisions to the Construction Emissions.*** This revised analysis reflected the numerous changes in construction equipment, load factors, schedule, and sequencing of construction by location within the project as discussed above.
- ***Revisions to Traffic Volumes***. The revised analysis made use of the refined traffic volume forecasts along nearly 500 individual roadway segments that stretched from the Palm Springs area to the Ports of Los Angeles and Long Beach..
- ***Expanded Model Extent***. The geographic extent of the air dispersion model domain was expanded to include freeway segments to the ports of Los Angeles and Long Beach.
- ***Organic Gas Emissions Included***. The assessment of acute non-cancer hazards was expanded to examine the impacts of the toxic components of the project's total organic gas emissions from gasoline and diesel vehicles. The analysis in the DEIR focused on diesel particulate matter to derive health impacts from the project.
- ***Calculated Cancer Population Burden***. The health risk assessment was extended to include the computation of cancer population burden attributed to the project's diesel particulate matter emissions.

- ***Updated Current OEHHA Guidance for HRA***. The analysis contained in the DEIR assumed a cancer risk exposure time period of 70 years for sensitive/residential receptors based on OEHHA and SCAQMD guidance. Recently, OEHHA has finalized updated guidance on a new methodology. The updated OEHHA approach uses Age Sensitivity Factors, an increased breathing rate, and an exposure duration of 30 years.
- ***Exposure Period for Worker Receptors.*** The analysis contained in the DEIR assumed a cancer risk exposure time period of 40 years for workers based on OEHHA and SCAQMD guidance. Recently, OEHHA has finalized updated guidance on a new methodology. The new guidance uses an exposure duration of 25 years.
- ***Buffer Analysis.*** The analysis includes assessment of cancer risks with a buffer of 250 feet (the project design) and 1,000 feet between the project's operational emissions and the centerlines of Redlands Boulevard, Gilman Springs Road, Bay Avenue, and Merwin Street. The analysis found that a 1,000 foot buffer makes little difference to no difference in the cancer risk results.

Findings

- ***Construction Regional Emissions.*** The findings have decreased; emissions of volatile organic compound (VOC), oxides of nitrogen (NOx), carbon monoxide (CO), and PM_{10}[4] are still significant after mitigation. $PM_{2.5}$[5] emissions are now less than significant after mitigation. Emissions of VOC, NOx, CO, and $PM_{2.5}$ decreased with the revised analysis, primarily because the construction activity levels decreased and there is now a mitigation measure that requires Tier 4 construction. Emissions of PM_{10} increased slightly due to the inclusion of unpaved onsite road dust estimates.
- ***Operational Regional Emissions.*** The findings are the same; emissions of VOC, NOx, CO, PM_{10}, and $PM_{2.5}$ are still over the significance thresholds after mitigation. However, all emissions decreased, due to a decrease in the estimated overall vehicle miles traveled and use of updated mobile source emission factors.
- ***LST Analysis.*** In the DEIR, the concentrations of nitrogen dioxide, PM_{10}, and $PM_{2.5}$ were significant after mitigation. In the FEIR, nitrogen dioxide and $PM_{2.5}$ were reduced to less than significant; therefore, the only pollutant significant locally is PM_{10}.
- ***Health Risk Assessment.*** In the DEIR, under the 70-year exposure duration, there are significant cancer risks inside and outside the project boundary. In the FEIR, using the Current OEHHA Guidance, the cancer risks exceed the cancer risk significance threshold at existing residences located within the project boundary but do not exceed the threshold at residences located outside of the project boundary. Further, even though the significance threshold is exceeded on a numerical basis, the risks are expected to be less than significant based on the new health research results from the Health Effects Institute (HEI) that evaluated the health effects of diesel PM emissions from new technology diesel engines such as those that are required as a mitigation measure for this project (Mitigation Measure 4.3.6.2B) that requires that all diesel fueled trucks must be compliant with Model Year 2010 truck emission standards. The HEI study clearly demonstrates that the application of new emissions control technology to diesel engines have virtually eliminated the health impacts of diesel exhaust that were identified when it was designated a toxic air contaminant by CARB in 1998. That designation spurred a series of regulations that brought forth transformative emissions control technology, significantly reducing both emissions and the associated health impacts. This finding is further re-enforced by the mitigation requirement that all diesel construction equipment greater than

[4] Particulate matter of 10 microns or less.
[5] Particulate matter with a diameter of 2.5 microns or less

50 horsepower meet Tier 4 emission standards, the most stringent emission control requirements on off-road construction equipment.

1.6.3 Biological Resources Studies

- ***Project Changes*** (100 acres less project area).
- ***Updated MSHCP[6] Consistency Report*** including raptor foraging assessment.
- ***Updated Jurisdictional Delineation***.
- ***Prepared Programmatic DBESP[7] Report*** in response to resource agency comments.
- City submitted MSHCP Consistency and DBESP Reports to County RCA[8] for processing.
- **SUMMARY.** Impacts identified in the original reports were still less than significant with this new information (i.e., no new or substantially different significant impacts).

1.6.4 Cultural Resources Study

- ***Project Changes*** (100 acres less project area).
- ***Modified mitigation language*** in response to comments by Native Americans.
- **SUMMARY.** Impacts identified in the original report were still less than significant with this new information (i.e., no new or substantially different significant impacts) with the modified mitigation language.

1.6.5 Greenhouse Gases/Climate Change

For a complete list of the changes, refer to FEIR Greenhouse Gas Emissions, Climate Change, and Sustainability Section 4.7.3 (Methodology).

- ***Project Changes*** (100 acres less project area, 1 million square feet less building area, and phasing increased from 10 to 15 years).
- ***Incorporate revised data from Traffic Impact Assessment*** (see 1.6.9 below)
- ***Changes to Construction and Operational Emissions Estimation.*** As shown in the Air Quality FEIR Section 4.3 and in Section 1.6.3 above, there were changes to the assumptions for the construction and operational emissions estimation. These changes in assumptions also change the emissions as estimated in the GHG analysis.
- ***Addition of Black Carbon Emissions Estimation***. The analysis in the DEIR did not estimate black carbon emissions, which may contribute to climate change. This analysis includes an estimate of black carbon emissions.
- ***New Waste Generation Factors.*** The new version of CalEEMod has revised operational waste generation factors, which results in less estimated waste generated during operation and less greenhouse gas emissions.
- ***AB 32 Capped and Uncapped Emissions.*** The greenhouse gas (GHG) emissions in the revised analysis are divided into emissions that fall under California's Cap-and-Trade Program, which was enacted to achieve emissions reductions required under Assembly Bill (AB) 32. Only those GHG emissions that are uncapped are compared with the significance threshold.

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6 Multiple Species Habitat Conservation Plan
7 Determination of a Biologically Equivalent or Superior Preservation
8 Resource Conservation Agency

- **SUMMARY.** GHG emissions were substantially reduced from those identified in the DEIR mitigated: approximately 665,000 metric tons (mt) Carbon Dioxide Equivalent (CO_2e) in DEIR vs. 380,000 mt CO_2e capped and 6,000 mt CO_2e uncapped emissions in FEIR at buildout. The uncapped emissions in the FEIR are now under the significance threshold of 10,000 mt CO_2e after mitigation. Therefore, the significance finding changed from significant to less than significant.

1.6.6 Hydrology Study

- ***Project Changes*** (100 acres less project area, 1 million square feet less building area, and phasing increased from 10 to 15 years).
- ***Address watershed and groundwater comments*** by resource agencies and others.
- **SUMMARY.** Impacts identified in the original hydrology report were still less than significant with this new information (i.e., no new or substantially different significant impacts).

1.6.7 Noise Study

- ***Project Changes*** (100 acres less project area, 1 million square feet less building area, and phasing increased from 10 to 15 years).
- ***Incorporate revised data from Traffic Impact Assessment*** (see 1.6.9 below).
- ***Revised analysis of indirect impacts on San Jacinto Wildlife Area (SJWA)*** based on traffic study changes.
- **SUMMARY.** Impacts identified in the revised noise report are still significant even with this new information (i.e., but no new or substantially different significant impacts).

1.6.8 Fiscal/Employment Studies

- ***Project Changes*** (100 acres less project area, 1 million square feet less building area, and phasing increased from 10 to 15 years).
- **SUMMARY.** Impacts identified in the revised report are equivalent to those outlined in the original report accounting for the incremental reduction in project size (-3%).

1.6.9 Traffic Impact Assessment (TIA)

- ***Project Changes*** (100 acres less project area, 1 million square feet less building area, and phasing increased from 10 to 15 years).
- In response to comments***, the analysis of freeway impacts from WLC trucks was extended to the Ports of Los Angeles and Long Beach***. The extended analysis, covering more than 60 additional centerline miles of freeway, did not find any new impacts that were not already identified in the Draft TIA.
- In response to comments, ***an analysis was performed of the feasibility of shipping cargos between the WLC and the Ports of Los Angeles and Long Beach by rail*** instead of by truck. The analysis found that this was not feasible for a variety of reasons including the cost and environmental impacts of a new rail alignment, the high fixed handling costs for rail cargo that makes short hauls uneconomical, and system constraints with the rail system itself.
- In response to comments***, an analysis was performed of the potential safety impacts of WLC traffic on local schools***. The analysis found that the project would pose little

safety risk and that appropriate safety features were already present on roads near local schools.

- In response to comments***, a figure was added showing the designated Truck Routes*** in the vicinity of the WLC.
- ***The WLC implementation schedule was revised*** so that Phase 1 is scheduled for completion in 2022 rather than in 2017, as was assumed in the draft report. The scenarios for 2017 were therefore dropped and the scenario for 2022 was revised to analyze Phase 1 only, not full buildout of the WLC.
- ***A new chapter was added to analyze Existing Plus Phase 1*** (only) conditions.
- ***Various grammatical and reference corrections were made***, and in places the text and tables were revised to provide greater clarity to readers.
- ***A list of references has been added to the end of each chapter*** for the reader's reference.
- **SUMMARY.** Significant impacts identified for Baseline + Project, Phase 1, and Build out conditions of the WLC project still occur as generally indicated in the revised TIA. (Traffic impacts have been incrementally reduced corresponding to the reduction in the amount of building area associated with the project, resulting in no new or substantially different significant traffic impacts.

1.6.10 Utilities

- ***Project Changes*** (100 acres less project area, 1 million square feet less building area, and phasing increased from 10 to 15 years).
- ***Added information about photovoltaic solar energy systems.***
- **SUMMARY.** Impacts identified in the original utility reports were still less than significant with this new information (i.e., no new or substantially different significant impacts).

1.7 CHANGES TO THE DRAFT EIR

Subsequent to circulation of the DEIR, several project changes were made as outlined in Section 1.4. In addition, several of the EIR technical studies were revised to address these project changes and to respond to comments made on the DEIR. The following summarizes the major changes to the DEIR document as a result of the changes to the project description and technical studies. It should be noted that none of these changes represent significant new information and do not result in substantially greater or new significant environmental impacts than those identified in the DEIR.

1.7.1 Executive Summary

- Incorporated all project changes, corrections from individual analysis sections (4.1 through 4.16), and corrections to EIR sections on other CEQA topics (alternatives, growth-inducing impacts, etc.).

1.7.2 Introduction

- Explain changes in project characteristics from those evaluated in DEIR.
- Briefly describe changes to technical studies.

1.7.3 Project Description

- Loss of 100 acres from the Specific Plan area, resulting in 1 million less square feet of potential logistics warehouse building area.

- Phasing increased from 10 to 15 years.
- Addition of Planning Areas to the Specific Plan.
- Identified Planning Area 22 as the location for the future alternative fueling facility.
- Relocated recreational trail away from open space area in southwest portion of site.

1.7.4 Aesthetics

- Incorporate revised project data (100 acres less project area, 1 million square feet less building area, and phasing increased from 10 to 15 years) and revised entitlement data.
- In response to DEIR comments, modified Mitigation Measure (MM) 4.1.6.1C to add performance standard regarding loss of future views of Mt. Russell.
- No other changes after reviewing DEIR comments.
- **SUMMARY.** Mitigation changes will help assure views of Mt. Russell from SR-60 are not significantly blocked. Otherwise, significant impacts in revised DEIR are similar to those outlined in the original DEIR (i.e., no new or substantially different significant impacts).

1.7.5 Agricultural and Forest Resources

- Incorporate revised project data (100 acres less project area, 1 million square feet less building area, and phasing increased from 10 to 15 years) and revised entitlement data.
- Based on DEIR comments, revised the LESA Model calculations by changing the project acreage, removing the state conservation area (no development), and modifying the Zone of Influence mapping. New results indicate impacts now slightly under LESA significance threshold, but out of an abundance of caution, did not change the impact conclusion (significant).
- Add offsite agricultural easement based on productivity as mitigation in response to DEIR comments regarding loss of locally important agricultural soils.
- **SUMMARY.** Revision of the LESA model now indicates significant agricultural impact is from loss of unique farmland only, and not the loss of locally important farmland. New offsite mitigation will reduce the impact to a less than significant level.

1.7.6 Air Quality/Health Risks

- Please refer to Section 1.6.2.

1.7.7 Biological Resources

- Incorporate revised project data (100 acres less project area, 1 million square feet less building area, and phasing increased from 10 to 15 years) and revised entitlement data.
- Several mitigation measures had minor changes to address comments by resource agencies and others.
- Existing Setting information and analysis of project impacts was modified to include the updated MSHCP Consistency Report including a raptor foraging assessment. However, this information did not result in a change to the impact determination (i.e., less than significant) with proposed mitigation.
- The assessment of jurisdictional impacts was updated using the latest Jurisdictional Delineation.
- Prepared Programmatic DBESP Report in response to resource agency comments.

- City submitted MSHCP Consistency and DBESP Reports to County RCA for processing.
- **SUMMARY.** Impacts are still less than significant (i.e., no new or substantially different significant impacts with mitigation).

1.7.8 Cultural Resources

- Incorporate revised project data (100 acres less project area, 1 million square feet less building area, and phasing increased from 10 to 15 years) and revised entitlement data.
- Modified mitigation language in response to comments by Native Americans, specifically MM 4.5.6.1A through 4.5.6.1E regarding archaeological resources and MM 4.5.6.2A regarding historical resources.
- **SUMMARY.** Impacts are still less than significant with mitigation.

1.7.9 Geology and Soils

- Incorporate revised project data (100 acres less project area, 1 million square feet less building area, and phasing increased from 10 to 15 years) and revised entitlement data.
- No changes to the impact analysis sections after review of EIR comments.
- **SUMMARY.** Impacts are still less than significant with mitigation.

1.7.10 Greenhouse Gases/Climate Change

- Please refer to Section 1.6.5.

1.7.11 Hazards and Hazardous Materials

- Incorporate revised project data (100 acres less project area, 1 million square feet less building area, and phasing increased from 10 to 15 years) and revised entitlement data.
- No changes to the impact analysis sections after review of EIR comments.
- **SUMMARY.** Impacts similar to those identified in the DEIR (less than significant with mitigation).

1.7.12 Hydrology and Water Quality

- Incorporate revised project data (100 acres less project area, 1 million square feet less building area, and phasing increased from 10 to 15 years) and revised entitlement data.
- Minor changes to text were made to address watershed and groundwater comments by resource agencies and others.
- Minor modifications to MMs 4.9.6.1A, 4.9.6.2A through 4.9.6.2B, 4.9.6.3A, and 4.9.6.3C were made to address comments by resource agencies and others.
- **SUMMARY.** Impacts similar to those identified in the DEIR (less than significant with mitigation).

1.7.13 Land Use and Planning

- Incorporate revised project data (100 acres less project area, 1 million square feet less building area, and phasing increased from 10 to 15 years) and revised entitlement data.
- **SUMMARY.** No changes to the impact analysis sections after review of EIR comments (i.e., significant impact of dividing existing neighborhood of onsite rural residences).

1.7.14 Mineral Resources

- Incorporate revised project data (100 acres less project area, 1 million square feet less building area, and phasing increased from 10 to 15 years) and revised entitlement data.
- **SUMMARY.** No changes after review of EIR comments (i.e., impacts less than significant).

1.7.15 Noise

- Incorporate revised project data (100 acres less project area, 1 million square feet less building area, and phasing increased from 10 to 15 years) and revised entitlement data.
- Incorporate data revised noise study (based on revised TIA).
- Added discussion about indirect impacts to San Jacinto Wildlife Area but there is no change in the conclusions (not significant).
- **SUMMARY.** Impacts identified in the revised noise report are still significant even with this new information (i.e., but no new or substantially different significant impacts).

1.7.16 Population, Housing, and Employment

- Incorporate revised project data (100 acres less project area, 1 million square feet less building area, and phasing increased from 10 to 15 years) and revised entitlement data.
- Various changes to reflect revised fiscal and employment study by David Taussig and Associates (see Section 1.5.8 above).
- **SUMMARY.** No changes after review of EIR comments (i.e., all impacts less than significant).

1.7.17 Public Services

- Incorporate revised project data (100 acres less project area, 1 million square feet less building area, and phasing increased from 10 to 15 years) and revised entitlement data.
- Minor revisions to show possible future fire station site now planned within the WLC Specific Plan.
- **SUMMARY.** No other changes after review of EIR comments (i.e., all impacts less than significant).

1.7.18 Traffic and Circulation

- Incorporate revised project data (100 acres less project area, 1 million square feet less building area, and phasing increased from 10 to 15 years) and revised entitlement data.
- Extend freeway impact analysis to LA Ports to respond to DEIR comments.
- Added a discussion of the “Baseline Plus Phase 1” scenario from revised TIA to provide more accurate analysis from the TIA consistent with the latest CEQA court cases.
- Despite many comments, EIR section was not changed based on analysis of potential use of rail service to the WLC project and evaluation of truck safety near schools, both in response to comments by local school district.
- Made several corrections or additions to be fully consistent with data provided in the TIA.
- Added a truck trip distribution figure in response to DEIR comments.

- **SUMMARY.** Significant impacts identified for Baseline + Project, Phase 1, and Build out conditions of the WLC project still occur as generally indicated in the revised TIA. Traffic impacts have been incrementally reduced corresponding to the reduction in the amount of building area associated with the project, resulting in no new or substantially different significant traffic impacts).

1.7.19 Utilities

- Incorporate revised project data (100 acres less project area, 1 million square feet less building area, and phasing increased from 10 to 15 years) and revised entitlement data.
- Minor changes in water and drainage sections to be consistent with revised hydrology study (see Section 1.6.12 above).
- Added information about photovoltaic solar energy systems.
- **SUMMARY.** No other changes after review of EIR comments (i.e., all impacts less than significant).

1.7.20 Other CEQA Topics

- No changes after review of EIR comments regarding significant impacts or growth-inducing impacts of the WLC project.
- Revisions to agricultural reports indicate that impact from loss of locally important agricultural land is actually less than significant and only loss of unique farmland must be mitigated.
- Revised air quality reports indicate cancer risk impacts are only significant for onsite rural residences, not offsite residences, even with expanded mitigation.
- Revised traffic report indicates Baseline + Project, Phase 1, and Build out conditions of the WLC project still occur but in different years for Phase 1 (2022 instead of 2017) and Build out (2027 vs. 2022).

1.7.21 Alternatives

- Slight adjustments to Project Objectives (see previous Section 1.5) to more accurately reflect the goals of the project relative to the Los Angeles Ports.
- No other changes after review of EIR comments.

1.8 RECIRCULATION

Any corrections to the DEIR text, tables, and figures generated either from responses to comments or independently by the City, are outlined in Volume 2 of this FEIR. In other words, the DEIR text, tables, and figures have been modified and published in their entirety as a single document to reflect these EIR modifications. In this regard, Volume 2 shows the additions and corrections in underline/strikeout format, and Volume 3 shows the revised document “clean” with no annotations so the reader can see the final “results” of all the changes.

These DEIR revisions are provided to clarify, refine, and provide supplemental information for the WLC Project DEIR. Changes may be corrections or clarifications to the text, tables, and figures of the original DEIR. Other changes to the DEIR clarify the analysis in the DEIR based upon the information and concerns raised by comments during the public review period. None of the information contained in these DEIR revisions constitutes significant new information or changes to the analysis or conclusions of the DEIR.

It is the conclusion of the City that the information included in all the DEIR revisions and technical studies that resulted from the public comment process do not constitute substantial new information that requires recirculation of the DEIR. The CEQA Guidelines, Section 15088.5, states in part:

(a) A lead agency is required to recirculate an EIR when significant new information is added to the EIR after public notice is given of the availability of the DEIR for public review under Section 15087 but before certification. As used in this section, the term "information" can include changes in the project or environmental setting as well as additional data or other information. New information added to an EIR is not "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement. "Significant new information" requiring recirculation includes, for example, a disclosure showing that:

(1) A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.

(2) A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.

(3) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it.

(4) The DEIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

(b) Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR.

The changes to the DEIR included in these EIR modifications do not constitute "significant" new information because:

- No new significant environmental impact would result from the project or from a new mitigation measure;
- There is no substantial increase in the severity of an environmental impact that would result unless mitigation measures are adopted that reduce the identified significant impacts to a level of insignificance;
- No feasible project alternative or mitigation measure considerably different from others previously analyzed has been proposed or identified that would clearly lessen the significant environmental impacts of the project; and
- The DEIR is not fundamentally or basically inadequate or conclusory in nature such that meaningful public review and comment were precluded.

Therefore, recirculation of the DEIR is not required because the new information added to the EIR through these modifications clarifies or amplifies information already provided or makes insignificant modifications to the already adequate DEIR.

Table 1-C summarizes the results of the various technical studies and analyses and compares them to the CEQA standards for EIR recirculation.

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Table 1-C: EIR Changes vs. Recirculation (matrix)

Item	DEIR Level of Significance	Is it New Information?	Is the Info Significant?	New Mitigation	Mitigated Below Significance	CEQA Threshold for Recirculation Exceeded?	Brief Description
PROJECT DESCRIPTION							
SP Boundary Change (-100 acres sw corner)	–	Yes	No	–	–	No	Cactus Ave. alignment isolates property to west. As a result landowner(s) agree with City request to keep existing zoning.
Density Reduction (Reduced 1 MSF)	–	Yes	No	–	–	No	Loss of 100 acres resulted in a reduction of 1 MSF in the project building area.
Phasing Changes	–	Yes	No	–	–	No	Phase 1 will be completed in 2022 rather than 2017 (assumed in DEIR). Separate scenario for 2017 was dropped and the scenario for 2022 was revised to analyze Phase 1 only, not build-out of the WLCSP.
AESTHETICS	**Significant and Unavoidable**						
SP Boundary Change (-100 acres sw corner)	–	Yes	No	No	–	No	Project acres and square footage reduced but visual and lighting impacts equivalent to those outlined in DEIR.
Density Reduction (Reduced 1 MSF)	–	Yes	No	No	–	No	Project acres and square footage reduced but visual and lighting impacts equivalent to those outlined in DEIR.
Phasing Changes	–	Yes	No	No	–	No	Project phasing will not affect aesthetics
Mitigation changes	–	Yes	No	Modified	Yes	No	Add performance standard to viewshed measure to assure preservation of Mt. Russell views. In addition, 4 special edge treatment areas have been added to the perimeter of the project site.
AIR QUALITY	**Significant and Unavoidable**						
Construction Duration - 10 yr to 15 yr	–	Yes	No	No	–	No	Best case 2014 const. start leaves only 8 yrs. Increased to 15 years, use 2015 as const. start. Analyzed years 2022, and 2035. No new significant impacts noted
Varying Exposure Durations for Health Risk Assessment	–	Yes	No	No	–	No	For comparison a 30 year exposure analysis was provided in the DEIR based on application of the updated California Office of Environmental Health Hazards Assessment cancer risk guidance for information purposes only
Cancer Burden	–	Yes	No	No	–	No	Included cancer burden analysis which establishes a numerical value for the cancer risk values shown in the DEIR; impact less than ignificant after mitgation
Age Sensitivity Analysis for Schools	–	Yes	LTS	No	–	No	Prepared an age sensitivity analysis for cancer risk to school-site school age children, including the new proposed high school #5 located north of SR-60. Based on a 9-year exposure, the impact was less than significant.
Extend Freeway Impact Analysis to Ports	–	Yes	No	No	–	No	analysis of freeway impacts was extended to LA ports to determine if port-serving trips caused significant air quality impacts. No new significant impacts noted
SP Boundary Change (-100 acres)Logistics Reduction (Reduced 1 MSF)	–	Yes	No	No	–	No	Removal of 100 acres from the Specific Plan resulting in the reduction of 1 msf of logistics uses and the associated reduction of air quality
On-Site Worker Impacts	–	Yes	No	No	–	No	Examine potential air quality/health risk impacts to onsite workers 25-year exposure timeframes for information purposes only; no new significant impacts noted after mitigation
AGRICULTURE	**Significant and Unavoidable**						
Recalculated LESA Model	LTS	Yes	No	New	Yes	No	LESA model re-run (without CDFW conservation land) indicates less than significant impact for loss of locally important farmland. Offsite mitigation is for loss of Unique Farmland, which reduces agricultural impacts to less than significant levels.
Add offsite mitigation	–	Yes	No	Yes	Yes	No	investigation of offsite mitigation for loss of agricultural land based on productivity of WLC site compared to offsite location.
BIOLOGY	**Less Than Significant**						
Revise/Update Technical Studies	–	Yes	No	Modified	Yes	No	Project bio reports (MSHCP Consistency, Jurisdictional Delineation, Burrowing Owl Survey) were updated due to length of time EIR was taking to process and to respond to comments on DEIR.
Raptor Habitat	–	Yes	Potential	MSHCP	Yes	No	Raptor habitat changed to potentially significant but mitigated to less than significant with payment of MSHCP fees.
MSHCP/DBESP processing	–	Yes	No	Modified	Yes	No	Updated MSHCP and prepared DBESP and processing with City and RCA. Not a CEQA requirement but included in updated biology.
CULTURAL	**Less Than Significant**						
SP Boundary Change (-100 acres)	–	Yes	No	Modified	Yes	No	Cactus Ave. alignment isolates property to west. As a result landowner(s) agree with City request to keep existing zoning. Mitigation language modified in response to Native American concerns and requests.
Realignment of Cactus Avenue	–	Yes	No	No	Yes	No	100 acres was removed from soutwest corner of WLCSP and that land was subsequently proposed for a separate development. The planned eastern extension of Cactus Avenue will be rerouted around the new development proposal and through the 74.3 acres of open space land proposed within the WLCSP (southwest corner). Potential cultural impacts can be effectively mitigated by implementatio of mitigation in DEIR.
Alessandro Boulevard	–	Yes	No	No	–	No	Streets D and E within the WLC were realigned to closely resemble the historic route of Alessandro Boulevard.
NOISE	**Significant and Unavoidable**						
Update based on Project and TIA changes	–	Yes	No	Modified	No	No	Incremental reduction in noise impacts due to less acreage and square feet, but still significant as outlined in DEIR.
HYDROLOGY	**Less Than Significant**						
SP Boundary Change (-100 acres)	–	Yes	No	No	–	No	Project hydrology report was revised to address changes in project size and address comments by adding data to clarify detention basin characteristics and specify no groundwater impacts.
Density Reduction (Reduced 1 MSF)	–	Yes	No	Modified	Yes	No	Hydrology report was revised to address different acreage and provide more detail to address many comments on DEIR.
TRAFFIC	**Significant and Unavoidable**						
Extent Freeway Impact Analysis to Ports	–	Yes	No	No	–	No	Study concluded no significant impacts. Traffic below significant thresholds.
Potential Use of Rail	–	Yes	No	No	–	No	TIA substantiates rail is not a feasible alternative.
Trucks and Traffic Safety near Schools	LTS	Yes	No	No	–	No	TIA revised to evaluate WLC truck traffic near 36 local schools, found no significant impacts from project traffic.
Add Truck Route Figure to EIR	–	No	–	No	–	–	TIA figure will be added to EIR.

Modified Phasing Plan	–	Yes	No	No	No	No	Phase 1 will be completed in 2022 rather than 2017 (assumed in DEIR).
Existing Plus Phase 1 Analysis	–	Yes	No	No	No	No	New chapter will be added to TIA to analyze Existing Plus Phase 1 conditions per latest court cases on baseline. TIA still shows significant impacts within City and in other jurisdictions that cannot be mitigated below significance as the City has no control over improvements in other jurisdictions.
SP Boundary Change (-100 acres) & Reduction of 1 MSF	–	Yes	No	–	–	–	See Project Description Change #1 above. TIA modified to account for 100 fewer acres and 1 million square feet less of logistics buildings. Potential impacts are incrementally less than those examined in DEIR due to acreage and square footage reductions (-3.7%).
Grammatical Corrections	–	No	No	–	–	No	TIA needed some minor changes to fix spellings and make text more readable.
Add Reference List for each section	–	No	No	–	–	No	To assist the reader, references were listed for each section of the TIA.
UTILITIES	**Less Than Significant**						
SP Boundary Change (-100 acres sw corner)	–	Yes	No	No	–	No	Revised per acreage and square foot changes in SP.
Density Reduction (Reduced 1 MSF)	–	Yes	No	No	–	No	Revised per square foot changes in SP.
Phasing Changes	–	Yes	No	No	–	No	Infrastructure phasing evaluated per new phasing plan.
GREENHOUSE GASES	**Significant and Unavoidable**						
Extent Freeway Impact Analysis to Ports	–	Yes	No	No	–	No	Info merely responds to questions about GHG impacts examining truck trips all the way to the LA ports, no additional mitigation needed
SP Boundary Change (-100 acres sw corner)	–	Yes	No	No	–	No	Revised per acreage and square foot changes in SP.
Density Reduction (Reduced 1 MSF)	–	Yes	No	No	–	No	Project sill significant due to size, same level or mitigation proposed
State Cap and Trade Program	–	Yes	No	No	Yes	No	Participation by oil refineries in the new State "Cap and Trade" Program effectively mitigates Air Quality Impacts from diesel trucks that would be utilized by the WLC project
Phasing Changes	–	Yes	No	No	–	No	Project sill significant due to size, same level or mitigation proposed

LTS= Less than Signficant

Revised March 26, 2015

2.0 RESPONSE TO COMMENTS

A total of one-hundred and forty-four (144) comment letters on the DEIR were received. Twenty-three (23) of the comment letters received were from Federal, State, regional, or local agencies. Fifteen (15) comment letters were received from private organizations or conservation groups, and one-hundred and five (106) letters were received from individuals. All one-hundred and forty-four letters (144) have been responded to within this document. Comments that address environmental concerns have been specifically addressed. Comments that (1) do not address the adequacy or completeness of the DEIR; (2) do not raise environmental issues; or (3) do request the incorporation of additional information not relevant to environmental issues, do not require a response, pursuant to Section 15088(a) of the CEQA Guidelines.

Section 15088 of the CEQA Guidelines, Evaluation of and Response to Comments, states:

a) The lead agency shall evaluate comments on environmental issues received from persons who reviewed the DEIR and shall prepare a written response. The lead agency shall respond to comments received during the noticed comment period and any extensions and may respond to late comments.

b) The written response shall describe the disposition of significant environmental issues raised (e.g., revisions to the proposed project to mitigate anticipated impacts or objections). In particular, major environmental issues raised when the lead agency's position is at variance with recommendations and objections raised in the comments must be addressed in detail, giving the reasons that specific comments and suggestions were not accepted. There must be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice.

c) The response to comments may take the form of a revision to the DEIR or may be a separate section in the FEIR. Where the response to comments makes important changes in the information contained in the text of the DEIR, the lead agency should either:

    1. Revise the text in the body of the EIR; or
    2. Include marginal notes showing that the information is revised in the responses to comments.

Information provided in this Volume 1 of the FEIR clarifies, amplifies, or makes minor modifications to the DEIR. No significant changes have been made to the information contained in the DEIR as a result of the responses to comments, and no significant new information has been added that would require recirculation of the document.

2.1 LIST OF PERSONS, ORGANIZATIONS, AND PUBLIC AGENCIES COMMENTING ON THE DRAFT EIR

The persons, organizations, and public agencies that submitted comments regarding the DEIR through December 1, 2013, are listed below. A total of one-hundred and forty-four (144) comment letters were received. Twenty-three (23) of the comment letters received were from Federal, State, regional, or local agencies. Fifteen (15) comment letters were received from private organizations or

conservation groups, and one-hundred and five (106) letters were received from individuals. Each comment letter received is indexed with a letter and number below.

A FEDERAL AGENCIES/TRIBAL GROUPS

A-1 United States Army Corps of Engineers (March 4, 2013)
Jennifer Lillard, Project Manager

A-2 Morongo Band of Mission Indians (February 12, 2013)
Franklin Dancy, Director of Planning

A-3 Pechanga Band of Luiseño Indians (April 8, 2013)
Anna Hoover, Cultural Analyst

A-4 United States Environmental Protection Agency (April 8, 2013)
Angeles Herrera, Associate Director of Communities and Ecosystems Division

A-5 Soboba Band of Luiseño Indians (April 8, 2013)
Joseph Ontiveros, Director of Cultural Resources

A-6 United States Fish and Wildlife Service (April 22, 213)*
Kennon Corey, Assistant Field Supervisor

B. STATE AGENCIES

B-1 California Office of Planning and Research, State Clearinghouse (March 25, 2013)
Scott Morgan, Director State Clearinghouse

B-2 California Department of Transportation (Caltrans) (April 5, 2012)
Daniel Kopulsky, Office Chief, Community Planning/ICR-CEQA

B-3 California Department of Fish and Game (April 8, 2013)
Jeff Brandt, Senior Environmental Specialist

B-4 California State Parks Department (April 8, 2013)
Ron Krueper, District Superintendent

B-5 California Air Resources Board (April 16, 2013)*
Cynthia Marvin, Chief, Stationary Source Division

B-6 Santa Ana Regional Water Quality Control Board (April 25, 2013)*
Mark Adelson, Chief, Regional Planning Section

C. REGIONAL AGENCIES

C-1 Southern California Edison (March 25, 2013)
Raymond Hicks, Local Public Affairs Region Manager

C-2 Metropolitan Water District of Southern California (April 8, 2013)
Deirdre West, Manager, Environmental Planning Team

C-3 South Coast Air Quality Management District (April 9, 2013)*
Ian McMillan, Program Supervisor, Intergovernmental Review

C-4 Sempra Energy (April 29, 2013)
Thomas Acuna, Land Planning Supervisor (April 24, 2013)

D. COUNTY DEPARTMENTS/AGENCIES

D-1 Riverside County Flood Control and Water Conservation District (March 25, 2013)
Henry Olivo, Engineering Project Manager

D-2 Riverside County Transportation and Land Use Management Agency (TLMA) (April 9, 2013)
Juan Perez, Director of Transportation and Land Management

E. LOCAL AGENCIES/CITY DEPARTMENTS

E-1 City of Perris (April 3, 2013)
Kenneth Phung, Interim Planning Manager

E-2A City of Riverside (April 8, 2013)
Steve Hayes, City Planner

E-2B City of Riverside (April 8, 2013)
Steve Hayes, City Planner

E-3 Moreno Valley Unified School District (April 8, 2013)
Judy White, Superintendent

E-4 City of San Jacinto (April 9, 2013)*
Tim Hults, City Manager

E-5 City of Redlands (October 7, 2013)*
Tabitha Kevari, Associate Planner, Development Services Department

F. COMMUNITY/CONSERVATION GROUPS

F-1 Center for Biological Diversity/San Bernardino Valley Audubon Society (April 5, 2013)
Jonathan Evans, Staff Attorney

F-2 American Lung Association (April 5, 2013)
Terry Roberts, Area Director

F-3 California Clean Energy Committee (April 8, 2013)
Eugene Wilson

F-4 California Outdoor Heritage Alliance (April 8, 2013)
Bill Gaines, President

F-5 Inland Empire Waterkeeper (April 8, 2013)
Colin Kelly, Staff Attorney

F-6 Endangered Habitats League (April 8, 2013)
Michael Fitts, staff Attorney

F-7A Lozeau Drury LLP (April 5, 2013)
Richard Drury, Cathy Lee, and Lozeau Drury, Attorneys for LIUNA Local Union No. 1184

F-7B Lozeau Drury LLP (April 5, 2013)
Richard Drury, Cathy Lee, and Lozeau Drury, Attorneys for LIUNA Local Union No. 1184

F-7C Lozeau Drury LLP (April 5, 2013)
Richard Drury, Cathy Lee, and Lozeau Drury, Attorneys for LIUNA Local Union No. 1184

F-8 Shute Mihaly and Weinberger LLP (April 8, 2013)
Rachel Hooper and Laurel Impett, AICP

F-9A Sierra Club and NRDC[9] and CCAEJ[10] (April 8, 2013)
Adriano Martinez, Staff Attorney

F-9B Sierra Club and NRDC and CCAEJ (April 8, 2013)
Adriano Martinez, Staff Attorney

F-9C Sierra Club and NRDC and CCAEJ (April 8, 2013)
Adriano Martinez, Staff Attorney

F-10 Tri-County Conservation League (April 8, 2013)
Greg Ballmer, TCCL President

F-11 Sierra Club, San Gorgonio Chapter (April 8, 2013)
George Hague, Conservation Chair, Moreno Valley Chapter

F-12 Sierra Club (Email) (April 8, 2013)
George Hague, Sierra Club, Moreno Valley Group Conservation Chair

F-13 Sierra Club and FLMV[11] (April 8, 2013)
Raymond Johnson, Johnson & Sedlack

F-14 Sierra Club (April 30, 2013)*
George Hague, Sierra Club, Moreno Valley Group Conservation Chair

F-15 California Clean Energy Committee (June 25, 2013)*
Eugene Wilson, California Clean Energy Committee

G. PRIVATE INDIVIDUALS

G-1 Mike and Linda Cree (March 10, 2013)

G-2 Perry Johnson (email) (March 14, 2013)

G-3 Scott Thompson (email) (February 27, 2013)

G-4A Devlin Engineering (March 21, 2013)

G-4B Devlin Engineering (March 21, 2013)

G-5 Devlin Engineering (March 25, 2013)

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9 Natural Resources Defense Council
10 Center for Community Action and Environmental Justice – Penny Newman, President
11 Friends for a Livable Moreno Valley – Ray Johnson attorney

G-6 Melissa Moore (email) (March 20, 2013)

G-7 Daccomando (email) (April 2, 2013)

G-8 Tom Hyatt (email) (March 30, 2013)

G-9 Charles Moothart (March 27, 2013)

G-10 Alexander and Rachel Moreno (March 27, 2013)

G-11 Donald Papiernik (March 27, 2013)

G-12 Paul and Kathy Dembowski (March 27, 2013)

G-13 Michael Cox (March 27, 2013)

G-14 Ruben Soto (March 27, 2013)

G-15 Gloria Wike (April 1, 2013)

G-16 Jim, Rosemary, and Paul Hernandez (March 28, 2013)

G-17 Joanne Lindgren (April 1, 2013)

G-18 Sam Zaidy (March 24, 2013)

G-19 Betty Masters (email) (April 3, 2013)

G-20 Jack Weleba (April 5, 2013)

G-21 Skete Simmons (April 5, 2013)

G-22 Curt Perry (April 5, 2013)

G-23 Jeff Hamman (April 5, 2013)

G-24 Jeff Dandridge (April 5, 2013)

G-25 Mark McMorris (April 5, 2013)

G-26 Michael Marshall (April 5, 2013)

G-27 Radene Hiers (email) (April 6, 2013)

G-28 Clinton Blain (email) (April 5, 2013)

G-29 Stephen Coates (email) (April 5, 2013)

G-30 Robie and Douglas Coffing (email) (April 7, 2013)

G-31 Darryl LaFayette (email) (April 7, 2013)

G-32 Barbara and Bryon Johnson (email) (April 3, 2013)

G-33 Tom Behrens (email) (April 8, 2013)

G-34 Lindsay Robinson (email) (April 7, 2013)

G-35 Peggy Hadaway and John Neal (email) (April 7, 2013)

G-36 Scott Heveran (email) (April 7, 2013)

G-37 Robert Wilson (email) (April 7, 2013)

G-38 Jay and Sylvia Koo (April 3, 2013)

G-39 Eusebio and Elisa Urias (April 3, 2013)

G-40 Mayra Pelayo (April 3, 2013)

G-41 Margaret Koehler (April 3, 2013)

G-42 Kathleen Dale (April 8, 2013)

G-43 Catherine Yorkovich (email) (April 8, 2013)

G-44 Jerry Villaneuva (email) (April 8, 2013)

G-45 Ted and Marica Amino (email) (April 8, 2013)

G-46 Tracy Hodge (email) (April 8, 2013)

G-47 Louann Moore (email) (April 8, 2013)

G-48 Donna Castelos (email) (April 8, 2013)

G-49 Karen Jakpor (April 8, 2013)

G-50 Ann McKibben (April 8, 2013)

G-51 Michael McCoy (email) (April 7, 2013)

G-52 Steve Jiannino (April 8, 2013)

G-53 Deanna Reader and Kenny Bell (email) (April 8, 2013)

G-54 Jose and Alicia Espinosa (email) (April 8, 2013)

G-55 Duncan Bush (April 5, 2013)

G-56 Ned and Dawn Newkirk (April 8, 2013)

G-57 Tracy Hodge (April 7, 2013)

G-58 Faith Wong (email) (April 8, 2013)

G-59 Thomas Harris (email) (April 8, 2013)

G-60 Timothy Newkirk (email) (April 9, 2013)

G-61 Tiffany Newkirk (email) (April 9, 2013)

G-62 Barbara Smith (email) (April 8, 2013)

G-63 Shelly Mesa (email) (April 8, 2013)

G-64 Rosamonde Cook (April 8, 2013)

G-65 Ladona Jempson (email) (April 8, 2013)

G-66 Karyn Drennan (email) (April 8, 2013)

G-67 Michael Eberhard (April 8, 2013)

G-68 Craig and Joan Givens (email) (April 9, 2013)*

G-69 Kathy Schmitt (April 9, 2013)*

G-70 Amora Johnson (email) (April 9, 2013)*

G-71 Lawrence Woodward (April 9, 2013)*

G-72 Cris Lins (April 8, 2013)

G-73 Randolph Levin (April 8, 2013)

G-74 D. Moore (April 8, 2013)

G-75 Donald A. Holt (April 8, 2013)

G-76 Gary Klann (April 8, 2013)

G-77 Efrain Rocha (April 8, 2013)
G-78 Ingrid Tipton (April 4, 2013)
G-79 William Dyer (April 8, 2013)
G-80 Stan Perry (April 8, 2013)
G-81 William Crocker (April 8, 2013)
G-82 John Cargasacchi (April 8, 2013)
G-83 Louis and Lavine LaBelle (March 28, 2013)
G-84 John Mamulski (April 8, 2013)
G-85 Ana Hernandez (email) (April 10, 2013)*
G-86 Eric Johnson (April 9, 2013)*
G-87 E. Madera (email) (April 10, 2013)*
G-88 Conchita Marusich (April 10, 2013)*
G-89 Tom Paulek and Susan Nash (April 5, 2013)
G-90 Mr. and Mrs. H.W. Wolterbeek (April 8, 2013)
G-91 Gary Matheny (March 27, 2013)*
G-92 Val and Marcella Garcia (April 11, 2013)*
G-93 Heather Walsh (April 15, 2013)*
G-94 Artie Melton (April 16, 2013)*
G-95 Thomas Thornsley (email) (April 8, 2013)
G-96 Margie Breikreuz (April 8, 2013)
G-97 Otana Jakpor (April 8, 2013)
G-98 Hans and Barbara Wolterbeek (email) (April 17, 2013)*
G-99 Loretta and William Kilday (April 19, 2013)*
G-100 Mary Coil (email) (May 13, 2013)*
G-101 Allan Smiley (May 20, 2013)*
G-102 Victoria Suiter (May 8, 2013)*
G-103 Robert Hewitt (April 5, 2013)
G-104 Maureen Clemens (May 29, 2013)*

* received after close of the public review period [February 5, 2013 to April 8, 2013].

2.2 ENVIRONMENTAL ISSUES RAISED BY COMMENTERS

The following table shows in general where Master Responses to Comments are addressed (i.e., specific letters and responses within those letters). This will assist readers in finding general responses to the major environmental issues raised by commenters.

Table 2.A: Master Responses to Major Topics Raised by Commenters

Topic	Response to Comment
Aesthetics	F-8-3
Lighting	F-1-21 through F-1-25
Agriculture	F-7A-39 through F-7A-45
Air Pollution/HRA/GHG	C-3
Climate and Water	F-1-74
Schools and Air Quality	E-3-7, F-11-36, F-11-22
Solar/Renewable Energy	F-3-19
Alternative sites	F-7A-67, G-52-1 and G-52-2
Biology	F-7A-25 through F-7A-36
Bio Cumulative Impact/General Plan/MSHCP	F-7A-9
Bio Surveys Table	B-3-4
Burrowing Owl	F-7A-26
CDFW Buffer Area Defined	F-4-2
Raptor Foraging Habitat	F-7A-25
Jurisdictional Waters	F-7A-37 and F-1-15
Plant Surveys	F-7A-28
Wetlands	F-1-15
Cultural Resources	A-3
Cumulative (traffic, ag, air)	F-7A-61 through F-7A-65
Economic/Fiscal/Panama Canal	F-10 and G-88
Jobs and Commuting	F-3-12
Hazmat	F-7A-18 through F-7A-23
Hydrology	B-3-38
Water Basins	F-5-22
Routing Storm Water	F-5-15
Sediment analysis	F-5-16
Water Infiltration	F-5-10
Water Quality	F-5-12
Water Quality and BMPs	F-1-78
Recirculation	E-3-1
Skechers	G-51-3
Traffic	E-2A-4 through E-2A-9
Trucks and the Ports	F-1-49

Table 2.B shows where detailed major issues and concerns are addressed (i.e., specific letters and responses within those letters). This will assist readers in finding responses to their comments, as well as responses to similar comments made by multiple commenters.

Table 2.B: Detailed Index of Environmental Issues Raised by Commenters

Major Comments/Issues	Addressed in Detail in Letters/Comments	Mentioned to Some Degree in Letters/Comments
GENERAL TOPICS	F-8-66, F-8-96, F-11-21	F-7A-11, F-7A-14, F-7A-16, F-7A-17, F-7A-38, F-7A-62, F-8-4, F-8-5, F-8-6, F-8-9, F-8-10, F-8-11, F-8-13, F-8-23, F-8-33, F-8-65, F-8-99, F-8-111, F-8-120, F-9A-40, F-9B-46, F-11-9, F-11-30, F-13-3, F-13-4, F-13-5, F-13-13, G-2-2, G-2-9, G-5-12, G-7-1
Aesthetics, Views of Project, Lighting	F-1-24, F-1-25, F-1-26, F-8-16, F-8-55, F-8-56, F-13-8, F-13-15, F-13-21, G-5-6, G-9-3, G-67-2	B-4-15, F-1-21, F-1-22, F-1-23, F-1-27, F-1-28, F-8-4, F-8-17, F-8-58, F-8-59, F-8-60, F-13-14, F-13-16, F-13-17, F-13-19, F-13-20, G-1-3, G-2-4, G-3-5, G-5-4, G-5-5, G-5-11, G-9-2, G-33-5, G-57-14, G-95-14, G-95-17, G-95-18, G-95-22, G-95-37, G-95-38, G-95-39, G-95-40, G-95-42, G-95-43
Agriculture	F-7A-39, F-7A-40, F-7A-42, F-13-6	B-6-10, F-7A-41, F-7A-46, F-13-22, G-95-59, G-95-61, G-95-63, G-95-94, G-95-96, G-95-67, G-95-68, G-95-69
Air Quality	F-9A-39	A-4-2, C-3-3, F-7A-61, F-13-32, G-1-2, G-1-5, G-17-3, G-19-1, G-19-4, G-32-1, G-33-4, G-34-3, G-35-2, G-35-3, G-37-1
Health Risks	F-13-9, G-1-2	B-5-7, F-9A-42
Traffic Impacts on Air	F-9A-17	
Alternatives	F-7A-10, F-7A-66, F-7A-67, F-7A-68, F-8-107, F-8-118, F-9A-45, G-42-1	B-3-47, B-4-3, B-6-9, F-1-87, F-7A-67, F-7A-68, F-8-110, F-8-113, F-8-114, F-8-115, F-1-116, F-8-119, F-13-101, F-13-102, F-13-103, F-13-104, G-3-3, G-5-9, G-42-2, G-67-3
Rail Access	G-53-4, G-70-5	F-3-11, F-6-1, F-6-2, F-6-3, G-2-7, G-18-1, G-34-5, G-35-4, G-49-19, G-68-3, G-96-3
Biological Resources	A-6-11, A-6-17, B-3-3, B-3-6, B-3-7, B-3-20, B-3-21, B-3-22, B-3-48, B-2-50, B-4-6, B-4-9, B-4-11, B-4-13, E-2A-20, E-2A-21, F-7A-2, F-7A-37, F-7A-64, F-7C-6, F-7C-7, F-7C-17, F-7C-23, G-66-1, G-66-3	B-3-5, B-3-12, B-3-19, B-3-23, B-3-24, B-3-25, B-3-29, B-3-32, B-3-35, B-3-54, B-4-2, B-4-12, F-1-14, F-1-23, F-1-39, F-7A-5, F-7A-30, F-7A-33, F-7A-34, F-7C-9, F-11-39, F-13-47, G-6-1, G-15-2, G-18-2, G-20-3, G-42-3, G-66-4, G-86-1, G-89-19, G-89-20
Burrowing Owl	A-6-12, A-6-13, B-3-53, F-1-33, F-1-37, F-7A-56, F-7C-18, F-11-38	F-1-31, F-1-32, F-7C-3, F-7C-4, F-7C-5, F-8-18, F-13-46
MSHCP	A-6-5, E-2A-19, E-2A-23, F-1-18, F-1-34, F-4-2, F-7A-9, F-7A-26, F-7A-28, F-7A-29, F-13-7, G-50-4, G-64-1, G-64-2, G-64-3	A-6-6, B-3-4, B-3-8, B-3-9, B-3-10, B-3-15, B-3-16, B-3-41, B-3-49, B-4-5, F-1-13, F-1-16, F-1-35, F-1-36, F-7A-24, F-7A-31, F-

Table 2.B: Detailed Index of Environmental Issues Raised by Commenters

Major Comments/Issues	Addressed in Detail in Letters/Comments	Mentioned to Some Degree in Letters/Comments
		7A-32, F-7A-35, G-64-23, G-89-13, G-89-15, G-89-16, G-89-18
Los Angeles Pocket Mouse (LAPM)	A-6-14, A-6-15, B-3-11, F-7A-53	F-7A-27, F-7C-8, F-13-46
Foraging Habitat	B-3-14, F-7A-25, F-7A-36, F-7A-52,	B-3-13, F-7C-19
Buffer Zone	A-6-7, A-6-16, B-3-43, F-1-2, F-1-38, F-7A-55, F-11-25, G-74-8	B-4-14, F-1-9, G-57-12, G-88-1, G-89-2, G-89-4, G-89-5, G-89-8, G-95-10, G-95-15, G-95-16, G-95-19, G-95-35, G-103-3
Riparian/Riverine Habitat	A-6-9, B-3-17, F-1-15	A-6-10, B-3-18
Jurisdictional Permitting (Army Corps, etc.)	A-1-1, F-1-10, F-7C-16, F-8-19	D-1-6, F-1-11, F-3-29
San Jacinto Wildlife Area	B-3-51, F-5-23, F-5-25, F-10-9, F-10-10, F-11-25, F-13-75, G-20-1, G-71-1	B-3-44, B-3-52, F-8-117, F-13-45, G-6-1, G-20-4, G-34-7, G-95-38
Lake Perris State Recreational Area	B-4-4, B-4-8	B-4-10, F-4-3, F-5-5
Cultural Resources	A-3-3, A-3-11, A-3-2, 3 A-5-6, F-16-61, F-16-66	A-2-1, A-3-13, A-3-14, A-3-15, A-3-18, F-13-62, F-13-63, F-13-64, F-16-65
Open Space and Trail	F-11-26,	A-3-2, A-3-21, A-3-22
Native American Consultation	A-5-2	A-3-8, A-3-9, A-5-5
Economics	F-10-7, G-27-2	E-2A-26, F-8-107, F-8-108, F-11-15, G-2-6, G-3-8, G-95-75, G-95-82
Panama Canal	G-53-5	G-2-3
Housing	F-8-105	G-95-74
WLC Employment Projections	F-3-12, F-8-94, G-68-4	E-3-12, F-8-93, F-8-95, F-15-3, G-1-4, G-3-1, G-3-2, G-3-4 to G-3-6, G-3-7, G-5-10, G-17-4, G-19-2, G-20-3, G-22-9, G-33-7, G-33-8, G-34-6, G-47-2, G-49-22, G-51-15, G-53-2, G-56-10, G-57-2, G-59-2, G-90-1, G-90-5, G-95-73, G-95-76, G-95-77
Geology	F-8-8, F-8-90	F-8-20, F-8-86, F-8-88, F-8-89, F-8-90, F-90-92, F-13-67, F-13-68, G-51-14, G-51-51
General Plan, Amendment, and Annexation	F-8-61, F-11-42, G-70-1	F-8-7, F-8-15, F-8-74, F-8-75, F-8-121, F-8-122, F-8-123, F-13-76, F-14-1, G-1-6, G-12-4, G-27-5, G-34-2, G-35-5, G-37-3, G-50-1, G-54-1, G-57-4, G-57-15, G-68-2, G-89-3, G-95-5, G-95-24, G-95-30
GHG	B-3-45, F-1-75, F-1-77, F-1-78, F-3-18, F-7A-57, F-11-28, F-11-44	B-3-31, F-1-79, F-1-80, F-11-28,
Hazards	E-3-11, F-7A-7	F-3-31, F-7A-21, F-7A-23, F-7A-60, F-8-76, F-8-77, F-8-78
Hydrology and Water Quality	B-3-39, F-5-10, F-5-12, F-5-13, F-5-23, F-8-52, F-11-32, F-13-75	B-6-3, B-6-7, F-5-3, F-5-6, D-5-7, F-1-78, F-5-8, F-5-9, F-5-11, F-5-20, F-7A-59, F-8-2, F-8-39, F-8-41, F-8-42, F-8-43, F-8-50, F-8-70, F-8-97, F-8-98, F-11-35, F-13-15, F-13-32, F-13-99, F-13-

Table 2.B: Detailed Index of Environmental Issues Raised by Commenters

Major Comments/Issues	Addressed in Detail in Letters/Comments	Mentioned to Some Degree in Letters/Comments
		100
Drainage/Basins	B-3-36, B-3-37, B-3-38, B-6-6, F-5-16, F-8-36, G-103-2	B-6-5, B-6-8, F-1-19, F-1-20, F-5-14, F-5-22, F-8-21, F-8-62, F-11-40, F-11-41, G-4A-1, G-4A-5, G-4A-6, G-4A-7, G-88-3
County Drainage Master Plan Conflicts	G-4A-1	D-1-1 to D-1-5, G-4A-2, G-4A-3, G-4B-1. G-4B-2, G-4B-3
Infrastructure	F-8-26, F-8-28, F-8-84, F-11-29, F-11-37, G-27-4, G-50-2, G-51-62	F-1-8, F-3-26, F-8-27, F-8-30, F-1-48, F-8-106, F-11-37, G-2-6, G-37-2, G-42-4, G-56-7, G-57-1
Electrical Facilities	C-1-1, C-4-2, F-3-24,	C-4-3, C-4-4, F-1-85, F-1-86, F-3-19, F-3-20, F-3-21, F-3-23, F-3-24, F-8-79, F-15-6,
Water Facilities	C-2-2	C-2-3, C-2-4
Waste Water	F-8-101	F-8-102, F-8-104
Noise Impacts	E-2A-13, E-2A-14, E-2-15, F-8-72, F-8-73, F-13 appendices 2 through 4	
Project Ownership/Characteristics		B-3-33, D-2-1, F-1-4, F-1-5, F-1-7, F-8-24, F-13-2, G-2-1 to G-2-3, G-5-1, G-27-3, G-95-11, G-95-12, G-95-13, G-95-23, G-95-28
Project Revenues		G-17-5, G-19-3
Traffic	B-2-9, C-3-17, E-2A-5, E-2A-12, E-2B-21, E-2B-22, E-3-5, E-5-2, E-5-3, F-1-43, F-3-6, F-9A-9, F-9A-13, F-9C-2, F-11-22, F-13-9, F-13-12, F-13-92, F-13-94, F-13-97, F-13-98, G-57-5	B-2-2, B-2-3, B-2-4, B-2-5, B-2-6, B-2-7, B-2-8, B-2-10, B-2-11, B-2-12, B-2-14, B-5-12, E-2A-2, E-2A-4, E-2A-6, E-2A-7, E-2A-8, E-2A-9, E-2A-11, E-2B-1, E-2B-2, E-2B-3, E-2B-4, E-2B-5, E-2B-6, E-2B-7, E-2B-8, E-2B-9, E-2B-13, E-2B-15, E-2B-16, E-2B-17, E-2B-18, E-2B-20, F-3-8, F-3-9, F-3-10, F-8-63, F-8-64, F-8-68, F-8-69, F-9A-3, F-9A-11, F-9A-21, F-9B-4, F-9B-9, F-9C-4, F-11-11, F-11-23, F-11-24, F-13-10, F-13-26, F-13-90, F-13-96, G-17-1, G-17-2, G-51-19, G-51-28, G-51-47, G-51-60, G-51-65, G-57-7, G-90-7, G-90-14
Traffic Impacts on SR-60	F-10-5, F-11-10, F-13-11, G-55-8	E-1-2, E-2B-14, E-2B-20, E-2B-23, F-3-5, G-1-2, G-16-1, G-33-2, G-51-27
Construction and Traffic Noise	B-3-27, E-2A-14, E-2A-15, F-13-9, G-5-3	B-3-26, B-3-28, E-2A-13, F-11-18, F-11-19, F-13-77, F-13-78, F-13-79, F-13-80, F-13-88, G-33-3, G-51-25, G-57-10, G-57-17, G-83-2
Traffic on Gilman Springs Road	D-2-2, G-95-2	F-8-38, G-15-2
Truck Routes	C-3-15, E-3-3, F-1-50	E-3-4, E-3-13, F-3-4, F-3-6, G-2-5, G-33-4, G-34-4, F-13-89, G-10-4, G-57-8, G-57-9
Merwin Street Impacts	F-11-36, G-5-2 to G-5-9 G-9-1 to G-9-11, G-74-4	G-5-7, G-5-9, G-9-4, G-78-1
Alessandro Road Impacts	E-5-4	
Cactus Avenue		G-5-9

Table 2.B: Detailed Index of Environmental Issues Raised by Commenters

Major Comments/Issues	Addressed in Detail in Letters/Comments	Mentioned to Some Degree in Letters/Comments
Fueling Station	B-3-34, C-3-8	B-4-7, F-8-85, F-15-2, F-15-3

2.3 FORMAT OF RESPONSES TO COMMENTS

Aside from the courtesy statements, introductions, and closings, individual comments within the body of each letter have been identified and numbered. A copy of each comment letter and the City's responses are included in this section. Brackets delineating the individual comments and an alphanumeric identifier have been added to the right margin of the letter. Responses to each comment identified are included on the page(s) following each comment letter. Responses to comments were sent to the agencies that provided comments.

In the process of responding to the comments, there were minor revisions to the Environmental Impact Report (refer to FEIR Volume 2). None of the comments or responses constitutes "significant new information" (*CEQA Guidelines* Section 15073.5) that would require recirculation of the Environmental Impact Report.

A. LETTERS FROM FEDERAL AGENCIES/TRIBAL GROUPS

Letter A-1: United States Army Corps of Engineers (Department of the Army), (March 4, 2013)

Letter A-1

RECEIVED
MAR 1 1 2013
CITY OF MORENO VALLEY
Planning Division

DEPARTMENT OF THE ARMY

REPLY TO
ATTENTION OF

Regulatory Division

March 4, 2013

Mark Gross
City of Moreno Valley
Public Works Department
14177 Fredrick Street
Moreno Valley, California 92553

Dear Mr. Gross:

It has come to our attention that the City of Moreno Valley has sent us a Notice of Availability for the Draft Environmental Impact Report for the proposed World Logistics Center (WLC) project located within the City of Moreno Valley, Riverside County, California.. The proposed project consists of designation of 2,635 acres for logistics development; 20 acres for public utility uses; 1,159 acres for permanent open space and; 104 acres for utility extensions to serve the World Logistics Center. After reviewing the Draft Environmental Impact Report on the CD you provided us, impacts to jurisdictional waters of the U.S. may be proposed. Therefore, the proposed activity may require a Department of Army (DA) permit from the U.S. Army Corps of Engineers.

A DA permit is required for the discharge of dredged or fill material into, including any redeposit of dredged material other than incidental fallback within, "waters of the United States", including wetlands and adjacent wetlands pursuant to Section 404 of the Clean Water Act of 1972. Examples include, but are not limited to the following activities:

a. creating fills for residential or commercial development, placing bank protection, temporary or permanent stockpiling of excavated material, building road crossings, backfilling for utility line crossings and constructing outfall structures, dams, levees, groins, weirs, or other structures;

b. mechanized land clearing and grading which involve filling low areas or land leveling, ditching, channelizing and other excavation activities that would have the effect of destroying or degrading waters of the U.S.;

c. allowing runoff or overflow from a contained land or water disposal area to re-enter a water of the U.S.; and

d. placing pilings when such placement has or would have the effect of a discharge of fill material.

1

An application for a Department of the Army permit is available on our website: http://www.usace.army.mil/Portals/2/docs/civilworks/permitapplication.pdf. If you have any questions, please contact me at 213-452-3420 or via e-mail at Jennifer.J.Lillard@usace.army.mil. Please refer to this letter and SPL-2013-00177-JJL in your reply. 1

"Building Strong and Taking Care of People"

Sincerely,

Jennifer Lillard
Project Manager
South Coast Branch
Regulatory Division

RESPONSES TO LETTER A-1

United States Army Corps of Engineers

Response to Comment A-1-1. The comment states that there is a need for a Department of Army permit from the U.S. Army Corps of Engineers (USACE) due to the potential impacts to jurisdictional waters of the United States.

DEIR Section 4.4.6.3, *Less Than Significant Impacts – Jurisdictional Waters/Wetlands*, examined potential project impacts to wetlands and drainages that may be under the jurisdiction of the USACE, based on a jurisdictional delineation (JD) that was prepared by Michael Brandman Associates (MBA) in March 2012 according to USACE permitting handbook requirements. The MBA jurisdictional delineation found a total of 14 primary drainage features but determined none of them had connectivity to Mystic Lake and were not subject to the jurisdiction of the USACE or Regional Board. In addition, MBA found no jurisdictional wetlands or isolated wetlands on the site.

In addition, DEIR Section 4.4.6.3, *Significant Impacts – Riparian Habitat or Other Sensitive Natural Communities*, states the project does have one catch basin and portions of Drainage Features 7 and 9 are considered riparian/riverine areas, as defined by the County's Multi-Species Habitat Conservation Plan (MSHCP) to which the USACE is a signatory.

MM BIO-3a of Appendix E-13, Volume 2 FEIR provides for programmatic mitigation of jurisdictional impacts and a new mitigation measure (MM 4.4.6.3A) has been added to the FEIR Volume 2, Section 4.4.6.3 to replace DEIR MM 4.4.6.3A.

~~**4.4.6.3A** Prior to the approval of any Plot Plans proposing development adjacent to any on-site drainage channels identified in the project programmatic Jurisdictional Delineation (MBA 2012), the developer shall retain a qualified biologist to prepare a site-specific jurisdictional delineation and submit it to the U.S. Army Corps of Engineers (USACE) and California Department of Fish and Wildlife (CDFW) for review and concurrence. If the development plan will not affect identified jurisdictional areas, no USACE permitting is required. However, permitting through the Regional Water Quality Control Board (RWQCB) and CDFW (i.e., Streambed Alternation Agreement) may still be required for this development.~~

~~The applicant shall consult with USACE, CDFW and RWQCB to establish the need for permits based on the results of the 2012 jurisdictional delineation and final design plans for each of the proposed the facilities. Consultation with the three agencies shall take place and appropriate permits obtained. Compensation for losses associated with the altering of drainages on site shall be in agreement with the permit conditions.~~

~~Any development adjacent to Drainage 9 shall be designed with the channel in its relatively natural condition, and shall provide a minimum 25-foot open space setback from the top of each bank. Any landscaping of this setback area shall use only native species to help protect resources residing within or traveling through these drainages between the SJWA and the Badlands, and to protect any riparian vegetation along this drainage. This measure shall be implemented to the satisfaction of the City Planning Division.~~

4.4.6.3A Prior to the issuance of grading permits the applicant shall secure a jurisdictional determination from the United States Army Corps of Engineers (USACE) and confirm with the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (CDFW) if drainage features mapped on the property to be developed are subject to jurisdictional authority. If the features are subject to regulatory protection, the applicant will secure permit approvals with the appropriate

agencies prior to initiation of construction. Compensatory riparian habitat mitigation will be provided at a minimum ratio of 1:1 (replacement riparian habitat to impacted riparian habitat) to ensure no net loss of riparian habitat or aquatic resources. It should be noted that this is a minimum recommended ratio but the actual permitting ratio may be higher. These detention basins will be oversized to accommodate the provision of areas of riparian habitat. Maintenance of the basins will be limited to that necessary to ensure their drainage and water quality functions while encouraging habitat growth. Riparian habitat mitigation will be provided concurrent to or prior to impacts. A Compensatory Mitigation Plan will be prepared for all unavoidable impacts and will be consistent with the United States Army Corps of Engineers (USACE)/United States Environmental Protection Agency's Compensatory Mitigation for Losses of Aquatic Resources; Final Rule and the United States Army Corps of Engineers Standard Operating Procedure for Determination of Mitigation Ratios.

The applicant shall consult with United States Army Corps of Engineers, California Department of Fish and Wildlife, and Regional Water Quality Control Board to establish the need for permits based on the results of a recent jurisdictional delineation and final design plans for each of the proposed the facilities. Consultation with the three agencies shall take place and appropriate permits obtained for project-level development. Compensation for losses associated with the altering of drainages on site shall be in agreement with the permit conditions and in coordination with compensation outlined below.

Mitigation will consist of onsite creation, offsite creation, or purchase of mitigation credits from an approved mitigation bank. As outlined in the WLC programmatic DBESP report, onsite riparian habitat will be created at a minimum 1:1 ratio due to the poor quality of onsite habitat. New habitat will be created within the onsite detention/infiltration basins to the extent allowed by the resource agencies to reduce storm flows, improve water quality, and reduce sediment transport. Habitat creation will include the installation of mule fat scrub or similar riparian scrub habitat to promote higher quality riparian habitat, but still maintain the basins for their primary role as detention facilities. The use of these areas as conservation areas would require consent from CDFW and the City of Moreno Valley (MM BIO-2b and MM DBESP 1 through 3).

MM BIO-2a of Appendix E-7, Volume 2 FEIR provides for mitigation for Riparian/Riverine impacts and it replaces MM 4.4.6.3B in the FEIR Volume 2, Section 4.4.6.3**:**

~~**4.4.6.3B** As an alternative to Mitigation Measure 4.3.6.3A, the project developer shall retain a qualified biologist to prepare a Determination of Biologically Equivalent or Superior Project (DBESP) relative to development along Drainage 9 in order to maximize protection or preservation of the drainage, otherwise the DBESP must demonstrate why protection or preservation is not possible. This measure shall be implemented to the satisfaction of the City Planning Division in consultation with the County Resource Conservation Agency (RCA).~~

~~The DBESP shall be prepared to document measures to reduce impacts to riparian/habitats in accordance with the MSHCP as well as CDFW and USFWS guidelines. The DBESP shall include specific measures to reduce impacts to riparian areas and provide mitigation in the form of on-site preservation of riparian areas and/a combination of compensation through purchase and placement of lands with riparian/habitat into permanent conservation through a conservation easement and/or restoration or enhancement efforts at off-site or on-site locations.~~

4.4.6.3B As required by the Resource Conservation Agency (RCA), a program-level Determination of a Biological Equivalent or Superior Preservation (DBESP) for impacts to Riverine/Riparian habitat has been prepared and shall be approved by the Resource Conservation Agency prior to project approval. The Determination of a Biological Equivalent or Superior Preservation includes a general discussion of mitigation options for impacts to riverine/riparian areas as well as general location and size of the mitigation area and includes a monitoring program.

If impacts to riparian habitat within the World Logistics Center Specific Plan (WLCSP) cannot be avoided at the time of specific development, then a separate project-level Determination of Biologically Equivalent or Superior Preservation (DBESP) shall be prepared to identify project-specific impacts to riparian habitat and incorporate mitigation options identified in Mitigation Measure 4.4.6.3A.

A project-level Determination of a Biological Equivalent or Superior Preservation for each specific development shall be prepared to document measures to reduce impacts to riparian/riverine habitats in accordance with the Western Riverside County Multiple species Habitat Conservation Plan (MSHCP). The project-level Determination of a Biological Equivalent or Superior Preservation shall include specific measures to reduce impacts to riparian areas and provide mitigation in the form of onsite preservation of riparian areas and/or a combination of compensation through purchase and placement of lands with riparian/riverine habitat into permanent conservation through a conservation easement and/or restoration or enhancement efforts at offsite or onsite locations. Therefore, mitigation required for compensation for impacts to riparian/ riverine areas will require a minimum of 1:1 mitigation ratio of riparian/riverine mitigation land.

As outlined in the WLC programmatic DBESP, erosion control improvements will be installed within Drainage 9 to reduce sediment transport, and additional riparian habitat will be enhanced within this drainage following the installation of the erosion control improvements (MM DBESP 4 and 5).

The DEIR concluded that, with implementation of the mitigation measures in the DEIR. Mitigation Measures 4.4.6.3A and 4.4.6.3B above have been revised and potential impacts to riparian habitat or other sensitive natural communities, including on-site drainages, would be reduced to less than significant levels.

If necessary, future development under the WLCSP that affect Drainages 7 or 9 will have to obtain discretionary approvals from the County through the MSHCP or the USACE if federal jurisdiction is established based on drainage and development conditions at that time.

Letter A-2: Morongo Band of Mission Indians (February 12, 2013)

MORONGO
BAND OF
MISSION
INDIANS

A SOVEREIGN NATION

February 12, 2013

Mark Gross, AICP, Senior Planner
City of Moreno Valley
Community and Economic Development Department
14177 Frederick Street
Moreno Valley, CA 92553

RECEIVED
FEB 14 2013
CITY OF MORENO VALLEY
Planning Division

SUBJECT: **Notice of Availability**
World Logistics Center Project
Draft Environmental Impact Report
SCH# 201202045

Dear Mr. Gross:

Thank you for contacting the Morongo Band of Mission Indians regarding the above referenced project. The Tribe greatly appreciates the opportunity to review the project and, respectfully, offer the following comments.

The project is outside of the Tribe's current reservation boundaries but within an area that may be considered a traditional use area or one in which the Tribe has cultural ties (e.g. Cahuilla/Serrano territory). It appears that the DEIR has found that the proposed project will not have certain significant unavoidable adverse impacts to Cultural, Historic, or Archaeological Resources. Based upon this finding, the Morongo Band of Mission Indians has no comments at this time. The Tribe, though, reserves to right to comment upon any future development proposals or land use commitments associated with the World Logistic Center Project. 1

If I may be of further assistance with regard to this matter, please do not hesitate to contact me at your convenience.

Very truly yours,

MORONGO BAND OF MISSION INDIANS

Franklin A. Dancy

Franklin A. Dancy,
Director of Planning

12700 PUMARRA ROAD - BANNING, CA 92220 - 951-849-4697 - FAX: 951-849-4425

RESPONSES TO LETTER A-2

Morongo Band of Mission Indians

Response to Comment A-2-1. The comment states that the Tribe does not have any comments but they reaffirmed their right to comment upon any future development proposals. The City understands the Tribe may comment on development under the World Logistics Center project in the future. Such development would be subject to additional discretionary review and California Environmental Quality Act compliance at that time.

Letter A-3: Pechanga Temecula Band of Luiseño Mission Indians (April 8, 2013)

PECHANGA CULTURAL RESOURCES
Temecula Band of Luiseño Mission Indians

Post Office. Box 2183 • Temecula, CA 92593
Telephone (951) 308-9295 • Fax (951) 506-9491

April 8, 2013

VIA E-MAIL and USPS

Mr. Mark Gross, AICP
Senior Planner
City of Moreno Valley
Community and Economic Development Dept
14177 Frederick Street
Moreno Valley, CA 92552

Re: Pechanga Tribe Comments on the Draft Environmental Impact Report for the World Logistics Center Project (SCH#2012021045), General Plan Amendment PA12-0010, Development Agreement PA12-0011, Change of Zone PA12-0012, Specific Plan PA12-0013, Annexation PA12-0014, Tentative Parcel Map PA12-0015

Dear Mr. Gross:

This comment letter is written on behalf of the Pechanga Band of Luiseño Indians (hereinafter, "the Tribe"), a federally recognized Indian tribe and sovereign government. The Tribe formally requests, pursuant to Public Resources Code §21092.2, to be notified and involved in the entire CEQA environmental review process for the duration of the above referenced project (the "Project"). The Tribe requests to be directly notified of all public hearings and scheduled approvals concerning this Project. Please also incorporate these comments into the record of approval for this Project. 1

The Tribe submits these comments concerning the Project's proposed impacts to cultural resources in conjunction with the environmental review of the Project and to assist the City in developing appropriate avoidance and preservation standards for the significant Luiseño Village Complex that the Project will be impacting. The Tribe is very concerned that the proposed mitigation measures do not adequately provide for protection of the cultural resources located within the Project boundaries and those that could be impacted during development and off-site improvements. The Draft Environmental Impact Report (DEIR) states that there will be no impacts to cultural resources/archaeological sites; however, it appears that a portion of P-33-15046/CA-RIV-8007 may be impacted by development and there is very little discussion of CA-RIV-2993 that could be directly impacted by the construction of a water tank. 2

The Tribe does not agree that the cultural sites located within the Project area are not significant per CEQA and have provided information to the City and the Project archaeologist in 3

our NOP/SB18 comments and in our SB18 consultation describing this significant Village Complex that extends much farther southward along Mt. Russell. The City, Developer and archaeologist seem to have disregarded the Tribe's input about this traditional cultural landscape and have not taken the information into account when analyzing the sites and the impacts to them. Additionally, the DEIR states that a public trail will pass through sensitive cultural locations. There must be mitigation provided in the DEIR to guide and protect any resources from impacts, including a long-term management plan to be developed between the Developer/Applicant and the Pechanga Tribe. Finally, the Tribe is concerned that the archaeological study has been included in the DEIR Technical Appendices. Archaeological studies are considered exempt from the Public Record and provided only on an as needed basis. Sensitive cultural information can be found in the document and the Tribe believes it is inappropriate to include it for public review. More information on this concern is provided below. 3

THE CITY OF MORENO VALLEY MUST INCLUDE INVOLVEMENT OF AND CONSULTATION WITH THE PECHANGA TRIBE IN ITS ENVIRONMENTAL REVIEW PROCESS

It has been the intent of the Federal Government[1] and the State of California[2] that Indian tribes be consulted with regard to issues which impact cultural and spiritual resources, as well as other governmental concerns. The responsibility to consult with Indian tribes stems from the unique government-to-government relationship between the United States and Indian tribes. This arises when tribal interests are affected by the actions of governmental agencies and departments. In this case, it is undisputed that the project lies within the Pechanga Tribe's traditional territory. Therefore, in order to comply with CEQA and other applicable Federal and California law, it is imperative that the City of Moreno Valley consult with the Tribe in order to guarantee an adequate knowledge base for an appropriate evaluation of the Project effects, as well as generating adequate mitigation measures. 4

As the City is processing a General Plan Amendment and a Specific Plan for this Project, the City is required to consult with the Pechanga Tribe pursuant to a State law entitled Traditional Tribal Cultural Places (also known as SB 18; Cal. Govt. C. § 65352.3). The purpose of consultation is to identify any Native American sacred places and any geographical areas which could potentially yield sacred places, identify proper means of treatment and management of such places, and to ensure the protection and preservation of such places through agreed upon mitigation (Cal. Govt. C. 65352.3; SB18, Chapter 905, Section 1(4)(b)(3)). Consultation must be government-to-government, meaning directly between the Tribe and the Lead Agency, seeking agreement where feasible (Cal. Govt. C. § 65352.4; SB18, Chapter 905, Section 1(4)(b)(3)). 5

[1]See e.g., Executive Memorandum of April 29, 1994 on Government-to-Government Relations with Native American Tribal Governments, Executive Order of November 6, 2000 on Consultation and Coordination with Indian Tribal Governments, Executive Memorandum of September 23, 2004 on Government-to-Government Relationships with Tribal Governments, and Executive Memorandum of November 5, 2009 on Tribal Consultation.
[2] See California Public Resource Code §5097.9 et seq.; California Government Code §§65351, 65352.3 and 65352.4

Lastly, any information conveyed to the Lead Agency concerning Native American sacred places shall be confidential in terms of the specific identity, location, character and use of those places and associated features and objects. This information is not subject to public disclosure pursuant the California Public Records Act (Cal. Govt. C. 6254(r)). 5

The Tribe met with the City and subsequently the Applicant on May 30, 2012 with the City pursuant to SB18. At that time, we requested to be sent copies of the Specific Plan, Parcel Map, development plans, archaeological study and geotechnical reports and received all documents by October 8, 2012. We were further provided the opportunity to visit the cultural sites on the Property August 22, 2012. The City has consistently maintained contact with the Tribe throughout the process. Therefore, we are concerned that the City did not include our March 16, 2012 comment letter submitted for the Notice of Preparation (NOP) and SB18 in the DEIR. We hope this was just an oversight and request that the Final EIR be updated to include our letter and requested comments. 6

CONFIDENTIALITY OF ARCHAEOLOGICAL STUDIES AND CULTURAL INFORMATION

Protection of archaeological and cultural sites and resources is of critical importance because they are non-renewable resources and easily damaged. Multitudes of amateur archaeologists and explorers roam undeveloped areas in search of "buried treasures." Anything that provides any information regarding the probable location of a site or the contents of a site is thus more fodder for those who would destroy or pilfer our Tribe's and the State's cultural heritage. When SB18, the law designed to protect California Native American cultural heritage, was enacted it clearly indicated that "each city and county [shall] protect the confidentiality of information concerning" cultural resources. (SB 18 §1(b)(3); Govt. Code §§ 65040.2(g)(3), 65352.3, 65352.4, and 65352.5.)

The State of California and its municipalities recognize the importance of protecting archaeological resources through confidentiality of information regarding the resource in other laws and regulations as well. According to the California Office of Historic Preservation, "Archaeological and Traditional Cultural Property (TCP) locations are generally considered confidential and public access to such information is restricted by laws, including: Section 304 of the National Historic Preservation Act, Section 9(e) of the Archaeological Resources Protection Act, Executive Order 13007 and Sections 6254(r) and 6254.10 of the California State Government Code." Other State agencies and local governments provide assurances within their practices, rules and ordinances for the protection of archaeological, historical and cultural sites and resources through confidentiality of information. (See, e.g. California's Forest Practice Rules for the Protection of Archaeological, Historical and Cultural Sites, Title 14 CCR; City of Morro Bay Coastal Land Use Plan; County of Riverside Planning Department Cultural Resources Investigations Standard Scopes of Work; and County of San Diego Report Formant and Content Requirements, Cultural Resources.) 7

More importantly, however, the California Historical Resources Information System ("CHRIS") allows certain individuals, organizations and governmental entities access to archaeological records, but only after signing a confidentiality agreement. By signing the agreement, an individual, organization or governmental entity agrees to keep archaeological site content and location information confidential by not disclosing archaeological information to unauthorized individuals or including it in publicly distributed documents. A failure to comply with the agreement could mean denial of access to CHRIS information. 7

As such, multiple jurisdictions make a practice of limiting archaeological information provided in public documents, acknowledging that publication of, or even general public access to, such things as site maps, site records, archaeological reports, and cultural surveys are both prohibited by law and potentially harmful to the resources. Thus, for the protection of the cultural resources located within the Project area, we request that the City remove immediately the archaeological study that was mistakenly published with the other portions of the DEIR.

PECHANGA CULTURAL AFFILIATION TO PROJECT AREA

The Pechanga Tribe has a specific legal and cultural interest in this Project as the Tribe is culturally affiliated with the geographic area that comprises the Project property. The Tribe has been the named the consulting tribe on projects in the vicinity of the proposed Project, and, contrary to statements in the archaeological study that the Tribe did not provide information, has specific knowledge of cultural resources and sacred places within/near the proposed Project that we shared with the City, Applicant and archaeologist. The Tribe asserts that this culturally sensitive area is affiliated specifically with the Pechanga Band of Luiseño Indians because of the Tribe's specific cultural ties to this area. Pechanga considers any resources located on this Project property to be Pechanga cultural resources and we look forward to working directly with the City to continue preserving and avoiding these sensitive tribal cultural resources. Although the Tribe provided the following in our NOP/SB18 comments, we have included it again for the DEIR. 8

D. L. True, C. W. Meighan, and Harvey Crew[3] stated that the California archaeologist is blessed "with the fact that the nineteenth-century Indians of the state were direct descendents of many of the Indians recovered archaeologically, living lives not unlike those of their ancestors." Similarly, the Tribe knows that their ancestors lived in this land and that the Luiseño peoples still live in their traditional lands. The Pechanga Tribe's knowledge of our ancestral boundaries is based on reliable information passed down to us from our elders; published academic works in the areas of anthropology, history and ethno-history; and through recorded ethnographic and linguistic accounts. Many anthropologists and historians who have presented boundaries of the Luiseño traditional territory have included the Moreno Valley area in their descriptions (Drucker 1937; Heizer and Whipple 1957; Kroeber 1925; Smith and Freers 1994), and such territory 9

[3] D. L. True, C. W. Meighan, and Harvey Crew. Archaeological Investigations at Molpa, San Diego County, California, *University of California Press* 1974 Vol. 11, 1-176

descriptions correspond almost identically with what was communicated to the Pechanga people by our elders. While historic accounts and anthropological and linguistic theories are important in determining traditional Luiseño territory, the most critical sources of information used to define our traditional territories are our songs, creation accounts, and oral traditions. 9

Luiseño history originates with the creation of all things at *'éxva Teméeku*, in the present day City of Temecula, and dispersing out to all corners of creation (what is today known as Luiseño territory). It was at Temecula that the Luiseño deity *Wuyóot* lived and taught the people, and here that he became sick, finally expiring at Lake Elsinore. Many of our songs relate the tale of the people taking the dying *Wuyóot* to the many hot springs at Elsinore, where he died (DuBois 1908). He was cremated at *'éxva Teméeku*. A traditional song recounts the travels of eagle, as he searches for a place where there was no death. His travels begin at Temecula, flying north to San Bernardino and then to the east, south, and west through Julian, Cuyamaca, and Palomar, and returning to Temecula.[4] It is the Luiseño creation account that connects Elsinore to Temecula, and thus to the Temecula people who were evicted and moved to the Pechanga Reservation, and now known as the Pechanga Band of Luiseño Mission Indians (the Pechanga Tribe). From Elsinore, the people spread out, establishing villages and marking their territories. The first people also became the mountains, plants, animals and heavenly bodies.

Many traditions and stories are passed from generation to generation by songs. One of the Luiseño songs recounts the travels of the people to Elsinore after a great flood (DuBois 1908). From here, they again spread out to the north, south, east and west. Three songs, called *Monívol*, are songs of the places and landmarks that were destinations of the Luiseño ancestors, several of which are located near the Project area. They describe the exact route of the Temecula (Pechanga) people and the landmarks made by each to claim title to places in their migrations (DuBois 1908:110). The Native American Heritage Commission (NAHC) Most Likely Descendent (MLD) files substantiate this habitation and migration record from oral tradition. These examples illustrate a direct correlation between the oral tradition and the physical place; proving the importance of songs and stories as a valid source of information outside of the published anthropological data. 10

Tóota yixélval (rock art) is also an important element in the determination of Luiseño territorial boundaries. *Tóota yixélval* can consist of petroglyphs (incised) elements, or pictographs (painted) elements. The science of archaeology tells us that places can be described through these elements. Riverside and Northern San Diego Counties are home to red-pigmented pictograph panels. Archaeologists have adopted the name for these pictograph-versions, as defined by Ken Hedges of the Museum of Man, as the San Luis Rey style. This is the predominant style of rock art within the Project area and incorporates elements which include chevrons, zig-zags, dot patterns, sunbursts, handprints, net/chain, anthropomorphic (human-like) and zoomorphic (animal-like) designs. Tribal historians and photographs inform us that some design elements are reminiscent of Luiseño ground paintings. A few of these design elements,

[4] Ibid.

particularly the flower motifs, the net/chain and zig-zags, were sometimes depicted in Luiseño basket designs and can be observed in remaining baskets and textiles today.

Further evidencing the connection between the San Luis Rey rock art style and Luiseno people are these descriptions of how the diamond chain pattern, which is uniquely San Luis style rock art, was incorporated into the Luiseño girls' ceremony. In 1892, Bureau of Ethnology anthropologist H.W. Henshaw compiled information on what was called the "Girls Ceremony." He wrote: 'that during the fourth new moon of the young girl's puberty rite, diamond shaped marks were painted vertically on the cheeks of the girls faces' (Smith & Freers, pg. 19). For Pechanga, the connection to the rock art images held a known meaning. J.P. Harrington would later cross-reference this same "face painting" information in his 1933 work entitled *The Luiseno Girls Ceremony.*

Additionally, according to historian Constance DuBois:

> When the people scattered from Ekvo Temeko, Temecula, they were very powerful. When they got to a place, they would sing a song to make water come there, and would call that place theirs; or they would scoop out a hollow in a rock with their hands to have that for their mark as a claim upon the land. The different parties of people had their own marks. For instance, Albañas's ancestors had theirs, and Lucario's people had theirs, and their own songs of Munival to tell how they traveled from Temecula, of the spots where they stopped and about the different places they claimed (1908:158).

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An additional type of *tóota yixélval*, identified by archaeologists also as rock art or petroglyphs, are cupules. Throughout Luiseño territory, there are certain types of large boulders, taking the shape of mushrooms or waves, which contain numerous small pecked and ground indentations, or cupules. Many of these cupule boulders have been identified within a few hundred feet of the Project. In fact, the *tóota yixélval* identified close-by are but a small part of the overall Luiseño Village Complex that includes Mt. Russell and other sites to the northwest, south and southeast. The City has identified the area to the north as the Wolfskill Ranch North Complex. The archaeological study also acknowledges the importance of this area and states: "We believed that the nine prehistoric sites should be considered part of the unofficial Wolfskill Ranch North Complex. This Complex is discussed in the City General Plan but is not an officially recognized prehistoric district (p.53)." The Tribe agrees that this area should be included in the City's inventory of significant places and designated as permanent Open Space within the General Plan.

Thus, our songs and stories, our indigenous place names, as well as academic works, demonstrate that the Luiseño people who occupied what we know today as Moreno Valley and the Lakeview area are ancestors of the present-day Luiseño/Pechanga people, and as such, Pechanga is culturally affiliated to this geographic area. The Tribe welcomes the opportunity to

meet with the City to further explain and provide documentation concerning our specific cultural affiliation to lands within your jurisdiction, if so desired. 10

PROJECT IMPACTS TO CULTURAL RESOURCES

As we have continually informed the City, the proposed Project and its Off-Site Impacts are located in a highly sensitive region of Luiseño territory and the Tribe believes that the possibility for recovering subsurface resources during ground-disturbing activities is high. The Tribe has over thirty-five (35) years of experience in working with various types of construction projects throughout its territory. The combination of this knowledge and experience, along with the knowledge of the culturally-sensitive areas and oral tradition, is what the Tribe relies on to make fairly accurate predictions regarding the likelihood of subsurface resources in a particular location. The Pechanga Band is not opposed to this Project; however, we are opposed to any direct, indirect and cumulative impacts this Project may have to tribal cultural resources. The Tribe's primary concerns stem from the Project's proposed impacts on Native American cultural resources. The Tribe is concerned about both the protection of unique and irreplaceable cultural resources, such as Luiseño village sites, sacred sites and archaeological items which would be displaced by ground disturbing work on the Project, and on the proper and lawful treatment of cultural items, Native American human remains and sacred items likely to be discovered in the course of the work. 11

The Tribe has multiple concerns with the DEIR as posed. As indicated above, the Tribe submitted a NOP/SB18 comment letter in March 2012 that was not included in the DEIR or its appendices. The Tribe requests that the Final EIR be updated to include our comment letter and any appropriate Response to Comments. 12

The Tribe has reviewed the Archaeological studies and Appendix F of the DEIR. We are concerned that the Project archaeologist has not included any of the Tribe's information in the reports which would have assisted with site analysis. The Tribe applauds the archaeological consultant for combining a cultural area into one site. They describe this as, "With the addition of new feature elements discovered during the survey and GPS rendering of the original site locations, it became clear that the three original sites, which were all within an 80-meter radius of each other, should be combined into a single site with the newly discovered site elements added." However, they then proceed to say that the 29 milling features are not significant because there were no artifacts found in the area. By ignoring that this site is part of a larger Complex and ignoring the association between the physical remains and the bare spots between them, they are disregarding the importance of this area and overlooking important information that can contribute to the overall body of archaeological and tribal knowledge. The high number of utilized resources in this area and the identification of resources on the adjacent Highlands Fairview Project prove that Luiseño ancestors were extremely active within the region and that this area was a large habitat area, or village complex, for Indian people. Negatively impacting 13

and/or destroying the cultural sites within this area are a great irreparable loss to tribal culture and scientific knowledge. 13

A major problem that the Tribe has been observing over the last few decades is the shift in archaeological practices which look at cultural resources on an individual scale, on a project-by-project basis. This piecemeal type of assessment belies the fact that many of these sites are components of much larger complexes, and thus results in evaluations of the sites as not being significant. Further, this kind of piecemeal approach seems to be contrary to the tenets of archaeology which supposedly strives for a holistic approach. Because of this approach, very little regional or settlement pattern research is conducted within the Riverside County area to connect the dots. This has resulted in the systematic destruction of villages and habitation areas. 14

The Tribe believes that individual recordation of sites is an attempt to piecemeal obvious complexes/large cultural areas into smaller portions in order to make a "not significant" determination. While we understand that recordation of sites in this manner may assist with the management of such sites and features, it undermines the ability to offer a complete and thorough analysis of the Project impacts to cultural resources. The Tribe believes that division of sites and features into separate sites necessarily takes away from the significance of the sites themselves because they are analyzed by only looking at the particulars of that site/feature while missing the relationship to the other sites/features in the vicinity as well as the topography, geography, plant resources and waterways. A particular feature may be part of a significant village or habitation area, but one would never know that if only the feature was analyzed by itself as is the case on this Project. In addition, the Tribe believes this regional analysis would necessarily suggest that there is a high potential for subsurface resources to be found during grading or ground-disturbing activities for this Project. 15

Almost 25 years ago, Glassow (1985)[5] addressed the issue of how site complexes and regional complexes (i.e. villages and habitation areas) were being divided into smaller sites for analysis. This procedure misses the full interpretation of the sites, resulting in a "write-off" or dismissal of sites based only on a partial analysis. Small sites are described as those sites which "typically have surface areas on the order of 1,000 m^2 or less, deposits of less than 50 cm depth, only two or three major classes of cultural remains and very few, most often fragmentary finished artifacts" (59). He states, "…(S)ites on the smaller end of the size range are being systematically neglected by many archaeologists in favor of sites on the larger end of the size range. Not only are small sites seldom investigated, but they are frequently assessed as having no appreciable significance to research and are therefore being destroyed…"(ibid: 58). He further provides an example of an archaeological document that determined a site to be not eligible for the National Register. The assessment stated that although the small site, which contained a lithic scatter and two bifacial tools, contained high integrity, the potential to answer research questions was limited and thus the site was not eligible. This limited data was based 16

[5] Glassow, Michael A. The Significance of Small Sites to California Archaeology. Journal of California and Great Basin Anthropology Vol. 7, No.1. PP 58-66 (1985).

solely upon a survey and one posthole test unit. Archaeologists make the mistake of treating each site as an individual "temporary camp site or isolated feature" as opposed to looking at them as elements or components of larger village complexes. 16

With regard to this Project, the Tribe asserts that the same methodology and resulting dismissal of sites is occurring. The destruction of milling resources is a common practice in western Riverside County, justified because they are so 'ubiquitous.' Scientific potential is measured by the amount of artifacts found around the milling feature, not the feature itself. The Tribe views these important cultural features as part of the larger village complex that can aide in the analysis of that complex as well as the fact that they are the remains of the ancestors.[6] These types of complexes are rare and endangered by continuing development. Within the last seven (7) years, the Tribe has seen at least five (5) Luiseño village complexes negatively impacted and/or destroyed in western Riverside County. The City contains multiple significant village complexes, with other habitation areas spread throughout. The Tribe asserts that a traditional Luiseño village complex is a special element to not only the Tribe but to the City as well as the State. The citizens of Moreno Valley should be proud of such a special resource and should strive to preserve it in perpetuity. 17

Kroeber[7] and Heizer[8] used ethnographic data to describe the Luiseño Indians' settlement pattern as consisting of permanent villages of 75 to 200 people located in proximity to reliable sources of water and within range of a variety of floral and faunal food resources, which were exploited from temporary camp locations surrounding the main village. It has also been suggested that, frequently, a number of communities would combine to celebrate important festivals, harvest cycles, and other ceremonial events, occasionally inviting distant, linguistically unrelated groups. Expanding on Kroeber and Heizer's general description, True and Waugh[9] described Luiseño settlement patterns as;

> *The bipolar settlement pattern of the San Luis Rey was represented by relatively permanent and stable villages (both winter and summer), inhabited by several groups exploiting well-established territories and resources that were defended against trespass (we follow Flannery [1976:164] in using "village as a generic* 18

[6] The Tribe would like to challenge archaeologists to begin researching why artifacts aren't commonly found around milling features. It is time to look at why resources may not be present instead of anticipating or assuming that resources should be present. We should ask ourselves why would a person stand next to a food processing place and make a utility tool where the waste materials could get into the food or cut feet. Do we, today, stand next to a stove that contains open pots with cooking food and sharpen our knives so that metal debris could come into contact with the food? Thinking about these questions while assessing the significance of sites as they relate to the landscape will provide additional research questions and answers. These resources can provide valuable information for future archaeologists in terms of settlement patterns, patterns of domestic life as well as enhancing our understanding of how prehistoric tribal peoples lived with one another and upon the landscape.
[7] Alfred. L. Kroeber 1925. *Handbook of the Indians of California.* Bulletin 78, Bureau of American Ethnology, Government Printing Office, Washington D.C.
[8] Robert F. Heizer and M.A. Whipple 1951. *The California Indians.* University of California Press, Berkeley.
[9] True and Waugh 1982, p. 35

> *term for any small permanent community"), they saw this as a result of a reasonably long process of adaptation during which several strategic changes take place in settlement location patterns and in procedures for collecting resources. These strategic changes included a "trend toward the congregation of people along the major tributaries, with each tributary and its immediate environs occupied and exploited by a family-based kin group of some kind.*

Of great importance to the Luiseño people is how this would look on the landscape. For example, during his visit to Luiseño settlements in the La Jolla region in 1901, Merriam noted that "in many cases the Indians have great masses of tuna, 10-20 feet high, about or near their adobe houses" which "are not near together but scattered about, usually 1/8 or 1/4 of a mile apart and on a cleared place surrounded by chaparral."[10] Luiseño settlement patterns have also been described ethnographically by Sparkman[11] and Strong[12] as sedentary and territorial, with the extended families residing in villages with individual living areas separated anywhere from ¼ of a mile to ½ a mile apart. The proposal that a village foot print covers an expansive area, with each family having its own milling feature is supported by Bean when he argues that "homes were located some distance apart to provide privacy for families, if terrain permitted."[13] Bean and Smith also suggest that "a village might occupy three to five square miles."[14] While Oxendine's[15] dissertation is often cited when discussing late prehistoric village attributes and locations, little has been done to expand on her definition of a village foot print. The idea that villages could cover an expansive area is supported by True et al. Here, True et al[16] suggest that the larger outcrops containing multiple milling features are community milling areas and that each group or family within the community had its own specific milling boulder. In other words "each group then had its milling area and each family woman had her mortar or group of milling elements." To support this claim, True et al. gives the following example: The milling stones located at Silver Crest (Palomar Mountain State Park) belonging to the adjacent Pauma Village were identified by Max Peters as the property of a specific family. Each family had its own "place" and each mortar hole belonged to a particular "lady." "If the pattern at Molpa in protohistoric times followed that of the adjacent Pauma Village, it is likely that these "holes" were passed down from mother to daughter and were used until they became too deep to be

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[10] Merriam, C. Hart. *Studies of California Indians.* The Staff of the Department of Anthropology of the University of California, eds. Berkeley: University of California Press. 1955
[11] Sparkman, Philip Stedman, *The Culture of the Luiseño Indians.* University of California Publications in American Archaeology and Ethnology 1908, 8(4).
[12] Strong, William D. *Aboriginal Society in Southern California.* University of California Publications in American Archaeology and Ethnology 26, 1929
[13] Bean, Lowell J. *Mukat's People: The Cahuilla Indians of Southern California.* University of California Press, Berkeley, 1972, p. 71
[14] Bean, Lowell J. and Charles R. Smith. Serrano: In *Handbook of North American Indians, Volume, 8, California,* edited by Robert Heizer, Smithsonian Institution, Washington D.C., p. 43.
[15] Oxendine, Joan. The Luiseño Village During the Late Prehistoric Era. Ph.D. Dissertation, University of California, Riverside, 1983
[16] True et al 1974 p. 43

functional."[17] Thus there is support for the Tribe's assertion that each milling feature signifies an integral portion of the much larger village present at the site. 18

Glassow argues, "(A) small site and its contents gain importance as a document of a set of activities that occurred at a specific place within a particular setting. While the same set of activities might have occurred at a number of other places, it is often important to know the number of such places and variations in their settings."[18] Even smaller projects, like the currently proposed Project, is the appropriate time for Settlement Pattern research and comparisons of artifact collections to occur and to start piecing the bigger picture together. Trade and travel patterns can be assessed; site formation, ceremonial comparisons, and site type comparisons can continue to be made. Habitation/village sites are often identified, but the necessary scientific and archival research needed to produce a thorough report is not taken. The practice of recording isolated features and artifacts which results in a "negative finding" is slowly destroying larger cultural sites that could have been identified as a significant complex. This lack of context results in destruction of the individual sites, and not only of our cultural heritage, but that of the greater community and the overall history of California. 19

In addition, by piecemealing projects, archeologists are not necessarily saving the correct portions of the complexes and villages, but only the portions they deem to have scientific value. By archaeologists using this methodology, we as a society are likely missing the most essential pieces of the puzzle and, most importantly, ignoring the cultural value. True and Waugh[19] pointed out that the Luiseño Mission Indians were resourceful with almost an innate ability to adapt to changing circumstances. They argue that either pre-contact or post-contact San Luis Rey Luiseño people had demonstrated a high degree of adaptable behavior as they consolidated to form more complex systems, placing their villages in locations that are situated near the most reliable regional water supplies. True and Waugh proposed that this could only occur within a social matrix capable of sustaining the mosaic of productive, ritual, and social relationships inherent to "village" organizations. In other words, the Luiseño people had developed a very complex sense of community and permanent Settlement Pattern: it was embedded in their Social History. On this Project, the combination of physical archaeological remains, knowledge of resources being identified from adjacent properties and important tribal named places, traditional landscape analysis and oral traditions, a much broader, complex patter can be identified for this area. 20

At this time, the Tribe thanks the Project Applicant/Developer for placing the majority of the cultural sites within Open Space for preservation. The Tribe is concerned that potentially a portion of P-33-15046 may be impacted by development. We request additional clarification from the City and Developer/Applicant regarding this site. Additionally, the site identified as P- 21

[17] Ibid 1974 p. 43
[18] Glassow 1985: 60
[19] True, D. L. and George Waugh. Proposed Settlement Shifts during San Luis Rey Times: Northern San Diego County, California. *Journal of California and Great Basin Anthropology* 1982, 4(2):34-54.

33-2993, located in the southwest portion appears that it could be impacted by a proposed water tank. This site is briefly addressed in the archaeological study as not having been tested or evaluated for impacts in any way. As it seems that water tank location has not been finalized, the Tribe urges the Developer/Applicant and the City to design the tank to avoid this site and any potential impacts to the possible midden in the area. 21

Additionally, the DEIR states that a public trail will pass through sensitive cultural locations. There must be mitigation provided in the DEIR to guide and protect any resources from impacts. The Tribe would like to assist the City and Developer/Applicant with planning the trail through this area and with landscaping options that will discourage these sites from becoming an attractive nuisance. This will include developing a long-term management plan, to be developed between the Developer/Applicant and the Pechanga Tribe, to ensure that the protection planned during this DEIR process is maintained and that the sites do not become a burden to preserve. 22

REQUESTED TRIBAL INVOLVEMENT AND RECOMMENDED PROJECT MITIGATION MEASURES

The Tribe believes that the proposed mitigation measures as posed are not sufficient, given the sensitivity of the area, to protect and ensure that development activities will not impact buried cultural resources. Neither are they sufficient to provide for long-term protection and care once development activities have been completed. The lack of specificity of the mitigation measures and the lack of a requirement for tribal monitors does not bring the Project into compliance with CEQA nor reduce the impacts to a level below significant. While the Tribe understands that the Property has been subjected to previous disturbances such as the existing residences and agricultural usage, as the Project site lies within such a culturally-sensitive area, the Tribe believes that the possibility exists for the recovery of subsurface resources during earthmoving activities. Furthermore, as the DEIR acknowledges, cultural resources were identified during monitoring on the adjacent Highland Fairview property. These resources, some of which were deeply buried, as well as the known resources in this area that are also deep, are good indicators that additional resources could be found within the Project at a greater distance than the recommended 3,750 feet from the southwest corner. This distance is not realistic and could hinder the archaeologist and the Tribe from identifying significant resources. Therefore, the Tribe submits the revised mitigation measures for inclusion into the final EIR. Please contact the Tribe to discuss these mitigation measures and to review any proposed language changes prior to finalizing the Final EIR (strikeouts are deletions; underlines are additions.) 23

4.5.6.1A Prior to the approval of any grading or other discretionary permit for any of the "Light Logistics" parcels, the parcels shall be evaluated for significance by a qualified archaeologist since they were not available for survey during preparation of the EIR. A Phase I Cultural Resources Assessment shall be conducted <u>by the project archaeologist</u>

and an appropriate tribal[20] representative on each of the "Light Logistics" parcels prior to development to determine if it contains significant archaeological or historical resources. A Phase II evaluation shall be completed for any of these sites in order to determine if they ~~that are determined to~~ contain significant archaeological or historical resources ~~based on the results of the Phase I assessment~~. Cultural resources include but are not limited to stone artifacts, bone, wood, shell, or features, including hearths, structural remains, or historic dumpsites. ~~If a particular resource is determined to be significant, it~~ All resources determined to be prehistoric or historic shall be adequately documented using DPR523 forms for archival research/storage in the Eastern Information Center (EIC). If the particular resource is determined to be not significant, no further document~~ed~~ation is required. ~~Any artifacts~~ If historic resources are determined to be significant, they shall be considered for relocation or archival documentation, as appropriate, depending on whether the building or buildings are determined to be significant under CEQA. If any building is determined to be significant, a Phase III recovery study shall be conducted to recover remaining significant cultural artifacts. If necessary, a feasibility study shall be conducted to determine if a significant structure can be relocated effectively to off-site parcels. The study shall also identify if there are appropriate parcels available within or close to the Moreno area of the City. If the structure cannot be feasibly relocated, or there is not an appropriate parcel to relocate the structure to, the structure shall be demolished after complete archival recordation in a manner determined by the project archaeologist. If prehistoric archaeological/cultural resources are discovered during the Phase I survey and it is determined that they cannot be avoided through site design, they shall be subject to a Phase II testing program. The project archaeologist, in consultation with the appropriate Tribe, shall determine the significance of the resource(s) and determine the appropriate mitigation for the resources. 23

4.5.6.1B Prior to the approval of any grading or ground-disturbing permit by the City for construction of off-site improvements for the WLCSP, the developer requesting the permit shall retain a qualified archaeologist to prepare a Phase I cultural resource assessment (CRA) of the project site if an up to date CRA (within 5 years of the current year for which the permit above is sought) is not available for the site at the time of development. If archaeological resources are uncovered or discovered during construction activities, no further excavation or disturbance of the area where the resources were found shall occur until a qualified archaeologist, in consultation with the appropriate Tribe, evaluates the find. Pursuant to Calif. Pub. Res. Code § 21083.2(b) avoidance is the preferred method of preservation for archaeological resources. If the find is determined to be a unique or significant archaeological resource, appropriate action shall be taken to include but not be limited to: (a) planning 24

[20] [20] It is anticipated that the Pechanga Tribe will be the "appropriate" Tribe due to their prior and extensive participation in the Highlands Fairview project and the current Project and their coordination with the City and project applicant in determining potentially significant impacts and appropriate mitigation measures.

construction to avoid archeological sites; (b) capping or covering archeological sites with a layer of soil before building on the affected site; or (c) excavation to adequately recover the scientifically consequential information from and about the resource. Appropriate mitigation shall take into account the religious beliefs, customs, and practices of the appropriate Tribe. Work may continue on other parts of the project site while the unique archaeological resource mitigation takes place. This measure shall be implemented to the satisfaction of the City Planning Division. If the qualified archaeologist, in consultation with the appropriate Tribe, determines that the find is a unique archaeological resource, the resource site shall be evaluated and recorded in accordance with requirements of the State Office of Historic Preservation (OHP) and as described in 4.5.61A. If the site is determined to be significant and cannot be avoided through site design, an adequate amount of data at the specific site shall be collected by the qualified archaeologist and the findings of the report shall be submitted to the City. If the site is not determined to be not significant, the site need not be mitigated for as described above. 24

4.5.6.1C Prior to any discretionary approvals for development ~~within 3,750 feet of the southwest corner of the site~~, the project developer shall retain a qualified archaeologist to monitor grading as this area has been identified as having moderate to high sensitivity for cultural resources. Project-related archaeological monitoring shall include the following requirements:

1. All construction-related earthmoving shall be monitored to a depth of ten (10) feet below grade by the Project Archaeologist or his/her designated representative and the appropriate Tribe;
2. Once 50 percent of the earth to be moved has been examined, the Project Archaeologist may, at his or her discretion and in consultation with the appropriate Tribe, terminate monitoring if and only if no buried cultural resources have been detected; 25
3. If buried cultural resources are detected, monitoring shall continue until 100 percent of virgin earth within the permit area has been disturbed and inspected by the Project Archaeologist or his/her designated representative and the appropriate Tribe.
4. Grading shall cease in the area of a cultural artifact or potential cultural artifact as delineated by the Project Archaeologist or his/her designated representative and the appropriate Tribe. Grading should continue in other areas of the site while particular find are investigated; and
5. If cultural artifacts are uncovered during grading, they shall be Phase II tested by the Project Archaeologist and the appropriate Tribe, evaluated for significance in accordance with §15064.5 the *CEQA Guidelines*, and curated in a museum[21] chosen

[21] The Pechanga Tribe would like the City to know that we own and maintain a curation facility that meets or exceeds 36 CFR Part 79 standards. Currently we do not charge to store Luiseño cultural items. The only exception

by the City ~~if the resource(s) are determined to be significant~~. Appropriate actions for significant resources include but are not limited to avoidance or capping (except of human remains), incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds (Phase III recovery). A mitigation-monitoring report must accompany any archived artifacts.

6. No further grading shall occur in the area of the discovery until the City approves specific actions to protect identified resources. Any archaeological artifacts recovered as a result of mitigation shall be handled as outlined in 5 above. ~~donated to a qualified scientific institution approved by the City where they would be afforded long term preservation to allow future scientific study.~~

7. The developer shall make reasonable efforts to avoid, minimize, or mitigate significant adverse impacts on cultural resources on the WLCSP property, and the SHPO and local Native American tribes will be consulted and the Advisory Council on Historic Preservation (should there be Federal involvement on this Project) will be notified within 48 hours in compliance with 36 CFR 800.13(b)(3). This measure shall be implemented to the satisfaction of the City Planning Division. 25

8. The landowner shall relinquish ownership of all cultural resources, including sacred items, burial goods and all archaeological artifacts that are found on the project area to the appropriate Tribe for proper treatment and disposition. All sacred sites, should they be encountered within the project area, shall be avoided and preserved as the preferred mitigation, if feasible.

4.5.6.1D Prior to the issuance of any grading permit ~~within 3,750 feet of the southwest corner of the site, the City and the applicant shall invite interested Tribal Group(s) representatives to help monitor grading if they so desire. Qualified representatives of the Tribal Group(s) shall be granted access to the permit site to monitor grading as long as they provide 48 hour notice to the developer of their desire to monitor, so the developer can make appropriate safety arrangements on the site.~~ the project developer shall retain a qualified tribal monitor from the appropriate tribe and develop a Cultural Resources Treatment Agreement to monitor grading as this area has been identified as having moderate to high sensitivity for cultural resources, in which they have a direct ancestral connection. The Agreement shall address the treatment of known cultural resources, the designation, responsibilities, and participation of professional Native American Tribal monitors during grading, excavation and ground disturbing activities; project grading and development scheduling; terms of compensation by the developer for the monitors; and treatment and final disposition of any cultural resources, sacred sites, and human remains discovered on the site. This measure shall be implemented to the satisfaction of the City Planning Division. 26

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is for human remains, sacred/ceremonial items or grave goods in which the Tribe requests that these items be reburied in an appropriate location of the Project property.

4.5.6.1E It is possible that ground-disturbing activities during construction may uncover previously unknown, buried cultural resources (archaeological or historical). In the event that buried cultural resources are discovered during grading and no Project Archaeologist or Historian or tribal representative is present, grading operations shall stop in the immediate vicinity of the find and a qualified archaeologist and the appropriate tribe shall be retained to determine the most appropriate course of action regarding the resource. The Archeologist, in consultation with the appropriate tribe shall make recommendations to the City on the actions that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with §15064.5 of the *CEQA Guidelines* as a matter of last resort. Cultural resources could consist of, but are not limited to, stone artifacts, bone, wood, shell, or features, including hearths, structural remains, or historic dumpsites. Any previously undiscovered resources found during construction within the project area should be recorded on appropriate DPR forms and evaluated for significance in terms of CEQA criteria. If the resources are determined to be unique historic resources as defined under §15064.5 of the *CEQA Guidelines*, mitigation measures shall be identified by the Archaeologist and the appropriate tribe and recommended to the City. Appropriate protective actions for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. No further grading shall occur in the area of the discovery until the City approves the measures to protect these resources. Any archaeological artifacts recovered as a result of mitigation shall be returned to the appropriate tribe as provided for in 4.5.6.1C(5), above. In addition, reasonable efforts to avoid, minimize, or mitigate adverse effects to the property will be taken and the SHPO and Native American tribes with concerns about the property, as well as the ~~Advisory Council on Historic Preservation~~ native American Heritage Commission will be notified within 48 hours in compliance with 36 CFR 800.13(b)(3). If the project archaeologist and the Tribe cannot agree on the significance or the mitigation for such resources, not including human remains or grave goods, these issues will be presented to the Planning Director or appropriate City representative for decision. The Planning Director or appropriate City representative shall make the determination based on the provisions of the California Environmental Quality Act with respect to archaeological resources and Notwithstanding any other rights available under the law, the decision of the Planning Director shall be appealable to the Planning Commission and/or City Council. 27

4.5.6.1F If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Riverside County Coroner determines the remains to be Native American, the Native American Heritage Commission must be contacted within 24 hours. The 28

Native American Heritage Commission must then immediately identify the "most likely descendant(s)" of receiving notification of the discovery. The most likely descendant(s) shall then make recommendations within 48 hours, and engage in consultations concerning the treatment of the remains as provided in Public Resources Code 5097.98 and the Treatment Agreement described in 4.5.6.1D. 28

4.5.7 For cultural resources that are known or discovered during earth-moving activities and which will be preserved either in open space or in areas of no development, a long-term preservation plan must be completed between the Developer and the Pechanga Tribe. The preservation plan must include, but is not limited to, how the resources will be protected (i.e., fencing, native plants, etc.), who has responsibility for the long-term care, who shall pay for the long-term care, the role of the Tribe in maintaining and preserving the resources, approved uses and prohibited uses of the property, access rights and any other relevant provisions related to preservation and protection of cultural resources. 29

4.5.8 For the trails anticipated to be required for this Project, the Developer must consult with the appropriate tribe regarding the location of such trails. Sensitive cultural resources exist on the property and the alignment of the trail could impact subsurface cultural materials. In addition, a long-term maintenance and preservation plan for said trails must be completed between the developer and the Pechanga Tribe to ensure that at a minimum, cultural resources are not damaged through misuse by trail users, vandalism, maintenance needs for the trail and/or improvements or expansion of the trails. 30

The Tribe reserves the right to fully participate in the environmental review process, as well as to provide further comment on the Project's impacts to cultural resources and potential mitigation for such impacts. The Pechanga Tribe looks forward to working together with the City of Moreno Valley in protecting the invaluable Pechanga cultural resources found in the Project area. Please contact me at 951-770-8104 or at ahoover@pechanga-nsn.gov once you have had a chance to review these comments so that we may discuss the proposed mitigation measure language. Thank you. 31

Sincerely,

Anna Hoover
Cultural Analyst

Cc Pechanga Office of the General Counsel

RESPONSES TO LETTER A-3

Pechanga Temecula Band of Luiseño Mission Indians

Response to Comment A-3-1. All public notices regarding the World Logistics Center (WLC) project and its subsequent project-specific applications will be sent to the Tribe as requested.

Response to Comment A-3-2. The designated Open Space area of the WLC Specific Plan was specifically configured to include all known prehistoric cultural resources located at the base of Mount Russell, including CA-RIV-8007 and CA-RIV-2993. Any future trail within or in the vicinity of Open Space Area shall be located and designed to avoid any sensitive cultural resources in consultation with appropriate tribal groups.

Mitigation Measure (MM) 4.5.6.1C was modified to list where additional survey work would be conducted, and the revised measure is described in more detail in Response to Comment A-3-23.

Response to Comment A-3-3. As shown in the technical report, project archaeologists performed two separate sacred lands searches, one in 2005 and another in 2011. Both were designed to provide local tribal groups with the opportunity to comment on the archaeological work effort. In both instances, letters to all tribes named by the Native American Heritage Commission (NAHC) were submitted to each named tribal contact by mail by the project archeologist. The Pechanga Band did not respond to the letter in 2011 and the Pechanga Band was not named on the NAHC list in 2005. Had the Pechanga Tribe responded to the letter in 2011, their response letter would have been shown in Appendix B of the technical report in the Draft Environmental Impact Report (DEIR) and the mode of contact would have been reproduced within the body of the report similar to the modes of contact for other tribal groups.

The designated Open Space area in the WLC Specific Plan was specifically configured to envelop all known prehistoric cultural resources including CA-RIV-8007 and CA-RIV-2993.

Response to Comment A-3-4. Government-to-Government consultations have been underway between City staff and staff from Pechanga Cultural Resources. On May 30, 2012, the City met with Pechanga Cultural Resources staff Anna Hoover, Ebru Ozdil, and Michele Fahley. This meeting took place at City Hall and was informational in nature. The meeting was in direct response to a letter provided in the past from the Pechanga Band that had requested consultation. Staff has not met with this Tribal agency since the release of the DEIR. Ongoing consultations will continue to occur up to the release of the Final Environmental Impact Report (FEIR) and well after review and a final project decision is reached by the City Council.

Response to Comment A-3-5. The Government-to-Government consultation process is being followed following proper procedures. Sensitive cultural resources have not and will not be disclosed to the public.

Response to Comment A-3-6. The March 16, 2012 tribal comment letter shall be included in the FEIR.

Response to Comment A-3-7. Refer to Response to Comment A-3-2.

Response to Comment A-3-8 It must be noted that both the Pechanga Band and Soboba Band have overlapping geographic interests in this area. The City, the project proponent, and project archaeologists do not have legal authority to assign exact cultural affiliations or jurisdictions upon or responsibilities for existing or buried prehistoric cultural resources. The NAHC would be contacted to make a determination of affiliation and Most Likely Descendant (MLD) if necessary.

Several of the mitigation measures (MMs 4.5.6.1D and 4.5.6.1E) in the EIR state that future impacts to surficial or buried prehistoric cultural resources as a result of development within the WLC Specific Plan will be subject to consultation between all concerned parties, including the Tribe and the City of Moreno Valley.

Response to Comment A-3-9. We do not question any aspect of the Tribe's interpretative comments. The Soboba also claim this area as a part of their cultural heritage and it is highly probable that both groups used the area through time. Determining the relationship of these lands to specific groups falls outside of the EIR and a decision on how efforts are cooperatively covered lies with the City of Moreno Valley.

Response to Comment A-3-10. Please refer to Response to Comment A-3-9.

Response to Comment A-3-11. The EIR states that direct impacts to known prehistoric cultural resources will be avoided by including these resources into the Open Space areas of the Specific Plan. Off-site development and indirect impacts to cultural resources in the Open Space and off-site portions of the project, as well as the "Light Logistics Parcels" are subject to further analytical review and consultation with concerned parties including all appropriate tribal groups. Impacts to unknown prehistoric cultural resources during construction are addressed in MMs 4.5.6.1C and 4.5.6.1E.

Existing mitigation measures (MM 4.5.6.1C) in the EIR do allow all appropriate tribal groups to monitor earthmoving during grading and require that the Project Archaeologist immediately consult with all appropriate tribal groups if archaeological finds take place (MMs 4.5.6.1C and 4.5.6.1E in the DEIR). Project-specific agreements with grading monitors are premature at this point in the process. The City requires that all appropriate tribal groups be invited to monitor grading prior to the issuance of project-specific grading permits. The terms and conditions of tribal monitoring will be negotiated on a project-by-project basis. The terms and conditions shall include a discussion on monitoring intensity, the identification of any significant resources and the disposition of any cultural items retrieved.

Response to Comment A-3-12. The letter will be added to the appendices of the FEIR. The City is conducting on-going consultation will all interested local Native American tribes and will continue such consultation throughout the life of the project.

Response to Comment A-3-13. The interpretations provided in the project archaeologist's report represent the expert opinion of a qualified analytical team. All known prehistoric cultural resources exposed at the modern ground surface level were included in the Open Space area within the WLC Specific Plan, whether those sites were considered significant or not. Since the sites are to be avoided, and encompassed into open space, the designation of the site as significant, or not significant, is moot.

Response to Comment A-3-14. Regardless of how archaeologists interpret prehistory as it is expressed by the remnants of material culture, the fact remains that no known prehistoric cultural resources located on the modern ground surface will be directly impacted by construction of the WLC project and that physical observation of all grading activities in the vicinity will occur by qualified professional monitors and by Native American monitors if they choose to participate.

Response to Comment A-3-15. Regardless of how archaeologists interpret prehistory as is expressed by the remnants of material culture, no prehistoric cultural resources located on the modern ground surface will be directly impacted by construction. The idea of divide and conquer is not the intention of the cultural resource assessment. The project archaeologist provided a fairly standardized definition of what constitutes an archaeological site. The definition was adhered to for defining a site and was incorporated into defining site boundaries. The City agrees that having a

series of sites concentrated into a constrained area should be taken into consideration when assessing significance. In this instance, it is noted that the boundary of the Open Space area was drawn to include all prehistoric sites, thereby providing protection to the resources.

Response to Comment A-3-16. Refer to Response to Comment A-3-15.

Response to Comment A-3-17. Refer to Response to Comment A-3-15.

Response to Comment A-3-18. The EIR and the supporting cultural resource assessment report do not disagree with the Tribes' interpretation of existing regional cultural evidence and artifacts. The interpretative disagreement, with relationship to the EIR, is rendered moot by placing all known prehistoric cultural resources into the Open Space section of the Specific Plan, thereby avoiding them during construction of the project. These sites are therefore preserved for future generations.

Response to Comment A-3-19. Refer to Response to Comment A-3-18.

Response to Comment A-3-20. Refer to Response to Comment A-3-14.

Response to Comment A-3-21. The eastern portion of CA-RIV-8007 is located in the Open Space area designated within the WLC Specific Plan, and the western portion of the site is located on an adjacent parcel that is not a part of the Project. Therefore, this site will be completely avoided during construction of the project.

Response to Comment A-3-22. In response to this comment, the proposed route of the future public trail has been adjusted to the north approximately 2,000 feet to avoid any possible impact to known cultural resources (refer to Figure 1-3). The trail route is now proposed to run along Street E instead of along the boundary of the designated Open Space.

Response to Comment A-3-23. Impacts to buried cultural resources are considered adequate following CEQA guidelines, but refined modifications to those measures have been made following comments made by Tribal representatives. Subsequent to receiving Letter A-3, the EIR's cultural resource mitigation measures were re-examined by the City, the project archeologists, and the authors of the EIR. The following statement has been added to the cultural resource section of the EIR just before MM 4.5.6.1A:

Mitigation Measures. The following measures are proposed to help reduce potential impacts on known, unknown, or potential archaeological or historical resources to less than significant levels. The wording of the measures has been changed from the Draft Environmental Impact Report to address specific comments made by the Pechanga Tribe. The Tribe did request that the survey area limitations outlined in MMs 4.5.6.1C and 4.5.6.1D be removed. After consultation with the project archaeologist the measures have been modified to refer to specific planning areas within the World Logistics Center Specific Plan as shown below:

4.5.6.1A Prior to the approval of any grading~~ or other discretionary~~ permit for any of the "Light Logistics" parcels, the parcels shall be evaluated for significance by a qualified archaeologist~~ since they were not available for survey during preparation of the EIR. A Phase II~~. A Phase 1 Cultural Resources Assessment shall be conducted by the project archaeologist and an appropriate tribal representative(s) on each of the "Light Logistics" parcel ~~prior to development~~ to determine if ~~it contains~~ significant archaeological or historical resources.

A Phase ~~II~~ 2 significance evaluation shall be completed for any of these sites ~~that are determined to~~ in order to determine if they contain significant archaeological or historical resources~~ based on the results of the Phase I assessment~~. Cultural resources

include but are not limited to stone artifacts, bone, wood, shell, or features, including hearths, structural remains, or historic dumpsites. ~~If a particular resource is~~ All resources determined to be ~~significant, it~~ prehistoric or historic shall be ~~adequately~~ documented using DPR523 forms for archival research/storage in the Eastern Information Center (EIC). If the particular resource is determined to be not significant, no further ~~documented~~ documentation is required. ~~Any artifacts~~ If prehistoric resources are determined to be significant, they shall be considered for relocation or archival documentation~~, as appropriate, depending on whether the building or buildings are determined to be significant under CEQA~~. If any ~~building~~ resource is determined to be significant, a Phase ~~III~~3 recovery study shall be conducted to recover remaining significant cultural artifacts. ~~If necessary, a feasibility study shall be conducted to determine if a significant structure can be relocated effectively to off-site parcels. The study shall also identify if there~~ If prehistoric archaeological/cultural resources are ~~appropriate parcels available within or close to the Moreno area of the City. If the structure~~ discovered during the Phase 1 survey and it is determined that they cannot be ~~feasibly relocated, or there is not an appropriate parcel to relocate the structure to, the structure shall be demolished after complete archival recordation~~ avoided through site design, they shall be subject to a Phase 2 testing program. The project archaeologist ~~and~~ in consultation with appropriate tribal group(s~~),~~) shall determine the significance of the resource(s) and determine the most appropriate disposition of the resource(s) in accordance with applicable laws, regulations and professional practices (per Cultural Report MM CR-1, MM CR-2, MM CR-7 Table 3, pg.74).

4.5.6.1B Prior to the ~~approval~~ issuance of any grading or ground-disturbing permit ~~by the City~~ for construction of off-site improvements ~~for the WALKS, the developer requesting the permit shall retain~~ qualified archaeologist shall be retained to prepare a Phase I cultural resource assessment (CRA) of the project site if an up to date Phase I cultural resource assessment is not available for the site at the time of development per Cultural Report MM CR-5, Table 3, pg.74).

Appropriate tribal representatives as identified by the City shall be invited by the Project Archaeologist to participate in this assessment.

If archaeological resources are ~~uncovered or~~ discovered during construction activities, no further excavation or disturbance of the area where the resources were found shall occur until a qualified archaeologist evaluates the find. If the find is determined to be a unique archaeological resource, appropriate action shall be taken to ~~include but not be limited to: (a) planning~~: (a) plan construction to avoid the archeological sites; (the preferred alternative); (b) ~~capping~~ cap or ~~covering~~ cover archeological sites with a layer of soil before building on the affected ~~site~~ project location; or (c) ~~excavation~~ excavate the site to adequately recover the scientifically consequential information from and about the resource. ~~Work~~ At the discretion of the project archaeologist, work may continue on other parts of the project site while the unique archaeological resource mitigation takes place. This measure shall be implemented to the satisfaction of the ~~City~~ Planning ~~Division~~ Official.

If the ~~qualified~~ project archaeologist, in consultation with the monitoring Tribe(s), determines that the find is a unique archaeological resource, the resource site shall be evaluated and recorded in accordance with requirements of the State Office of Historic Preservation (OHP). If the ~~site~~ resource is determined to be significant, ~~an adequate amount of~~ data ~~at the specific site~~ shall be collected by the qualified archaeologist and the findings of the report shall be submitted to the City. If the ~~site~~ find is ~~not~~ determined to be not significant ~~the site need not be mitigated for as described above~~ no mitigation is necessary.

Should a future project-level analysis show that cultural resource site CA-RIV-3346 will be directly or partially impacted by project-level construction, an Addendum cultural resource report must be prepared and include an analysis of the alternatives associated with mitigation for impacts to this resource following CEQA Guidelines Section 15126.4(b)(3). This information must be included in any project-level CEQA compliance documentation. It should be noted that Phase 3 data recovery is an acceptable mitigation action under CEQA Guidelines Section 15126.4(b)(3)(C) (per Cultural Report MM CR-3,Table 3, pg.74).

Should it be determined through a future project-level EIR analysis that prehistoric cultural resource sites CA-RIV-2993 and/or CA-RIV-3347 shall be directly impacted by future construction, these sites must be Phase 2 tested for significance (per Cultural Report MM CR-4, Table 3, pg.74).

4.5.6.1C Prior to the issuance of any ~~discretionary approvals for development within 3,750 feet of the southwest corner of the site, the project developer shall retain~~ grading permits a qualified archaeologist shall be retained to monitor all grading~~ as this area has been identified as having moderate~~ and shall invite tribal groups ~~to high sensitivity for cultural resources~~ to participate in the monitoring. Project-related archaeological monitoring shall include the following requirements per Cultural Report MM CR-6, MM CR-8, Table 3, pg.74):

1. All ~~construction-related~~ earthmoving shall be monitored to a depth of ten (10) feet below grade by the Project Archaeologist or his/her designated representative. Once ~~50 percent~~ all areas of the~~ earth to be moved has~~ development project that have been ~~examined~~ cut to 10 feet below existing grade have been inspected by the monitor, the Project Archaeologist may, at his or her discretion, terminate monitoring if and only if no buried cultural resources have been detected;
2. If buried cultural resources are detected, monitoring shall continue until 100 percent of virgin earth within the ~~permit~~specific project area has been disturbed and inspected by the Project Archaeologist or his/her designated representative.
3. Grading shall cease in the area of a cultural artifact or potential cultural artifact as delineated by the Project Archaeologist or his/her designated representative. A buffer of at a minimum 25 feet around the cultural item shall be established to allow for assessment of the resource. Grading ~~should~~may continue in other areas of the site while the particular find are investigated; and
4. If prehistoric cultural ~~artifacts~~resources are uncovered during grading, they shall be Phase 2 tested by the Project Archaeologist, and evaluated for significance in accordance with §15064.5(f) of the CEQA Guidelines ~~, and curated in a museum chosen by the City if the resource(s) are determined to be significant~~. Appropriate actions for significant resources as determined by the Phase 2 testing include but are not limited to avoidance or capping, incorporation of the site in green space, parks, or delineation into open space. If such measures are not feasible, Phase 3 data recovery ~~excavations of the finds (Phase III recovery).~~recovery of the significant resource will be required, and curation of recovered artifacts and/or reburial, shall be required. A ~~mitigation monitoring~~ report associated with Phase 2 testing or Phase 3 data recovery must ~~accompany~~be delivered to the City and, if necessary, the museum where any ~~archived~~ recovered artifacts have been curated.
5. No further grading shall occur in the area of the discovery until the City approves specific actions to protect identified resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution approved

by the City where they would be afforded long-term preservation to allow future scientific study.

6. The developer shall make reasonable efforts to avoid, minimize, or mitigate significant adverse impacts on cultural resources ~~on the WLCSP property, and the SHPO~~ The State Historic Preservation Office (SHPO) and local Native American tribes will be consulted and the Advisory Council on Historic Preservation will be notified within 48 hours of the find in compliance with 36 CFR 800.13(b)(3). This measure shall be implemented to the satisfaction of the ~~City~~ Planning ~~Division~~ Official.

4.5.6.1D Prior to the issuance of any grading ~~within 3,750 feet of the southwest corner of the site, the City and the applicant~~ permit the project archaeologist shall invite interested Tribal Group(s) representatives to monitor grading activities. Qualified representatives of the Tribal Group(s) shall be granted access to the project site to monitor grading as long as they provide 48-hour notice to the developer of their desire to monitor, so the developer can make appropriate safety arrangements on the site. This measure shall be implemented to the satisfaction of the ~~City~~ Planning ~~Division~~ Official.

4.5.6.1E It is possible that ground-disturbing activities during construction may uncover previously unknown, buried cultural resources (archaeological or historical). In the event that buried cultural resources are discovered during grading and no Project Archaeologist or Historian is present, grading operations shall stop in the immediate vicinity of the find and a qualified archaeologist shall be retained to determine the most appropriate course of action regarding the resource. The Archaeologist shall make recommendations to the City on the actions that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with §15064.5 of the *CEQA Guidelines*. Cultural resources could consist of, but are not limited to, stone artifacts, bone, wood, shell, or features, including hearths, structural remains, or historic dumpsites. Any previously undiscovered resources found during construction within the project area ~~should~~ shall be recorded on appropriate California Department of Parks and Recreation forms and evaluated for significance in terms of CEQA criteria. If the resources are determined to be unique historic resources as defined under §15064.5 of the *CEQA Guidelines*, ~~mitigation measures shall be identified by the Archaeologist and recommended to the City. Appropriate~~appropriate protective actions for significant resources ~~could include~~ such as avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds shall be implemented by the project archaeologist and the City.

No further grading shall occur in the area of the discovery until the City and project archaeologist approve the measures to ~~protect~~address these resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution approved by the City where they would be afforded long-term preservation to allow future scientific study.

~~In addition, reasonable efforts to avoid, minimize, or mitigate adverse effects to the property will be taken and the SHPO and Native American tribes with concerns about the property, as well as the Advisory Council on Historic Preservation will be notified within 48 hours in compliance with 36 CFR 800.13(b)(3)~~

Response to Comment A-3-24. Refer to Response to Comment A-3-23.

Response to Comment A-3-25. Refer to Response to Comment A-3-23.

Response to Comment A-3-26. Refer to Response to Comment A-3-23.

Response to Comment A-3-27. Refer to Response to Comment A-3-23.

Response to Comment A-3-28. Refer to Response to Comment A-3-23.

Response to Comment A-3-29. The City has reviewed the mitigation measure the Tribe has recommended and has determined the proposed measure will not be necessary.

Response to Comment A-3-30. The City has reviewed the mitigation measure the Tribe has recommended and has determined the proposed measure will not be necessary.

Response to Comment A-3-31. The City will continue to work with the Pechanga Tribe during all future environmental compliance reviews and discretionary project processing.

Letter A-4: United States Environmental Protection Agency (April 8, 2013)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

Letter A-4

April 8, 2013

John Terell
Planning Official
City of Moreno Valley
14177 Frederick St.
Moreno Valley, CA, 92553

Subject: Proposed World Logistics Center Project, Draft Environmental Impact Report

Dear Mr. Terell:

The U.S. Environmental Protection Agency (EPA) became aware of the proposed World Logistics Center project in the City of Moreno Valley after being contacted by a resident concerned with potential air quality impacts from the project. Although EPA generally limits our review to Environmental Impact Statements required to comply with the National Environmental Policy Act, we do periodically review Environmental Impact Reports (EIR) if the potential impacts are substantial. Based on the concerns that were brought to our attention, EPA conducted a limited review of the World Logistics Center Project Draft EIR, dated February 4, 2013. Our review focused on potential air quality and health-related impacts. 1

The Draft EIR acknowledges that the proposed project is in an area that currently does not meet EPA's National Ambient Air Quality Standards and is classified as extreme nonattainment for 8-hour ozone, serious nonattainment for PM_{10}, and nonattainment for $PM_{2.5}$. For this reason, it is critical to identify and commit to all available mitigation measures to reduce air quality impacts as much as possible. The Draft EIR states that emissions from the construction and operation of the proposed project, even with the proposed mitigation measures, would lead to significant and unavoidable air quality impacts and would expose sensitive receptors to substantial pollutant concentrations (pages 1-2, Appendix A). The document further states that the project would exceed South Coast Air Quality Management District regional significance thresholds for volatile organic compounds, nitrogen oxides, carbon monoxide, PM_{10}, and $PM_{2.5}$. 2

To avoid or minimize the air quality impacts from the proposed project, we encourage the City to consider using the most robust mitigation measures available. Section 4.3 of the Draft EIR lists mitigation measures for the construction and operation of the proposed project. In addition to these measures, we suggest that the City consider implementing the mitigation measures listed below. 3

- Limit idling of heavy equipment and trucks to less than 5 minutes and verify compliance through unscheduled inspections. Information about the California Air Resources Board (CARB) mobile source anti-idling requirements is available at: http://www.arb.ca.gov/msprog/truck-idling/truck-idling.htm.
- Limit the use of the facility to zero/near-zero emission trucks meeting, at a minimum EPA's Tier 4 2010 emissions standards.

- Larger Tier 4 construction equipment will be more widely available in 2015.[1] If practicable, starting in 2015, limit construction equipment to EPA's Tier 4 emission standards. 3
- Commit to the use of construction equipment powered by alternative fuels (i.e., biodiesel, compressed natural gas, and electricity).

Furthermore, we suggest that the City review and consider the mitigation measures included in the Mitigation Monitoring and Reporting Program discussed in the Consent Judgment for *Center for Community Action and Environmental Justice et al. v. County of Riverside et al,* February 14, 2013.[2] Specifically, we recommend that the City consider restricting truck routes from accessing roads next to residential areas; enforcing the California Air Resources Board's anti-idling regulation; establishing a diesel minimization plan; and utilizing its best efforts to analyze whether this project, and future projects subject to the California Environmental Quality Act, may impact certain overburdened communities and sensitive populations. 4

Lastly, we recommend that Section 4.3 of the Draft EIR be updated to describe the communities that would be impacted by air emissions from the proposed project. We encourage the City to evaluate any relevant and available demographic, socioeconomic, health, and environmental data to assess whether potential environmental justice concerns exist. We suggest that the City analyze and disclose the potential for certain subpopulations and overburdened communities to be more adversely affected by air pollution, and identify specific mitigation measures to address impacts to these populations. The additional analysis may identify a need to further lessen, mitigate, or avoid completely potential emissions from the World Logistics Center. Further, such an analysis may lead to specific design changes aimed at maintaining or improving the health of affected residents. 5

Please contact me, at (415) 972-3144, or Jacquelyn Hayes, of my staff, at (415) 972-3259 or hayes.jacquelyn@epa.gov, if EPA can be of assistance in this matter.

Sincerely,

Angeles Herrera
Associate Director
Communities and Ecosystems Division

cc: Ian MacMillan, SCAQMD
Arsenio Mataka, Cal/EPA
Hasan Ikhrata, SCAG

[1] More information is available at http://www.dieselnet.com/standards/us/nonroad.php.
[2] A copy of the consent judgment is available at http://oag.ca.gov/sites/all/files/agweb/pdfs/environment/mira_loma_settlement.pdf.

RESPONSES TO LETTER A-4

United States Environmental Protection Agency (April 8, 2013)

Response to Comment A-4-1. The United States Environmental Protection Agency (EPA) stated their right to review the EIR and make comments. The City acknowledges the EPA's authority and interest in commenting on the WLC project Draft Environmental Impact Report (DEIR).

Response to Comment A-4-2. The City acknowledges that the EPA's primary concern is regarding air quality, including criteria air pollutants such as particulates and ozone. The EPA also correctly summarizes the results of the EIR regarding air pollutants that will exceed the SCAQMD's significance criteria: volatile organic compounds; oxides of nitrogen; carbon monoxide; and both large and small particulates. The EIR outlines a number of measures that could help reduce or mitigate project emissions (Mitigation Measures (MMs) 4.3.6.1A through 4.3.6.1N), as discussed in Section 4.3 of the corrected DEIR which is Volume 2 of this Final Environmental Impact Report (FEIR) document. Due to the size and type of project proposed, it is not possible to reduce project emissions to less than significant levels.

Response to Comment A-4-3. The commenter suggested mitigation measures, as discussed below. Please see the Mitigation Monitoring Reporting Program (FEIR Volume 1) for a list of the current project mitigation measures.

Suggested Mitigation Measure	Response
1. Limit idling of heavy equipment and trucks to less than 5 minutes and verify compliance through unscheduled inspections.	**Partially Included.** MM 4.3.6.2A includes idling restrictions during construction, which reduce idling time to 3 minutes. MM 4.3.6.3B includes idling restrictions during operation and also requires that signs be posted with a number to report idling violations. The Air Resources Board (ARB) can also inspect and impose fines of $300 to $1,000 (www.arb.ca.gov/msprog/truck-idling/factsheet.pdf).
2. Limit the use of the facility to zero/near-zero emission trucks meeting, at a minimum EPA's Tier 4 2010 emissions standards.	**Partially Included.** Diesel trucks are required to be model year 2010 or later pursuant to MM 4.3.6.3B. This was a project design feature in the DEIR and has been added as a mitigation as part of the FEIR (FEIR Volume 2, Section 4.3 Air Quality). However, the requirement of zero and near-zero trucks are not feasible as discussed in Master Response-3, Zero Emission and Hybrid Electric Trucks, Vehicles, and Equipment.
1. Larger Tier 4 construction equipment will be more widely available in 2015. If practicable, starting in 2015, limit construction equipment to EPA's Tier 4 emission standards.	**Included.** MM 4.3.6.2A, has been refined and requires Tier 4 equipment for all diesel off-road equipment greater than 50 horsepower.
2. Commit to the use of construction equipment powered by alternative fuels (i.e., biodiesel, compressed natural gas, and electricity).	**Partially Included.** MM 4.3.6.2A includes a requirement to provide electrical hook ups to the power grid. However, to require biodiesel or natural gas for construction is not feasible because of the availability and sourcing of those types of equipment.

Response to Comment A-4-4. The commenter suggested that the City review and consider the mitigation measures in the Mitigation Monitoring and Reporting Program discussed in the Consent Judgment for *Center for Community Action and Environmental Justice et al. v. County of Riverside et al*, February 14, 2013 (the Mira Loma project). There are a variety of measures in that document (the

commenter did not provide the document, but it can be found at the following website:http://oag.ca.gov/system/files/attachments/press_releases/Mira%20Loma%20-%20Consent%20Judgment_0.pdf). The measures are summarized in the following table.

Suggested Mitigation Measure	Response
Restricted Truck Route Ordinance. Restrict truck routes from accessing roads next to residential areas.	**Already Included.** Section 3.3.3 of the Specific Plan, Truck Circulation, indicates the following: "The World Logistics Center plan directs all heavy truck traffic to SR-60 and Gilman Springs Road and away from Redlands Boulevard (south of Eucalyptus) and Cactus Avenue. These prohibitions are incorporated in the City's Truck Route Ordinance."
Air Filtration Systems. Applicants shall fund the purchase, installation, and maintenance of in-home air filtration systems for qualifying residential parcels.	**Not Incorporated.** Air filtration systems are not required as discussed in Master Response, Air Filtration Systems for Residences In Responses to Comment Letter C-3.
Anti-idling Regulation. Enforce the ARB's anti-idling regulation.	**Already Included.** MM 4.3.6.2A includes idling restrictions during construction that reduce allowed idling time to 3 minutes. MM 4.3.6.3B includes idling restrictions during operation.
Clean Trucks. Require trucks greater than 16,000 pounds meet or exceed 2007 model year emissions standards.	**Already Included.** The requirement of model year 2010 or newer trucks was a project design feature in the DEIR; however, this is now included in MM 4.3.6.3B to demonstrate the emissions reductions.
Buffers. Establish landscaped setbacks between some residences and the project.	**Already Included.** The World Logistics Center Specific Plan (WLCSP) requires that buildings must be set back 250 feet from residentially zoned property. In addition, MM 4.1.6.1A also requires a 250 setback.
Solar. Solar ready buildings; apply for solar funding.	**Incorporated.** The FEIR includes rooftop solar (MM 4.16.4.6.1C).
Air Monitoring. Measure black carbon and/or other indicators of diesel particulate matter.	**Not Included.** This would not provide any benefit for the project and would not reduce emissions or impacts. Air monitoring would not be able to distinguish pollutant levels of the project from all other sources of emissions in the project area (from other projects and the adjacent freeway). There will be future CEQA review on project level plot plans, which would confirm consistency with the assumptions made in the programmatic EIR. If a project level analysis is found inconsistent then it may be required to perform its own Health Risk Assessment (HRA).
Electrification. Project applicant to install and maintain a minimum of two Level 2 Electric Vehicle Supply Equipment at each plot plan with buildings over 100,000 square feet. (Also requires one Level 3 station at one of the plots.)	**Already Included.** MM 4.3.6.3C requires an onsite alternative fueling station. MM 4.3.6.4A requires electric vehicle-charging stations at each building and requires electrical power sources for service equipment and docking of trucks. The type of electrical station is not specified to allow for advances in electrical technology.
LEED. Buildings in excess of 100,000 square feet shall be LEED Silver or higher.	**Partially Included.** In the FEIR, the project has incorporated MM 4.16.4.6.1C; a summary is provided below (please refer to the Mitigation Monitoring Reporting Program for exact wording): 1) Install solar panels with a capacity equal to the peak daily demand for the office uses in each warehouse building; 2) Increase efficiency for buildings by implementing either 10 percent over the 2008 Title 24's energy saving requirements or the Title 24 requirements in place at the time the building permit is approved, whichever is more strict; and

Suggested Mitigation Measure	Response
	3) Require the equivalent of "Leadership in Energy and Environmental Design Certified" for the buildings constructed at the World Logistics Center based on Leadership in Energy and Environmental Design Certified standards in effect at the time of project approval.

The commenter also recommends that the project establish a "diesel minimizing plan." However, details regarding this plan were not included within the letter. The project contains a variety of project design features and mitigation measures to reduce diesel particulate matter emissions, including the following: requiring that heavy duty diesel trucks be model year 2010 or later (MM 4.3.6.3B), requiring Tier 4 onsite construction equipment (MM 4.3.6.2A), and requiring non-diesel onsite equipment (MM 4.3.6.3B and project design features).

The commenter also recommends analyzing whether this project and future projects subject to CEQA may impact certain overburdened communities and sensitive populations. As described in Section 4.3 and in Master Response-2 below, the latest research demonstrates that there is no cancer risk from new technology diesel exhaust produced by diesel engines equipped with a diesel particulate filter. As a result, the proposed project will not result in a significant health risk impact. Nonetheless, a localized analysis and the health risk assessment is in the DEIR (Section 4.3) and in the revised analysis assessed the potential impact of project emissions to a wide range of sensitive receptors extending from Palm Springs to the ports of Los Angeles and Long Beach. The results after mitigation were that offsite receptors would receive less than significant impacts. This is primarily due to additional mitigation such as the use of Tier 4 construction equipment and lower emission rates for heavy-duty trucks published by CARB. Under recently adopted OEHHA methodology (which incorporates age sensitivity factors, 30-year exposure duration, and higher breathing rates for a more conservative analysis), there would be a significant impact for three homes within the project site. However, as mentioned above, the latest research shows that new technology diesel exhaust does not cause cancer and would not result in a significant impact.[12] The localized analysis and the health risk assessment took into account cumulative traffic. The localized analysis also accounted for existing background concentrations of air pollutants. Refer to pages 4.3-58 through 4.3-66 in the DEIR for the localized analysis and pages 4.3-71 through 4.3-83 for the health risk assessment. In addition, please refer to the revised analysis (see Master Response-1 in Response to Comment Letter C-3), which indicates that with refined construction and operational assumptions and emission factors, impacts are reduced.

The commenter suggests the EIR conduct an environmental justice analysis of the project air quality impacts on minority of low socioeconomic communities. The onsite rural residences, and the residential community immediately adjacent to the western boundary of the WLC project site, would be the primary receptors of air quality and health risk impacts of the WLC project. Localized air quality impacts outside of the project boundaries are less than the South Coast Air Quality Management District (SCAQMD's) localized air quality thresholds that were devised under the SCAQMD's Environmental Justice Initiative #4. None of these areas have high minority or Hispanic populations compared to the City as a whole. This conclusion is supported by the following comparison of the 2010 federal census data for the WLC property and the long established residential neighborhoods west and southwest of the WLC site (census tracts 426.24, 426.22, and 487.00 respectively):

[12] "Advanced Collaborative Emissions Study" published by the Health Effects Institute (HEI) in 2015 (Research Report 184 final). The HEI consists of governmental and private industry representatives including the U.S. Department of Energy, U.S. EPA, engine manufacturers, the petroleum industry, CARB, emission control manufacturers, the National Resources Defense Council, and others.

Race/Ethnic Group	City-Wide	CT 426.24	CT 426.22	CT 487.00
White	41.9%	51.5%	34.8%	34.1%
Black/African American	18.0%	13.1%	19.2%	28.3%
Asian	6.1%	6.3%	15.5%	10.2%
Native American	1.5%	0.7%	0.9%	1.2%
Other	32.5%	28.4%	29.6%	26.2%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Hispanic	54.4%	45.3%	44.2%	40.7%

Source: 2010 Census website http://www.census.gov/2010census/popmap/ipmtexl.php?fl=06
NOTES: CT = Census Tract (from U.S. 2010 federal census)
CT 426.24 includes WLC site, Mystic Lake, and neighborhoods along Redlands west to Moreno Beach Drive
CT 426.22 includes neighborhoods west of Moreno Beach Drive
CT 487.00 includes neighborhoods southwest of Moreno Beach Drive
Race categories = Other includes all other race categories plus those who indicated two races or more
Hispanic – ethnic category that is separate from race categories (i.e., can overlap several races)

The 2010 census data shows the 3 census tracts in and around the WLC site have a lower proportion of Hispanics than the City-wide figure (i.e. 10-14% less than the City total), so these neighborhoods would not be considered high minority or low socioeconomic status areas. Therefore, no further environmental justice analysis is necessary.

It should be noted that race data for the onsite residences is not provided because there are only 7 residences and privacy could not be maintained if detailed census block data from census tract 426.24 was released for these residences.

Most of the air quality impacts of the WLC project will be within the project boundaries, generally east of Redlands Boulevard/Merwin Street, south of SR-60, west of Gilman Springs Road, and north of the San Jacinto Wildlife Area. There is no empirical evidence that these incremental increases in project emissions, and the related incremental increase in regional air pollutants from project-related diesel truck emissions, will have significant health impacts on minority or low socioeconomic communities adjacent to these freeways.

Note about the term "Hispanic"

According to Wikipedia…Due to the technical distinctions involved in defining "race" vs. "ethnicity," there is confusion among the general population about the designation of Hispanic identity. Currently, the United States Census Bureau defines five race categories: (1) White; (2) Black or African American; (3) Native American or Alaska Native; (4) Asian; and (5) Native Hawaiian or Other Pacific Islander.

According to census reports, of the above races the largest number of Hispanic or Latinos are of the White Race, the second largest number come from the Native American/American Indian race who were the indigenous people of the Americas. The inhabitants of Eastern Island are Pacific Islanders and since the island belongs to Chile they are theoretically Hispanic or Latinos. Because Hispanic roots are considered aligned with a European ancestry (Spain), Hispanic/Latino ancestry is defined solely as an ethnic designation (similar to being Norse or Germanic). Therefore, a person of Hispanic descent is typically defined using both race and ethnicity as an identifier—i.e., Black-Hispanic, White-Hispanic, Asian-Hispanic, Amerindian-Hispanic or "other race" Hispanic.

The term "Hispanic" broadly refers to the culture, peoples, or nations with a historical link to Spain. The term commonly applies to countries once colonized by Spain, particularly the countries of Latin America that were colonized by Spain. It could be argued that the term should apply to all Spanish speaking cultures or countries, as the historical roots of the word specifically pertain to the Iberian region. It is also difficult to label a culture with one term, such as Hispanic, as the customs, traditions, beliefs and art forms (music, literature, dress, architecture, cuisine or others) vary widely depending on country and even within the regions of said country. (Wikipedia website accessed February 23, 2014).

Letter A-5: Soboba Band of Luiseño Indians (April 8, 2013)

Letter A-5

RECEIVED
APR 24 2013
CITY OF MORENO VALLEY
Planning Division

SOBOBA BAND OF LUISEÑO INDIANS
EST. JUNE 19, 1883

April 8, 2013

Attn: Mark Gross, AICP Senior Planner
City of Moreno Valley Planning Division
14177 Frederick Street
Moreno Valley, CA 92553

Re: World Logistics Center Project, Draft EIR (SCH#2012021045)

The Soboba Band of Luiseño Indians appreciates your observance of Tribal Cultural Resources and their preservation in your project. The information provided to us on said project has been assessed through our Cultural Resource Department, where it was concluded that although it is outside the existing reservation, the project area does fall within the bounds of our Tribal Traditional Use Areas. This project location is in close proximity to known village sites and is a shared use area that was used in ongoing trade between the Luiseno and Cahuilla tribes. Therefore it is regarded as highly sensitive to the people of Soboba. 1

Soboba Band of Luiseño Indians is requesting the following:

1. **Government to Government** consultation in accordance to Section 106. Including the transfer of information to the Soboba Band of Luiseno Indians regarding the progress of this project should be done as soon as new developments occur. 2
2. The transfer of information to the Soboba Band of Luiseno Indians regarding the progress of this project should be done as soon as new developments occur. 3
3. Soboba Band of Luiseño Indians continues to act as a consulting tribal entity for this project. 4
4. Working in and around traditional use areas intensifies the possibility of encountering cultural resources during the construction/excavation phase. For this reason the Soboba Band of Luiseño Indians requests that a Native American monitoring component be included as a mitigation measure for the environmental impact report. The Tribe is requesting that a Treatment and Dispositions Agreement between the developer and The Soboba Band be provided to the City of Moreno Valley prior to the issuance of a grading permit and before conducting any additional archaeological fieldwork. 5
5. Request that proper procedures be taken and requests of the tribe be honored (Please see the attachment) 6

The Soboba Band of Luiseno Indians is requesting a face-to-face meeting between the City of Moreno Valley and the Soboba Cultural Resource Department. Please contact me at your earliest convenience either by email or phone in order to make arrangements.

Sincerely,

Joseph Ontiveros
Director of Cultural Resources
Soboba Band of Luiseño Indians
P.O. Box 487
San Jacinto, CA 92581
Phone (951) 654-5544 ext. 4137
Cell (951) 663-5279
jontiveros@soboba-nsn.gov

Coordination with County Coroner's Office. The Lead Agencies and the Developer should immediately contact both the Coroner and the Soboba Band in the event that any human remains are discovered during implementation of the Project. If the Coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, the Coroner shall ensure that notification is provided to the NAHC within twenty-four (24) hours of the determination, as required by California Health and Safety Code § 7050.5 (c).

Non-Disclosure of Location Reburials. It is understood by all parties that unless otherwise required by law, the site of any reburial of Native American human remains or cultural artifacts shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, parties, and Lead Agencies, will be asked to withhold public disclosure information related to such reburial, pursuant to the specific exemption set forth in California Government Code § 6254 (r). Ceremonial items and items of cultural patrimony reflect traditional religious beliefs and practices of the Soboba Band. The Developer agrees to return all Native American ceremonial items and items of cultural patrimony that may be found on the project site to the Soboba Band for appropriate treatment. In addition, the Soboba Band requests the return of all other cultural items (artifacts) that are recovered during the course of archaeological investigations. Where appropriate and agreed upon in advance, Developer's archeologist may conduct analyses of certain artifact classes if required by CEQA, Section 106 of NHPA, the mitigation measures or conditions of approval for the Project. This may include but is not limited or restricted to include shell, bone, ceramic, stone or other artifacts.

RESPONSES TO LETTER A-5

Soboba Band of Luiseño Indians

Response to Comment A-5-1. The Band has provided comments regarding these facts, and their response letter has been reproduced in Appendix B of the Cultural Resources Assessment (Final Environmental Impact Report (FEIR) Volume 2 Appendix F).

Response to Comment A-5-2. Government-to-Government consultations have been underway between the City and staff from both Pechanga Cultural Resources and the Soboba Band of Luiseno Indians. On May 30, 2012, the City met with Pechanga Cultural Resources staff. On November 27, 2012, the City met with the Soboba Band. Both meetings took place at City Hall and were informational in nature. The meetings were in direct response to letters from the two Tribal agencies requesting consultation. Staff has not met with Pechanga Cultural Resources or the Soboba Band of Luiseno Indians since the release of the Draft Environmental Impact Report (DEIR). The City has indicated that consultations will continue to occur with both the Pechanga Cultural Resources and the Soboba Band of Luiseno Indians throughout the duration of the World Logistics Center (WLC) project at the request of the tribal groups. Both groups will receive all future project notices.

Response to Comment A-5-3. Government-to-Government relations regarding this project have been opened as part of the Senate Bill 18 process and the City will provide the Band with information regarding all subsequent development within the WLC.

Response to Comment A-5-4. The City will continue to provide government-to-government consultation with all interested tribal groups The City is not familiar with the term “consulting tribal entity.”

Response to Comment A-5-5. Existing mitigation measures in the EIR (see Mitigation Measure (MM) 4.5.6.1D see Response to Comment A-3-23) allow all appropriate tribal groups to monitor earthmoving during grading. Project-specific agreements with grading monitors are premature at this point in the process. The City requires that all appropriate tribal groups be invited to monitor grading prior to the issuance of project-specific grading permits.

Response to Comment A-5-6. The codes that the Soboba Band cites in this comment are State laws associated with the discovery of human remains (HSC 7050.5c), the City and project archaeologists are required to follow them as well as the specific mitigation measures outlined in the DEIR (Section 4.5.2.2, State Health and Safety Code) regarding the disposition of human remains found during any excavations. State law requires human remains of pre-historic origin be returned to the Most Likely Descendant (MLD) for disposition. The determination of the MLD is made by the Native American Heritage Commission and is outside of the purview of the project proponent or the City.

MM 4.5.6.1A, 4.5.6.1B, 4.5.6.1C and 4.5.6.1D requires the project archaeologist to consult with tribes once any archaeological finds are made during construction. Each of these measures have been edited slightly to indicate that the City, after discussion with the project archaeologist and with consultation with tribal groups, is the Lead Agency that must fulfill measures associated with potential impacts to significant cultural resources and/or human remains. Refer to Response to Comment A-3-23 to see revised MM 4.5.6.1A through 4.5.6.1E.

Lastly, since more than one tribe may be involved in that consultation, and may be involved during grading and monitoring, it is not possible to stipulate or determine, as part of this EIR, that the Soboba Band or any other tribe must be designated as the party to which any ceremonial items are returned for disposition.

Letter A-6: United States Fish and Wildlife Service (April 22, 2013)

Letter A-6

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Palm Springs Fish and Wildlife Office
777 East Tahquitz Canyon Way, Suite 208
Palm Springs, California 92262

In Reply Refer To:
FWS-WRIV-12B0159-13CPA0091

Mr. Mark Gross
City of Moreno Valley
Community and Economic Development Department
14177 Frederick Street
Moreno Valley, California 92552

APR 22 2013

Subject: Draft Environmental Impact Report, World Logistics Center Project, City of Moreno Valley, Riverside County, California

Dear Mr. Gross:

The U.S. Fish and Wildlife Service (Service) has reviewed the Draft Environmental Impact Report (DEIR) for the World Logistics Center Project (Project) and appreciates the opportunity to comment. The proposed Project is located on 3,820 acres of land in the city of Moreno Valley (City) in Riverside County, south of State Route 60 between Redlands Boulevard and Gilman Springs Road, and is adjacent to the San Jacinto Wildlife Area (SJWA). The proposed Project is a master plan for development of up to 41.6 million square feet of building area for high-cube logistics warehouse distribution facilities. The Project includes a General Plan Amendment, adoption of a Specific Plan, a Zone Change, a Development Agreement, a Tentative Parcel Map, and an annexation. 1

The primary concern and mandate of the Service is the protection of public fish and wildlife resources and their habitats. The Service has legal responsibility for the welfare of migratory birds, anadromous fish, and endangered animals and plants occurring in the United States. The Service is also responsible for administering the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*). The Service is providing the following comments in keeping with our agency's mission to work with others to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people and the Project's consistency with the Western Riverside County Multiple Species Habitat Conservation Plan. 2

On June 22, 2004, the Service issued a section 10(a)(1)(B) permit for the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The MSHCP established a multiple species conservation program to minimize and mitigate habitat loss and the incidental take of covered species in association with activities covered under the permit. Under the MSHCP, Permittees conduct covered activities consistent with the MSHCP, its associated Implementing Agreement, and section 10(a)(1)(B) permit issued. The City of Moreno Valley is an MSHCP Permittee and the Project is within the MSHCP Plan Area. 3

The proposed Project site and associated infrastructure improvements (i.e., offsite road improvements, debris basins, etc.) are located in MSHCP Criteria Cell Groups T, X, D'and E' of the Reche Canyon/Badlands Area Plan. Project features extend into Existing Core H (Lake Perris State Recreation Area/San Jacinto Wildlife Area) to the south, Proposed Core 3 to the north and east, and are adjacent to Existing Public/Quasi Public Lands to the north and south. 3

We are concerned that riparian/riverine resources within on and off site development areas and impacts to those resources may not be appropriately characterized. We also have questions regarding the Project's focused surveys and proposed mitigation for western burrowing owl (*Athene cunicularia hypugea*, burrowing owl) and Los Angeles pocket mouse (*Perognathus longimembris brevinasus*, LAPM). Additionally we have concerns about potential Project impacts to MSHCP reserve assembly and the potential for the project to degrade existing conservation values on the SJWA. Furthermore, we would like to clarify the Project's obligations under the Migratory Bird Treaty Act. The Service requests revising and recirculating the DEIR to address these issues as discussed below. 4

Reserve Assembly

The Project proposes development within Cell Group X. The proposed Project will not preclude reserve assembly in Cell Group X; however wildlife movement between the badlands and the SJWA may be severely restricted. Please include an analysis of wildlife connectivity across Gilman Springs Road post project in the recirculated DEIR. The analysis should include any road improvements or features to facilitate or accommodate wildlife movement across the road and the efficacy of those measures in the presence of project-related increases in traffic. 5

The southern boundary of the Project is adjacent to Cell Group D' and abuts Existing Public/Quasi Public Lands and Existing Core H. The northern offsite infrastructure improvements will extend into the southern portion of Cell Group T and Proposed Core 3. Development within the Criteria Cells is subject to the Joint Project Review (JPR) process, described in Section 6.6.2 of the MSHCP. The DEIR states that the JPR process will be conducted as project specific development applications are made. We encourage the City to complete MSHCP implementation and do a JPR for the entire Specific Plan during CEQA review. This will eliminate uncertainty for future development proponents in the Specific Plan Area and provide clarity regarding the Project's MSHCP compliance. 6

The SJWA is adjacent to and south of the Project site. The DEIR identifies a 250-foot buffer zone between Project development and the SJWA. We appreciate the inclusion of the buffer area in the Specific Plan, but note that the buffer area includes project features and infrastructure, and seeming contradictory expectations regarding function. The buffer area is to be fenced and planted with trees to segregate the project from the SJWA. Yet the DEIR also states that any LAPM or burrowing owls located during future project development will be translocated to the buffer area. Adverse alterations to drainage pattern alterations, Project related ambient noise, pollutant discharge, lighting, and emissions are all to be mitigated to some degree by the proposed buffer. We request an analysis of the Project activities and impacts with the potential to negatively affect the conservation values on the SJWA and the expected efficacy of the proposed 250 foot buffer at alleviating any negative impacts. 7

Riparian/Riverine Resources

The DEIR describes impacts to riparian and/or riverine areas as defined by the MSHCP Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools Policy (Riparian/Riverine Policy, MSHCP section 6.1.2). However, it appears that not all hydrological features within the Project site with characteristics of riparian/riverine resources were considered in the DEIR. Offsite development discussed in the DEIR, Section 3.4.11, includes the construction of four debris basins and one to two water reservoirs. Based on aerial imagery, these Project features appear to have the potential to affect riparian/riverine resources. Riparian/riverine resources include areas that convey water during all or portions of the year even when they do not express water dependent vegetation. We request a revised DEIR which identifies impacts to all hydrologic features covered by the Riparian/Riverine Policy, including those affected by project-related infrastructure outside of the Specific Plan development area. 8

Onsite development plans as depicted in DEIR, Figure 3.18, have potential to impact riparian/riverine resources. According to the DEIR, only Drainage 9 is considered riparian habitat. Drainage features 4, 8, 10, 11, and 12 also appear to be riparian/riverine. According to the Jurisdictional Delineation (Michael Brandman Associates 2012) the drainages have properties which indicate periodic hydrological conveyance. Although the Jurisdictional Delineation stated that the drainages do not have clear connectivity to traditionally navigable waters, these features do have connectivity to the SJWA and its associated hydrological complex, making them subject to the Riparian/Riverine Policy. Furthermore, several of the drainages contain riparian vegetation including mule fat (*Baccharis salicifolia*) and cottonwood (*Populus fremontii*). We request the revised DEIR reassess the hydrologic features on site and discuss the Projects conceptual grading design plans potential to impact riparian/riverine resources. 9

The DEIR states that impacts to riparian/riverine resources are to be mitigated through the preparation of Determinations of Biologically Equivalent or Superior Preservation (DBESPs) as individual projects are approved. As with the JPR process, we encourage the City to implement the Riparian/Riverine Policy and complete MSHCP implementation for the entire Specific Plan area. The DBESP should include an assessment of any impacts from the proposed Project to all hydrologic features covered by the Riparian/Riverine Policy, mitigation for unavoidable impacts to those features and an analysis sufficient to demonstrate that the proposed mitigation would result in preservation equal or superior to an avoidance alternative. 10

The Project requires the construction of debris basins, but the long-term maintenance of the basins was not discussed in the DEIR. Vegetation in that develops in the basins may support nesting birds and other wildlife. If basin maintenance activities are required, we would like to remind the Project applicant that impacts to nesting birds protected under the Federal Migratory Bird Treaty Act (MBTA) of 1918, as amended (16 U.S.C. 703 *et seq.*), must be avoided. The Service recommends the revised DEIR include a discussion of debris basin maintenance activities, potential impacts resulting from maintenance activities and any measures to avoidance, minimization or mitigate those impacts. 11

Additional Survey and Procedure Needs

Burrowing Owl

The proposed Project is located within Additional Survey Needs and Procedure Area for western burrowing owl as described in Section 6.3.2 of the MSHCP. According to the DEIR, habitat assessments and focused burrowing owl surveys were conducted in 2005 (May 10, 20, 23, and August 29); 2007 (May 1, 2, 3, and 4); and 2010 (June 9, 10, 11, and 16). Suitable habitat and small mammal burrows which could be utilized by burrowing owl were recorded throughout the site. In 2005, a single pair of burrowing owls was detected. Mitigation measures 4.4.6.4C commits future development within the Specific Plan Area to preconstruction surveys. We would like to clarify that as part of MSHCP implementation, focused burrowing owl surveys during the nesting season will need to be conducted as part of individual project approvals. We request that measure 4.4.6.4C be revised to require surveys consistent the Burrowing Owl Survey Instructions for the Western Riverside County MSHCP instead of pre-construction surveys. Revised measure 4.4.6.4C should be included in the revised DEIR. 12

Mitigation measure 4.4.6.4D describes procedures for relocating active burrowing owl burrows outside of the breeding season. While the MSHCP does provide for the active translocation of burrowing owls, this activity can only be undertaken when proposed projects affect isolated burrowing owls occupying areas with little or no conservation value. Owls are known from the Project site and given its proximity to existing conservation land it is premature to assume that any owls found onsite can be translocated or evicted. The Service requests that the City and the project proponent work with the California Department of Fish and Wildlife, the Western Riverside County Regional Conservation Authority and us to develop a comprehensive strategy for burrowing owl in the Specific Plan Area. A comprehensive strategy is appropriate given the scale of the proposed Specific Plan if impacts to burrowing owl from build out of the specific Plan are to be mitigated to a level that is biologically equivalent or superior to avoidance, as required by the MSHCP. The comprehensive strategy should be discussed and analyzed in a revised DEIR. 13

Los Angeles Pocket Mouse

The Project site is located within Additional Survey and Procedure Needs for LAPM. Surveys for LAPM were conducted June 27 to July 2, 2010. LAPM were not reported, however, three other species of pocket mice were reported: San Diego pocket mouse (*Chaetodipus fallax* fallax), desert pocket mouse (*Chaetodipus penicillatus*) and long-tailed pocket mouse (*Chaetodipus formosus*). Desert pocket mouse and long-tailed pocket mouse are desert species, not known from western Riverside County or cismontane California, (www.bison.usgs.ornl.gov), and neither have been recorded, trapped or observed in the project vicinity (N. Peterson, CDFW, pers. comm. 2013). (The long-tailed pocket mouse was reported on the project site by same consulting biologist in 2005.) However, the desert pocket mouse resembles the LAPM and the long-tailed pocket mouse resembles the California pocket mouse (*Chaetodipus californicus*), both of which are known from the project vicinity and routinely captured on the SJWA and Lake Perris State Recreation area, immediately south of the proposed project. We request focused LAPM trapping be redone by mammalogists who have familiarity with the local hetromyid (kangaroo rats and pocket mice) fauna. Additionally, the new LAPM survey effort should include trap arrays within the MSHCP LAPM survey area along the northeastern edge of the Specific Plan Area. If the drainage facilities proposed on the north side of Gilman Spring Road are within the LAPM survey area, the infrastructure project areas should be 14

trapped as well. We request that survey results and a DBESP for LAPM be included in a revised DEIR. 14

The DEIR included mitigation measure 4.4.6.4E for loss of habitat and Project impacts to LAPM. Mitigation measure 4.4.6.4E provides that if the species is found within the specific survey area, no development shall occur until an appropriate mitigation fee is paid or appropriate amount of land set aside on the project site or off site to compensate for any loss of occupied LAPM habitat. Alternatively, individuals may be relocated to the 250-foot setback zone along the southern boundary of the property. The area described in this measure is also described for burrowing owl conservation and relocation. The Service requests that the City and the project proponent work with the California Department of Fish and Wildlife, the Western Riverside County Regional Conservation Authority and us to develop a comprehensive strategy for LAPM in the Specific Plan Area. A comprehensive strategy is appropriate given the scale of the proposed Specific Plan if impacts to LAPM from build out of the specific Plan are to be mitigated to a level that is biologically equivalent or superior to avoidance. The comprehensive strategy should be discussed and analyzed in a revised DEIR. 15

Translocation and On-site Conservation Area

As discussed previously, the Service is concerned about the role of the proposed 250-foot buffer area. The DEIR prescribes translocation of listed flora, burrowing owl, LAPM, and calls for the area to serve as a buffer that will act as a sequester zone for project emission, noise, and lighting pollution. It is not appropriate as a receptor site for either LAPM or burrowing owl. It is insufficient in terms of area, spatial configuration, and planned use. Burrowing owls are a species of raptor which prey on small mammals such as the LAPM. Translocation within this narrow, relatively restricted area may exacerbate the existing predator prey relationship between the species and subsequently increase local population depredation frequencies (McKinney et. al. 2006). Furthermore, burrowing owls require large open expanses of sparsely vegetated area to forage and nest. The buffer area is to be planted with trees. Trees offer perch sites to bird eating raptors, such as red-tailed hawks, which eat burrowing owls. We request that a revised DEIR propose comprehensive strategies for Project effects to LAPM and burrowing owl as discussed above. 16

Migratory Birds

The MBTA protects migratory birds, and their nests, eggs, young, and parts from possession, sale, purchase, barter, transport, import, and export, and take. For the purposes of the MBTA, "take" is defined as "to pursue, hunt, shoot, wound, kill, trap, capture, or collect," or attempt to engage in any of the aforementioned activities (50 C.F.R. § 10.12). We appreciate the inclusion of mitigation measures 4.4.6.4A and 4.4.6.4B to avoid effects to nesting birds. However, we request that the words 'special status' be removed from 4.4.6.4B because the MBTA applies to all nesting birds included in the MBTA,(virtually all birds expected in the Project area), not just those with sensitive status. Please note, the Service recommends a 300-foot buffer for non-listed birds and a 500-foot buffer for special status birds and raptor species. We also recommend that a biological monitor be present to monitor the effects of construction on any active nests and to ensure that there is no encroachment into the buffer zone. 17

We appreciate the opportunity to comment on the DEIR. If you have questions or comments regarding this letter, please contact Christ Allen of the Service at 760-322-2070, extension 215.

Sincerely,

Kennon A. Corey
Assistant Field Supervisor

Literature Cited:

Peterson, N. 2013. Biologist. California Department of Wildlife (CDFW). Electronic Mail to Chris Allen, U.S. Fish and Wildlife Service, Palm Springs, California, March 12, 2013.

Michael Brandman Associates. 2012. Assessment of Jurisdictional Waters and Wetlands World Logistics Center Specific Plan. Prepared for Highland Fairview Operating Company. April 23, 2012.

McKinney, T., J. C. Devos, W. B. Ballard, and S. R. Boe. 2006. Mountain lion predation of translocated desert bighorn sheep in Arizona, Wildlife Society Bulletin, vol. 34, no. 5, pp. 1255–1263, 2006.

RESPONSES TO LETTER A-6

United States Fish and Wildlife Service (USFWS)

Response to Comment A-6-1. The commenter has accurately described the project examined in the DEIR. Subsequent to circulation of the Draft Environmental Impact Report (DEIR), 100 acres was removed from the World Logistics Center Specific Plan (WLCSP) site which also removes 1 million square feet of logistics development of the proposed project. The revised DEIR document (Final Environmental Impact Report (FEIR) Volume 2) evaluates the impacts of the revised project, which are generally equivalent to those of the project evaluated in the DEIR. These changes will incrementally reduce overall impacts of the WLC project.

Response to Comment A-6-2. The City acknowledges the USFWS' statutory and regulatory responsibilities regarding comments on environmental documents such as the WLCSP EIR.

Response to Comment A-6-3. The USFWS has accurately summarized the approval of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), the fact the City participates in that program, and the MSHCP Criteria Cells located just south of the WLC project site.

Response to Comment A-6-4. These introductory statements provide a summary of the concerns that USFWS has on the Program Level EIR. These statements are further discussed in the following Responses in which they appear in the comment letter: Reserve Assembly (Responses to Comments A-6-5 through A-6-7), Riparian/Riverine Resources (Responses to Comments A-6-8 through A-6-11), Additional Survey and Procedure Needs (Responses to Comments A-6-12 through A-6-15), and Migratory Birds (Response to Comment A-6-17). In addition, comments regarding Translocation and On-site Conservation Area are discussed in (Response to Comment A-6-16), but were not included in the USFWS statement under Comment A-6-4.

Response to Comment A-6-5. The USFWS comments on the restriction of wildlife movement between the badlands and the San Jacinto Wildlife Area (SJWA). Portions of the WLCSP are contained within the western portion of Cell Group X and will not preclude Reserve Assembly within Cell Group X. Wildlife movement between the Badlands and the SJWA within the WLCSP is already restricted by State Route 60 and Gilman Springs Road. Existing culverts under Gilman Springs road are currently unusable due to sediment blockage. In addition, the actively disked agricultural fields within the WLCSP site limit the amount of vegetative refugia (i.e., refuge) often required for smaller animals to travel back and forth between the Badlands and the SJWA. Based on current conditions, development of the project site will not likely adversely affect wildlife movement. As a project design feature, the project will maintain Drainage 9 as a natural occurring drainage, augmented with some minor erosion control features, to maintain a wildlife travel path within the eastern portion of the WLCSP. Under the proposed Specific Plan, existing Alessandro Boulevard will be reconstructed and the existing culvert drainage facility will be replaced with a bridge structure, which will allow wildlife species to travel from Gilman Springs Road to the SJWA without having to cross a paved road. The existing marginal riparian habitat within Drainage 9 will be enhanced following the installation of the erosion control devices, which will reduce erosion and downstream sediment deposition as well as provide opportunities to create additional riparian habitat.

As described in the DEIR on page 4.4-17. the MSHCP Conservation Area is made up of existing and proposed "Core" areas, or large assemblages of public land that contain important habitat and listed or sensitive species populations. The core areas are connected by a series of "linkages" or "corridors" identified across public and private lands to allow wildlife movement and genetic connectivity and diversity among the core areas. The MSHCP identifies conservation areas through a series of "criteria cells" within which certain biological resources (i.e., vegetation and/or physical features) should be preserved over the long term. The WLCSP is not located within any areas designated as an existing or proposed linkage or corridor.

As stated in the Draft Habitat Assessment and MSHCP Consistency Analysis (FCS-MBA 2013) (hereafter MSHCP Consistency Analysis), in Section 2.2.5, wildlife corridors link together areas of suitable habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. Corridors effectively act as links between different populations of a species. The WLCSP was assessed to determine if a wildlife movement corridor occurs on or within any portion of the WLCSP. Due to the location of the WLCSP, there is a potential to impede daily activity of local wildlife species that travel to and from the adjacent badlands south toward Mystic Lake. This is more appropriately referred to as a travel path and not a wildlife movement corridor. The travel path associated with the WLCSP is small in comparison to the large badlands area that continues south along the east side of the WLCSP and connects to the SJWA.

Potential project design features include a crossing of Drainage 9, reconstruction of the existing Alessandro Road, under crossings at Gilman Springs Road, and re-contouring of the upland swale portion of Drainage 9 to allow for easier access into Drainage 9 to allow it to remain as a natural travel path and may be enhanced to promote erosion control, water quality enhancements, travel usage by local wildlife species, to reduce impacts to wildlife movement corridors to less than significant. Details of Drainage 9 improvements and the surrounding area will be developed as specific projects are designed, developed, and approved. In addition, MSHCP fees will be used to purchase off-site conservation lands that could be used for conservation of large established or proposed wildlife movement corridors as described in the MSHCP.

Response to Comment A-6-6. The USFWS suggests that the City complete MSHCP implementation and Joint Project Review (JPR) for the entire Specific Plan during CEQA review. An MSHCP Consistency Analysis and a Determination of a Biologically Equivalent or Superior Preservation (DBESP) Analysis have been prepared and are currently in process of being reviewed by the City of Moreno Valley and Riverside Conservation Authority (RCA) as part of the JPR process.

Response to Comment A-6-7. Comments were made about the contradictory uses of the 250-foot buffer zone between project development and the SJWA. The proposed 250-foot buffer area is provided to introduce a significant permanent physical separation between future WLC buildings and the adjacent SJWA property. There is also an additional 150-foot setback from the edge of the 250-foot buffer area to the nearest building. Within the buffer area will be substantial native landscaping, property maintenance accesses, landscaped drainage basins, employee and visitor parking and low-profile fencing to block pedestrian and vehicular access to the SJWA from the project site. The landscape design for this area will emphasize native plants with low water use, compatibility with SJWA, habitat value, and nesting and perching for raptors and other birds. Additionally, landscaping of this area will enhance the aesthetic edge, help to reduce noise and light from entering the SJWA area.

The buffer area will also include berms, detention basins, and spreading basins along the southern boundary of the WLCSP, which will help to mitigate potential drainage impacts, provide for the improvement of the quality of storm water runoff entering the SJWA, and provide the opportunity to create significant riparian/riverine habitat as the project develops. Project drainage will be treated in on-site detention basins before entering large storm drain systems made up of bio-swales, retention basins, open drainage courses and underground piping that work to protect against flooding, maximize the infiltration of runoff, minimize downstream erosion and siltation, and to provide habitat where possible.

The drainage facilities as outlined in the project hydrology study will provide suitable earthen berms for possible burrowing owl usage. Based on numerous years of surveys on the WLCSP, no more than one pair of burrowing owl has ever been observed onsite in any one year. Therefore, relocating one pair of burrowing owl within the 250-foot buffer area is not considered potentially significant. Since no

Los Angeles pocket mice (LAPM) have been observed within the project site, no LAPM relocation is anticipated in the buffer area.

In regard to the issue of separating development from existing sensitive habitat, note that in addition to the 250-foot on-site buffer proposed by the project, the closest sensitive riparian habitat within the SJWA is approximately 4,000 feet south of the WLCSP project boundary. Even though the SJWA owns the land immediately south of the WLCSP area, there is a 3,000-foot area between the WLCSP and the edge of the disked agricultural fields currently within the SJWA and another 1,000-foot area of non-native grasslands between the disked agricultural fields and the closest sensitive riparian habitat. There is a total of 4,000 linear feet of open-space between the sensitive habitat of the SJWA and the WLCSP project site. It is important to note that the 910-acre area of the SJWA immediately south of the proposed project was purchased by the State of California in 2001 to, among other things, serves as a buffer between the SJWA and future development to the north (the Moreno Highlands Specific Plan). The acquisition of this buffer area created a State-owned 3,000-foot wide separation between the future development and the SJWA at that time. The WLCSP project is not proposing to seek "credit" for these 910 acres nor use it to mitigate any project impacts. However, the fact that this area provides a buffer between the sensitive areas of the SJWA and new development to the north cannot be disputed. It is serving the purpose for which it was purchased. This property is actively disked for agricultural use and there are no active plans to cease that agricultural activity.

Therefore, the 250-foot on-site buffer area will add to existing buffer areas and help to reduce noise, light, water quality, aesthetics, and air quality impacts of the WLCSP project. It will also provide an opportunity to transplant/relocate sensitive plants and/or burrowing owl if observed during project-specific protocol surveys.

This is a programmatic document and project-level impacts are not being analyzed at this time.

Response to Comment A-6-8. The USFWS made comments about riparian and/or riverine areas that were not addressed in the DEIR. The DEIR did not fully address off-site infrastructure impacts to areas that may be considered Riparian/Riverine Areas. A programmatic-level Determination of Biological Equivalent or Superior Preservation (DBESP) has been prepared (FEIR Volume 2 Appendix E-7) documenting all Riparian/Riverine Areas in the WLCSP project area, including all off-site infrastructure elements. Off-site areas that were not fully addressed in the DEIR, but are addressed in the DBESP, include Drainages 15 and a portion of Drainage 8 north of Gilman Springs Road. These areas include only 0.1 acre of Riparian/Riverine Area that was not evaluated in the DEIR.

Response to Comment A-6-9. The commenter states that some drainage features were incorrectly designated as not riparian/riverine habitat in the DEIR. Based on the MSHCP Guidelines (Section 6.1.2), Riparian/Riverine Areas are lands which contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year. The intent of the designation of riparian/riverine is to protect drainage features that may not otherwise be protected under the jurisdiction of the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB) and/or California Department of Fish and Wildlife (CDFW). Impacts to these features are still considered potentially significant under the MSHCP, even though they may not meet the minimum criteria to be considered jurisdictional by USACE, RWQCB, and/or CDFW.

Based on the DEIR, a single catch basin and portions of Drainage Features 7 and 9 contain riparian plant species and are considered Riparian/Riverine areas, as designated by the MSHCP. Based on further analysis of the requirements for Riparian/Riverine areas under Section 6.1.2 of the MSHCP, the areas described as Riparian/Riverine have been updated and included in the DBESP (FCS 2013 –MBA FEIR Volume 2, Appendix E-7). The single catch basin, previously identified as a

Riparian/Riverine Area, is no longer classified as such. As stated in Section 6.1.2 of the MSHCP, "With the exception of wetlands created for the purpose of providing wetlands habitat or resulting from human actions to create open waters or from the alteration of natural stream courses, areas demonstrating characteristics as described above which are artificially created are not included in these definitions." Therefore, the artificially created catch basins, which were used to collect cow waste, are no longer considered Riparian/Riverine areas.

Based on the MSHCP Consistency Analysis (FCS-MBA 2013-FEIR Volume 2 Appendix E-1) and a programmatic-level DBESP for potential impacts to Riparian/Riverine Areas (FCS-MBA 2013-FEIR Volume 2 Appendix E-7), all Riparian/Riverine Areas affected by on-site or off-site impacts were documented and included in the updated report.

All identifiable and potentially jurisdictional drainages on the site were mapped and included in the DEIR and the draft wetland delineation. Currently regulatory jurisdiction of the features is based on the existing regulatory guidance including the 1987 Regional Supplement to the USACE Wetland Delineation manual: Arid West Region and Rapanos guidance. Prior to any future development, specific project proposals will have to undergo separate environmental review under California Environmental Quality Act (CEQA) and will be required to secure a formal jurisdictional determination from the USACE as well as jurisdictional determinations from the RWQCB and CDFW.

Any impact to drainage features that are under regulatory agency jurisdiction or are considered riparian/riverine areas under the MSHCP are considered potentially significant and will require compensatory mitigation at a minimum of a 1:1 mitigation ratio through either onsite creation, off-site creation, or purchase of available mitigation credits through an approved mitigation bank.

Response to Comment A-6-10. The USFWS encourages the City to implement the Riparian/Riverine Policy and complete the MSHCP implementation for the entire Specific Plan area. Based on the programmatic-level DBESP for potential impacts to Riparian/Riverine Areas (FCS-MBA 2013-FEIR Volume 2 Appendix E-7), all Riparian/Riverine Areas affected by either on-site or off-site impacts were included as potentially significant impacts and mitigation may include on-site creation within detention basins with drainage spreading structures. Based on the 2013 assessment of the Riparian/Riverine Areas, Drainages 7, 8, 9, 12, and 15 have the potential to be considered Riparian/Riverine Areas. Project-level DBESPs will be required on a project-by-project basis, if Riparian/Riverine Areas are determined to occur within the project footprint.

Response to Comment A-6-11. Comments were made about the lack of discussion in the DEIR on the long-term maintenance of the basins. The WLCSP proposes to create a series of drainage improvements throughout the WLCSP area to treat nuisance-flows and storm run-off before entering into off-site drainage features. The drainage improvements will treat all of the first flush flows and will be used to collect debris and filter water before eventually flowing into a spreading basin. The drainage improvements may be used to mitigate for impacts to drainage features. Vegetation in several of the drainage improvements will be allowed to provide riparian/riverine habitat. Routine maintenance around inlets and outlets will be necessary to maintain the function of the drainage improvements.

Therefore, the following project design features will be required for all drainage improvements. Maintenance activities should completely avoid the nesting season, which is typically from February 1 to August 31. If maintenance activities cannot avoid the nesting season, then a pre-maintenance nesting bird survey will be required within 2 weeks of any maintenance activity. If a nesting bird is present, then all maintenance activities must avoid the active nesting and all areas within 250-feet of the nest. A biological monitor must be present during maintenance activities if an active nest is present within the spreading basins. Maintenance activities may proceed within the 250-buffer only at the discretion of a biological monitor. If vegetation removal is required to maintain the drainage

improvements, the impacts should be limited to only necessary vegetation removal. For reference, see MMs 4.4.6.4A through MM 4.4.6.4H. Prior to creating the drainage improvements, a plant palette must be approved by a qualified biologist that is familiar with the local flora. The palette should be similar to those species that commonly occur in the SJWA, so invasive unwanted plant species are not introduced into the SJWA, such as pampas grass, arundo, and fountain grass.

If the drainage improvements are used as compensatory mitigation for impacts to onsite drainage features, these mitigation areas will be considered protected habitat and will likely require a conservation easement and a streambed alteration agreement from the CDFW for maintenance activities.

Response to Comment A-6-12. The USFWS requests that MM 4.4.6.4D be revised to require surveys consistent with the Burrowing Owl Survey Instructions for the Western Riverside County MSHCP instead of pre-construction surveys. MM 4.4.6.4D has been revised to include:

In support of the project-level environmental review, focused/protocol level surveys should be completed by a qualified biologist and submitted to the City for individual development projects. The surveys shall be conducted based on the Burrowing Owl Survey Instructions for the Western Riverside County MSHCP. Based on communications with RCA staff, the Burrowing Owl Survey Instructions have been augmented to reflect the CDFW 2012 staff report for burrowing owls (CDFW 2012). The augment requires focused surveys to be spread-out during the survey season. As currently described in the MSHCP, surveys may be conducted consecutively (see MM 4.4.6.4D).

4.4.6.4D~~C~~ ~~Prior to issuance of any grading permits, a~~ A pre-construction clearance survey for burrowing ~~owls~~owl shall be ~~prepared~~conducted by a qualified biologist ~~andsubmitted to the City. This survey shall be required and conducted~~ no more than thirty (30) days prior to ~~initiation of~~ any grading or ground disturbing activities within the project area.

In the event no burrowing owls are observed within the limits of ground disturbance, no further mitigation is required.

If construction is to be initiated during the breeding season (February 1 through August 31) and burrowing owl is determined to occupy any portion of the ~~study~~disturbance area during the 30-day pre-construction survey, ~~consultation with the CDFW and USFWS shall take place and no~~ construction activity shall ~~take place within~~maintain a 500 ~~feet of an~~ foot buffer area around any active nest/burrow until it has been determined that the nest/~~burrow~~burrow is no longer active, and all juveniles have fledged the nest/burrow. If this avoidance buffer cannot be maintained, consultation with the California Department of Fish and Wildlife (CDFW) shall take place and an appropriate avoidance distance established. No disturbance to active burrows shall occur without appropriate permitting through the ~~MBTA~~Migratory Bird Treaty Act and/or ~~CDFW~~California Department of Fish and Wildlife.

If active burrowing owl burrows are detected outside the breeding season (September through January), or within the breeding season but owls are not nesting or in the process of nesting, active and/or passive relocation may be conducted following consultation with the ~~CDFW and USFWS.~~California Department of Fish and Wildlife. A relocation plan may be required by California Department of Fish and Wildlife if active and/or passive relocation is necessary. The relocation plan will outline the basic process and provides options for avoidance and mitigation. Artificial burrows -may be constructed within the buffer area south of the World Logistics Center Specific Plan. Construction activity may occur within 500 feet of the ~~active nests~~burrows at the discretion of the biological monitor in consultation with CDFW.

~~If active nests are identified in a development area, the nests shall be avoided or the owls actively or passively relocated to the 250-foot setback area in the southern portion of the Specific Plan site (see Mitigation Measure 4.4.6.1A). This setback area shall be considered a "conservation area" for burrowing owl or other species of animals or plants that need to be relocated from the portions of the WLCSP site to be developed. In the event no burrowing owls have been identified within the limits of ground disturbance, no further mitigation is required. In the event burrowing owls are identified within the limits of ground disturbance, Mitigation Measure 4.4.6.4D shall apply. To avoid active nests adequately, no grading or heavy equipment activity shall take place within at least 250 feet of an active nest during the breeding season (February 1 through August 31) and 160 feet during the non-breeding season. This measure shall be implemented to the satisfaction of the City Planning Division.~~

~~4.4.6.4D~~ ~~If active burrowing owl burrows are detected outside the breeding season, passive and/or active relocation may be undertaken following consultation with and approval by the CDFW and/or USFWS. The installation of one-way doors may be installed as part of a passive relocation program. Burrowing owl burrows shall be excavated with hand tools by a qualified biologist when determined to be unoccupied, and back filled to ensure that animals do not re-enter the holes/dens. Owls may also be actively relocated on site to the 250-foot clear buffer zone along the southern boundary of the WLCSP, as outlined in Mitigation Measure 4.4.6.1A. This measure shall be implemented to the satisfaction of the City Planning Division.~~

A relocation plan may be required by California Department of Fish and Wildlife if active or passive relocation is necessary. Artificial burrows may be constructed within appropriate burrowing owl habitat within the proposed open space/conservation area (Planning Area 30), a 74.3-acre area in the southwest portion of the Specific Plan. This area abuts the Lake Perris State Recreation Area (LPSRA) which is already in conservation. If suitable habitat is not present in Planning Area 30, owls may be relocated to the SJWA, the 250-foot buffer area or other suitable on-site or off-site areas. Construction activity may occur within 500 feet of the burrows at the discretion of the biological monitor

A relocation plan may be required by California Department of Fish and Wildlife if active or passive relocation is necessary. Artificial burrows may be constructed within appropriate burrowing owl habitat within the proposed open space/conservation area (Planning Area 30), a 74.3-acre area in the southwest portion of the Specific Plan. This area abuts the Lake Perris State Recreation Area (LPSRA) which is already in conservation. If suitable habitat is not present in Planning Area 30, owls may be relocated to the SJWA, the 250-foot buffer area or other suitable on-site or off-site areas. Construction activity may occur within 500 feet of the burrows at the discretion of the biological monitor.

In the event no burrowing owls are observed within the limits of ground disturbance, no further mitigation is required. In the event burrowing owls are identified within the limits of ground disturbance, the following has been added to MM 4.4.6.4D to clarify burrowing owl relocation efforts:

> A relocation plan may be required by California Department of Fish and Wildlife if active or passive relocation is necessary. Artificial burrows may be constructed within appropriate burrowing owl habitat within the proposed open space/conservation area (Planning Area 30), a 74.3-acre area in the southwest portion of the Specific Plan. This area abuts the Lake Perris State Recreation Area (LPSRA) which is already in conservation. If suitable habitat is not present in Planning Area 30, owls may be relocated to the SJWA, the 250-foot buffer area or other suitable on-site or off-areas. Construction activity may occur within 500 feet of the burrows at the discretion of the biological monitor.

Response to Comment A-6-13. The USFWS requests that the City and project proponent work with the CDFW, the Western Riverside County Resource Conservation Authority (RCA) and themselves to develop a comprehensive strategy for burrowing owl in the Specific Plan area. Protocol surveys for burrowing owl were conducted in 2005, 2007, 2010, and 2013 on all or portions of the WLCSP. In the eight years of conducting surveys on the WLCSP, no more than a single pair of burrowing owls has ever been observed within the WLCSP in any one year and in some years, no burrowing owl were observed. The WLCSP does not provide sufficient habitat to support a large population of burrowing owls, nor is it likely to provide suitable habitat in the foreseeable future. Since there has been no recorded occurrences of burrowing owl in the 250-foot buffer area, the passive relocation of a single pair or even a few pair of burrowing owls to this area will not affect existing burrowing owl and a comprehensive strategy is not necessary.

Per MSHCP requirements (MSHCP Section 6.3.2), a comprehensive strategy would be appropriate if more than three pairs of burrowing owl were consistently observed within the WLCSP during the previous burrowing owl surveys, but, this is not the case within the WLCSP area. Based on MSHCP guidelines, each project within the WLCSP will be required to conduct project-level surveys and based on the findings, will develop a strategy to handle burrowing owl issues on a project-level basis.

It should be noted that final construction of the 250-foot buffer area might not be completed when burrowing owl relocation may be necessary on a project-level basis. Relocation of burrowing owls to the 250-foot buffer area may be completed with the construction of temporary burrows. These burrows will be designed to coincide with construction progress. For instance, owls can be relocated to areas that will be constructed last, so they can remain in the same location for as long as possible. Once the preliminary phase of the buffer area has started, more permanent burrowing owl burrows can be constructed for long-term relocation.

Response to Comment A-6-14. The USFWS requests that focused LAPM trapping be redone by mammalogists who have familiarity with the local hetromyid fauna. Protocol level surveys were conducted by FCS biologist Kelly Rios, who has approximately 20 years of experience trapping mammal species throughout southern California. Protocol surveys were conducted in 2013 in all areas of the WLCSP and off-site infrastructure areas that contain suitable habitat for LAPM. During the trapping effort, field measurements were taken for each of the individual species captured and identification was verified by Philip Verne, another highly experienced mammalogist that has worked closely with Kelly on several projects. The 2013 survey report is included as an appendix in the MSHCP Consistency Analysis (FCS-MBA 2013). Based on the findings in the report, the following species were identified: deer mouse (*Perognathus maniculatus*), desert pocket mouse (*Chaetodipus penicillatus*), Northwestern San Diego pocket mouse (*Chaetodipus fallax*), Western harvest mouse (*Reithrodontomys megalotis*), and desert woodrat (*Neotoma lepida*). All of the small mammals captured during the 2013 trapping effort were much larger than the Los Angeles pocket mouse. LAPM is considered absent from the project site and a DBESP is not required.

Response to Comment A-6-15. The USFWS requests that the City and project proponent work with the CDFW, the RCA and themselves to develop a comprehensive strategy for LAPM in the Specific Plan area. Protocol surveys for LAPM were conducted in 2005, 2010, and 2013 within suitable habitat of the WLCSP. In all the years of conducting surveys on the WLCSP, no LAPM have ever been observed within the WLCSP. This shows sufficient evidence that the WLCSP does not provide sufficient habitat to support LAPM, nor is it likely to provide suitable habitat in the foreseeable future. Since there has been no recorded occurrences of LAPM in the northern portion of the SJWA, then the relocation of any individuals to the 250-foot buffer area will not affect LAPM in the northern portion of the SJWA, and a comprehensive strategy is not necessary. A comprehensive strategy would be appropriate if several LAPM were consistently observed within the WLCSP during the previous LAPM surveys. However, based on MSHCP guidelines, each project within the WLCSP will still be required

to complete protocol-level surveys for LAPM if they contain suitable habitat and based on the findings, will develop a strategy to handle LAPM issues on a project-level basis.

If LAPM was observed within the project site, 90% of the suitable habitat within the WLCSP will be required for conservation until the conservation goals for this species has been met. If more than 90 percent of the suitable habitat onsite cannot be avoided, a DBESP will be required for impacts to LAPM. The DBESP will include all mitigation measures required to provide biologically equivalent or superior preservation of the species.

Response to Comment A-6-16. Comments were made about the insufficiencies of the 250-foot buffer area as a receptor site for either LAPM or burrowing owl The 250-foot buffer area will be designed as a transition area from the proposed development area to the SJWA. The 250-foot buffer area will have landscape vegetation and a barrier fence to prohibit access to SJWA by the public. The buffer area is will help to reduce potentially significant impacts associated with air quality, lighting, noise, and aesthetics. Based on the MSHCP Guidelines (MSHCP Section 6.3.2), impacts to burrowing owl and LAPM, are not considered significant and, therefore, the buffer area does not require design features specifically for those species. However, as a project design feature, the detention and spreading basins will be designed to provide suitable riverine/riparian habitat for LAPM. This area could be used to relocate LAPM, if at some point in the future, LAPM are discovered within the WLCSP. However, at this time, this species is considered absent and mitigation is not required. The proposed project buildout could take as long as 15 years. Although it cannot completely be ruled out, the possibility LAPM could occur within selective portions of the WLCSP in the future, the applicant is preparing the WLCSP to deal with all potential issues on a long-term basis. The majority of the LAPM suitable habitat within the WLCSP is located within Drainage 9 and portions will be enhanced to provide higher quality riparian/riverine habitat. In the event that LAPM are discovered during project-level focused surveys, a DBESP for impacts to LAPM will be required and more detailed mitigation program will be prepared.

Based on the MSHCP, impacts to a single pair of burrowing owls within project sites that are not within cell criteria areas can passively relocate burrowing owls to an off-site location prior to construction with no additional mitigation requirements. The southern portion of the WLCSP makes for an ideal location for burrowing owl because the large expansive unoccupied burrowing owl habitat that occurs within the SJWA. The closest recorded occurrence of burrowing owl is well over 6,000 linear feet away, which will provide more than sufficient foraging area for a relocated pair of burrowing owl. In the event that more than three pairs of burrowing owls are observed within a single project site during project specific focused surveys, additional mitigation measures will be required. The project applicant will need to consult with the City along with the RCA to develop a comprehensive strategy to mitigate for the loss of more than three pair of burrowing owl. The strategy will require a more detailed design of the 250-buffer area to address design features that would benefit burrowing owl, such as artificial burrow creation and spacing, perch creation, minimizing vegetation growth, providing suitable foraging habitat, and reduce predators.

Red-tailed hawks, burrowing owl, and LAPM are part of the natural food-chain that occurs in general region. Based on current surveys, no LAPM occur within the WLCSP. However, there are red-tailed hawk and burrowing owl. One of the goals of the 250-foot conservation area is to provide more suitable habitat for burrowing owl. The improvements within the 250-foot buffer are intended to provide higher-quality burrowing owl habitat and any increase in predation as a result of an increased burrowing owl population is not considered a significant project related impact and does not require mitigation.

Response to Comment A-6-17. The USFWS requests that the words special status be removed from MM 4.4.6.4B. The mitigation measure below has been revised.

Migratory/Nesting Birds

4.4.6.4B If it is determined that project-related grading or construction will affect ~~special status~~ nesting migratory bird species, no grading or heavy equipment activity shall take place within the limits established in Mitigation Measure 4.4.6.4A until it has been determined by a qualified biologist that the nest/burrow is no longer active, and all juveniles have fledged the nest/burrow. This measure shall be implemented to the satisfaction of the City Planning Division.

B. LETTERS FROM STATE AGENCIES

Letter B-1: State of California Governor's Office of Planning and Research, State Clearinghouse and Planning Unit (March 25, 2013)

Letter B-1

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Edmund G. Brown Jr.
Governor

Ken Alex
Director

RECEIVED
APR 1 - 2013
CITY OF MORENO VALLEY
Planning Division

March 25, 2013

Mark Gross
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Subject: World Logistics Center (General Plan Amendment, Change of Zone, new Specific Plan, Tentative Parcel Map (Finance Map), Development Agreement, and annexation of
SCH#: 2012021045

Dear Mark Gross:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. The review period closed on March 21, 2013, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office. 1

Sincerely,

Scott Morgan
Director, State Clearinghouse

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2012021045
Project Title World Logistics Center (General Plan Amendment, Change of Zone, new Specific Plan, Tentative Parcel Map (Finance Map), Development Agreement, and annexation of
Lead Agency Moreno Valley, City of

Type EIR Draft EIR

Description The proposed World Logistics Center project (WLC) site covers 3,918 acres in eastern Moreno Valley. A General Plan Amendment is proposed to designate 2,635 acres for logistics warehousing including up to a maximum of 41.4 million sf of "Logistics Development" and 200,000 sf of warehousing-related uses classified as "Light Logistics." The remaining 1,104 acres will be designated for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives. The site is just north of the San Jacinto Wildlife Area and includes 7 rural residential properties. A new Specific Plan will be adopted to govern development of the 2,635 acres, and a separate zoning amendment will also be processed to rezone 1,104 acres for open space and public facilities uses.

Lead Agency Contact

Name Mark Gross
Agency City of Moreno Valley
Phone 951 413 3215 **Fax**
email
Address 14177 Frederick Street
City Moreno Valley **State** CA **Zip** 92552

Project Location

County Riverside
City Moreno Valley
Region
Lat / Long 33° 55' N / 117° 8' W
Cross Streets Redlands Boulevard and Eucalyptus Avenue
Parcel No. 477-090 et al
Township 3S **Range** 3W **Section** 6-9 **Base** SBB&M

Proximity to:

Highways Hwy 60
Airports
Railways
Waterways
Schools
Land Use Vacant agricultural land approved for the Moreno Highlands Specific Plan, a mixed use residential planned community.

Project Issues Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Economics/Jobs; Flood Plain/Flooding; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Wildlife; Growth Inducing; Landuse; Cumulative Effects; Aesthetic/Visual; Forest Land/Fire Hazard

Reviewing Agencies Resources Agency; Department of Conservation; Department of Fish and Wildlife, Region 6; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; California Highway Patrol; Caltrans, District 8; Regional Water Quality Control Board, Region 8; Native American Heritage Commission; Public Utilities Commission; State Lands Commission

Note: Blanks in data fields result from insufficient information provided by lead agency.

Document Details Report
State Clearinghouse Data Base

Date Received 02/05/2013 *Start of Review* 02/05/2013 *End of Review* 03/21/2013

Note: Blanks in data fields result from insufficient information provided by lead agency.

RESPONSES TO LETTER B-1

State of California Office of Planning and Research, State Clearinghouse and Planning Unit

Response to Comment B-1-1 (page 1). The City recognizes the receipt of comments from State agencies and the State Clearinghouse's acknowledgement that it has complied with review requirements for environmental documents.

Letter B-2: California Department of Transportation District 8 (April 5, 2013)

DEPARTMENT OF TRANSPORTATION
DISTRICT 8
PLANNING
464 WEST 4th STREET, 6th Floor MS 725
SAN BERNARDINO, CA 92401-1400
PHONE (909) 383-4557
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CITY OF MORENO VALLEY
Planning Division

Flex your power!
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Letter B-2

April 5, 2013

John Terell
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92553

Review of Traffic Impact Analysis for the World Logistic Center Riv-60-PM 21.38

Dear Mr. Terell,

We have completed our review for the noted project which is located south of State Route 60 (SR-60) between Redlands Boulevard and Gilman Springs Road extending to the southerly City boundary of Moreno Valley. The project is a proposed Master Plan for the future development of up to 41.6 million square feet of building area providing for modern high-cube logistics warehouse distribution facilities.

As the owner and operator of the State Highway System (SHS), it is our responsibility to coordinate and consult with local jurisdictions when proposed development may impact our facilities. As the responsible agency under the California Environmental Quality Act (CEQA), it is also our responsibility to make recommendations to offset associated impacts with the proposed project. Although the project is under the jurisdiction of the City of Moreno Valley due to the Project's potential impact to State facilities it is also subject to the policies and regulations that govern the SHS. **1**

We have the following concerns regarding the Traffic Impact Study:

Traffic Study

- Table 1: Other Development Project Assumed to be Completed by 2017 (page 8) – Please include a column that shows the area in square feet of residential usages. **2**
- Table 17: Existing Freeway Ramp Level of Service (page 56) – At the segment of SR-60 EB Off-Ramp to Redlands Blvd, the AM peak hour volume is 119 vph whereas Figure 7 on page 30 shows 207 vph and the PM peak hour volume is 30 vph whereas Figure 7 shows 434 vph. Please verify. **3**
- Figure 30: Turning Movement Volumes under Existing Plus Project Conditions (B) – At Intersection #30, the PM Peak hour volume is missing. **4**

- Figure 30: Turning Movement Volumes under Existing Plus Project Conditions (B) – AT Intersection #15 and #16, why is the lane configuration different than that shown on Figure 7 on page 30? 5
- Figure 30: Turning Movement Volumes under Existing Plus Project Conditions (B) – Why are the following traffic volumes for Existing Plus Project Conditions less than the existing condition volumes shown on Figure 7? 6
    - Intersection #67, SBL PM volume is 230 vph whereas Existing shown 410 vph.
    - Intersection #68m WBR PM volume is 0 whereas Existing shown 234 vph.
    - Intersection #72, SBR PM volume is 0 whereas Existing show 44 vph.
    - Intersection #77, SBR AM/PM volumes are 0/0 whereas Existing shows 46/90 vph.
- Figure 30: Turning Movement Volumes under Existing Plus Project Conditions (B) – At Intersection #77, why are there two volumes for the EBT AM/PM volumes, 30/20 and 10/10 vph? 7
- Figure 32: Turning Movement Volumes under 2017 Plus Project Conditions (B) – Why is the SBL AM traffic volumes (250 vph) less than for Existing Plus Project Conditions (340 vph)? 8
- Table 28: Existing Plus Project Freeway Mainline LOS (page 113) – Why are the following traffic volumes for Existing Plus Project Conditions less than the Existing Conditions volumes? 9
    - ID #36, Gilman Springs Road to Jack Rabbit Trail, Existing Plus Project volume is 980 whereas No Project shows 1002 vph.
    - ID #37, Jack Rabbit Trail to I-10/Potrero Blvd, Existing Plus Project volumes is 980 whereas No Project shows 1002 vph.
    - ID #38, Potrero Blvd. to I-10, Existing Plus Project volumes is 980 whereas No Project shows 1002 vph.
- Please check the Turning Movement Volumes for all scenarios and revise the calculations, Figures, and Tables, where needed. 10
- Table 14: Existing Conditions LOS at Study Intersections – The LOS at Intersection #13 do not match with the data shown in Appendix B. 11
- For all unsignalized intersections, please use HCS software to calculate the LOS. 12
- Freeway Direct Impacts from 358, Table 43: 2017 Plus Project Freeway Mainline Impacts and Mitigations, and Table 57: 2022 Plus Project Freeway Mainline Impacts and Mitigations. 13
    - It is estimated that if World Logistic Center (WLC) is completely built out, the project will pay nearly $72 million in Riverside County Transportation Uniform Mitigation Fee (TUMF) fees (page 346). It is also estimated that the WLC could potentially pay $41 million in City of Moreno Valley's Development Impact Fees (DIF).

- It is recommended that a system of coordinating these fees with a state sponsored program of collecting transportation mitigation fees from development projects be developed to implement the necessary improvements and mitigation measures on the State Highway System as outlined in Table 43 and Table 57. 14

We appreciate the opportunity to offer comments concerning this project. If you have any questions regarding this letter, please contact Talvin Dennis at (909) 383-6908 or myself at (909) 383-4557 for assistance.

Sincerely,

for

DANIEL KOPULSKY
Office Chief
Community Planning/IGR-CEQA

RESPONSES TO LETTER B-2

California Department of Transportation (Caltrans) District 8

Note to Commenter: The Traffic Impact Assessment (TIA) has been revised and can be found in Final Environmental Impact Report (FEIR) Volume 2 Appendix L-1. The responses below reference the revised TIA.

Response to Comment B-2-1. The City acknowledges Caltrans' statutory and regulatory responsibilities regarding comments on environmental documents such as the World Logistics Center Specific Plan (WLCSP) EIR. It should be noted the Specific Plan area has been reduced from 2,710 acres to 2,610 acres (3.7 percent reduction) due to the removal of 100 acres in the southwest corner of the Specific Plan. This results in a reduction of 1 million square feet of logistics warehousing which is now 40.6 million square feet down 2.4 percent from the original 41.6 million square feet.

Response to Comment B-2-2. The commenter requested that a column showing the floor area of residential uses be added to Table 1 in the TIA (Other Development Projects Assumed to be Completed by 2017). This table has been renamed as "Other Development Projects Assumed to be Completed by 2022 in the revised TIA prepared for this EIR (FEIR Volume 2 Appendix L-1).

Most jurisdictions measure residential developments in terms of dwelling units and non-residential developments in terms of floor area. Even projects that are in a relatively advanced stage of development (i.e. already passed the EIR stage and already received some level of development approval) may have residential lots where the floor space of the individual units is not yet known. Moreover, since the trip generation rates are calculated based on the number of dwelling units or households, not residential floor space, the specific square footage of dwelling units has no bearing on the traffic analysis.

Response to Comment B-2-3. The commenter noted an inconsistency between Table 17 and Figure 7 in the Traffic Impact Assessment (TIA) for the SR-60 eastbound TIA prepared for this EIR (FEIR Volume 2 Appendix L-1).

Ramp volumes inconsistencies have been corrected in the revised TIA. Note that even with the corrected/higher set of volumes, the Level of Service (LOS) for both the freeway and the east bound (EB) ramp intersection would be very good (LOS "A" or "B").

Response to Comment B-2-4. The commenter noted that one of the turning movement volumes at Intersection 30 was omitted from Figure 30 in the TIA.

The PM peak-hour volume for the WB left-turn movement that was accidently omitted from the figure has been added and corrected in the revised TIA.

Response to Comment B-2-5. The commenter inquired about the inconsistency in the lane configurations at Intersections 15 and 16 as shown in Figures 7 and 30 in the TIA.

For the Plus Project scenarios it was assumed that the Theodore/SR-60 Interchange would be upgraded and re-configured, which would result in a different lane configuration at these two intersections. That configuration was shown in Figure 25 in the TIA.

Response to Comment B-2-6. The commenter inquired as to why Existing Plus Project volumes in TIA Figure 30 are lower than Existing volumes in TIA Figure 7 at four intersections.

For the four identified intersections (IN-67, IN-68, IN-72, and IN-77) the correct volumes were analyzed but were not shown properly on the graphics. TIA Figures 7 and 30 have been revised to show the volumes that were analyzed in the study.

Response to Comment B-2-7. The commenter inquired as to why TIA Figure 30 seems to show two east-bound through volumes for Intersection #77.

The traffic volume figures are shown in sets of three for each approach. For east-bound approaches the top numbers represent right-turns. TIA Figure 30 has been corrected in the revised TIA.

Response to Comment B-2-8. The commenter inquired as to why 2017 Plus Project Conditions traffic volumes in TIA Figure 32 are less than Existing Plus Project Conditions traffic volumes in TIA Figure 30.

The Existing Plus Project scenario assumed the full build-out of the project while the 2017 scenario assumed that only Phase 1 of the project was completed. Text in the TIA has been clarified so these scenarios are identified as “Full Build-out” or “Phase 1 (only).” The Existing Plus Project Scenario, while included in the TIA, is not intended to represent a sequential condition with the other scenarios that were analyzed.

Response to Comment B-2-9. The commenter inquired as to why Existing Plus Project volumes are lower than Existing volumes at certain freeway locations.

Traffic models, including the RIVTAM model, match trip origins to trip destinations according to algorithms that reflect actual travel behavior as measured in surveys. In this case the model is reflecting the fact that some people who currently live west of the WLC site and travel east towards Beaumont to work in the morning will instead take advantage of the opportunity have a shorter commute by working at the WLC instead. This would result in a small decrease in EB traffic on this portion of SR-60 in the morning and a similar decrease in WB traffic in the evening. This is an effect that policies promoting better jobs-housing balances are designed to achieve. Please refer to TIA Chapter 4, Section D, sub-section on WLC Auto Traffic.

Response to Comment B-2-10. The commenter requested all calculations be checked and revised where needed.

Checks for all calculations have been conducted and changes made where appropriate.

Response to Comment B-2-11. The commenter inquired as to why in TIA Table 14, the LOS for Intersection #13 did not match the one shown in Appendix B.

In accordance with *Highway Capacity Manual* methodology for unsignalized intersections Table 14 reports the result for the worst-performing approach. For Intersection #13 the worst-performing approach is the EB approach in the AM peak hour and the west bound (WB) approach in the PM peak hour. The results shown in Table 14 are consistent with Appendix B for these approaches.

Response to Comment B-2-12. The commenter requested that Highway Capacity Software (HCS) be used to determine the LOS for unsignalized intersections rather than Synchro. Synchro is the software package approved by the City for use in analyzing intersections in the project TIA. Synchro incorporates the HCM methodology as required in Caltrans Guide for the Preparation of Traffic Impact Studies, as does HCS software. The two models were compared and the comparison found that the results of the models were nearly identical, except for the fact that HCS truncates fractional numbers while Synchro rounds them. In other words, HCS would change “23.8” into “23” while

Synchro would change it to "24." Therefore, Synchro model is slightly more conservative (as it may add a vehicle to some movements).

Response to Comment B-2-13. The commenter notes that the WLC will pay nearly $72 million (M) in TUMF fees and $41M in DIF fees. Per the TUMF calculation handbook the Total TUMF fees are estimated at $34M.

Response to Comment B-2-14. The commenter requests the City coordinate TUMF fees with a State-sponsored program to pay for necessary improvements. Please refer to Mitigation Measure (MM) 4.15.7.4E in FEIR Volume 2 (as well as MM Trans-5 in TIA Chapter 11, Section G (FEIR Volume 2 Appendix L). MM 4.15.7.4E, as revised in the FEIR, requires that the developer pay its fair share of the cost of constructing the traffic improvements required to mitigate the project's traffic impacts, identified in EIR Tables 4.15.AT through 4.15.AY, for intersections and road segments (including freeway ramp intersections with local arterials) outside of the City's jurisdiction (i.e., under the jurisdiction of other cities, the County and Caltrans) in order to mitigate the identified programmatic impacts to less than significant levels. The fair share payment requirement shall be imposed as a condition of plot plan approval for each building within the project, and no certificate of occupancy for a building within the project shall be issued until the fair share payment for that building has been paid.

Letter B-3: California Department of Fish and Wildlife (April 8, 2013)

State of California - Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Inland Deserts Region
3602 Inland Empire Blvd., Suite C-220
Ontario, CA 91764
(909) 484-0459
www.wildlife.ca.gov

EDMUND G. BROWN, Jr., Governor
CHARLTON H. BONHAM, Director

Letter B-3

April 8, 2013

Mr. Mark Gross
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92553

Subject: Draft Environmental Impact Report
World Logistics Center Project
State Clearinghouse No. 2012021045

Dear Mr. Gross:

The Department of Fish and Wildlife (Department) appreciates the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the World Logistics Center Project (Project) [State Clearinghouse No. 2012021045]. The Department is responding to the DEIR as a Trustee Agency for fish and wildlife resources (California Fish and Game Code Sections 711.7 and 1802, and the California Environmental Quality Act [CEQA] Guidelines Section 15386), and as a Responsible Agency regarding any discretionary actions (CEQA Guidelines Section 15381), such as the issuance of a Lake or Streambed Alteration Agreement (California Fish and Game Code Sections 1600 *et seq.*) and/or a California Endangered Species Act (CESA) Permit for Incidental Take of Endangered, Threatened, and/or Candidate species (California Fish and Game Code Sections 2080 and 2080.1). 1

Project Description and Geographic Setting

The Project is located within the City of Moreno Valley (City) and is bounded by State Route 60 (SR-60) to the north, Redlands Boulevard to the west, Gilman Springs Road to the east, and the San Jacinto Wildlife Area to the south. The Project involves a General Plan Amendment, new Specific Plan, Change of Zone, and Tentative Parcel Map. The Project proposes 2,635 acres of logistics land uses including up to 41.4 million square feet of high-cube logistics uses and 200,000 square feet of warehouse and related uses. 2

The 2,635 acre Project site is situated directly north of the approximately 20,000-acre San Jacinto Wildlife Area (SJWA) and 8,800-acres Lake Perris State Recreational Area. The Project is bordered to the north and east by the San Timoteo Badlands, which includes Regional Conservation Authorities (RCA) Multiple Species Habitat Conservation Plan (MSHCP) Badlands Plan Area

Proposed Core 3 and Norton Younglove Reserve. Several MSHCP proposed or existing linkages are associated with the SJWA and Proposed Core 3. 2

Biological Resources and Impacts

The CEQA document should contain sufficient, specific, and current biological information on the existing habitat and species at the Project site; measures to minimize and avoid sensitive biological resources; and mitigation measures to offset the loss of native flora and fauna and State waters. The CEQA document should not defer impact analysis and mitigation measures to future regulatory discretionary actions. 3

If sensitive species have the potential to occur on the Project site, species-specific surveys should be conducted using methods approved by the Department, or the CEQA document should assume the presence of the species throughout the project site. Surveys should be conducted within 12 months of circulation of the CEQA document. To assist with review, an accompanying map detailing the location of sensitive species or sensitive species habitat should also be included in the subsequent CEQA document. 4

The Department submitted a comment letter on the Notice of Preparation (NOP) for the DEIR on March 22, 2012. In this letter the Department recommended that the Project applicant and/or lead agency consult with the Department and land management staff from the SJWA for assistance with species occurrence information within the vicinity of the Project site, and for assistance with avoidance, minimization, and mitigation measures. Based on the Department's review of the DEIR, the biological resources section does not provide an accurate account of the species that may be affected by the Project. The Department has identified that key species were excluded from the assessment and that others were documented as having limited to no suitable habitat. The Department recommends that the DEIR be revised following consultation with Department staff. 5

Current biological survey data (collected between 2006 and 2013), provided by the MSHCP, documents numerous detections of species that were represented in the DEIR as being absent from the Project area or having a low potential to occur onsite due to lack of suitable habitat. Furthermore, most of the data presented in the DEIR was sourced from the California Natural Diversity Database (CNDDB) and supplemented with incidental sightings documented during species-specific surveys. As previously recommended in the Department's NOP comment letter (March 22, 2012), the Project applicant and/or lead agency should consult with the Department to obtain species information and discuss potential Project impacts. 6

The DEIR does not provide a complete or accurate assessment of raptor species that use the Project site. Evaluations on the potential impacts to State fully protected Bald Eagle (*Haliaeetus leucocephalus*) and Golden Eagle (*Aquila chrysaetos*) were not conducted, despite documentation of both species occurring onsite or directly adjacent to the Project site (MSHCP 2008, 2011). The DEIR states that the American Peregrine Falcon (*Falco peregrinus anatum*), a State fully protected species, has a low potential to occur onsite, and further elaborates that they have not been recorded within 7 miles of the Project site (CNDDB 2012). This information is incorrect: biological surveys conducted by the MSHCP have detected the species four times within the Project area. 7

Several State Species of Special Concern were analyzed in the DEIR for their potential to occur within the World Logistics Center Specific Plan (WLCSP) area. The DEIR states that the Ferruginous Hawk (*Buteo regalis*), White-tailed Kite (*Elanus leucurus*), Merlin (*Falco columbarius*), Prairie Falcon (*Falco mexicanus*), and Peregrine Falcon, have only a low potential to occur onsite. Furthermore, the DEIR states that all of these species, with the exception of the Ferruginous Hawk, had not been recorded within 7 miles of the Project site (CNDDB 2012). Contrary to the information included in the DEIR, MSHCP biologists have detected all of the aforementioned species, and the Tricolored Blackbird (*Agelaius tricolor*), another State Species of Special Concern, either within or adjacent to the WLCSP (MSHCP 2006-2012). Detections by MSHCP include: Ferruginous Hawk (n = 22 detections), White-tailed Kite (n = 14), Merlin (n = 3), Prairie Falcon (n = 6), and Peregrine Falcon (n = 4). 8

The DEIR recognizes only "marginally suitable" foraging habitat for Loggerhead Shrike (*Lanius ludovicianus*), California Horned Lark (*Eremophila alpestris actia*), Ferruginous Hawk, Merlin, Prairie Falcon, and Burrowing Owl (*Athene cunicularia* [BUOW]). However, based solely on the diversity of species found utilizing the Project area (recorded from biological surveys conducted by the MSHCP, and observations by SJWA land management staff) the habitat is not marginal. The biological resources section does not provide an accurate account of the species that have been documented on the site, or the quality of the habitat that will be impacted by the project. The Department recommends the Project applicant and/or lead agency consult with the Department to accurately identify species occurrences in the vicinity of the Project site, assess the quality of the foraging habitat, and identify avoidance, minimization, and mitigation measures. The Department recommends the DEIR be revised following consultation with Department staff. 9

The DEIR states that State-threatened Stephens' kangaroo rat (*Dipodomys stephensi*) has a low to moderate potential to occur within the World Logistics Center Planning Area, although the *"species may range through the general area."* The document also claims that there is limited suitable habitat for San Diego jackrabbit (*Lepus californicus bennettii*) and Los Angeles pocket mouse 10

(*Perognathus longimembris brevinasus* [LAPM]), both State Species of Special Concern. However, surveys by the MSHCP detected two (2) San Diego jackrabbit (within 400 meters and 800 meters of the Project area), and multiple Stephens' kangaroo rat (SKR) within 250 meters of the Project area boundary. 10

The Department is concerned with the results of the focused surveys for Los Angeles pocket mouse included in the DEIR. Specifically, the survey results document the capture of two (2) long-tailed pocket mice (*Chaetodipus formosus*) in 2005, and four (4) in 2010; and 87 desert pocket mice (*Chaetodipus penicillatus*) in 2010. The Department questions the accuracy of the identifications as these occurrences are outside of the documented distribution range for these species, and neither species have been trapped by MSHCP biologists who perform regular small mammal trapping surveys within the general area. Because the Department has considerable concern regarding the accuracy of these identifications, the Department requests that new surveys be conducted under the supervision of trained small-mammal biologists. 11

The CEQA document analyzed the potential for California Native Plant Society (CNPS) listed plant species to occur onsite. The DEIR states that no evidence of any CNPS-listed plant species was found onsite, and also concluded that no suitable habitat for CNPS-listed plant species occurs within the Project area. These findings are in contrast to biological surveys performed by the MSHCP that have verified the presence of an individual Coulter's goldfield (*Lasthenia glabrata coulteri*) immediately south of the Project, and much less than the stated 2-mile distance. 12

<u>Foraging habitat</u>

In the Department's opinion, the DEIR has underestimated the relative level of impacts to foraging habitat associated with development of the Project. The Department is also of the opinion that the value of foraging habitat within the Project area has been grossly underestimated. The DEIR states that there is, *"marginal foraging habitat for some raptor species"* and that *"an adverse but not significant impact to raptor foraging habitat is anticipated."* As stated previously, the following species have been documented on or adjacent to the Project area: Bald Eagle, Golden Eagle, Osprey, White-tailed Kite, Ferruginous Hawk, Peregrine Falcon, Prairie Falcon, BUOW, Merlin, Barn Owl, Short-eared Owl, Red-shouldered Hawk, and American Kestrel. The diversity of raptor species documented to use the WLCSP area provides abundant evidence of the local and potential regional value of the site as foraging habitat. The Department strongly recommends that the DEIR be revised to include results of additional studies, and that the Lead Agency consult with the MSHCP and land managers at the SJWA, Mystic Lake, and Lake Perris, to identify and assess potential impacts to species and habitats that may have been excluded in prior 13

assessments. The revised DEIR should also identify appropriate mitigation measures to offset the loss of foraging habitat. 13

The DEIR states that Mitigation Measure 4.2.6.1A *"will help maintain raptor and other bird foraging until the WLCSP property is developed."* Additionally, the DEIR anticipates that *"the State would maintain its [CDFW Conservation Buffer Area] function as a buffer and also as foraging habitat for raptors…"* Aside from the temporary measure listed above, and a reliance on the State-owned wildlife area to provide for and maintain raptor foraging habitat, the DEIR fails to propose mitigation measures to offset the permanent loss of foraging habitat. The State-owned SJWA open space areas cannot be used to mitigate the permanent loss of foraging habitat resulting from development of the proposed Project. The revised DEIR should clearly identify impacts to foraging habitat and provide an appropriate mitigation plan to offset the losses. 14

Natural Community Conservation Program (NCCP)

The Department is responsible for ensuring appropriate conservation of fish and wildlife resources including threatened, endangered, and candidate plant and animal species, pursuant to the CESA, and administers the Natural Community Conservation Plan (NCCP) Program. Within the Inland Deserts Region, the Department-issued NCCP Approval and Take Authorization for the Western Riverside County MSHCP per Section 2800, *et seq.*, of the California Fish and Game Code on June 22, 2004. The MSHCP establishes a multiple species conservation program to minimize and mitigate habitat loss and the incidental take of covered species in association with activities covered under the permit. 15

Compliance with approved habitat plans, such as the MSHCP, is discussed in CEQA. Specifically, Section 15125(d) of the CEQA Guidelines requires that the CEQA document discuss any inconsistencies between a proposed Project and applicable general plans and regional plans, including habitat conservation plans and natural community conservation plans. An assessment of the impacts to the MSHCP as a result of this Project is necessary to address CEQA requirements. To obtain additional information regarding the MSHCP please go to: http://www.rctlma.org/mshcp/.

The proposed Project occurs within the MSHCP area and is subject to the provisions and policies of the MSHCP. To be considered a covered activity, Permittees must demonstrate that proposed actions are consistent with the MSHCP and its associated Implementing Agreement. The City of Moreno Valley is the Lead Agency and is signatory to the Implementing Agreement of the MSHCP. The Project is located in subgroups D and X of the Reche Canyon/Badlands Plan Area of the MSHCP.

If the project is not processed through the MSHCP for covered species, then the project is subject to the Federal Endangered Species Act (FESA) and/or CESA for threatened, endangered, and/or candidate species. A CESA Incidental Take Permit (ITP) must be obtained if the project has the potential to result in take of species of plants or animals listed under CESA, either during construction or over the life of the project. The Department's CESA ITP states that a project must fully minimize and mitigate impacts to State-listed resources. 16

Impacts to Waters of the State

Although the proposed Project is within the MSHCP, a Notification of Lake or Streambed Alteration is still required by the Department, should the site contain jurisdictional waters. Additionally, the Department's criteria for determining the presence of jurisdictional waters are more comprehensive than the MSHCP criteria in Section 6.1.2 (Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools). The Department is responsible for assessing and evaluating impacts to jurisdictional waters, which is typically accomplished through reviewing jurisdictional delineation (JD) reports, supporting information, and conducting site visits.

A JD was included with the DEIR. The Department has reviewed the JD and strongly disagrees with the jurisdictional findings and the jurisdictional conclusion. Of the 14 drainage features identified in the DEIR, only isolated portions of two (2) drainages were considered to be jurisdiction of the State. According to the JD, the remaining portions of these drainages, and the other 12 features onsite, were not considered jurisdiction of the State, *"because the drainage is ephemeral, unvegetated, provides no cover, and does not appear to [appear to] provide habitat linkage or other benefits to wildlife resources...."* The JD also includes other assumptions of non-jurisdiction, including a lack of *"streambed or any other characteristic that would otherwise define it as CDFG jurisdictional waters"* and the absence of fish and wildlife resources. A non-jurisdictional determination based on any of the characteristics stated above is incorrect. The California Water Code (CWC) defines *Waters of the State* as *"...any surface water or groundwater, including saline waters, within the boundaries of the state."* The definition places no limitations on duration of stream flow, amount or type of vegetation, ability to provide cover, existence of connectivity to any other waterway or habitat area, or perceived lack of benefits to wildlife. The Department requests that the JD be revised using the CWC definition of Waters of the State and submitted to the Department for review. The Department recommends that the JD incorporate the drainages identified in the Hydrology and Water Quality section of the DEIR. 17

The Department opposes the elimination of ephemeral, intermittent, and perennial streams, channels, lakes, and their associated habitats. The Department recommends avoiding stream and riparian habitat to the greatest extent possible. 18

Any unavoidable impacts need to be compensated with the creation or restoration of in-kind habitat either on-site or off-site at a minimum 3:1 replacement-to-impact ratio, depending on the impacts and proposed mitigation. Additional mitigation requirements through the Department's Lake and Streambed Alteration Agreement process may be required, depending on the quality of habitat impacted, proposed mitigation, project design, and other factors. The Department recommends submitting a Lake or Streambed Alteration notification early in project planning, since modification of the proposed project may be required to avoid or reduce impacts to fish and wildlife resources. To obtain a Lake or Streambed Alteration notification package, please go to http://www.dfg.ca.gov/habcon/1600/forms.html. 18

The following information will be required for the processing of a Notification of Lake or Streambed Alteration and the Department recommends incorporating this information into the CEQA document to avoid subsequent documentation and project delays:

1) Delineation of lakes, streams, and associated habitat that will be temporarily and/or permanently impacted by the proposed project (include an estimate of impact to each habitat type);
2) Discussion of avoidance and minimization measures to reduce project impacts; and,
3) Discussion of potential mitigation (as defined in Section 15370 of the CEQA guidelines) measures required to reduce the project impacts to a level of insignificance. 19

In the absence of specific mitigation measures in the CEQA document, the Department believes that it cannot fulfill its obligations as a Trustee and Responsible Agency for fish and wildlife resources. Permit negotiations conducted after and outside of the CEQA process are not CEQA-compliant because they deprive the public and agencies of their right to know what project impacts are and how they are being mitigated (CEQA Section 15002). 20

Impacts to Surrounding Lands and Associated Species

As previously stated, the Department provided comments on the NOP for this Project on March 22, 2012. The Department recommended analysis of impacts on the adjacent SJWA and species that may utilize this area. Suggested areas of analysis provided by the Department included potential impacts to species and habitats as a result of development of the Project and associated light, noise, trash, emissions, vectors, fuel management, runoff and water quality. Because the DEIR provides only minimal information pertaining to these suggested areas of analysis, the Department is unable to provide an adequate review of the potential impacts of the Project to wildlife and habitats on the adjacent SJWA. The Department requests that impacts to wildlife and habitat adjacent to the Project are thoroughly analyzed using appropriate studies to determine suitable mitigation 21

measures. In the absence of specific mitigation measures in the CEQA document, the Department believes that it cannot fulfill its obligations as a Trustee and Responsible Agency for fish and wildlife resources. 21

Wildlife Movement

The DEIR states that the Project will not restrict wildlife movement to and from the San Timoteo Badlands (Badlands) and SJWA/Mystic Lake area. As proposed, the project will abut the Badlands along portions of its northern border as well as its nearly 2-mile long eastern border at Gilman Springs Road, creating an obstruction to wildlife movement between the Badlands and open areas to the south (Existing Core H of the MSHCP, Mystic Lake, Lake Perris, and SJWA). Though a narrow connection between the Badlands and open space areas to the south are anticipated through future acquisitions within Proposed Core 3 of the MSHCP, this limited connection is conceptual and has not been finalized. The proposed Project will create a nearly 2-mile long physical barrier between the Badlands and MSHCP Proposed Core 3 to the north, and the SJWA and existing Core H to the south. 22

Data collected from three culvert crossings under SR-60, located just north of the Project area, has demonstrated extensive wildlife movement activities adjacent to the proposed Project. Species observed using the crossings include: bobcat, badger, coyote, deer, long-tailed weasel, black-tailed jackrabbit, and desert cottontail. Future phased development of the Project, along with associated increases in traffic, lighting, and noise, will likely directly negatively impact wildlife through direct mortality, or alter movement patterns by forcing wildlife to move east or west, away from the Project, and by precluding the ability of wildlife to use the existing culverts under SR-60. Furthermore, the project and related growth-inducing effects will likely contribute to a need for the creation of new roads, new or improved interchanges, and widening of existing roadways, such as Gilman Springs Road and SR-60. These future road improvements will result in impacts to the existing culverts that are used as wildlife crossings. The Department requests that studies be conducted to understand the potential impacts of the Project on wildlife movement within and adjacent to the Project site. Mitigation measures focusing on reducing impacts to wildlife (e.g., direct mortality) and wildlife movement within the geographic setting of the Project area should be provided, such as contributions towards wildlife crossings under Gilman Springs Road and designing low-impact solutions to widening roadways, such as SR-60, over existing wildlife crossings. 23

Predation effects

The Project proposes the construction of 60-foot tall buildings and installation of cottonwood trees along the southern edge of the Project area, adjacent to the SJWA. The DEIR states that the buildings will provide a benefit to raptors, as 24

they may be used as perching structures. However, the Department would like to point out that the provision of such perching structures may also result in increased levels of predation in open space areas adjacent to the development, including the SJWA. The Department recommends that all buildings and other potential perching structures be constructed a minimum of 250-meters away from surrounding open space areas. 24

Lighting

The DEIR states that night lighting may have adverse affects on a range of wildlife species. Affects include mortality due to increased predation, reduced health due to the disturbance of diurnal rhythms, and reduced clutch size, egg size, or survival of nesting birds. Although the Project intends to remain consistent with both the night lighting guidelines within the City's Municipal Codes and the City's Dark Sky Lighting Ordinance, the Department requests that additional measures be proposed to reduce or eliminate the long-term cumulative lighting impacts to the SJWA. Additionally, as some phases of the construction schedule propose the use of continuous lighting (i.e., 24-hour-per-day, 7-days-per-week) over extended periods of time, construction lighting may result in negative impacts to wildlife species. The Department requests that the DEIR be revised to include an assessment of the effects of all phases of construction lighting on adjacent habitat and associated species, and appropriate mitigation measures be incorporated to reduce or eliminate these impacts. . 25

Noise

The Project will produce increased noise levels that will reach the SJWA during both the construction phases of the Project and throughout the long-term operation of the facility; the DEIR states that noise levels will exceed 60 dBA roughly 1,000 feet into the SJWA during construction of the southernmost areas of Phase 2. As stated in the DEIR, increased noise levels near wildlife areas can affect mammals, birds, and other species by contributing to behavioral changes, such as increased startling of birds (especially harmful during nesting periods), changes in foraging patterns, sleep pattern disruption, and decreased overall condition/health from noise stress. Increased noise levels may also indirectly affect wildlife species by decreasing the habitat value of certain areas, resulting in decreased occupancy or use. 26

As estimated in the DEIR, some phases of the on-site construction schedule may occur on a continuous basis (24-hour-a-day, 7-day-per-week) and continue periodically over a nine-year period. The Department is concerned that such an extensive construction term and schedule may adversely impact species known to utilize the adjacent open space areas. 27

Although mitigation measures for short-term construction noise were proposed in the DIER, the measures focus solely on human residences, and do not consider measures for the adjacent SJWA and other nearby open space areas. The Department requests that the DEIR be revised to include measures that will reduce or eliminate the potential for construction noise entering the SJWA and other open space areas. 28

Trash

The Project has the potential to contribute increased amounts of trash to the neighboring SJWA and other adjacent open space areas, which may result in an added burden to land management obligations. The Department recommends the Project provide a minimum 250-meter setback between the development and SJWA and other open space areas to minimize the potential for increased land management obligations. The setback area should be maintained free of trash and debris in perpetuity to ensure that the SJWA and the land management obligations of the SJWA are not adversely impacted by the development and long-term operation of the Project site. 29

Greenhouse Gas Emissions

The Department is committed to reducing the effects of climate change on the State's natural resources and implementing legislative requirements addressing greenhouse gas emissions. The Natural Resources Agency adopted new guidelines on December 31, 2009, requiring lead agencies to analyze greenhouse gas (GHG) emissions under section 15064.4 of the CEQA Guidelines during CEQA review. Assembly Bill 32, the California Global Warming Solutions Act, established a state goal of reducing GHG emissions to 1990 levels by the year 2020 (a reduction of approximately 25 percent from forecast emission levels). Senate Bill 97, a "companion" bill directed amendments to CEQA statutes to specifically establish that GHG emissions and their impacts are appropriate subjects for CEQA analysis. Senate Bill 375 calls on California's urban regions to develop coordinated plans for reducing GHG emissions through more efficient transportation and development patterns. Regional transportation agencies, in coordination with local governments, must now design "Sustainable Communities Strategies" (SCSs) to achieve mandated GHG emissions reduction targets from automobiles and light trucks. 30

The Project appears to be counter to legislative and executive efforts to reduce GHG emissions as the Project is located at a considerable distance from ports, railroads, airports, and major freeways. The Project will likely emit greenhouse gases during both pre- and post-construction from: vehicle mileage trips to the site, energy to run the facility, water supply, and landscape maintenance equipment. Furthermore, land use conversion of the Project site, from agricultural to a warehouse facility, will reduce the ability of the existing Project site to sequester 31

carbon. The Department recommends that the subsequent CEQA document include a quantitative analysis that includes, but is not limited to, the primary sources of GHG emissions associated with the project pre- and post-construction, including: vehicular traffic, generation of electricity, natural gas consumption/combustion, solid waste generation and water usage. An assessment of the potential direct and indirect effects of Project-associated GHGs should be provided, including the loss of open space for sequestering carbon, the extent of change in GHGs compared to the existing environmental setting, and the potential conflicts with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. The revised DEIR should include an analysis of the potential direct and indirect impacts of GHGs and appropriate mitigation should be proposed for these impacts. 31

Vector control

The Project area and adjacent open space lands are used by a multitude of sensitive species. Following build-out, the Project may implement a vector control plan to address vectors such as rats, mice, gophers, ground squirrels, and mosquitoes. The Department is concerned with the potential risks of primary or secondary poisoning on the wildlife species that use the adjacent open space areas. Secondary poisoning occurs when scavenging species eat dead or dying rodents that have been killed by rodenticides. Owls, hawks, other scavenging birds and predators such as raccoons, foxes, skunks and coyotes are at risk. If chemical rodenticides are necessary, the Department recommends the use of bait products that contain the ingredients chlorophacinone or diphacinone. These compounds require multiple feedings to kill rodent pests, so they pose a lower secondary poisoning risk compared to rodenticides used to control mice and rats within homes, barns or other buildings. Over-the-counter rodenticides - including many commonly known brands that contain the active ingredients brodifacoum, bromadiolone or difethialone - can only be legally used to control rats and house mice in and very close to structures. It is not legal to use these products in open areas such as pastures or fields and they should not be used adjacent to open space areas. 32

The Project also includes the construction of detention basins and swales to treat onsite stormwater runoff. Stormwater treatment control best management practices (BMPs) and other basins can increase potential mosquito/vector control breeding habitat. It is in the interest of the City and the Department to offer the public the highest level of protection from vectors while also protecting natural resources and reducing the use of pesticides. The Department encourages the City to use preventative planning, compatible design, and effective long-term maintenance to avoid or reduce vectors. City should refer to the California Health & Safety Code § 2000-2093 for definitions and liabilities associated with the creation of habitat conductive to vector production and to guidance provided by the local mosquito and vector control districts/agencies. Please be aware that 33

some vector control measures may have associated environmental impacts and require notification pursuant to the Department's Lake and Streambed Alteration Program. 33

Fuel Management

The DEIR references the MSHCP Fuel Management Guidelines and states that all brush management will occur entirely within the Project boundary. However, the DEIR does not provide a description of the types of proposed fuel management activities, where fuel management areas will be located, the size of the fuel management areas, or the type(s) of vegetation that will be planted, if any, within the fuel management area. The Department recommends the DEIR be revised to provide a fuel management plan that includes a detailed plant palette, proposed maintenance activities, graphics that clearly define fuel modification zones with reference to the Project development, and an assessment of current and long-term potential impacts related to the fuel management area and associated maintenance activities. 34

Drainage Features and Hydrology

Development and operation of the Project will alter existing hydrology and drainage patterns within the Project site, and on adjacent properties, including Mystic Lake and the SJWA. According to Figure 4.9.1 of the DEIR, five of the total six watersheds within the Project boundary eventually drain to the SJWA. Drainage from the Project area will either, *"...be directed to the regional storm drain system and away from the adjacent open space, or treated by water quality and retention basins to maintain historical runoff rates and patterns..."* All storm water runoff coming from north of SR-60 or from north of Gilman Springs Road will be conveyed to storm water facilities and eventually discharged to adjacent lands or other facilities. 35

Offsite improvements are mentioned briefly within the Project Description section of the DEIR. These improvements include, but are not limited to, the construction of four debris basins east of Gilman Springs Road, drainage improvements to the east of the Project boundary between Cactus Avenue and Brodiaea Avenue, and interchange improvements along SR-60. The DEIR does not provide a description these improvements nor does it assess the biological impacts associated with the construction and perpetual maintenance of these facilities. Some, if not all of these facility improvements are required to develop the Project, and would be directly related to and constructed in conjunction with the Project, therefore, a biological and environmental impact assessment should be completed and disclosed in the revised DEIR.

All watershed areas, except Watershed E, will contain detention basins to mitigate onsite flows. Watersheds C and D are provided a "spreading area" while 36

Watersheds C, D, E, and F all contain discharge points at which the flows being conveyed through the Project area will be released onto adjacent properties. The DEIR does not provide information regarding the size, capacity, design, function, or maintenance requirements of the retention and/or detention basins, "spreading area", or discharge points. The DEIR also does not explain how the drainage facilities and discharge points will *"...maintain historical runoff rates and patterns..."* once they exit the Project site, except by stating that drainage systems that discharge into existing downstream facilities would be designed to not exceed existing discharge levels. 36

The DEIR states that Drainage 9 (referred to as Line "E" in the Hydrology and Water Quality Section of the DEIR) will be protected in its natural state and provided a minimum 25-foot setback from the banks. However, the Hydrology and Water Quality section of the DEIR proposes reinforced concrete box culverts at the Alessandro Boulevard and Brodiaea Avenue crossings and a realignment and improvement of a lateral connecting to this Drainage. The DEIR also states that runoff from north of SR-60 would be routed to this channel. If the intention to preserve this channel is based on its biological values and functions, the Department recommends that this buffer be greatly increased and the addition of any proposed structures be reconsidered. 37

Overall, the DEIR contains limited information pertaining to impacts associated with the capture of offsite drainages (offsite debris basins), retention of those drainages, and subsequent controlled release of these waters to the adjacent SJWA. It is also unclear whether post-construction onsite storm-water runoff will be released from detention basins to downstream lands. The Department is concerned that State-owned land may be adversely impacted by the compounded point releases of flows that may have normally sheet flowed or traveled within numerous smaller drainages. The Department recommends the DEIR be revised to include specific and detailed plans for all drainage control facilities, including the offsite debris basins and any proposed outlet facilities. The revised DEIR should also disclose and analyze impacts associated with these facilities, and provide appropriate mitigation to offset impacts. 38

<u>Water Quality</u>

The DEIR does not provide sufficient information for the Department to review the potential impacts of the Project on water quality. The Department is particularly concerned with the impact of the Project on surface waters flowing offsite into the SJWA and Mystic Lake. The discussion of water quality in the DEIR focuses on future compliance with the NPDES and General Construction permit process. Deferred analysis of Project impacts is not sufficient and compliance with State laws regarding water quality does not preclude impact(s). The revised DEIR should include specific analysis of anticipated water quality impacts or assume impacts and propose specific mitigation. The deferred 39

analysis included in the DEIR does not disclose impacts. Furthermore, all future projects constructed subject to the specific plan will require subsequent CEQA analysis. 39

Buffer and Setback Areas

Throughout the DEIR, the approximate 910 acres of State-owned land adjacent to the southern boundary of the Project area is referred to as the "CDFW Conservation Buffer Area." The DEIR states that *"the CDFW Conservation Buffer Area was originally purchased by the State to provide a buffer between SJWA/Mystic Lake and future development within the Moreno Highlands Specific Plan."* Although the acquisition of the lands broadened the area between potential future developments and recreational uses at the then northern border of the SJWA, providing a buffer was not the sole purpose of the acquisition. Lands that comprise the "CDFW Conservation Buffer Area" include agricultural properties that were purchased by the CDFW from individual land owners through grants attained under the Safe Neighborhood Parks, Clean Water, Air & Coastal Protection Bond Act (Prop 12). The lands were purchased by the CDFW and incorporated into the SJWA to expand the existing wildlife area, provide upland refuge for SKR during flooding events at Mystic Lake, and to contribute toward the preservation of a wildlife corridor between the SJWA and the Badlands. The Department agrees that these lands should be rezoned/designated as Open Space; however, the lands cannot be used to offset impacts associated with development of the Project, provide for the Project's open space requirements, provide a setback/buffer from the Project, or to mitigate/minimize impacts resulting from the Project. 40

The Specific Plan provides for a 400-foot setback along the southern boundary of the Project, adjacent to the SJWA, which includes a 250-foot development setback and a 150-foot building setback. The 250-foot development setback is proposed to include landscape areas, drainage and water quality facilities, barriers (walls and fencing), maintenance access drives, and other related uses. As this area includes maintained, engineered facilities required by the development, it cannot be considered as a setback or buffer from development. Rather, it should be considered a component of the development. 41

As the Department previously stated, the DEIR does not provide sufficient information on potential impacts to species, habitat, and the SJWA itself, from fuel management, water quality, lighting, noise, trash, predation effects, vector control, and GHG emissions. To help mitigate these impacts the Department recommends that the Project provide a minimum 250-meter natural/undeveloped buffer within its own development footprint. The 250-meter setback/buffer area should not contain any manufactured structures, such as detention and water quality basins, walls and fences, or irrigated landscaping. 42

LAPM, BUOW, and Sensitive Plants

Mitigation measures 4.4.6.2A, 4.4.6.4C, and 4.4.6.4E describe proposed relocation efforts planned for sensitive plants, LAPM, and BUOW. The measures propose that these species be relocated onsite, within the 250-foot setback area, and that the area be considered a conservation area for plant or animal species that need to be relocated due to development of the Project. However, the DEIR also states that the 250-foot setback area may be used for, *"landscaping, drainage and water quality facilities, fences and walls, maintenance access drives, and similar related uses."* The DEIR also proposes that the 250-foot buffer area will provide mitigation for indirect impacts of air pollutants on adjacent wildlife. The Department is very concerned with the appropriateness of these mitigation proposals. The 250-foot setback area cannot be used as described above, and also serve as a relocation and conservation area for sensitive species. 43

Air Pollutants

The DEIR states that, *"The 250-foot setback ...and the presence of the CDFW Conservation Buffer Area, will effectively mitigate potential indirect impacts of air pollutants...on wildlife within the SJWA."* As stated previously, the State-owned SJWA cannot serve as mitigation for Project impacts. Potential indirect impacts on wildlife and habitats associated with the SJWA should be fully disclosed, assessed, and mitigated within the Project's boundary, and not deferred to the adjacent state-owned wildlife area. 44

Cumulative Impacts

The Project is proposed in a rapidly developing region of southern California. The regional scarcity of biological resources may increase the cumulative significance of Project activities. Cumulative effects analysis should be developed as described under CEQA Guidelines Section 15130. Cumulative impacts analysis should include the Project's contribution to greenhouse gas emissions and impact on regional air quality. Please include all potential direct and indirect project related impacts to streambeds, riparian areas, wetlands, vernal pools, alluvial fan habitats, wildlife corridors, wildlife foraging habitats, or wildlife movement areas, aquatic habitats, sensitive species and other sensitive habitats, open lands, open space, and adjacent natural habitats in the cumulative effects analysis. 45

Alternatives Analysis

The CEQA document should analyze a range of alternatives which would avoid or otherwise minimize impacts to sensitive biological resources. The DEIR analyzed six project alternatives including: 1) No Project/No Build; 2) No Project/Existing General Plan; 3) Alternative 1: Reduced Density; 4) Alternative 46

2: Mixed Use A; 5) Alternative 3: Mixed Use B – MHSP with logistics warehousing; and 6) Alternative Sites. Although these alternatives were analyzed, none of the options focused on reducing impacts to biological resources. Alternative 1: Reduced Density option decreases the logistics warehousing development from 41.6 million square feet (msf) to 29 msf, but does not reduce the Project footprint or increase open space areas. Mixed Use A (Alternative 2) maintains the same acreage of impact as the proposed project, but provides for other uses including light manufacturing, retail commercial, and professional offices. Mixed Use B (Alternative 3) is nearly identical to the No Project/Existing General Plan alternative with the exception of swapping 603 acres of business, retail, institutional, and other uses for logistics warehousing. In the Department's opinion the DEIR fails to propose and analyze a full range of alternatives, and as such, the Department is unable to fulfill its obligations as a Trustee Agency. 46

The Department considers Rare Natural Communities as threatened habitats, having both local and regional significance. Thus, these communities should be fully avoided and otherwise protected from Project-related impacts. The CEQA document should include an evaluation of specific alternative locations with lower resource sensitivity where appropriate. Off-site compensation for unavoidable impacts through acquisition and protection of high-quality habitat should be addressed. 47

Please note that the Department generally does not support the use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species. Department studies have shown that these efforts are experimental in nature and largely unsuccessful. 48

Department Recommendations

The Department has the following concerns about the Project, and requests that these concerns be addressed in a revised DEIR:

1. The revised DEIR should include current biological data based on all available information. The Department recommends that the Project applicant/Lead Agency consult with staff from the Department (including SJWA land management) and MSHCP to obtain species occurrence information, assist in the identification of cumulative impacts, and to aid in the development of appropriate avoidance, minimization, and mitigation measures. If sensitive species may occur within the project area, species specific surveys, conducted at the appropriate time of year and time of day, should be included in the revised DEIR. Acceptable species specific surveys have been developed by the Department, and by the U.S. Fish and Wildlife Service, and are accessible through each agencies websites. 49

2. The Department recommends that the JD be revised to include all jurisdictional areas per the CWC's definition of *Waters of the State*. Subsequent to the revision of the JD, the revised DEIR should reevaluate the impacts to the streambeds, including potential indirect impacts both upstream and downstream of the Project area, and provide appropriate avoidance, minimization and mitigation measures for the impact to, and/or loss of streambeds and their associated habitats. The analysis in the revised DEIR should satisfy the requirements of the Department's Lake and Streambed Alteration Program and CESA (if deemed necessary). — 50

3. The Department recommended analysis of several potential impacts to wildlife resources on the adjacent SJWA and Lake Perris Recreation Area in its March 22, 2012 NOP comment letter. Topics suggested for analysis included: light, noise, trash, emissions, habitat connectivity, fuel modification, vector control, and runoff. These topics were not adequately identified and analyzed in the DEIR. The Department recommends the DEIR be revised to include these topics, and that further focused analysis and studies, including additional topics listed in this letter, be conducted to determine the impacts resulting from the Project. Appropriate minimization and mitigation measures should also be identified in the revised DEIR to offset these impacts. — 51

4. To reduce impacts to adjacent open space areas, the Department recommends the Project incorporate a 250-meter setback area along it's southern boundaries, and within Project's footprint, where the Project abuts open space areas (including the SJWA). The Department reiterates that the setback area should be independent of any State-owned lands. The revised DEIR should not refer to the SJWA as a "CDFW Conservation Buffer Area", nor should it defer its mitigation obligations or compensatory measures to the SJWA or other adjacent open spaces lands. — 52

5. The DEIR should be revised to incorporate appropriate, species-specific mitigation measures to address potential impacts to species and habitat. Specifically, revisions should address the mitigation measures proposed for Los Angeles pocket mouse, Burrowing Owl, and sensitive plants. — 53

6. The revised DEIR should provide a thorough analysis of direct, indirect, and cumulative impacts and identify specific measures to offset such impacts. As previously stated, the revised DEIR should include all potential direct and indirect project related impacts to streambeds, riparian areas, wetlands, vernal pools, alluvial fan habitats, wildlife corridors, wildlife foraging habitats, or wildlife movement areas, aquatic habitats, sensitive species and other sensitive habitats, open lands, open space, — 54

and adjacent natural habitats. The cumulative impacts analysis should also include an assessment of the Project's contribution to GHG emissions and regional air quality. 54

7. The revised DEIR should analyze a range of fully considered and evaluated alternatives to the Project (CEQA Guidelines Section 15126.6). It is the Department's opinion that the DEIR currently fails to propose and analyze a full range of alternatives, and as such the Department is unable to fulfill its obligations as a Trustee Agency. 55

In summary, the Department requests that the revised DEIR include current information regarding biological resources, an updated JD and impact analysis for State Waters, assessments and studies to determine the impacts to surrounding lands and associated species, appropriate mitigation measures, a thorough analysis of cumulative impacts, and an analysis of a broader range of Project alternatives. If you should have any questions pertaining to these comments, please contact Kimberly Freeburn Marquez at (909) 945-3484. 56

Sincerely,

Jeff Brandt
Senior Environmental Scientist

cc: State Clearinghouse, Sacramento

RESPONSES TO LETTER B-3

California Department of Fish and Wildlife

Response to Comment B-3-1. The City acknowledges the California Department of Fish and Wildlife's (CDFW) role as both a responsible and trustee agency, and its subsequent permitting authority under Fish and Game codes. Moreover, the City recognizes the important role the CDFW has in the California Environmental Quality Act (CEQA) review process for this project, and has addressed the CDFW's comments in the following responses.

Response to Comment B-3-2. This comment accurately reflects the characteristics of the World Logistics Center (WLC) project and the various Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) areas and constraints in the vicinity of the WLC project. It should be noted the Specific Plan area has been reduced from 2,710 acres to 2,610 acres (3.7 percent reduction) due to the removal of 100 acres in the southwest corner of the Specific Plan. This results in a reduction of 1 million square feet of logistics warehousing which is now 40.6 million square feet down 2.4 percent from the original 41.6 million square feet.

Response to Comment B-3-3. The Environmental Impact Report (EIR) contains sufficient, specific, and current data on both habitat and species within the WLC area, and does analyze potential impacts of the WLC project on these biological resources. However, the commenter must keep in mind that the EIR is a programmatic document, and a number of comments made by the commenter mistakenly assume the EIR is a project-level document (e.g., Responses to Comments B-3-33, B-3-34, etc.). Due to the level of information currently available about the WLC project, a programmatic EIR is the most appropriate CEQA compliance document at this time. The EIR clearly states that more detailed CEQA analysis will be performed once more specific project-level data and plans are submitted to the City for review (future site plans, plot plans, etc.) consistent with the programmatic WLC Specific Plan. The Draft Environmental Impact Report (DEIR) provides mitigation at a programmatic level, but does rely on implementation at the project level once specific development plans are submitted. The DEIR mitigation measures contain sufficient performance standards so that mitigation of project impacts is not deferred but rather will be applied to future discretionary permit applications, including obtaining permits from the Department as appropriate (e.g., Streambed Alteration Agreements for onsite drainages if they are state jurisdictional).

Response to Comment B-3-4. The surveys have been updated and provided in the updated Habitat Assessment and MSHCP Consistency Analysis (FCS 2013- Final Environmental Impact Report (FEIR) Volume 2 Appendix E-1) (hereafter MSHCP Consistency Analysis). Table B-3.A below includes a summary of the biological surveys addressing the request of the CDFW.

Table B-3.A: Summary of Survey Types, Dates, Locations, and Staff

Report Year	Field Survey Date(s)	Survey	Parcel Name	Staff
2005	May 10, 20, 23 Aug 29	Biological Resource Assessment Survey	Bel Lago	S. Crawford
2005	May 10	MSHCP Habitat Assessment	Bel Lago	S. Crawford
2005	May 10, 20, 23 Aug 29	Burrowing Owl Focused Surveys	Bel Lago	S. Crawford
2005	May 10, Aug 29	Jurisdictional Delineation Riparian/Riverine and Vernal Pool Habitat	Bel Lago	S. Crawford
2005	August 21 through 26	Los Angeles Pocket Mouse Focused Surveys	Bel Lago	K. Rios
2006	August 16, 26	MSHCP Habitat Assessment	Tentative Tract Map 34848 (Bel Lago South)	M. Romich J. Hickman S. Hongola
2006	August 16, 17, 19, 22	Burrowing Owl Focused Surveys	Tentative Tract Map 34848 (Bel Lago South)	M. Romich J. Hickman S. Hongola
2007	May 1, 2, 3, 4	Burrowing Owl Focused Surveys	Highland Fairview Corporate Park Property	S. Crawford K. Workman S. Hongola K. Osmundson
2007	May 10	Jurisdictional Delineation Riparian/Riverine and Vernal Pool Habitat	Highland Fairview Corporate Park Property - Logistics Building Area	K. Osmundson
2007	September 18	Jurisdictional Delineation Riparian/Riverine and Vernal Pool Habitat	Highland Fairview Corporate Park Property	T. Mullen
2007	May 15 July 19	MSHCP Habitat Assessment	Highland Fairview Corporate Park Properties	K. Lord
2007	May 15-18, 22-24, 30-31, June 1, 5-7, 12-14, 19-20, 26, July 3, 6, 11, 12	Burrowing Owl Focused Surveys	Highland Fairview Properties	S. Crawford
2007	September 27 2006	MSHCP Habitat Assessment	398-Acre Anderson Property	K. Workman S. Hongola
2007	August 15, 16, 22, 23 2006	Burrowing Owl Focused Survey	398-Acre Anderson Property	K. Workman K. Osmundson
2008	January 10	MSHCP Habitat Assessment	Highland Fairview Properties	K. Lord
2010	June 9, 10, 11, 16, 22, 23, 24	Sensitive Plant Surveys	Highland Specific Plan	S. Crawford
2010	June 9 through 24	Burrowing Owl Focused Surveys	Highland Specific Plan	S. Crawford

Report Year	Field Survey Date(s)	Survey	Parcel Name	Staff
2010	June 27, 28, 29, 30, Jul 1, 2	Los Angeles Pocket Mouse Focused Surveys	Highland Specific Plan	K. Rios
2011	October 24	MSHCP Habitat Assessment	Highland Specific Plan	S. Crawford D. Hameister
2012	March 16	Delineation of Jurisdictional Waters and Wetlands	WLCSP	S. Crawford
2012	June 28, July 5, 6 and 9	Burrowing Owl Focused Surveys	WLCSP	T. Molioo D. Lloyd D. Hameister
2012	July 1-6	Los Angeles Pocket Mouse Focused Surveys	WLCSP	K. Rios
2013	June 13, 20, 21, 27, July 3, 7, and 9	Burrowing Owl Focused Surveys	WLCSP	D. Hameister T. Molioo S. Crawford Z. Ziade L. Westmoreland C. Lytle
2013	July 8-11	Los Angeles Pocket Mouse Focused Surveys	WLCSP	K. Rios S. Crawford

Response to Comment B-3-5. Throughout the preparation of the CEQA document, attempts were made to contact SJWA staff to obtain local sensitive species information that was not previously included in the California Natural Diversity Data Base (CNDDB 2013) or obtained from Resource Conservation Authority (RCA) staff. Geographic Information Systems (GIS) data regarding the San Jacinto Wildlife Area (SJWA) and surrounding area was provided and is included in the MSHCP Consistency Analysis (FCS-MBA 2013-FEIR Volume 2 Appendix E-1). The updated MSHCP Consistency Analysis provides an accurate account of the species that may be affected by WLCSP development. Additional consultation with CDFW is not required.

Response to Comment B-3-6. The Department's NOP comment letter recommended the City consult with the Department to obtain species information and discuss potential project impacts. Based on recent studies, six California species of concern occur within the WLCSP area and include black-tailed jackrabbit, northwestern San Diego pocket mouse, logger-headed shrike, California horned lark, white-tailed kite, western burrowing owl. All six of these species are covered under the MSHCP. There are no species of concern potentially occurring within the WLCSP that are not covered under the existing MSHCP. Since, the CDFW is a participating agency in the MSHCP, consultation with CDFW was completed as part of the MSHCP process and additional consultation is not required. Contact was made with Dr. Heather Pert of CDFW at the June 5, 2013 "Consultant Toolkit for MSHCP Implementation" with regard to preliminary consultation on species present. An email was sent to Dr. Pert and other CDFW staff (particularly staff at the SJWA) for permission to survey the Conservation Buffer Area in 2013. Dr. Pert replied on June 18, 2013 stating, "*We are unclear why you need surveys for that area. It is already in conservation and therefore does not need surveys for rezoning. Please explain the need for surveys.*"

The project biologist followed with another email dated June 19, 2013. This project biologist stated:

"*We received multiple comments on the DEIR concerning the area and the fact that while no direct impacts would occur from the project, there could be indirect impacts. Do you have any recent studies on this area that we could use in our document on what is present in the area? I have no problem not surveying the area as I agree there are no impacts to the zone change, but I also need to be able to address comments. Information from the Department would help resolve the problem and in reality make for a stronger document."*

This was followed by a reply from Dr. Pert on June 19, 2013 stating, "*It does seem appropriate for the CDFW to share our survey information with you for that area. Our information is from the RCA bio-monitoring surveys. My understanding is that the RCA recently provided data to MBA, for a possible project across Gilman Springs Road at the abandoned golf course. The radius was five miles so MBA should already have the data for San Jacinto Wildlife Area.*"

This constituted our consultation with CDFW. The RCA data specifically for the WLCSP was also obtained from the RCA and used in both the surveys conducted by the biological consultant in 2013 and in revisions to the MSHCP Consistency Analysis.

Response to Comment B-3-7. The commenter states that the DEIR does not provide a complete or accurate assessment of raptor species that use the project site. Based on the RCA data and onsite field surveys, the following raptor species were recorded to occur with the SJWA:

- Bald Eagle
- Golden Eagle
- Burrowing Owl
- Cooper's Hawk
- Ferruginous Hawk
- Merlin
- Northern Harrier
- Peregrine Falcon
- Prairie Falcon
- Turkey Vulture
- White-tailed Kite

Suitable nesting and foraging habitat for all of these species is known to occur within the SJWA. However, suitable foraging and nesting habitat does not occur within the WLCSP for many of these species such as bald eagle, Cooper's hawk, peregrine falcon, and prairie falcon. For the majority of these species, raptor use of the WLCSP is limited to migratory paths that lead to or away from the SJWA. Removal of extensive agricultural areas will not affect migratory patterns to and from the SJWA. Raptor species observed within the WLCSP include northern harrier, turkey vulture, white-tailed kite, red-shouldered hawk, and red-tailed hawk. All of which, are known to forage in open disturbed habitats, similar to the disked agricultural fields in the WLCSP.

Due to the relatively close proximity of the SJWA, which contains moderate to high quality raptor foraging habitat, there is a potential for the loss of low-quality foraging habitat for California fully protected species such as golden eagle and white-tailed kite. Any impact to California fully protected species is considered a potentially significant impact requires mitigation. These species are considered covered under the MSHCP and payment of the MSHCP Development Fee may be used to purchase off-site habitat within core conservation areas that will provide long-term conservation of moderate to high quality foraging habitat. This will reduce project-related impacts to a less than significant level.

Response to Comment B-3-8. Comments were made about inaccurate information provided for several State Species of Special Concern. These comments are accurate. At the time of the DEIR submittal in early 2013, RCA data was not obtained at that time. Based on the revised MSHCP Consistency Analysis (FCS-MBA 2013-FEIR Volume 2 Appendix E-1), which included information from RCA Biological Monitoring Programs, it was noted that all of these species were recorded to occur on or within the immediate vicinity of the survey area. This changed the potential for these species to occur onsite from low to moderate. However, these species are still covered under the MSHCP and payment of the fee is the appropriate mitigation for any potentially significant impacts to these species.

Response to Comment B-3-9. The commenter states that an accurate account of the species and habitat on the project site have not been adequately provided by the DEIR. Based on the RCA data and numerous field visits, and consultation with CDFW as outlined in Response to Comment B-3-6, the revised MSHCP Consistency Analysis (FCS-MBA 2013-FEIR Volume 2 Appendix E-1) takes into consideration all of the available occurrence data. However, this does not change the foraging habitat quality. The foraging habitat on site consists of actively disked wheat fields, which is plowed dirt for most of the year, with the exception of the winter wheat growing season. Fields are typically disked at least twice a year. The soils within the survey area are powdery, which makes it very difficult for burrowing mammals to live. The vegetation is monotypic and has no species diversity. Due to the disturbed nature of the habitat, the prey base is also limited and does not provide an abundant food source. The WLCSP provides for a 250-foot buffer area between the proposed development and the SJWA to avoid direct impacts to species associated with the SJWA. Barrier fences will be installed to prohibit human trespass onto the SJWA from the project area, which will minimize impacts associated with human interactions. Mitigation will consist of payment of the MSHCP fee, which may be used to purchase off-site lands for future conservation.

Response to Comment B-3-10. The CDFW described MSHCP surveys that detected two State Species of Special Concern within 250 meters (820.2 feet) and 400 meters (1,312.3 feet) of the project site. Based on the revised MSHCP Consistency Analysis (FCS-MBA 2013-FEIR Volume 2 Appendix E-1), the San Diego jackrabbit is considered present within portions of the WLCSP. In addition, SKR was revised to be a high potential to occur within suitable habitat areas in the WLCSP. LAPM trapping efforts were conducted on several occasions over the years and have not been recorded to occur within the WLCSP. This species is considered absent from the WLCSP (also refer to Response to Comment A-6-15).

Response to Comment B-3-11. The CDFW is concerned with the results of the focused surveys for LAPM included in the DEIR. Protocol level surveys were conducted by FCS biologist Kelly Rios, who has approximately 20 years of experience trapping mammal species throughout southern California. Protocol surveys were conducted in 2013 in all areas of the WLCSP and off-site infrastructure areas that contain suitable habitat for Los Angeles pocket mouse (LAPM). During the trapping effort, field measurements were taken for each individual species captured and identification was verified by Philip Verne, another highly experienced mammalogist that has worked closely with Kelly on several projects. The 2013 survey report is included as an appendix in the revised MSHCP Consistency Analysis (FCS-MBA 2013-FEIR Volume 2 Appendix E-1). Based on the findings in the report, the following species were identified as being present on the site and confirmed by Philip Verne, deer mouse (*Perognathus maniculatus*), desert pocket mouse (*Chaetodipus penicillatus*), northwestern San Diego pocket mouse (*Chaetodipus fallax*), Western harvest mouse (*Reithrodontomys megalotis*), and desert woodrat (*Neotoma lepida*). In 2005 and 2010, northwestern San Diego pocket mouse was misidentified as long-tailed pocket mouse (*Chaetodipus formosus*) and has been corrected.

Response to Comment B-3-12. It is the CDFW's opinion that the DEIR contradicts finding by biological surveys performed by the MSHCP that have verified the presence of Coulter's goldfield less than 2-miles south of the project site. Based on the revised MSHCP Consistency Analysis (FCS-MBA 2013-FEIR Volume 2 Appendix E-1), suitable habitat for this species does not occur within the project

site. Coulter's goldfield occurs in marshes, swamps and wetlands, all of which occur within the SJWA (within 1 mile of the WLCSP). This habitat does not occur within the WLCSP and project development will have no impacts to Coulter's goldfields.

Response to Comment B-3-13. The CDFW expressed their opinion that the DEIR has underestimated the relative level of impacts to foraging habitat associated with development of the project. Based on the revised MSHCP Consistency Analysis (FCS-MBA 2013-FEIR Volume 2 Appendix E-1), impacts to raptor foraging habitat were considered potentially significant. Mitigation will be provided by the payment of the MSHCP mitigation fee. These fees are designed to be used to purchase off-site lands that will provide suitable foraging habitat for raptor species as part of the MSHCP consistency. Previous consultation with CDFW is outlined in Response to Comment B-3-6. Future consultation with CDFW during project-specific development is always recommended, but not required.

Response to Comment B-3-14. Based upon comments received on the DEIR, additional studies are necessary to determine if the loss of raptor foraging habitat is considered significant. Based on the revised MSHCP Consistency Analysis (FCS-MBA 2013-FEIR Volume 2 Appendix E-1), raptor species that commonly use the WLCSP area for foraging are common raptors that have adapted to urbanization, such as red-tailed hawks, red-shouldered hawks, and white-tailed kites. These raptors are commonly observed in urbanized areas and the loss of poor-quality foraging habitat is not considered a potentially significant impact requiring mitigation.

Due to the relatively close proximity of the SJWA, which contains moderate to high quality raptor foraging habitat, there is a potential for the loss of low-quality foraging habitat for California fully protected species such as golden eagle and white-tailed kite. Any impact to California fully protected species is considered a potentially significant impact requires mitigation. These species are considered covered under the MSHCP and payment of the MSHCP Development Fee may be used to purchase off-site habitat within core conservation areas that will provide long-term conservation of moderate to high quality foraging habitat. This will reduce project-related impacts to a less than significant level.

In addition, the 250-foot buffer area along the southern portion of the WLCSP will be a transitional area from landscape vegetation to native habitat that will continue to the SJWA boundary. Currently, the CDFW Conservation Buffer Area is maintained as extensive agricultural fields, similar to current conditions within the WLCSP. Although the WLCSP project does not propose to use this area as mitigation, it should be noted that removing agricultural activities within the SJWA will greatly increase the quality of the adjacent foraging habitat. The introduction of landscape trees, shrubs, and light poles within the WLCSP will provide additional perching areas for raptors.

Response to Comment B-3-15. The commenter states that an assessment of the impacts to the MSHCP as a result of this project is necessary to address CEQA requirements. A complete description of MSHCP consistency is included in the updated MSHCP Consistency Analysis (FCS-MBA 2013-FEIR Volume 2 Appendix E-1), no additional response required.

Response to Comment B-3-16. The commenter states that if the project is not processed through the MSHCP for covered species, then the project is subject to the Federal Endangered Species Act (FESA) and/or California Endangered Species Act (CESA) for threatened, endangered, and/or candidate species. All information within the comment is adequately described and necessary if the project is not processed under the MSHCP. As noted in Response to Comment B-3-15, a complete description of MSHCP consistency is included in the updated MSHCP Consistency Analysis (FCS-MBA 2013-FEIR Volume 2 Appendix E-1).

Response to Comment B-3-17. The commenter declares that a Notification of Lake or Streambed Alteration may be required if the site contains jurisdictional waters. All identifiable and potentially jurisdictional drainages on the site were mapped and included in the DEIR and the draft wetland delineation. Currently regulatory jurisdiction of the features is based on the existing regulatory guidance including the 1987 Regional Supplement to the United States Army Corps of Engineers (USACE) Wetland Delineation manual: Arid West Region and Rapanos guidance. Prior to any future development, specific project proposals will have to undergo separate environmental review under CEQA and will be required to secure a formal jurisdictional determination from the USACE as well as jurisdictional determinations from the Regional Water Quality Control Board (RWQCB) and CDFW.

The applicant will secure a jurisdictional determination with the USACE and confirm with the RWQCB and CDFW to determine if drainage features mapped on the property are subject to jurisdictional authority and protection. If the features are subject to regulatory protection, the applicant will secure permit approvals with the appropriate agencies prior to initiation of construction. (See MM 4.4.6.3A below).

The updated jurisdictional delineation report assumes CDFW jurisdiction over the entire length of Drainages 7, 8, 9, 12, and 15. In addition these areas are also under the jurisdiction of the RWQCB. A maximum of 5.0 acres may be under CDFW and RWQCB jurisdiction. It should also be noted that Drainages 12 and 15 are hydrologically connected to downstream waters of the US and are also under the USACE jurisdiction. Mitigation for impacts to no more than 5.0 acres of waters of the State will be mitigated by the creation of a minimum of 5.0 acres of habitat creation or purchase of credits at an approved mitigation bank. MMs 4.4.6.3A and 4.4.6.3B were revised as follows to address potential impacts to jurisdictional drainages if they are impacted by future development:

~~**4.4.6.3A** Prior to the approval of any Plot Plans proposing development adjacent to any on-site drainage channels identified in the project programmatic Jurisdictional Delineation (MBA 2012), the developer shall retain a qualified biologist to prepare a site-specific jurisdictional delineation and submit it to the U.S. Army Corps of Engineers (USACE) and California Department of Fish and Wildlife (CDFW) for review and concurrence. If the development plan will not affect identified jurisdictional areas, no USACE permitting is required. However, permitting through the Regional Water Quality Control Board (RWQCB) and CDFW (i.e., Streambed Alternation Agreement) may still be required for this development.~~

~~The applicant shall consult with USACE, CDFW and RWQCB to establish the need for permits based on the results of the 2012 jurisdictional delineation and final design plans for each of the proposed the facilities. Consultation with the three agencies shall take place and appropriate permits obtained. Compensation for losses associated with the altering of drainages on site shall be in agreement with the permit conditions.~~

~~Any development adjacent to Drainage 9 shall be designed with the channel in its relatively natural condition, and shall provide a minimum 25 foot open space setback from the top of each bank. Any landscaping of this setback area shall use only native species to help protect resources residing within or traveling through these drainages between the SJWA and the Badlands, and to protect any riparian vegetation along this drainage. This measure shall be implemented to the satisfaction of the City Planning Division.~~

4.4.6.3A Prior to the issuance of grading permits the applicant shall secure a jurisdictional determination from the United States Army Corps of Engineers (USACE) and confirm with the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (CDFW) if drainage features mapped on the property to be developed are subject to jurisdictional authority. If the features are subject to regulatory protection, the applicant will secure permit approvals with the appropriate agencies prior to initiation of construction. Compensatory riparian habitat mitigation

will be provided at a minimum ratio of 1:1 (replacement riparian habitat to impacted riparian habitat) to ensure no net loss of riparian habitat or aquatic resources. It should be noted that this is a minimum recommended ratio but the actual permitting ratio may be higher. These detention basins will be oversized to accommodate the provision of areas of riparian habitat. Maintenance of the basins will be limited to that necessary to ensure their drainage and water quality functions while encouraging habitat growth. Riparian habitat mitigation will be provided concurrent to or prior to impacts. A Compensatory Mitigation Plan will be prepared for all unavoidable impacts and will be consistent with the United States Army Corps of Engineers (USACE)/United States Environmental Protection Agency's Compensatory Mitigation for Losses of Aquatic Resources; Final Rule and the United States Army Corps of Engineers Standard Operating Procedure for Determination of Mitigation Ratios.

The applicant shall consult with United States Army Corps of Engineers, California Department of Fish and Wildlife, and Regional Water Quality Control Board to establish the need for permits based on the results of a recent jurisdictional delineation and final design plans for each of the proposed the facilities. Consultation with the three agencies shall take place and appropriate permits obtained for project-level development. Compensation for losses associated with the altering of drainages on site shall be in agreement with the permit conditions and in coordination with compensation outlined below.

Mitigation will consist of onsite creation, offsite creation, or purchase of mitigation credits from an approved mitigation bank. As outlined in the WLC programmatic DBESP report, onsite riparian habitat will be created at a minimum 1:1 ratio due to the poor quality of onsite habitat. New habitat will be created within the onsite detention/infiltration basins to the extent allowed by the resource agencies to reduce storm flows, improve water quality, and reduce sediment transport. Habitat creation will include the installation of mule fat scrub or similar riparian scrub habitat to promote higher quality riparian habitat, but still maintain the basins for their primary role as detention facilities. The use of these areas as conservation areas would require consent from CDFW and the City of Moreno Valley (MM BIO-2b and MM DBESP 1 through 3).

~~**4.4.6.3B** As an alternative to Mitigation Measure 4.3.6.3A, the project developer shall retain a qualified biologist to prepare a Determination of Biologically Equivalent or Superior Project (DBESP) relative to development along Drainage 9 in order to maximize protection or preservation of the drainage, otherwise the DBESP must demonstrate why protection or preservation is not possible. This measure shall be implemented to the satisfaction of the City Planning Division in consultation with the County Resource Conservation Agency (RCA).~~

~~The DBESP shall be prepared to document measures to reduce impacts to riparian/habitats in accordance with the MSHCP as well as CDFW and USFWS guidelines. The DBESP shall include specific measures to reduce impacts to riparian areas and provide mitigation in the form of on-site preservation of riparian areas and/a combination of compensation through purchase and placement of lands with riparian/habitat into permanent conservation through a conservation easement and/or restoration or enhancement efforts at off-site or on-site locations.~~

4.4.6.3B As required by the Resource Conservation Agency (RCA), a program-level Determination of a Biological Equivalent or Superior Preservation (DBESP) for impacts to Riverine/Riparian habitat has been prepared and shall be approved by the Resource Conservation Agency prior to project approval. The Determination of a Biological Equivalent or Superior Preservation includes a general discussion of

> mitigation options for impacts to riverine/riparian areas as well as general location and size of the mitigation area and includes a monitoring program.
>
> If impacts to riparian habitat within the World Logistics Center Specific Plan (WLCSP) cannot be avoided at the time of specific development, then a separate project-level Determination of Biologically Equivalent or Superior Preservation (DBESP) shall be prepared to identify project-specific impacts to riparian habitat and incorporate mitigation options identified in Mitigation Measure 4.4.6.3A.
>
> A project-level Determination of a Biological Equivalent or Superior Preservation for each specific development shall be prepared to document measures to reduce impacts to riparian/riverine habitats in accordance with the Western Riverside County Multiple species Habitat Conservation Plan (MSHCP). The project-level Determination of a Biological Equivalent or Superior Preservation shall include specific measures to reduce impacts to riparian areas and provide mitigation in the form of onsite preservation of riparian areas and/or a combination of compensation through purchase and placement of lands with riparian/riverine habitat into permanent conservation through a conservation easement and/or restoration or enhancement efforts at offsite or onsite locations. Therefore, mitigation required for compensation for impacts to riparian/ riverine areas will require a minimum of 1:1 mitigation ratio of riparian/riverine mitigation land.
>
> As outlined in the WLC programmatic DBESP, erosion control improvements will be installed within Drainage 9 to reduce sediment transport, and additional riparian habitat will be enhanced within this drainage following the installation of the erosion control improvements (MM DBESP 4 and 5).

Any impact to drainage features that are under regulatory agency jurisdiction or are considered riparian/riverine areas under the MSHCP are considered potentially significant and will require compensatory mitigation at a minimum of a 1:1 mitigation ratio through onsite creation, off-site creation, or purchase of available mitigation credits through an approved mitigation bank. Compensatory mitigation will be negotiated during the permit acquisition process.

A Compensatory Mitigation Plan may be required for all unavoidable impacts and will be consistent with the USACE/USEPA's *Compensatory Mitigation for Losses of Aquatic Resources; Final Rule* and the USACE's *Standard Operating Procedure for Determination of Mitigation Ratios*.

An updated jurisdictional delineation report was prepared to address concerns raised by CDFW (FEIR Volume 2 Appendix E-13). The previous jurisdictional delineation assumed CDFW jurisdiction over a select portion of drainage features 7 and 9. The updated jurisdictional delineation report assumes CDFW jurisdiction over the entire length of Drainages 7, 8, 9, 12, and 15. The California Water Code defines Waters of the State as"… any surface water or groundwater, including saline waters, within the boundaries of the state." All drainage features referenced in the hydrology and water quality section of the EIR (Section 4.9) are included in the jurisdictional delineation.

In the public interest of protection and conservation of fish and wildlife resources of the state (§1600), Fish and Game Code Section 1602 requires any person, state or local governmental agency, or public utility to notify the CDFW before beginning any activity that will do one or more of the following: (1) substantially obstruct or divert the natural flow of a river, stream, or lake; (2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or (3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake. CDFW's jurisdiction includes ephemeral, intermittent, and perennial watercourses, including dry washes, characterized by:

1 The presence of hydrophytic vegetation.

2. The location of definable bed and banks.
3. The presence of existing fish or wildlife resources.

Furthermore, CDFW jurisdiction is often extended to habitats adjacent to watercourses, such as oak woodlands in canyon bottoms or willow woodlands that function as part of the riparian system. Historic court cases have further extended CDFW jurisdiction to include watercourses that seemingly disappear, but re-emerge elsewhere. Under the CDFW definition, a watercourse need not exhibit evidence of an ordinary high water mark (OHWM) to be claimed as jurisdictional. However, CDFW does not regulate isolated wetlands; that is, those that are not associated with a river, stream, or lake.

The CDFW regulates activities that involve diversions, obstruction, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife resources. Since several of the projects within the WLCSP will require such activities, a Section 1602 Streambed Alteration Notification will be required and submitted to the CDFW for review for each project specific development, as appropriate. The request will include a detailed project description, a description of proposed impacts, a conceptual mitigation plan, and completed notification forms. Typically, CDFW will be able to complete the agreement within 60-90 days of the completion of the CEQA process for each project.

Response to Comment B-3-18. The WLCSP may result in unavoidable impacts to as much as 5.0 acres of stream and riparian habitat under the jurisdiction of the CDFW. The jurisdictional delineation completed in 2013 has not been verified by CDFW. These impacts will be mitigated through on-site creation, offsite conservation and/or purchase of in kind habitat at replacement ratios established during the permit process, but will be at a minimum of 1:1 mitigation ratio to ensure a no-net-loss of riparian habitat.

Response to Comment B-3-19. The comment provides information on what will be required for the processing of a Notification of Lake or Streambed Alteration. During individual project development, if a Notification of Lake or Streambed Alteration is required, the information described in Comment B-3-19 will be incorporated. This information has been updated in Section 4.4.6.3 of the DEIR.

Response to Comment B-3-20. The comment states that the absence of mitigation measures relating to Notification of Lake or Streambed Alteration interferes with the Department's ability to fulfill its obligations as a Trustee and Responsible Agency for fish and wildlife resources. Based on the most current jurisdictional delineation, impacts to Drainages 7, 8, 9, 12, and 15 will require a Notification of Lake or Streambed Alteration. A maximum of 5.0 acres of streambed under CDFW jurisdiction may potentially be impacted. Permit negotiations are not part of the CEQA process and must take place independently and cannot be completed until the CEQA document has been approved.

However, deferred mitigation is not acceptable under CEQA guidelines. Since the DEIR for WLCSP is a program level-document, it will not have the specific level of detail required for a project-level CEQA document. Mitigation measures are generally described at a program level, which is appropriate for this CEQA document. Additional environmental documentation prepared at a project-level of detail will be prepared and used to support permitting with the CDFW.

Any impact to drainage features that are under regulatory agency jurisdiction or are considered riparian/riverine areas under the MSHCP are considered potentially significant and will require compensatory mitigation at a minimum of a 1:1 mitigation ratio through onsite creation, off-site creation, or purchase of available mitigation credits through an approved mitigation bank. Compensatory mitigation will be negotiated during the permit acquisition process.

Response to Comment B-3-21. The commenter states that the CDFW recommended analysis of impacts on the adjacent SJWA and, without specific mitigation measures pertaining to this, the CDFW feels that it cannot fulfill its obligations as a Trustee and Responsible Agency. Based on the revised MSHCP Consistency Analysis (FCS-MBA 2013-FEIR Volume 2 Appendix E-1), the WLCSP will have no direct impact on the adjacent SJWA. Due to the disturbed nature of the SJWA immediately adjacent to the WLCSP, it is highly unlikely that any sensitive species would be found in the disked agricultural fields.

An email was sent to Dr. Pert and other CDFW staff (particularly staff at the SJWA) for permission to survey the Conservation Area in 2013. Dr. Pert replied on June 18, 2013 stating, *"We are unclear why you need surveys for that area. It is already in conservation and therefore does not need surveys for rezoning. Please explain the need for surveys."*

The project biologist followed with another email dated June 19, 2013. This project biologist stated:

"We received multiple comments on the DEIR concerning the area and the fact that while no direct impacts would occur from the project, there could be indirect impacts. Do you have any recent studies on this area that we could use in our document on what is present in the area? I have no problem not surveying the area as I agree there are no impacts to the zone change, but I also need to be able to address comments. Information from the Department would help resolve the problem and in reality make for a stronger document."

This was followed by a reply from Dr. Pert on June 19, 2013 stating, "*It does seem appropriate for the CDFW to share our survey information with you for that area. Our information is from the RCA bio-monitoring surveys. My understanding is that the RCA recently provided data to MBA, for a possible project across Gilman Springs Road at the abandoned golf course. The radius was five miles so MBA should already have the data for San Jacinto Wildlife Area."*

Based on the revised MSHCP Consistency Analysis (FCS-MBA 2013-FEIR Volume 2 Appendix E-1), mitigation measures will be imposed by the City of Moreno Valley through its processing of entitlements on a project-by-project basis regarding light, noise, trash, emissions, vectors, fuel management, runoff and water quality. All project operations within the WLCSP will be required to prepare a Water Quality Management Plan (WQMP), which will specifically detail all of the required safety precautions necessary to eliminate the risk of toxic contamination to any downstream water body. All project construction activities within the WLCSP will be required to prepare a Storm Water Pollution Prevention Plan (SWPPP), which will specifically detail all of the required safety precautions necessary to eliminate the risk of construction related contamination to any downstream water body. All development within the project area will be required to obtain a statewide general National Pollutant Discharge Elimination System (NPDES) construction permit for all construction activities associated with the proposed project and will be subject to the County of Riverside's regulations to implement the NPDES program. The NPDES requirements are discussed in detail in Section 4.9 of the DEIR, *Hydrology and Water Quality*. Lastly, the portions of the WLCSP that are specifically located adjacent to Core Conservation Areas (e.g., SJWA), which are located along the eastern and southern boundary of the WLCSP, will require project specific design features and measures related to light, noise, trash, emissions, vectors, fuel management, runoff and water quality as part of the MSHCP requirements for projects affecting a recognized Urban/Wildlands interface. Mitigation measures will include specific project designs such as:

- Light directing/restricting covers on light poles;
- Vegetated buffer along the southern and western edge of the WLCSP to reduce noise impacts adjacent to residential development and the conservation area; and
- Street sweeping and trash removal requirements to reduce on-site and off-site trash issues.

The vegetated buffer mentioned above as well as a perimeter wall will be used to reduce the emissions leaving the WLCSP. All detention basins will be designed to facilitate water quality improvements and will require assessments by vector control to reduce or eliminate standing water, and the SWPPP and NPDES for each project will adequately address all fuel management, runoff, water quality requirements.

Response to Comment B-3-22. The commenter states that the DEIR is incorrect in its assertion that the proposed project will not restrict wildlife movement to and from the San Timoteo Badlands and the SJWA/Mystic Lake area. It should be noted that currently, SR-60 and Gilman Springs Road already create a significant barrier between the Badlands and the SJWA. There are also several rural residences that occur along the east side of Gilman Springs Road and there are many proposed residences that have yet to be constructed. Therefore, the current existing conditions already have created a significant barrier between these two open space areas. It should also be noted that Existing Core H and Proposed Core 3 are connected just south of the WLCSP and therefore will not be completely separated by the proposed development. The disturbed nature of the extensive agricultural fields also limits the amount of wildlife species that may use the WLCSP area as a wildlife corridor. There is no supporting documentation that claims the WLCSP is used as a wildlife movement corridor.

The WLCSP is not within a significant wildlife movement corridor and as a result was not included in any conservation area, corridor, or linkage within the MSHCP. Therefore, the proposed WLCSP will not have a significant impact on wildlife movement on a regional basis. In an effort to provide an existing corridor through the eastern portion of the WLCSP, Drainage 9 will remain in its current location and has the potential to provide a travel path for wildlife species between Existing Core H and Proposed Core 3. Drainage 9 may require some initial re-grading and reinforcement to eliminate erosion issues, but may ultimately be enhanced to provide higher quality riparian habitat.

Response to Comment B-3-23. The CDFW requests that studies be conducted to understand the potential impacts of the project on wildlife movement within and adjacent to the project site. Biological resources have been studied on the project site for many years. Wildlife movement by ground dwelling animals north of the WLCSP is precluded because the majority of the underground culverts used to convey storm flows beneath SR-60 are filled with sediment (Master Plan of Drainage Report 2014). Therefore, construction activities associated with the WLCSP will not have any impact on wildlife movement from the area north of the WLCSP. Similarly, all of the culverts that convey storm flows beneath Gilman Springs Road are also filled with sediment and have not been maintained for many years. Therefore, wildlife species are forced to cross over the top of SR-60 and Gilman Springs Road. In an effort to control flood waters entering the project site, new storm drains will be required beneath SR-60 and Gilman Springs Road. Where appropriate, these drainage features will be designed to allow wildlife crossings, which under current conditions is unavailable. These project design features will take into consideration the length, width, and height of the culverts to allow for wildlife to move freely beneath SR-60 and Gilman Springs Road. As stated in Response to Comment B-3-22, Drainage 9 will remain in its current location to provide a potential travel path for wildlife species between Existing Core H and Proposed Core 3.

Response to Comment B-3-24. The CDFW recommends that all buildings and other potential perching structures be constructed a minimum of 250-meters away from surrounding open space areas. Light poles and transmission lines will be designed as project design features to provide raptor perching sites to reduce potentially significant impacts to raptor foraging habitat as discuss in Response to Comment B-3-14. However, there is a conflict in the recommendations from the CDFW. Designing light poles and utility poles to be raptor perching sites, may also potentially increase the number of raptors that will use the area surrounding the WLCSP. This may have an indirect impact to sensitive wildlife species that may be predated by the increased number of raptors. This potential issue is highly subjective and is not considered a significant indirect impact. There are over 3,000

linear feet of disked agricultural lands along the southern edge of the WLCSP. The loss of a few common rodent species, such as deer mouse, will not be a significant impact. There are already numerous utility poles used by red-tailed hawks along Gilman Springs Road. The increase in raptor perching sites is not a significant impact.

Response to Comment B-3-25. The CDFW requests that the DEIR be revised to include an assessment of the effects of all phases of construction lighting on adjacent habitat and associated species, and appropriate mitigation measures be incorporated to reduce or eliminate these impacts. The project will comply with all requirements of the night lighting guidelines as stated in the WLCSP. Each individual project will require a separate set of mitigation measures or project design features for lighting condition needs depending on where in the WLCSP the project is located. Projects located along the edges of the WLCSP will have more lighting requirements than those located in the central or northern portion of the WLCSP. These lighting design features and/or mitigation measures will be established during the project specific entitlement process.

Response to Comment B-3-26. The commenter correctly summarizes impacts to biological resources due to noise. Portions of the WLCSP will produce increased noise levels that will affect common wildlife species by decreasing already poor quality habitat values. A decrease in occupancy of common wildlife species is not a significant impact. Due to the distance of the WLCSP to high quality riparian habitat within the SJWA (approximately 4,000 feet), an increase in noise levels within the WLCSP will not significantly affect suitable habitat for sensitive wildlife species.

Response to Comment B-3-27. The CDFW is concerned that extensive noise impacts due to construction term and schedule may adversely impact species known to utilize the adjacent open space areas. A noise analysis has been prepared for the project to quantify potential short and long-term noise impacts that could occur as a result of development of the parcel adjacent to open space areas. Based on recent studies (Landrum and Brown 2012) noise contours would exceed 60 A-weighted decibels (dBA) [L_{eq}]) roughly 1,000 feet into the CDFW Conservation Buffer Area during construction of the southernmost areas of Phase 2. Building construction activities associated with Phase 2 are expected to last no more than 3 to 6 months at one time. The City of Moreno Valley Noise Ordinance requires that noise levels remain below 55 dBA (Leq) during nighttime hours. USFWS typically uses 60 dBA as a noise threshold for impacts to wildlife species. To achieve this noise level the edge of WLCSP would only need to be 100 feet from the nearest suitable habitat for sensitive wildlife species and no soundwall or noise barrier would need to be present. Therefore, any noise-related impacts would be temporary in nature and generally limited to construction of Phase 2 facilities along the southern boundary of the WLCSP.

The southern edge of the project site is well over 4,000 linear feet from the northern edge of high quality habitat of the SJWA. Construction noise, even if continuous, will not significantly affect any off-site sensitive habitat or suitable habitat for sensitive wildlife species. The proposed WLCSP will be built over a span of 15 years, but construction will not be continuous and will occur at different parts of the WLC over time. The burrowing owl that was observed in 2013 was observed immediately adjacent to Alessandro Boulevard, which is a heavy traffic street during the morning and afternoon rush hours. It does not appear that noise caused by traffic has deterred use of the WLCSP at this location.

Response to Comment B-3-28. The CDFW requests that the DEIR be revised to include measures that will reduce or eliminate the potential for construction noise entering the SJWA and other open space areas. Based on recent studies (Landrum and Brown 2012) noise contours would exceed 60 A-weighted decibels (dBA) [L_{eq}]) roughly 1,000 feet into the CDFW Conservation Buffer Area during construction of the southernmost areas of Phase 2. The southern edge of the project site is well over 4,000 linear feet from the northern edge of high quality habitat of the SJWA. Construction noise, even if continuous, will not significantly affect any off-site sensitive habitat or suitable habitat for sensitive wildlife species. Additional mitigation measures are not necessary for the area adjacent to the SJWA.

However, in the future, if the extensive agricultural lands on the SJWA are replaced with natural vegetation communities and/or suitable habitat for sensitive wildlife species, then additional mitigation measures may be required on a project specific basis.

Response to Comment B-3-29. The CDFW recommends the project provide a minimum 250-meter (820.21 feet) setback between the development and SJWA and other open space areas to minimize the potential for increased land management obligations. This issue is addressed in detail in Response to Comment B-3-42 in this Letter.

Response to Comment B-3-30. The CDFW states their commitment to reducing the effects of climate change on the State's natural resources and implementing legislative requirements addressing greenhouse gas emission. The City appreciates the CDFW's commitment to reducing greenhouse gases (GHG), and encourages the commenter to refer to Section 4.7 of the DEIR for additional information on the efforts of the WLC project to limit or reduce its GHG emissions, including allowance for solar energy systems.

Response to Comment B-3-31. The CDFW suggests that the revised DEIR should include an analysis of the potential direct and indirect impacts of GHGs and appropriate mitigation should be proposed for these impacts. An updated Air Quality Assessment was prepared for the WLCSP. The plan details all of the sources of GHG emissions and provides an assessment of project related direct and indirect impacts associated with Project-Associated GHGs. It should be noted that a project specific air quality assessment will be required for individual projects during future entitlement processes which will contain appropriate mitigation tiered off the impact analysis and mitigation in this EIR.

The CDFW recommends a quantitative analysis include the primary sources of greenhouse gas emissions associated with operation of the project, including vehicles, generation of electricity, natural gas consumption/combustion, solid waste generation, water usage, and landscape maintenance equipment. The DEIR quantified those sources of emissions as shown in Table 4.7.G (page 4.7-32) and Table 4.7.I (page 4.7-35). The landscape emissions are less than 1 metric tons of carbon dioxide equivalent ($MTCO_2e$)/year and therefore are not shown in the tables. The revised analysis also quantifies those sources and estimates fewer greenhouse gas emissions than in the original DEIR (refer to Volume 2 Section 4.3 Air Quality).

The commenter also requests that construction greenhouse gas emissions be estimated. The construction greenhouse gas emissions were estimated in the DEIR (Table 4.7.E, pages 4.7-29 and 4.7-30) and in the revised analysis (refer to FEIR Volume 2 Section 4.3, Table 4.7.E).

The commenter also requests quantification of the land conversion from agricultural to warehouse. This quantification was estimated to be 16,523 $MTCO_2e$ in the DEIR in Table 4.7.E (page 4.7-30) and is shown as a one-time "land use change (conversion from crop to urban)." This has been refined in the revised analysis and is now added to the operational emissions (refer to FEIR Volume 2 Section 4.3, Table 4.7.H).

The commenter also requests that the potential conflicts with any applicable plan, policy, or regulation to reduce greenhouse gases be identified. This was addressed in DEIR Section 4.3 Air Quality, Impact 4.7.6.2 (pages 4.7-36 through 4.7-43) and was found to be significant and unavoidable. In the FEIR, this impact was changed to less than significant.

Response to Comment B-3-32. The CDFW recommends the use of bait products that contain the ingredients chlorophacinone or diphacinone. If and when rodenticides are used, the applicant will only

use bait products for rodent elimination, which must contain chlorophacinone or diphacinone. This is not a required mitigation measure. It is best described as a Best Management Practice.

Response to Comment B-3-33. The commenter states that the City should use preventative planning, compatible design, and effective long-term maintenance to avoid or reduce vectors. It is also the desire of the City to control vectors associated with the detention basins of the WLC project, however, the commenter must remember this is a programmatic document, and the EIR clearly states that more detailed CEQA analysis will be performed once more specific project-level data and plans are submitted for discretionary review to the City (e.g., future site plans, plot plans, etc.) consistent with the programmatic WLCSP. The DEIR provides mitigation at a programmatic level, but does rely on implementation at the project level once specific development plans are submitted. Future discretionary review by the City will include any detention basins needed to support development within the WLCSP. The general characteristics of these basins are described in Section 4.9 of the DEIR, and the water quality characteristics of the WLC project and basins are shown in Specific Plan Section 5.1.8.8. This information is based on the conceptual basins identified in the project hydrology report (DEIR Appendix J-1) and the revised project hydrology report (FEIR, Volume 2 Appendix J-1) with this document. A mitigation measure has been added to the FEIR (Volume 2) as follows:

4.4.6.4l The individual property owner and/or Property Owners Association (POA) as appropriate shall be responsible for maintaining the various onsite landscaped areas, open improved or natural drainage channels, and detention or flood control basins in a manner that provide for fuel management and vector control pursuant to standards maintained by the City Fire Marshall and County Department of Environmental Health- Vector Control Group. This measure requires the individual owner or Property Owners Association (POA) to manage vegetation in and around these areas or improvements so as to not represent a fire hazard as defined by the City Fire Department through the substantial buildup of combustible materials. This measure also requires the individual owner or Property Owners Association to manage vegetation and standing water in drainage channels and basins such that they do not encourage or allow vectors to occur (primarily rats and mosquitoes). Runoff shall not be allowed to stand in channels or basins for more than 72 hours without treatment or maintenance to prevent establishment of mosquitoes per published County vector control guidelines and "Best Management Practices for Mosquito Control on California State Properties" which is available from the California West Nile Virus website at http://www.westnile.ca.gov/resources. This measure shall be implemented by the Property Owners Association in consultation with the City Fire Department and Riverside County Department of Environmental Health – Vector Control Group.

Response to Comment B-3-34. The CDFW recommends the DEIR be revised to provide a fuel management plan that includes a detailed plant palette, proposed maintenance activities, graphics that clearly define fuel modification zones with reference to the project development, and an assessment of current and long-term potential impacts related to the fuel management area. Again, the commenter has apparently misunderstood that the DEIR is a programmatic document and does not address site specific development at this time. Subsequent development applications may include specific fuel management plans if they are necessary and so desired by the City. However, there is already considerable detail in the WLCSP (both the original and the revised versions) in terms of the project's landscaping palette, including the detention basins. As outlined in the DEIR (Section 3.4.9), the landscaping palette is consistent with the MSHCP guidelines for urban/wildland interfaces and emphasizes native species over weedy or introduced non-native species. For additional information, see Section 4.2.9 of the WLCSP. In addition, MM 4.4.6.1A in the DEIR address plants suitable for the detention basins as these areas may be used for future relocation of sensitive species, or at a minimum riparian habitat adjacent to the north end of the SJWA.

Response to Comment B-3-35. Comments were made about the need for a biological and environmental impact assessment to be included in the FEIR. The proposed drainage improvements will be designed to reduce standing water and will spread storm water flows within a gradually sloping basin. The drainage improvements will contain riparian scrub vegetation, which will also limit vectors such as mosquitoes. The drainage improvements will be used to filter and clean the first flush pollutants from storm flows. The treated water will be collected and piped to the drainage improvements, where the water will be used to establish a riparian habitat along the southern boundary of the WLCSP. Flows will be contained within a meandering swale, allowing for riparian vegetation and possibly wetland creation. Riparian vegetation will be maintained at the entrance and exit of the drainage improvements to ensure functionality of the basins over time. The drainage improvements will vary in size and shape, but will generally be 100-200 feet in width and several hundred feet in length. A general description of the drainage improvements are discussed in the Master Plan of Drainage Report (CH2M Hill 2014 – FEIR Volume 2 Appendix J-1). The nuisance flow associated with the proposed development will provide a more regular water source, which will be used to support a higher quality riparian habitat than current existing within drainage features within the WLCSP area.

Response to Comment B-3-36. The CDFW's comment stated that the DEIR does not provide information regarding the size, capacity, design, function, or maintenance requirements of the retention and/or detention basins, "spreading area," or discharge points. The previous DEIR did not contain a detailed description of the proposed detention basins and spreading areas. Based on the Master Plan of Drainage Report (CH2M Hill 2014 - FEIR Volume 2 Appendix J-1), five of the seventeen proposed debris basins will also include a spreading structure. These structures are all located along the southern boundary of the WLCSP and will provide the last phase of water quality treatment before exiting the WLCSP. Spreading basin structures will be installed within all of portions of Basin Nos. B3, C2, D2, F1, and F2. The Master Plan of Drainage Report (CH2M Hill 2014 - FEIR Volume 2 Appendix J-1) provides a detailed description of the size of each basin (Table 3.3 - Proposed Basins). Figure 9 of the report provides a detailed design of a typical detention basin with spreading structures. The design of the basins is preliminary and the location may change based on negotiations with regulatory agencies during the permitting process.

The detention basins with spreading structures will be designed for energy dissipation and habitat creation. The purpose of the detention basins with spreading structures is to reduce the velocity of the water before it leaves the project site. The water will enter the detention basins from an underground storm drain outlet that originate from an upstream detention basin. The upstream detention basins are designed to take first flush storm water, which will treat the storm water before it enters the downstream detention basins with spreading structures.

Once water enters the basin, it will flow through an energy-dissipating device, such as riprap, to reduce scour and erosion. Water will then meander through a gradual sloping basin that will be planted with a variety of riparian plant species such as mule fat, cottonwood, willows, coyote bush, and other appropriate riparian plants. Vegetation will be monitored to determine if removal or trimming of individual plants that may cause potential structure damage is necessary. Otherwise, vegetation within the basins will be relatively undisturbed.

Storm water flows will then flow into an outlet riser that will convey flows into a spreading structure with a bubbler outlet. This will reduce downstream erosion, but will maintain existing flows and character of a sheet flow pattern within the downstream drainage features.

The created riparian habitat will function as a linear boundary between the developed portion of the WLCSP and the open space associated with the SJWA. This boundary area will be part of the 250-foot buffer area that is proposed between the WLCSP and the SJWA. The riparian habitat will provide a nature barrier or wall, which will assist in blocking nuisance light, muffling excessive noise, and

knock down air emissions to minimize air quality impacts to the adjacent SJWA. In addition, street sweeping will provide an initial water quality element. The detention basins will provide a secondary treatment for water quality as well as provide a catchment area for debris and trash. Riparian habitat created in the spreading basins, will provide a tertiary treatment for water quality. It is anticipated that all storm flows and nuisance flows will be treated to a point where it will be of beneficial use within the spreading grounds and riparian habitat will not be affected by on-site and off-site pollution sources.

The impermeable surface of roads and buildings will increase the amount of run-off during storm events. In addition, nuisance-flows from irrigation systems used for landscaping will also increase the amount of available moisture. The detention basins with spreading grounds will be designed to contain the additional flows that will be received from the new development and at the same time will allow downstream flows at the current rate. Downstream flows are required to be maintained at current conditions with regard to flow rate. No more and no less water will be available during storm events.

Routine maintenance within the detention basins with spreading structures will be completed on an as-needed basis to maintain the integrity of the facilities. A Biological Resource Management Plan (BRMP) will be prepared to document maintenance activities within the riparian areas prior to issuance of any permits for development along the southern boundary of the site per (MM 4.4.6.4F). Maintenance activities will include, but are not limited to, trimming, tree removal, weeding, and seeding. Vegetation thinning will only be necessary if the plants within the detention basins becomes a potential risk to the integrity of the facility (refer to Section 4.9 in the DEIR. Also, refer to Appendix J of Volume 2 of the FEIR).

In addition, all project operations within the WLCSP will be required to prepare a Water Quality Management Plan (WQMP), which will specifically detail all of the required safety precautions necessary to eliminate the risk of toxic contamination to any downstream water body. The WQMP will contain specific project design features just as street sweeping and trash removal practices that will reduce trash impacts to the SJWA. All project construction activities within the WLCSP will be required to prepare a Storm Water Pollution Prevention Plan (SWPPP), which will also contain detailed precautions necessary to eliminate trash to any downstream water body. All development within the project area will be required to obtain a statewide general National Pollutant Discharge Elimination System (NPDES) construction permit for all construction activities associated with the proposed project and will be subject to the County of Riverside's regulations to implement the NPDES program. The NPDES requirements are discussed in detail in Section 4.9 of the DEIR, *Hydrology and Water Quality.* A long-term storm water management plan is required to maintain debris basins and provide long-term maintenance objectives to allow storm water to be filtered and used in supporting on-site riparian habitat as part of the projects mitigation area.

Response to Comment B-3-37. The commenter states the buffer around Drainage 9 should be increased and the addition of any proposed structures be reconsidered. Drainage 9 is currently a highly eroded drainage feature with low to moderate quality habitat. The majority of the channel contains an unvegetated channel with sparse vegetation. Currently, the plan for this drainage is to redesign this feature to have better function and value than the highly eroded feature it is today. As discuss in Section 4.4.6.3A of the DEIR, a 25-foot buffer area will be vegetated with native plant species on either side of the drainage. Currently, the extensive agricultural areas are disked to the edge of the drainage feature, leaving no buffer area to the existing drainage feature. This additional 25-foot buffer of native plants is sufficient to provide a barrier between the existing drainage feature and the proposed development.

The improvements associated within Drainage 9 include the reconstruction of the existing Alessandro Boulevard and re-grading the upstream portion of the channel to fit a more natural flowing drainage feature. Several drop structures are proposed within Drainage 9 to reduce flow velocity, which will reduce erosion and provide a greater area to create additional riparian habitat that would normally be

scoured during storm events. This will reduce the amount of erosion and downstream sediment deposition. All of the proposed improvements within Drainage 9 are necessary to protect the drainage and greatly increase the function and value of the drainage.

Response to Comment B-3-38. The Department recommended the DEIR be revised to include specific and detailed plans for all drainage control facilities. The project's drainage design will mitigate impacts from the project so that the flows, volumes, and velocities mimic existing conditions leaving the project's boundary. Additional information has been added to DEIR Appendix J *Hydrology and Water Quality Master Plan of Drainage Report Section 3.2, Proposed Drainage Systems* to provide more specific information for the drainage systems. In addition, Figure 1, *Proposed Storm Drains and Basins* and Figure 4*, Hydrology Map for Proposed Condition* were revised and Figure 8, *Typical Detention Basin* and Figure 9, *Typical Detention Basin with Drainage Spreading Structure* were added to provide additional information (refer to Appendix J of Volume 2 of the FEIR). Key elements of the revised Section 3.2 *Proposed Drainage Systems* in the technical study are summarized below.

Proposed Drainage Systems

Development of the proposed project site will increase the impervious surface due to the construction of the projects' buildings, roadways and associated improvements. The improvements will have the potential to increase storm water runoff. Underground drainage systems and detention and infiltration basins are proposed to convey the storm water runoff and mitigate the increased flow due to the proposed land development. Ultimately, for the proposed condition, the peak flows, volumes, and velocities at downstream discharge points where the flows exit the southerly project boundary will mimic the existing condition.

Six (6) major drainage systems are proposed, named Line "A" (referred to Line "F" in the Moreno Master Drainage Plan (MMDP)), Line "B", Line "C", Line "D", Line "E" and Line "F", shown on Figure 1. The majority of the Line "E" will remain as is; with one exception: a cross culvert is proposed where Line "E" crosses the proposed Street C, and a proposed Line "E-1" 96-inch reinforced concrete pipe (RCP) will join the existing Line "E" at the bridge/culvert. The information is summarized in Table B-3.B below.

Table B-3.B Project Proposed Condition for 100-year 3-hour Storm Event

Drainage System	Watershed	Discharge Point	Manning's n	Peak Flow (cfs)	Preliminary Sizing
"A"	"A"	A4	0.015	2,170	12'×9' and 12'×8' RCBs
"B"	"B"	B5	0.015	930	72" and 96" RCPs
"C"	"C"	C4	0.015	750	96" RCP
"D"	"D"	D3	0.015	705	96" RCP
*	"D"			90	-
"E" **	"E"	73	0.015	1,800	12'×8' RCB***
"E-1"	"E"	72	0.015	540	90" RCP
"F"	"F"	F2	0.015	350	72" RCP
*	"F"			40	-

* Basin only
**The Line "E" is the existing earthen channel to be protected in place except at Street C.
***See Figures 1 and 4 for bridge/culvert location at Street C

Combined detention and infiltration basins are proposed to mitigate the peak flow rate and flow volumes. Table B-3.C presents the sizes of each of the basins. Two separate analyses were performed for the detention and infiltration basins. The first analysis was part of the drainage system analysis to size the basins to mitigate the flow from the 100-year, 3- and 24-hour storms. In this analysis the bottom 2 feet of the basins (identified as Basin Infiltration Depth in Table B-3.C) is infiltration storage and assumed to be full prior to the storm. The second analysis was performed to analyze the pre- and post-project infiltration for the project. This is a water balance model analysis of historical daily runoff.

Table B-3.C: Proposed Basins

Basin No.	Approx. Basin Length (ft)	Approx. Basin Top Width (ft)	Basin Depth (ft)	Basin Detention Depth (ft)	Basin Infiltration Depth (ft)	Side Slope	Basin Detention Volume (ac-ft)	Basin Infiltration Volume (ac-ft)	Total Basin Volume (ac-ft)
Basin A1	1,200	1,260	8	6	2	2	97	32	129
Basin B1	540	240	8	6	2	2	12	4	16
Basin B2	1,140	240	8	6	2	2	41	14	55
Basin B3*	2,520	360	5	3	2	2	45	30	75
Basin C1	1100	360	8	6	2	2	80	27	107
Basin C2*	6,120	120	5	3	2	2	73	49	122
Basin D1	960	600	6	4	2	2	42	14	56
Basin D2*	2200	120	5	3	2	2	28	18	46
Basin E1	960	480	6	4	2	2	26	8	34
Basin F1*	2300	120	5	3	2	2	18	12	30
Basin F2*	840	120	5	3	2	2	7	4	11

**spreading basin*

There is no offsite debris basins proposed. The proposed drainage facilities in the WLC project have been sized to convey the expected sediment load. As such, debris basins upstream of Gilman Springs Road are not needed nor required for this project. The project onsite area will not generate significant amount of sediment due to the proposed logistics land use. The sediment that proceeds through the Gilman Springs Road culverts will be transported to the proposed detention basins on the WLCSP area. The proposed basins will settle the sediment before exiting the project boundary, similar to how the sediment settles in the existing channels and overland area in the existing condition.

Mitigation of Impacts

The mitigation of impacts of the facilities is discussed in the DEIR Appendix J *Hydrology and Water Quality Master Plan of Drainage Report Section 4, Mitigation of Impacts of Proposed Development.* Key elements are summarized below.

Drainage Area Comparison

For the existing condition, the boundaries of sub-watersheds are determined based on the topographic characteristics. For the proposed condition, the boundaries of the sub-watersheds are altered slightly to accommodate the proposed grading and roadways. As a result, the tributary areas

of the proposed sub-watersheds are slightly different compared to the existing condition. However, the proposed boundaries are generally consistent with the existing boundaries. The proposed project will not alter the existing drainage pattern flowing southerly throughout the project site. All flow from offsite and onsite will drain to Perris Valley hydro-subarea or Gilman Springs hydro-subarea. The total drainage areas of proposed condition remain the same as the existing condition, as presented in Table B-3.D.

Table B-3.D: Comparison of Existing and Proposed Drainage Areas

Exist. Condition			Prop. Condition		
Watershed	**Area(ac)**	**Hydro-Subarea**	**Watershed**	**Area (ac)**	**Hydro-Subarea**
"A"	2,657	Perris Valley	"A"	2,746	Perris Valley
"B"	1,361	Gilman Hot Springs	"B"	1,147	Gilman Hot Springs
"C"	1,061	Gilman Hot Springs	"C"	1,149	Gilman Hot Springs
"D"	965	Gilman Hot Springs	"D"	1,013	Gilman Hot Springs
"E"	2,510	Gilman Hot Springs	"E"	2,545	Gilman Hot Springs
"F"	445	Gilman Hot Springs	"F"	399	Gilman Hot Springs
Total	8,999			8,999	

Stormwater Runoff Comparison

The proposed project will increase the percentage of impervious areas and will have the potential to increase peak discharges. The proposed detention/infiltration basins and spreading areas will mitigate the increased peak discharges. With attenuation, the total peak discharge at the project's southerly boundary will be less than the total peak discharge of the existing condition. Table B-3.E compares the peak discharges at the downstream discharge points where the storm water runoff exits the project's southerly boundary for 100-year 3-hour storm events.

Table B-3.E: Comparison of Existing and Proposed Stormwater Runoff for 100-year 3-hour Storm

		Exist. Condition		Prop. Condition	
Hydro-Subarea	**Watershed**	**Discharge Point**	**Peak Discharge(cfs)**	**Discharge Point**	**Peak Discharge (cfs)**
Perris Valley	"A"	78	2,470	A4	2,170
	Total		2,470		2,170
Gilman Hot Springs	"B"	12	430	B5 930	
	"B"	22	700		
	Subtotal		1,130		930
	"C"	37	705	C4 750	
	"C"	41	115		
	Subtotal		820		750
	"D"	53	600	D3	705
	"D"	61	215	*	90
	Subtotal		815		795
	"E"	73	1,990	73	1,800
	Subtotal		1,990		1,800
	"F"	81	100	** 40	

Table B-3.E: Comparison of Existing and Proposed Stormwater Runoff for 100-year 3-hour Storm

		Exist. Condition		Prop. Condition	
Hydro-Subarea	**Watershed**	**Discharge Point**	**Peak Discharge(cfs)**	**Discharge Point**	**Peak Discharge (cfs)**
Perris Valley	"A"	78	2,470	A4	2,170
	Total		2,470		2,170
Gilman Hot Springs	"B"	12	430	B5 930	
	"B"	22	700		
	"F"	93	120	F2 350	
	"F"	102	140		
	"F"	112	135		
	Subtotal		495		390
	Total		5,250		4,665

* Outflow from Basin D3.
** Outflow from Basin F3.

Flows at Project Boundary

Flows exiting the project's boundary in the proposed condition will mimic existing conditions. There are six watershed areas and drainage courses that deliver flow through the project area. These are identified as watershed areas "A" through "E" on Figure 3. The existing capacity of these drainage courses at the project boundary was determined. Flows in excess of this capacity would flow overland and sheet flow across the project boundary in the existing condition. Detention Basins and spreading area facilities are proposed to reduce the proposed conditions flow to pre-project conditions at the project boundary. Table B-3.F identifies the existing and proposed 100-year flow, the drainage course capacity, and the sheet flow at the project boundary.

Table B-3.F: Comparison of Existing and Proposed Flows at Project Boundary

	Existing Conditions at Project Boundary			Proposed Conditions at Project Boundary		
Watershed	**Existing 100-year Flow (cfs)**	**Existing Drainage Course Capacity (cfs)**	**Existing 100-year sheet flow (cfs)**	**Proposed 100-year Flow (cfs)**	**Proposed 100-year flow from Basin to Drainage Course (cfs)**	**Proposed 100-year sheet flow from Basin (cfs)**
A[1]	2,470	2,200	270	2,170	N/A	N/A
B	1,130	55	1,075	930	55	875
C	820	165	655	750	165	585
D	815	65	750	795	65	730
E[2]	1,990	6,220	0	1,800	N/A	N/A
F	495	70	425	390	70	320

Notes:
[1] Flows to improved channel - No sheet flow proposed in proposed conditions.
[2] Existing facility has capacity for flow – No detention basin proposed.

Flow Velocities at Project Boundary

This project proposes a number of open space, detention basins and spreading areas (shown in Figure 1 and Figure 4) to mitigate the increased runoff, volumes and flow velocities. As a result, the flow velocities at the project boundary for the proposed condition are less than the existing condition, as illustrated in Table B-3.G. For the watersheds "A" and "E" in the proposed condition, the runoff will flow to the existing Green Belt Channel and existing earth channel, respectively. Therefore, sheet flow would not occur at the project boundary. The flow velocities in the watersheds "B", "C", "D", and "F" for the proposed and existing conditions were analyzed. For the proposed condition, the runoff will flow to the basins and spreading areas, then flow over the weir structures, and eventually flow to the existing channels downstream of the project's boundary. Flows in excess of channel capacity would flow overland and sheet flow across the project's boundary. For the existing condition, the runoff would flow in to the existing drainage channels, and the flow in excess of channel capacity would flow overland and sheet flow across the project's boundary.

Table B-3.G: Comparison of Existing and Proposed Flow Velocities at Project Boundary

Exist Watershed	Node*	Velocity (fps)	Prop Watershed	Node*	Velocity (fps)
B	12	5.16	B	B5	2.19
	22	4.40			2.19
C	37	8.80	C	C4	2.01
	41	3.60			2.01
D	53	4.77	D	D3	2.10
D	61	4.45			2.10
F	81	3.33	F	F2	1.78
F	83	6.29			1.78
F	102	3.61			1.78
F	112	3.83			1.78

* See Figure 3 for node locations at existing watershed southerly boundary, and see Figure 4 for node locations at proposed watershed southerly boundary.

Runoff and Infiltration Volumes Comparison

An analysis and comparison of the volume of runoff and infiltration for the pre and post project conditions was performed as outlined in the *Master Plan of Drainage Report Appendix H*. A total of three scenarios were analyzed, a baseline and two project scenarios. The scenarios are described below:

Baseline or Pre-Project conditions, where most of the land use is agricultural and the crop is considered to be dry wheat.

Scenarios of Post-Project Conditions, where the development of the site will happen and the impervious area will increase. Two scenarios were considered under the Post-development conditions, those are:

Scenario 1) Detention Basins and bio retention areas with 0.15 inch per hour (in/hr) infiltration rate. This scenario considers the use of detention basins not only for storm peak attenuation but also for infiltration. The lower end of the minimum infiltration rate for soil type B is considered. The detention basins are assumed to take 3 days to empty and total dead storage currently assumed at 212 acre feet (AF). In reality the amount of dead storage needed will be a function of the measured infiltration rate at the site.

Scenario 2) Detention Basins and bio retention areas with 0.3 in/hr infiltration rate. This scenario considers the use of detention basins not only for storm peak attenuation but also for infiltration. The higher end of the minimum infiltration rate for soil type B is considered. The detention basins are assumed to take 3 days to empty and dead storage is assumed at 212 AF.

The results of the analysis are summarized in Table B-3.H below.

Table B-3.H: Model Results for Runoff and Infiltration and the Percentage Change from Baseline Conditions

	Runoff		Infiltration	
Scenario	**1990-2012 Average(AF/yr)**	**Percent Change from Baseline**	**1990-2012 Average(AF/yr)**	**Percent Change from Baseline**
Baseline	59	-	1,649	-
Scenario 1	125	110%	1,850	12%
Scenario 2	40	-33%	1,945	18%

The project's impacts will be mitigated with the implementation of Scenario 2. The volume of runoff after the project is constructed will be less than the existing volume of runoff and the amount of infiltration will increase. Infiltration tests to refine Scenarios 1 and 2 will be performed in final design so runoff and infiltration will mimic existing conditions.

Response to Comment B-3-39. The CDFW declares that there is not sufficient information for them to review the potential impacts of the project on water quality; however, the City respectfully disagrees. Specific analysis of anticipated water quality impacts are described in Section 4.9.6.3, *Operation-Related Water Quality Impacts* of the DEIR. The DEIR also includes site design, source control, and treatment BMPs as proposed mitigation measures. The project will comply with the *Water Quality Management Plan (WQMP) for the Santa Ana Region of Riverside County* (approved by the Santa Ana Regional Water Quality Control Board October 22, 2012) which requires the use of Low Impact Development (LID) Best Management Practices (BMPs) that maximize infiltration, harvest and use, evapotranspiration and/or bio-treatment. Flows from the project will be treated first by LID BMPs where the flow will be infiltrated, evapotranspired, or treated. As required by MM 4.9.6.1A, the treated flows will then be reduced to below or equal to pre-development conditions by routing the on-site storm water flows through a series of on-site detention and infiltration basins before flows are released off site. These basins will provide incidental infiltration and secondary treatment downstream of the LID BMPs. All runoff from the site will be treated by LID BMPs and then routed through the detention and infiltration basins before it leaves the project area and into Mystic Lake and the San Jacinto Wildlife Area.

The *Water Quality Management Plan (WQMP) for the Santa Ana Region of Riverside County* (approved by the Santa Ana Regional Water Quality Control Board October 22, 2012) discusses water quality impacts and the use of LID BMPs:

"LID BMPs have been shown in studies throughout the country to be effective and reliable at treating a wide range of Pollutants that can be found in urban runoff, including those listed above, and those subject to adopted Total Maximum Daily Loads (TMDLs) in the Santa Ana Region of Riverside County (Bacteria and Nutrients). As such, the LID BMPs required in this WQMP are expected to treat discharges of urban-sourced 303(d) listed Pollutants from subject projects to an impaired waterbody on the 303(d) list such that the discharge from the project would not cause or contribute to an exceedance of Receiving Water Quality Objectives." (p. 19)

Detailed site plans showing the location of treatment BMPs will be prepared as part of the final project-specific WQMP. Currently, the WQMP is at a Specific Plan level and details cannot be provided at this stage. The locations of the LID BMPs are not shown in the current Specific Plan phase, but will be shown in the final project-specific WQMP.

Also, the project has committed to performing a Water Quality Monitoring Program on the adjacent SJWA. A Water Quality Monitoring Plan for the SJWA will be prepared, which will contain specific performance standards to ensure that runoff does not impact the SJWA. MM 4.9.6.3C outlines a very detailed process that must be implemented to ensure the SJWA will not be affected by water pollution from the project site.

Changes to DEIR

Consistent with the comments provided by Letter B-3 (California Department of Fish and Wildlife), the text in DEIR Section 4.9.6.1, Page 4.9-30 and 4.9.6.3, Page 4.9-42 is amended to include more specific requirements to ***MMs 4.9.6.1A,*** *and* ***4.9.6.3C****.* ***MM 4.9.6.1B*** *has been added to ensure the performance and monitoring of the drainage facilities. The modified mitigation measures resulting from the comment is not considerable, and is considered to be a minor refinement of the existing measures. The change to the DEIR does not result in a significant impact and has no material effect on the findings of the EIR. The revisions to the text of the DEIR are as follows:*

4.9.6.1A Prior to issuance of ~~any development~~ any building permit within the Specific Plan area, the developer shall ~~place~~ construct storm drain pipes and conveyances, as well as, combined detention and infiltration basin(s), bioretention areas, and spreading area(s)~~ as appropriate~~ within each proposed watershed, as outlined in the project hydrology plan, to mitigate the impacts of increased peak flow rate, velocity, flow volume and reduce the time of concentration by storing ~~increased runoff for a limited period of a time and release the outflow at a rate that does not exceed the pre-development condition~~ and infiltrating increased runoff for a limited period of time and release the outflow at a rate that does not exceed the pre-development peak flows and velocities for the 2, 5, 10, 25, and 100-year storms and volumes as assessed in the water balance model for historical conditions. For the purpose of this mitigation measure, the term "construct" shall mean to substantially complete construction so as to function for its intended purpose during construction with complete construction prior to occupancy. Field investigations will be conducted to determine the infiltration rate of soils underlying the proposed locations of bioretention areas and detention basins. The infiltration rate of the underlying soils will be used to properly size the bioretention areas and detention basins/infiltration basins to ensure that adequate volumes of runoff, in cumulative total for all bioretention areas and detention basins are captured and infiltrated. The water balance model will be updated and rerun for the site-specific conditions encountered to confirm the water balance. This measure shall be implemented to the satisfaction of the City Engineer. Energy dissipaters shall be used as the spillways of basins to reduce the runoff velocity and dissipate the flow energy. Drainage weir structures shall be constructed at the downstream end of the watersheds flowing to the San Jacinto Wildlife Area to control the runoff and spread the flow ~~in~~ such ~~a way~~ that the flows exiting the project boundary will return to the sheet flow pattern similar to the existing condition. Detention basins and spreading areas shall be designed to account for the amount of the sediment transported through the project boundary so that the existing sediment carrying capacity is maintained.

4.9.6.1B The bioretention areas and detention/infiltration basins shall be designed to assure infiltrations rates. The monitoring plan will follow the guidelines presented by the

California Storm Water Quality Association (CASQA) in the California Storm Water Best Management Program (BMP) Handbook, Municipal, January 2003 Section 4, Treatment Control Best Management Programs Fact Sheets TC-11 Infiltration Basin and TC-30 Vegetated Swale).

For the Bioretention areas, as needed maintenance activities shall be conducted to remove accumulated sediment that may obstruct flow through the swale. Bioretention areas shall be monitored at the beginning and end of each wet season to assess any degradation in infiltration rates. The maintenance activities should occur when sediment on channels and culverts builds up to more than 3 inches (CASQA 2003). The swales will need to be cultivated or rototilled if drawdown takes more than ~~48~~ 72 hours.

For the detention/infiltration basins, a 3-5 year maintenance program shall be implemented mainly to keep infiltration rates close to original values since sediment accumulation could reduce original infiltration rate by 25-50%. Infiltration rates in detention basins will be monitored at the beginning and end of each wet season to assess any degradation in infiltration rates. If cumulative infiltration rates of all detention basins drops below the minimum required rates, then the detention basins will be reconditioned to improve infiltration capacity by scraping the bottom of the detention basin, seed or sod to restore groundcover, aerate bottom and dethatch basin bottom (CASQA 2003).

4.9.6.3C Prior to issuance of future discretionary permits for any development along the southern boundary of the World Logistics Center Specific Plan (WLCSP), the project developer of such sites, in cooperation with the Property Owners Association (POA), shall establish and annually fund a Water Quality Mitigation Monitoring Plan (WQMMP) to confirm that project runoff will not have deleterious effects on the adjacent San Jacinto Wildlife Area (SJWA). This program shall include at least quarterly sampling along the southern boundary of the site (i.e., at the identified outlet structures of the project detention basins) during wet season flows and/or when water is present, as well as sampling of any dry-season flows that are observed entering the San Jacinto Wildlife Area property from the project property, including Drainage ~~"H,"~~ 9, which is planned to convey only clean off-site flows from north of the World Logistics Center Specific Plan site across Gilman Springs Road. The program shall also include at least twice yearly sampling after completion of construction, and a pre-construction survey must be completed to determine general water quality baseline conditions prior to and during development of the southern portion of the World Logistics Center Specific Plan. This sampling shall be consistent with and/or comply with the requirements of applicable Storm Water Pollution Prevention Plans (SWPPPs) for the development site.

The project developer of sites along the southern border of the World Logistics Center Specific Plan shall be responsible for preventing or eliminating any toxic pollutant (not including sediment) found to exceed applicable established public health standards. In addition, the discharge from the project shall not cause or contribute to an exceedance of Receiving Water Quality Objectives for the potential pollutants associated with the project as identified in Table 4.9.J. Once development is complete, the developer shall retain qualified personnel to conduct regular (i.e., at least quarterly) water sampling/testing of any basins and their outfalls to ensure the San Jacinto Wildlife Area will not be affected by water pollution from the project site. ~~The City Planning and/or Land Development Division shall file an annual water quality report with the Moreno Valley City Council, State Department of Recreation (Mystic Lake Manager), and Eastern Municipal Water District.~~ This measure shall be implemented to the satisfaction of the City ~~Planning Official~~ Land Development

Division Manager based on consultation with the project developer, Eastern Municipal Water District, the Regional Water Quality Control Board-Santa Ana Region, and the Mystic Lake Manager.

Table B-3.I: WLC Specific Plan Potential Pollutants

Pollutants	Specific Plan Land Use	Is/Does the Pollutant?	
		Have a Potential to Occur?	Impaired in Receiving Waters?
Sediments	Landscape/Open Areas	Yes	No
Nutrients	Industrial/Commercial Areas	Yes	Yes
Toxic Organic Compounds	Industrial/Commercial Areas	Yes	Yes
Trash and Debris	Industrial/Commercial Areas	Yes	No
Bacterial Indicators	Industrial/Commercial Areas	Yes	Yes
Oil and Grease	Industrial/Commercial Areas	Yes	No
Pesticides	Industrial/Commercial Areas	Yes	Yes
Metals	Industrial/Commercial Areas	Yes	No

Source: *Preliminary Water Quality Management Plan for World Logistics Center Specific Plan*, CH2M HILL, September 2014.

In summary, the City disagrees with the CDFW's position that there is not sufficient information for them to review the potential impacts of the project on water quality. The DEIR does contain sufficient information upon which to review the programmatic elements of the WLC project. The EIR has been prepared at the earliest appropriate time as encouraged by CEQA, although there is not detailed information yet on the size and location of specific buildings. When specific buildings are proposed at specific locations in the future, additional analysis, consistent with tiering under CEQA, will be conducted to determine of the specific development will have new or more extensive impacts than those outlined in the WLC project DEIR. This process is consistent with the goals and requirements of CEQA relative to programmatic and subsequently tiered project-level CEQA documents. The hydrology and water quality documents provided in the DEIR, and revised and attached to this FEIR, demonstrate the project will not have significant water quality impacts, based on the conceptual design of the WLC project and with implementation of the programmatic mitigation outlined in Section 4.8 of the DEIR.

Response to Comment B-3-40. The CDFW stated that the 910 acres of State-owned land adjacent to the southern boundary of the project area may not be used to offset impacts associated with the development of the project. The DEIR did not propose to use the CDFW Conservation Buffer Area along the southern boundary of the WLCSP to offset impacts of project development, nor was the area proposed to meet or offset any open space requirements of the WLC project. However, the original purpose of the CDFW land is outlined in Section 4.4.1.10 in the DEIR. The CDFW Conservation Buffer Area is defined in the DEIR on page 3-19 as follows:

> "***CDFW Conservation Buffer Area:*** *This term refers to a 910-acre parcel owned by the State of California as part of the San Jacinto Wildlife Area (SJWA). This land is within the City of Moreno Valley and is included in the approved Moreno Highlands Specific Plan. That plan designates this property for a broad mix of urban uses including suburban residential, schools, parks, and roads. This land was purchased by the State in 1991 to act as a buffer*

between the sensitive biological resources of the SJWA and the future urban development under the Moreno Highlands Specific Plan. This land has been actively farmed for many decades and most of it remains in active production. The southwestern portion contains areas of non-native grasslands, although aerial photographs show that this area has been intermittently tilled over the last 80 years. This property is included in the General Plan Amendment and the Zone Change to replace the current urban land uses that are permitted and replace them with Open Space and Public Facility designations. This property is not within the proposed World Logistics Center Specific Plan."

That land was clearly purchased to act as a buffer between the SJWA and future development, in fact land within the Moreno Highlands Specific Plan was specifically purchased for that purpose. The WLCSP would not interfere with the CDFW land continuing to provide upland refuge for SKR during flooding events at Mystic Lake, or assist in wildlife movement between Mystic Lake and the Badlands. In fact, Drainage 9 within the WLCSP is being planned to allow for wildlife movement as the WLC project is developed.

Response to Comment B-3-41. The commenter raises no issue with the adequacy of the DEIR and no response is required. The City Council will consider all comments received during its consideration of the project.

The commenter raises a concern with the labeling of a setback area proposed along the southerly edge of the Specific Plan. The commenter is concerned with its designation as a "setback" or a "buffer" because the Specific Plan permits limited improvements (drainage, access, landscaping, fencing, etc.) within the 250-foot area. Buildings and truck access/parking are prohibited in this area. The issue is one of semantics. The City Council will consider the appropriateness of the proposed 250-foot setback when it considers the proposed Specific Plan.

Response to Comment B-3-42. Detailed information regarding fuel management, water quality, lighting, noise, trash, predation effects, vector control, and GHG emissions is included in the Urban / Wildlands Interface Guidelines Section (Section 6.1.4) of the updated MSHCP Consistency Analysis report (FCS/MBA 2013-FEIR Volume 2 Appendix E-1).

The CDFW Conservation Buffer Area is a 910-acre parcel owned by the State of California as part of the larger SJWA. This land is within the City of Moreno Valley and is included in the approved Moreno Highlands Specific Plan. That plan designates this property for a broad mix of urban uses including suburban residential, schools, parks, and roads. This land was purchased by the state in 1991 to act as a buffer between the sensitive biological resources of the SJWA and the future urban development under the Moreno Highlands Specific Plan. This land has been actively farmed for many decades and most of it is currently is being dry farmed. This farming activity extends approximately 2,800 feet south of the proposed WLC project area and forms a buffer between the WLC development and the sensitive biological resources of the SJWA. See DEIR Figure 3.3. The nearest existing sensitive biological resource within the SJWA are wetlands areas which are located an additional 1,200 feet south of the CDFW Conservation Buffer Area. The total distance between the proposed project and sensitive biological resources on the SJWA is approximately 4,000 feet (3/4 mile). In addition to this buffer area on the SJWA property, the WLC project is providing an additional 250-foot buffer area to further distance the future urban uses of the WLC from the existing sensitive biological resources of the SJWA. This distance is substantial larger than the 250 meters (820.3 feet) suggested by the commenter.

As outlined in the DEIR there are a number of alternative approaches to setting an "appropriate" buffer distance between human activity and active urban uses. These buffer areas are usually used in relation to wetlands areas and are generally defined in feet measured horizontally from the edge of a defined wetland (McElfish 2008). Enacted Local government buffer ordinances show a wide range of wetland buffer dimensions. The shortest that was found was 15 feet measured horizontally from the

border of the wetland, with the largest being approximately 350 feet. Several ordinances set 500 feet as a distance for greater regulatory review of proposed activities, but do not require non-disturbance at this distance. (McElfish 2008). A minimum 250-foot setback is supported by a compilation of available academic and scientific literature and studies on wildlife impacts from diesel emissions, and also the distance established in nesting bird surveys for setbacks from human activity. A total setback of 400 feet to WLCSP buildings will help provide an additional buffer from building lighting and noise. Together, two buffer areas totally 400 feet in width will effectively mitigate potential direct and indirect impacts on the SJWA to indirect noise, light, and air quality impacts.

The CDFW Conservation Buffer Area, the entirely of which is currently being dry farmed, appears to be disked at least once each year and planted with winter wheat and likely provides foraging area for wintering raptors and game birds. CDFW typically does not have any kind of setback requirements from foraging bird areas. Additionally the closest wetland/riparian habitat are more than 4,250 linear feet from the southern edge of the WLCSP boundary. Since the project is setback more than the typical setbacks to protect wetlands and nesting birds no additional setback is required. Providing additional on-site setback/buffer area as suggested by the commenter would ignore the existence of a substantial distance between the existing sensitive environmental resources of the SJWA (wetlands and nesting habitat) and the proposed project. In addition, no resource agency or conservation group has provided any scientific evidence that a 250-meter onsite buffer is necessary to protect SJWA resources, and the EIR and this response have demonstrated that the proposed 250-foot buffer and additional 150-foot building setback will be sufficient to protect biological resources. Therefore, no additional mitigation is required.

Response to Comment B-3-43. The commenter states that the CDFW is concerned about the appropriateness of MM 4.4.6.2A, 4.4.6.4C, and 4.4.6.4E. The proposed 250-foot buffer area will incorporate many types of land-use options as part of the buffer area. The buffer area is approximately 70-acres; nearly half of the area will be used for detention basins with spreading structures and the creation of riparian habitat. While the buffer area will include some limited access drives, the detention basins and landscaping will separate the primary project area from the more sensitive habitat areas to the south. The vegetation and landscaping berms will help screen the adjacent habitat from lighting, attenuate noise, and assist in dropping out air-borne pollutants. Based on the most recent focused protocol level surveys, sensitive plant and LAPM are considered absent from the project site and will not require relocation (FCS/MBA 2013-FEIR Volume 2 Appendix E-1).

A single pair of burrowing owl was observed within the entire WLCSP area (FCS/MBA 2013-FEIR Volume 2 Appendix E-1). A single pair of burrowing owl typically requires a minimum of 6.5 acres (CDFW 1998). Since there have been no observation of burrowing owl within the CDFW Conservation Buffer Area (RCA Data 2013), the relocation of a single pair of burrowing owl to a portion of the buffer area will be more than sufficient habitat. In addition, artificial burrows will be installed along the southern berms of the detention basins to assist in establishing a larger population of burrowing owl within the adjacent SJWA. The buffer area will be designed to provide higher quality riparian habitat than the poor quality habitat that currently occurs with the WLCSP. The riparian habitat within the basins will not provide any suitable habitat for burrowing owl, but the southern berm can be used to establish artificial burrows, which will be used by passively relocated burrowing owls. The burrowing owls will be relocated to the southern berms of the detention basins adjacent to the SJWA, which along with portions of the project site, will be more than sufficient to support at least a single pair of burrowing owl.

Response to Comment B-3-44. This commenter restates an earlier comment that says the State-owned SJWA cannot serve as mitigation for project impacts. The DEIR should be revised to remove the SJWA as a mitigation for the potentially significant impacts of air quality. The portion of the SJWA immediately south of the WLCSP, which is part of the General Plan amendment, was purchased for, among other things, to function as a buffer area between the proposed development area and the

SJWA. The project simply changes the General Plan and zoning of the CDFW acquisition to Open Space. This portion of the SJWA was not included in the original conservation area set forth in MSHCP for Core Area H.

The 250-foot setback area will be created with a number of design features that will reduce the significant impacts associate with air quality. Perimeter walls will be created that provide a physical barrier to reduce the amount of air pollutants that leave a project site. In addition, riparian vegetation and trees will be planted along the southern boundary of the WLCSP as another barrier to reduce air quality impacts. The creation of the 250-foot buffer, along with the additional riparian vegetation and barrier wall, will assist in reducing indirect air quality impacts on the SJWA.

Response to Comment B-3-45. The commenter states that direct and indirect impacts to biological resources due to greenhouse gas emission should be included in the cumulative impacts analysis. Section 4.4.7 of the DEIR discusses Cumulative Impacts to biological resources with regard to the MSHCP, which is a regional planning document that provides for long-term conservation goals for the western Riverside County area. The DEIR does not discuss cumulative impacts with regard to sensitive habitats or species that are not covered under the MSHCP. CEQA requires the discussion of the cumulative impacts of proposed projects. The WLCSP was assessed based on closely related past, present, and future projects that may be developed in the near future. Cumulative impacts are typically analyzed using either a List Method or a Regional Growth Projection Method. Since the WLCSP is a program-level document, the Regional Growth Project Method is an appropriate methodology to evaluate cumulative impacts. The project related impacts associated with the WLCSP were assessed based on the contribution to cumulative impacts on a regional basis.

Adoption of the City of Moreno Valley General Plan EIR did not result in significant direct impacts to existing biological resources. All future development projects anticipated in the General Plan can feasibly be mitigated to less than significant levels and therefore, would not contribute to a cumulative impact on a regional basis. However, adoption of the General Plan would lead to future indirect impacts through approval of development projects within the City of Moreno Valley.

MMs 4.4.6.1A-B, 4.4.6.2A-B, 4.4.6.3A-C, and 4.4.6.4A-I, as listed in Section 4.4 of the DEIR, will reduce the project related impacts to a level less than significant. As a result, the contributions of impacts associated with project within the WLCSP are fully mitigated and will not contribute to cumulative impacts within the region.

Adoption of the City of Moreno Valley General Plan EIR did not result in significant direct impacts associated with GHG emissions; however, adoption of the General Plan would lead to future indirect impacts through approval of development projects within the City of Moreno Valley.

Project-related impacts resulting in quantifiable direct impacts to biological resources from GHG emissions would be addressed subsequently through analysis at a lower tier, project-specific level of environmental review. MM 4.7.6.1A, as listed in the DEIR, will reduce help reduce programmatic GHG impacts to less than significant levels.

The CDFW comments that cumulative effects analysis should be developed as described under CEQA Guidelines Section 15130. Cumulative impacts should include the project's contribution to greenhouse gas emissions and impacts on regional air quality. Include all potential direct and indirect project related impacts to streambeds, riparian areas, wetland, vernal pools, alluvial fan habitats, wildlife corridors, wildlife foraging habitats, or wildlife movement areas, aquatic habitats, sensitive species, and other sensitive habitats, open lands, open space, and adjacent natural habitats in the cumulative effects analysis.

A complete discussion of the impacts to biological resources can be found in the project MSHCP/DBESP document contained in Appendices E of the FEIR Volume 2.

Cumulative greenhouse gas emissions were assessed in the DEIR Section 4.7 on pages 4.7-43 and 4.7-44 and were found to be significant. However, as shown in the FEIR, these impacts are now less than significant in the FEIR.

The commenter indicates that the greenhouse gas section does not provide an analysis on how this level of greenhouse gas emissions will impact the surrounding area or region. There are no models available to identify how the relatively small quantity of project emissions will influence the surrounding area. The current climate models look at the global climate and global emissions. The project's emissions compared with global emissions are relatively small; the emissions would not be perceptible in the global climate models. Pages 4.7-5 and 4.7-6 of the DEIR Section 4.7 explain potential climate change effects to California. Pages 73 through 76 of Appendix D to the DEIR and Section 4.7 in the FEIR Volume 2 explain potential climate change effects (reduction in water supply, increased wildfires, flooding) to Moreno Valley.

Response to Comment B-3-46. It is the CDFW's opinion that the DEIR fails to propose a full range of alternatives. The commenter must remember that alternatives, under CEQA, are designed to reduce or eliminate one or more significant impacts of the proposed project as identified in the DEIR. The WLC EIR did not identify significant impacts of the WLC project on biological resources due to the design of the project and proposed mitigation. Therefore, none of the project alternatives are required to specifically reduce or address biological impacts. The DEIR does present a reasonable range of alternatives given the potential environmental impacts of the project.

Response to Comment B-3-47. It is the CDFW's opinion the DEIR should include an evaluation of specific alternative locations with lower resource sensitivity. The project biological reports do not identify any "Rare Natural Communities" present on the project site or in any of the offsite improvement areas. The biological reports also conclude the project site contains minimal biological habitat and consists mainly of dry-farmed agricultural land. The biological reports conclude the project site does contain any MSHCP criteria cells, and evaluates all potential project impacts to MSHCP criteria cells both onsite and south and east of the site, and determined there would be no significant impacts on the cells from project implementation. A portion (southwest corner) of Criteria Cell 1204 is located on the WLCSP site (refer to Figure 4.4.3 of the DEIR, Section 4.4 Biological Resources). The western on-third of Criteria Cell 1297 is also located on the WLCSP site. According to DEIR, Section 4.4.1.15 (f), *'Within the southwestern portion of Cell Group X, and specifically within Criteria Cells 1204 and 1297, the project area encroaches on 114.2 acres. Under the MSHCP, conservation for Cell Group X is proposed for the northeastern portions of the Cell Group. The project area is not within the targeted conservation areas and, therefore, will not adversely affect the County's ability to achieve the goals of the MSHCP (see Figure 4.4.4)."* Cell Group D: Criteria Cells 1364, 1370, 1377, 1386, 1389, 1477, 1482, 1483, and 1577 are located along the southern boundary of the WLCSP site. According to DEIR Section 4.4.1.15 (h), "*Under the MSHCP, conservation for Cell Group D is proposed for the southern and western portions of the Cell Group. The project area includes approximately 60 percent of the northern portion of the Cell Group; therefore, future development of the project area is consistent with the conservation goals for this cell group. The majority of Cell Group D is within the northern extent of SJWA, a Public/Quasi-Public Conserved Land. This area is part of the SJWA and designated as conserved by the CDFW. It is designated as the Conservation Area and is not proposed for development under the project. Any development within land adjacent to Cell Group D (and the SJWA) must incorporate urban edge design features to minimize any potential impacts to the SJWA."*

Response to Comment B-3-48 The commenter states the CDFW does not support the use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species. Based on the DEIR, three species were recommended for relocation, salvage, and/or transplantation. Based on current survey findings, LAPM and/or sensitive plant species are absent from the WLCSP and will not require any type of relocation, salvage, and/or transplantation.

The only species that may require relocation is burrowing owl, which has been an acceptable way of avoiding impacts to burrowing owl throughout Riverside County.

Prior to construction of any of the proposed projects within the WLCSP, a 30-day pre-construction survey will be required for burrowing owl. If burrowing owl are observed during the 30-day preconstruction and is outside of the nesting season (February to August), then passive relocation of the owls is an acceptable means of minimizing impacts. A burrowing owl relocation plan will be prepared to describe the methods of relocation as well as a description of artificial burrow construction and proposed location of artificial burrows within the 250-foot buffer area or other suitable location. The burrowing owl relocation plan will be reviewed and approved by CDFW prior to implementation.

Response to Comment B-3-49 This commenter states the DEIR contains inadequate biological data. A revised MSHCP Consistency Analysis (FCS-MBA 2013-FEIR Volume 2 Appendix E-1) has been included, which updates surveys for burrowing owl and LAPM. A recent sensitive plant survey was not conducted due to the severe drought conditions within the region over the past three years. However, due to the disturbed nature of the WLCSP, very little suitable habitat occurs within the project site for sensitive plant species. Those areas that do provide some habitat were previously surveyed during a year with adequate rainfall (2010), but no sensitive plant species were observed.

Based on the most current information available, sensitive plant species are not likely to occur within the project site. However, for those area within WLCSP that contain some suitable habitat for sensitive plant species, which include areas of native vegetation such as Riversidean sage scrub and chaparral, additional focused surveys for sensitive plant species shall be required during the year the project-level CEQA document is prepared.

Response to Comment B-3-50. The CDFW recommends that the jurisdictional delineation be revised to include all jurisdictional areas per the CWC's definition of *Waters of the State.* An updated wetland delineation report (2013) was prepared to address concerns regarding regulatory agency jurisdiction over the drainage features within the WLCSP. The previous jurisdictional delineation assumed CDFW jurisdiction over a select portion of Drainages 7 and 9. All identifiable and potentially jurisdictional drainages on the site were mapped and included in the draft Program EIR and the draft wetland delineation. Prior to any future development, specific project proposals will have to undergo separate environmental review under CEQA and will be required to secure a formal jurisdictional determination from the CDFW.

The applicant shall secure a jurisdictional determination with the CDFW to determine if drainage features mapped on the property are subject to jurisdictional authority and protection. If the features are subject to regulatory protection, the applicant will apply for a Streambed Alteration Agreement prior to initiation of construction.

The updated jurisdictional delineation report assumes CDFW jurisdiction over the entire length of Drainages 7, 8, 9, 12, and 15. A maximum of 5.0 acres may be under CDFW jurisdiction. Mitigation for impacts to no more than 5.0 acres of waters of the State will be mitigated by the creation of a minimum of 5.0 acres of habitat creation or purchase of credits at an approved mitigation bank. MMs 4.4.6.3A and 4.4.6.3B address potentially significant impacts to waters of the state.

Any impact to drainage features that are under CDFW jurisdiction will require compensatory mitigation at a minimum of a 1:1 mitigation ratio through onsite creation, off-site creation, or purchase of available mitigation credits through an approved mitigation bank. Compensatory mitigation will be negotiated during the permit acquisition process.

Response to Comment B-3-51 The commenter recommended analysis of several potential impacts to wildlife resources on the adjacent SJWA and Lake Perris Recreation Area. This response is similar

to Response to Comment B-3-21. Based on the revised MSHCP Consistency Analysis (FCS-MBA 2013-FEIR Volume 2 Appendix E-1), mitigation measures will be imposed by the City of Moreno Valley through its processing of entitlements on a project-by-project basis regarding light, noise, trash, emissions, vectors, fuel management, runoff, and water quality. All project operations within the WLCSP will be required to prepare a WQMP, which will specifically detail all of the required safety precautions necessary to eliminate the risk of toxic contamination to any downstream water body. All project construction activities within the WLCSP will be required to prepare a SWPPP, which will specifically detail all of the required safety precautions necessary to eliminate the risk of construction related contamination to any downstream water body. All development within the project area will be required to obtain a statewide general NPDES construction permit for all construction activities associated with the proposed project and will be subject to the County of Riverside's regulations to implement the NPDES program. The NPDES requirements are discussed in detail in Section 4.9 of the DEIR, *Hydrology and Water Quality*. Lastly, the portions of the WLCSP that are specifically located adjacent to Core Conservation Areas, which are located along the eastern and southern boundary of the WLCSP, will require project specific design features and measures related to light, noise, trash, emissions, vectors, fuel management, runoff and water quality as part of the MSHCP requirements for projects affecting a recognized Urban/Wildlands interface. Mitigation measures include specific project designs such as:

- Light directing/restricting covers on light poles;
- Vegetated buffer along the southern and western edge of the WLCSP to reduce noise
- Street sweeping and trash removal requirements to reduce on-site and off-site trash issues;
- The vegetated buffer mentioned about as well as a perimeter wall will be used to reduce the emissions leaving the WLCSP;
- All detention basins will be designed to facilitate water quality improvements and will require assessments by vector control to reduce or eliminate standing water; and
- The SWPPP and NPDES for each project will adequately address all fuel management, runoff water quality requirements.

Response to Comment B-3-52 The commenter recommended that the project incorporate a setback area along its southern boundaries and not refer to the SJWA as a "CDFW Conservation Buffer Area." It should be noted that the land was purchased as a buffer area to any proposed development within the WLCSP. Currently the land that is within the SJWA that is proposed for a General Plan Amendment, is currently disked as extensive agricultural fields and provides little to no suitable habitat for any sensitive plants or wildlife species. Current land use of the WLCSP would indicate that any adjacent project impacts would not have any significant impacts to actively disked farmlands on the SJWA. The disked farm land extends for 4,500 linear feet before reaching sensitive wetland/riparian habitat associated with the SJWA. Therefore, although the northern portion of the SJWA is not considered mitigation for impacts associated with the WLCSP, it does provide a 4,500 foot buffer between the proposed development and sensitive wetland/riparian habitat associated with the SJWA. Therefore, a 250-foot setback, rather than a 250-meter setback, is sufficient to provide a vegetated buffer between the proposed WLCSP development and the adjacent open space of the SJWA.

Response to Comment B-3-53 The CDFW requested that the revised DEIR incorporate appropriate, species-specific mitigation measure to address potential impacts to species and habitat. Since LAPM and sensitive plants were determined to be absent from the WLCSP, no additional mitigation measures are required since impacts to these species will be less than significant. With regard to burrowing owls, prior to issuance of any grading permits, a pre-construction survey for burrowing owls shall be conducted and a report prepared by a qualified biologist and submitted to the City. This

survey shall be required and conducted no more than 30 days prior to initiation of ground disturbing activities. If construction is to be initiated during the breeding season (February through August) and burrowing owl is determined to occupy any portion of the study area during the 30-day pre-construction survey, consultation with the CDFW and USFWS shall take place and no construction activity shall take place within 500 feet of an active nest/burrow until it has been determined that the nest/burrow is no longer active and all juveniles have fledged the nest/burrow. No disturbance to active burrows shall occur without appropriate permitting through the Migratory Bird Treaty Act (MBTA) and/or CDFW.

If active burrowing owl burrows are detected outside the breeding season (September through January), or within the breeding season but owls are not nesting or in the process of nesting, passive relocation may be conducted following consultation with the CDFW and USFWS. Construction activity may occur within 500 feet of the active nests at the discretion of the biological monitor.

If active nests are identified in a development area, the nests shall be avoided or the owls actively or passively relocated to the 250-foot setback area in the southern portion of the Specific Plan site (see MM 4.4.6.4D). This setback area shall be used as a "conservation area" for burrowing owl or other species of animals or plants that need to be relocated from the portions of the WLCSP site are developed. In the event no burrowing owls have been identified within the limits of ground disturbance, no further mitigation is required. In the event burrowing owls are identified within the limits of ground disturbance, MM 4.4.6.4D shall apply. To avoid active nests adequately, no grading or heavy equipment activity shall take place within at least 250 feet of an active nest during the breeding season (February 1 through August 31) and 160 feet during the non-breeding season.

This measure shall be implemented to the satisfaction of the City Planning Official (MM 4.4.6.4D). If active burrowing owl burrows are detected outside the breeding season, passive and/or active relocation may be undertaken following consultation with and approval by the CDFW and/or USFWS. The installation of one-way doors may be installed as part of a passive relocation program. Burrowing owl burrows shall be excavated with hand tools by a qualified biologist when determined to be unoccupied, and back filled to ensure that animals do not re-enter the holes/dens. Owls may also be actively relocated on site to the 250-foot clear buffer zone along the southern boundary of the WLCSP or other suitable location, as outlined in MM 4.4.6.4D. This measure shall be implemented to the satisfaction of the City Planning Official.

Response to Comment B-3-54 This commenter advises that the DEIR should provide a thorough analysis of direct, indirect, and cumulative impacts and identify specific measures to offset such impacts. Please refer to Responses to Comments B-3-17, B-3-18, B-3-20, B-3-22, and B-3-23. The FEIR provides a thorough analysis of all direct, indirect, and cumulative impacts at a program-level. Appropriate mitigation measures are recommended to reduce the level of significance to a less than significant level. Please keep in mind that project-specific designs and impacts are not required for a program-level document; however, an appropriate estimation of project related impacts is included in the FEIR, where appropriate.

Response to Comment B-3-55. The commenter has indicated the DEIR failed to evaluate a full range of alternatives, but failed to suggest appropriate feasible alternatives or explain why those evaluated are insufficient. CEQA requires the evaluation of alternatives that reduce or eliminate one or more of the significant impacts identified for a project, however, the DEIR did not identify any significant impacts to biological resources after implementation of the recommended mitigation measures in Section 4.4 of the DEIR. Therefore, there was no requirement under CEQA to evaluate any alternatives that specifically addressed biological resources. It is unfortunate the commenter did not provide additional guidance as to characteristics of an alternative that would be more acceptable to the Department.

Response to Comment B-3-56. This commenter summaries all of the CDFW's requests and recommendation for the revised DEIR. The FEIR document includes updated biological reports as recommended by the CDFW, including an updated Jurisdictional Delineation and MSHCP Consistency Reports, and a programmatic DBESP report as recommended by the Department (see FEIR Volume 2 Appendix E). These updated documents support the conclusions of the DEIR (i.e., less than significant impacts to biological resources). The cumulative impact analysis in the DEIR was appropriate for the proposed WLC project, and the DEIR contained a reasonable range of alternatives based on the significant impacts of the proposed project outlined in the DEIR, which did not include biological resources.

Letter B-4: State of California Department of Parks and Recreation (April 8, 2013)

Letter B-4

State of California • Natural Resources Agency
Edmund G. Brown Jr., *Governor*
DEPARTMENT OF PARKS AND RECREATION
Major General Anthony L. Jackson, USMC (Ret), *Director*
Inland Empire District
17801 Lake Perris Drive
Perris, CA 92571
(951) 443-2423

April 8, 2013

Mark Gross
City of Moreno Valley
Community Development Department
14177 Frederick Street
Moreno Valley, CA 92552

Subject: Comments on the World Logistics Center Draft Environmental Impact Report
SCH #: 2012021045

Dear Mr. Gross:

The Inland Empire District of the Department of Parks and Recreation (State Parks) appreciates the opportunity to comment on the aforementioned project. State Parks is a trustee agency as defined by the California Environmental Quality Act (CEQA). State Parks' mission is to provide for the health, inspiration and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation. As the office responsible for the stewardship of Lake Perris State Recreation Area (Lake Perris), we have an interest and concern about contemplated alterations of land use adjacent to the park. 1

In general, State Parks requests revisions to the proposal and design of the project due to the potential for a substantial number of significant impacts related to ecosystem health, sensitive biological resources and wildlife movement. Furthermore, it appears that the amount of the proposed development is directly proportional to the levels of impact (i.e., the larger the development area, the higher amount of significant impacts). 2

For these reasons, we suggest looking at alternatives which reduce the development area, thereby potentially reducing the amount of impact. The following are comments regarding the scope and content of information for inclusion in the draft environmental impact report. 3

The DEIR addresses impacts to the California Department of Fish and Wildlife owned and operated, San Jacinto Wildlife Area (SJWA) on numerous occasions but rarely addresses impacts to Lake Perris, while just as with the SJWA, the project shares a boundary with Lake Perris. In many cases it may be appropriate to consider impacts to both units as one large conserved unit; however, the DEIR needs to address direct, 4

indirect and cumulative impacts to Lake Perris in all areas of the document independently as well. 4

As a signatory to the Western Riverside County Multi-species Habitat Conservation Plan (MSHCP) State Parks is privy to MSHCP biological monitoring program plant and animal survey results and reports. As such State Parks is aware of numerous observations of state and federal listed species as well as MSHCP covered species made by the MSHCP biological monitoring program within or immediately adjacent to the project area which have not been identified or addressed in the DEIR. These omissions need to be addressed in the Final EIR and avoidance and mitigation measures developed for all state, federal and MSHCP plan covered species. State Parks recommends that the project proponents contact the MSHCP monitoring program for the results of its surveys within and adjacent to the project area. 5

The DEIR comments on impacts to raptor foraging habitat in section 4.4 on several occasions under the regulatory framework of California Fish and Game Code and California Code of Regulations but fails to address impacts to golden eagle, *Aquila chrysaetos*, foraging under California Fish and Game code or federal Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c). The DEIR needs to address impacts to golden eagle foraging habitat from this project. 6

The DEIR references the MSHCP Fuel Management Guidelines and agrees to incorporate all brush management within the development boundaries. The DEIR does not provide a description of what type of fuel management activities are planned for the development, where the fuel management area will be, the size of the fuel management area, or what type of vegetation will be planted, if any, within the fuel management area. The DEIR should provide a fuel management plan, including a plant palette and proposed maintenance activities, graphics that clearly define these fuel modification zones with reference to the development, and an assessment of any potential impacts related to the fuel management area and associated maintenance activities. Analysis of impacts related to fuel modification areas should not be deferred to future development. 7

The DEIR addresses migratory corridors/ linkages in the following manor (p. 4.4-33):

> *"The project area is adjacent to an existing migratory corridor across Gilman Springs Road (i.e. Criteria Cells 1290, 1389, and 1390) as designated by the MSHCP. While the open agricultural fields that presently occupy much of the project area are not designated as corridors or linkages in the MSHCP, the project site, including the CDFW property, supports extensive agricultural fields, which do not constitute native vegetation, but do provide some foraging value and may allow for migration or movement of wildlife through the general area even considering the level of repeated disturbance by agricultural activities. Wildlife movement through this area is generally planned to take place across the Mystic Lake property to the south. The northern (upland) portion of the SJWA (i.e., the CDFW Conservation Buffer Area) and the southern portion of the Specific Plan area do not provide suitable habitat or resources to support wildlife migration or regular wildlife movement."* 8

And (p 4.4-62):

> *"According to the project biological report, the project area does not contain any wildlife movement corridors or linkages. It is likely that wildlife moves through adjacent properties such as the SJWA and the Mystic Lake area to the south, the Badlands area to the east and the Lake Perris State Recreation Area to the southwest. The project biological report concluded that development of the project as proposed would not have any significant impact on wildlife movement in the area, and would not fragment habitat or adversely affect wildlife movement through the surrounding areas. Therefore, impacts in this regard are less than significant, and no mitigation is needed."*

8

State Parks believes that the DEIR and the project biological report do not adequately address project impacts to migratory corridors/ linkages as they apply to Lake Perris. We suggest that wildlife movement studies be conducted to further analyze potential impacts to wildlife corridors/ linkages to the Lake Perris/SJWA area from the project. Lake Perris is occupied by a host of common, sensitive and state and federal listed species which will be left largely isolated by this project. In order to maintain genetic integrity they require varied linkages to larger adjacent open spaces. State Parks suggests that studies consider lesser linkages in addition to those identified in the MSHCP, specifically the areas identified as "On-site Drainages" that traverse the project area, without such lesser linkages Lake Perris will be left as a relatively isolated peninsula of preserved open space leading to the loss of biodiversity and over all habitat value.

The referenced project biological report only concentrated on certain onsite species with only anecdotal observations of other wildlife. Specific comprehensive wildlife movement studies are needed to properly analyze potential impacts of such a large scale project as this. 9

Loss of species will lead to recreational impacts as well as much of the visitation to Lake Perris is for wildlife viewing and visiting a wild place. Even when the public does not see a mountain lion, golden eagle or any other species or personal interest during their visit the knowledge that they might or that that species could be hiding around the corner is an important recreational draw. 10

The Project will create certain barriers to wildlife movement, including the physical barrier between the Badlands and open space areas to the south of the Project, a significant increase in traffic surrounding the Project area, and increased levels of light and noise. The build out of the proposed Project will create an obstruction to wildlife movement to and from the Badlands across the nearly 2-mile Project boundary along Gilman Springs Road. This barrier forces wildlife to move east, potentially causing a funneling effect across Gilman Springs Road at the edge of the development. This forced detour effectively limits the ability for wildlife to utilize the existing culverts under State Route 60 to further access the Badlands open space. 11

The DEIR also largely overlooks impacts to the Badlands, and its significant acreages of public and private open space as well. Further evaluation of impacts to this important 12

open space and the linkage to it needs to be made and avoidance and mitigation measures established. 12

Mitigation measures focusing on reducing impacts to wildlife movement in the area should be provided. In considering mitigation measures for wildlife movement further analysis of impacts to wildlife moving across roads and roadkill need to be made and avoidance and mitigation measures developed for reducing injury or death of wildlife crossing roads. 13

The Specific Plan provides for a 400-foot setback along the southern boundary of the Project, adjacent to Lake Perris and SJWA, which includes a 250-foot development setback and a 150-foot building setback. The 250-foot development setback would include landscape areas, drainage and water quality facilities, barriers (walls and fencing), maintenance access drives, and other related uses as described in the DEIR. This area should not be considered a buffer from development but rather an aspect of the development as they will contain maintained facilities required by the development. State Parks recommends a minimum 250 feet natural/undeveloped buffer that would not contain any manufactured structures, such as detention and water quality basins, walls and fences, and irrigated landscaping. 14

The DEIR states that night lighting may have adverse effects on a range of wildlife species. Effects include mortality due to increased predation, reduced health due to the disturbance of diurnal rhythms, and reduced clutch size, egg size, or survival of nesting birds. Although the Project intends to remain consistent with both the night lighting guidelines within the City's Municipal Codes and the City's Dark Sky Lighting Ordinance, additional measures should be proposed to reduce the cumulative impacts to Lake Perris and SJWA. 15

The DEIR also states that approximately 75 acres in the southwest corner of the project area is designated and restricted to passive open space and recreation use adjacent to Mount Russell and Lake Perris. The DEIR does not identify how this area will be managed as a passive open recreational open space. Or whether a conservation easement designating it as such will be placed on the property? 16

Thank you again for coordinating this project with us. For further discussion, please contact me or Enrique Arroyo at (951) 453-6848.

Sincerely,

Ron Krueper
District Superintendent
Inland Empire District

cc: State Clearinghouse
Jay Chamberlin, State Parks
Kim Freeburn, California Department of Fish & Wildlife

RESPONSES TO LETTER B-4

State of California Department of Parks and Recreation

Response to Comment B-4-1. The City acknowledges that the California Department of Parks and Recreation (Department) is responsible for maintaining the facilities and resources of Lake Perris near the southwest corner of the World Logistics Center (WLC) project. The City also understands the Department's concerns regarding the WLC project relative to Lake Perris.

Response to Comment B-4-2. The commenter states that it is the size of the proposed project that is creating the numerous significant impacts. The commenter is correct to some degree that some (though not all) of the impacts of the project are proportionally related to the size of the project (i.e., more square footage of logistics buildings, more traffic, air pollution, noise, etc.). The Draft Environmental Impact Report (DEIR) did identify a number of significant environmental impacts of the WLC project; however, the EIR concluded that impacts to biological resources will be reduced to less than significant levels by project design and the proposed mitigation. These conclusions have not changed even though the project biology reports were all updated and in some cases revised to address the many comments received on the biological resource reports.

Response to Comment B-4-3. This commenter suggests the DEIR analyze alternatives that focus on reduced development area. The DEIR did examine a number of alternatives but, because impacts to biological resources were determined to be less than significant, no alternatives were specifically developed to reduce those impacts. The commenter is encouraged to re-read Section 6 of the DEIR for more information regarding alternatives.

Response to Comment B-4-4. The commenter requests more analysis of impacts to Lake Perris. Lake Perris is approximately 2.6 miles southwest of the WLC Specific Plan (SP) area and does not share a boundary with Lake Perris. It is assumed that the comment is referring to the Lake Perris State Recreational Area, which is located southwest of the WLCSP. The land included in the State Park and surrounding area is within lands designated as Public/Quasi-Public and is conserved under the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The WLCSP will not have any direct impacts to Lake Perris or the Lake Perris State Recreational Area

Indirect impacts that may affect Lake Perris State Recreational Area include light, noise, air quality, and hydrology. The WLCSP is separated from the Lake Perris State Recreational Area by Mt. Russell as well as a small series of hills between Mt. Russell and the Bernasconi Hills (DEIR Figure 4.1.1 shows the locations of these features). These topographic features have a minimum elevation difference of 160 feet above the WLCSP and drops 60 feet on the southwest side along the edge of Lake Perris. This provides a natural barrier that would eliminate all light and noise impacts to Lake Perris and the Lake Perris State Recreational Area. In addition, the prevailing winds blow in the easterly direction away from Lake Perris and therefore, no indirect air-quality impacts to Lake Perris associated with the WLCSP. The WLCSP has no direct hydrologic connection to the Lake Perris State Recreational Area and therefore project development will have no indirect impacts to Lake Perris or the Lake Perris State Recreational Area with regard to hydrology. Therefore, there are no indirect project related impacts to the Lake Perris State Recreational Area associated with the development of the WLC.

The WLCSP also has a 1,500-foot buffer between the proposed development and the northern edge of the Lake Perris State Recreational Area. This area, which encompasses the northern slopes of Mount Russell is too steep to develop and will remain as designated open space.

Payment of the MSHCP Development Fee will reduce cumulative project related impacts associated with the adjacent Lake Perris State Recreational Area to a level less than significant. Subsequent

California Environmental Quality Act (CEQA) review will be required on a project-by-project basis to ensure conformance with the MSHCP and future implementing plans/ordinances at the project-specific level.

Response to Comment B-4-5. The commenter states there are listed federal, state, and MSHCP covered species that were not included in the DEIR. In an attempt to obtain sensitive species information, not previously included in the CNDDB 2013, Resource Conservation Authority (RCA) staff was contacted. Geographic Information Systems (GIS) data regarding the San Jacinto Wildlife Area (SJWA) and surrounding area was provided by RCA staff and is included in the Draft Habitat Assessment and MSHCP Consistency Analysis (FCS-MBA 2013-FEIR Volume 2 Appendix E-1) (hereafter MSHCP Consistency Analysis).

Response to Comment B-4-6. The commenter states the DEIR needs to address impacts to golden eagle foraging habitat from this project. Under the City of Moreno Valley General Plan, Raptor Foraging/Wintering Habitat (including golden eagle foraging habitat) is considered a regionally sensitive habitat (General Plan Final Program EIR pg. 5.9-27). It also states that some Field/Cropland areas provide valuable foraging habitat (General Plan Final Program EIR pg. 5.9-28). The areas adjacent to native habitats are of higher value for raptor foraging, but an assessment of the value of the Field/Cropland area require an area-by-area investigation.

Golden eagles were not observed during any of the 8 years of surveys within the WLCSP. The prey base within the WLCSP is considered extremely limited based on the burrowing owl surveys conducted in 2013. The WLCSP is actively farmed, which also minimizes the amount of available vegetative cover on an annual basis. All of these factors greatly lowers the habitat value of the WLCSP with regard to raptor foraging habitat. The likelihood of the WLCSP to support a population of golden eagles is extremely low, but the possibility cannot be ruled out that golden eagles could occur within the WLCSP during selective portions of the year.

The golden eagle is a California fully protected species, but is also a covered species under the MSHCP. Impacts to golden eagles are mitigated through the payment of the MSHCP fee. The fees collected from each project, will be used to purchase off-site conservation lands, which will conserve higher-quality foraging habitat, which is necessary for the long-term conservation of the species. Impacts to golden eagle foraging habitat is a potentially significant impact, but payment of the MSHCP Development Fee will reduce those impacts to a less than significant level.

Response to Comment B-4-7. The commenter states the DEIR should include a fuel management plan. A Fuel Management Plan focuses on hazard reduction for people and their property on a project-by-project basis. Fuel management involves the reduction of fuel loads in areas where fire may threaten public safety and property, suppressing fires once they start, and providing access for fire suppression equipment and personnel.

A Fuel Management Plan will be required on a project-by-project basis and under MSHCP guidelines, is only required for those projects located adjacent to Conservation Areas (MM 4.4.6.4J). Therefore, projects located along southern and eastern WLCSP boundary will have a Fuel Management Plan. The Plan will include a plant palette of adequate plant species that may be planted within the Fuel Management Area, which will be approved by a biologist familiar with the plant requirements of the area. A list of non-native invasive plants that are prohibited from installation will also be required. The Plan will included maintenance activities and a maintenance schedule. Fuel modification zones will be mapped and include an impact assessment as required under CEQA guidelines for a project-level analysis. A Fuel Management Plan cannot be designed for a program-level analysis because project specific information such as proposed access, construction materials, and other project design features will not be available until individual projects are proposed.

A new mitigation measure has been added to the Revised DEIR Section 4.4 Biological Resources to ensure a fuel management plan is prepared and approved by the City prior to plot plan approval for those planning areas on the south and east boundaries of the WLCSP project adjacent to MSHCP Conservation Areas.

4.4.6.4J A Fuel Management Plan shall be prepared on a project-by-project basis for those Planning Areas adjacent to the south and east boundary of the World Logistics Center Specific Plan adjacent to Western Riverside County Multiple Species Habitat Conservation Plan Conservation Areas. The Fuel Management Plan shall be prepared by the project proponent and submitted for approval to the prior to plot plan approval for those projects on the southern and eastern Western Riverside County Multiple Species Habitat Conservation Plan boundary. Per the Western Riverside County Multiple Species Habitat Conservation Plan guidelines, the Fuel Management Plan shall include the following:

- A plant palette of adequate plant species that may be planted within the Fuel Management Area, which will be approved by a biologist familiar with the plant requirements of the area.
- A list of non-native invasive plants that are prohibited from installation.
- Maintenance activities and a maintenance schedule.

Fuel modification zones shall be mapped and include an impact assessment as required under California Environmental Quality Act guidelines for a project-level analysis. The plan shall demonstrate that the adjacent Western Riverside County Multiple Species Habitat Conservation Plan Areas are adequately protected from expected fire risks.

Response to Comment B-4-8. The commenter states the DEIR and project biological report does not sufficiently address project impacts to migratory corridors/linkages as they apply to Lake Perris. Lake Perris is located southwest of the WLCSP and is located within a designated open-space area. Land use surrounding Lake Perris includes the developed portion of the City of Moreno Valley to the north, residential development and agricultural uses to the south, residential and commercial development to the west, and agricultural uses and undeveloped open-space occurs to the east.

Therefore, the Lake Perris is surrounded on three sides by development that would limit wildlife movement to the north, south, and west. Wildlife have uninhibited movement to the east within the SJWA, which directly connects to the Badlands further to the east.

The proposed WLCSP is located at the eastern most extent of the City of Moreno Valley and current land use is designated as residential development. Based on the City of Moreno Valley General Plan, this portion of the city was not designated as a conservation area and was intended to be part of the urban development.

SR-60 and Gilman Springs Road have already created a significant barrier between Lake Perris and adjacent open space areas to the north and east. It should also be noted that Existing Core H and Proposed Core 3 within the MSHCP are connected just south of the WLCSP and therefore will not be completely separated by the proposed development. The disturbed nature of the extensive agricultural fields also limits the amount of wildlife species that may utilize the WLCSP area as a wildlife corridor.

The WLCSP is not within a significant wildlife movement corridor (see Section 4.4.5.2 of the DEIR) and as a result was not included in any conservation area, corridor, or linkage within the MSHCP or designated as such in the City's General Plan. Therefore, the proposed WLCSP will not have a significant impact on wildlife movement between open space areas within the Badlands and Lake

Perris. The development of the WLCSP will not cut-off or otherwise impede wildlife movement from the Lake Perris State Recreational Area to the east.

Lake Perris State Recreational Area is characterized as being occupied by a host of common, sensitive, and state and federal listed species, which will be left largely isolated by this project. The extensive agricultural fields and other non-native plant communities within the WLCSP do not provide a suitable linkage between the Lake Perris State Recreational Area and the Badlands area to the northeast. Therefore, the sensitive wildlife species that occur within the Lake Perris State Recreational Area will be no more isolated with the development of the WLCSP that they are with the existing land use.

Although not required, Drainage 9 will remain in its current location to provide drainage from the Badlands area south through the eastern portion of the WLCSP area. The drainage will also serve as a travel path for wildlife species between Existing Core H and Proposed Core 3. Drainage 9 will require some initial re-grading and reinforcement to eliminate erosion issues and improve water quality but will ultimately be enhanced to provide higher quality riparian habitat.

Response to Comment B-4-9. The commenter suggests comprehensive wildlife movement studies are needed to properly analyze potential impacts of the proposed project. Biological resources have been studied on the project site for nearly eight years (refer to Table B-3.A in Response to Comment B-3-4). Wildlife movement north of the WLCSP is precluded by ground dwelling animals because the majority of the underground culverts used to convey storm flows beneath SR-60 are nearly completely filled with sediment (Master Plan of Drainage Report 2014 refer to FEIR Volume 2 Appendix J). Therefore, construction activities associated with the WLCSP will not have an impact on wildlife movement from the area north of the WLCSP. Similarly, all of the culverts that convey storm flows beneath Gilman Springs Road are also nearly filled with sediment and have not been maintained for many years. The WLCSP area was not included as an existing linkage or a proposed linkage under the MSHCP. Due to the disturbed nature of the WLCSP area and the lack of native habitat connecting Lake Perris to the Badlands, it is reasonable to assume that WLCSP does not function as a regional wildlife movement corridor (see Section 4.4.5.2 of the DEIR).

However, as a project design feature and not a mitigation measure, Drainage 9 will remain in its current location and will be enhanced to improve existing habitat within the channel. The drainage will also have a 25-foot buffer on either side that will contain native vegetation. This area will provide larger local wildlife, such as coyote, raccoons, and opossums, a higher quality travel path along the eastern side of the WLCSP.

Response to Comment B-4-10. The commenter suggests the proposed project will decrease the draw of recreational areas like Lake Perris by reducing the amount of wildlife in the area. The project design is intended to maintain a wildlife corridor connection along Drainage 9 in the eastern portion of the WLC site, which will allow for wildlife movement between the Badlands to the north and Mystic Lake and the SJWA to the south. This corridor will be at least 100 feet wide, and the actual channel which will be maintained in a relatively natural condition except for necessary flood control improvements. Development that affects this channel would require subsequent environmental review and regulatory permitting from the California Department of Fish and Wildlife at a minimum. Such permitting would include consultation with the CDFW as an adjacent responsible agency.

Response to Comment B-4-11. The commenter describes the barriers to wildlife movement caused by the proposed project. The WLCSP, once completely developed will cause a physical barrier between the portion of the Badlands located immediately to the north and the SJWA located immediately to the south. However, the Badlands area is a series of relatively undisturbed rolling hills that is parallel to Gilman Springs Road, which runs along the eastern portion of the WLCSP in a northwest to southeast direction. The SJWA is a large conservation area that connects the Badlands

to Lake Perris. Therefore, the development of the WLCSP area will not completely impeded wildlife movement between the Badlands and Lake Perris.

Several project design features are included in the general concept of the WLCSP that will minimize a forced detour at the edge of the proposed development and include maintaining Drainage 9 as a natural drainage feature and replacing sediment-filled culverts along Gilman Springs Road. The funneling effect across Gilman Springs Road will have some benefit by forcing wildlife species to travel further south to cross Gilman Springs Road at the southern edge of the WLCSP from the Badlands Area directly to the area within the SJWA.

In addition, the WLCSP development is located within an area that is currently zoned for residential development in the General Plan. The proposed development strategy in the General Plan was not considered a potentially significant impact with regard to wildlife movement corridors.

The WLCSP is not within a significant wildlife movement corridor and as a result was not included in any conservation area, corridor, or linkage within the MSHCP or designated as a conservation area within the General Plan (see Section 4.4.5.2 of the DEIR).

Development of the WLCSP will increase traffic, light, and noise. However, Mitigation Measures (MMs) 4.4.6.1A-B, 4.4.6.2A-B, 4.4.6.3A-C, and 4.4.6.4A-I will reduce significant impacts related to these issues to less than significant levels.

Response to Comment B-4-12. The commenter states the DEIR overlooks impacts to the Badlands. The WLCSP and the proposed offsite facilities are bordered to the east by MSHCP Proposed Core 3, also known as the Badlands. With the exception of a few small drainage improvements, the WLCSP will avoid the Badlands. However, those projects that are located immediately adjacent to a core or proposed core area require project design features to minimize potentially significant impacts associated with the Urban/Wildlands interface as described in the MSHCP.

The portions of the WLCSP and offsite facilities that are on or immediately adjacent to conservation areas shall incorporate the design features and measures related to drainage features, toxics, lighting, noise, invasive plants, barriers, and grading/land development discussed below. These measures make the proposed project consistent with the MSHCP, Section 6.1.4, and Guidelines Pertaining to the Urban/Wildlands Interface. A detailed description of recommendations pertaining to an Urban/Wildlands interface is described in MMs Bio-6D in the MSHCP Consistency Analysis (FCS-MBA 2013-FEIR Volume 2 Appendix E-1).

Small drainage improvements (basins) are anticipated for the east side of Gilman Springs Road, within the disturbed portion of the Badlands. The number of basins needed and their locations will be assessed on a project-by-project basis. Any impacts to jurisdictional drainage features are considered significant impacts and will require appropriate regulatory permitting as described in MMs 4.4.6.3A and 4.4.6.3B.

Response to Comment B-4-13. The commenter requests mitigation measures be created to reduce impacts to wildlife movement in the area. It should be noted that currently, State Route 60 (SR-60) and Gilman Springs Road create a significant barrier between the Badlands and the SJWA. There are also several rural residences that occur along the east side of Gilman Springs Road and there are many proposed residences that have yet to be constructed. Therefore, the current existing conditions have already created a significant barrier between these two open space areas.

The disturbed nature of the extensive agricultural fields limits the amount of wildlife species that may utilize the WLCSP for regional movement. The WLCSP is not within a significant wildlife movement corridor and as a result was not included in any conservation area, corridor, or linkage within the

MSHCP. Therefore, the proposed WLCSP will not have a significant impact on wildlife movement on a regional basis and mitigation measures are not required.

It should also be noted that MSHCP Existing Core H and Proposed Core 3 are connected just south of the WLCSP and therefore will not be separated by the proposed development.

As a project design feature, Drainage 9 will remain in its current location to provide regional drainage, but may also be used as a travel path for wildlife species between MSHCP Existing Core H and Proposed Core 3. Drainage 9 will require some initial re-grading and reinforcement to eliminate erosion issues and improve water quality, but will ultimately be enhanced to provide higher quality riparian habitat. All necessary regulatory permits and mitigation measures will be required for all project impacts associated with the Drainage 9 improvement. In addition, culverts that convey storm flows beneath SR-60 and Gilman Springs Road will be cleaned out and/or replaced, which will allow smaller wildlife species to travel along Drainage 9. These are considered project design features and are not mitigation measures for a potentially significant impact.

Response to Comment B-4-14. The commenter requests additional mitigation to reduce night time lighting effects to wildlife. The 250-foot buffer area along the southern portion of the WLCSP will not contain any buildings or similar development. There is an additional 150-foot building setback for structures, which provides a total building setback of 400 feet from the SJWA boundary. The purpose of the buffer area is to provide a transition from the proposed development to the northern edge of the SJWA to minimize potentially significant indirect impacts to the SJWA. The portion of the SJWA immediately adjacent to the WLCSP is in active agriculture and does not provide suitable habitat for any sensitive plant and/or wildlife species known to occur within the SJWA. The closest suitable habitat is approximately 4,500 feet to the south of the WLCSP. A 250-foot natural/undeveloped buffer with no manufactured structures, such as detention basins and water quality basins, walls and fences, and irrigated landscaping is not necessary or required. MM 4.4.6.1A will reduce potentially significant impacts associated with the Urban/Wildlands Interface under the MSHCP to a level less than significant.

Response to Comment B-4-15. As required in the City of Moreno Valley, all development projects are subject to the City's Municipal Code. Mitigation for these impacts is described in Section 4.1.6.4 of the DEIR. All direct light rays will be contained within the building sites. Limited lighting away from the building will be used for security and basic building illumination. All exterior lights will be shielded to direct light away from the SJWA and Lake Perris State Recreational Area.

In addition, as a project design feature, a series of drainage improvements will be designed along the southern boundary of the WLCSP. The riparian vegetation associated with those improvements will be designed to provide a vegetative barrier that will block most of the remaining indirect project lighting from the adjacent SJWA and Lake Perris State Recreational Area. Riparian trees such as willows and cottonwoods, will be planted within selective portions of the drainage improvements to provide riparian habitat, but will be maintained to support the functionality of the basins.

Response to Comment B-4-16. In response to comments received on the DEIR, the proposed Specific Plan has been updated to add more clarity to a number of its sections. Relative to this comment, the Specific Plan has been updated to add planning area designations to the various development areas within the project. The 74.3-acre property referenced in the comment is identified as Planning Area 30 and designated as Open Space. The Specific Plan includes provisions for the irrevocable offer of dedication of Planning Area 30 to the City of Moreno Valley in connection with the first development proposal for property adjacent to the planning area. It will be retained as undeveloped open space in public ownership as outlined in a new MM 4.1.4.1D as follows:

4.1.6.1D Prior to the issuance of permits for any development activity adjacent to Planning Area 30 (74.3 acres in the southwest portion of the Specific Plan), the entirety of

Planning Area 30 shall be offered to the State of California for open space purposes. In the event that the State does not accept the dedication, the property shall be offered to Western Riverside County Regional Conservation Authority or an established non-profit land conservancy for open space purposes. In the event that none of these organizations accepts the dedication, the property may be dedicated to a property owners association or may remain in private ownership and may be fenced and access prohibited.

Letter B-5: California Air Resources Board (April 16, 2013)

Letter B-5

Air Resources Board

Mary D. Nichols, Chairman
1001 I Street • P.O. Box 2815
Sacramento, California 95812 • www.arb.ca.gov

Matthew Rodriquez
Secretary for
Environmental Protection

Edmund G. Brown Jr.
Governor

RECEIVED
APR 18 2013
CITY OF MORENO VALLEY
Planning Division

April 16, 2013

Mr. John Terell
Planning Official
Community and Economic Development Department
Planning Division
14177 Frederick Street
Post Office Box 88005
Moreno Valley, California 92552

Dear Mr. Terell:

The California Air Resources Board (ARB) is providing comments regarding the Draft Environmental Impact Report (EIR) for the proposed World Logistics Center (Center) a 3,918 acre project which includes 2,710 acres for logistics warehousing to be developed by the project applicant Highland Fairview. This new facility provides an opportunity to create a state-of-the-art-facility that promotes the use of the cleanest technologies available during both the construction phase and full project build-out.

The Center includes a number of features that attempt to mitigate the impacts of the increase in diesel truck traffic in the region as well as emissions from project construction. These features include designated truck routes to direct trucks away from a nearby residential community, design principles that include special edge treatments to provide a buffer between the Center and an existing residential community, sustainability principles that encourage active transportation, and the requirement for all heavy-duty trucks entering the facility to meet or exceed 2010 emission standards or be powered by an alternative fuel. Nonetheless, the long-term operation of diesel trucks will have a significant impact in the region. Given the magnitude and scope of the Center, these features need to be expanded to include emerging zero-emission technology for the equipment that will serve the facility. 1 2

At full project build-out, emissions from diesel trucks will be the largest contributor to cancer risk from the Center. ARB staff believes that technology capable of 3

zero-emissions will be available for additional applications, including trucks, in the early years of full project build-out. The final project conditions should support development of this technology and provide for its use to better protect the health of nearby residents from the harmful effects of fine particle pollution (including diesel particulate matter), ensure the emission reductions required to attain air quality standards for all pollutants, and reduce greenhouse gases. 3

Background

The proposed Center project area covers 3,918 acres in eastern Moreno Valley (near Highway 60 and roughly 75 miles east of the Ports of Los Angeles and Long Beach). The entire project area is covered by a City of Moreno Valley General Plan Amendment that proposes to redesignate 2,635 acres for logistics development, with the remaining area designated for use as public utility, open space, or utility extensions. Currently, the Center project area is designated as a mix of residential, commercial, business park, and open space land uses.

Within the project area, 2,710 acres are included in a proposed World Logistics Center Specific Plan (Specific Plan). The Specific Plan allows for up to 41.4 million square feet of high-cube logistics (logistics development) including 20,000 square feet of land for logistics support for vehicle fueling, as well as 200,000 square feet of warehouse and related uses (light logistics). The project area will be built-to-suit under the requirements of the Specific Plan, individual development permits, and mitigation required as a result of the EIR. It is proposed that the Center be built in two phases with development build-out years of 2017 for Phase 1 and 2022 for Phase 2. At full project build-out it is expected that on average about 58,300 non-diesel vehicles and 12,700 heavy duty diesel vehicles will operate at the facility daily. 4

Existing land use surrounding the proposed Center is the Highland Fairview Corporate Park and State Route 60 to the north; San Jacinto Wildlife Area and Lake Perris State Recreation Area to the south; vacant hillsides and scattered Residential to the east; and Suburban Residential Neighborhood to the west.

The draft EIR presents several analyses of the Center's potential air quality impacts at both a regional and local level. The document presents two scenarios: 1) the "No Project" scenario in which assumes full build-out of the City of Moreno Valley General Plan in 2035 except for the project site, and 2) the "With Project" scenario which assumes the project were built-out in accordance with its proposed phased build-out schedule and then added to the No Project scenario. Both of the scenarios reflect the benefits of adopted ARB and federal regulations that are reducing emissions from the transportation sector over time. The draft EIR also assesses the maximum individual 5

cancer risk (risk) to residents in the neighboring residential community from Center emissions. When risk from the two scenarios is compared, there is an estimated net increase in risk from the Center (with proposed mitigation) of 20.9 chances in a million. 5

The draft EIR also presented year-by-year estimated greenhouse gas emissions from Center operations in 2014 through 2022. Even after all feasible mitigation is implemented, Center-related greenhouse gas emissions will exceed the South Coast Air Quality Management District significance threshold of 10,000 million metric tons of carbon dioxide equivalents per year by a wide margin. At full project build out in 2022 (including all mitigation and project design features), total projected greenhouse gas emissions exceed 665,000 million metric tons of carbon dioxide equivalents per year. Impacts related to greenhouse gas emissions and climate change will be significant and unavoidable. 6

ARB staff concludes that the proposed Center would increase the health risk in the immediate area and the project should utilize all existing and emerging zero-emission technology and implement land use decisions that minimize diesel exposure to the neighboring community. 7

Recommendations

The majority of the localized cancer risk for the Center is attributable to the increase in diesel PM from the construction and long-term operation of the facility. The draft EIR estimates a net increase in diesel PM from the Center's total operational emissions of 24 pounds per day in 2017 and 54 pounds per day in 2022 (total operations include truck yards, local roadways internal to the project site, local surface streets, and main freeway segments in the project area). Consequently, ARB staff recommends actions to support the development, demonstration, and deployment of zero- and near zero-emission technology to reduce localized health risk and regional emissions. We believe that use of these technologies is feasible within the build-out years of the Center, consistent with the California Environmental Quality Act definition: 8

> *"Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors. (California Code of Regulations, title 14, section 15364)*

The Specific Plan should be modified to require the use of the cleanest technologies within the Center as a project and lease condition accordingly:

1. From the onset, require that all medium-heavy and heavy-heavy duty trucks, including any alternative fuel vehicles, meet or exceed the 2010 emission standards. As it becomes available, require that trucks traveling between the Center and any ports or railyards within 100 miles use zero/near zero technology.
2. Require, to the greatest extent possible, on-site service vehicles and equipment use zero emission technology and, if zero-emission technology is unavailable, that all vehicles and equipment meet the cleanest applicable emission standard. 8
3. Require, when available, the use of zero-emission property maintenance equipment.

In addition, proposed mitigation measure 4.3.6.2A (construction equipment exhaust mitigation) should require the use of electric construction tools, when available and feasible, rather than just provide electric hookups. In addition, require all construction fleets be in compliance and monitor compliance with current air quality regulations for off-road equipment. Proposed mitigation measure 4.3.6.3B (localized construction and operations emission mitigation) should require all tenants be in compliance and monitor compliance with all current air quality regulations for on-road trucks including ARB's Heavy-Duty Greenhouse Gas Regulation and Truck and Bus Regulation. ARB is available to provide assistance in implementing this recommendation. 9

ARB recommends these additional mitigation measures to further minimize impact to the surrounding community:

1. The developer, Highland Fairview, or the City of Moreno Valley provide incentives for tenants to encourage the use o 8 ernative modes of commuting by their employees including, but not limited to, active transportation, public transportation, car pool, and the use of zero-emission vehicles. These same methods of transportation should be strongly encouraged or required for movement within the Center area. 10
2. Shift the proposed development along the west side of the project area to focus on light logistics or other uses to ensure that any operations of diesel trucks or equipment are at least 1000 feet away from residential occupied or zoned property or other sensitive receptor. 11
3. Minimize all traffic, beyond just heavy-duty truck traffic, by limiting the use of the "D" Street entrance to only local residents. 12

4. Increase the required distance from any on-site fueling stations to residential occupied or zoned property or other sensitive receptor from 250 feet to 1,000 feet. 13

Closing

ARB staff appreciated the opportunity to comment on the draft EIR. Given the scale of the facility and the risk associated with the increase in diesel PM from the Project, it is critical that the draft EIR and Specific Plan incorporate the use of advanced technologies as they become available. We are pleased to provide assistance for successful implementation and deployment of a state-of-the-art facility that serves the region's distribution and air quality needs, while protecting public health. If you have questions, please call me at (916) 324-0062 or contact Mr. Jack Kitowski, Assistant Division Chief, Stationary Source Division at (916) 445-6102 or jkitowsk@arb.ca.gov. 14

Sincerely,

J Kitowski for CM

Cynthia Marvin, Chief
Stationary Source Division

cc: Jack Kitowski
Assistant Division Chief
Stationary Source Division

State Clearinghouse #2012021045

RESPONSES TO LETTER B-5

California Air Resources Board

Response to Comment B-5-1. The commenter has accurately described the project characteristics related to truck emissions, although it should be noted there will be an alternative fueling station that will open during the first phase of development to serve trucks that use liquefied or compressed natural gas as vehicle fuel. It should be noted the Specific Plan area has been reduced from 2,710 acres to 2,610 acres (3.7 percent reduction) due to the removal of 100 acres in the southwest corner of the Specific Plan. This results in a reduction of 1 million square feet of logistics warehousing which is now 40.6 million square feet down 2.4 percent from the original 41.6 million square feet. The WLC implementation schedule was revised or extended from 10 to 15 years, so Phase 1 is now scheduled for completion in 2022 rather than in 2017, or from approximately 2015 to 2022, compared to the five-year time period assumed in the Draft Environmental Impact Report (DEIR) (i.e., 2012 to 2017). The second phase is scheduled for 2023 to 2030. Therefore, the quantitative impact analyses for 2017 in the original DEIR were eliminated in the revised DEIR (see Final (F) EIR Volume 2).

Response to Comment B-5-2 and B-5-3. The commenter suggested mitigation measure, as discussed below. Please see the Mitigation Monitoring Reporting Program (FEIR Volume 1) for a list of the mitigation measures.

Suggested Mitigation Measure	Response
Emerging zero-emission technology for the equipment that would serve the facility should be implemented. The project should support development of this technology.	**Partially Included.** The project requires non-diesel emergency generators, forklifts, and service equipment. Please also refer to Master Response-3, Zero Emission and Hybrid Electric Trucks, Vehicles, and Equipment.

Response to Comment B-5-4. The commenter has accurately summarized the project information presented in the DEIR. Also refer to Response to Comment B-5-1 for changes made to the size and phasing of the proposed project.

Response to Comment B-5-5. The commenter presents a summary of the scenarios in the DEIR.

The cancer risks as estimated in the DEIR are located in Table 4.3.AB for locations in the residential areas across Redlands Boulevard. The cancer risks were recalculated in the revised air quality analysis (FEIR Volume 2 Appendix D) and FEIR (Volume 2 Section 4.3 Air Quality) based on the revised construction and occupancy schedule, new traffic volumes, and realignment of roadways. Please refer to the FEIR and/or Master Response-1.

Response to Comment B-5-6. The commenter has accurately summarized the conclusions of the DEIR relative to the original proposed project and its emission of greenhouse gases. Refer to Response to Comment B-5-1 indicating the reduction in the size of the proposed project. In addition the phasing of the project has changed.

Response to Comment B-5-7. The commenter states the World Logistics Center (WLC) will increase the health risk in the immediate area and should use all available zero-emission technology. As discussed in Section 4.3 of the EIR and Master Response-1 and Master Response-2, the project will not increase health risk in the immediate area. Nonetheless, the WLC Specific Plan (SP) proposes an alternative fueling station that will open during the first phase of development to serve trucks that use liquefied or compressed natural gas as vehicle fuel. In addition, future development under the WLCSP will comply with vehicle fleet fuel requirements at the time of development approval. However, the project will support a variety of future users which are unknown at this time,

so it is not possible to specify or require future users to have zero emission or alternative fuel fleets since most logistics companies use independent contractors and truck drivers rather than maintain their own fleets.

Finally, it should be noted that the project has committed under various mitigation measures to requiring the most stringent levels of emission mitigation under existing emission control regulations including the use of Model Year 2010 engine diesel trucks and Tier 4 off-road construction equipment.

Response to Comment B-5-8. The commenter discusses the particulate matter (PM) emissions. Refer to the updated air quality and health risk assessment for a refinement of the PM and cancer risk values (FEIR Volume 2 Appendix D).

The commenter recommends actions to support the development, demonstration, and deployment of zero- and near-zero emission technology. The commenter believes the technologies are feasible within the build-out years of the project. However, as discussed in Master Response: Zero Emission and Hybrid Electric Trucks, Vehicles, and Equipment in Response to Comment Letter C-3, those technologies are not feasible for the project.

The commenter suggested mitigation measures, as discussed below.

Suggested Mitigation Measure	Response
1. From the onset, require that all medium-heavy and heavy-heavy duty trucks, including and alternative fuel vehicles, meet or exceed the 2010 emission standards.	**Already Included.** This was a project design feature in the DEIR and is now part of MM 4.3.6.3B.
2. As it becomes available, require that trucks traveling between the Center and any ports or rail yards within 100 miles use zero/near zero technology.	**Not Included.** See Master Response: Zero Emission and Hybrid Electric Trucks, Vehicles, and Equipment in Response to Comment Letter C-3.
3. Require, to the greatest extent possible, onsite service vehicles and equipment use zero emission technology, and if zero-emission technology is unavailable, that all vehicles and equipment meet the cleanest applicable emission standard.	**Partially Included.** Low-emission and zero-emission technologies are required for onsite equipment, as stated in Specific Plan Section 12.3: “The use of diesel-powered service yard vehicles (yard goats, etc.) is prohibited at all times within the Specific Plan area. Pallet jacks, forklifts, and other onsite equipment used during building operation (indoors or outdoors) shall be powered by electricity, natural gas, propane, or other non-diesel fuel.” The commenter requests that onsite service vehicles also have zero emission technology; however, it is not feasible to require this as discussed in Master Response: Zero Emission and Hybrid Electric Trucks, Vehicles, and Equipment in Response to Comment Letter C-3.
4. Require, when available, the use of zero-emission property maintenance equipment.	**Partially Included.** As a project design feature, the forklifts will be fueled by alternative fuel. In addition, Mitigation Measure 4.3.6.3B requires that the yard trucks be powered by alternative fuel. The landscaping equipment emissions are negligible as estimated by the CalEEMod land use emission model; therefore, according to the emissions analysis, it is not necessary to implement zero-emission landscaping

Suggested Mitigation Measure	Response
	equipment. The WLCSP Section 12.4 requires that electric power sources will be provided both indoor and outdoor to accommodate electric property maintenance equipment.

Response to Comment B-5-9. The commenter suggested mitigation measures, as discussed below.

Suggested Mitigation Measure	Response
Mitigation measure 4.3.6.2A should require the use of electric construction tools, when available and feasible, rather than just provide electrical hookups.	**Incorporated.** This language is incorporated in MM 4.3.6.2A.
Require all construction fleets be in compliance and monitor compliance with current air quality regulations for off-road equipment.	**Incorporated.** This language is incorporated in MM 4.3.6.2A.
Mitigation measure 4.3.6.3B should require all tenants be in compliance and monitor compliance with all current air quality regulations for on-road trucks including ARB's Heavy-Duty Greenhouse Gas Regulation and Truck and Bus Regulation.	**Incorporated.** This language is incorporated in MM 4.3.6.3B.

Response to Comment B-5-10. The commenter suggested a mitigation measure, as discussed below.

Suggested Mitigation Measure	Response
The developer, Highland Fairview, or the City of Moreno Valley provide incentives for tenants to encourage the use of alternative modes of commuting by their employees including, but not limited to, active transportation, public transportation, car pool, and the use of zero-emission vehicles. These same methods of transportation should be strongly encouraged or required for movement within the Center area.	**Already Included.** MM 4.3.6.4A requires that tenants participate in Riverside County's rideshare program, which encourages carpooling and public transportation. In addition, all tenants will need to comply with the requirements of South Coast Air Quality Management District (SCAQMD) Rule 2202, which accomplishes the same goals as requested by the commenter.

Response to Comment B-5-11. Shifting the land use designation from LD to LL along the west side of the project would have no effect on the presence of diesel trucks and equipment in that area. Neither designation includes any restriction on the type of vehicles that can access future buildings.

The Specific Plan provides for a 250-foot setback for buildings and truck access/parking facilities from adjacent residential zoned areas.

The commenter suggested a mitigation measure, as discussed below:

Suggested Mitigation Measure	Response
Shift the proposed development along the west side of the project area to focus on light logistics or other uses to ensure that any operations of diesel trucks or equipment are at least 1,000 feet away from residential occupied or zoned property or other sensitive receptor.	**Not Included.** Please refer to Master Response-4 in the Response to Comment Letter C-3 concerning the 1,000 foot buffer.

Response to Comment B-5-12. The commenter recommends limiting use of the Street D entrance (now renamed the Cactus Avenue Extension) to local residents only, as a means to minimize traffic.

Section 21101.6 of the California Vehicle Code states that local authorities may not place gates or other selective devices on any street which deny or restrict the access of certain members of the public to the street, while permitting others unrestricted access to the street. Local authorities may prohibit vehicles based on size (weight or height) as is being proposed for the Cactus Avenue Extension, but they cannot limit access to a public street based on the residence of the driver. On that basis, heavy trucks would be prohibited from using the Cactus Avenue Extension.

The commenter suggested a mitigation measure, as discussed below:

Suggested Mitigation Measure	Response
Minimize all traffic, beyond just heavy-duty truck traffic, by limiting the use of the "D" street entrance to only local residents.	**Not Included.** The Cactus Street extension is a public street. While the project does place restrictions on heavy-duty vehicles, prohibiting use of the street, the City cannot limit street access to only nearby residents. In addition, there is no way to distinguish among light vehicles those that are operated by local residents as opposed to nearby communities like Lake Perris. As a result, the proposed limitation is infeasible.

Response to Comment B-5-13. Any on-site fueling station is a "stationary source" under AQMD rules and as such, will be subject to all applicable rules and regulations regarding layout and design at such time as a specific site is selected and a project is proposed. In addition to AQMD rules, any proposed fueling station will be subject to a discretionary Plot Plan process which will evaluate the specific design and any potential impacts on nearby uses. No significant impact has been identified and therefore no specific mitigation is required.

The commenter suggested a mitigation measure, as discussed below.

Suggested Mitigation Measure	Response
Increase the required distance from any onsite fueling stations to residential occupied or zoned property or other sensitive receptor from 250 feet to 1,000 feet.	**Partially Included.** The proposed onsite fueling station shall be placed a minimum of 1,000 feet from any offsite residential occupied or zoned property or other sensitive receptors pursuant to MM 4.3.6.3C. As a stationary source, rules established by the SCAQMD will determine the location and controls placed on the facility to ensure that there is no impact on residential areas.

Response to Comment B-5-14. The commenter summarized their earlier comments and recommendations. Future development within the WLCSP may take advantage of alternative fuel or zero emission vehicles, and will comply with all fleet and/or fuel requirements at the time of development approval in the future. The project will support a variety of future users which are unknown at this time, so it is not possible to require future users to have zero emission or alternative fuel fleets since most logistics companies use independent contractors and truck drivers rather than maintain their own fleets.

Letter B-6: Santa Ana Regional Water Quality Control Board (April 25, 2013)

Letter B-6

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Santa Ana Regional Water Quality Control Board

April 25, 2013

Mark Gross
City of Moreno Valley
14177 Fredrick Street
Moreno Valley, CA 92552

DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE WORLD LOGISTICS CENTER PROJECT

Dear Mr. Gross;

Regional Water Quality Control Board (Board) staff would like to take this opportunity to provide comments on the Draft Environmental Impact Report (DEIR) for the World Logistics Project. According to the DEIR, the proposed project site covers 3,918 acres in the eastern section of the City of Moreno Valley. A General Plan Amendment is proposed to designate 2,635 acres for logistics warehousing, including up to a maximum of 41.1 million square feet of logistics development and 200,000 square feet of warehousing-related uses, classified as light logistics. 1,104 acres of the project site will be designated for permanent open space and public facilities. Of the open space area, 1,085 acres are currently owned by the California Department of Fish and Wildlife (CDFW). CDFW had purchased this area as a buffer between development and the San Jacinto Wildlife Area operated by the CDFW. 1

Listed below are brief comments concerning the proposed project. We note that the DEIR discusses several mitigation measures that are to be taken to reduce the project's impacts to water quality and aquatic beneficial uses.

1. The project needs to take all reasonable measures to avoid impacts to water quality standards as a result of this project. Impacts that cannot be avoided must be minimized, and all impacts must be mitigated. 2

2. Of particular concern is the runoff from the proposed project that will flow southeast towards Mystic Lake and the San Jacinto Wildlife area, and south towards the Perris Valley Drain and Reach 3 of the San Jacinto River. It is well established that runoff from urban land uses contains pollutants that can be detrimental to aquatic ecosystems, such as those that exist from time to time in Mystic Lake and that perennially exist on San Jacinto River Reach 2 (Canyon Lake), and other downstream reaches. Mystic Lake is ephemeral, and is essentially a terminal lake with all runoff to the lake staying in the lake to evaporate or infiltrate, except during rare periods when abnormally high rain fall occurs in the San Jacinto River's high elevation watershed for consecutive years, and Mystic Lake spills over into the San Jacinto River Reach 4 channel downstream of the lake. Even though Mystic Lake is not currently listed in the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) it is known 3

to have several beneficial uses[1] including REC1 (intermittent use), REC2, WILD, WARM (intermittent use), and RARE. 3

3. In addition, runoff from the proposed project possibly could impact other downstream waters such as the 303 (d) listed impaired Canyon Lake and Lake Elsinore. BMPs need to be identified and implemented that control pollutants for which TMDLs have been adopted and for which the project's receiving waters (Canyon Lake, principally, but also Lake Elsinore) are 303(d) listed. 4

4. The DEIR comprehensively lists several mitigation measures proposed to reduce impacts to hydrology and water quality to a less than a significant level. Staff strongly encourages the project proponent to implement BMPs that result in off-site run-off flows not increasing with project construction. DEIR Table 1.A, referencing Section 4.9.6.1A, summarizes mitigation measures for modifications to local drainage and other hydrological changes, reporting, "Each identified watershed within the project area will have an appropriate detention basin to retain storm water such that off-site flows downstream will not increase over existing levels. Runoff characteristics south of the site will be maintained similar to current conditions". This statement is somewhat ambiguous, and is clarified in the referenced section. To protect the integrity of undeveloped drainages downstream of the project, project stormwater runoff retention facilities must be designed and operated such that the entire hydrograph of post-project runoff is not significantly different than the pre-project runoff hydrograph. While addressing peak flow is an important consideration, other runoff characteristics must also be addressed to prevent hydro-modification of the runoff's receiving waters. 5

5. The DEIR lists the treatment control BMPs and Assessment Methodology to be used on the project to reduce project impacts to water quality. Board staff strongly encourages the use of BMPs that promote infiltration and evapotranspiration, including infiltration basins, bio-retention facilities, and extended detention basins to reduce impacts to water quality. All BMPs must include provisions that identify the party(s) responsible for funding and carrying out BMPs' long term management, including capital replacement. 6

6. The DEIR states that the applicant shall consult with the United States Army Corps of Engineers (USACE), CDFW, and RWQCB to establish the need for permits (e.g., Clean Water Act Section 401 Certification) for project impacts to jurisdictional waters. The proponent should consider project configurations that avoid impacts to all on-site and downstream waters, whether or not those waters are subject to USACE jurisdiction. Although the DEIR states that most, if not all of, the drainages located on the property are not jurisdictional, per the USACE, these drainages have water quality standards that must be protected. The Basin Plan considers that waters not specifically identified in the plan have the same beneficial uses as the waters to which they are tributary. Applying this "tributary rule" to the project site, beneficial uses of the drainages on or adjacent to the project site include: REC1, REC, WARM, WILD, RARE, GWR, and AGR. 7

[1] Definitions of the beneficial uses are shown in the DEIR and Chapter 3 of the Basin Plan.

Leaving the drainages in their existing condition, or restoring them to a more natural condition, is preferable to "developing" them into flood control conveyances, or allowing them to be hydro-modified by altering their hydrology. On-site hydrology controls should be implemented that do not allow increases in runoff as a result of the project development. If increases in stormwater runoff are unavoidable, then the proponent should be required to implement drainage facilities that allow for groundwater recharge, that are of adequate width to provide a buffer for ecological functions, as well as setbacks for passive recreation, such as a trail or bikeway, and maintenance, and that allow for the mature growth of native riparian vegetation. Board staff notes that the DEIR proposes that Drainage 9 will be designed with the channel to remain in a relatively natural condition, and shall provide a minimum 25-foot open space setback from the top of each bank. Other drainages on site and downstream from the site should be left in similar condition. — 8

7. Almost all of the open space proposed for this project is the 1,085 acres owned by the CDFW. The project proponent has not proposed designating significant amounts of land from their property as open space. Staff recommends that the project proponent and the CEQA lead implement Alternative One or another project alternative that allows more open space. Open space areas provide water quality benefits such as storm water retention and groundwater recharge as well as the opportunity for other amenities that benefit the community. — 9

8. The DEIR states that there is 25 acres of farm land considered prime farm land in the project site. The DEIR notes that 5 acres of this land will be offered to the City to be used as a possible heritage farm area. Staff recommends that the CEQA lead consider designating all 25 acres as land to remain in farming. Farm land can provide water quality benefits such as storm water retention and groundwater recharge as well as other benefits to the community. — 10

If you have any questions, please contact Dave Woelfel at (951) 782-7960 or dwoelfel@waterboards.ca.gov or me at 951 782- 3234 or madelson@waterboards.ca.gov.

Sincerely,

Mark G. Adelson
Chief, Regional Planning Section

cc: California Department of Fish and Wildlife – Kim Freeburn

RESPONSES TO LETTER B-6

Santa Ana Regional Water Quality Control Board

Response to Comment B-6-1. The commenter has accurately summarized the project characteristics relative to water quality, including the purpose of the California Department of Fish and Wildlife (CDFW) land south of the World Logistics Center Specific Plan (WLCSP) site as a buffer or separation between the San Jacinto Wildlife Area (SJWA) and future development. It should be noted the Specific Plan area has been reduced from 2,710 acres to 2,610 acres (3.7 percent reduction) due to the removal of 100 acres in the southwest corner of the Specific Plan. This results in a reduction of 1 million square feet of logistics warehousing which is now 40.6 million square feet down 2.4 percent from the original 41.6 million square feet.

Response to Comment B-6-2. The comment states that the project need to take all reasonable measures to avoid water quality impacts. Water quality impacts of the WLC project are evaluated in Section 4.9, *Hydrology and Water Quality*, of the Draft Environmental Impact Report (DEIR). That section concluded the WLC project would not have significant impacts on water resources, groundwater, flooding, etc. if the project was built per the design guidelines in the Specific Plan and implementation of the recommended mitigation measures.

Response to Comment B-6-3. The commenter is concerned about the runoff from the proposed project. The project has proposed site design, source control, and treatment Best Management Practices (BMPs) to mitigate water quality impacts to Mystic Lake and the SJWA as outlined in the preliminary Water Quality Management Plan prepared for the project. The project will comply with the *Water Quality Management Plan for the Santa Ana Region of Riverside County* (approved by the Santa Ana Regional Water Quality Control Board October 22, 2012), which requires the use of Low Impact Development (LID) BMPs that maximize infiltration, harvest and use, evapotranspiration and/or bio-treatment. As required by revised Mitigation Measure (MM) 4.9.6.3A, a site specific water quality management plan will be prepared to identify site design, source control and LID treatment BMPs. Flows from the project will be treated first by LID BMPs where the flow will be infiltrated, evapotranspired, or treated. As required by revised MM 4.9.6.1A, the treated flows will then be reduced to below or equal to pre-development conditions by routing the on-site storm water flows through a series of on-site detention and infiltration basins before flows are released off site. These basins will provide incidental infiltration and secondary treatment downstream of the LID BMPs. All runoff from the site will be treated by LID BMPs and then routed through the detention and infiltration basins before it leaves the project area and into Mystic Lake and the SJWA.

Also, the project has committed to performing a Water Quality Monitoring Program on the discharge from the project to the adjacent SJWA. Revised MM 4.9.6.3C outlines a very detailed process that must be implemented to ensure the SJWA will not be affected by water pollution from the project site. Please refer to Response to Comment B-3-39 for the revised MM 4.9.6.3A-C.

Response to Comment B-6-4. The commenter continues to express their concern about impacts from runoff to downstream waters. The Water Quality Management Plan Guidance Document for the Santa Ana Region of Riverside County discusses water quality impacts and the use of LID BMPs:

"*LID BMPs have been shown in studies throughout the country to be effective and reliable at treating a wide range of Pollutants that can be found in urban runoff, including those listed above [sediments, nutrients, metals, toxic organic compounds, trash, oxygen-demanding substances, oil and grease, bacteria and viruses, and pesticides], and those subject to adopted TMDLs in the Santa Ana Region of Riverside County (Bacteria and Nutrients). As such, the LID BMPs required in this WQMP are expected to treat discharges of urban-sourced 303(d) listed Pollutants from subject projects to an impaired waterbody on the 303(d) list such that the discharge from the project would not cause or contribute to an exceedance of Receiving Water Quality Objectives."* (p. 19)

The project will comply with the Nutrient Total Maximum Daily Load (TMDL) for Lake Elsinore and Canyon Lake by implementing LID-based BMPs. According to the *Comprehensive Nutrient Reduction Plan for Lake Elsinore and Canyon Lake* (prepared for Riverside County Flood Control and Water Conservation District by CDM Smith, January 28, 2013 in compliance with Order No. R8-2010-0033, NPDES Permit No. CAS618033), "*Post-construction LID-based BMPs required for new development and significant re-development projects are the only structural watershed-based BMPs currently included in the CNRP. The newly developed Water Quality Management Plan (WQMP) requirements ensure that a portion of the wet weather runoff will be contained onsite for all future development projects subject to WQMP requirements. Implementation of WQMP requirements over time coupled with the in-lake remediation projects (described below) are expected to provide sufficient mitigation of nutrients."* (p. 2-3).

Response to Comment B-6-5. The commenter suggests BMPs be implemented so that off-site run-off flows do not increase with project construction. Additional information has been added to the *Hydrology and Water Quality Master Plan of Drainage Report* (FEIR Volume 2 Appendix J) to provide specific and detailed plans for the drainage systems to include the size, capacity, design, function and maintenance requirements of the detention basins. The project will comply with the hydromodification requirements as outlined in Section F of the *Preliminary Water Quality Management Plan* and Section 5 of the *Master Plan of Drainage Report*. The detention basins have been modified to combine detention and infiltration. Additional analysis has been performed to detail the infiltration capacity of the basins and indicates that runoff leaving the project site will be less than or equal to the existing condition. Infiltration after the project will be greater than the existing condition. Additional details on the spreading areas and mitigation of flow volumes and velocities at the project boundary have been added to the *Master Plan of Drainage Report* and are summarized in the Response to Comment B-3-38 from the CDFW to address similar comments regarding drainage and water quality impacts of the project.

Response to Comment B-6-6. The commenter suggests that BMPs that promote infiltration and evapotranspiration be used to reduce impacts to water quality. The project will comply with the *Water Quality Management Plan for the Santa Ana Region of Riverside County* (approved by the Santa Ana Regional Water Quality Control Board October 22, 2012), which requires the use of LID BMPs that maximize infiltration, harvest and use, evapotranspiration and/or bio-treatment. As stated in the WQMP and also on Page 4.9-41 of the DEIR, the BMP strategy for the project is to select LID BMPs that promote infiltration and evapotranspiration. Infiltration BMPs will be preferred, but may not be feasible on sites with low infiltration rates, or located on compacted engineered fill. In situations where infiltration BMPs are not appropriate, bio retention and/or biotreatment BMPs that provide opportunity for evapotranspiration and incidental infiltration will be considered. All of these BMPs are considered as LID BMPs and will treat a wide range of pollutants, including the Pollutants of Concern that have been identified for the project. Section I of the WQMP identifies the operation, maintenance, and funding requirements of the BMPs. In addition, DEIR MM 4.9.6.3B outlined below requires the Master Property Owners Association to maintain all onsite water quality basins.

4.9.6.3B The Property Owners Association (POA) and all property owners shall be responsible to maintain all onsite water quality basins according to requirements in the guidance Water Quality Management Plan and/or subsequent site-specific Water Quality Management Plans, and established guidelines of the Regional Water Quality Control Board. Failure to properly maintain such basins shall be grounds for suspension or revocation of discretionary operating permits, and/or referral to the Regional Water Quality Control Board for review and possible action. This measure shall be implemented to the satisfaction of the City Land Development Division, in consultation with the City Engineer, and Regional Water Quality Control Board.

Response to Comment B-6-7. The commenter suggests the project avoid impacts to all on-site and downstream waters. The beneficial uses of the receiving waters are identified in the WQMP. Applying the tributary rule the beneficial uses of the drainage courses on the project site are noted. The DEIR Appendix J *Hydrology and Water Quality Master Plan of Drainage Report* outline bio retention areas and detention/infiltration basins that will be constructed to mitigate impacts to water quality and quantity.

Response to Comment B-6-8. The commenter prefers that the drainages be left in their existing condition, or restored to a more natural condition instead of being developed into flood control conveyances. The DEIR Appendix J *Hydrology and Water Quality Master Plan of Drainage Report* outline bio retention areas and detention/infiltration basins that will be constructed to mitigate the increased runoff and provide for peak flow attenuation and infiltration similar to pre development conditions. Table 3-3 of the *Hydrology and Water Quality Master Plan of Drainage* Report (FEIR Volume 2 Appendix J) outlines the basin lengths and widths. Adequate width for the basins has been provided as a buffer for ecological functions and for setbacks for maintenance and areas for native riparian vegetation. With the construction of these bio retention and detention/infiltration areas the drainage features of the project will provide increased opportunities for beneficial uses related to passive recreation and native riparian vegetation. For more information, the reader is referred to Response to Comment B-3-39 from the California Department of Fish and Wildlife to address similar comments regarding drainage and water quality impacts of the project.

Response to Comment B-6-9. The commenter suggests that the lead agency implement a project alternative that allows for additional open space. The DEIR did identify a number of significant environmental impacts of the WLC project, however, the EIR concluded that impacts to hydrology (runoff and flood control), water quality, and biological resources would be reduced to less than significant levels by project design and the proposed mitigation measures. These conclusions have not changed even though the project biology and hydrology reports were all updated and, in some cases, revised to address the many comments received on these technical studies. The project as proposed would have extensive areas with landscaping that would allow for percolation of irrigation water or onsite runoff to flow into planned detention basins during wet times, and then these waters could percolate back into the local groundwater. Since the DEIR did not determine there were any significant biological or hydrological impacts after mitigation, none of the project alternatives provide more open space.

Response to Comment B-6-10. The commenter misstates the discussion regarding the mitigation measure which requires the offering of five acres to the City for use as a possible heritage farm area. The mitigation measure does not require that the five-acre dedication be within the area designated as prime farm land nor does it require the dedicated area be used for farming. The DEIR (Section 4.2) provides clear evidence that agricultural uses are not viable in the region and would be particularly difficult to sustain on a parcel of limited size. The City cannot require privately-owned property to be retained in agricultural use or put to any specific use. In response to comments on the DEIR, the existing (California) Land Evaluation and Site Assessments (LESA) model analysis was rerun and a new LESA analysis was conducted for the project. These analyses both determined that the impact of the project on Farmland of Local Importance was less than significant. Accordingly, the mitigation measures have been revised. After additional discussion and review, the it was decided to eliminate the heritage farm mitigation measure (identified in the revised DEIR as MM 4.2.6.1A) as it could result in other environmental impacts (pesticide application, increased water use, liability for site users and the City, etc.). The new MM 4.2.6.1A identified in the revised DEIR would provide an offsite agricultural conservation easement which is now considered the appropriate mitigation for the agricultural impacts of the WLC project (i.e., loss of 25 acres of Unique Farmland).

An extensive drainage system is a part of the project which will provide opportunities for storm water retention and ground water recharge. The details of this system will be incorporated into each project specific plot plan application.

C. LETTERS FROM REGIONAL AGENCIES

Letter C-1: Southern California Edison (April 3, 2103)

Letter C-1

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

RECEIVED
APR 4 - 2013
CITY OF MORENO VALLEY
Planning Division

Raymond Hicks
Region Manager

April 3, 2013

Attn: Mark Gross, AICP
Senior Planner
City of Moreno Valley
Community and Economic Development Department
14177 Frederick Street
Moreno Valley, CA 92553

Re: World Logistics Center Project Draft EIR (SCH# 2012021045)

Southern California Edison (SCE) appreciates the opportunity to provide comment on the above referenced project.

Electrical Capacity

Please note, Moreno Valley Utilities (MVU) will need to file an interconnect application with SCE, in accordance with the applicable filed Federal Energy Regulatory Commission (FERC) tariffs, for any increased substation capacity connected to SCE's system, whether it is from MVU's existing Moreno Valley substation or another potential location, as proposed in the Draft EIR. Following receipt of MVU's application SCE will initiate and complete a system impact study analysis at MVU expense to determine: 1) the method of service necessary to serve the additional MVU load, whether from the existing Moreno Valley substation, or another method of service as determined by SCE, or the interconnection as proposed in the Draft EIR; 2) what, if any, system upgrades may be required to provide such service capacity; and 3) if the proposed interconnect location is acceptable to SCE. This analysis will include, but not be limited to, SCE system conditions, existing generation and queued ahead proposed market generation, SCE and MVU electrical load at that time and the load forecasts of both utilities. A facilities study analysis will also be required, at MVU's expense, to identify the specific facilities required for interconnection and system upgrades as well as the cost. Once completed, an interconnection agreement will also be required between the parties. It will outline the interconnection and operating responsibilities between the parties. SCE will perform the work required 1

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Menifee, Ca 92585

Office: 951 928-8238
E-mail: Raymond.hicks@sce.com

and MVU will pay SCE for the work required.

Existing Facilities

Relocation, rearrangement, or undergrounding of SCE overhead lines at developer expense may be required as part of the development. The extent of such work can be determined when street improvement plans are prepared. The preliminary information in the current Draft EIR does not provide enough clarity to make this assessment.

Please note that SCE's rights-of-ways and fee-owned properties are purchased for the exclusive use of SCE to operate and maintain its present and future facilities. Any proposed use will be reviewed on a case-by-case basis by SCE's Operating Department. Approvals or denials will be in writing based upon review of the maps provided by the developer and compatibility with SCE right-of- way constraints and rights. In the event the project proposes to impact SCE facilities or its land related rights, please forward five (5) sets of project plans, and a PDF copy of the same, depicting SCE's facilities and its associated land rights to the following location for review as noted above: 1

Real Properties Department
Southern California Edison Company
2131 Walnut Grove Avenue
G.O.3 – Second Floor
Rosemead, CA 91770

General Order 131-D Requirements

Please be advised if development plans result in the need to build new or relocate existing SCE electrical facilities that operate at or above 50 kilovolt (kV), the SCE construction may have environmental impacts subject to California Environmental Quality Act (CEQA) review as required by the California Public Utilities Commission (CPUC). If those environmental impacts are identified and addressed by the Lead Agency in the CEQA process for the larger project, SCE may not be required to pursue a later, separate, mandatory CEQA review through the CPUC's General Order 131-D (GO 131-D) process. If, however, the SCE facilities are not adequately addressed in the CEQA review for the larger project, and/or the new facilities could result in significant environmental impacts, the required additional CEQA review at the CPUC could delay approval of the SCE power line portion of the project for several years and thus impact the schedule for the larger project.

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Unfortunately, SCE is not able to provide specific comments on the Draft EIR due to the fact SCE has not yet received the applicable requests from MVU and the project applicant and pursuant to the requirements specified in this letter to determine impacts to SCE's facilities. 1

Once again, we appreciate the opportunity to comment on the project. If you have any questions regarding this letter, do not hesitate to contact me at (951) 928-8238.

Sincerely,

Raymond Hicks

Raymond Hicks
Local Public Affairs Region Manager
Southern California Edison Company

26100 Menifee Rd.
Menifee, Ca 92585

Office: 951 928-8238
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RESPONSES TO LETTER C-1

Southern California Edison

Response to Comment C-1-1. Southern California Edison (SCE) comments are specifically directed to what the responsibility of Moreno Valley Utility (MVU) is with respect to providing electrical service to additional load in MVU's service territory. MVU must submit an application to the Federal Energy Regulatory Commission (FERC). Since this project falls within MVU's service territory, it is the serving utilities responsibility to secure additional power from SCE. World Logistics Center (WLC) has provided all of the current information to MVU for their use in evaluating what additional power requirements they will have in the area so the application can be submitted properly. SCE will then need to do a complete and thorough review of their systems in order to properly serve MVU's needs.

Any new SCE facilities required for any potential interconnect could also require a California Environmental Quality Act (CEQA) review but should be covered in MVU's specific EIR for a new substation once they file an application. It is impossible to address SCE's needs for new or upgraded system without MVU having filed their application.

With regard to any impacts to SCE's existing facilities, there may be the need to relocate, rearrange and/or underground some of the existing SCE facilities and acknowledge that SCE facilities over 50 kV needing relocation may fall into the G.O. 131-D requirement and be subject to a CEQA review under California Public Utilities Commission guidelines. If there are any impacts to SCE's system from this project, they will be handled in the proper manner described within SCE's letter.

Letter C-2: Metropolitan Water District Of Southern California (April 8, 2013) and Appendix 1 (On Flash Drive)

THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

Office of the General Manager

Letter C-2

April 8, 2013 **Via E-Mail and Federal Express**

Mr. Mark Gross
Senior Planner
City of Moreno Valley
Community & Economic Development Department, Planning Division
14177 Frederick Street
Moreno Valley, CA 92552-0805

Dear Mr. Gross:

Notice of Availability of the
Draft Environmental Impact Report for the World Logistics Center Project

The Metropolitan Water District of Southern California (Metropolitan) has received the Notice of Availability of the Draft Environmental Impact Report (EIR) for the World Logistics Center Project (proposed project). The proposed project covers 3,918 acres in eastern Moreno Valley, generally located east of Redlands Boulevard, south of State Route 60 (SR60), west of Gilman Springs Road, and north of the San Jacinto Wildlife Area. The project proposes a maximum of 41.4 million square feet of high-cube logistics warehouse distribution uses classified as "Logistics Development" and 200,000 square feet of warehousing-related uses classified as "Light Logistics." Also included in the proposed project is a General Plan Amendment that will designate 2,635 acres for logistics development, 20 acres for public utility uses, and 1,159 acres for permanent open space. The remaining 104 acres will be used for utility extensions to serve the proposed project. Within the proposed project area, 2,710 acres are included in a proposed World Logistics Center Specific Plan (specific plan) which contains all of the 2,635 acres of proposed logistics land uses and 75 acres of the Open Space. Off-site infrastructure improvements, including construction of debris basins, water reservoirs and access roads, SR60 interchange modifications, and other road and utility modifications, are also proposed. This letter contains Metropolitan's response to the Notice of Availability as a potentially affected public agency. 1

Metropolitan owns property and owns and operates facilities on and adjacent to the site of the proposed project. As shown on the attached map, Metropolitan's irregularly shaped fee-owned property (APN 422-040-009 and 422-040-015), Inland Feeder Tunnel, and appurtenant tunnel access structure are located within the proposed specific plan area. In addition, Metropolitan's 145-inch-inside-diameter Inland Feeder pipeline and appurtenant structures extend through the specific plan area in the street rights-of-way for Eucalyptus Avenue, Theodore Street, and Davis 2

Road. Metropolitan also has a 110-foot-wide easement along Davis Road. While Metropolitan's property is referenced in Sections 3.3.1 and Section 4.4.1 of the Draft EIR, the Inland Feeder pipeline is not mentioned in the document. 2

Metropolitan is concerned with the potential impacts to its fee property, the Inland Feeder pipeline, and associated facilities resulting from future excavation, construction, utilities or any development that may occur as a result of proposed project activities. Please note that Metropolitan does not allow any structures within its fee property or easement. Development associated with the proposed project must not restrict any of Metropolitan's day-to-day operations and/or access to its facilities. Metropolitan must be allowed to maintain its rights-of-way and requires unobstructed access to its facilities and properties at all times in order to repair and maintain its system. Detailed prints of drawings of Metropolitan's pipelines and rights-of-way may be obtained by calling Metropolitan's Substructures Information Line at (213) 217-6564. To assist in preparing plans that are compatible with Metropolitan's facilities, easements and properties, we have enclosed a copy of the "Guidelines for Developments in the Area of Facilities, Fee Properties, and /or Easements of The Metropolitan Water District of Southern California." Please note that all submitted designs or plans must clearly identify Metropolitan's facilities and rights-of-way. 3

In order to avoid potential conflicts with Metropolitan's facilities and rights-of-way, Metropolitan requires that detailed design plans for any activities within the vicinity of our facilities, fee property or rights-of way be submitted prior to construction for review and written approval. Approval of the proposed project where it could impact Metropolitan's property should be contingent on Metropolitan's approval of design plans for the proposed project. Metropolitan requests that the text of the EIR be revised to acknowledge the presence of the Inland Feeder pipeline and appurtenant facilities within the boundaries of the proposed project and that the text also state that Metropolitan will need to approve any development plans that have the potential to impact Metropolitan's property or facilities.

Additionally, Metropolitan is concerned about limiting other potential uses for its fee-owned property through the proposed specific plan land use designation discussed in the Draft EIR and respectfully requests that its fee-owned property be <u>excluded</u> from this Specific Plan. The property lends itself to not only high cube distribution but to other industrial type uses as well. By allowing more diverse uses, the city can achieve its objective of providing employment opportunities for a wide range of companies and residents as well as enhance the city's tax base by providing a wide variety of employment opportunities for both skilled and semi-skilled workers. In addition, the 500,000 square feet and 24-foot or greater height requirements specified for the logistics development (LD) land use designation (identified in Sections 3.4.2 and 3.4.6 of the Draft EIR) also limits future users of the property. We recommend that the Specific Plan provide adequate flexibility for economically viable uses based on market segmentation dynamics and configuration of developable parcels impacted by topographical and geographical conditions. 4

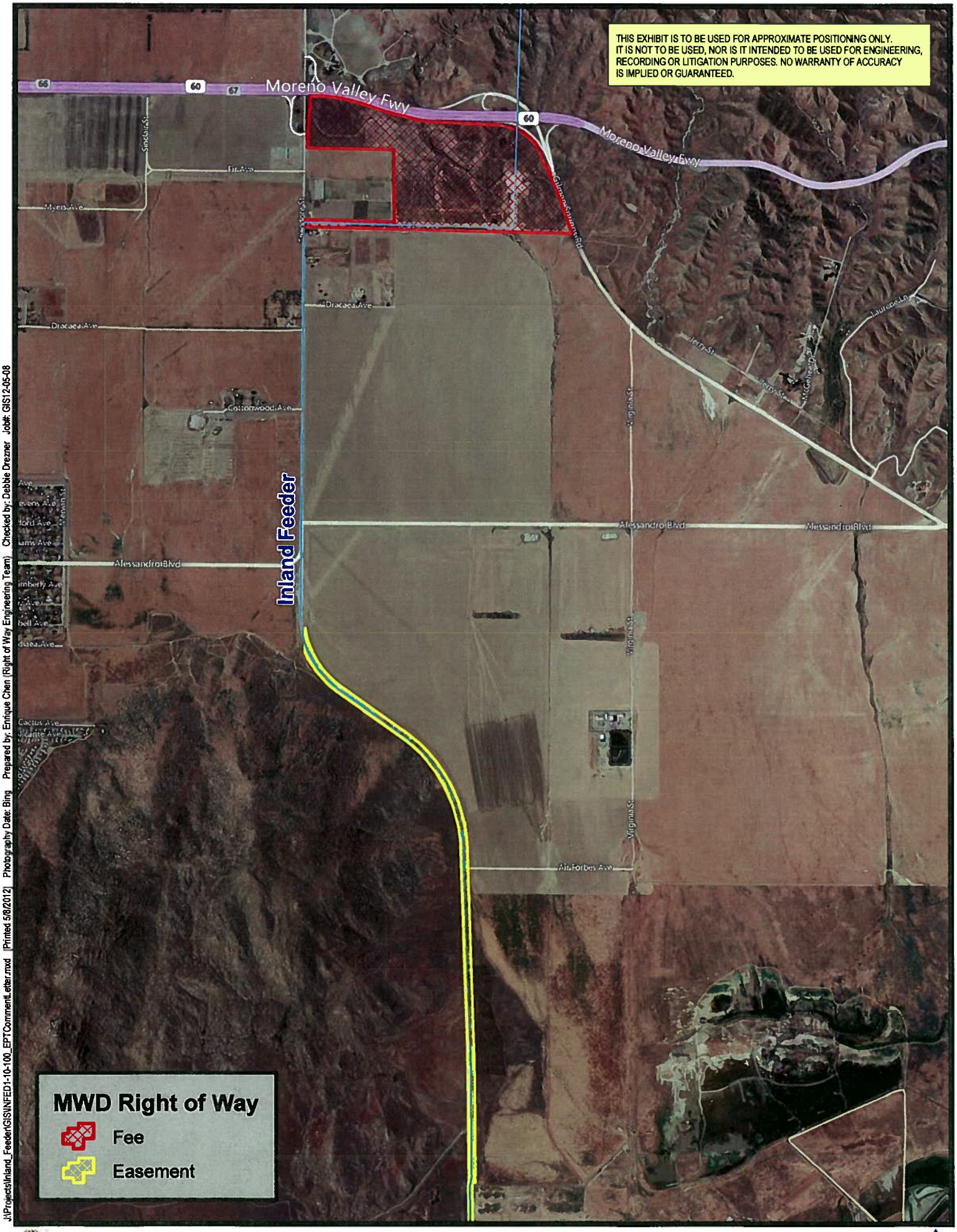
We appreciate the opportunity to provide input to your planning process and we look forward to receiving future environmental documentation and design plans regarding this proposed project. If you have any questions, please contact Ms. Jennifer Harriger at (213) 217-7658.

Very truly yours,

Deirdre West
Manager, Environmental Planning Team

JH/jh
(J:\Environmental-Planning & Compliance\COMPLETED JOBS\2012Folders\May 2012\Job No. 2012050303 \World Logistics Center Letter.docx)

Enclosures: Map of Metropolitan's Fee Property and Inland Feeder Alignment
Planning Guidelines



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The Metropolitan Water District of Southern California
Engineering Services Group

Inland Feeder
MWD Right of Way

Feet
0 500 1,000 2,000

RESPONSES TO LETTER C-2

Metropolitan Water District of Southern California

Response to Comment C-2-1. The commenter has accurately summarized the project information presented in the Draft Environmental Impact Report (DEIR). It should be noted the Specific Plan area has been reduced from 2,710 acres to 2,610 acres (3.7 percent reduction) due to the removal of 100 acres in the southwest corner of the Specific Plan. This results in a reduction of 1 million square feet of logistics warehousing which is now 40.6 million square feet down 2.4 percent from the original 41.6 million square feet.

Response to Comment C-2-2. The commenter has accurately summarized the relevant Metropolitan Water District of Southern California (Metropolitan) property information to the proposed project, and the information provided by the commenter relative to the Inland Feeder will be added to Sections 3.3.1 and 4.4.1 of the DEIR. The Inland Feeder will be protected during project construction and occupancy by the presence of various roads and easements in the southern portion of the site, as shown on Figure 3.4A in Chapter 3 Project Description of the Final (F)EIR Volume 2. In addition, Appendix A to Comment Letter C-2 provided by MWD shows the general boundaries of its property in the northeast corner of the World Logistics Center Specific Plan (WLCSP) site.

Response to Comment C-2-3. This commenter expresses the Metropolitan's concern with the potential impacts to its fee property, the Inland Feeder pipeline. Development of the Metropolitan's property within the WLCSP would not occur without the express permission and approval of the District (i.e., no other entity could propose or process any development proposals on the Metropolitan property without Metropolitan's express consent). Development of surrounding properties within the WLCSP are not expected to cause physical or environmental impacts on the Metropolitan property, and all improvements and facilities owned by Metropolitan would be protected in place during development of the WLCSP.

Response to Comment C-2-4. The commenter states Metropolitan requires detailed design plans for any activities within the vicinity of their facilities, fee property, or rights-of way be submitted prior to construction for review and written approval. The goal of the WLC project is to create a regional logistics center on the entire WLCSP property. The Metropolitan property is located in the far northeast corner of the WLCSP site, and it is not located adjacent to Theodore Street and several intervening properties between the Metropolitan property and access to the SR-60 Freeway. In addition, the placement of the Metropolitan's existing facilities on its site would limit the placement of other land uses on this property. Therefore, it would be difficult to designate the Metropolitan property for a largely different land use compared to the rest of the WLC property.

Response to Appendix C-2-1. Appendix 1 was reviewed to address Response to Comment C-2-3.

Letter C-3: South Coast Air Quality Management District (April 9, 2013)

Letter C-3

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

E-Mailed: April 9, 2013 April 9, 2013
markg@moval.org

Mr. Mark Gross
Community and Economic Development Department
14177 Frederick Street
Moreno Valley, CA 92553

Review of the Draft Environmental Impact Report (Draft EIR)
for the Proposed World Logistics Center Project

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the World Logistics Center (WLC) Draft Environmental Impact Report (EIR), the lead agency's willingness to accept this letter one day late, and for the lead agency and applicant reaching out to us early on to discuss how to prepare the air quality analysis. The following comments are meant as guidance for the lead agency and should be incorporated into the Final EIR as appropriate. 1

The Draft EIR determines that the proposed project would have significant long term air quality impacts. Specifically, the air quality analysis demonstrates that the project's operational NOx emissions could exceed 3,000 pounds per day, compared to a CEQA significance threshold of 55 pounds per day. Further, the project's cancer risks exceed 100 per one million for onsite residents (i.e., residents within the plan area), and cancer risks exceed 10 per one million for residents close to the project site and in freeway adjacent communities reaching all the way to the SR-60 and I-15 interchange approximately 20 miles west of the project site. 2

These impacts will be added to a community that already experiences some of the worst air quality in the nation, with the local air quality monitor recording the sixth most exceedances of the 8-hour ozone standard nationwide (a total of 54 days in 2011). Other areas of the basin that have seen substantial increases in warehouse development also experience PM2.5 levels that exceed federal standards. Considering this existing air quality setting, and the proposed project's high level of emissions well above significance thresholds, additional mitigation must be implemented. 3

SCAQMD staff appreciates that the project includes some design features and mitigation measures to reduce the air quality impacts from this regionally significant project. These include measures like the prohibition of trucks that do not meet 2010 emission standards, requiring all onsite equipment (like hostlers) to use alternative fuels, and providing onsite alternative fueling infrastructure. However, even with the incorporation of these 4

measures the Draft EIR reveals that air quality and cancer risk impacts are still significant, both during operations, and the ten year long construction period. Therefore, it is imperative that the lead agency specify how these measures will be made enforceable to ensure that the project's regional air quality impacts and health risk impacts are minimized and provide additional feasible mitigation. 4

Because diesel truck emissions contribute over 95% of total air quality impacts from this project, additional measures must be taken to increase the number of alternative-fueled trucks serving this project and to reduce impacts on the community. These measures include: implementing a mandatory phase-in schedule for non-diesel trucks to serve the project, requiring additional onsite electric charging for trucks, requiring natural gas fueling infrastructure to be built before the first warehouse is completed, and providing additional buffers to separate diesel truck activity from the community. Details regarding these comments and others are provided in the attachment. 5

Pursuant to Public Resources Code Section 21092.5, please provide the SCAQMD with written responses to all comments contained herein prior to the adoption of the Final EIR. Further, staff is available to work with the lead agency to address these issues and any other air quality questions that may arise. If you have any questions regarding the enclosed comments, please contact me at (909) 396-3244. 6

Sincerely,

Ian MacMillan
Program Supervisor, CEQA-IGR
Planning, Rule Development, and Area Sources

SN:IM:DG

SBC130206-07
Control Number

1. Alternative Fueled Truck Phase-In Schedule
Given that the proposed project will generate significant health risk impacts to a large number of surrounding and on-site residents (with risks up to 100 in a million) and will generate significant regional emissions, the lead agency should require mitigation that requires accelerated phase-in for non-diesel powered trucks. For example, natural gas trucks, including class 8 HHD trucks, are commercially available today. Natural gas trucks can provide a substantial reduction in health risks, and may be more financially feasible today due to reduced fuel costs compared to diesel. In the Final EIR, the lead agency should require a phase-in schedule for these cleaner operating trucks to reduce project impacts. SCAQMD staff is available to discuss the availability of current and upcoming truck technologies and incentive programs with the lead agency and project applicant. 7

2. Electric Vehicle (EV) Charging Stations
Trucks that can operate at least partially on electricity have the ability to substantially reduce the significant health risks and NOX impacts from this project. Further, trucks that run at least partially on electricity are projected to become available during the life of the project as discussed in the 2012 Regional Transportation Plan. It is important to make this electrical infrastructure available when the project is built so that it is ready when this technology becomes commercially available. The cost of installing electrical charging equipment onsite is significantly cheaper if completed when the project is built compared to retrofitting an existing building. Therefore, the SCAQMD staff recommends the lead agency require each warehouse and other plan areas that allow truck parking to be constructed with the appropriate infrastructure to facilitate sufficient electric charging for trucks to plug-in. Similar to the City of Los Angeles requirements for all new projects, the SCAQMD staff recommends that the lead agency require at least 5% of all vehicle parking spaces (including for trucks) include EV charging stations[1]. Further, electrical hookups should be provided at the onsite truck stop for truckers to plug in Transportation Refrigeration Units and any other onboard auxiliary equipment. 8

3. CNG Fueling Station and Convenience Site (*Advanced Installation Date*)
As described in the Draft EIR, the proposed project is projected to generate health risks offsite greater than 10 in one million to both local residents and residents along the 60 Freeway. Further, the proposed project has the potential to generate these significant air quality impacts for the region beginning in the first year of construction and operation, hence it is crucial that the lead agency implement measures that could reduce emissions sooner rather than later. Natural gas trucks have the ability to substantially reduce health risk impacts as they do not emit any diesel particulate matter, the primary driver of health risk impacts. The SCAQMD staff therefore recommends that the lead agency revise mitigation measure 4.3.6.3C to require the installation of an alternative fueling facility (e.g., natural gas) to serve the project site prior to operation of any logistics warehousing within the plan area. 9

[1] http://ladbs.org/LADBSWeb/LADBS_Forms/Publications/LAGreenBuildingCodeOrdinance.pdf

4. Operational Emissions Analysis and Mitigation Requirements
The local and regional air quality analysis for the proposed project is based on two scenarios identified in the Draft EIR as Scenario 1 and Scenario 2. Scenario 1 represents full build-out of the proposed project within one calendar year by 2012 whereas Scenario 2 represents a construction and operational phase-in schedule with full build-out of the project by 2022 (These Scenarios differ from HRA Scenarios 1 and 2 on a no project and with project analysis). In Scenario 1 of the regional emission analysis, the project would emit over 7.4 tons of NOx emissions per day at project build out, while in Scenario 2 the project could emit over 1.5 tons per day of NOx. A majority of these emissions (approximately 98%) are generated by the 14,600 daily heavy duty diesel truck trips estimated to serve the proposed project. Although Scenario 2 may be more representative of both construction and operation of the proposed project the lead agency based the project's significance determination for air quality impacts on Scenario 1(worst case scenario). As a result, the Draft EIR allows for significant levels of NOx emissions (over 7.4 tons per day) from the proposed project. For reference, 7.4 tons represents approximately one-fifth of the entire 2022 NOx emissions budget from heavy-heavy duty trucks (HHDT) in the four county SCAB region. In comparison Scenario 2 build-out emissions comprise only about 4% of the baseline HHDT NOx emissions in 2022. While it is exceedingly rare for a single project to account for ~4% of basin-wide emissions, the 20% estimate from Scenario 1 is unprecedented and does not present a credible value to determine significance based on project conditions described in the Draft EIR. The cause of this overestimate is likely due to the use of EMFAC 2007 instead of EMFAC 2011, and assuming that trucks not meeting 2010 emissions standards will be used. **10**

SCAQMD typically encourages a conservative analysis for CEQA purposes; however, the scale of overestimation here does not seem appropriate. For example, it could let the lead agency at a later date allow much higher emissions than the Scenario 2 emissions estimate (for example through future variances from the 2010 truck requirement) without requiring additional mitigation pursuant to CEQA. SCAQMD encourages the lead agency to use the Scenario 2 estimate (adjusting it as necessary to make it appropriately conservative) to determine project significance and to provide contingency measures in case future conditions indicate that emissions might exceed this value.

5. Project Impacts Higher due to Proximity of Project to Existing Sensitive Receptors
The proposed project requires that all heavy duty trucks access the site via Theodore Street to avoid travelling within the adjacent residential community. Further, mitigation measure 4.3.6.4A(k) requires at least a 250-foot setback between residentially zoned property and warehouse buildings. It appears that the dispersion modeling takes this buffer zone and truck restriction into account. However, as seen in Figure 4.3.11 and 4.3.12 of the Draft EIR, cancer risk impacts still exceed SCAQMD's significance thresholds of 10 in one million for a substantial distance into the community, including an east-west band extending over one mile from SR-60. Pursuant to CEQA Guidelines 15126.4, all feasible mitigation must be implemented to reduce these impacts, even if the mitigated impact remains **11**

significant. At a minimum, the project should require the 1,000 foot buffer as recommended in the state Air Resources Board's Land Use Handbook. This buffer should also apply to any undeveloped sensitive receptors that may be sited in the future next to the WLC Specific Plan area. 11

6. 2010 Diesel Haul Trucks, Service Yard Trucks and Other On-Site Equipment
Given that Scenario 2 of the Draft EIR allows for a significant levels of daily emissions (~1.5 tons/day of NOx) from the proposed project it is imperative that the lead agency enforce the project operational restriction/design feature that requires all medium-heavy duty and heavy-heavy duty trucks entering logistics sites to meet or exceed 2010 engine emission standards. Additionally, the project requires that all service yard trucks and other onsite equipment be powered by electricity, natural gas, propane and/or 100% biodiesel fuel (see page 3-33 of the Project Description in the Draft EIR for discussion of this requirement, also, see comment #13 regarding bio-diesel fuel). However, it is uncertain to SCAQMD how these provisions will be enforced long-term. Therefore, the SCAQMD staff recommends that lead agency include a description in the Final EIR that specifies how the above-mentioned 2010 engine emissions standards and on-site equipment specifications will be enforced. In the event that the lead agency determines that it is not feasible to enforce these conditions that capture these requirements/design features the lead agency should revise the health risk assessment (HRA) to ensure that the analysis does not take credit for cleaner trucks and equipment thereby potentially underestimating the project's health risk impacts. 12

7. Solar Roof Panels
Previously, SCAQMD staff has heard lead agency staff state that all new warehouses must offset all office electrical use using solar generation either onsite or offsite. It is therefore surprising that while the proposed project consists of over 41 million square feet of roof space on buildings greater than 500,000 ft^2, that the lead agency does not provide any commitment in the Draft EIR to the installation of solar panels. Given the availability of roof space associated with this project the lead agency should maximize the opportunity to produce solar energy by including mitigation beyond MM 4.16.4.6.1A. Specifically, the lead agency should require that buildings maximize the possible number of solar energy arrays. 13

8. Onsite Residential Receptors
On page 4.3-73 (Table 4.3.AA) of the Draft EIR the lead agency identified the potential incremental cancer risk for onsite residential receptors as 100.7 in a million; however, the lead agency does not provide any discussion about mitigation for on-site receptors in the Draft EIR. The WLC Specific Plan provides a "Right-to-Farm" provision in section 11.5 that indicates that residential uses may stay on the project site for a considerable time, overlapping with warehouse operations. Therefore, the SCAQMD staff recommends that the lead agency provide discussion about the proximity of on-site residents to potential future warehousing within the plan area and any applicable project conditions or mitigation measures that will minimize the significant health risk impacts to these residents. 14

9. Cactus Avenue Truck Access
As described in the Draft EIR, while heavy duty trucks must access the site via Theodore Street, by 2022 more than 1,500 light-heavy and medium-heavy duty diesel trucks per day are projected to access the site via Cactus Avenue and then Iris Avenue to the southwest according to the Draft EIR. It is not clear what destination these trucks are serving as there do not appear to be any non-residential or school land uses within about 5 miles of this access point. The lead agency should clarify if this path is meant to be a truck route linking the warehouses on the west side of the city with those proposed in the project. If alternate routes are available that will not impact as many sensitive receptors, then those should be made a requirement of the plan. **15**

10. Preclusion of Refrigerated Warehouse Space
Based on a review of the project's emissions calculations it appears that the lead agency determined the project's air quality impacts using emission factors for unrefrigerated warehouses/truck activity. However, the discussion provided in the first paragraph of page 3-33 (project description) of the Draft EIR allows for refrigerated warehouse uses whereas Section 11.1 of the WLC Specific Plan prohibits refrigerated warehouses. Therefore, the SCAQMD staff recommends that the lead agency either revise the air quality analysis to account for emissions from refrigerated warehouse uses or include a mitigation measure that precludes the use of refrigerated warehousing at the project site. **16**

11. Fleet Mix/Trip Rate
The proposed project primarily supports goods movement in the region that relies on HHDTs, however, based on Table 17 of the Air Quality Appendix the proposed project assumes that only 12.5% of the proposed project's total trips are generated by HHDTs (from a total of 20% trucks). CalEEMod guidance and the NAIOP study referenced in the Draft EIR both indicate that a higher truck percentage may be more appropriate for the proposed land use. Further, regional goods movement operational activities fluctuate based on seasonality. For example, goods movement activity often increases at the end of the year with back-to-school and holiday seasons. Given that SCAQMD significance thresholds are based on peak daily emissions, the Final EIR should include a discussion about whether the trip rates are annual average rates or peak daily rates that include adjustments for seasonality. Also, given that the project could significantly elevate health risk impacts to residents surrounding the project site and regional goods movement corridors, the SCAQMD staff recommends that the lead agency incorporate mitigation and monitoring that ensures any additional air quality impacts from extra diesel haul truck trips beyond those identified by the Draft EIR are publicly disclosed and mitigated where feasible. **17**

12. Health Risk Impacts
The HRA contained in the Draft EIR appropriately compares the project's cancer risk levels to SCAQMD's Maximum Incremental Cancer Risk (MICR) threshold of 10 in one million. However, it does not appear that the lead agency conducted a cancer burden analysis using the SCAQMD's significance threshold of 0.5. A cancer burden calculation provides a more useful measure of the extent of cancer risk across a **18**

populated area. Given the large area already encompassed within the 10 in one million risk contour in Figure 4.3.11, the one in one million contours will likely affect a much larger population. The Final EIR should include maps showing the one in one million contours as well as the calculated cancer burden. 18

13. On-Site Equipment
Based on a review of the air quality analysis it does not appear that the lead agency included potential emissions from on-site equipment (e.g., service yard trucks, emergency generators and auxiliary equipment) used for logistics operations in the air quality impacts significance determination. Therefore, the SCAQMD staff recommends that the lead agency revise the air quality analysis and HRA to include all on-site emissions sources and ensure that they are accounted for in the Final EIR. Also, given that on-site equipment emissions will contribute to the project's overall significant air quality and health risk impacts the SCAQMD staff recommends that the lead agency prohibit the use of on-site diesel powered equipment including bio-diesel to minimize the project's operational emissions and require the use of electric equipment. If diesel fueled emergency generators are required for the proposed project they should be equipped with diesel particulate filters. Installing diesel particulate filters on emergency standby engines is feasible and would ensure compliance with BACT, and SCAQMD Rules 1470 and 1472. 19

14. Onsite Mobile Equipment not Included in Localized or Regional Analysis
Neither the regional emissions nor dispersion modeling analyses include emissions from onsite mobile equipment such as hostlers and forklifts. While section 11.3 of the Specific Plan requires that all onsite mobile equipment utilize alternative fuels to reduce diesel emissions, this equipment will still emit criteria pollutants such as NOx and PM if it relies on fuels like natural gas. Emission factors for hostlers and forklifts can be obtained either from ARB's OFFROAD2007 or from engine manufacturers if specific equipment types are known. These emissions should be included in the regional emissions estimate and the localized criteria pollutant analyses in the Final EIR. 20

15. Localized NO2 Dispersion Modeling Analysis Methodology
The NO2 modeling analysis for combined construction and operation of the project does not compare against the federal one hour standard. Because the construction duration will last more than the three year averaging period of the standard, and because construction will overlap with operations, NO2 concentrations should also be compared against the federal standard for this period. 21

Further, the annual average emission rate was used for the 1-hour analysis. Because this 1-hour standard is designed to evaluate peak impacts, a peak one hour emission rate should be input into all hours that it could reasonably occur in the model. Although peak 1-hour emissions are calculated within the emission calculation spreadsheets provided to SCAQMD, it is not clear if these are appropriate for this exercise. The peak 1-hour rates in the calculation sheets take an entire day's

emissions and puts them all into one hour. As this intensity of activity is unlikely to occur, a peak hour should be calculated based on anticipated operations. 21

16. Construction Mitigation Measures

Given that the construction air quality analysis in the Draft EIR demonstrates significant regional air quality impacts from NOx, VOC, CO, PM10 and PM2.5, and significant local air quality impacts from NO_2, PM10 and PM2.5, the SCAQMD staff recommends that the lead agency provide additional mitigation pursuant to CEQA Guidelines Section 15126.4. Specifically, SCAQMD staff recommends that the lead agency minimize or eliminate significant adverse air quality impacts by adding the mitigation measures provided below. Also, the lead agency should note that the following measures have been determined to be feasible and applicable to past projects within other jurisdictions[2].

- Require the use of electricity from power poles rather than temporary diesel or gasoline power generators, and
- Require the use of 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export) and if the lead agency determines that 2010 model year or newer diesel trucks cannot be obtained the lead agency shall use trucks that meet EPA 2007 model year NOx and PM emissions requirements. 22

Further, SCAQMD staff recommends that the lead agency replace MM 4.3.6.2A (a) and (b) with the following:

- ✓ Project Start to December 31, 2014: All off-road diesel-powered construction equipment greater than 50 hp shall meet Tier 3 off-road emissions standards. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.

- ✓ Post-January 1, 2015: All off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.

- ✓ A copy of each unit's certified tier specification, BACT documentation, and CARB or SCAQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment.

[2] For example see the Metro Green Construction Policy at: http://www.metro.net/projects_studies/sustainability/images/Green_Construction_Policy.pdf

- ✓ Encourage construction contractors to apply for SCAQMD "SOON" funds. Incentives could be provided for those construction contractors who apply for SCAQMD "SOON" funds. The "SOON" program provides funds to accelerate clean up of off-road diesel vehicles, such as heavy duty construction equipment. More information on this program can be found at the following website: http://www.aqmd.gov/tao/Implementation/SOONProgram.htm

For additional measures to reduce off-road construction equipment, refer to the mitigation measure tables located at the following website: www.aqmd.gov/ceqa/handbook/mitigation/MM_intro.html.

Also, the SCAQMD staff recommends that the lead agency replace mitigation measures 4.3.6.2C (a) as follows:

a) Non-VOC containing paints, sealants, adhesives, solvents, asphalt primer, and architectural coatings (where used), or pre-fabricated architectural panels shall be used in the construction of the Project to reduce VOC emissions to the maximum extent practicable. 22

17. Cleaner Operating Truck Incentive Programs
The project should require that all tenants provide information and promote incentive programs and available alternative fueling truck technologies. This information should be updated as needed to ensure that the most recent information is available. Further, the lead agency should require that all future tenants apply for incentive funding (such as VIP, Carl Moyer, etc.) to upgrade their fleet. If they are awarded funding, they must also be required to use it within a reasonable period of time. 23

RESPONSES TO LETTER C-3

South Coast Air Quality Management District

Master Response-1 Changes to Air Quality, Greenhouse Gas, and Health Risk Assessment

Master Response-2 Health Effects of Diesel Particulate Matter

Master Response-3 Zero Emission and Hybrid Electric Trucks, Vehicles, and Equipment

Master Response-4 1,000 Foot Buffer

Master Response-5 Air Filtration Systems for Residences

Master Response 1: Changes to Air Quality, Greenhouse Gas, and Health Risk Assessment

The following is based on the revised Air Quality, Greenhouse Gas, and Health Risk Assessment.

Air Quality Improvement in the South Coast Air Basin

The project is located within the South Coast Air Basin (air basin). The air quality in the air basin has been steadily improving over the last couple of decades as measured in air pollutant concentrations by the South Coast Air Quality Management District (SCAQMD). A concentration of a pollutant is a measure of the amount of a pollutant in the air. Some pollutants are measured in parts per million (ppm) and some are measured in micrograms per cubic meter ($\mu g/m^3$).

When sensitive people, such as children, pregnant women, and the elderly, breathe in air pollutants, they can experience health effects. These health effects differ based on the type of pollutant, the length of time someone is exposed, and the concentration of the pollutant. In general, health effects can include coughing, sore throat, chest pain, difficulty breathing, reduced lung function, asthma aggravation, chronic lung diseases, cancer, and lung damage.

Federal, state, and local agencies enact rules and regulations to reduce air pollutant emissions to protect the health of sensitive individuals. The United States Environmental Protection Agency (EPA) sets federal ambient air quality standards and the California Air Resources Board (ARB) sets state ambient air quality standards to protect public health and welfare. When concentrations of pollutants exceed the standards, sensitive individuals may experience health effects.

Ozone is a pollutant formed in the air when emissions of volatile organic compounds (VOC) and nitrogen oxides (NOx) combine in the presence of sunlight. Ozone is a pollutant of concern in the air basin because ozone levels exceed the ozone standards. As shown in Figure 4.3.1: *Ozone Concentration Trends in the South Coast Air Basin* in the Final Environmental Impact Report (FEIR) Volume 2, ozone concentrations in the basin have generally decreased over the past twenty years for 1-hour and 8-hour averaging time periods as defined by the State and/or federal ambient air quality standards. The 1-hour and 8-hour concentration refers to the average of the concentration over a 1-hour and 8-hour time period, respectively.

The main source of NOx and VOC emissions in the basin are from on-road motor vehicles, not from the operation of buildings. Although vehicle miles traveled in the basin continue to increase, ozone concentrations are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with cleaner and lower-emitting vehicles. VOC and NOx are ozone precursors; therefore, if those emissions decrease, it follows that ozone concentrations would

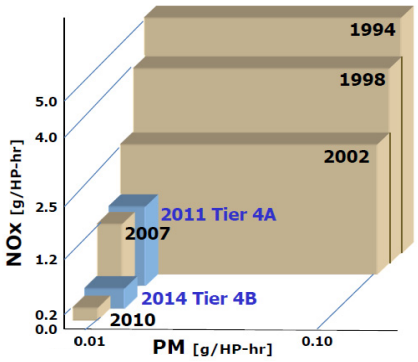
also decrease. Another pollutant of concern is particulate matter (PM). PM is a mixture of small particles and liquid droplets suspended in the air. It is made up of components such as chemicals, metals, soil, or dust particles. The size of these particulates is linked to their potential for causing health problems. Ultrafine particles are less than 0.1 in micron in diameter, fine particles are less than 2.5 microns in diameter ($PM_{2.5}$), and coarse particles are larger than 2.5 microns and smaller than 10 microns in diameter (PM_{10}). The Air Resources Board (ARB) and Environmental Protection Agency (EPA) have established standards for $PM_{2.5}$ and PM_{10} but not for ultrafine particles. $PM_{2.5}$ and PM_{10} are a concern in the air basin because sometimes the concentrations exceed the standards. $PM_{2.5}$ is often used as a marker for toxic air pollutants such as diesel PM.

As shown in FEIR Section 4.3, PM_{10} and $PM_{2.5}$ annual concentrations have continued to decrease since 1990 within the air basin as a whole. Additionally, emissions are expected to decrease and then level out after the year 2014.

In the Inland Empire there is a marked decreasing trend in $PM_{2.5}$ concentrations in Riverside-Rubidoux, Fontana, and San Bernardino from 2001 to 2012 and at Mira Loma from 2006 to 2012. The relevance of these trends is that $PM_{2.5}$ levels have displayed a decreasing trend in the Inland Empire despite increases in urban development including the development of large warehouse complexes since 2001.

Part of the success in the decreasing NOx and PM emissions are standards placed on motor vehicles. The figure below demonstrates the changes in U.S. heavy duty diesel emission standards for NOx and PM. The project would incorporate mitigation that would require that the heavy duty trucks accessing the project incorporate 2010 emissions standards. As shown below, the 2010 standards are only a fraction of the older standards, at 0.2 grams per horsepower hour (g/HP-hr) of NOx and 0.01 g/HP-hr of PM. The text in blue represents the off-road construction standards; 2011 is Tier 4 Interim and 2014 is Tier 4 Final.

Exhibit C-3-1: Changes in U.S. Heavy Duty Diesel NOx and PM Emission Standards



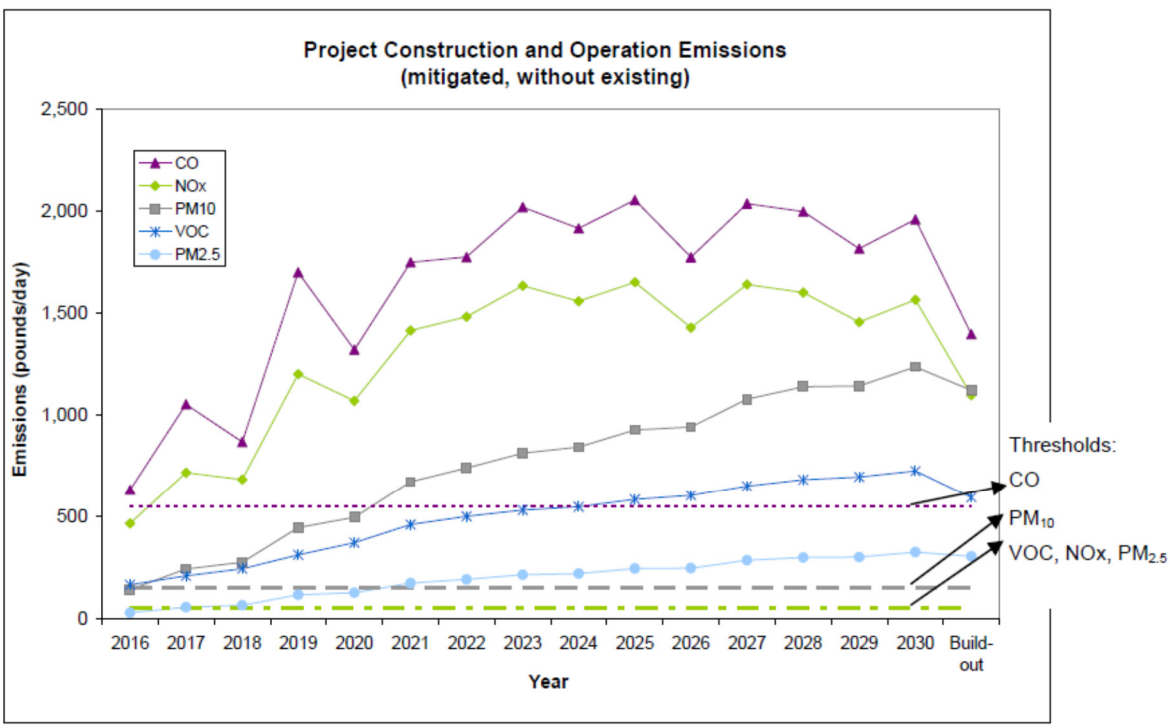
Air Pollutant Emissions from Project

The construction and operation of the project would generate various sources of air pollutant emissions. During construction, there would be exhaust and dust emissions from the onsite construction equipment, worker vehicles, and haul trucks. During operation, there would be exhaust emissions from the heavy-duty trucks that would bring goods and materials to and from the warehouses, as well as worker vehicles, and onsite equipment. There would also be dust emissions from travel on paved roads.

The construction related emissions of VOC, NOx, CO, and PM_{10} as estimated in the revised analysis are still significant. However, after mitigation, $PM_{2.5}$ emissions are now less than significant. Average daily emissions of VOC, NOx, CO, and $PM_{2.5}$ have decreased by approximately 100, 600, 500, and 25 pounds per day, respectively. This is primarily because the construction period for the project increased from 10 years to 15 years, the construction activity levels decreased, Tier 4 equipment is now applied as mitigation, and a newer version of the California Emissions Estimator Model (CalEEMod) land use emission model was used to estimate construction emissions. The average PM_{10} emissions increased slightly by an average of approximately 35 pounds per day, primarily because of the inclusion of unpaved road dust in the emissions estimates.

The mitigated combined construction and operational emissions (without the existing emissions subtracted) are shown in Exhibit C-3-2 below. All combined emissions (with the exception of sulfur oxides, which are negligible) would exceed the SCAQMD's regional significance thresholds. The emissions (except sulfur oxides) would exceed the thresholds individually for construction and operation as well.

Exhibit C-3-2: Project Construction and Operation Emissions



Operational emissions at buildout for the revised analysis as compared with the estimates in the DEIR are as follows:

- For unmitigated operational emissions, VOC, NOx, CO, and PM10 emissions decreased by approximately 140, 1800, 2200, and 600 pounds per day lower than in the DEIR, respectively.
- Mitigation reduces NOx by approximately 200 pounds per day at buildout. Mitigated operational emissions of VOC, NOx, CO, and PM10 are approximately 140, 2000, 2000, and 600 pounds per day lower than in the DEIR, respectively.

- Emissions of $PM_{2.5}$ increased by approximately 150 pounds per day in both unmitigated and mitigated scenarios because of the use of updated ARB mobile source emission factors.

The revised emissions are lower because of the following: a reduction in the project size (from 41.6 to 40.6 million square feet); the emission factors for the mobile trucks and vehicles have been updated to the ARB's newest factors; and the project's vehicle miles traveled (VMT) decreased. In the DEIR, the VMT at buildout for diesel trucks was 730,100 miles per day and in the revised analysis, the VMT for diesel vehicles is 420,400 miles per day; therefore, the VMT for diesel vehicles decreased by approximately 309,700 miles per day. The VMT decreased because the analysis in the DEIR assumed an arbitrary average of 50 miles per trip for all heavy duty trucks, while the revised analysis computed the VMT using forecast traffic volumes from a detailed regional transportation model for nearly 500 freeway and roadway segments represented in detail in the Traffic Impact Analysis. The VMT for light duty vehicles increased by approximately 64,600 miles: in the Draft EIR, the VMT for light duty vehicles was 549,700 miles per day and in the revised analysis, the VMT for gasoline vehicles is 614,300 miles per day. To put the revised VMT in terms of an average trip rate, it would be 14.9 miles per trip (1,034,750 miles/day divided by 69,549 trips/day) on average, which includes all vehicle types. An average trip rate for the diesel vehicles would be approximately 35.3 miles per trip (420,440 miles/day divided by 11,908 trips/day). An average trip rate for the light-duty vehicles would be approximately 10.7 miles per trip (614,310 miles/day divided by 57,641 trips/day).

Localized Air Quality Analysis

The analysis of localized air quality impacts determines the potential of the project to violate any air quality standard, contribute substantially to an existing or projected air quality violation, or expose nearby sensitive receptors to substantial pollutant concentrations. This analysis is commonly referred to as a Localized Significance Threshold (LST) analysis and considers the emissions that are generated from all construction and operational activities while within or along the boundaries of the project. Based on estimates of project local emissions and their corresponding air quality impacts, the following is a summary of the project's localized impact analysis:

- The highest localized air quality impacts would occur at the existing residences within the project boundaries.
- After application of mitigation, the project impacts would not exceed any SCAQMD localized significance threshold at any residential or sensitive receptor located outside of the project boundaries for any of the localized air quality assessments evaluated in the revised air quality analysis for the assessment years 2012, 2021, 2027, and final build out assumed to be 2035.
- After application of mitigation, project impacts would exceed the SCAQMD localized significance thresholds for PM_{10} during operation under the Project Phase 1 (2012) condition at the existing residences located within the project boundaries, assuming Phase 1 of the Project would be fully in operation in the existing year 2012.
- After application of mitigation, project impacts would exceed the SCAQMD localized significance for PM_{10} during operation under the Project Phase 1 and Phase 2 Full Build Out (2012) condition at the existing residences located within the project boundaries, assuming that the project would be operational in the existing year 2012.
- After application of mitigation, project impacts would exceed the SCAQMD localized significance thresholds for PM_{10}, concentrations at the existing residences located within the project boundaries during the year 2021 when the project construction would take place at the western portion of the project adjacent to the existing residences across Redlands Boulevard.

- After application of mitigation, project impacts would exceed the SCAQMD localized significance thresholds for PM_{10} at the existing residences located within the project boundaries in 2027, the year when construction activities would take place along the east portion of the project adjacent to the existing residences across Gilman Springs Road.
- At final buildout project impacts would exceed the SCAQMD localized significance thresholds for PM_{10} concentrations at the existing residences located within the project boundaries during operations under the proposed development schedule.

Cancer Risk from Project

Diesel particulate matter (diesel PM) is the primary pollutant of concern regarding the emissions of toxic air contaminants (TAC) from the project. A TAC is a chemical that is present in the atmosphere in small quantities but, nonetheless, can result in cancer health risks and non-cancer health hazards. The ARB, after a 10-year research investigation identified diesel PM as a carcinogenic substance. Diesel PM is a complex mixture of perhaps a few hundred chemical components. Even though diesel PM comprises numerous compounds, cancer risk from the inhalation of the diesel PM as a whole will outweigh the cancer risk associated with the individual chemical components.

As stated by the (California) Air Resources Board (ARB) in study of diesel PM exposure from ports and goods movement in California, "Risk assessment has various uncertainties in the methodology and is therefore deliberately designed so that risks are not under predicted. Risk assessment is thus best understood as a tool for comparing risks from various sources, usually for purposes of prioritizing risk reduction, and not as literal prediction of the community incidence of disease from exposure" (ARB 2006, Page 4).

It should be noted further that the geographical scope of the health risk analysis was expanded in the revised analysis to cover an area of approximately 3,500 square miles that extended from Palm Springs to the ports of Los Angeles and Long Beach. The geographical scope contained in the revised analysis is about 40 percent greater than the area encompassed in the DEIR and was required to analyze project impacts all the way from the project site to the ports of Los Angeles and Long Beach.

During construction, the diesel powered vehicles and equipment would emit diesel PM. During operation, the diesel trucks that would access the project site would also emit diesel PM. In addition, diesel PM would also be emitted by standby emergency generators and yard service trucks in the unmitigated case (diesel prohibited with mitigation). Gasoline fueled vehicles emit organic gases, some of which are classified as TACs. The revised air quality analysis determined the cancer risk and non-cancer hazards from exposure to those air toxics at sensitive/residential receptors, worker receptors, and school sites in the area. In the DEIR, only impacts from diesel PM were assessed; for the revised analysis, total organic gases were also included to analyze acute non-cancer hazards from diesel and gasoline powered vehicles.

Exposure Durations for Cancer Risk

In the FEIR, cancer risk is presented for periods of 30 years under the Current OEHHA Guidance for residential exposure and 25 under the Current OEHHA Guidance for worker exposure. In addition, the FEIR included a 9-year exposure duration to examine health impacts on school age children.

The underlying factors used in the analysis exemplify the conservative nature of utilizing the exposure scenarios and the underlying assumptions:

- The residential cancer risk calculation assumes that each resident will be exposed to diesel particulate matter (diesel PM) and organic gases for 24 hours a day for 350 days a year at

the location of his or her home throughout the residential exposure period. It's as if no one ever left his or her backyard to go to work or school.

- Studies have shown that over 90 percent of all residents remain in their homes for less than 30 years.
- The worker cancer risk calculation assumes that workers are exposed to diesel PM for 8 hours a day for 245 days a year, next to, but outside of the buildings in which they work.
- Studies have shown that over 95 percent of workers stay at the same job location for less than 25 years.
- Cancer risk results are derived using the emissions from construction equipment and cars and trucks which will serve the project. Emissions are a function of the number of construction equipment in usage, length of time in operation, power of the equipment, and load factor while mobile source emission depend on the number of vehicle trips and miles traveled, vehicle class, model year, and vehicle speed. The project's emissions have been estimated using methodologies published by the SCAQMD and the CARB.
- The atmospheric dispersion model and traffic model (used in estimating mobile source emissions) that are used to estimate risks generally provide impact estimates that are over-estimates based on the use of conservative model assumptions.

Trip Estimates are Conservative

It should also be noted that the traffic analysis used a conservative estimate of the number of truck trips after the project begins operation. This is important because diesel PM emissions are directly related to both the number of trucks and the vehicle miles traveled.

The traffic analysis in the EIR used the traffic generation rate for high-cube warehouses suggested by the Institute of Traffic Engineers ("ITE") which is based on traffic counts from a number of large warehouses located in California and elsewhere in the United States. This rate was also compared to the trip generation rate actually resulting from the Skechers warehouse immediately adjacent to the project. The Skechers warehouse is representative of the warehouses planned for the project. The ITE trip generation rate is three times greater than the Skechers warehouse traffic counts (see Table 4.15.K in the revised EIR). Because the project analysis used a higher trip generation rate, the vehicle miles traveled are also higher. The combination of the conservative forecasts of traffic and of the miles traveled means that the calculation of the cancer risk in the EIR overstates the extent of that risk regardless of the exposure period used.

Conclusion

The revised EIR provides cancer risk calculations based on both 30-year exposure periods for residential receptors and 25-year exposure periods for work place receptors using the Current OEHHA Guidance, the cancer risks exceed the cancer risk significance threshold at existing residences located within the project boundary but do not exceed the threshold at residences located outside of the project boundary. Further, even though the significance threshold is exceeded on a numerical basis, the risks are expected to be less than significant based on the new health research results from the Health Effects Institute (HEI) that evaluated the health effects of diesel PM emissions from new technology diesel engines such as those that are required as a mitigation measure for this project (MM 4.3.6.2B) that requires that all diesel fueled trucks must be compliant with Model Year 2010 truck emission standards. The HEI study clearly demonstrates that the application of new emissions control technology to diesel engines have virtually eliminated the health impacts of diesel exhaust that were identified when it was designated a toxic air contaminant by CARB in 1998. That designation spurred a series of regulations that brought forth transformative emissions control technology, significantly reducing both emissions and the associated health impacts. This finding is

further re-enforced by the mitigation requirement that all diesel construction equipment greater than 50-horsepower meet Tier 4 emission standards, the most stringent emission control requirements on off-road construction equipment. The public and the City's decision makers will be presented, and therefore will be fully informed, about the extent of the project's cancer risks.

Summary of Health Risk Results

To provide an understanding of the meaning of cancer risk, a person exposed to a cancer risk level of 1 in a million implies a likelihood that up to one person, out of one million equally exposed people would contract cancer if exposed continuously (24 hours per day indoors and outdoors) to the levels of toxic air contaminants over a specified duration of time such as 30 years. This risk would be an excess cancer risk in addition to any cancer risk borne by a person not exposed to the project's emissions. The results of the health risk assessment prior to the application of mitigation are summarized in Table C-3.A for various receptors located within the project boundaries and outside of the project boundaries as shown in the DEIR. Compared to the risks shown in the DEIR, the revised risks are substantially lower. This is due to several reasons including changes in the original construction and occupation schedule, realignment of the internal roadways, reductions in the total size of the project, reductions in the construction equipment inventory, use of the EMFAC2014 mobile source emission model for mobile sources and the newest version of the CalEEMod for estimating construction emissions, and a 5-day construction work week. The maximum daily emissions are required for the regional analysis, because project emissions can occur on any day of the week. However, in order to calculate annual average emissions, it is necessary to base emissions upon a realistic work schedule. The revised analysis assumes a more realistic annual average use of construction equipment by assuming that the maximum equipment would occur for five days per week (instead of six days per week as in the DEIR). In this way, an annual average emission inventory was estimated.

Table C-3C shows the resulting cancer risks estimated with the application of the "Current OEHHA Guidance" that includes a 30-year exposure duration and incorporated age-sensitivity factors. As noted therein, the results shown in Table 3C-C are consistent with the significance results shown in the DEIR that concluded that the SCAQMD cancer risk significance threshold is exceeded at locations both within and outside of the project boundary including both existing residential areas as well as in residentially-zoned areas to the southwest of the project and along Gilman Springs at the eastern boundary of the project prior to mitigation.

Table C-3D and Table C-3E summarize the results of the project cancer risks after application of mitigation. As noted in Table C3-E with the "Current OEHHA Guidance", the SCAQMD significance threshold is exceeded at 3 existing residences located within the project boundary.

Based on the recent research results published by the Health Effects Institute, the diesel PM emissions from the truck fleet and construction fleet that will be operated by the project consisting of Model Year 2010 diesel trucks and Tier 4 off-road construction equipment, the project's impacts are not expected to result in significant cancer risk impacts.

In response to comments, analysis of implementing a 1,000 foot buffer indicates that the buffer would not have a substantial impact on the cancer risk estimates. There is only a minimal difference in the maximum values and a negligible difference in the cancer risk contours. The health risk assessment also has the following cancer burden and non-cancer results:

- The project's cancer burden level of 0.1 after mitigation based on the Current OEHHA Guidance that call for a 70-year exposure duration and age-sensitivity factors in estimating cancer burden.; therefore, the project would not exceed the SCAQMD's threshold of 0.5.
- The project's non-cancer chronic and acute hazard index would not exceed the SCAQMD's thresholds at any receptor.

- The project would result in a cumulatively considerable health risk impact even after mitigation for sensitive/residential receptors.

Exhibit C-3-3 below presents the project risk in perspective with other lifetime risks in the United States based on mortality statistics. As shown in the chart, the project cancer risk has a slightly higher risk than dying from a lightning strike and lower risk than accidental drowning.

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Table C-3A: Estimated Cancer Risks, 70-Year Exposure Duration for Sensitive/Residential Receptors as Shown in the Draft EIR

Receptor Location	Unmitigated			Mitigated		
	Total Incremental Cancer Risk[1] (risk/million)	SCAQMD Cancer Risk Significance Threshold (risk/million)	Exceeds Threshold?	Total Incremental Cancer Risk[1] (risk/million)	SCAQMD Cancer Risk Significance Threshold (risk/million)	Exceeds Threshold?
Maximum risk anywhere in the modeling domain[2]	100.7	10	Yes	76.8	10	Yes
Maximum risk at existing residences within the project boundaries	100.7	10	Yes	76.8	10	Yes
Maximum risk at any existing residential area outside of the project boundaries[3]	22.2	10	Yes	20.9	10	Yes

Notes:
(1) 70-year average exposures from 2015 to 2084 (includes diesel PM emissions from construction and operation); cancer risk estimates derived from the EMFAC2011 emission model and "Current SCAQMD Guidance" for estimating cancer risks as presented in the Draft EIR
(2) Location is at the existing residences within the boundaries of the project
(3) Location is at the southwest corner of the project
(4) Location is at an undeveloped property zoned for residential at the southwest corner of the project
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

Table C3-C: Estimated Cancer Risks, 30-Year Exposure Duration for Sensitive/Residential Receptors, Based on the "Current OEHHA Guidance" Without Mitigation (new)

Receptor Location	Incremental Cancer Risk During Project Construction (risk/million)	Incremental Cancer Risk During Project Operation (risk/million)	Total Incremental Cancer Risk(1) (risk/million)	SCAQMD Cancer Risk Significance Threshold (risk/million)	Exceeds Threshold?
Maximum risk anywhere in the modeling domain(2)	180.8	5.7	186.5	10	Yes
Maximum risk at existing residences within the project boundaries(3)	180.8	5.7	186.5	10	Yes
Maximum risk at any existing residential area outside of the project boundaries(4)	47.2	2.3	49.5	10	Yes
Maximum risk at any undeveloped residentially zoned property outside of the project boundaries(5)	40.5	2.5	43.0	10	Yes

Notes:
(1) 30-year average exposures from 2015 to 2044 (includes diesel PM emissions from construction and operation); cancer risk estimates derived from the EMFAC2014 emission model and "Current OEHHA Guidance" for estimating cancer risks
(2) Location is at the existing residences within the boundaries of the project
(3) Location is at the existing residences within the boundaries of the project
(4) Location is at the southwest corner of the project
(5) Location is at an undeveloped property zoned for residential at the southwest corner of the project
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

Table C3-E: Estimated Cancer Risks, 30-Year Exposure Duration for Sensitive/Residential Receptors, Based on the "Current OEHHA Guidance" With Mitigation (new)

Receptor Location	Incremental Cancer Risk During Project Construction (risk/million)	Incremental Cancer Risk During Project Operation (risk/million)	Total Incremental Cancer Risk[1] (risk/million)	SCAQMD Cancer Risk Significance Threshold (risk/million)	Exceeds Threshold?
Maximum risk anywhere in the modeling domain[2]	11.4	5.2	16.6	10	Yes
Existing residences within the project boundaries					
13100 Theodore St	11.2	4.0	15.3	10	Yes
13200 Theodore St	11.1	4.1	15.2	10	Yes
13241 Theodore St	11.4	5.2	16.6	10	Yes
30220 Dracaea Ave	5.0	3.3	8.3	10	No
30240 Dracaea Ave	5.0	3.3	8.3	10	No
29080 Dracaea Ave	3.0	1.4	4.4	10	No
29140 Dracaea Ave	4.8	1.6	6.4	10	No
Maximum risk at any existing residential area outside of the project boundaries[3]	2.7	1.5	4.2	10	No
Maximum risk at any undeveloped residentially zoned property outside of the project boundaries[4]	2.1	1.8	3.9	10	No

Notes:
(1) 30-year average exposures from 2015 to 2044 (includes diesel PM emissions from construction and operation); cancer risk estimates derived from the EMFAC2014 emission model and "Current OEHHA Guidance" for estimating cancer risks
(2) Location is at the existing residences within the boundaries of the project
(3) Location is at the southwest corner of the project
(4) Location is at an undeveloped property zoned for residential at the southwest corner of the project
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

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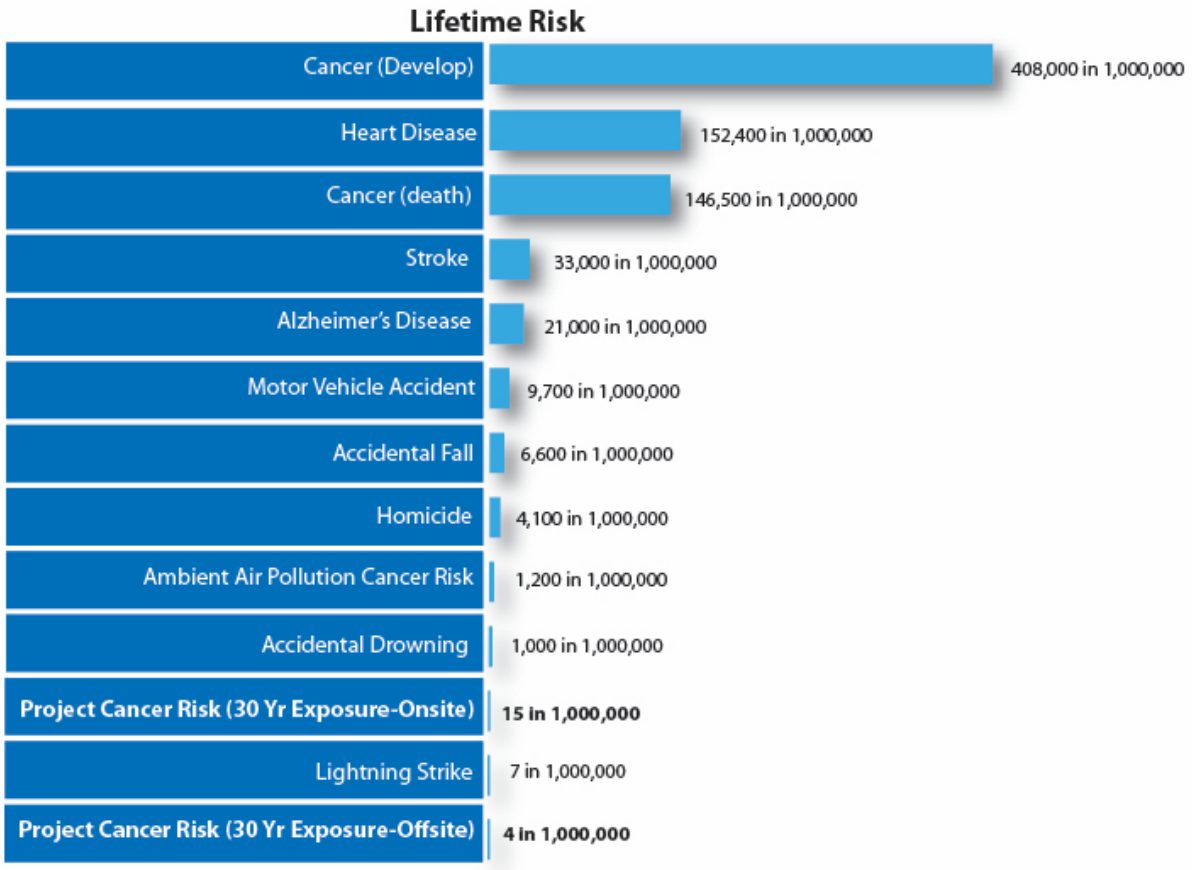

Source: Michael Brandman Associates 2015

Exhibit C-3-3: Lifetime Risks in the United States Based on Mortality Statistics

Greenhouse Gas Emissions from Project

Greenhouse gas (GHG) emissions are of concern because the accumulation of them in the atmosphere can contribute to climate change. California's Assembly Bill (AB) 32 requires that the State reduce its greenhouse gas emissions to 1990 levels by the year 2020. One of the ways California will reduce these emissions is through the California Cap-and-Trade Program. This program places a cap on certain sectors (e.g., electricity generation, petroleum refining, and cement production). The cap provides regulatory certainty of future emissions since regulated entities will not be permitted to emit GHG emissions that exceed the cap. The project emissions sources covered by the Cap-and-Trade Program include fuel combustion sources (motor vehicle and truck exhaust, construction exhaust, natural gas, onsite equipment) and electricity generation. The project emissions sources not covered by the Cap-and-Trade Program include waste decomposition in landfills, land use change, and refrigerant leakage.

The analysis in the DEIR did not divide the greenhouse gas emissions into AB 32 capped and uncapped emissions. The DEIR compared the total project emissions to the SCAQMD draft industrial threshold for greenhouse gas emissions of 10,000 metric tons of carbon dioxide equivalents ($MTCO_2e$) per year and found the emissions to be significant and unavoidable even after mitigation. However, the revised analysis divides the Greenhouse Gas Emissions into capped and uncapped and compares the uncapped emissions to the SCAQMD's significance threshold.

The SCAQMD has recognized that the GHG emissions associated with capped sources should not be counted for the purpose of determining what the GHG emissions are for facilities that will use electricity generated elsewhere. See the following negative declarations adopted by the SCAQMD:

- Ultramar Inc. Wilmington Refinery Proposed Cogeneration Project, SCH No. 2012041014, April, 2013 (available at www.aqmd.gov/ceqa/documents/2013/nonaqmd/Ultramar_Neg_Dec.pdf)

- Phillips 66 Los Angeles Refinery Carson Plant - Crude Oil Storage Capacity Project, SCH No. 2013091029, September 2013, (available at www.aqmd.gov/ceqa/documents/2013/nonaqmd/Draft_ND_Phillips_66_Crude_Storage.pdf).

A summary of the greenhouse gas emissions as estimated in the DEIR and the FEIR is shown in the table below. The analysis in the FEIR divides the AB 32 capped and uncapped emissions and compares the uncapped emissions to the SCAQMD significance threshold. As shown in the Table C-3.B, after mitigation, the AB 32 uncapped emissions do not exceed the SCAQMD's threshold of 10,000 $MTCO_2e$.

As shown in Table C-3.B the emissions as estimated in the Final EIR are lower mainly because of the following reasons:

1. Motor vehicle emissions were reduced by about 163,000 $MTCO_2e$/year because of the reasons specified in the operational regional analysis regarding updated emission factors and vehicle miles traveled.

2. Operational waste emissions were reduced by approximately 136,000 $MTCO_2e$/year because the new version of CalEEMod (2013) lowered its waste generation rates for warehouse development.

Table C-3.B: Summary of Greenhouse Gas Emissions Results

Year at Build out	Source of Operation Emissions*	Greenhouse Gas Emissions ($MTCO_2e$/year)			
		Unmitigated		Mitigated	
		DEIR	FEIR	DEIR	FEIR
2012	Worst-Case Total	751,787 (a)	509,247 (c)	N/A = Not Estimated	N/A = Not Estimated
2022 for DEIR 2035 for FEIR	Total 2031 for FEIR	721,034 (b)	415,991(d)**	665,321 (e)	385,599 **
	AB 32 Capped	**	396,754 (d)	**	379,824 (f)
	AB 32 Uncapped	**	19,237 (d)	**	5,775 (f)

DEIR = World Logistics Center Project Draft Environmental Impact Report (February 2013)
FEIR = World Logistics Center Project Final Environmental Impact Report (2014)
* = The emissions are operational emissions and include the construction emissions averaged over 30 years.
N/A = not applicable because mitigated emissions were not estimated for the worst-case scenario.
** = The total emissions are not applicable for the FEIR because the emissions are divided into AB 32 capped and uncapped emissions. A division of the capped and uncapped emissions was not done in the DEIR.
Sources: Air Quality, Greenhouse Gas, and Health Risk Assessment Report, 2015.
(a) DEIR Table 4.7.F; (b) DEIR Table 4.7.G; (c) FEIR Table 4.7.F; (d) FEIR Table 4.7.G;
(e) DEIR Table 4.7.I; (f) FEIR Table 4.7.I

Master Response-2 Health Effects of Diesel Particulate Matter

A common theme in many of the comments received concerning air quality dealt with the health impacts from diesel particulate matter (diesel PM). Based upon the information available at the time the DEIR was circulated, the health effects of diesel PM were discussed in the DEIR (pages 4.3-10, 4.3.-32-37, and Appendix D, pages 52–60), as follows:

> "Diesel PM is part of a complex mixture of thousands of particles and gases that is produced when an engine burns diesel fuel. Organic compounds account for 80 percent of the total particulate matter mass, which consists of compounds such as hydrocarbons and their derivatives. Diesel exhaust is a major source of ambient particulate matter pollution such as $PM_{2.5}$ in urban environments. Typically, the main source of diesel PM is from combustion of diesel fuel in diesel-powered engines. Such engines are in on-road vehicles such as diesel trucks, off-road construction vehicles, diesel electrical generators, and various pieces of stationary construction equipment" (DEIR, Appendix D, page 52).
>
> "Some short-term (acute) effects of diesel PM exposure include non-cancer effects such as eye, nose, throat, and lung irritation, coughs, headaches, light-headedness, and nausea. Studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems. Human studies on the carcinogenicity of diesel PM demonstrate an increased risk of lung cancer, although the increased risk cannot be clearly and solely attributed to diesel exhaust exposure" (DEIR, Appendix D, page 52).

The following information has been added to the revised analysis to update and expand upon the information in the DEIR:

> The principal concern regarding exposures to traditional diesel PM lies in its small size and thus its ability to penetrate deep into lung tissues when inhaled. Diesel exhaust has been found to

cause health effects from short-term or acute exposures and from long-term chronic exposures, such as repeated occupational exposures. The type and severity of health effects depends upon several factors including the amount of chemical an individual is exposed to and the length of time of that exposure. Individuals also react differently to different levels of exposure. There is limited information on exposure to just diesel PM but there is enough evidence to indicate that inhalation exposure to diesel exhaust causes acute and chronic health effects.

Long-term (chronic) exposure to diesel exhaust is likely to occur when a person works where diesel is used regularly or experiences repeated exposure to diesel fumes over a long period of time. Human health studies demonstrate a correlation between exposure to traditional diesel exhaust and increased lung cancer rates in occupational settings. Experimental animal inhalation studies of chronic exposure to diesel exhaust have shown that a range of doses causes varying levels of inflammation and cellular changes in the lungs. Human and laboratory studies have also provided considerable evidence that diesel exhaust is a likely carcinogen.

Several studies of occupational and ambient health risks have documented the health effects due to exposure to diesel PM. In its comprehensive assessment of diesel exhaust, the California Office of Environmental Health Hazards Assessment (OEHHA) analyzed more than 30 studies of people who worked around diesel equipment, including truck drivers, 1950's era railroad workers, and equipment operators. The studies showed these workers were more likely to develop lung cancer than workers who were not exposed to diesel emissions. These studies provide strong evidence that long-term occupational exposure to diesel exhaust increases the risk of lung cancer[13]. Based on these studies, CARB identified diesel exhaust a toxic air contaminant in 1998.

Another study, the Children's Health Study performed by the University of Southern California,[14] focused on children's responses to health effects of several air pollutants including oxides of nitrogen, ozone, PM_{10}, vapor phase strong acids, (nitric acid and hydrochloric acid), carbon monoxide, and ultrafine particulates. The Children's Health Study, which began in 1992, is a large, long-term study of the effects of chronic air pollution exposures on the health of children living in Southern California. Children may be more strongly affected by air pollution because their lungs and their bodies are still developing. Children are also exposed to more air pollution than are adults, since they breathe faster and spend more time outdoors in strenuous activities. About 5,500 children in twelve communities were enrolled in the study; two-thirds of whom were enrolled as fourth-graders. Data on the children's health, their exposures to air pollution, and many factors that affected their responses to air pollution were gathered annually until they graduated from high school.

The major conclusions reached in the Children's Health Study were:

- Children exposed to higher levels of particulate matter, nitrogen dioxide, acid vapor, and elemental carbon, had significantly lower lung function at age 18, an age when the lungs are nearly mature and lung function deficits are unlikely to be reversed.
- Children who were exposed to current levels of air pollution had significantly reduced lung growth and development when exposed to higher levels of acid vapor, ozone, nitrogen dioxide, and particulate matter, which are made up of very small particles that can be breathed deeply into the lungs.
- Children living in communities with higher concentrations of nitrogen dioxide, particulate matter, and acid vapor had lungs that both developed and grew more slowly and were less

[13] California Office of Environmental Health Hazard Assessment. Health Effects of Diesel Exhaust. Website: http://oehha.ca.gov/public_info/facts/pdf/diesel4-02.pdf

[14] "Children's Health Study", USC Environmental Health Services Center, published by the New England Journal of Medicine on March 5, 2015.

able to move air through them. This decreased lung development may have permanent adverse effects in adulthood.

- Children who moved away from study communities had increased lung development if the new communities had lower particulate matter levels, and had decreased lung development if the new communities had higher particulate matter levels.
- Days with higher ozone levels resulted in significantly higher school absences due to respiratory illness. Children with asthma who were exposed to higher concentrations of particulate matter were much more likely to develop bronchitis.

It is important, however, to put into context, the level of pollutants that were measured during the above measurement time periods during the 1990s and early 2000s. As noted in Master Response-1 in Letter C-3, air quality levels have improved by 50 to 60 percent from the early 2000s to today and even more so since the early 1990s. As also shown in Master Response-1 in Letter C-3, emission controls already adopted by the ARB and EPA will continue to see further emission reductions and improved air quality levels into the future. Further, it is important to point out several potential factors that may confound the relationship between diesel PM exposures and health effects. These factors include the effects of co-pollutants, that is, the effects other pollutants such as gaseous pollutants that confound the relationships, differences in biological responses when extrapolating from animals to human exposures, extrapolations of high occupational exposures to lower environmental exposures, lack of knowledge of worker exposure histories, and factors such as smoking and diet.

In the most recent update to the Children's Health Study[15], researchers discovered that improvements in regional air quality contributed to improved children's lung function. Specifically, combined exposure to two harmful pollutants, nitrogen dioxide (NO_2) and fine particulate matter, fell approximately 40 percent for children in the third study group (2007-2011) compared to the first study group (1994-98). The study followed children from Long Beach, Mira Loma, Riverside, San Dimas and Upland.

Children's lungs grew faster as air quality improved. Lung growth from age 11 to 15 was more than 10 percent greater for children breathing the lower levels of NO_2 from 2007 to 2011 compared to those breathing higher levels from 1994 to 1998.

The percentage of children in the study with abnormally low lung function at age 15 dropped from nearly 8 percent for the 1994-98 group, to 6.3 percent in 1997-2001, to just 3.6 percent for children followed between 2007 and 2011.

Additionally, in January 2015, there has been a major new study that evaluates the health impacts of "new technology diesel exhaust" (NTDE). Beginning in 2001, USEPA and CARB begin issuing a series of regulations that require new diesel-powered vehicles and equipment to use the latest emissions control technology. This technology relies on two components. The first is a diesel particulate filter, which is capable of reducing particulate matter emissions by over 90% (required for new engines beginning in 2007). The second technology is selective catalytic reduction, which reduces emissions of nitrogen oxides by over 90% (required for new engines beginning in 2010). Diesel emissions from equipment equipped with this technology is referred to as NTDE. As a result of the advances in emission control technology, USEPA, CARB, and other government and industry stakeholders commissioned a series of studies called the Advanced Collaborative Emissions Study (ACES). ACES has been guided by an ACES Steering Committee consisting of representatives of HEI and CRC, along with the U.S. Department of Energy, U.S. EPA, engine manufacturers, the

[15] "Children's Health Study", USC Environmental Health Services Center, published by the New England Journal of Medicine on March 5, 2015.

petroleum industry, CARB, emission control manufacturers, the National Resources Defense Council, and others. The Health Effects Institute (HEI), funded in part by USEPA, was selected to oversee Phase 3 of ACES.

Phase 3 of ACES evaluated whether emissions from new technology diesel engines cause cancer or other health effects. Specifically, it evaluated the health impacts of an 2007-compliant engine equipped with a diesel particulate filter. HEI found that lifetime exposure to new technology diesel exhaust (NTDE) did not cause carcinogenic lung tumors. The study also confirmed that the concentrations of particulate matter and toxic air pollutants emitted from NTDE are more than 90% lower than emissions from traditional older diesel engine.

The HEI study clearly demonstrates that the application of new emissions control technology to diesel engines have virtually eliminated the health impacts of diesel exhaust.

The proposed project has committed to 2010-compliant trucks for operation and Tier 4 equipment for construction, both of which rely on diesel particulate filters similar to those tested in the HEI study. These vehicles reduce emissions by 90% when compared to 2006 vehicles and by 99% when compared to uncontrolled diesel engines. Recent emissions testing by CARB revealed that these diesel engines are cleaner than originally estimated. These findings, which are reflected in the latest CARB emissions factor model EMFAC2014, are 70% cleaner than previously estimated. As a result of the very low emissions from new technology diesel engines and the research conducted by HEI, it is projected that the proposed project would not result in any cancer risk from diesel emissions.

Master Response-3: Zero Emission and Hybrid Electric Trucks, Vehicles, and Equipment

Major improvements in diesel engine technology have occurred over the past several years. Exhibit C-3-1 shows changes in the EPA's nitrogen oxides (NOx) and particulates (PM) emissions standards. The heavy-duty operational diesel values are shown in beige, while the off-road equipment Tier 4 emissions standards are shown in blue. Model year 2010 and newer heavy-duty trucks are 96 percent cleaner for NOx and 90 percent cleaner for PM than 1994 model year trucks producing substantial improvements in air quality.

During operation, the WLC project prohibits trucks older than 2010 model year from entry into the facility. The WLC project would only allow entry of diesel trucks which are model year 2010 or newer (Mitigation Measure (MM) 4.3.6.3B), which would reduce air pollutant emissions on and off the project site. Please see the Mitigation Monitoring Reporting Program for a list of the mitigation measures (FEIR Volume 1).

Also during operation, no diesel-powered onsite yard trucks, equipment, and emergency generators will be allowed at the project site (MM 4.3.6.3B and project design feature), which would reduce diesel particulate matter emissions on the project site. The project is also implementing solar photovoltaic (MM 4.16.4.6.1C); therefore, the electricity from this solar could power any onsite electric equipment and yard trucks.

During construction, the WLC project requires Tier 4 off-road equipment, MM 4.3.6.2A also requires that haul trucks used during construction be model year 2007 or newer.

Several commenters suggested zero-emission, near-zero, and/or hybrid electric trucks and equipment as potential mitigation measures. This is not feasible as discussed below.

Zero- and near-zero emission truck technologies include battery-electric trucks, fuel cell trucks, dual-mode (hybrid) electric trucks with all-electric range and, potentially, other technologies. These technologies are still in the testing stages and are not commercially available. There are no

commercially viable zero-emission or hybrid trucks currently available and it is unknown whether any such demonstration project would be successful and lead to commercially viable zero-emission or hybrid trucks in the future. To require a project to use these types of technologies is not feasible because they are not available, it is unknown when or if they will become feasible in the future.

The Port of Los Angeles is testing various types of zero-emission technology solutions for heavy-duty vehicles as part of its Clean Air Action Plan and through its joint Technology Advancement Program with the Port of Long Beach.[16] The SCAQMD provided money to the port through a $4.1 million dollar grant from the U.S. Department of Energy. This money funded only 13 zero emission trucks: Balgon plug-in, hydrogen Fuel Cell truck, Transpower plug-in, and U.S. Hybrid plug-in. These trucks have a low range of travel between 100 miles and 200 miles per charge.

The Port of Long Beach states that the use of electric and hydrogen fuel cell trucks is currently not feasible:

> "*The trucks may result in feasible technology to provide zero emissions goods movement between Pier S and near-dock rail yards. Until the trucks have successfully completed their prototype testing and are being produced for the commercial market, they are not yet considered viable zero-technology options. The reliability and durability of heavy-duty electric trucks in a short-haul port-duty cycle have yet to be proven. At this time, no commercial production zero emissions drayage truck is available or expected to be available in the near future. Because the technology is still in the development stage, the Port does not include requirements within the environmental documents for a single terminal, but rather continues to update the CTP [Clean Trucks Program]. In addition, a viable business model for zero emissions technology has not yet been established. Given the initial high cost of equipment and reduced operating characteristics of current prototype zero emissions equipment, additional investigation is necessary to determine the financial viability of this equipment following prototype demonstration and prior to any small-scale deployment.*"[17]

According to the most recent monthly inventory, there were no electric hybrid trucks in the Port of Los Angeles out of 12,226 trucks.[18]

There are problems with some zero emission technologies, such as batteries. While diesel fuel is a dense energy source, yielding sufficient energy per unit weight to haul 50,000-pound loads, batteries do not have sufficient energy density. Rather, the batteries would outweigh payload, sacrificing efficiency and requiring many more trucks to be on the road per unit of goods transported.[19]

Master Response-4: 1,000 Foot Buffer.

Several commenters have proposed that the project use a "1,000-foot buffer between the project and sensitive receptors as recommended in the California Air Resources Board's Land Use Handbook." However, those recommendations are outdated and not applicable to this specific project. First, the Land Use Handbook states that for distribution centers and warehouses, "ARB recommends a separation of 1,000 feet based on the combination of risk analysis done for TRUs [transportation refrigeration units] and the decrease in exposure predicted with the South Coast AQMD modeling" (page 14). MM 4.3.6.3E has been added, which prohibits refrigeration unless it can be demonstrated

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16 www.portoflosangeles.org/environment/zero.asp.
17 Port of Long Beach. Pier S Marine Terminal & Back Channel Improvements. Final EIS/FEIR, November 2012.
18 Port of Los Angeles – Clean Truck Program – Gate Move Data Analysis, July 1, 2013-July 31, 2013. http://www.portoflosangeles.org/ctp/ctp_Cargo_Move_Analysis.pdf. Accessed November 22, 2013.
19 Statement of Daimler Trucks North America regarding California Air Resources Board, Workshop to Consider Vision for Clean Air: A Framework for Air Quality and Climate Planning. September 20, 2012. www.arb.ca.gov/lists/visionforcleanair-ws/5-dtna_comments_to_carb_re._vision_paper_-_20sep12.pdf

that the environmental impacts resulting from the inclusion of the refrigerated space and its associated facilities, including, but not limited to, refrigeration units in vehicles serving the logistics warehouse, do not exceed any environmental impact for the entire World Logistics Center identified in the program Environmental Impact Report. The Land Use Handbook was published in 2005 before ARB promulgated its On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation significantly reducing diesel emissions from sources like warehouses (the ARB analysis was "assuming a current fleet diesel PM emission rate"). In addition, the project's commitment to allow only trucks that are compliant with United States Environmental Protection Agency's (USEPA) 2010 emissions standards, which are over 90% cleaner than the prior generation of trucks, means that the assumptions that were modeled and considered during the preparation of the Land Use Handbook are not valid for this project. Additionally, based on improved mitigation, such as the requirement to use Tier 4 construction equipment, there is no significant health impact outside the project boundaries based on the current OEHHA methodology. More importantly, the recommendation was made prior to the release of the Health Effects Institute study (discussed in Master Response-2), which found no evidence that new technology diesel exhaust causes cancer. This means that current OEHHA methodology for calculating cancer risk is not applicable and that there is no cancer risk attributable to project-related diesel emissions.

Nonetheless, an analysis of a 1,000-foot buffer between the project's operational emissions and the centerlines of Redlands Boulevard, Gilman Springs Road, Bay Avenue, and Merwin Street was included in the revised Air Quality, Greenhouse Gas, and Health Risk Assessment prepared for the project. The results show that there is no substantial difference in the cancer risk estimates with the use of a 1,000-foot buffer. Any difference is well within the mathematical and physical limitations and uncertainties of the various methodologies used to estimate cancer risk. These limitations and uncertainties deal with the approximate mathematical formulations used to describe and simulate of the complex atmospheric processes that disperse air pollutants, experimental limitations in the accuracy for estimating emissions from sources, and the limitations in quantifying the physical relationships between a specific level of air pollution and a direct health effect.

In addition, pursuant to the WLCSP (Section 2.5) and MM 4.1.6.1A, the WLC will have a minimum 250-foot buffer between the project and residentially zoned properties along Redlands Boulevard, Merwin Street, and Bay Avenue. A berm along Redlands Boulevard and landscaping will also create a visual screen between the WLC and adjacent communities to reduce the visibility of the proposed warehouse structures and improving aesthetics and reducing impacts on the neighboring community. The effectiveness of vegetative barriers on air quality is highly complex and depends on a number of factors including particle size, wind speed, leaf area density, and gaps in the vegetation, tree species, and season. The project proposed to plant a wide variety of vegetative species, as shown in the WLCSP, Section 5.4, and Onsite Landscaping that could act as a vegetative barrier. At this time, it is not possible to gauge the effectiveness of the vegetative barriers in absorbing air pollutants. However, a SCAQMD forum, Near-Road Mitigation Measures and Technologies, given November 21, 2013, featured several presentations that showed that vegetative barriers had measurable benefits in reducing pollution.

The Gilman Springs Road edge in the eastern portion of the project is adjacent to existing and future suburban residential (zoned) uses. This edge will feature a restricted use area of 250 feet from these residentially zoned properties. No buildings, truck courts, loading areas, truck circulation areas, or truck or trailer storage uses are permitted within this area. Employee/visitor parking, emergency access, landscaping, drainage facilities, and property maintenance access are permitted. This restricted use area may be reduced subject to the review of project specific air quality and noise analyses.

In summary, a 1,000-foot barrier will not reduce air quality impacts for the WLC project.

For additional information about the project design features and mitigation measures that have been incorporated into the project, see Section 4.1 of the FEIR and Figures 4.1.4 through 4.1.4J and Figures 4.1.5 through 4.1.5J.

Master Response-5: Air Filtration Systems for Residences.

At the time the DEIR was circulated, the proposed project was identified to have a significant increase in cancer risk associated with diesel emissions from project construction and operation. Several commenters have proposed air filtration systems to reduce these impacts from the proposed project.

Since the circulation of the DEIR, new data has become available regarding air quality impacts. This information includes the new, significantly lower diesel truck emission rates published by CARB, new assessment methodology published by OEHHA, and a new study, funded by CARB and EPA, and on the health impacts of diesel emissions (HEI study).[20] In evaluating cancer risk , under the updated OEHHA methodology (30-year exposure, age sensitivity factors, higher breathing rate), after mitigation there would be no residences outside the project boundaries that would have a cancer risk over the 10 in a million threshold. There would be three residences within the project boundaries where the risk exceeded 10 in one million. Under current SCAQMD methodology (70-year exposure, no age sensitivity factors), cancer risk at receptors inside and outside the project would be less than the significance threshold. However, the latest research (discussed in Section 4.3 of the EIR and Master Response-2), demonstrates that new technology diesel exhaust does not contribute to cancer. As a result of this new research there is no need to provide filters to reduce the health risk impact from the proposed project.

Commenters have also recommended the establishment of various types of mitigation fund to provide off-site improvements related to air quality, such as air filters or landscaping. However, such mitigation does not mitigate specific, project-related impacts. While the concepts proposed for funding are recognized to provide benefits such as improving indoor air quality, the benefits are not tied to reducing impacts from the proposed project. There is no nexus between the generalized benefits of a proposed community benefits fund and specific project impacts. As a result, such a fund cannot be reasonably expected to avoid or minimize air quality impacts of the project as is required for mitigation.

Response to Comment C-3-1. The City is happy to accept comments from the SCAQMD regarding air quality impacts of the WLC project, and has addressed the SCAQMD's comments in the following paragraphs.

Response to Comment C-3-2. The City acknowledges that the SCAQMD's primary concern is air quality, including criteria air pollutants such as particulates and ozone. The District has correctly summarized the results of the EIR regarding air pollutants that would exceed the SCAQMD's significance criteria. The EIR outlines a number of measures that could help reduce or mitigate project emissions (MMs 4.3.6.1A(a) through 4.3.6.1A(n)), as discussed in Section 4.3 of the FEIR which is Volume 2. Due to the size and type of project proposed, it is not possible to reduce project emissions to less than significant levels.

Response to Comment C-3-3. The commenter demands additional mitigation measures due to the existing air quality issues in the project area. The DEIR does conclude there will be significant air pollutant impacts from development of the WLC project, mainly due to its size and type of uses

[20] "Advanced Collaborative Emissions Study" published by the Health Effects Institute (HEI) in 2015 (Research Report 184 final). The HEI consists of governmental and private industry representatives including the U.S. Department of Energy, U.S. EPA, engine manufacturers, the petroleum industry, CARB, emission control manufacturers, the National Resources Defense Council, and others.

proposed. Section 4.3, *Air Quality*, of the DEIR, does propose a number of mitigation measures that will help reduce emissions from both construction and project occupancy. Due to the size of the project, and its related exceedances of SCAQMD standards, there are no mitigation measures available that will reduce regional air pollutant impacts to less than significant levels.

Response to Comment C-3-4. The commenter indicates that the Lead Agency should specify how these mitigation measures and project design features will be made enforceable to ensure that the project's regional air quality and health risk impacts are minimized. The mitigation measures will be enforced through the Mitigation Monitoring Reporting Program (refer to FEIR Volume 1). The project design feature that requires that diesel trucks meet a certain emission standard is now a mitigation measure instead of a project design feature, to make it more enforceable. Trucks that do not meet the 2010 emissions standards will be prohibited entry at the facility gate by the tenant. This requirement will also be enforced through the WLCSP and the lease. Please see the Mitigation Monitoring Reporting Program (FEIR Volume 1) for a list of the project's revised mitigation measures.

Response to Comment C-3-5. The SCAQMD provides an introduction to some of the mitigation measures that are referenced later in its letter. Responses to these suggested mitigation measures are contained in the responses which follow.

Response to Comment C-3-6. This response fulfills the CEQA requirements to provide a written response at least ten days prior to the adoption of the FEIR.

Response to Comment C-3-7. The commenter requests the project implement additional mitigation for air impacts and alternative fuel vehicles. The WLCSP proposes an alternative fueling station that will open during the first phase of development to serve trucks that use liquefied or compressed natural gas as vehicle fuel. In addition, future development under the WLCSP will comply with vehicle fleet fuel requirements at the time of development approval. The DEIR Section 4.3 did provide mitigation for alternative fuel vehicles. MM 4.3.6.3C requires the WLC project to provide the establishment of onsite alternative fueling infrastructure (electric charging stations and/or natural gas fueling), which will help facilitate the use of these low-emitting trucks. MM 4.3.6.4A(g) requires a minimum of two electric vehicle-charging stations for automobiles or light-duty trucks to be provided at each building, and facilities with 100 parking spaces or more shall have three percent of the total parking spaces capable of supporting electric vehicle supply equipment charging locations. MM 4.3.6.4A(j) provides an incentive for people to drive low fuel vehicles by requiring preferred parking for low-emitting and fuel-efficient vehicles equivalent to at least eight percent of the required number of parking spaces at each warehouse. MM 4.3.6.2A includes a requirement to provide electrical hook ups to the power grid for construction equipment. However, to require biodiesel or natural gas for construction is not feasible because of the availability and sourcing of those types of equipment. MM 4.3.6.3B requires alternative fueled yard trucks and emergency generators. WLCSP Section 12.3 requires pallet jacks, forklifts and other onsite equipment be powered by non-diesel fuel.

However, the project will support a variety of future users which are unknown at this time, so it is not possible to specify or require future users to have zero emission or alternative fuel fleets since most logistics companies use independent contractors and truck drivers rather than maintain their own fleets. Also refer to Responses to Comments B-5-7, B-5-8, B-5-14, C-3-9, C-3-19, C-3-23, D-2-3, E-2A-17, F-1-66, or more discussion of zero emission vehicles, see Master Response-3 in Letter C-3.

Response to Comment C-3-8. The commenter suggests that electric vehicle charging stations be included on the project site. MM 4.3.6.4A has been revised to state:

4.3.6.4A ~~g) A minimum of two electric vehicle-charging stations for automobiles or light-duty trucks shall be provided at each building.~~

g) A minimum of two electric vehicle-charging stations for automobiles or light-duty trucks shall be provided at each building. In addition, parking facilities with 100 parking spaces or more shall be designed and constructed so that at least three percent of the total parking spaces are capable of supporting future electric vehicle supply equipment (EVSE) charging locations. Only sufficient sizing of conduit and service capacity to install Level 2 Electric Vehicle Supply Equipment (EVSE) or greater are required to be installed at the time of construction.

Mitigation Measure 4.3.6.3E prohibits refrigeration unless it can be demonstrated that the environmental impacts resulting from the inclusion of the refrigerated space and its associated facilities, including, but not limited to, refrigeration units in vehicles serving the logistics warehouse, do not exceed any environmental impact for the entire World Logistics Center identified in the program Environmental Impact Report. Therefore, in the unlikely event that trucks servicing the WLC facility require Transportation Refrigeration Units they will not have an impact greater than currently identified in the Environmental Impact Report.

According to the TIA, 93 percent of all heavy trucks trip are internal to the region and ports, so Auxiliary Power Units (APU) are unlikely to be found on trucks servicing the WLC. Therefore, providing electrical hookups for APUs is not necessary.

The commenter suggested mitigation measures, as discussed below:

Suggested Mitigation Measure	Response
The lead agency should require each warehouse and other plan areas that allow truck parking to be constructed with the appropriate infrastructure to facilitate sufficient electric charging for trucks to plug-in.	**Not Included.** There are no commercially available electric heavy-duty trucks. Additionally, there are no design standards for charging of zero-emission heavy-duty trucks. All known technology demonstrations that are being conducted involve third-party vendors, with no truck OEMs yet designing or manufacturing zero-emission trucks. As a result, it is not feasible to provide infrastructure for technology standards that do not yet exist. See also Master Response: Zero Emission and Hybrid Electric Trucks, Vehicles, and Equipment in Response to Comment Letter C-3.
The SCAQMD staff recommends that the lead agency require at least 5 percent of all vehicle parking spaces (including for trucks) include EV charging stations.	**Partially Included.** MM 4.3.6.4A requires a minimum 2 EV charging stations per building and three percent of parking spaces capable of supporting electric vehicle supply equipment charging stations. This is consistent with the building standard proposed by the California Buildings Standards Commission at Section 5.106. It is not possible to project accurately what the electric vehicle demand will be upon project completion. The Skechers building provided two stations and there is small to little use. Providing 3 percent of parking spaces with charging stations is conservative as it could provide the potential for over 20 stations on a building the equivalent size of Skechers (1.8 million square feet and 750 parking spaces). Future demand is speculative. The ARB has had a zero emission regulation for over 20 years and has failed to provide electric vehicles.
Electrical hookups should be provided at the onsite truck stop for truckers to plug in Transportation Refrigeration Units and any other onboard auxiliary equipment.	**Included.** The MM 4.3.6.3E states: "Refrigerated warehouse space is prohibited unless it can be demonstrated that the environmental impacts resulting from the inclusion of refrigerated space and its associated facilities, including, but not limited to,

Suggested Mitigation Measure	Response
	refrigeration units in vehicles serving the logistics warehouse, do not exceed any environmental impact for the entire World Logistics Center identified in the program Environmental Impact Report. Such environmental analysis shall be provided with any warehouse plot plan application proposing refrigerated space. Any such proposal shall include electrical hookups at dock doors to provide power for vehicles equipped with Transportation Refrigeration Units (TRUs). .” Therefore, TRUs are dealt with through MM 4.3.6.3E. .

Response to Comment C-3-9. The commenter suggested a mitigation measure, as discussed below.

Suggested Mitigation Measure	Response
The lead agency should revise mitigation measure 4.3.6.3C to require the installation of an alternative fueling facility (e.g., natural gas) to serve the project site prior to operation of any logistics warehousing within the plan area.	**Partially Included.** The alternative fueling station has been moved to Phase 1 of development; however, there would not be enough activity or demand for the station to be a viable business with only a couple of buildings operational. The developer will work with an alternative fuel provider and will install the station in as soon as they determine it is feasible, but no later than end of Phase 1.

Response to Comment C-3-10. The commenter notes the credibility of the emission scenarios used on the assessment of the project’s operational emissions.

We agree that Scenario 1, Existing (2012) Plus Project Build out, which assumes the project is completely built out in 2012, does not represent a rational point of discussion principally because of the improbability of such a scenario. Nonetheless, this scenario was included to provide consistency with the Traffic Impact Analysis (TIA) and to provide a worst case air quality assessment. We agree that Scenario 2, which analyzes the project’s intended development schedule, represents a much more practical analysis basis.

The project’s regional operational emissions in the DEIR were based on emission estimates from an older version of the CalEEMod Model (version 2011) available at the time of the preparation of the DEIR. In the DEIR, the emission rates for the heavy-heavy-duty truck vehicle class were modified, however, to reflect default rates contained in the California Air Resources Board (ARB) Emissions Factor model 2011 (EMFAC2011) mobile source emission model. Emission rates for all other vehicle classes were derived from the older ARB EMFAC2007 emission model as embedded as part of the older 2011 version of CalEEMod. In the revised air quality analysis, consistent with MM 4.3.6.3B, model year 2010 diesel truck emission rates were included as part of the analysis of project impacts after mitigation and emissions were estimated by applying the most current version of the EMFAC model, EMFAC2014.

In addition, the methodology and estimates of the project’s regional operational mobile source emissions have been revised in the revised air quality analysis and are now based on the project’s traffic volumes by vehicle class on nearly 500 individual roadway segments as derived from the traffic impact model used to assess potential project traffic impacts. The most current emission rates from the EMFAC2014 mobile source emission model were used in the revised analysis.

Response to Comment C-3-11. The commenter suggested a mitigation measure, as discussed below.

Suggested Mitigation Measure	Response
The project should require the 1,000-foot buffer as recommended in the state Air Resources Board's Land Use Handbook. This buffer should also apply to any undeveloped sensitive receptors that may be sited in the future next to the WLCSP area.	**Not Included.** Please refer to Master Response-4, 1,000 foot buffer in Response to Comment Letter C-3.

Response to Comment C-3-12. The commenter recommends that the lead agency include a description in the FEIR that specifies how the 2010 engine emissions standards and onsite equipment specifications will be enforced. The requirement to use 2010 emissions standards for diesel trucks is now included in MM 4.3.6.3B and in the WLCSP instead of a project design feature and therefore would be enforced as specified in the Mitigation Monitoring and Reporting Plan and tenant leases (FEIR Volume 2, Section 4.3 Air Quality).

Regarding the service yard trucks and other operational onsite equipment, the following project design feature on page 3-33 in the DEIR makes the following commitment regarding the project: "All service yard trucks (hostlers, yard goats, etc.), pallet jacks, forklifts, and other onsite equipment used during operation shall be powered by electricity, natural gas, and/or propane. Electrical power sources shall be provided for service equipment." In the FEIR, biodiesel was removed from the WLCSP pursuant to comments received by the SCAQMD.

These requirements would be enforced through the Mitigation Monitoring and Reporting Plan (FEIR Volume 1) and the lease.

Response to Comment C-3-13. The SCAQMD suggested a mitigation measure, as discussed below.

Suggested Mitigation Measure	Response
Given the availability of roof space associated with this project the lead agency should maximize the opportunity to produce solar energy by including mitigation beyond MM 4.16.4.6.1A. Specifically, the lead agency should require that buildings maximize the possible number of solar energy arrays.	**Partially Incorporated.** MM 4.16.4.6.1C requires solar for the ancillary office portion of the project buildings.

Response to Comment C-3-14. The commenter requested a discussion regarding the proximity of onsite residents to warehouse operations and any mitigation measures that will minimize the significant impacts to these residents.

A total of seven existing residences are situated within the project boundaries. These existing residences are located near the intersection of Theodore Street and the proposed Street E and Street F as well as near the intersection of Redlands Boulevard and Dracaea Avenue. Based on the health risk assessment contained in the revised analysis, there would be no increase in cancer risk based on the latest research that demonstrates that new technology diesel exhaust does not cause cancer. Nonetheless, the FEIR contains a revised health risk analysis using both the current SCAQMD methodology and the recently adopted OEHHA methodology. Under the SCAQMD methodology, there would be no significant health risk impact. This is due primarily to revised mitigation, including the requirement to use Tier 4 construction equipment, and recently revised emissions factors for heavy-duty trucks published by CARB. Under the OEHHA methodology, the construction and operation of the project would result in cancer risk levels that would exceed the SCAQMD's cancer risk significance threshold of 10 in a million at five residences located along Theodore Street and proposed Streets E and F. However, these analyses assume the use of traditional diesel engines, which are prohibited from the project. See Master Response-2 for more information.

As discussed in Master Response-4, a 1,000 foot buffer was explored as a possible mitigation measure; however, the buffer would only marginally reduce the impacts at the onsite residences with no improvements at receptors located outside of the project. In addition, as discussed in Master Response-5, the latest research (discussed in Section 4.3 of the EIR and Master Response-2), demonstrates that new technology diesel exhaust does not contribute to cancer. As a result of this new research there is no need to provide filters to reduce the health risk impact from the proposed project.

Response to Comment C-3-15. The commenter states by Year 2022 more than 1,500 light-heavy and medium-heavy duty diesel trucks per day are expected to access the site via Cactus Avenue. The commenter states it is not clear what destination these trucks would serve as there do not appear to be any non-residential or school land uses within 5 miles of this access point. The commenter asks the lead agency to clarify if this path is meant to be a truck route linking the warehouses on the west side of the city with those in the proposed project. The commenter recommends if alternate routes are available they would not impact as many sensitive receptors and these routes should be made a requirement of the project.

The Cactus Avenue access point is intended as a replacement route for vehicles currently using Alessandro Blvd to traverse the site. Alessandro Blvd is currently the only designated truck route running east-west through Moreno Valley (see truck route map below); however, as part of the proposed project the Alessandro Blvd connection will be permanently severed. Traffic counts show light and medium trucks currently comprise 3% of the traffic on this portion of Alessandro Blvd. This traffic serves, among other things, commercial traffic to the businesses along Alessandro Blvd and Cactus Avenue, and commercial traffic to and from the neighboring cities southeast of Moreno Valley. This traffic is expected to grow in the future as the General Plan calls for more commercial development both east and west of the WLC site (refer to the General Plan land use map below).

There would be no practical way to distinguish through traffic from WLC traffic, so the restriction would have to apply to neither or both. If both, this could hamper both existing and future non-WLC commercial traffic in Moreno Valley. The City proposes that this access point be closed to heavy trucks but continue to allow for light and medium trucks as a reasonable compromise between the needs of the business community and the concerns of local residents.

Response to Comment C-3-16. The SCAQMD recommends that the lead agency either revise the air quality analysis to account for emissions from refrigerated warehouse uses or include a mitigation measure that precludes the use of refrigerated warehousing at the project site. MM 4.3.6.3E states:

4.3.6.3E Refrigerated warehouse space is prohibited unless it can be demonstrated that the environmental impacts resulting from the inclusion of refrigerated space and its associated facilities, including, but not limited to, refrigeration units in vehicles serving the logistics warehouse, do not exceed any environmental impact for the entire World Logistics Center identified in the program Environmental Impact Report. Such environmental analysis shall be provided with any warehouse plot plan application proposing refrigerated space. Any such proposal shall include electrical hookups at dock doors to provide power for vehicles equipped with Transportation Refrigeration Units (TRUs).

Therefore, the proposed mitigation measure is not necessary because refrigerated warehouse uses are dealt with through implementation of MM 4.3.6.3E.

Response to Comment C-3-17. The commenter states the EIR assumes only 12.5% of the project's total trips are generated by heavy trucks, while CalEEMod and the National Association of Industrial and Office Properties (NAIOP) Study indicate a higher percentage may be more appropriate. Also,

the commenter states goods movement activity fluctuates based on seasonality. The commenter states the FEIR should include a discussion about whether the trips rates are annual averages or peak daily rates that include adjustments for seasonality.

Per the City of Moreno Valley *Traffic Analysis Guidelines* the vehicle percentages from the Fontana *Truck Trip Generation Study* were used. That survey found that 12.3% of trips entering or leaving high-cube warehouses were heavy trucks, while some other sources have a higher percentage of heavy trucks (the NAIOP study, for example, had 20.8% heavy trucks; City of Moreno Valley 2013 survey data[21] yields 13.4% trucks calculated on a weighted average). The commenter incorrectly concluded that this meant that the WLC analysis forecasted too few trucks. In fact, because the WLC analysis utilizes a very high overall trip generation rate, the resulting number of truck trips estimated for the project is actually slightly higher than in the NAIOP and City 2013 surveys, and much higher than the Skechers data indicates would be appropriate (see figures below from the TIA). The figures used in this analysis can therefore be considered a high estimate of truck traffic and a very high estimate of car traffic compared to conditions actually found at the most comparable sites.

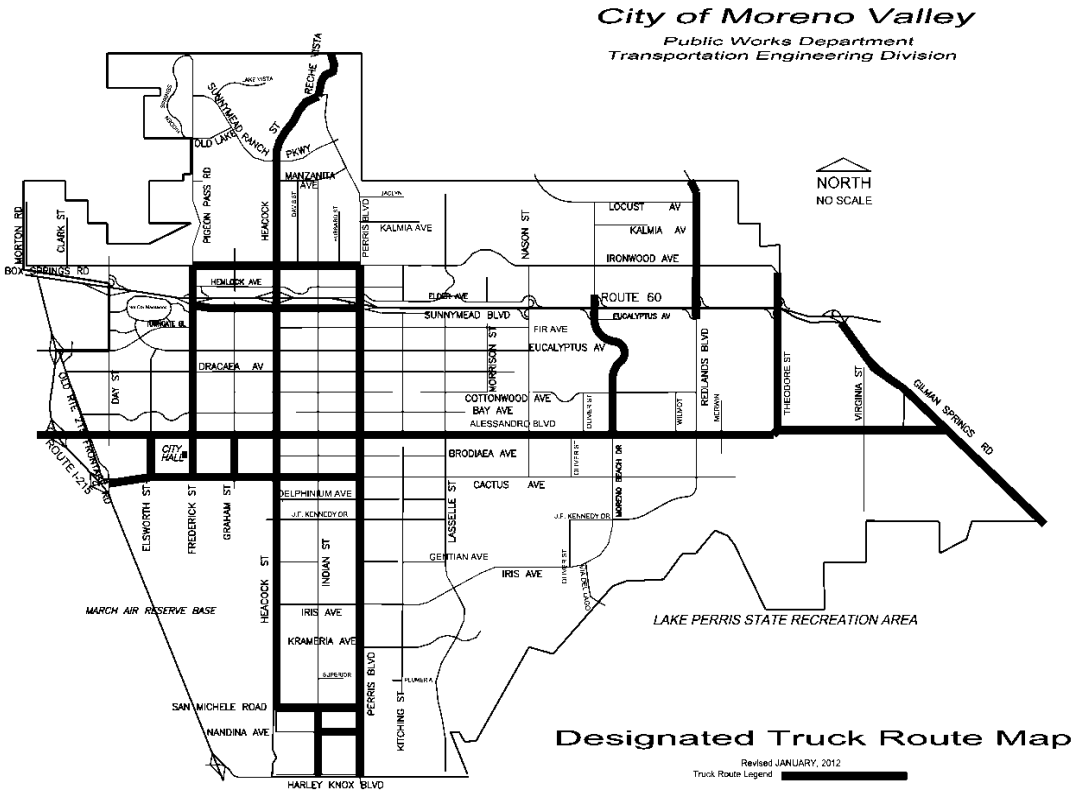

Exhibit C-3-4: Moreno Valley Designated Routes

[21] *Vehicle Mix Assumption for High-Cube Warehouse*, Memo from Michael Lloyd to Eric Lewis, September 27, 2013.

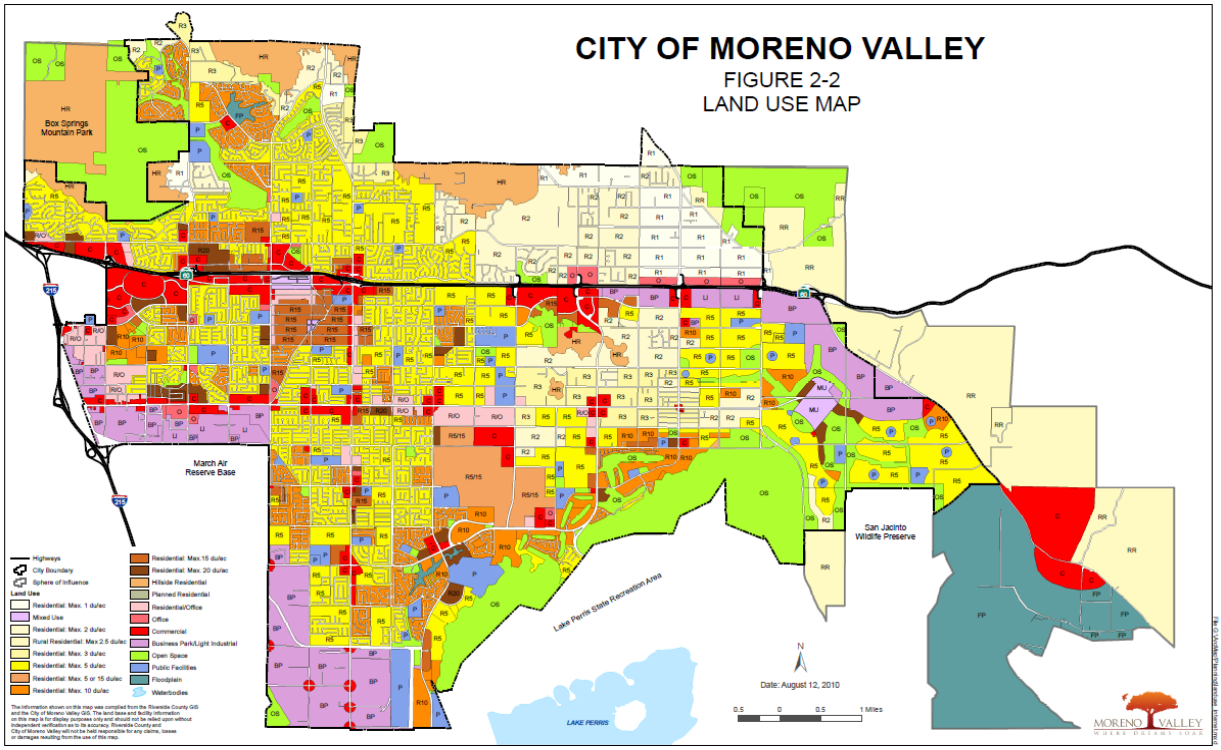

Exhibit C-3-5: Moreno Valley General Plan Adopted Land Use Map

Table C-3.C: Comparison of Truck Trip Generation from Southern California Sources

Source	Total Vehicle Trips/Day/KSF	% Trucks	Heavy Duty Truck Trips/Day/KSF	Other Vehicle Trips/Day/KSF
WLC	1.68	12.3	0.207	1.473
NAIOP	0.99	20.8	0.206	0.784
Skechers	0.57	15.2	0.086	0.481
Moreno Valley 2013[1]	1.624	13.4[2]	0.218	1.406

1 *Vehicle Mix Assumption for High-Cube Warehouse*, Memo from Michael Lloyd to Eric Lewis, September 27, 2013.

2 Although the un-weighted average reported in the Memo is 17.6%, when calculated based on a weighted average, the rate drops to 13.4%.

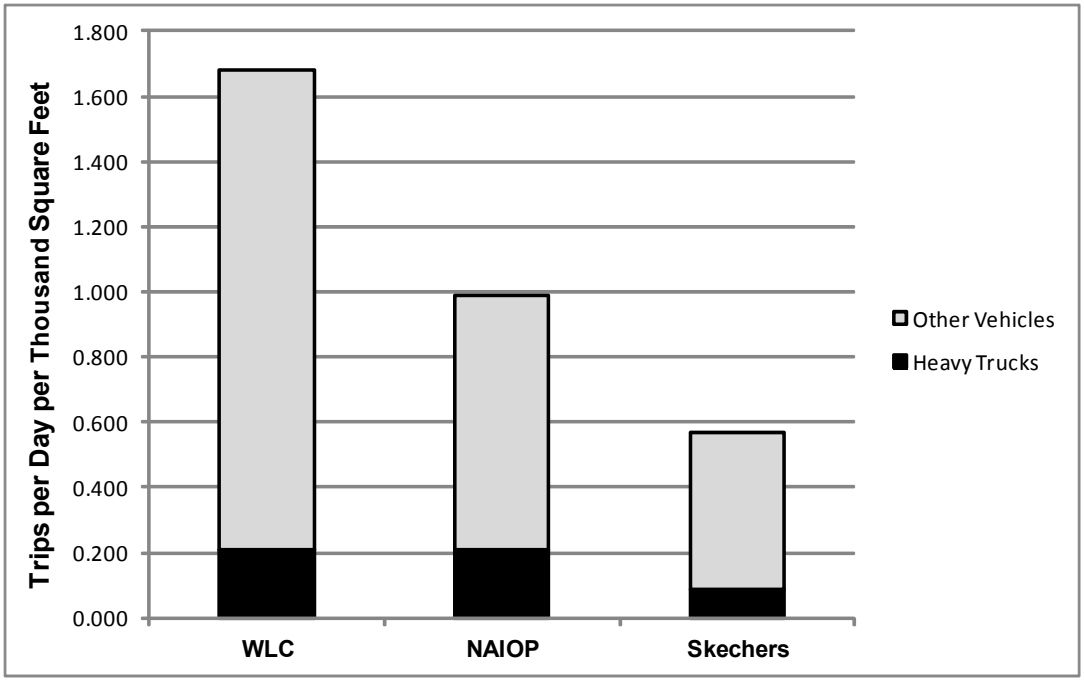

Exhibit C-3-6: Comparison of Trip Generation from Southern California Sources

An analysis was performed to determine if seasonality of traffic flows may be a significant factor that needs to be accounted for in the analysis. The monthly fluctuations in traffic flow on SR-60 in Moreno Valley were reviewed to determine if this was the case. The average daily traffic on SR-60 from 2011 was collected by Caltrans at the SR-60 and the Perris, Heacock, and Day interchanges and summarized by month. The average daily traffic for each individual month was calculated and compared to the annual average. The data showed the monthly fluctuations in traffic were not consistent between interchanges; in months where the traffic volumes at one interchange were above the annual average while the adjacent interchange count location was below the annual average. For example, the lowest month of the year for the SR-60/Perris interchange, January, was the highest month for the two nearby interchanges. In 10 out of 12 months the two count interchanges closest to the project (Perris Blvd. and Heacock Ave.) deviated in opposite directions from the annual average.

If this area were subject to seasonal peaking then the three interchange count locations would show similar peaking characteristics during any given month. The count data showed no such consistency; therefore, seasonal peaking of ambient traffic is not considered a significant factor for traffic analysis for the WLC (as illustrated in the Exhibit C-3-7 below).

A further analysis was performed to determine whether there may be significant seasonal peaking of truck traffic from the WLC that needs to be factored into the analysis. There are several reasons to believe this will not occur:

- When it is fully operational the WLC is expected to have 15-to-25 different tenants from a variety of economic sectors; for example the NAIOP survey found tenants in the consumer goods, pharmaceuticals, automotive products, tools, office supply, home furnishings, and building materials sectors. To the extent that these sectors have season peaks they occur at different times of the year and would tend to offset each other (i.e. a high period for one

tenant may be a low period for the tenant next door). This is one reason why traffic on SR-60 itself does not display seasonal peaking.

- Furthermore, the commenter's opinion that seasonal variation in truck traffic may pose significant impacts was premised on the commenter's erroneous over-estimate of the amount of truck traffic that will be generated by the WLC. To the extent that truck volumes will be smaller, the impact of any variations in truck traffic will also be smaller.

For these reasons, there is no basis for a presumption that seasonal peaking of truck traffic will create any significant impacts that have not already been identified using the trip generation rates from the ITE *Trip Generation Manual*.

PeMS Detector	Location	Month: Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Average
		Eastbound												
810316	Perris Interchange	24,384	25,778	26,924	27,960	29,080	29,893	30,759	31,544	31,587	31,522	31,468	31,477	
801407	Heacock Interchange	41,458	41,506	41,499	41,470	41,378	41,396	41,483	41,465	41,459	41,377	41,314	41,265	
801394	Day Interchange	57309	57222	57222	57180	57061	57628	58590	59254	59736	59130	58898	58894	
		Westbound												
801410	Perris Interchange	28,055	28,451	28,937	29,432	30,019	30,612	31,059	31,647	31,631	31,548	31,487	31,432	
801404	Heacock Interchange	39,994	39,791	39,653	39,532	39,301	39,216	39,207	39,138	39,038	38,914	38,800	38,590	
808945	Day Interchange	46370	45897	45400	44938	44296	43814	43524	43359	43236	43284	43141	43073	
		Both Directions												
801410	Perris Interchange	52,439	54,229	55,861	57,392	59,099	60,505	61,818	63,191	63,218	63,070	62,955	62,909	**59,724**
	Diff from Ave	***-7,285***	***-5,495***	***-3,863***	***-2,332***	***-625***	***781***	***2,094***	***3,467***	***3,494***	***3,346***	***3,231***	***3,185***	
	% Diff from Ave	***-12%***	***-9%***	***-6%***	***-4%***	***-1%***	***1%***	***4%***	***6%***	***6%***	***6%***	***5%***	***5%***	
801404	Heacock Interchange	81,452	81,297	81,152	81,002	80,679	80,612	80,690	80,603	80,497	80,291	80,114	79,855	**80,687**
	Diff from Ave	***765***	***610***	***465***	***315***	***-8***	***-75***	***3***	***-84***	***-190***	***-396***	***-573***	***-832***	
	% Diff from Ave	***0.9%***	***0.8%***	***0.6%***	***0.4%***	***0.0%***	***-0.1%***	***0.0%***	***-0.1%***	***-0.2%***	***-0.5%***	***-0.7%***	***-1.0%***	
801394	Day Interchange	103,679	103,119	102,622	102,118	101,357	101,442	102,114	102,613	102,972	102,414	102,039	101,967	**102,371**
	Diff from Ave	***1,308***	***748***	***251***	***-253***	***-1,014***	***-929***	***-257***	***242***	***601***	***43***	***-332***	***-404***	
	% Diff from Ave	***1.3%***	***0.7%***	***0.2%***	***-0.2%***	***-1.0%***	***-0.9%***	***-0.3%***	***0.2%***	***0.6%***	***0.0%***	***-0.3%***	***-0.4%***	

The lowest month of the year for the Perris IC was the highest month for the two nearest interchanges.

In 10 out of 12 months the two count sites deviated in opposite directions from the annual average; i.e. one was higher than the annual average and the other lower.

Exhibit C-3-7: Average Day Traffic at Three Interchanges near the WLC

Response to Comment C-3-18. The commenter asked to include a cancer burden assessment of the project's cancer risks as well as include a cancer risk map that shows the one-in-one-million cancer risk contour.

The health risk assessment contained in the DEIR was expanded in the revised analysis to include the computation of cancer population burden attributed to the project's diesel PM emissions. In this expanded assessment, the cancer burden calculation estimated cancer risks in over 2,300 individual census tracts spanning the region from Palm Springs to Los Angeles. In accordance with the OEHHA's methodology, the cancer burden was calculated by multiplying the estimated cancer risk at each census tract centroid by the census tract populations in those census tracts where the estimated cancer risk exceeded 1 in a million. The burden estimation methodology is provided in Section 4.3.3 - Risk Assessment Methodology of the revised analysis. The results of the cancer burden estimation are shown in the discussion of FEIR Volume 2 Appendix D Section 5.2. Based on the cancer risks estimated for the 70-year exposure duration as per the Current OEHHA Guidance, the project's toxic air contaminant emissions would result in an increased cancer burden of 0.1 individuals out of the population of 633. The SCAQMD has established a threshold for cancer burden of 0.5. The project's estimated cancer burden values do not exceed this threshold. The cancer burden impacts are not significant impacts. This analysis assumes that the use of new technology diesel engines contributes

to an increase in cancer risk. However, the latest research, as described in Master Response-2, demonstrates that new technology diesel exhaust does not cause cancer.

Response to Comment C-3-19. The SCAQMD staff recommends that the lead agency revise the air quality analysis and health risk assessment to include all onsite emissions sources and ensure that they are accounted for in the FEIR.

The air quality analysis, localized analysis, and health risk assessment have been revised to include these emissions sources (refer to FEIR Volume 2 Section 4.3 Air Quality).

The SCAQMD staff recommends that the lead agency prohibit the use of onsite diesel powered equipment including bio-diesel to minimize the project's operational emissions and require the use of electric equipment. As part of the FEIR, biodiesel has been excluded from the list of potential alternative fuels as a response to this comment (refer to FEIR Volume 2 Section 4.3 Air Quality).

The SCAQMD also recommends that if diesel fueled emergency generators are required for the proposed project they should be equipped with diesel particulate filters. Included as a MM 4.3.6.3B is the use of non-diesel emergency generators, which would eliminate diesel emissions from this source.

Response to Comment C-3-20. The SCAQMD requests that emissions from onsite mobile equipment be included in the regional and localized analysis. The revised air quality, health risk assessment, and greenhouse gas analysis include these emissions sources and discuss the emissions estimation assumptions (refer to FEIR Volume 2 Section 4.3 Air Quality).

Response to Comment C-3-21. The commenter asked to include consideration of the federal NO_2 1-hour ambient air quality standard for the combined construction and operation of the project.

The federal NO_2 ambient air quality standard is addressed in the revised analysis, FEIR Volume 2 Appendix D Section 5.2, even though the federal 1-hour NO_2 standard is not currently listed in the most current version of the SCAQMD's Localized Significance Thresholds (website: http://aqmd.gov/ceqa/handbook/signthres.pdf). Because of the format of this standard (which is a probability-based standard over 3 years), the comparison of the project's impacts with this standard is provided for the project's operational impacts. Compliance with the standard was not provided for construction impacts because of the highly transient nature of construction, which varies substantially from day to day and place to place. Compliance determination with this standard is most appropriate for assessment of operational impacts, which are reasonably stable from one day to the next.

The commenter also questions if the annual average emission rate was used for the 1-hour analysis. Annual emission rates were not used to estimate 1-hour emissions. For construction, the estimation of the 1-hour emission rate was determined by dividing the total daily emissions by the length of the construction day, typically 10 hours. For operational mobile emission sources, the maximum one-hour emission rate was determined from the estimated afternoon peak-hour traffic vehicle trips and volumes as provided by the in the traffic impact analysis. The maximum 1-hour emission rates were used to estimate pollutant impacts for those air pollutants with averaging times of 8 hours or less. The annual average emission rates were used to estimate daily and annual air quality impacts.

Response to Comment C-3-22. The SCAQMD suggested the following construction mitigation measures, as discussed below.

Suggested Mitigation Measure	Response
Require the use of electricity from power poles rather than temporary diesel or gasoline power generators.	**Partially Incorporated.** MM 4.3.6.2A has been edited to include this suggestion unless physical or jurisdictional limits make use of temporary overhead power infeasible. Infeasible is where

Suggested Mitigation Measure	Response
	physical constraints such as spanning a major roadway, freeway or flood channel would prohibit temporary overhead power, or long runs of electrical lines results in excessive voltage drops and unable to meet the power requirements, or the available power source is from SCE lines, who are not allowed by tariffs to provide power in this area of Moreno Valley, and Moreno Valley Utilities source is too far away due to voltage drops in long runs of lines.
Require the use of 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export) and if the lead agency determines that 2010 model year or newer; if diesel trucks cannot be obtained the lead agency shall use trucks that meet EPA 2007 model year NOx and PM emissions requirements.	**Partially Incorporated.** MM 4.3.6.2A has been revised to require 2007 construction haul trucks or newer.
For additional measures to reduce off-road construction equipment, refer to the mitigation measure tables located at the following website: www.aqmd.gov/ceqa/handbook/mitigation/MM_intro.html	**Already Included.** The first set of off-road engine mitigation measures as recommended by the SCAQMD (Table I) suggest repowered engines with Tier 2 or Tier 3 engines. Table II discusses the percent reductions for each Tier. Table III discusses the percent reductions for retrofits from diesel particulate filters and diesel oxidation catalysts. MM 4.3.6.2A already includes a requirement of Tier 4 engines, which provides substantial reductions in pollutants. The additional retrofits as identified in Table III are generally for older pieces of equipment. Since the project will be using Tier 4 construction equipment, these equipment are newer and the retrofits would not be required.
Also, the SCAQMD staff recommends that the lead agency replace mitigation measures 4.3.6.2C (a) as follows: a) Non-VOC containing paints, sealants, adhesives, solvents, asphalt primer, and architectural coatings (where used), or pre-fabricated architectural panels shall be used in the construction of the Project to reduce VOC emissions to the maximum extent practicable.	**Incorporated.** This text has been added to the measure; however, the requirement to use 100 grams per Liter or less paint is retained because the wording suggested by the SCAQMD indicates “to the maximum extent practicable.” Where non-VOC paints are not available, there would need to be a restriction of the VOC content in paints that are less than the current regulations.

SCAQMD staff recommends that the lead agency replace MM 4.3.6.2A (a) and (b) with the following:

Suggested Mitigation Measure	Response
Project Start to December 31, 2014: All off-road diesel-powered construction equipment greater than 50 hp shall meet Tier 3 off-road emissions standards. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.	**Partially Included.** MM 4.3.6.2A has been refined and requires that off-road diesel powered construction equipment greater than 50 horsepower meet Tier 4 standards.

Suggested Mitigation Measure	Response
Post-January 1, 2015: All off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.	
A copy of each unit's certified tier specification, BACT documentation, and CARB or SCAQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment.	**Partially Incorporated.** A requirement that the unit's tier specification be provided is incorporated into MM 4.3.6.2A
Encourage construction contractors to apply for SCAQMD "SOON" funds. Incentives could be provided for those construction contractors who apply for SCAQMD "SOON" funds. The "SOON" program provides funds to accelerate cleanup of off-road diesel vehicles, such as heavy-duty construction equipment. More information on this program can be found at the following website: www.aqmd.gov/tao/Implementation/SOONProgram.htm	**Incorporated.** This measure is incorporated into MM 4.3.6.2A.

Response to Comment C-3-23. The commenter suggests the following mitigation measures.

Suggested Mitigation Measure	Response
The project should require that all tenants provide information and promote incentive programs and available alternative fueling truck technologies. This information should be updated as needed to ensure that the most recent information is available.	**Incorporated.** This measure is incorporated into MM 4.3.6.3B.
The lead agency should require that all future tenants apply for incentive funding (such as VIP, Carl Moyer, etc.) to upgrade their fleet. If they are awarded funding, they must also be required to use it within a reasonable period of time.	**Incorporated.** This measure is incorporated into MM 4.3.6.3B.

Letter C-4: Sempra Energy (April 29, 2013)

Letter C-4

Thomas G. Acuna
8315 Century Park Court
CP21E
San Diego, CA 92123
T: 858 637-3701
C: 619-884-0566
Tgacuna@semprautilities.com

April 29, 2013

John Terell
City of Moreno Valley
P.O. box 88005
Moreno Valley, CA 92552
Attn: John C. Terell, Planning Official

Re: Draft Environmental Impact Report / World Logistics Center Project

Dear Mr. Terell:

San Diego Gas and Electric (SDG&E) and the Southern California Gas Company (SCGC) have reviewed the Draft Environmental Impact Report for the World Logistics Center (WLC) Project and would like to submit the following comments. SDG&E and SCGC own a total of 194 acres of land immediately south of the Specific Plan site. SDG&E operates a natural gas compressor plant, known as the Moreno Compressor Station, on 19 acres in the south-central portion of the site. The SCGC operates a metering and valve station on two separate parcels (totalling1.5acres) in the south-central portion of the site south of Alessandro Boulevard along existing Virginia Street. The World Logistics site contains a variety of overhead and underground utility lines associated with oil, natural gas, and electrical service. 1

SPECIFIC COMMENTS

1. The DEIR concludes that noise impacts from pipeline blow-down events on planned land uses within WLC site would need to be mitigated through a combination of setbacks and sound attenuation devices installed at SCGC's facility. SDG&E and SCGC request that language be added to the EIR stating that the developer shall be responsible for mitigating any impacts associated with locating development within 500 feet of the blow down events that would occur at SDG&E and SCGC facilities.

   In addition, SDG&E and SCGC requests that the following language be added to mitigation measure 4.12.6.4A to clarify responsibility for installation of any sound attenuation facilities: 2

   Mitigation Measures. Operation of the proposed WLC project could result in exposure of people to noise levels as high as 130 dBA or greater during SCGC blow-down events. The following measure would reduce long-term utility related noise impacts associated with the proposed WLC project:

   4.12.6.4A Prior to the issuance of building permits for projects within 500 feet of the SCGC and SDG&E facilities, documentation shall be submitted to the City confirming that sound attenuation devices or improvements for the blow-down facilities providing at least a 40 dB reduction in noise levels during blow-down events area available and will be installed for all planned blow-down events. <u>It shall be the responsibility of the developer to fund any sound attenuation improvements to the blow-down</u>

facilities required by this measure. It shall also be the responsibility of the developer to coordinate with SDG&E and/or SCGC regarding the installation of any sound attenuation devices or improvements on the blow-down facilities at either the SDG&E compressor station or the SCGC pipelines. This measure shall be implemented to the satisfaction of the City Planning Official. — 2

2. As discussed in Section 3.4.6.3 of the DEIR, relocation of natural gas transmission lines within the proposed WLC project into public street rights - of-way and easements will be necessary to support site development and grading of the WLC project. SDG&E and SCGC request that language be added to the DEIR stating that any relocations of utilities necessary to implement the World Logistics project will be the responsibility of the developer. SCGC will work with the project proponent to relocate the pipeline(s) to a mutually agreeable location at the project proponent's expense. — 3

3. As discussed in Chapter 3 of the DEIR, a general plan amendment and zone change covering 3,814 acres, which will designate 1,084 acres of land for Open Space (CDFW and SDG&E properties), 20 acres for Public Facilities (SDG&E and SCGC properties), and 2,710 acres for the WLC Specific Plan is proposed as a part of the WLC Project. SDG&E and SCGC requests that language be added to the DEIR including assurances that SDG&E and SCGC property designated as open space in accordance with the proposed general plan amendment and zone change would not be considered permanently set aside for habitat preservation. SDG&E and SCGC need to retain the ability to implement projects on SDG&E and SCGC property. — 4

Should you have any questions, please do not hesitate to call me.

Sincerely,

Thomas G. Acuña

Thomas G. Acuna, AICP
Land Planning Supervisor
Environmental Services
SDG&E
Sempra Energy Utility
(858) 637-3701

cc: Lea Petersen
Dave Stallings
Devin Zornizer

RESPONSES TO LETTER C-4

Sempra Energy

Response to Comment C-4-1. The Company has accurately summarized the project conditions that are most relevant to natural gas facilities.

Response to Comment C-4-2. Southern California Gas Company (SDG&E) and SCGC request that language be added to the EIR stating that the developer shall be responsible for mitigating any impacts associated with locating development within 500 feet of the blow down events that would occur at SDG&E and SCGC facilities. Comments and changes to Mitigation Measure (MM) 4.12.6.4A as suggested by SDG&E and SCGC have been incorporated as follows:

4.12.6.4A Prior to the issuance of building permits for projects within ~~500~~ 1,300 feet of the Southern California Gas Company (SCGC) and San Diego Gas and Electric (SDG&E) blow-down facilities, documentation shall be submitted to the City confirming that sound attenuation devices and/or improvements for the blow-down facilities providing at least a 40 dB reduction in noise levels during blow-down events are available and will be installed for all planned blow-down events. It shall be the responsibility of the developer to fund all sound attenuation improvements to the blow-down facilities required by this measure. It shall also be the responsibility of the developer to coordinate with San Diego Gas and Electric and/or Southern California Gas Company regarding the installation of any sound attenuation devices or improvements on the blow-down facilities at either the San Diego Gas and Electric compressor station or the Southern California Gas Company pipelines. This measure shall be implemented to the satisfaction of the City ~~Planning Official~~ Land Management Division (per Noise Study MM N-11, pg.65).

Response to Comment C-4-3. SDG&E and SCGC request that language be added to the DEIR stating that any relocations of utilities necessary to implement the WLC project will be the responsibility of the developer. The comment does not raise an issue with the adequacy of the DEIR. No response is required. The project proponent will work with SCGC to relocate the pipeline(s) to a mutually agreeable location. Any relocation of existing pipelines will be done in accordance with the existing pipeline easement documents.

Response to Comment C-4-4. SDG&E and SCGC requests that language be added to the DEIR including assurances that SDG&E and SCGC property designated as open space in accordance with the proposed general plan amendment and zone change would not be considered permanently set aside for habitat preservation. The designation of Open Space (OS) with the WLC proposed General Plan Amendment and Zone Change, over property owned by SDG&E or SCGC, is not for habitat preservation nor is the WLC receiving any benefit or credits for the OS designation over SDG&E or SCGC property. The City Municipal Code Table 9.02.020-1 lists several permitted uses within the OS designation which include agricultural and public facilities.

D. LETTERS FROM COUNTY DEPARTMENTS/AGENCIES

Letter D-1: Riverside County Flood Control and Water Conservation District (RCFCWCD) (March 25, 2013)

WARREN D. WILLIAMS
General Manager-Chief Engineer

RECEIVED
MAR 27 2013
CITY OF MORENO VALLEY
Planning Division

1995 MARKET STREET
RIVERSIDE, CA 92501
951.955.1200
FAX 951.788.9965
www.rcflood.org

51183

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

City of Moreno Valley
Community Development Department -
Planning Division
Post Office Box 88005
Moreno Valley, California 92552-0805

Attention: Mark Gross, AICP
Senior Planner

Ladies and Gentlemen:

Re: DEIR
PA 12-0010, 11, 12, 13, 14, 15
World Logistics Center

The District does not normally recommend conditions for land divisions or other land use cases in incorporated cities. The District also does not plan check city land use cases, or provide State Division of Real Estate letters or other flood hazard reports for such cases. District comments/recommendations for such cases are normally limited to items of specific interest to the District including District Master Drainage Plan facilities, other regional flood control and drainage facilities which could be considered a logical component or extension of a master plan system, and District Area Drainage Plan fees (development mitigation fees). In addition, information of a general nature is provided. 1

The District has not reviewed the proposed project in detail and the following checked comments do not in any way constitute or imply District approval or endorsement of the proposed project with respect to flood hazard, public health and safety or any other such issue:

____ No comment.

____ This project would not be impacted by District Master Drainage Plan facilities nor are other facilities of regional interest proposed.

____ This project involves District Master Plan facilities. The District will accept ownership of such facilities on written request of the City. Facilities must be constructed to District standards, and District plan check and inspection will be required for District acceptance. Plan check, inspection and administrative fees will be required.

X This project proposes channels, storm drains 36 inches or larger in diameter or other facilities that could be considered regional in nature and/or a logical extension of the adopted Moreno Master Drainage Plan. The District would consider accepting ownership of such facilities on written request of the City. Facilities must be constructed to District standards, and District plan check and inspection will be required for District acceptance. Plan check, inspection and administrative fees will be required. 2

X This project is located within the limits of the District's Moreno Area Drainage Plan for which drainage fees have been adopted; applicable fees should be paid by cashier's check or money order only to the Flood Control District or City prior to issuance of grading permits. Fees to be paid should be at the rate in effect at the time of issuance of the actual permit. 3

X An encroachment permit shall be obtained for any construction related activities occurring within District right of way or facilities. For further information, contact the District's encroachment permit section at 951.955.1266. 4

X ~~The Districts previous comments are still valid.~~ The Moreno MDP is currently being revised. 5

GENERAL INFORMATION

This project may require a National Pollutant Discharge Elimination System (NPDES) permit from the State Water Resources Control Board. Clearance for grading, recordation or other final approval should not be given until the City has determined that the project has been granted a permit or is shown to be exempt.

If this project involves a Federal Emergency Management Agency (FEMA) mapped flood plain, then the City should require the applicant to provide all studies, calculations, plans and other information required to meet FEMA requirements, and should further require that the applicant obtain a Conditional Letter of Map Revision (CLOMR) prior to grading, recordation or other final approval of the project, and a Letter of Map Revision (LOMR) prior to occupancy. 6

If a natural watercourse or mapped flood plain is impacted by this project, the City should require the applicant to obtain a Section 1602 Agreement from the California Department of Fish and Game and a Clean Water Act Section 404 Permit from the U.S. Army Corps of Engineers, or written correspondence from these agencies indicating the project is exempt from these requirements. A Clean Water Act Section 401 Water Quality Certification may be required from the local California Regional Water Quality Control Board prior to issuance of the Corps 404 permit.

Very truly yours,

HENRY OLIVO
Engineering Project Manager

Date: 3/25/2013

c: Riverside County Planning Department
Attn: Kristi Lovelady

EWR

RESPONSES TO LETTER D-1

Riverside County Flood Control and Water Conservation District

Response to Comment D-1-1. It is noted that Riverside County Flood Control and Water Conservation District (District) comments are limited to items of specific interest to the District which is the Moreno Area Drainage Plan. It is also noted that the District has not reviewed the proposed project in detail nor does the District imply approval or endorsement of the project.

Response to Comment D-1-2. Draft Environmental Impact Report (DEIR) Section 4.9.6.1 *Drainage Pattern and Capacity Related Impacts*, discusses potential drainage facilities that are 36-inches and larger. At the time of final design, the project developer will coordinate with the District to discuss the District accepting ownership of these facilities. Facilities to be constructed that are agreed to be accepted and owned by the District will be constructed to District standards and appropriate plan checks, inspections and fees will be paid.

Response to Comment D-1-3. Portions of the World Logistics Center (WLC) project are in the Moreno Area Drainage Plan. Applicable fees will be paid prior to issuance of grading permits at the rate in effect at the time of issuance of the permit.

Response to Comment D-1-4. Encroachment permits will be obtained for any work occurring within the District's right-of-way.

Response to Comment D-1-5. It is noted that the Moreno Master Drainage Plan is currently being revised.

Response to Comment D-1-6. The project developer will comply with appropriate National Pollutant Discharge Elimination System permits and submit the Notice of Intent prior to grading. The WLC project is not within a mapped Federal Emergency Management Agency floodplain. The project developer will obtain appropriate 404 and 1602 agreements and a 401 certification from the United States Army Corps of Engineers, the California Department of Fish and Wildlife, and the Regional Water Quality Control Board.

Letter D-2: Riverside County Transportation and Land Management Agency (TLMA) (April 9, 2013)

Letter D-2

COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY

Juan C. Perez
Agency Director

April 9, 2013

Mr. Mark Gross, AICP
Senior Planner
Community and Economic Development Department
City of Moreno Valley
14117 Frederick Street
Moreno Valley, CA 92553

RE: NOTICE OF AVAILABILITY OF DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE WORLD LOGISTICS CENTER PROJECT

Dear Mr. Gross,

Thank you for the opportunity to review the Draft Environmental Impact Report for The World Logistics Center Project (DEIR). The project proposes development of 3,918 acres allowing for approximately 41.4 million square feet of high-cube logistics warehouse distribution uses and 200,000 square feet of warehouse related uses. The Transportation and Land Management Agency (TLMA) has reviewed the DEIR and has the following comments: 1

Transportation:

As noted in the DEIR (page 4.15-24), the City's General Plan calls for a realignment of Alessandro Boulevard and a relocation of its intersection with Gilman Springs Road. Similarly, the project intends to connect Eucalyptus Avenue to Gilman Springs Road. TLMA requests that the City coordinate the realignments and connections of Alessandro Boulevard and Eucalyptus Avenue to Gilman Springs Road with the County.

Under the discussion of Project Direct Impacts of Road Sections in the DEIR and its traffic study, Gilman Springs Road between SR-60 and Bridge Street is identified as being impacted by the project. The mitigation identified to bring Gilman Springs Road to an acceptable level of service is to widen the road to 4-lanes. The DEIR indicates the project's fair share will be paid as mitigation. However, under the City's General Plan Circulation Element, Gilman Springs Road is identified as a 6-lane Divided Major Arterial. 2

The County is currently working with the City of Moreno Valley to implement safety improvements on Gilman Springs Road. TLMA staff requests that the City require the World Logistics Center project to make its half-width improvements to Gilman Springs Road (3 lanes to full width), plus reconstruct the northbound lane in the County jurisdiction to match grade in order to be able to fully stripe the road to 4 lanes, expanding upon the work being done now by the County and Moreno Valley.

4080 Lemon Street, 14th Floor • Riverside, California 92501 • (951) 955-6838
P. O. Box 1605 • Riverside, California 92502-1605 • FAX (951) 955-6879

For Intersection Direct Impacts under the *Existing Plus Project* scenario, the DEIR and traffic study indicate the project as having a direct impact on the following intersections:

Bridge Street at Ramona Expressway
Gilman Springs Road at Bridge Street
Both Ramps of SR-79 (Sanderson Avenue) at Gilman Springs Road
Redlands Boulevard at San Timoteo Canyon Road

2

For each of the impacted intersections described above the improvement identified to reduce the impact to less than significant is through the installation of a traffic signal and associated street improvements. The City will require the developer to pay for the improvements in the form of fair share fees. RCTD requests that the mitigation fees be paid to the County at the time of building permit issuance, in order to mitigate project impacts, since these intersections are within County and/or Caltrans jurisdiction.

Air Quality:

The South Coast Air Basin (SCAB) is designated by the Environmental Protection Agency (EPA) as a nonattainment basin for ozone, nitrogen dioxide, PM10, and PM2.5. The goal of the 2012 Air Quality Management Plan adopted by the AQMD is to expand upon the progress made over the last 35 years in air quality management and improvements within the SCAB. The Federal nonattainment status, specifically for ozone and ozone precursors, has resulted in significant efforts undertaken throughout the basin to improve the regional air quality.

3

In order to reduce project air quality impacts, TLMA recommends that the City require that heavy duty trucks that will serve the project meet the Tier IV EPA emissions standards that have been adopted by AQMD, and work with AQMD to implement these standards at the earliest opportunity.

We also recommend that electric charging, CNG or LNG fueling stations be constructed to provide a meaningful alternative fuel infrastructure to serve the large truck fleet and on-site equipment that will be generated by this project.

If you have any questions or concerns please feel free to contact me at (951) 955-6749.

Sincerely,

Juan C. Perez
Director of Transportation and Land Management

Cc: Marion Ashley, 5th District Supervisor
Carolyn Syms Luna, Planning Director
Frank Coyle, Planning Deputy Director
Patricia Romo, Transportation Assistant Director
Farah Khorashadi, Engineering Division Manager

JCP:fk/ar

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RESPONSES TO LETTER D-2

Riverside County Transportation and Land Management Agency (TLMA)

Response to Comment D-2-1. The commenter notes that the World Logistics Center (WLC) proposes to develop 3,918 acres allowing for 41.1 million square feet of high-cube warehouse and 200,000 square feet of warehouse related uses.

The correct acreage is 3,714 (see Table 20 in the Transportation Impact Assessment (TIA)). It should be noted the Specific Plan area has been reduced from 2,710 acres to 2,610 acres (3.7 percent reduction) due to the removal of 100 acres in the southwest corner of the Specific Plan. This results in a reduction of 1 million square feet of logistics warehousing which is now 40.6 million square feet down 2.4 percent from the original 41.6 million square feet.

Response to Comment D-2-2. The commenter notes Gilman Springs Road is identified as 6-lane divided major arterial in City's General Plan and requests the City require the WLC to construct a half-width of the road (i.e. 3 southbound lanes) and reconstruct the northbound lane. The commenter also requests the Project's fair share contribution to improvements to four County intersections be collected at the time of building permit issuance.

The developer will pay for three southbound lanes and one northbound lane on Gilman Springs Road in accordance with Moreno Valley General Plan Policy 5.5.7. The developer will receive credit for the cost in excess of his fair share contribution. Please refer to revised TIA Chapter 11, Section E, sub-section on Road Section Direct Impacts (Final Environmental Impact Report (FEIR) Volume 2 Appendix L).

At present, the only mechanism for collecting payments from a developer for improvements outside the City of Moreno Valley is the Transportation Uniform Mitigation Fee (TUMF) program. Please refer to Mitigation Measure (MM) 4.15.7.4E in FEIR Volume 2 (based on MM Trans-5 in TIA Chapter 11, Section G (FEIR Volume 2 Appendix L). MM 4.15.7.4E, as revised in the FEIR, requires that the developer pay its fair share of the cost of constructing the traffic improvements required to mitigate the project's traffic impacts, identified in EIR Tables 4.15.AT through 4.15.AY, for intersections and road segments outside of the City's jurisdiction (i.e., under the jurisdiction of other cities, the County and Caltrans) in order to mitigate the identified programmatic impacts to less than significant levels. The fair share payment requirement shall be imposed as a condition of plot plan approval for each building within the project, and no certificate of occupancy for a building within the project shall be issued until the fair share payment for that building has been paid.

In addition, the EIR includes MM 4.15.7.F requiring that the City participate in a multi-jurisdictional effort with Caltrans and adjacent cities to develop a study to identify fair-share contribution funding sources to supplement other regional and State funding sources necessary to implement the State facility and extra-territorial improvements identified in the EIR. The EIR also includes MM 4.15.7.G requiring that the City coordinate with WRCOG with the goal of shifting TUMF funding priorities so they align with the improvements identified by the City and in the proposed project's TIA and EIR. Lastly, the EIR includes MM 4.15.7.H requiring that the City work with the WLCSP development and other jurisdictions to coordinate the funding and installation of intersection and roadway improvements outside of the City's jurisdiction. With these MMs, a process has been established that will provide the necessary first step towards the eventual multi-jurisdictional coordination needed to implement the traffic improvements that are outside of the City's jurisdiction. Even with such coordination, it is appropriate for the City to consider impacts to these State and extra-territorial transportation facilities significant and unavoidable.

Response to Comment D-2-3. The TLM recommends the following measures. Please see the Mitigation Monitoring Reporting Program in FEIR Volume 1 for a list of the current mitigation measures.

Suggested Mitigation Measure	Response
The City shall require that heavy-duty trucks that serve the project meet the Tier IV EPA emissions standards that have been adopted by AQMD, and work with AQMD to implement these standards at the earliest opportunity.	**The commenter has incorrect terminology.** The standards have not been adopted by the South Coast Air Quality Management District (SCAQMD). The U.S. Environmental Protection Agency (EPA) Tier 4 emissions standards apply to non-road engines, such as construction equipment (40 CFR, Section 1039). MM 4.3.6.2A requires Tier 4 construction off-road equipment. The EPA's Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements were phased in beginning in 2007 and ending in 2010. A PM emissions standard of 0.01 g/bhp-hr took full effect in 2007. Standards for NOx and non-methane hydrocarbons of 0.20 g/bhp-hr and 0.14 g/bhp-hr, respectively would be phased in between 2007 and 2010. Fifty percent of sales in 2007 needed to comply and 100 percent of sales in 2010. The DEIR included as a project design feature that the diesel trucks would incorporate the 2010 standards. This was changed from a project design feature to a mitigation measure (MM 4.3.6.3B) in the FEIR (refer to FEIR Volume 2 Section 4.3 Air Quality.
Electric charging, CNG or LNG fueling stations should be constructed to provide a meaningful alternative fuel infrastructure to serve the large truck fleet and onsite equipment.	**Already Included.** MM 4.3.6.3C requires an onsite alternative fueling station and MM 4.3.6.4A requires electric vehicle charging at each building. In addition, a project design feature in the Specific Plan (Section 12.3 of the WLC Specific Plan (SP) requires onsite equipment to use alternative fuel.

E. LETTERS FROM LOCAL AGENCIES/CITY DEPARTMENTS

Letter E-1: City Of Perris (April 3, 2013)

Letter E-1

CITY OF PERRIS

DEVELOPMENT SERVICES DEPARTMENT
PLANNING DIVISION
135 NORTH D STREET, PERRIS, CA 92570-2200
TEL.: (951) 943-5003 FAX: (951) 943-8379

April 3, 2013

RECEIVED
APR 1 0 2013
CITY OF MORENO VALLEY
Planning Division

Mark Gross
Community & Economic Development – Planning Division
14177 Frederick Street
P.O. Box 88005
Moreno Valley, CA 92552-0805

SUBJECT: Comments on the World Logistics Center Project Draft Environmental Impact Report (SCH #2012021045)

Dear Mr. Gross:

The City of Perris appreciates the opportunity to comment on the Notice of Availability for the proposed Draft Environmental Impact Report (EIR) regarding the World Logistics Center Specific Plan involving 41 million square feet of high-cube logistic uses located in the northeasterly area of the City of Moreno Valley. The project boundary is approximately five miles northeast of the City of Perris' northern limits. The City of Perris Planning Division does not have any specific environmental issues or mitigation alternatives to provide at this time. 1

The City does, however, have general concerns with the traffic study conclusion, which indicates that Highway 60 is projected to operate at a failing level of service but does not identify a mechanism to remedy this situation beyond TUMF and DIF. The City of Perris is concerned about congestion on the freeway, and whether it will lead drivers to divert onto surface streets, using routes such as Perris Boulevard, Evans Road and Ramona Expressway to connect to the I-215 Freeway. As such, the City of Perris requests an opportunity to review and comment on the Final EIR and the conclusion traffic study for the project. 2

The City of Perris looks forward to the opportunity to review the Final EIR and related supporting traffic study documents. Please include the City of Perris on any future mailing lists addressed to Clara Miramontes, Planning Manager, regarding these documents as well as future notifications of meetings/public hearings associated with the project and subsequent development implementation of the Specific Plan. The City of Perris would like to determine whether this project or subsequent developments will have an impact on Perris streets, and if mitigation alternatives should be considered. If you have any questions or concerns, please do not hesitate to contact me at (951) 943-5003, extension 257. 3

Sincerely,

Kenneth Phung
Interim Planning Manager

Cc: Richard Belmudez, City Manager
Ron Carr, Assistant City Manager
Eric Dunn, City Attorney
Habib Motlagh, City Engineer
Clara Miramontes, Planning Manager

RESPONSES TO LETTER E-1

City of Perris

Response to Comment E-1-1. The commenter has accurately summarized the indicated project characteristics and the City of Moreno Valley acknowledges that the City of Perris has no comments regarding environmental impacts, mitigation, or alternatives at this time. It should be noted the Specific Plan area has been reduced from 2,710 acres to 2,610 acres (3.7 percent reduction) due to the removal of 100 acres in the southwest corner of the Specific Plan. This results in a reduction of 1 million square feet of logistics warehousing which is now 40.6 million square feet down 2.4 percent from the original 41.6 million square feet.

Response to Comment E-1-2. The commenter expresses concern about congestion on freeway leading to traffic diverted onto city streets (in City of Perris) and that no mechanism for correcting this has been identified beyond Transportation Uniform Mitigation Fee (TUMF) and Development Impact Fees (DIF).

At present, the only mechanism for collecting payments from a developer for improvements outside the City of Moreno Valley is the TUMF program. MM 4.15.7.4E, as revised in the FEIR, Volume 2 Revised DEIR,, requires that the developer pay its fair share of the cost of constructing the traffic improvements required to mitigate the project's traffic impacts, identified in EIR Tables 4.15.AT through 4.15.AY, for intersections and road segments outside of the City's jurisdiction (i.e., under the jurisdiction of other cities, the County and Caltrans) in order to mitigate the identified programmatic impacts to less than significant levels.

Response to Comment E-1-3. As a commenting responsible agency, the City of Perris will be sent a copy of the FEIR with all responses to comments and updated technical studies, and a marked up copy of the Draft Environmental Impact Report (DEIR) indicating any additions or changes as a result of the responses to comments.

Letter E-2A: City of Riverside (April 8, 2013)

Letter E-2A

Community Development
Department
Planning Division

CITY OF
RIVERSIDE

April 8, 2013

Mark Gross, AICP
City of Moreno Valley
Community and Economic Development Department - Planning Division
14177 Frederick Street
Moreno Valley, CA 92553

SUBJECT: World Logistics Center Project - Draft Environmental Impact Report (SCH# 2012021045)

Dear Mr. Gross:

The City of Riverside ("Riverside") appreciates the opportunity to comment on the World Logistics Center ("WLC") Draft Environmental Impact Report ("Draft EIR" or "DEIR") prepared by the City of Moreno Valley ("City"). The proposed World Logistics Center Project analyzed in the Draft EIR includes 41.6 million square feet of new logistics development and the associated infrastructure on 3,918 acres ("Proposed Project" or "Project"). The Draft EIR concludes that the Proposed Project would have numerous significant and unavoidable impacts to Traffic and Circulation, Aesthetics, Agriculture, Air Quality, Cultural Resources, Greenhouse Gases and Global Climate Change, Land Use and Planning, and Noise. 1

While the Proposed Project would undoubtedly provide economic benefits to the region, Riverside would like to ensure that health of its citizens and the environment have been adequately considered and mitigated in the Draft EIR. As described in greater detail below, Riverside has serious concerns regarding the adequacy of several analyses, particularly the traffic analysis. The Proposed Project will generate approximately 71,000 daily trips, many of which will travel through the City of Riverside. Riverside is concerned that this project will produce cut-through traffic on Riverside's road system, particularly Alessandro Blvd. and Van Buren Blvd., as freeways become overburdened by significant increases in truck traffic. 2

The Draft EIR uses incorrect and internally inconsistent growth assumptions for the traffic analysis and only accounts for a small fraction of the project's trip generation. Notwithstanding these errors, the Draft EIR concludes there would be numerous significant and unavoidable impacts to many of the intersections, some of which would increase delay at intersections by a factor of 40. Riverside believes there are numerous additional feasible mitigation measures 3

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which should be made conditions of approval. For the reasons described in greater detail below and the attached comment letter from Riverside's Traffic Consultants, Linscott, Law & Greenspan, Engineers (Attachment 1), the Draft EIR should be revised and recirculated for additional public/agency review. 3

TRAFFIC

1. Traffic Methodology

a. The Draft EIR Traffic Impact Analysis Uses Incorrect and Inconsistent Cumulative Growth Assumptions

The Draft EIR Traffic Impact analysis uses incorrect and internally inconsistent cumulative growth assumptions which have understated the project's traffic impacts. Because the project's traffic impacts have been understated, all DEIR impact analyses that were based upon the traffic analysis have been understated as well, including but not limited to, air quality, greenhouse gas, and the noise analysis. (DEIR Page 4.15-30.)

The traffic analysis on page 4.15-28 of the Draft EIR states:

> Per the City of Moreno Valley Traffic Impact Analysis Preparation Guideline ["TIAPG"] ...opening year cumulative traffic volumes were developed by adding a 2 percent per annum growth rate to existing baseline traffic volumes; therefore, a total ambient growth of 12 percent of the existing baseline conditions was added to develop opening year cumulative conditions.

4

This language is based upon the language in Exhibit B of the TIAPG which states "...assume growth rate of 2% per year..." However, the use of 12% (6 years× 2%) for total growth over the six year period is an incorrect value for an annual 2% growth rate. If the analysis had actually applied the stated 2% annual growth rate, it should have assumed a total growth rate of 12.62% (i.e., 1.02^6) in the year 2017 in comparison to 2012. The analysis, therefore, understates the cumulative traffic impacts. Furthermore, the 2% annual growth assumption is internally inconsistent with the growth assumptions from the City's General Plan which the Draft EIR relies upon. Draft EIR Section 2.10.2 states:

> Table 2.D summarizes the cumulative growth information from the Final Program EIR for the City General Plan Update from July 2006 (Section 7, Cumulative Impacts). Table 2.D shows that the City expects to grow at an average annual rate of *2–3 percent* from 2000 to 2030. (Emphasis added.)

Table 2-D in fact shows an average annual population growth rate in the City of Moreno Valley of 2.24% and average annual household growth rate of 2.75%. Regional growth rate projections for Riverside County are also shown at 2.33%. Even assuming the smaller 2.33% average annual regional growth rate provided in this table, this yields a 14.82% (1.0233^6) growth rate in the year 2017 in comparison to 2012, rather than the 12% growth rate assumed

in the traffic analysis. Because the cumulative traffic analysis used the incorrect growth assumptions, the cumulative impacts of the project have been understated. The traffic analysis should, therefore, be revised to use internally consistent annual growth assumptions. 4

b. The Traffic Analysis Fails to Address the Project's Trip Peaking Characteristics Outside of the AM and PM Peak Hours

The traffic analysis in Draft EIR Section 4.15.6 inappropriately relies upon an a.m. and p.m. peak hour analysis,[1] based upon the existing peak hours in the City. The Draft EIR should be revised to provide additional traffic analyses: (1) based upon the project's peak trip generation time periods, and (2) based upon the ADT ("Average Daily Traffic") methodology. The Draft EIR concludes that "[t]he project is estimated to generate a net total of approximately 71,085 daily trips with approximately 4,672 occurring during a.m. peak hour and 5,101 occurring during the p.m. peak hour." (Draft EIR page 4.15-31.) In fact, the Draft EIR recognizes that "The WLC would create approximately 25,000 new jobs; nearly doubling the number of jobs in Moreno Valley," meaning that the project will be the single largest trip generator in the City. (Draft EIR page 4.15-32.) While, an a.m. and p.m. peak hour analysis might be appropriate in other contexts, it is not appropriate here given the nature and magnitude of this project. Use of the traditional a.m. and p.m. peak hour analysis has resulted in an understatement of the project's impacts. As described in greater detail below, the project will be the largest single trip generator in the City and will likely result in a new peak traffic hour which has not been analyzed in the Draft EIR. 5

The current traffic analysis has only analyzed 13.7% of the project's trip generation (i.e., trip generation in the a.m. and p.m. peak hours), the remaining 86.3% (61,312 trips), which occurs outside these peak hours, has not been analyzed. (Draft EIR page 4.15-31.) Just 13.7% of the project trips are sufficient to nearly double the delay at numerous intersections and result in a nearly a fortyfold increase at others. If only 13.7% of the project's trips can result in nearly a fortyfold increase in delay at intersections, imagine the amount of delay that would occur if the additional 61,312 trips had been accounted for in the traffic impact analysis.

For example, Table 4.15.AD-1 indicates that Intersection 10 (Redlands Blvd./Locust Ave.) is currently operating at a delay of 26.7 seconds. The project will result in a delay greater than 50 seconds (Level of Service ("LOS") F) at this intersection during the a.m. peak hour; at a minimum, doubling the delay. (Similar intersections would see a doubling of their delay during the a.m. peak hour in the 2012 scenarios, including Intersections 13, 14, 20, 46, 123, 124, 132, 133, 134.) In fact, intersection 27 (Redlands Blvd./Cactus Ave.) would result in a nearly fivefold increase in the delay during the a.m. peak hour and a nearly fortyfold increase during the p.m. peak hour in the 2012 scenarios. (Draft EIR Table 4.15-AD-2.) Similar increases are shown in

[1] While the time periods associated with the a.m. and p.m. peak hours do not appear to be included in the text of the Section 4.15 of the Draft EIR, Figure 28 in Appendix I suggests the a.m. peak hour occurs from 6 a.m. to 9 a.m., and the p.m. peak hour occurs from 3 p.m. to 6 p.m.

the 2017 scenario a.m. peak hour analysis [including but not limited to Intersections 12, 27, 122], the 2022 scenario am peak hour analysis [including but not limited to Intersections IN-6, IN-12, IN-19, IN-27, IN-19, IN-27, IN-46, IN-135], and the General Plan Buildout analysis [including but not limited to Intersections IN-6, IN-10, IN-11, IN-12, IN-18, IN-19, IN-27, IN-35, IN-132].

As described in the previous paragraph, just 13.7% of the project's daily trip generation (combined a.m. and p.m. peak hour trip generation) constitutes the primary source of trip generation and delay at numerous intersections. Typical[2] logistics centers have a truck trip maximum peak hour well outside of the a.m. and p.m. peak hours analyzed in the Draft EIR; from approximately 1 p.m.to 2 p.m. (Draft EIR Appendix I, Figure 28.) Furthermore, there are two additional smaller peak time periods from approximately 4 a.m. to 6 a.m. and from 10 p.m. to 12 a.m. Given that (1) 86.3% of the project's trip generation occurs outside the peak hours and have not been taken into account in the impact analysis and (2) the project will be the single largest trip generator in the City of Moreno Valley, it is important for the City to analyze the impacts of the *project's* peak hour, rather than the *traditional* peak hours which occurred before the project's implementation. 5

In addition to the traffic analysis based upon the Project's peak hours, an ADT analysis should also be included in the Draft EIR.[3] The ADT methodology provides a total daily average of the various roadway segments' capacity. This would allow the City to determine whether the roadway segments have sufficient capacity for 100% of the Project's trip generation, rather than just 13.7.

The Draft EIR should be revised to (1) explain the project's traffic peaking characteristics assumptions, (2) the rationale for those assumptions, (3) additional traffic analysis that is based upon the Project's peak hours, (4) an ADT analysis, and (5) incorporation of feasible mitigation measures. Upon completion of these revisions, the Draft EIR should be recirculated for public and agency review. Additional comments regarding peaking characteristics and suggested methodology are included in the attached comments from Riverside's Traffic Consultants Linscott, Law & Greenspan, Engineers. (Attachment 1.)

c. The Draft EIR Fails to Disclose the Project's Impacts at Numerous Intersections

The Draft EIR measures the Project's traffic impacts based upon the delay caused by the Project. However, in many instances, the Draft EIR places an artificial numerical ceiling on the analysis and states that the delay is "> 50" seconds without the project, and "> 50" seconds with the project (e.g., Table 4.15.A1-1 [Intersections 9, 13, 20, 36, 45, 62, 103, 124, 125, 132, 6

[2] The Draft EIR does not actually provide the traffic peaking characteristics assumptions for the World Logistics Center Project. This information should be included in the DEIR and recirculated for public/agency review and comment.

[3] As noted in the Riverside County Transportation Department Traffic Impact Analysis Preparation Guidelines (April 2008), ADT analysis is appropriate where "...intersection analyses are not the controlling factor or for general planning purposes." (Page 3.)

133, 134, 135, 136, etc.], Table 4.15.A1-2 [Intersections 10, 13, 20, 45, 60, 74, 94, 95, 122, 124, 125, 132, 133, 134, 135, 136, etc.]). This type of analysis fails to disclose the project's traffic impacts. The courts have held that a lead agency cannot travel the "legally impermissible easy road to CEQA compliance" by "simply labeling the effect 'significant' without accompanying analysis of the project's impact." (*Berkeley Keep Jets Over the Bay Committee v. Board of Port Commissioners of the City of Oakland* (2001) 91 Cal.App.4th 1344, 1371.) Yet this is precisely what has been done here. The public and decision makers have no way of ascertaining whether the project is resulting in an increase or decrease in delay in these situations, or the severity of the change in delay. The traffic analysis should be revised to eliminate this artificial ceiling and recirculated for public/agency review. 6

d. The Draft EIR Traffic Impact Analysis Uses an Incorrect Geographic Scope

The Draft EIR artificially limits the geographic scope of the traffic analysis. As described in greater detail below, the analysis stops short of analyzing the impacts of routes to the Port of Los Angeles/Long Beach, and eliminates a huge portion of the analysis along Highway 215. The geographic scope of the traffic analysis should be revised.

CEQA Guidelines Section 15130(b)(3) states that "Lead agencies should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used." The only discussion of the geographic scope of the traffic analysis is provided on Draft EIR page 4.15-2 through 4. While the discussion explains that surface street analysis was limited to streets where the project would "add 50 or more peak hour trips,"[4] no such explanation was provided for the freeway analysis. The geographic scope of the freeway segment analysis is shown in Draft EIR Figure 4.15.3 but no rationale is provided for its selection.

The Draft EIR acknowledges that "The project would be bringing cargo containers from the Port of Los Angeles or the Port of Long Beach ["Ports"]" (Draft EIR page 4.7-43), however, the geographic scope of the freeway segment analysis stops well before the Port of Los Angeles/Long Beach, by nearly 34 miles (by line of site). It is reasonably foreseeable that these truck trips will drive to the Ports, therefore, the Draft EIR should expand the geographic scope of the traffic analysis to include freeway segments to the Ports. 7

It is unclear why the geographic scope of the freeway segment analysis did not include portions of the 215 between the 60 to the north and the 74 to the south (see DEIR Figure 4.15.3). Freeway segments along this southern portion of the freeway are significantly impacted; for example freeway segment F-70 on the 215 (DEIR Table 4.15.AK-2). There is a high likelihood other components of the freeway system will be significantly impacted, but these impacts have

[4] As noted in the previous Section to this comment letter, Riverside believes that supplemental analysis should also be provided based upon the project's peak traffic hours rather than a.m. and p.m. peak hours. Given that the geographic scope of the surface street analysis was based upon the a.m. and p.m. peak hour trip generation, the geographic scope of the project's peak analysis should also be revised based upon 50 or more peak hour trips for the project.

not been addressed because they have been inexplicably left out of the analysis by artificially limiting the geographic scope.

We request that the geographic scope of the traffic analyses be revised, consistent with the discussion provided above and recirculated for public and agency review. Additional comments regarding geographic scope are included in the attached comments from Riverside's Traffic Consultants Linscott, Law & Greenspan, Engineers. (Attachment 1.) 7

e. The Draft EIR Fails to Disclose the Cumulative Transportation Improvements

While the Draft EIR purports to use growth projections for the cumulative analysis, as described earlier in this letter, the analysis also partially relies upon a list of projects approach, as it incorporates a number of specific future roadway improvements. For example, Draft EIR Section 4.15.3.1 states that the cumulative future year scenarios (including 2017, 2022, and 2035), include "improvements funded through local and regional transportation mitigation fee programs..." However, no specific regional roadway improvements are identified in the Draft EIR. This approach fails to comply with the requirements of CEQA Guidelines Section 15130(b)(1)(A). These roadway improvement assumptions should be identified, including the year these improvements will be completed and their funding sources. 8

Additional comments regarding cumulative transportation improvements are included in the attached comments from Riverside's Traffic Consultants Linscott, Law & Greenspan, Engineers. (Attachment 1.)

f. The Draft EIR Fails to Disclose the Trip Distribution Assumptions

While CEQA permits the use of reasonable assumptions, those assumptions must be based upon substantial evidence. (See Pub. Resources Code § 21080(e).) The Draft EIR states that "[t]he proposed project's trip distribution was developed for both passenger cars and trucks." (Draft EIR page 4.15-31.) While a general qualitative description of these assumptions is provided in the Draft EIR, none of the specific assumptions or supporting evidence is included.

For example, the Draft EIR page 4.15-33 states that "...all trucks must use established truck routes within the City of Moreno Valley...," however, no description of these established truck routes or their destinations (with the exception of the Ports) is provided in the Draft EIR, nor is this information provided in Appendix L. Detailed trip distribution assumptions should be incorporated into the Draft EIR. The Draft EIR should also be revised to account for trip diversions when intersections and roadway segments become so congested that individuals re-route. For example, the Draft EIR states that one intersection will have an average delay of 862.9 seconds (14.4 minutes). (See Draft EIR Table 4.15-AD-2.) Individual drivers are unlikely to continue the use of routes which have a 14 minute delay for an individual intersection. 9

Additional comments regarding trip distribution assumptions and diversions are included in the attached comments from Riverside's Traffic Consultants Linscott, Law & Greenspan, Engineers. (Attachment 1.)

2. Alternatives' Analysis of Traffic Impacts

a. The Draft EIR Alternatives' Analysis Provides an Insufficient Level of Detail

The Draft EIR provides inadequate analysis of the alternatives' impacts to traffic. CEQA Guidelines Section 15126.6(d) requires the alternatives analysis to "...include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project." However, very little information is provided regarding the alternatives' significant traffic impacts.

For example, the No Project/Existing General Plan analysis (Draft EIR page 6-19) provides the total average daily trip generation for each alternative and notes "[i]t is reasonable to assume that an increase of 25 percent of traffic trips would increase traffic on local roadways and intersections." Such an assumption is not reasonable for these alternatives because the Proposed Project's traffic impact analysis is based upon unique trip distribution assumptions for a logistics center. As discussed on Draft EIR page 4.15-32:

> The truck trip distribution patterns have been developed based on the anticipated travel patterns for the proposed project's high-cube logistics warehousing trucks. Since the internal trips, the port-related trips, and the majority of external trips (all but those on I-10) use routes west of the project site, it is anticipated that a large majority of the WLC truck traffic will be oriented to the west of the project, with a much smaller amount to and from the east.

10

These trip distribution assumptions are not applicable to residential/mixed-use/retail-uses included in the existing general plan alternative, and the other types of uses proposed in the various alternatives. These different uses will have vastly different peaking characteristics and distribution patterns (i.e., residential uses are unlikely to be driving to the Ports). While some intersections may be increased due to higher trip generation under this existing general plan alternative, other significantly impacted intersections/segments/freeways may be vastly improved because of the change in likely trip destinations. The level of detail provided in the analysis is insufficient to allow the public and decision makers the ability to determine which traffic impacts would be reduced by the selection of the various alternatives. The Alternatives' traffic analysis should be revised to fully describe the levels of service and delay for individual intersections/segments/freeways.

3. Traffic Mitigation Measures

The Proposed project creates numerous significant traffic impacts. For example, under the 2035 scenario the project would result in significant impacts at 39 intersections, 2 roadway segments, 53 freeway segments, and 15 freeway weaving segments. (Draft EIR Section 4.15.6.) While Section 4.15.7 contains discussion of several mitigation measures, many of these mitigation measures are dismissed as "infeasible." (For example, see Draft EIR page 4.15-189, Intersection IN-95.) Riverside believes there are additional feasible mitigation measures which should be incorporated into the Mitigation Monitoring and Reporting Program ("MMRP").

11

Furthermore, the Draft EIR should be revised to provide a concise listing of the suggested transportation improvements which have been determined to be feasible and which will be incorporated into the MMRP. The discussion of mitigation measures in Section 4.15.7.3 ("Required Improvements") includes discussion of feasible *and infeasible* transportation improvements. 11

Additional comments regarding mitigation measures are included in the attached comments from Riverside's Traffic Consultants Linscott, Law & Greenspan, Engineers. (Attachment 1.)

a. The **Proposed Transportation Uniform Mitigation Fee ("TUMF") (Mitigation Measure 4.15.7.4D) is Inadequate to Fully Address the Project's Significant Impacts**

The EIR states that "if the identified facility was already part of the TUMF or DIF Program, then payment into the TUMF or DIF program constitutes mitigation of impacts to the TUMF and DIF facilities." (Draft EIR Section 4.15.7.)

MM 4.15.7.4D proposes to mitigate the project's significant traffic impacts to facilities already included in the TUMF Program through payment of TUMF fees. This payment is insufficient to mitigate the project's significant traffic impacts. TUMF fees are allocated based upon specific assumptions, with 48.7% of the funds generated in each zone going back to that zone to be programmed for projects, and 48.7% of the funds allocated to regional inter-zone projects programmed by the Riverside County Transportation Commission ("RCTC"). The City of Moreno Valley is in the Central Zone, thus 48.7% of the project's TUMF fees will be allocated within the zone, while 48.7% will be distributed regionally. Additionally, fee revenues are split between the backbone network, or facilities of regional significance, and the secondary network, or facilities of zonal significance. (ES.4, 2009 TUMF Nexus Study.[5]) The spilt of fee revenues between the backbone and secondary highway networks is related to the proportion of highway vehicle travel that is local, i.e., between adjacent communities, and regional, i.e., between more distant communities within western Riverside County. (2009 TUMF Nexus Study, page 40.) A future travel forecast estimate was conducted to determine the appropriate distribution of fees between networks. (*Id.*) Based upon the travel forecast estimates of the vehicle trips in 2035, 65.5% of the trips originating in the Central Zone will remain within the zone, and 12.6% of the trips starting in the Central Zone will be to the Northwest Zone. 12

These estimates do not comport with the travel distribution assumptions in the Draft EIR. As noted in Section 4.15.3.1 of the Draft EIR, 82% of the project's truck trips would be to the west on one or more freeways. Presumably, a substantial portion of these trips would be destined for the Ports of Long Beach and Los Angeles, which would require travel outside the Central Zone. (See Draft EIR page 4.7-43.) As a result, the traffic distribution assumptions used in the TUMF Nexus Study are inconsistent with the traffic distribution assumed in the Draft EIR. This inconsistency means that the payment of TUMF, which are specifically allocated between

[5] http://www.wrcog.cog.ca.us/downloads/TUMFNexusStudy(100210).pdf

zones, as well as the backbone and secondary network, is inadequate to mitigate the significant traffic impacts of the project.

While Riverside agrees that fees should be paid into the TUMF mitigation program, these fees should not be relied upon to reduce significant traffic impacts to less than significant. Furthermore, given the number of significant and unavoidable traffic impacts resulting from the project, as additional mitigation, the applicant should be required to pay Western Riverside Council of Governments ("WRCOG") for a reevaluation of the TUMF Nexus Study based upon the project's changed land use designations/zoning on approximately 4,000 acres. This reevaluation would allow the County to re-prioritize transportation improvement to better mitigate the significant and unavoidable traffic impacts where mitigation was deemed infeasible. 12

Noise

Construction and operational noise/vibration associated with the Proposed Project have the potential to significantly affect Riverside's Residents. Unwanted noise can interfere with our resident's enjoyment of the community, interfere with their businesses, result in sleep deprivation, and if sufficiently loud, can result in hearing loss. Riverside would like to ensure that all noise impacts have been adequately analyzed and mitigated, and, therefore, provides the comments below. 13

1. **Noise Significance Thresholds**

   a. **The Draft EIR Fails to Analyze Whether the Proposed Project Would Conflict with Other Jurisdictions' Noise Regulations**

The Draft EIR includes a significance threshold which states that "Exposure of persons to or generation of noise levels in excess of standards established in the City of Moreno Valley General Plan, Moreno Valley Municipal Code, or *applicable standards of other agencies*." (Emphasis added.) However, the associated text provides that "the applicable noise standards and guidelines governing the project are those specified previously in Sections 4.12.2.1 through 4.12.2.4." These referenced sections only include the City of Moreno Valley's noise standards and fail to address any of the noise standards from other agencies, such as the City of Riverside. (See City of Riverside Municipal Code, Title 7;[6] see also City of Riverside General Plan Noise Element.[7]) Section 4.12.6.2 of the Draft EIR acknowledges that there will be noise increases near sensitive receptor locations in the City of Riverside (e.g., see Canyon Crest Drive & Country Club Drive), the analysis, therefore, should have included a discussion of whether the project is consistent with those noise standards. 14

[6] http://riversideca.gov/municode/pdf/07/title-7.pdf

[7] http://www.riversideca.gov/planning/gp2025program/GP/11_Noise_Element.pdf

b. The Draft EIR Fails to Analyze Whether the Proposed Project's Traffic Noise Would Result in Sleep Disturbance and the Associated Physiological Effects and Annoyance

Roadway noise from truck and car trips was described as having a significant impact on sensitive receptors under the Community Noise Equivalent Level ("CNEL") metric. (See Draft EIR Section 4.12.6.2.) However, no noise analysis was provided to address whether this increase in nighttime noise level would result in sleep disturbance/deprivation or the associated physiological response/annoyance. (See *Berkeley Keep Jets Over the Bay v. Board of Port Commissioners* (2001) 91 Cal.App.4th 1344.) While the sleep disturbance analysis performed in *Berkeley Keep Jets* was related to aircraft noise, there is no reason to distinguish between the sources of the noise. While the original FICAN 1997 sleep awakening curve[8] was based upon aircraft noise, subsequent methodologies acknowledge that transportation noise can result in sleep disturbance. The more recent ANSI S12.9-200/Part 6 (2008)[9] sleep disturbance curve is based on 75 data points associated with awakening due to aircraft noise intrusions in bedrooms, and 16 data points for other transportation noise sources. 15

The Draft EIR's noise analysis provides no explanation why these late night truck/car trips would not disturb the sleep of sensitive receptors, despite the fact that the Draft EIR acknowledges that construction would occur 24 hours a day for nine years, and the project's operations would occur 24 hours a day. (Draft EIR page 4.12-32 and Appendix I, Figure 28.) The Draft EIR should be revised to provide an analysis which determines whether the project would have a significant impact related to sleep disturbance.

Air Quality

As the City is aware, the South Coast Air Basin is in "Extreme Nonattainment" for O_3 and "Serious Nonattainment" for PM_{10} under Federal Standards and in Nonattainment under State Standards for Ozone, PM_{10}, $PM_{2.5}$, NO_2. (Draft EIR Table 4.3.C.) The Draft EIR concludes that the Proposed Project would have significant and unavoidable impacts to Air Quality and would be inconsistent with the Air Quality Management Plan. These significant impacts will result in health effects to the citizens of Riverside, including the potential to result in respiratory illnesses, pulmonary dysfunction, cardiovascular disease, and premature death. (Draft EIR page 4.3-7 through 12.) Consequently, Riverside would like to see the Project's air quality impacts mitigated to the greatest extent feasible, and offers the recommendations provided below. 16

[8] See Federal Interagency Committee on Aviation Noise (FICAN), June 1997, Figure 1; available at: http://www.fican.org/pdf/Effects_AviationNoise_Sleep.pdf

[9] American National Standards Institute, Quantities and Procedures for Description and Measurement of Environmental Sound—Part 6: Methods for Estimation of Awakenings Associated with Outdoor Noise Events Heard in Homes.

2. Construction and Operational Mitigation Measures

a. Mitigation Measure MM 4.3.6.3C Should be Revised to Provide Alternative Fueling Stations at Each Individual Warehouse, and Constructed Concurrently With the Project's Impacts

MM 4.3.6.3C requires the establishment of onsite alternative fueling infrastructure (electric charging stations and/or natural gas fueling), which purportedly will help facilitate the use of low emissions trucks. The alternative fueling facility, however, need only be developed prior to the issuance of building permits for 25 million square feet of logistics warehouse.

This mitigation measure should be revised to require both electric charging stations and natural gas fueling. Currently, the project applicant has discretion to determine whether electric charging stations and/or natural gas fueling should be included. The mandatory inclusion of both electric charging stations and natural gas fueling would more effectively facilitate the use of low emissions trucks because it would provide trucking companies with the option of using either electric or natural gas trucks, thereby reducing the project's significant air quality impacts.

The timing of the development and placement of the alternative fueling facility is problematic. MM 4.3.6.3C provides that the facility must be "in place prior to the issuance of building permits for more than 25 million total square feet of logistic warehousing within the WLC Specific Plan." This trigger would allow development of a substantial portion of the project prior to the placement of the alternative fuel facility, especially given the plan to develop the project site in phases. However, the project's air quality impacts would be significant immediately, as shown in Draft EIR Table 4.3.W. The mitigation measure should be revised to require construction of alternative fueling facilities prior to the issuance of the first certificate of occupancy for the site. 17

The inclusion of a single alternative fueling facility within the 3,814 acre site, as currently proposed, would be ineffective at providing alternative fuel for many of the on-site operators. The mitigation measure should be revised to require alternative fueling facilities for *each individual* warehouse facility. Given the long periods of time required to recharge electric vehicles, providing on-site facilities would further encourage alternative fuel vehicles, as it would allow vehicles to be recharged while the vehicles are being unloaded. Given the comments in this and previous paragraphs above, this mitigation measure should be revised as follows:

> The 2012 Regional Transportation Plan includes a zero/near-zero emissions truck corridor along State Route 60. The WLC project shall provide for the establishment of onsite alternative fueling infrastructure (electric charging stations and~~/or~~ natural gas fueling) for each individual logistics warehouse facility, which will help facilitate the use of these low-emitting trucks. An alternative fueling facility to serve the WLCSP will be in place and operational prior to the issuance of the first certificate of occupancy ~~building~~

~~permits for more than 25 million total square feet of logistics warehousing~~ within the WLC Specific Plan. This facility may be on or offsite, subject to review and approval by the City. 17

Similar revisions are recommended for Mitigation Measure 4.3.6.3D, which requires on-site sale of food, fuel, and convenience items.

b. Mitigation Measure 4.3.6.2A Should be Revised to Require Tier 4 Construction Equipment at the Start of Project Construction

MM 4.3.6.3A(a) states that "Prior to the year 2017, off-road diesel-powered construction equipment greater than 50 horsepower shall meet or exceed United States Environmental Protection Agency (EPA) Tier 3 off-road emissions standards."

EPA Tier 4 emissions standards are currently being phased in between 2008 and 2015,[10] and thus a mitigation measure requiring the use of Tier 4 equipment before 2017 is feasible and should be incorporated into MM 4.3.6.2A. We, therefore, recommend deletion of subsection (a), and revisions to subsection (b) as follows: 18

> ~~In the year 2017 and thereafter,~~All off-road diesel-powered construction equipment greater than 50 horsepower shall implement one of the following: meet EPA Tier 4 emissions standards, meet EPA Tier 4 Interim emissions standards, or meet EPA Tier 3 standards with California Air Resources Board verified Level 3 filters to reduce 85 percent diesel particulate matter. If a good faith effort to rent Tier 4 equipment within 200 miles of project has been conducted but has been unsuccessful, then Tier 3 equipment (without filters) can be used. Written verification of the Tier 4 equipment search of three or more rental companies shall be provided by the project applicant to the City verifying the results of the search prior to the use of Tier 3 construction equipment.

Incorporation of this revised mitigation measure would reduce the project's significant air quality impacts which begin in the year 2013.

Biological Resources

Biological resources in the region are important to Riverside's residents. Diverse biological resources are an essential part of a healthy ecosystem. Riverside is committed to working with the County and adjacent cities to preserve, protect, and enhance open space and natural resources. (City of Riverside General Plan Policy OS-1.3.) The City is also committed to promoting open space and recreation resources as a key reason to live in Riverside. (Id. Policy OS-1.9.) Protecting biological resources and diversity in the region is key to achieving these commitments. Biological resources in the region, including, for example, resources within or 19

[10] http://www.gpo.gov/fdsys/pkg/FR-2004-06-29/pdf/04-11293.pdf (69 Fed. Reg. 38958 (June 29, 2004)).

reliant on the San Jacinto Wildlife area ("SJWA"), contribute to a natural aesthetic, and provide hunting, fishing, bird watching and recreation opportunities. The biological resources will be significantly compromised by the Proposed Project. 19

1. The DEIR Fails To Evaluate Potentially Significant Impacts to Birds that Will Result from Collisions

The DEIR fails to examine the project's impact to birds that would result from bird collisions with glass windows and reflective surfaces. The Specific Plan Design Guidelines indicate that onsite buildings will include [window] glazing, atriums, skylights and internal courtyards, thus ensuring that onsite development will include features known to pose hazards to birds. (Specific Plan Design Guidelines, Sec. 5.2.3.) While these are attractive design features, collisions with glass windows and other reflective building surfaces are a significant cause of bird mortality. Although bird mortality estimates vary widely, even at the low end of a published United States Fish and Wildlife Service ("USFWS") range the cumulative impact should be considered significant.[11] These estimates address bird mortality from building collisions on a national scale. The Draft EIR should be revised and recirculated to provide more information and analysis regarding bird collisions. Given the proximity to the SJWA (which "is recognized nationally and internationally for its bird population" DEIR p. 4.4-15), the Project's effects on bird collisions should not have been overlooked. In this revised analysis, particular attention should be paid to special status bird species, including species which meet the CEQA definition of endangered, rare or threatened. (See CEQA Guidelines §15380.) The proposed project's contribution to this cumulative impact should also be evaluated within an appropriate geographic scope, as described in greater detail below. The geographic scope of analysis for cumulative impacts to biological resources is inappropriately and arbitrarily restricted to the Multiple Species Habitat Conservation Plan ("MSHCP") area. 20

In addition to the Project itself, mitigation measure 4.12.6.2B, has the potential to result in significant bird mortality impacts. This measure, intended to reduce noise impacts at the closest residences within and adjacent to the WLCSP area, calls for removal of existing wrought iron fencing and replacement with a soundwall, specifically allowing that a glass barrier could be used to implement this measure.

Potential mitigation is available that would reduce this impact. Feasible mitigation for this impact includes requiring physical barriers that completely cover reflective surfaces and windows, uniform, patterned surface coverings, and potentially uniform coverings or

[11] USFWS estimates that building window strikes account for 97 to 976 million bird deaths each year. (http://www.fws.gov/birds/mortality-fact-sheet.pdf. See also Klem, D., Avian Mortality at Windows: The Second Largest Human Source of Bird Mortality on Earth, Proceedings of the Fourth International Partners in Flight Conference: Tundra to Tropics, pp. 244 – 251, also available from the USFWS at http://training.fws.gov/CSP/Resources/mig_birds/handouts/avian_mortality_at_windows.pdf.).

embedded patterns that are visible to birds, but not humans. (See Avian Mortality at Windows, supra, pp. 246 – 247 for discussion of potentially feasible mitigation.) 20

2. The DEIR Fails to Explain Why Compliance with Applicable Regulations is Adequate to Ensure that Impacts Would Be Less Than Significant

The Draft EIR relies upon regulatory compliance in several instances to reduce impacts to less than significant. (Draft EIR page, 4.4-80.) A determination that regulatory compliance will provide adequate mitigation must be based on a project specific analysis of potential impacts and the effect of regulatory compliance. (*Californians for Alternatives to Toxics v. Dept. of Food and Agriculture* (2005) 136 Cal.App.4th 1.) The DEIR fails to provide this analysis in multiple instances. The following examples illustrate some of these failures, as well as other flaws in the analyses.

a. Nesting birds 21

Mitigation for impacts to birds addresses only impacts to nesting birds, but does not address non-special status birds and does not ensure compliance with the migratory bird treaty act. (Mitigation Measures 4.4.6.4A and 4.4.6.4B.) Mitigation measure 4.4.6.4A relies on compliance with the Migratory Bird Treaty Act ("MBTA") and California Fish and Game code to reduce impacts to migratory and nesting birds to less than significant. However, the measure identifies circumstances under which no mitigation would be required, i.e., in the event "no special status avian species are identified within the limits of disturbance." This exception means that compliance with California Fish and Game Code and the MBTA is not ensured. The exception should be eliminated. Fish and Game Code Section 3503 prohibits "needless" destruction of any nest, and the MBTA protects all migratory bird species, including relatively common species. Destruction of an active nest during nesting season could result in an unpermitted "take" under the MBTA. (See USFWS MBPM-2 (April 15, 2003) Migratory Bird Permit Memorandum.)

3. The Draft EIR Inadequately Addresses Air Quality Impacts on Wildlife

The DEIR indicates that diesel particulates and toxic air contaminants would have a significant effect on wildlife, and notes that diesel particulate deposition may occur within approximately 1,000 feet of truck activities within the project. (Draft EIR page 4.4-70.) The analysis concludes that the 250-foot setback and the California Department of Fish and Wildlife ("CDFW") conservation buffer area will effectively mitigate potential indirect impacts of air pollutants, including diesel PM, on wildlife within the SJWA. This conclusion inappropriately attributes the entire CDFW conservation buffer area as mitigating the effects of diesel particulates on wildlife. However, as disclosed in (Draft EIR Section 4.4.1.5), wildlife will continue to use the CDFW conservation buffer area and thus the existence of a CDFW conservation buffer area, in and of itself, does not provide mitigation for this impact. In addition to the 250-foot development setback, additional mitigation should be considered, including restrictions on trucks and landscape plans that include trees or other vegetation to filter particulate matter. In 22

conjunction with the 250-foot setback, appropriate tree plantings (e.g., appropriate species, planting density) would help filter particulates that would otherwise disperse into the CDFW conservation buffer and the SJWA (in the absence of prevailing winds). Research conducted by UC Davis researchers indicates that the foliage characteristics of conifer species (needle shaped leaves, stickiness, and roughness) can effectively "capture" particulate matter. (http://dn.engr.ucdavis.edu/images/AQMit-Report5.pdf) 22

4. The Geographic Scope of the Cumulative Biological Resource Analysis is too Narrow

The geographic scope of analysis in Section 4.4.7 is inappropriately limited to the Western Riverside County MSHCP area. The project will affect a variety of biological resources that are not confined by the County's boundaries, let alone the MSHCP area within the County. The analysis should be revised to take into account related effects on these resources within a more appropriately defined geographic scope. For example, habitat loss as a result of development in adjacent jurisdictions will contribute to cumulative impacts to wildlife movement, and impacts to sensitive species that are also affected by this project. 23

<u>Greenhouse Gases and Climate Change</u>

Greenhouse gas (GHG") emissions have the potential to alter wind patterns, storms precipitation, and temperature. The secondary effects associated with GHG emissions have the potential to adversely affect Riverside's water supply, wildfire hazards, food supply, biodiversity, air quality. (Draft EIR page 4.7-5.) Consequently, Riverside would like to see the Project's climate change impacts mitigated to the greatest extent feasible, and offers the recommendations provided below. 24

1. The Draft EIR Should Incorporate Additional Mitigation Measures to Further Reduce the Project's Significant and Unavoidable Impacts to Greenhouse Gases and Climate Change

The Draft EIR concludes impacts to Greenhouse Gas Emissions ("GHG") and Climate Change would be significant and unavoidable. (Draft EIR Section 4.7.6.1 and 4.7.6.2.) Riverside believes additional feasible mitigation measures should be incorporated to further reduce this impact.

The transportation of potable water and the disposal of wastewater is a huge source of electricity demand, which the Draft EIR notes is a source of GHG emissions for the Proposed Project.[12] (Draft EIR Table 4.7.G) Therefore, to further reduce this significant impact, mitigation should be imposed requiring installation of waterless urinals in addition to low-flow fixtures provided under Mitigation Measure 4.16.1.6.1B rather than providing an option for installation of low water use urinals. The Proposed Project should also be required to install graywater systems for beneficial reuse of wastewater. 25

The Draft EIR also provides mitigation measures for "...solar ready building for possible PV facilities on project roofs." The Proposed Project should be required to install electricity

[12] http://www.epa.gov/region9/waterinfrastructure/waterenergy.html

generating photovoltaic panels on the roofs and parking lots for these facilities as well as solar panels on roofs to provide hot water, rather than just making the project "solar ready." Installation of PV panels in parking lots would also have the benefit of reducing radiation (heat) absorption, which is also a cause of climate change.[13] Similarly, the project should be required to install low radiation absorption pavements ("Cool Pavements") for the parking lots and other paved areas *with specific performance standards*.

The EPA notes that cool pavements would also have the added benefit of reducing aquatic wildlife impacts by reducing "thermal shock" of hotter runoff water and reducing "tire noise by two to eight decibels." (*Id.*) While the project description notes that "light colored pavements" would be installed, no specific performance standards have been incorporated into mitigation measure 4.16.4.6.1A; this measure should be revised to provide minimum standards for cool pavement solar absorption.

The Project should also be required to install LED Lights in exterior and interior fixtures rather than relying upon the option of installing "*high pressure sodium or* light-emitting diodes" (Draft EIR page 4.1-74; see also Mitigation Measure 4.16.4.6.1B.) Numerous Cities have installed exterior LED lighting, and interior LED lighting is readily available at the consumer level.[14] For example, the City of Los Angeles is currently replacing 140,000 streetlights with LED lighting.[15]

Given the large scale of the development, it is feasible for the developer to implement Ice Storage Air Conditioning ("ISAC") systems. This is one of the measures suggested by the California Attorney General's office,[16] and which is being implemented in large projects such as Los Angeles World Airport's Central Utility Plant which includes a 1.6 million gallon thermal-energy storage tank.[17] ISAC systems would allow the Proposed Project to generate and store ice at night with off-peak electricity that would otherwise have gone to waste,[18] thereby reducing peak hour electricity demand and its associated GHG and Air Quality emissions. 25

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[13] Climate Change is also caused by changes in ground cover which affect the absorption, scattering, and emission of radiation within the atmosphere and the Earth's surface. See Intergovernmental Panel on Climate Change, Climate Change 2007: The Physical Science Basis, page21.) The changes in ground cover associated with the Proposed Project were not taken into consideration in the Draft EIR's Climate Change analysis. IPCC Report available at: http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4_wg1_full_report.pdf

[14] http://www.usa.philips.com/c/led-light-bulbs/30033/cat/en/

[15] http://bsl.lacity.org/led.html

[16] http://ag.ca.gov/globalwarming/pdf/GW_mitigation_measures.pdf (See page 6.)

[17] http://www.lawa.org/uploadedFiles/LAXDev/News_for_LAXDev/Fact%20Sheet%20-%20CUP%20Replacement.pdf

[18] Many electrical generating facilities do not cease power generation during nighttime hours because of prolonged start up times. Consequently, use of off-peak electricity to generate stored air conditioning capacity allows the use of energy that may have otherwise gone to waste and precludes peak hour electricity demand, which, during summer heat waves, results in GHG and Air Quality emissions from Peaker Plants (quick start electrical facilities).

Mitigation Measure 4.16.4.6.1B should be revised to require installation of this technology, or to create a centralized thermal storage location to serve multiple warehouses. 25

Alternatives

1. The Draft EIR Uses Impermissible Factors in Determining the Environmentally Superior Alternative

One of the key factors in determining the environmentally superior alternative in the Draft EIR is whether the alternatives would "worsen [] the jobs/housing ratio" (Draft EIR page 6-44), this also happens to be one of the project objectives (Draft EIR page 6-3). While compliance with project objectives may be an appropriate ground for rejecting alternatives as infeasible, compliance with project objectives is inappropriate for determining the *environmentally* superior alternative. As discussed under CEQA Guidelines Section 15126.6(a), the purpose of the alternatives is to analyze alternatives which "avoid or substantially lessen any of the significant effects of the project," and compliance with project objectives is not a significant impact on the environment. By including compliance with project objectives as a factor for determining the environmentally superior alternative, the alternatives comparison is artificially skewed in favor of alternatives that most closely resemble the proposed project. The determination of the environmentally superior alternative should be revised, eliminating all discussion of the ability to meet project objectives. 26

The Draft EIR should be revised and recirculated consistent with the comments above and the comments from Riverside's Traffic Consultants Linscott, Law & Greenspan, Engineers. (Attachment 1.) Riverside looks forward to continued discussion and coordination with the City of Moreno Valley on this Project. 27

Very truly yours,

Steve Hayes, AICP
City Planner[19]

Attachments:

1. Additional Comments, on behalf of Riverside, from Linscott, Law & Greenspan, Engineers
2. Resumes of Linscott, Law & Greenspan, Engineers

[19] This comment letter was also prepared with the assistance and expertise of Steve Libring (City of Riverside, Traffic Engineer), Keil Maberry (Linscott, Law & Greenspan, Engineers, Principal), Dan Kloos (Linscott, Law & Greenspan, Engineers, Senior Transportation Engineer), Kristi Smith (City of Riverside, Supervising Deputy City Attorney), and The Sohagi Law Group, PLC.

CC:
William "Rusty" Bailey, III Mayor
Riverside City Council Members
Scott Barber, City Manager
Deanna Lorson, Assistant City Manager
Kristi J. Smith, Supervising Deputy City Attorney
Steve Libring, City Traffic Engineer
Al Zelinka, Community Development Director
Juan Perez, Riverside County, Director of Transportation
Anne Mayer, Riverside County Transportation Commission, Executive Director
Basem Muallem, District Director, California Department of Transportation, District 8

RESPONSES TO LETTER E-2A

City of Riverside

Response to Comment E-2A-1. The commenter has accurately described the project examined in the DEIR. Subsequent to circulation of the Draft Environmental Impact Report (DEIR), 100 acres was removed from the World Logistics Center Specific Plan (WLCSP) site which also removes 1 million square feet of high-cube logistics development of the proposed project. The revised DEIR document evaluates the impacts of the revised project, which are generally equivalent to those of the project evaluated in the DEIR. These changes will incrementally reduce overall impacts of the WLC project.

Response to Comment E-2A-2. The commenter expressed concern about the potential for cut-through traffic in the City of Riverside, particularly truck trips on Alessandro Blvd. and Van Buren Blvd.

The effects of project traffic in the City of Riverside have been fully analyzed in the Traffic Impact Analysis (TIA) and DEIR and appropriate mitigation measures have been identified. The Riverside County Traffic Analysis Model (RivTAM) model is sensitive to congestion so traffic is assigned to City arterials depending on the level of congestion on alternate routes. As such, the assessment appropriately accounts for impacts associated with cut-through trips.

In addition, it bears noting that in traffic engineering the term “cut-through traffic” refers to through traffic using a road that was intended to provide access to adjacent properties, such as traffic through a residential neighborhood that neither originates from nor is destined to a home there. Alessandro Blvd. and Van Buren Blvd are arterial streets whose primary purpose is to serve through traffic. To the extent that project traffic uses these roads, the roads would simply be used for their intended purpose. The Riverside County Transportation Commission (RCTC), of which the City is a member agency, has an adopted policy to encourage traffic to use the arterial network rather than place additional burdens on the freeways. Thus to the extent that project traffic uses the roads for these purposes it would be in accordance with the regional policy. Moreover, the City of Riverside already has the authority to place truck restrictions on streets within their City if they believe cut-through truck traffic to be an issue.

Response to Comment E-2A-3. The commenter asserts that the DEIR uses incorrect and inconsistent growth assumptions and includes other inaccurate information as detailed in the attachment to the comment letter. The responses to the attachment are detailed in Response to Letter E-2B.

Response to Comment E-2A-4. The commenter notes the TIA included use of a 2% per annum assumed growth rate for background traffic. The commenter asserts that the TIA’s use of the simple (i.e. not compounded) 2% growth rate understates traffic growth for 2017.

The TIA incorporated a 2% growth rate in traffic *in addition to* a separate incorporation of growth due to other known and foreseeable projects. Either of these growth assumptions would have been sufficient for the traffic analysis; including both assumptions was a deliberate step to ensure that the background traffic volumes are not underestimated. As a result, the TIA provides an over-estimate of the growth of background traffic.

In addition, in the TIA the 2017 scenarios have been eliminated because the project's construction schedule has been extended. The 2017 scenarios are no longer relevant to the analysis.

Response to Comment E-2A-5. It is the commenter’s opinion by analyzing the ambient peak hour rather than the peak hour for warehouses shown in DEIR Appendix L-1 TIA Figure 28 (now Figure 31

in FEIR Volume 2 Appendix L-1) the TIA is understating the project's impacts. The commenter states off-peak or 24-hour analysis periods should have been used.

The City agrees a large percentage of the project's traffic occurs during off-peak hours. This is a highly desirable feature for a major employer. However the purpose of the traffic analysis is to identify where plus-project traffic levels might necessitate roadway improvements by analyzing and mitigating impacts for the worst-case scenario. The worst-case scenario will occur either in the AM or PM ambient peak period, but not during off-peak hours. If sufficient capacity is provided for the worst-case traffic periods then the capacity will also be sufficient for all other off-peak hours. The TIA followed this established procedure in conformance with official guidance ranging from Transportation Research Board's (TRB) *Highway Capacity Manual* (Chapter 3) to the City of Riverside's own *Traffic Impact Analysis Preparation Guide* (pages 5, 12, 20). Because of the conservatively high trip-generation rate used in the WLC analysis, along with the fact that the peak of trip generation was assumed to occur simultaneous with the peak of background traffic, the assumptions in the WLC analysis are far more conservative (i.e. assume worse conditions) than the field data in the National Association of Industrial and Office Properties (NAIOP) survey suggests is likely to occur. As can be seen in Exhibit E-2A-1 from the TIA, copied below, the TIA assumed peak-hour trip-generation rates far higher than those found in the highest hours of the NAIOP study cited by the commenter.

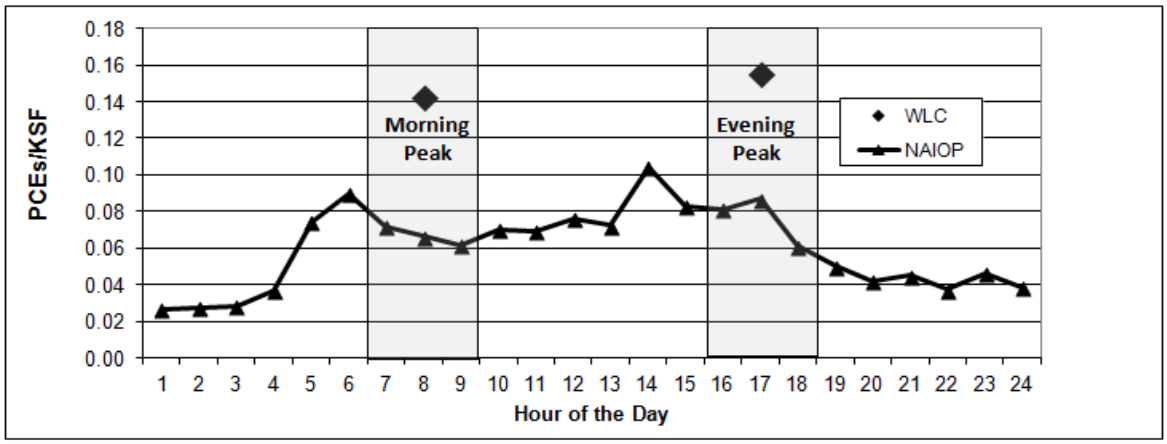

Exhibit E-2A-1: Time-of-Day Distribution, WLC Assumptions Compared to NAIOP

Besides roadway design, which was already addressed in the peak-hour analysis, the other purpose of the traffic forecasts was as an input into air quality analyses. The traffic data used for the air quality analysis covered both the peak periods and the full 24-hour period, as requested by the commenter.

Response to Comment E-2A-6. The commenter asserts that putting a ceiling value of 50 seconds on reported delay (i.e. values higher than that were reported as ">50") fails to disclose project impacts.

The TIA used the *Highway Capacity Manual* (HCM) methodologies to analyze traffic delay at intersections. This standard methodology is mandated in the traffic impact analysis guidelines for both the City of Moreno Valley and the City of Riverside. The HCM describes LOS "F" as "Intersection oversaturated; arrival rates exceed intersection capacity so queues build up." The methodology does not actually predict delays higher than 50 seconds for unsignalized intersections and 80 seconds for signalized intersections; it simply states the delays would be beyond those thresholds because at that point other things would start to occur such as re-routing and trip suppression. So when the TIA states that delay is ">50 seconds" it is correctly following the HCM procedure as required by both the Cities of Moreno Valley and Riverside. While the computational software will produce a numerical

estimate of delay beyond the 80 seconds limits, that number is sometimes meaningless, as the City's comment letter points out (page 6) for the single case where such an irrational number was inadvertently present in the report. However, in response to the comment the upper limit for reported delay for unsignalized intersections was revised from 50 seconds to 180 seconds.

Response to Comment E-2A-7. The commenter states that the TIA used an incorrect geographic scope in that the freeway analysis did not extend to the port and because certain sections of I-215 were not included in the analysis.

An additional section (Chapter 12, Section F) has been included in the TIA Final Environmental Impact Report (FEIR) Volume 2 Appendix L-1 that analyzes project impacts on freeways to the ports. The analysis found that less than 10% of WLC truck traffic would be to and from the ports. See Table E-2A-A in the revised TIA (FEIR Volume 2 Appendix L-1), repeated below.

Table E-2A.A: Percentage of WLC Trucks to or from the Port

Year	% of Warehouse Space Used for Port-Related Cargo	% of Truck Trips Going to and from the Ports
2012	5.00%	2.07%
2022	9.30%	3.86%
2035	16.30%	6.76%

No impacts were found that were not already covered in the TIA analysis. The segments of I-215 cited by the commenter were analyzed to determine if they met the threshold for further analysis. Tests using the Riverside County Traffic Analysis Model (RivTAM) model showed that this portion of I-215 did not meet the minimum threshold of 100 peak-hour trips and therefore it was not included for further analysis. This threshold was approved by the City of Moreno Valley based on Caltrans' guidelines. This portion of I-215 would attract few WLC trips because it is dominated by an alternate route that is 4.6 miles shorter (i.e., the travel distance from SR-60 at Perris Blvd to I-215 at Nuevo Rd is 14.6 miles using the SR-60/I-215 route but only 10.0 miles using Perris Blvd).

Response to Comment E-2A-8. The commenter states that the TIA failed to properly disclose the assumed future road improvements used in the cumulative analysis.

The TIA's assumptions regarding future roadway improvements are described in Chapter 2, Section A, the sub-section entitled "Network Assumptions." The assumptions were based on Southern California Association of Governments' (SCAG) approved Regional Transportation Plan (RTP) project lists, which include hundreds of projects, and which were included by reference. The document has been made available for public review.

Response to Comment E-2A-9. The commenter states that the DEIR failed to disclose the trip distribution assumptions and did not provide a map of truck routes. The commenter also states the analysis should take into account diversion of traffic away from congested routes.

The DEIR TIA in Appendix L-1 included Figure 25 (now Figure 28 FEIR Volume 2 Appendix L-1) and DEIR Appendix L-1 Figure 28 (now Figure 33 FEIR Volume 2 Appendix L-1) showing distribution of car and truck traffic, respectively. An additional figure (Figure 8) has been included in the TIA (FEIR Volume 2 Appendix L-1) showing the designated truck routes in and around Moreno Valley.

The TIA used the RivTAM model. The RivTAM model uses an iterative traffic assignment procedure whereby speeds and traffic volumes on each link are re-calculated several times with each new iteration taking into account any reductions in speed stemming from congestion in the previous

iteration. This is the accepted method for forecasting diversion of traffic due to congestion under future conditions.

Response to Comment E-2A-10. The commenter states the alternatives cannot be effectively evaluated because they do not provide enough information about traffic (trip generation and distribution) and do not show detailed impacts of each alternative on local streets, intersections, and freeways. The alternatives analysis in the DEIR did provide a comparison of trips generated by the various alternatives using the California Emissions Estimator Model (CalEEMod) air quality computer program developed by the South Coast Air Quality Management District (SCAQMD) which takes into account land uses such as those proposed in the proposed project as well as the project alternatives. The trip generation data provides an order of magnitude comparison of these "projects" at a programmatic level which is appropriate for the level of analysis in the DEIR. Table 6.G, DEIR page 6-19, indicates higher Average Vehicle Trips per Day (ADTs) for most of the alternatives. There is no requirement for a traffic study to be prepared for each alternative, or to provide detailed road or intersection impact data for each jurisdiction affected by project traffic, especially when such traffic would likely be much less than that estimated for the proposed project. California Environmental Quality Act (CEQA) specifically indicates the level of analysis for alternatives does not need to be at the same level as for the proposed project (State CEQA Guidelines Section 15168). Such detailed information is not necessary to be able to qualitatively compare the potential environmental impacts of the alternatives compared to the proposed project, including potential traffic impacts.

Response to Comment E-2A-11. The commenter questions why many of the mitigation measures identified in the TIA were deemed to be "infeasible", and requests that a concise list of mitigation measures be provided.

The mitigation measures were identified according to the City of Moreno Valley *Traffic Analysis Guidelines* and are fully described in Chapter 11 of the TIA. Improvements were deemed to be infeasible if they would (1) require the acquisition of existing homes or businesses; (2) result in excessive air, noise, or vibration impacts on existing homes, businesses, or sensitive natural environments, or (3) create safety impacts that could be considered less acceptable than a reduced traffic LOS. In cases where feasibility is uncertain the recommended improvement was treated as feasible in order to produce a conservative estimate of project responsibilities so the project's responsibilities would not be under-estimated.

Concise lists of mitigation measures were provided in TIA Tables 76 through 81 (renumbered as Tables 72 through 77 in the revised TIA contained in FEIR Volume 2 Appendix L-1) as well as text descriptions. The feasibility of each required measure was double-checked and a determination made based on the factors described above.

Response to Comment E-2A-12. The commenter questions the use of Transportation Uniform Mitigation Fee (TUMF) as a mitigation measure for cumulative impacts on TUMF-eligible facilities. The commenter describes the formula used to distribute TUMF funds and states that this formula is inappropriate for a project intended to serve the ports.

The comment is based on the incorrect premise that a high percentage of WLC traffic would be to and from the ports. An additional section (Chapter 12, Section F) has been included in the TIA that analyzes project truck traffic to the ports. The analysis found that only a small percentage of WLC truck traffic would be to and from the ports. See Table E-2A.B in the revised TIA (FEIR Volume 2 Appendix L-1), repeated below. This is based on SCAG survey data.

Table E-2A.B: Percentage of WLC Trucks to or from the Port

Year	% of Warehouse Space Used for Port-Related Cargo	% of Truck Trips Going to and from the Ports
2012	5.00%	2.07%
2022	9.30%	3.86%
2035	16.30%	6.76%

No impacts were found that were not already covered in the TIA analysis.

The TUMF Program was established as the mechanism for mitigating inter-jurisdictional impacts of development projects in western Riverside County. Regarding the distribution formula for TUMF funds, the City of Riverside freely agreed to this formula when they became a partner in the TUMF program. Any changes to the formula would have to come from the County and the partner Cities; a private entity cannot make changes to an approved multi-agency program. Please note the City of Moreno Valley has also committed itself to work with the City of Riverside to implement the mitigation measures that are not part of the TUMF program as described in Mitigation Measure (MM) Trans-5, Chapter 11, Section G of the TIA (FEIR Volume 2 Appendix L-1).

Response to Comment E-2A-13. This is a general comment on "construction and operational noise/vibration." The noise analysis contained in the EIR analyzes construction and operational noise and vibration impacts. Potential impacts are identified and mitigated when feasible.

Response to Comment E-2A-14. Due to the distance of the City of Riverside from the project site, the only potential noise impact to areas of Riverside would be from traffic generated by the project. The commenter raises the concern of whether the City's noise standards were addressed and specifically cites Riverside Municipal Code, Title 7 and also the Riverside General Plan Noise Element. The Municipal Code, Title 7, commonly referred to as the Noise Ordinance, has no relevance to project traffic passing through the city. The Noise Ordinance is designed to limit noise generated on one private-property parcel impacting a nearby parcel. The City has no jurisdiction for limiting noise on public roadways and therefore, the City of Riverside Noise Ordinance has no relevance to the project. The City of Riverside Noise Element was also reviewed; however, the Noise Element does not contain any specific standards or requirements for traffic noise on public roadways. The analysis used a City of Moreno Valley noise standard of 65 CNEL for residential development. The City of Riverside does present a Noise/Land Use Noise Compatibility Criteria matrix (Figure N-10 of the Element). This matrix, which is not a standard, but rather a guideline, shows noise levels above 65 CNEL as "normally unacceptable" for single family residential uses. In conclusion, the City of Riverside does not have any standards that relate directly to the project related impacts. The analysis has been conducted using significance thresholds which are consistent with guidelines contained in the City of Riverside Noise Element.

Response to Comment E-2A-15. As the commenter noted, the Berkeley case related to sleep disturbance caused by aircraft noise. Aircraft noise at night occurs less frequently but has a much higher peak noise level than does truck noise. Truck traffic events generally occur more frequently and are much quieter than aircraft noise events. For Berkeley, the only aircraft noise was associated with the Oakland International Airport. For this project there is already truck traffic occurring on all of the public roadways involved, so this is not a new source of noise or a unique source of noise. As stated in the comment, the FICAN[22] curve is based on aircraft noise, not truck noise. Its relevance to

[22] The Federal Interagency Committee on Aviation Noise (FICAN) 1997 curve "represents the upper limit of the observed field data, and should be interpreted as predicting the "maximum percent of the exposed population expected to be

this project is questionable. Additionally, the FICAN curves present the percentage of sleep disturbance that occur with an aircraft noise event of a given loudness. Since trucks are already traveling on the public roadways, the FICAN curves are useless because the noise levels that will occur with a truck pass-by and cause a single noise event will not change from what is already occurring.

Response to Comment E-2A-16. The City of Riverside summarizes the findings in the DEIR. Refer to the revised air quality analysis; the construction and operational emissions have been revised. Please refer to Master Responses in Response to Comment Letter C-3.

The City of Riverside would like to see the Project's air quality impacts mitigated. Please see the FEIR Mitigation Monitoring Reporting Program for a list of the project's mitigation measures. Refer to the response to comments that follow.

Response to Comment E-2A-17. The City of Riverside suggests the following mitigation measure.

Suggested Mitigation Measure	Response
MM 4.3.6.3C should be revised to provide alternative fueling stations at each individual warehouse and constructed concurrently with the buildings.	**Partially Included.** The alternative fueling station will be added in Phase 1; however, there is not anticipated to be enough demand to necessitate alternative fueling stations at each building. However, MM 4.3.6.4A requires electric charging at each building. The developer will work with an alternative fuel provider and will install the station in as soon as they determine it is feasible, but no later than end of Phase 1.

Response to Comment E-2A-18. The City of Riverside suggests the following mitigation measure.

Suggested Mitigation Measure	Response
MM 4.3.6.2A should be revised to require Tier 4 construction equipment at the start of project construction.	**Partially Included.** MM 4.3.6.2A has been refined to require that the project use Tier 4 construction equipment.

Response to Comment E-2A-19. The Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) was designed to consolidate areas of the Western Riverside County into core conservation areas where a viable community of all wildlife and plants, including sensitive species, could exist in a "natural" environment. As a result of this process multiple area were designated as targets for conservation through the establishment of 160-acre Criteria Cells in a variety of habitats. This was done to protect the 147 sensitive species covered under the MSHCP. It also provides coverage for numerous other species.

Not all lands were selected to be a part of the core conservation areas and not all lands are contained within criteria cells, but all lands developed in western Riverside County are subject to MSHCP requirements, generally through development fees. The World Logistics Center Specific Plan (WLCSP) lands, in general, were not selected for conservation, but rather are subject to the development fees. The project proponent has acknowledged those obligations and the funds derived from the MSHCP fees will be utilized to acquire lands designated for conservation.

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behaviorally awakened", or the "maximum % awakened" for a given residential population." http://www.fican.org/pdf/Effects_AviationNoise_Sleep.pdf

Most of the WLCSP 2,610 acres is either agricultural (2,257 (see FEIR Volume 2 Appendix C-2, Agricultural Resources Assessment)); non-native grassland (219); urban developed (92); or disturbed (48). Conservation of these lands, while possible, would not contribute to the conservation efforts associated with the MSHCP. An updated Draft Habitat Assessment, MSHCP Consistency Analysis and HANS Review (FCS-MBA 2013 FEIR Volume 2 Appendix E-1) (hereafter MSHCP Consistency Analysis) was prepared to document current site conditions and evaluate the loss of biological resources based on CEQA and MSHCP requirements.

Response to Comment E-2A-20. The potential for birds striking buildings is real and would result in an adverse, but less than significant impact with regard to common avian species. There are several project design features incorporated in the general concept of the WLCSP that will reduce the potential for bird strikes. Section 4.1.6.1 of the DEIR spells out building heights for the entire Specific Plan. The highest buildings would be no more than 80 feet tall, with "perimeter" buildings along the west north and south perimeters a maximum of 60 feet tall. These design features are specifically for aesthetic reasons, but also provide a gradual transition from open space areas and should allow for birds to acclimate to buildings both through the transition from shorter to taller buildings, but also through the gradual construction of facilities over a 15-year period.

Bird strikes associated with sensitive avian species, such as golden eagle and Cooper's hawk, may be a potentially significant impact that requires mitigation. Mitigation for impacts to sensitive avian species that potentially occur within the WLCSP is covered under the MSHCP. MMs 4.4.6.1A-B, 4.4.6.2A-B, 4.4.6.3A-C, and 4.4.6.4A-I will reduce the project related impacts to a level less than significant.

Response to Comment E-2A-21. The following mitigation measure is in place with regard to the protection of nesting birds as regulated by the Migratory Bird Treaty Act and California Fish and Game Code (Section 3503 and Section 3511). A more detailed description of these regulations can be found on Page 2 of Appendix G within the Habitat Assessment and MSHCP Consistency Analysis (FCS 2013 FEIR Volume 2 Appendix E-1).

In addition, MM 4.4.6.4A and revised 4.4.6.4B of the DEIR expand on the BIO-1 measure in the MSHCP Consistency Report. These two DEIR measures state:

4.4.6.4A Pursuant to the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code (CFGC), site preparation activities (removal of trees and vegetation) shall be avoided during the nesting season of potentially occurring native and migratory bird species (generally February 1 to August 31). If site preparation activities must occur during the nesting season, a pre-activity field survey shall be conducted by a qualified biologist prior to issuance of grading permits for such development. The survey shall determine if active nests of species protected by the ~~MBTA~~Migratory Bird Treaty Act or ~~CFGC~~ California Fish and Game Code are present in the construction zone. If active nests of these species are found, the developer shall establish an appropriate buffer zone with no grading or heavy equipment activity within of 500 feet from an active listed species or raptor nest, 300 feet from other sensitive or protected bird nests (non-listed), 250 feet from passerine birds, or 100 feet for sensitive or protected songbird nests. All construction activity within the vicinity of active nests must be conducted in the presence of a qualified biological monitor. Construction activity may encroach into the buffer area at the discretion of the biological monitor in consultation with CDFW. In the event no special status avian species are identified within the limits of disturbance, no further mitigation is required. In the event such species are identified within the limits of ground disturbance, ~~Mitigation Measure~~mitigation measure 4.4.6.4B shall also apply. This measure shall be implemented to the satisfaction of the City Planning Division.

4.4.6.4B If it is determined that project-related grading or construction will affect nesting ~~special status avian~~migratory bird species, no grading or heavy equipment activity shall take place within the limits established in Mitigation Measure 4.4.6.4A until it has been determined by a qualified biologist that the nest/burrow is no longer active, and all juveniles have fledged the nest/burrow. This measure shall be implemented to the satisfaction of the City Planning Division.

Response to Comment E-2A-22. See Response to Comment G-69-2.

Response to Comment E-2A-23. The geographic scope of analysis in the EIR was not specifically associated with the MSHCP area or limited by the County boundaries. In fact, the MSHCP area contains a far greater area than the area affected by the WLCSP. The Badlands Area to the north and east of the WLCSP provides a significant physical barrier that provides a distinct geographic boundary that limits both direct and indirect project related impacts to areas further east. In addition, the existing residential development to the west also provides a significant barrier to both direct and indirect project related impacts to areas further west. Mount Russell provides a physical barrier along a portion of the southern WLCSP boundary. The rest of the southern boundary is adjacent to extensive agricultural lands extending up to 4,500 linear feet south of the WLCSP boundary. This is a sufficient distance that no direct or indirect impacts will affect habitat beyond the 4,500-linear foot area. It is for this reason that the area assessed within the DEIR is reasonable and sufficient to determine project related direct, indirect, and cumulative impacts.

Habitat loss as a result of the proposed development is not anticipated to occur within adjacent jurisdictions and therefore will not contribute to cumulative impacts to wildlife movement and sensitive plant and wildlife species. will be mitigated through The following mitigation measures are required under the City of Moreno Valley's General Plan to reduce project-related impacts to a level less than significant:

1. Private development projects within the City shall comply with the Long-term HCP for the Stephens' Kangaroo Rat (see DEIR Section 4.4.6.2a)
2. Private development projects shall comply with the Western Riverside County Multi-Species Habitat Conservation Plan (MSHCP) (DEIR Section 4.4.6.2b) and the associated state and federal permits (MMs 4.4.6.3A and 4.4.6.3B).
3. Where feasible, projects shall be designed to minimize impacts on sensitive habitat (MMs 4.4.6.2A and 4.4.6.2B).
4. Prior to physical disturbance of any natural drainage course or wetland determined to contain riparian vegetation or otherwise qualify as a "jurisdictional" wetland or Non-wetland Water of the U.S., the applicant shall obtain a Streambed Alteration Agreement and/or permit, or written waiver of the requirement for such an agreement or permit, from all resource agencies with jurisdiction over such areas California Department of Fish and Game and U.S. Army Corps of Engineers (CDFG and ACOE) (MMs 4.4.6.3A and 4.4.6.3B).

Response to Comment E-2A-24. The City of Riverside would like to see more greenhouse gas mitigation measures incorporated, as discussed in the comments that follow and as shown in the following mitigation measure.

4.16.1.6.1B ~~Prior to issuance of any building permit for development within the WLCSP, the developer~~ All buildings shall ~~submit building plans that demonstrate the project~~ ~~has~~ include water-efficient design features outlined in Section 4.0 of the ~~WLCSP~~ ~~including~~ World Logistics Center Specific Plan. This measure shall be implemented to the satisfaction of the Land Development Division/Public Works. These design features

shall include, but not be limited to the following:

- Instantaneous (flash) or solar water heaters;
- Automatic on and off water facets;
- Water-efficient appliances;
- Low-flow fittings, fixtures and equipment;
- Use of high efficiency toilets (1.28 gallons per flush [gpf] or less);
- Use of waterless or very low water use urinals (0.0 gpf to 0.25 gpf);
- Use of self-closing valves for drinking fountains;
- Infrared sensors on drinking fountains, sinks, toilets and urinals;
- Low-flow showerheads;
- Water-efficient ice machines, dishwashers, clothes washers, and other water-using appliances;
- Cooling tower recirculating system where applicable;
- Provide information to the public in conspicuous places regarding indoor water conservation; and
- Use of reclaimed water for wash down if it becomes available.

Response to Comment E-2A-25. The City of Riverside suggests the following mitigation measures.

Suggested Mitigation Measure	Response
Require the installation of waterless urinals in addition to low-flow fixtures provided under MM 4.16.1.6.1B rather than providing an option for installation of low water urinals.	**Incorporated.** MM 4.16.1.6.1B has been edited to require waterless urinals as follows: **4.16.1.6.1B** ~~Prior to issuance of any building permit for development within the WLCSP, the developer~~ All buildings shall ~~submit building plans that demonstrate the project has~~ include water-efficient design features outlined in Section 4.0 of the ~~WLCSP including~~ World Logistics Center Specific Plan. This measure shall be implemented to the satisfaction of the Land Development Division/Public Works. These design features shall include, but not be limited to the following: • Instantaneous (flash) or solar water heaters; • Automatic on and off water facets; • Water-efficient appliances; • Low-flow fittings, fixtures and equipment; • Use of high efficiency toilets (1.28 gallons per flush [gpf] or less); • Use of waterless or very low water use urinals (0.0 gpf to 0.25 gpf);

Suggested Mitigation Measure	Response
	• Use of self-closing valves for drinking fountains; • Infrared sensors on drinking fountains, sinks, toilets and urinals; • Low-flow showerheads; • Water-efficient ice machines, dishwashers, clothes washers, and other water-using appliances; • Cooling tower recirculating system where applicable; • Provide information to the public in conspicuous places regarding indoor water conservation; and • Use of reclaimed water for wash down if it becomes available.
Install graywater systems for reuse of wastewater.	**Not Incorporated.** The project would only use minimal indoor water usage. Graywater would not be feasible for the types of water usage anticipated for the project. In addition, the Eastern Municipal Water District (EMWD) and the County Health Department prohibit graywater discharge from industrial uses.
Install electricity generating photovoltaic panels on roofs.	**Incorporated.** The project is incorporating solar as MM 4.16.4.6.1C.
Install photovoltaic panels on parking lots, which would also reduce heat absorption.	**Not Incorporated.** The project is now proposing to install roof-mounted PV (see MM 4.16.4.6.1C) As a result, requiring the installation of PV on parking lots is unnecessary. In addition, the project would use cool pavements in all areas feasible (see MM 4.16.4.6.1A).
The project should install solar hot water heaters.	**Already Included.** Instantaneous or solar water heaters are required as part of MM 4.16.1.6.1B.
The project should install low radiation absorption pavements (cool pavements) for the parking lots and other paved areas with specific performance standards. (Revise MM 4.16.4.6.1A)	**Partially Included.** Cool pavements would be used throughout the project where feasible (see MM 4.16.4.6.1A). However, there are currently no specific performance standards for cool pavements; therefore, it is not feasible to specify standards. Source: U.S. Environmental Protection Agency. Reducing Urban Heat Islands: Compendium of Strategies, Cool Pavements. Website: www.epa.gov/hiri/resources/pdf/CoolPavesCompendium.pdf. Accessed November 11, 2013.
The project should install LED lights in exterior and interior fixtures rather than relying upon the option of installing “high pressure sodium or light-emitting diodes” (DEIR page 4.1-74 and MM 4.16.4.6.1B).	**Incorporated.** MM 4.16.4.6.1B has been revised to include this suggestion.
Implement Ice Storage Air Conditioning (ISAC) systems to generate and store ice at night with off-peak electricity. Alternatively, create a centralized thermal storage location to serve multiple warehouses. (Revise MM 4.16.4.6.1B)	**Not Included.** It is understood that co-generation is widely used on large campus single owner parcels to distribute power and provide heating and cooling opportunities for all buildings. This option has been reviewed during the DEIR process and while it may also be used on similar projects outside of California, currently the state does not allow private cogeneration systems such as this to cross Public right of way to serve individual property owners (California Public Utilities

Suggested Mitigation Measure	Response
	Code (CPUC) Section 218). The CPUC self-generation incentive program is available for all future buildings in the WLC if the gas company continues to offer it. It cannot be guaranteed at this stage of development. The appropriate means of conserving natural resources such as natural gas will be determined when a project specific plot plan is processed and details of the specific building proposals are known. With regard to ice storage air conditioning (ISAC) systems specifically, the proposed mitigation is unnecessary. The goal of ISAC systems is to reduce afternoon peak demand from the electrical grid by shifting electrical demand to the late evening hours when electrical demand drops significantly. However, as part of the MM 4.16.4.6.1C, a roof-based photovoltaic solar system will be deployed for each building to meet the electrical demand for office use. Since the office is the only portion of the warehouse that will be equipped with air-conditioning, the solar panels will provide all the necessary power for air conditioning, eliminating the need to shift the load. In addition, as described in Section 4.7 Greenhouse Gases and Master Response-1, there is no significant impact with regard to GHG that require further mitigation.

Response to Comment E-2-26. The issue of jobs/housing balance was looked at in two ways for the alternatives analysis, because this is a critical focus of Western Riverside Council of Governments (WRCOG) and SCAG to encourage jobs in housing rich areas and housing in jobs rich areas to ultimately result in a better balance of commuter traffic and less congestion on area roadways. It is reasonable to look at a project's influence on local and regional jobs/housing balance, especially for large projects that may introduce thousands of new homes or jobs into a community. Certainly an important project objective is to create new jobs for the City of Moreno Valley and surrounding areas, but one major reason is that local workers now have to commute long distances because Moreno Valley is a housing rich/jobs poor area. The WLC project has the potential to substantially improve the City's jobs/housing ratio which is a City as well as a regional goal. Therefore, it is one appropriate environmental "yardstick" against which to measure the project as part of the alternatives analysis.

Response to Comment E-2-27. The City evaluated the many comments received on the DEIR. This FEIR provides additional information, mainly in the form of responding to the many questions and comments received on the DEIR. However, the changes to the DEIR included do not constitute "significant" new information because:

1. No new significant environmental impact would result from the project or from a new mitigation measure;
2. There is no substantial increase in the severity of an environmental impact that would result unless mitigation measures are adopted that reduce the identified significant impacts to a level of insignificance;
3. No feasible project alternative or mitigation measure considerably different from others previously analyzed has been proposed or identified that would clearly lessen the significant environmental impacts of the project; and
4. The DEIR is not fundamentally or basically inadequate or conclusory in nature such that meaningful public review and comment were precluded.

Therefore, this additional information does not rise to the level of significant new information, nor does it identify any new or substantially different significant environmental impacts from those identified in the DEIR.

Letter E-2B: City of Riverside (April 8, 2013) and Appendix 1 (On Flash Drive)

Attachment 1

Letter E-2B

MEMORANDUM

To:	Mr. Steve Hayes City of Riverside	Date:	April 7, 2013
From:	Keil D. Maberry, P.E. KDM Daniel A. Kloos, P.E. DAK LLG Engineers	LLG Ref:	2.13.3364.1
Subject:	TIA Peer Review The World Logistics Center Traffic Study, Moreno Valley		

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As requested, Linscott, Law & Greenspan, Engineers (LLG) is pleased to provide our peer review comments on *The World Logistics Center Traffic Impact Analysis Report*, prepared by Parsons Brinckerhoff, dated January 2013. As we understand it, The World Logistics Center Project is a plan for the development of modern high-cube logistics warehouse distribution facilities on approximately 3,814 acres of land in the City of Moreno Valley, California. The following summarizes our comments on the traffic study for your consideration.

General Comment

As it relates to the potential traffic impact of the proposed World Logistics Center on the City of Riverside, it is our finding that the traffic impacts primarily consist of two components; 1) employment-based traffic [approximately 25,000 potential auto trips per day (round trips) through the City via the freeway and arterial network] that will utilize the arterial network through the City of Riverside, and 2) truck-based traffic [approximately 12,000 truck trips per day (round trips)] that will utilize the adjacent SR-91/I-215 Freeway through the City of Riverside. As a result, it is imperative that the traffic impact analysis for WLC adequately analyze and provide tangible mitigation measures that will provide corridor-wide benefits for both employees and trucks. 1

Inadequate Transportation Assumptions

- It is not clear how and when the traffic analysis considered the Mid County Parkway project as a future transportation improvement. 2

- Draft EIR Appendix I (Traffic Impact Analysis Report – January 2013): Figure 3 on Page 6 – Cumulative Projects. From review of this figure, the traffic study did not include Gless Ranch Center in the cumulative background traffic setting. Gless Ranch Center is a 420,000 square foot (SF) shopping center located on the southwest quadrant of Van Buren Boulevard and Barton Street in the City of Riverside. Gless Ranch Center is forecast to generate approximately 12,945 daily trips, 325 AM peak hour trips and 1,231 PM peak hour trips. This project is anticipated to generate more than 50 project trips during the PM peak hour at several intersections that are also key study intersections analyzed for The World Logistics Center Project. These common key study intersections include the following City of Riverside locations: 3

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- No. 79 – Trautwein Road at Alessandro Boulevard
- No. 95 – Alessandro Boulevard at Arlington Avenue/Chicago Avenue
- No. 96 – Alessandro Boulevard at Century Avenue
- No. 97 – Alessandro Boulevard at Via Vista Drive
- No. 98 – Alessandro Boulevard at Canyon Crest Drive

Failing to include Gless Ranch Center in the cumulative background setting may understate the impacts of The World Logistics Center Project. An explanation as to why this cumulative project was not included. 3

- Draft EIR Appendix I (Traffic Impact Analysis Report – January 2013): Tables 1, 2 and 3 on Pages 7-9 – Cumulative Projects. Cumulative Project numbers 10, 14, 15, 23 and 81 are missing from the tables. However, some of these numbers are shown in Figure 3 (i.e. #14 and #15). Please clarify. 4

- Draft EIR Appendix I (Traffic Impact Analysis Report – January 2013): Page 10 – Roadway Network Assumptions. Please clarify whether or not the "financially constrained project list improvements" are fully funded. The TIA should also be updated to clearly state which planned improvements are included in the analysis (i.e. intersection location, type of improvement, funding source and timing of improvement). 5

- Draft EIR Appendix I (Traffic Impact Analysis Report – January 2013): Page 27 – Traffic Counts. A quick comparison of the existing traffic count data for the intersection of Alessandro Boulevard at Arlington Avenue/Chicago Avenue indicates that the traffic counts utilized in The World Logistics Center are significantly lower for this location than what was utilized in the Gless Ranch Center TIA. As shown in Table 1, the total intersection AM peak hour volumes and PM peak hour volumes utilized in the World Logistics Center TIA for this location are approximately 5% lower in the AM peak hour and 20% lower in the PM peak hour than the volumes utilized in the Gless Ranch Center TIA. 6

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TABLE 1
TRAFFIC COUNT COMPARISON

Key Study Intersection: Alessandro Boulevard at Arlington Avenue/Chicago Avenue				
	AM Peak Hour		PM Peak Hour	
Movements	Dec. 2011 WLC TIA	Nov. 2010 Gless Ranch TIA	Dec. 2011 WLC TIA	Nov. 2010 Gless Ranch TIA
NBL	1,153	1,414	608	1,066
NBT	1,566	1,559	748	872
NBR	435	276	158	156
SBL	178	213	386	546
SBT	428	421	1,467	1,462
SBR	22	34	24	14
EBL	35	41	33	26
EBT	449	592	566	855
EBR	575	675	1,022	1,037
WBL	118	107	467	593
WBT	567	582	663	775
WBR	229	186	311	306
Total	**5,755**	**6,100**	**6,453**	**7,708**

6

- Draft EIR Appendix I (Traffic Impact Analysis Report – January 2013): Page 78, Table 24. More detail needs to be provided in Table 24 so the Phase I and Phase II project trip generations can be verified. It is not clear as to how the PCE factors were applied to each proposed project land use (Phase I or Phase II). 7

- Draft EIR Appendix I (Traffic Impact Analysis Report – January 2013): Pages 79 and 81 – Project Trip Distribution. Figures should be added to the report showing the detailed project trip distribution patterns for passenger cars and trucks. These figures need to be provided so the project assignment to the key study intersections and/or freeway segments can be verified. 8

- Draft EIR Appendix I (Traffic Impact Analysis Report – January 2013): Pages 277-279, Figure 35. Comparing the lane geometrics assumed in the Year 2035 No-Project traffic condition to existing traffic conditions indicates that 9

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intersection improvements have been assumed to be completed by the Year 2035 at the following City of Riverside locations.

- Arlington Avenue at Horace Street (#93) – A 3rd eastbound and 3rd westbound through lane has been included at this location. Only two eastbound and two westbound through lanes currently exist at this location.
- Arlington Avenue at Victoria Avenue (#94) – A 3rd eastbound and 3rd westbound through lane has been included at this location. Only two eastbound and two westbound through lanes currently exist at this location.
- Alessandro Boulevard at Chicago Avenue (#95) – A 3rd eastbound through lane has been included at this location. Only two eastbound through lanes currently exist at this location.

9

The traffic study needs to be revised accordingly to clearly indicate the funding source for these improvements. Only improvements that are fully funded should be considered and utilized.

10

- Draft EIR Appendix I (Traffic Impact Analysis Report – January 2013): Pages 310-312, Figure 36. Comparing the lane geometrics assumed in the Year 2035 Plus-Project traffic condition to existing traffic conditions indicates that intersection improvements have been assumed to be completed by the Year 2035 at the following City of Riverside locations.

  - Arlington Avenue at Horace Street (#93) – A 3rd eastbound and 3rd westbound through lane has been included at this location. Only two eastbound and two westbound through lanes currently exist at this location.
  - Arlington Avenue at Victoria Avenue (#94) – A 3rd eastbound and 3rd westbound through lane has been included at this location. Only two eastbound and two westbound through lanes currently exist at this location.
  - Alessandro Boulevard at Chicago Avenue (#95) – A 3rd eastbound through lane has been included at this location. Only two eastbound through lanes currently exist at this location.

11

The traffic study needs to be revised accordingly to clearly indicate the funding source for these improvements. Only improvements that are fully funded should be considered and utilized.

12

- The traffic impact analysis does not include a daily roadway segment analysis, which is recommended for this project considering that the AM and PM peak hours only consist of 13.7% of the project's daily traffic generation forecast. Furthermore, since it is likely that east-west traffic will be diverted from the SR-60/I-215 onto parallel arterials in the City of Riverside, it is recommended that

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Martin Luther King Boulevard and Van Buren Boulevard be included in the ADT analysis. Should the analysis reveal significant traffic impacts, appropriate mitigation measures should be identified, such as contributions to the City of Riverside's Traffic Signal Mitigation Fee program. In addition, given that 86.3% of the project's traffic generation occurs outside the typical AM and PM peak hours and has not been analyzed in combination with the fact that the project will be the single largest trip generator in the City of Moreno Valley, it is recommended that the *Peak Hour of Generator* also be analyzed. 13

Inadequate Geographic Scope

- Draft EIR Appendix I (Traffic Impact Analysis Report – January 2013): Page 2, Footnote #1. The report states that very little traffic associated with the proposed Project would utilize the section of the I-215 Freeway between the SR-60 Freeway and Perris Boulevard because of freeway congestion. The report also states that due to this congestion that project traffic will utilize surface street routes. The TIA needs to state how many project trips may utilize this section of freeway, so an appropriate fair-share contribution can be calculated and contributed by the World Logistics Center Project for future improvements. 14

- Given the forecast auto traffic volume that will traverse through the City of Riverside and surrounding communities, combined with the proposed Cajalco Road Improvement Project that will attract east-west regional traffic, Cajalco Road should be included in the analysis. Should the analysis reveal significant traffic impacts, appropriate mitigation measures should be identified. 15

Inadequate Mitigation Measures

- Draft EIR Appendix I (Traffic Impact Analysis Report – January 2013): Section 12 Mitigation Measures - It is not clear why the mitigation measures for the cumulative condition only recognizes the Year 2035 condition and not the Year 2017 and Year 2022 cumulative conditions. This may reduce the potential mitigation measures that would be recommended if the interim year condition(s) can be mitigated, but not the Year 2035 condition. 16

- Draft EIR Appendix I (Traffic Impact Analysis Report – January 2013): Tables 77 - The recommended mitigation measure for Intersection No. 95 (Alessandro Boulevard at Arlington Avenue/Chicago Avenue) is feasible. The EBR turn lane can be physically accommodated without significantly affecting any residential property. In addition, there are alternate feasible mitigation measures that could be considered, such as a 3rd Northbound Left ("NBL") and/or a 3rd Westbound Left ("WBL"). 17

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- Draft EIR Appendix I (Traffic Impact Analysis Report – January 2013) - The mitigation measures identified in Table 80 for Intersections Nos. 94 and 95 do not match the recommended mitigation measures in Table 69. 18

- Draft EIR Appendix I (Traffic Impact Analysis Report – January 2013): Table 80 - While implementation of all recommended mitigation measure for Intersection No. 95 (Alessandro Boulevard at Arlington Avenue/Chicago Avenue) may not be feasible, there are additional feasible mitigation measures that could be considered, such as a 3rd NBL, 3rd WBL or 3rd Westbound Through ("WBT") and 3rd Eastbound Through ("EBT") or 3rd Eastbound Right ("EBR"). These improvements may mitigate the Year 2017 and/or Year 2022 condition. 19

- Fundamentally, the addition of approximately 12,000 truck trips (not PCE trips) per day to the I-215/SR-60 Freeway through the City of Riverside necessitates the addition of a corridor wide lane improvement to mitigate the impact on auto traffic similar to the traffic conditions on the I-710 Freeway in South Los Angeles County. 20

- Draft EIR Appendix I (Traffic Impact Analysis Report – January 2013): Table 78 – Direct Impacts to Freeways and Mitigation: Freeway segment Nos. F-24, F-27, F-42, W-21, W-22, W23, and W-25, which are identified as not feasible, are feasible based on our review of existing conditions in the field. In addition, consideration should be given to the installation of ramp metering along the SR-60/I-215 Freeway corridor as freeway mitigation, which can provide significant benefit to the freeway mainline operation. 21

- Draft EIR Appendix I (Traffic Impact Analysis Report – January 2013): Table 81 – Direct Impacts to Freeways and Mitigation: Freeway segment Nos. F-19, F-46, F-42, F-49, W-21, W-22, and W-25 EB SR-60, which are identified as not feasible, are feasible based on our review of existing conditions in the field. In addition, consideration should be given to the installation of ramp metering along the SR-60/I-215 Freeway corridor as freeway mitigation, which can provide significant benefit to the freeway mainline operation. 22

- In light of the repeated infeasibility claims throughout the report regarding the addition of the recommended mitigation measure to provide a mixed-flow lane on the SR-60/I-215 and SR-91 Freeways, it is recommended that a mitigation measure be included that would require the Project to fund a Project Study Report (PSR) and Project Report (PR) through the Riverside County Transportation Commission (RCTC), with the City of Riverside included in the process, to develop an improvement project to add one mixed-flow lane and/or special truck lane in each direction on SR-60/I-215 Freeway between the I-15 Freeway and Gilman Springs Road as well as on the SR-91 Freeway between the SR-60/I-215 and the I-15 Freeway. 23

RESPONSES TO LETTER E-2B

City of Riverside

Response to Comment E-2B-1. The commenter asserts that the project would generate approximately 25,000 potential round-trip auto trips and 12,000 truck round trips per day through the City (of Riverside).

The commenter seems to claim that virtually all of the traffic generated by the World Logistics Center (WLC) will pass through the City of Riverside. This is incorrect. The Draft Environmental Impact Report (DEIR) Traffic Impact Analysis (TIA) in Appendix L-1 included Figure 25 (now Figure 28 FEIR Volume 2 Appendix L-1) showing that less than half of the project's car traffic would pass through the City of Riverside. A majority (not all as the commenter suggests) of project truck traffic will pass through the City of Riverside on the state-owned freeway system (not City of Riverside streets).

Response to Comment E-2B-2. The commenter says that the DEIR is not clear how and when the traffic analysis considered the Mid County Parkway project as a future transportation improvement.

As explained in the TIA, the analysis used the Southern California Association of Governments (SCAG) 2012 Regional Transportation Plan (RTP) as the basis for assumptions regarding future road projects. The assumptions regarding Mid-County Parkway follow the RTP's Federal Transportation Improvement Program (FTIP) (projects for which funding is expected to be available in the short term) listing for project RIV031218 which reads,

> *"IN WESTERN RIV CO – NEW MID CO PKWY: CONS 6 THRU LN (3 LNS IN EA DIR) APPROX 16 MI. BTWN I-215 IN PERRIS EAST TO SR79 IN SAN JACINTO, INC. CONS/RECONS OF APPROX 10 ICS, ADD OF AUX LN REDLANDS-EVANS & EB AUXILIARY LN EVANS-ANTELOPE. I-215 IMP: ADD 1 MF LN IN EA DIR NUEVO RD -VAN BUREN BLVD, & 1 AUX LN IN EA DIR MID CO PKWY-CAJALCO/RAMONA EXP & FROM MID CO PKWY-NUEVO."*

RTP's FTIP available online at:
http://rtpscs.scag.ca.gov/Documents/2012/famendment/2012A01RTP_ModelList.pdf

Based on the SCAG 2012 RTP, the traffic analysis assumed the Mid County Parkway project would be completed by 2022.

Response to Comment E-2B-3. The commenter states that the DEIR failed to include Gless Ranch Center in the cumulative background traffic setting.

Tests with the Riverside County Traffic Analysis Model (RivTAM) traffic model found that there was very little project traffic in the vicinity of Gless Ranch Center, fewer than 20 project trips in the peak hours. Moreover, the land use assumptions used in the traffic analysis included both the land use developments and the 2012 RTP/SCS, and in addition more than 100 specifically identified projects in and around Moreno Valley. Although Gless Ranch was not explicitly input, 208 new jobs and 85 additional households were added to the Traffic Analysis Zone (TAZ) it is in, based on the approved land use assumptions in the 2012 Sustainable Communities Strategy (SCS). An additional 216 new jobs and 83 new households were also added to the adjacent TAZ, which loads onto the same intersection as Gless Ranch (the Van Buren Blvd./Barton Rd. intersection). Therefore, the total traffic volumes used in the analysis are considered conservative and as a result, traffic impacts were not underestimated.

Response to Comment E-2B-4. The commenter states that the DEIR Appendix I: Tables 1-3 does not list project numbers 10, 14, 15, 23, and 81. This is not consistent with Figure 3.

As part of our effort to keep the list of other projects updated as new information became available, certain projects that were identified were later dropped. This occurred, for example, if the project no longer appeared likely to go forward. Figure 3 in DEIR Appendix L-1 (now Figure 4 Final Environmental Impact Report (FEIR) Volume 2 Appendix L-1) has been revised to eliminate those projects.

Response to Comment E-2B-5. The commenter asks that the DEIR clarify whether the "financially constrained project list" is fully funded.

For the TIA study only the projects in the FTIP and the SCAG's financially constrained project list were assumed to be implemented. A complete list of these projects can be found in SCAG's 2012 RTP. The resources available to pursue these projects are based on a track record of funds available from various State, federal, and local sources and were approved by the regional funding agencies (SCAG and Western Riverside Council of Governments [WRCOG]) for use as a basis for planning. The projects in the Strategic Plan were not assumed because funding for those projects was considered to be too uncertain. Also, the proposed East-West Freight Corridor that was included in the financially constrained plan was not assumed to be implemented. This is because unlike the other projects which are based on funding mechanisms with a clear track record, the freight corridor is expected to be funded through a tolling mechanism that has not yet been established and whose future efficacy is unknown.

Response to Comment E-2B-6. The commenter states that traffic counts used for the analysis of Alessandro Blvd/Arlington Ave/Chicago Ave are lower than counts used for the Gless Ranch Center TIA.

Traffic varies on a daily basis within a predictable range at any given location. So it is quite possible, in fact probable, that traffic counts done for two different studies on two different days would be different. In any case, this intersection is considered operating at LOS "F" and therefore using different counts would not materially change the result of the analysis.

Response to Comment E-2B-7. The commenter asks that DEIR Appendix I Table 24 (*WLC Trips by Vehicle Type*) be revised to provide adequate detail on the trip generation of Phases I and II. He also states that it was unclear how PCE (passenger car equivalent) factors were applied.

Table 24 in the revised TIA provides data on trip generation by phase as requested. Detailed information on the use of PCEs is provided in the revised TIA, Chapter 2, Section A, in the sub-section entitled "Passenger Car Equivalents."

Response to Comment E-2B-8. The commenter states that the DEIR failed to disclose trip distribution information.

The TIA, an appendix of the DEIR, included Figure 25 (now Figure 28) and Figure 28 (now Figure 33) showing distribution of car and truck traffic, respectively. These figures were not included in the DEIR but they have been included in the FEIR. Also an additional figure (Figure 8) has been included showing the designated truck routes in and around Moreno Valley.

Response to Comment E-2B-9. The commenter states that the DEIR failed to clearly indicate the funding sources for improvements assumed in the No Project scenario for 2035 for Intersections 93, 94, and 95 in 2035.

For the TIA study only the projects in the FTIP and the SCAG's financially constrained project list were assumed to be implemented. A complete list of these projects can be found in SCAG's 2012

RTP. The resources available to pursue these projects are based on a track record of funds available from various State, federal, and local sources and were approved by the regional funding agencies (SCAG and WRCOG) for use as a basis for planning. The projects in the Strategic Plan were not assumed because funding for those projects was considered to be too uncertain. Also, the proposed East-West Freight Corridor that was included in the financially constrained plan was not assumed to be implemented. This is because unlike the other projects which are based on funding mechanisms with a clear track record, the freight corridor is expected to be funded through a tolling mechanism that has not yet been established and whose future efficacy is unknown.

The 2012 Regional Transportation Plan's Financially-Constrained Projects list shows that Arlington Avenue is to be widened from 4 to 6 lanes between Magnolia Avenue and Alessandro Boulevard (RTP ID 3A01WT112). Therefore, consistent with the RTP, the RivTAM 2035 network therefore assumes Arlington Avenue as 3 lanes in each direction between Magnolia Avenue and Alessandro Boulevard, where intersection 93, 94, and 95 are located.

Response to Comment E-2B-10. Please refer to Response to Comment E-2B-9.

Response to Comment E-2B-11. Please refer to Response to Comment E-2B-9.

Response to Comment E-2B-12. Please refer to Response to Comment E-2B-9.

Response to Comment E-2B-13. The commenter recommends that analyses of the off-peak and daily time periods be performed. The commenter also asserts, without any supporting evidence, that project traffic is likely to divert onto Martin Luther King Blvd. and Van Buren Blvd. and that these be included in the analysis for the daily period.

We agree that a large percentage of the project's traffic occurs during off-peak hours. This is a highly desirable feature for a major employer. However the purpose of the traffic analysis is to identify where plus-project traffic levels might necessitate roadway improvements by analyzing and mitigating impacts for the worst-case scenario. The worst-case scenario will occur either in the AM or PM ambient peak period, but not during off-peak hours. If sufficient capacity is provided for the worst-case traffic periods then the capacity will also be sufficient for all other off-peak hours. The TIA followed this established procedure in conformance with official guidance ranging from (TRB's) *Highway Capacity Manual* (Chapter 3) to the City of Riverside's own *Traffic Impact Analysis Preparation Guide* (pages 5, 12, 20). Because of the conservatively high trip-generation rate used in the WLC analysis, along with the fact that the peak of trip generation was assumed to occur simultaneous with the peak of background traffic, the assumptions in the WLC analysis are far more conservative (i.e. assume worse conditions) than the field data in the National Association of Industrial and Office Properties (NAIOP) survey suggests is likely to occur. As can be seen in Exhibit E-1B-1 from the TIA, copied below, the TIA assumed peak-hour trip-generation rates far higher than those found in the highest hours of the NAIOP study.

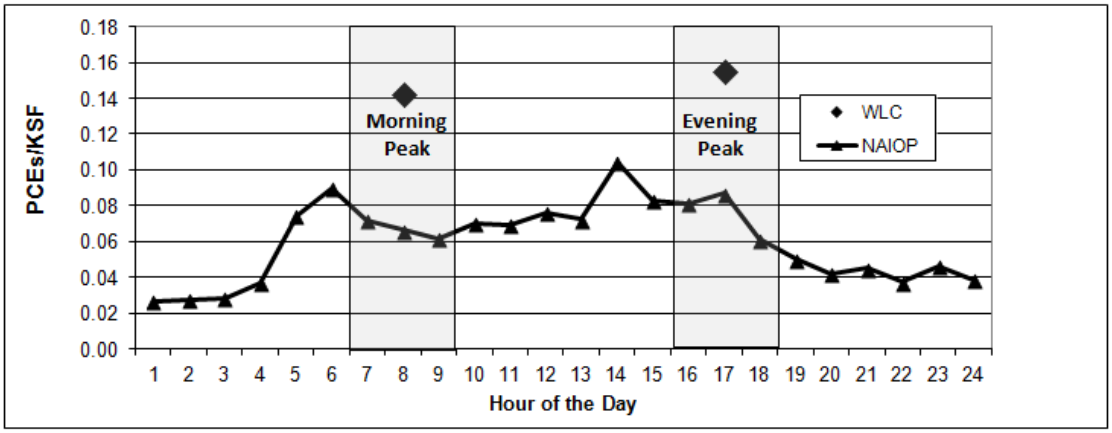

Exhibit E-2B-1: Time-of-Day Distribution, WLC Assumptions Compared to NAIOP

The impact of project traffic on Martin Luther King Blvd. were studied for the five intersections where the project was forecast to potentially add 50 or more peak-hour trips (study Intersections 81 through 85). No intersections were studied along Van Buren Blvd. because tests using RivTAM forecast project traffic to be less than the threshold for study.

Besides roadway design, which was already addressed in the peak-hour analysis, the other purpose of the traffic forecasts was as an input into air quality analyses. The traffic data used for the air quality analysis covered both the peak periods and the full 24-hour period, as requested by the commenter.

Response to Comment E-2B-14. The commenter states that the portion of I-215 between SR-60 and Perris Blvd. should be studied.

As discussed in the TIA (Chapter 1, Section B), the City of Moreno Valley approved a minimum threshold of 100 peak-hour trips to be used to determine whether or not a freeway segment needs to be further analyzed. This threshold was based on Caltrans' guidelines. The City of Riverside itself uses thresholds like this in its traffic analyses (see City of Riverside, "Traffic Impact Analysis Preparation Guidelines", page 3).

This portion of I-215 would attract few WLC trips because it is dominated by an alternate route that is 4.6 miles shorter (i.e. the travel distance from SR-60 at Perris Blvd to I-215 at Nuevo Rd is 14.6 miles using the SR-60/I-215 route but only 10.0 miles using Perris Blvd). That section was analyzed to determine if it met the threshold for further analysis. Tests using the RivTAM model showed that fewer than 100 project trips used this portion of I-215. It therefore did not meet the minimum threshold and therefore it was not included for further analysis. This logic is similar to that presumably used when the City of Riverside recently chose not to require that this same section of I-215 be analyzed in the traffic study for the Gless Ranch shopping center.

Response to Comment E-2B-15. The commenter states that Cajalco Road should be studied.

As discussed in the TIA (Chapter 1, Section B), the City of Moreno Valley approved a minimum threshold of 50 peak-hour trips to be used to determine whether or not a surface street or intersection needs to be analyzed. The City of Riverside uses the same threshold (City of Riverside, "Traffic Impact Analysis Guidelines", page 3). That portion was analyzed to determine if it met the threshold for further analysis. Tests using the RivTAM model showed that Cajalco Road did not meet the minimum threshold and therefore, it was not included for further analysis.

Response to Comment E-2B-16. The commenter states that it is not clear why the mitigation measures for the cumulative condition consider only 2035 conditions and not 2017 and 2022 conditions.

The cumulative analysis is intended to show the impacts of all reasonably foreseeable future projects. As such, the appropriate timeframe is 2035, which is the time horizon limit of the SCAG adopted RTP/SCS. Therefore, the analyses of interim years, such as 2017 and 2022, were not described as "cumulative."

Response to Comment E-2B-17. The commenter states that the DEIR labels mitigation improvements to Intersection #95 “infeasible” when in the opinion of the commenter an eastbound right-turn lane could be accommodated without significantly affecting any residential property. He also suggests that other improvements are feasible such as adding third left-turn lanes to the northbound and westbound approaches.

Considering the residential community where this intersection is located it is unlikely that moving a large volume of traffic 12 feet closer to the corner houses would not significantly affect residential properties, as suggested by the commenter. Furthermore, the commenter’s recommendation for triple-right and triple-left turns does not seem appropriate for this residential setting (all four quadrants of this intersection are communities of single-family homes as illustrated below). Nevertheless, the listing for this improvement has been revised to “feasible” and the project will pay its fair share for this improvement if the City of Riverside proceeds with this measure within the existing residential community and if a suitable mechanism can be established with the City. Please refer to Mitigation Measure (MM) Trans-5 in Chapter 11, Section G.

Exhibit E-2B-2: The Alessandro/Arlington/Chicago Intersection (IN-95)

Response to Comment E-2B-18. The commenter states that the mitigation measures identified in TIA Table 80 for Intersections 94 and 95 do not match the recommended mitigation measure in Table 69. Table 80 (now Table 76 in the revised TIA FEIR Volume 2 Appendix L-1) and 69 (now Table 65 in the revised TIA FEIR Volume 2 Appendix L-1) have been revised and now match in the revised TIA.

Response to Comment E-2B-19. The commenter concedes that the mitigation measure identified as "infeasible" in the TIA for Intersection 95, and which the commenter suggested in Comment E-2B-17 is feasible, may in fact not be feasible. However he suggests that other improvements are feasible such as adding third left-turn lanes to the northbound and westbound approaches. Please see Response to Comment E-2B-17.

Response to Comment E-2B-20. The commenter states their opinion that that 12,000 daily truck trips on I-215/SR-60 necessitates corridor-wide lane improvement similar to I-710 in Southern LA County.

As previously addressed in the Response to Comment E-2B-1, the 12,000 figure is incorrect. The TIA has correctly analyzed the impact of project traffic on the freeway system, identified the necessary improvements, and recommended that the City work with Caltrans to implement the identified improvement measures.

Response to Comment E-2B-21. The commenter states their opinion that the mitigation measures identified for freeway segment Nos. F-24, F-27, F-42, W-21, W-22, W-23, and W-25 which were identified in the TIA as "infeasible" are feasible. He also suggests that consideration should be given to ramp metering.

We concur with the commenter that F-24, F-27, W-22, and W-23 may be feasible and have changed their descriptions in the TIA to reflect this. However, the City respectfully disagrees with the commenter's suggestion that the mitigation measures identified for freeway segment Nos. F-42, W-21, and W-25 are feasible.

- **Westbound SR-91 from Magnolia Ave. to La Sierra Ave.** (F-42) would require an additional mixed-flow lane that could only be added by eliminating the existing shoulder and thus leaving no space for disabled vehicles to pull over. Since this would create safety problems that would be less acceptable than a low LOS, mitigating this impact is infeasible.
- **Eastbound SR-60 from SR-91 to W. Blaine St/.3rd St.** (W-21) would require adding a mixed-flow lane. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without impacting the adjacent residential community. Thus widening the freeway is infeasible.
- **Eastbound SR-60 from Central Ave. to Fair Isle Dr. /Box Springs Rd.** (W-25) would require the addition of a mixed-flow lane. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without eliminating the adjacent frontage road.

We concur with the commenter that ramp metering may provide an improved LOS in some locations. However, because the State Freeway System is under the control of Caltrans, it is not within the City's authority to implement ramp metering in this corridor.

Response to Comment E-2B-22. The commenter states their opinion that that the mitigation measures identified for freeway segment Nos. F-19 F-46, F-42, F-49, W-21, W-22, and W-25 which were identified in the TIA as "infeasible" are feasible. He also suggests that consideration should be given to ramp metering.

We concur with the commenter that F-19, F-49, and W-22 may be feasible and have changed their descriptions in the TIA to reflect this. However, the City respectfully disagrees with the commenter's suggestion that F-42, F-46, W-21 and W-25 are feasible.

- **Westbound SR-91 from Magnolia Ave. to La Sierra Ave.** (F-42) would require an additional mixed-flow lane that could only be implemented by eliminating the existing shoulder and thus leaving no space for disabled vehicles to pull over. Since this would create safety problems that would be less acceptable than a low LOS, mitigating this impact is infeasible.
- **Eastbound SR-91 from Adam St. to Madison St.** (F-46) would require adding a mixed-flow lane. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without impacting the adjacent residential community. This mitigation is therefore infeasible.
- **Eastbound SR-60 from SR-91 to W. Blaine St/.3rd St.** (W-21) would require adding a mixed-flow lane would reduce the impact to a less-than-significant level. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without impacting the adjacent residential community. This mitigation is therefore infeasible.
- **Eastbound SR-60 from Central Ave. to Fair Isle Dr. /Box Springs Rd.** (W-25) would require the addition of a mixed-flow lane. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without eliminating the adjacent frontage road. This mitigation is therefore infeasible.

We concur with the commenter that ramp metering may provide an improved LOS in some locations. However, because the State Freeway System is under the control of Caltrans, it is not within the City's authority to implement ramp metering in this corridor.

Response to Comment E-2B-23. The commenter states their opinion that in light of repeated claims of infeasibility regarding the provision of additional mixed-flow lanes on SR-60/I-215 and SR-91 freeways, the project should be required to fund a Project Study Report and Project Report through the Riverside County Transportation Commission (RCTC) and with the involvement of the City of Riverside for the development of additional lanes on these freeways.

Caltrans completed a Route Concept Report for the SR-60/I-215 corridor in September 2012. This report is available from Caltrans or from the City of Moreno Valley. The study focused on identifying the number of lanes required in each section of the corridor. Among other things, this report recommended adding one mixed-flow lane to SR-60 in each direction between Redlands Blvd and Gilman Springs Rd. Traffic demand on SR-91 was also recently studied leading to improvements that are currently under construction. Both RCTC and the City of Riverside were involved in that study. No additional study is warranted at this time.

Response to Appendix 1 (Qualifications of Keil D. Maberry, P.E.) The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide the engineering qualifications and references for Keil D. Maberry.

Response to Appendix 2 (Two Résumés of staff at Linscott Law, & Greenspan) The referenced appendix was not cited in the comment letter. The resume in the appendix has been reviewed and although the City appreciates the inclusion of professional resumes as part of comments, the City considers all technical comments equally regardless of qualifications of the commenter.

Letter E-3: Moreno Valley Unified School District (April 8, 2013) and Appendix 1

Letter E-3

Board of Education
Denise Fleming, Ed.D.
Jesus M. Holguin
Cleveland Johnson
Tracey B. Vackar

Superintendent of Schools
Judy D. White, Ed.D.

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Our mission is to prepare all students academically and socially to become productive members of society

April 5, 2013

Mark Gross, AICP
Senior Planner
Community and Economic Development Department
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92553

Subject: Comments on Draft Environmental Impact Report for World Logistics Center Project

Dear Mr. Gross:

The Moreno Valley Unified School District (District) welcomes this opportunity to comment on the Draft Environmental Impact Report for the World Logistics Center project. While the District has not taken the position of opposing the project, we have serious concerns about the project's impacts on the environment, particularly the impacts on air quality, and the health and safety of our students, and staff. As outlined in this letter, the DEIR is seriously flawed and should be revised and recirculated before any action is concerning the approval of this project. 1

PROJECT SUMMARY

The WLC project covers 3,918 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,814 acres of land which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development.

The proposed entitlements include general plan amendments, adoption of a specific plan, zone change, tentative parcel map, pre-annexation and development agreement. The WLC Specific Plan proposes a master-planned logistics campus to include up to 41.4 million square feet of high-cube logistics warehousing, up to 200,000 square feet of light logistics uses, a site for logistics support uses (LS designation), and 75 acres of Open Space in the southwest corner of the site. The Specific Plan includes extensive development standards, design guidelines, and review procedures for all development within the project. 2

GENERAL COMMENTS

The WLC DEIR does not provide adequate analysis of impacts to District schools or children attending schools. The District operates a total of 39 schools; 23 elementary, six middle, four high schools, four alternative education schools, one early childhood center, and one adult education school. Three schools are located within two miles just west of the WLC site: Ridge Crest Elementary School, La Jolla Elementary School, and Landmark Middle School. The District operates a number of schools along Alessando, Cottonwood, and Eucalyptus just south of the SR-60. 3

Some land uses are considered more sensitive to air pollution, greenhouse gas emissions, health risks, noise and traffic impacts, than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases. Schools are considered sensitive receptors.

The DEIR only analyzes sensitive receptors immediately adjacent to the WLC site. Due to the project size and the substantial increase in truck traffic, impacts must be analyzed for schools and other sensitive receptors within a larger context. For example, the project's contribution health risk along the SR-60 should also be evaluated with respect to risk to children attending schools in this area. Additionally, truck trips using Alessandro to access the freeway should be clearly depicted and associated cancer risk should be evaluate for schools along Alessandro and all other truck routes. 3

SPECIFIC COMMENTS

Specific Comments are provided below categorized by issue area.

Project Description

The WLC would result over 70,000 truck trips per day, which would have a substantial impact on the surrounding community in several environmental categories. The project description needs to include a figure and description of the preferred and allowable truck routes from the WLC site to the SR-60 and I-215 Freeways. 4

The project description states the Moreno Beach Substation will be expanded to 112 MW, and a new 60 MW substation will be constructed to serve the project (DEIR page 3-51). The description refers to Figure 3.16, which only shows one substation. The Moreno Beach Substation expansion should be clearly depicted on Figure 3.7 and described under energy. The location of this facility and surrounding uses are necessary to determining whether the off-site expansion will result in any health effects.

Air Quality and Community Risk and Hazards Comments

District schools nearest to the project site and along truck routes should be included in the air quality analysis and locations should be shown on Figure 4.3.7.

While the trip generation rate assumed in the Air Quality modeling is higher than the 1.44 trips per thousand square feet (TSF) identified in the 8th Generation of the Institute of Transportation Engineer's (ITE) Trip Generation Manual, it is still substantially lower than the reasonable worst-case trip rate recommended by SCAQMD of 2.59 trips/TSF. The following is stated in the California Emissions Estimator Model User's Guide (CalEEMod): 5

> "..The trip rate value used in URBEMIS is 4.96 trips per 1,000 square feet (TSF) for warehouse projects (land use type 150). This value is from the 7th Edition of the Trip Generation manual, published in 2003. Several developers of high-cube warehouses in recent years have questioned the validity of this value for modern warehousing operations and have commissioned local studies to investigate these trip rates. As a result, in the most recent version of the Trip Generation manual (8th Edition, 2008), additional data has been included to provide a new high-cube warehouse (land use 152) trip rate of 1.44 trips/TSF. SCAQMD staff and other interested parties have questioned lead agencies about this lower rate because of concern that industrial warehouse project analyses may be underestimating the number of trucks serving them. If this were true, air quality impacts may be underreported in the corresponding CEQA analyses... In order

to avoid underestimating the number of trips associated with large warehouse / distribution center operations without rail service, AQMD staff recommends that lead agencies utilize a rate of 2.59 trips per TSF for large warehouse air quality analyses on a project specific basis. The value of 2.59 from the nationwide dataset is preferable instead of the SCAB rate of 3.68 due to the greater reliability of data based on the larger sample size. For warehouses with rail service, a rate of 1.63 trips per TSF may be used. These values provide reasonable worst case default rates for individual new warehouses in the absence of more project-specific data."

The Table below illustrates how a change in the trip generation assumption would significantly increase trips generated by the project, and correspondingly underreport the project's air quality and health risk impacts.

High Cube Warehouse Trip Generation Comparison

	Trips Rate	**Trips from 41,400 TSF of Logistics**
High Cube Warehouse Trip Rate Identified in the Draft EIR	1.68	69,552
High Cube Warehouse Trip Rate Identified in CalEEMod User's Guide	2.59	107,226
		37,674 trips

Table 17 of the DEIR, Daily Trips and Fleet Mix, indicates that there would be 71,085 daily trips associated with the project. Using the trip generation rates in Table 16, Trip Generation Rates, and the operational build-out schedule in Table 15, there would be 73,845 trips per day associated with the project. Therefore, trip generation is underreported, which results in underreporting the project's air quality and health risk impacts. 5

Trip Generation Comparison

Land Use	**TSF**	**Trips Rate in Table 16**	**Trips**
Logistics (High Cube Warehouse)	41,400	1.68	69,552
Light Logistics	200	3.56	712
Gas Station with Pumps	12	113.95	1,367
Convenience Store	3	737.99	2,214
	41,615 TSF	NA	73,845
Difference from 71,085 Daily Trips in Table 17			-2,760 trips

<u>Additional mitigation that should be considered.</u> There are currently several research and demonstration programs being conducted by the Port of Los Angeles, SCAQMD, California Energy Commission, Environmental 6

Protection Agency and the U.S. Department of Energy, to develop dedicated zero-emission trucks or hybrid electric trucks that will have zero-emission range. Such demonstrations are expected to be completed within the next several years and lay the foundation for commercialized products. According to SCAQMD, the first generation of zero-emission trucks will be available within the next five years. Build-out would occur well beyond 2022 due to the market demand for warehousing (even though emissions present a worst-case assumption that the project would be built out in 10 years). These trucks will be available within the build-out timeframe considered and should be considered to mitigate the project's significant unavoidable air quality impacts.

Health Impacts from Diesel and Ultra-fine Particulate Matter Emissions, Especially on Children, Are Not Fully Addressed. Diesel particulate matter (DPM) is responsible for most of the *cancer* risk in California from toxic air contaminants; as well as most of the cancer risk from the WLC Project. Significant *non-cancer* health effects also are known to result from diesel particulate emissions. Among the specific non-cancer health effects known to result from diesel particulate matter are:

- Aggravated Asthma
- Decreased lung function in children
- Respiratory and cardiovascular hospitalizations
- Premature death from non-cancer effects such as respiratory and heart diseases (which may occur at a greater frequency than death from cancer)

Adverse non-cancer health effects from DPM, such as those listed above, are not fully evaluated by the methods used in the DEIR.

The Health Risk Assessment (HRA) methodology used in the DEIR underestimates adverse *chronic* non-cancer health impacts known to result from exposure to diesel particulate matter. Health impacts are underestimated due to limitations in the methodology. The Reference Exposure Level (REL) for diesel PM used in the DEIR to calculate a chronic non-cancer Health Hazard Index (HHI) does not account for all of the known health effects from DPM exposure, especially in children. We recognize, and hasten to point out, this methodological deficiency is not unique to the World Logistics Center DEIR; it is present in similar DEIRs due to the fact that alternative quantification methods are lacking. However, it is critical that these limitations of the HRA methodology be clearly and prominently emphasized in the report. The Project DEIR fails in this regard. 6

The DEIR also downplays the known *acute* non-cancer risk from exposure to project emissions. The report asserts that there is insufficient exposure information to establish a short-term non-cancer health risk guidance value for respiratory effects (DEIR, p. 4.3-71). As a result, the DEIR incorrectly concludes "Therefore, the potential for short-term acute exposure from diesel exhaust are considered to be less than significant and no mitigation is required." Based on the known short-term health effects of DPM, as summarized above and below, this statement in the DEIR is erroneous and grossly misleading.

The DEIR does not account for the greater sensitivity of children to non-cancer health effects caused by diesel and ultra-fine particulate matter (UFP). Scientific studies have shown associations between traffic-related pollution and effects in children, including chronic bronchitis, allergic rhinitis, asthma induction, upper and lower respiratory tract infections, and impaired lung function growth (CARB, *Emission Reduction Plan for Ports and Goods Movement*, 2006).

In a 2001 report (Prioritization of Toxic Air Contaminants Under the Children's Environmental Health Protection Act) the Office of Environmental Health hazard Assessment (OEHHA) identified diesel exhaust particulate matter as one of the five "Tier 1" toxic air contaminants (out of a total of 200 candidate TACs evaluated) that may cause infants and children to be especially susceptible to illness. The 2001 OEHHA report describes diesel exhaust particulate as " ... ubiquitous in urban environments, and exposures are widespread. There are many studies demonstrating that diesel exhaust particulate can enhance allergic responses, and induce new allergies to airborne allergens. This raises concern for enhancement of allergic airway disease including asthma, and for development of new asthma. Diesel exhaust particles contribute to ambient PM_{10}. Ambient PM_{10} has been shown to exacerbate asthma and has been associated with low birth weight and decreased lung function in children. Several studies provide evidence of adverse respiratory health impacts in children living near streets with heavy truck traffic. In addition, diesel exhaust particulate contains PAHs (and other mutagenic polycyclic organic matter).

The DEIR also fails to adequately disclose and analyze UFP emissions from the project and, as a result, there is insufficient information and analysis regarding the adverse health impacts to District students and staff caused by UFPs. In the decade before and the year since the DEIR was released, the scientific research pointing to the adverse health effects from UFPs, especially on children, has continued to grow[12]. The project will route more than 71,000 average daily vehicle trips, including over 14,000 truck trips per day, in close proximity to District schools. Each of these new pollution sources will emit significant quantities of UFPs in the vicinity of District schools, students, and staff. The DEIR does not account for the wider dispersion zone of UFPs compared with larger particles ($PM_{2.5}$ and PM_{10}). UFPs are 0.1 micron or less in size and will travel farther from the Project than larger particulates. According to one study of the I-10 freeway in Los Angeles, UFPs travel up to 8,500 feet downwind and 1,970 feet upwind from the emission site[3]. 6

Because of their smaller size, UFPs also are able to penetrate more rapidly and deeper into the lung and more readily translocate to other organs in the body than larger particles ($PM_{2.5}$ and PM_{10}). By failing to account for the wider impact and significant health hazards of UFPs (both downwind and upwind), the DEIR improperly masks some of the most significant impacts of the Project. However, despite the troubling lack of data regarding UFPs in the DEIR, there is no doubt UFPs from the project pose a significant health threat to MWUSD students. This threat must be fully disclosed and evaluated in order to provide sufficient data for informed decision-making.

The District requests that the DEIR be revised to include additional efforts to adequately characterize—and mitigate—the un-quantified non-cancer health risks of diesel (DPM) and ultra-fine (UFP) particulate matter emissions from the project on school-age children.

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[1] SCAQMD.2012. 2012 AQMD Draft Program EIR, September 2012.
[2] University of Southern California. 2011. Final Report: Fine-Scale Spatial and Temporal Variability of Particle Number Concentrations Within Communities and in the Vicinity of Freeway Soundwalls. Prepared for CARB and CalEPA. April 26, 2011.
[3] Hu, S.S., et al., A wide area of air pollutant impact downwind of a freeway during pre-sunrise hours. Atmospheric Environment, 2009, 43, (16): p. 2541 – 2549.

The Greater Sensitivity of Children to Toxic Air Contaminants and Cancer Risk is Not Evaluated. The DEIR shows significant and unavoidable cancer risks will result from the project, including for students and staff at District schools (see Figures 1 and 2, attached). However, due to the risk assessment methodology used, the presentation in the DEIR underestimates the cancer risk to children. The cancer risk factor for DPM used in the DEIR fails to adequately account for the greater sensitivity of children to Toxic Air Contaminants (TACs). Scientific research data from humans and animals suggest that exposure to a variety of carcinogens early in life may result in a greater lifetime risk of cancer than exposures later in life. Because of this, the State of California (OEHHA, 2012) now recommends that cancer risk factors be weighted by a factor of three for exposure of children ages two to sixteen (Air Toxics Hot Spots Program Risk Assessment Guidelines, Technical Support Document for Exposure Assessment and Stochastic Analysis; OEHHA, August 2012). Furthermore, the OEHHA has recommended the use of age-specific cancer risk factors since at least 2009. (OEHHA, Technical Support Document for Cancer Potency Factors: Methodologies for derivation, listing of available values, and adjustments to allow for early life stage exposures, May 2009.) 7

OEHHA guidelines also recommend that exposures from projects lasting more than six months be evaluated for the duration of the project. Given that District elementary schools, middle schools, and high schools are within the significant cancer risk contours of the project (see Figures 1 and 2, attached), the DEIR should be revised to include age specific risk factors and an appropriate exposure period in order to fully assess the risks to students.

The District requests that the DEIR include an analysis of health risks to schools – including cancer risks to students -- using appropriate exposure durations, and agency-recommended age-specific risk factors.

Health Risks from Diesel PM Remain Un-Quantified. Although the DEIR quantifies the cancer and non-cancer risks of diesel exhaust PM, additional health effects from diesel PM are not quantified in the DEIR's methodology. The list of health effects for diesel PM not captured in the DEIR is long (see CARB, 2006), and is rapidly evolving, with new scientific findings being published regularly. 8

The District requests the DEIR be revised to include additional efforts to adequately characterize—and mitigate—cancer and non-cancer health risks associated with diesel PM from the Project.

Additional Mitigation Required. The foregoing comments describe some of the DEIR's deficiencies in evaluating the project air quality impacts and associated health risks, including underestimating cancer risks and non-cancer hazards to students from particulate matter and other pollutants. Despite these deficiencies, the DEIR does identify significant and unavoidable cancer risk impacts to District school sites (see Figures 1 and 2, attached) from the "mitigated project". Where there is a significant unavoidable adverse impact, CEQA requires incorporation of all feasible mitigation to avoid or substantially less that effect (see CEQA Guidelines §15091). Additional mitigation beyond that proposed in the DEIR is necessary – and available --for these significant impacts. 9

The mitigation measures included in the DEIR fail to reduce project impacts to an acceptable level, and do not adequately protect the sensitive receptors at school sites that will be impacted by this project. As such, in addition to correcting the specific deficiencies in the DEIR noted above, we suggest that additional mitigation projects be developed that would balance community needs with goods movement to and through the project. The District

requests consultation with the City and project applicant so that the required additional mitigation measures can be developed and included as part of the project in an efficient and effective manner.

As a starting point for these future discussions, we point to the Mitigation Grant Programs that the ports of Long Beach and Los Angeles have funded and successfully implemented to address residual air quality impacts to schools and other receptors. The goods movement projects that prompted port area Mitigation Grant Programs are comparable in scope (e.g., thousands of trucks) and impacts (DPM emissions) to the World Logistics Center Project. To date, the port of Long Beach (POLB) alone has committed over $17 million for goods movement mitigation grant programs. For example, the POLB has funded installation of high efficiency air filters in local schools in the amount of more than $3 million; additional POLB funding for school air filtration projects is pending. The efficacy of high efficiency air filtration installations in schools as mitigation for residual air impacts from goods movement has been demonstrated by the SCAQMD[4]. 9

Mitigation grants associated with the WLC project could be used for a range of measures that have been proven successful in the ports and other areas. These measures include: 1) the installation of high performance air filtration units, 2) installation of new energy efficient windows and doors with low air leakage, and 3) landscaping with air filtration benefits. A working concept being considered on one port project with similar air quality impacts would dedicate at least 10 percent of the total project costs associated with the development of the project to the Mitigation Grant Program. Another approach would be to provide annual funding to the Mitigation Grant Program based on a percentage of gross revenues of project operations until such time that modeled emissions no longer impact sensitive receptors.

Greenhouse Gas Emissions

The project's operational GHG emissions would generate 751,787 mt CO_2e/year and 665,321 mt CO_2e/year with design features. The GHG section does not provide an analysis how this level of GHG emissions will impact the surrounding area or region.

This section must evaluate consistency of the project with the strategies proposed by the Southern California Association of Governments (SCAG) to reduce vehicle miles traveled (VMT) in the region, in accordance with Senate Bill 375 (SB 375). SCAG's 2012 SCS/RTC uses substantially different assumptions for population and employment for the site per the adopted Moreno Highlands Specific Plan. Therefore, consistency of the project must be analyzed with respect to the 2012 RTC/SCS. 10

CEQA requires incorporation of all feasible mitigation to avoid or substantially lessen significant unavoidable impacts (see CEQA Guidelines §15091). The project includes one mitigation measure related to reducing solid waste to mitigate GHG emissions. Project design features that mitigate GHG emissions should be outlined in the mitigation program to ensure enforceability.

Hazards and Hazardous Materials

The DEIR states that there are no existing school facilities within one-quarter of a mile of the project area. Due to the project size and the substantial increase in truck traffic, impacts must be analyzed for schools and other 11a

[4] SCAQMD, 2009. Pilot Study of High Performance Air Filtration for Classrooms Applications, draft report, prepared by South Coast Air Quality Management District and IQAir North America, Inc., October 2009.

sensitive receptors within a larger context. Truck routes should be examined to ensure that truck-related risks will not impact schools along dedicated truck routes. 11a

The DEIR must identify the threshold for businesses required to prepare a Hazardous Materials Business Emergency Plan. 11b

High pressure natural gas lines cross the project site that will be relocated or protected in place. A pipeline risk assessment should be prepared to determine the risk of a catastrophic accident and its impact to the surrounding residents and nearest District schools. 11c

Population, Housing and Related School Impacts

The DEIR states that the project would not generate an increase in residential units or an increase in population. Further it states that no homes and no significant generation of school-aged children would be developed as part of the proposed project. However, the project would generate approximately 24,642 new permanent employees in addition to 7,583 indirect /induced permanent jobs and 13,128 short-term construction-related jobs.

The approximately 25,000 new jobs would nearly double the existing employment of 25,120 in the city. Doubling the number of jobs in the city would induce population growth in the area. The DEIR must quantify the increase in population resulting from new jobs in the area, the number of students that would be generated, and its impact on District schools. 12

The DEIR states that employees of the project who choose to live in the City would likely utilize the existing supply of housing. However, there is no analysis to support that statement. Employment and housing factors should be taken into account to substantiate the analysis, such as the existing housing inventory and surplus and the location of the where the anticipated workforce currently resides based on education and income.

Traffic and Circulation, Noise

The traffic study does not provide a description or illustration of truck routes going to and from the project site. The DEIR states that 82 percent for the truck trips will be oriented west via one or more freeways. The DEIR needs to state specifically which surface streets will be used. If east-west surface streets, such as Alessandro Boulevard, will be used to access the I-215 or SR-60, then the DEIR must analyze the impacts resulting from the substantial increase in truck traffic along these routes. The analysis must include, but is not limited to: the increase in traffic noise levels for schools and outdoor playgrounds, the potential traffic safety impact of truck trips along streets adjacent and near schools, and as stated above, DPM health risks. 13

CONCLUSION

The District strongly urges the City to revise and correct these deficiencies and recirculate the DEIR before considering approval of the project. The District will continue to actively participate in this process and looks forward to working with the City to ensure each of these concerns is sufficiently addressed prior to approval of the project. 14

Thank you for considering our comments. Should you have any questions, please contact me at (851) 571-7500 or Sergio San Martin, Director II, Facilities at (951) 571-7692.

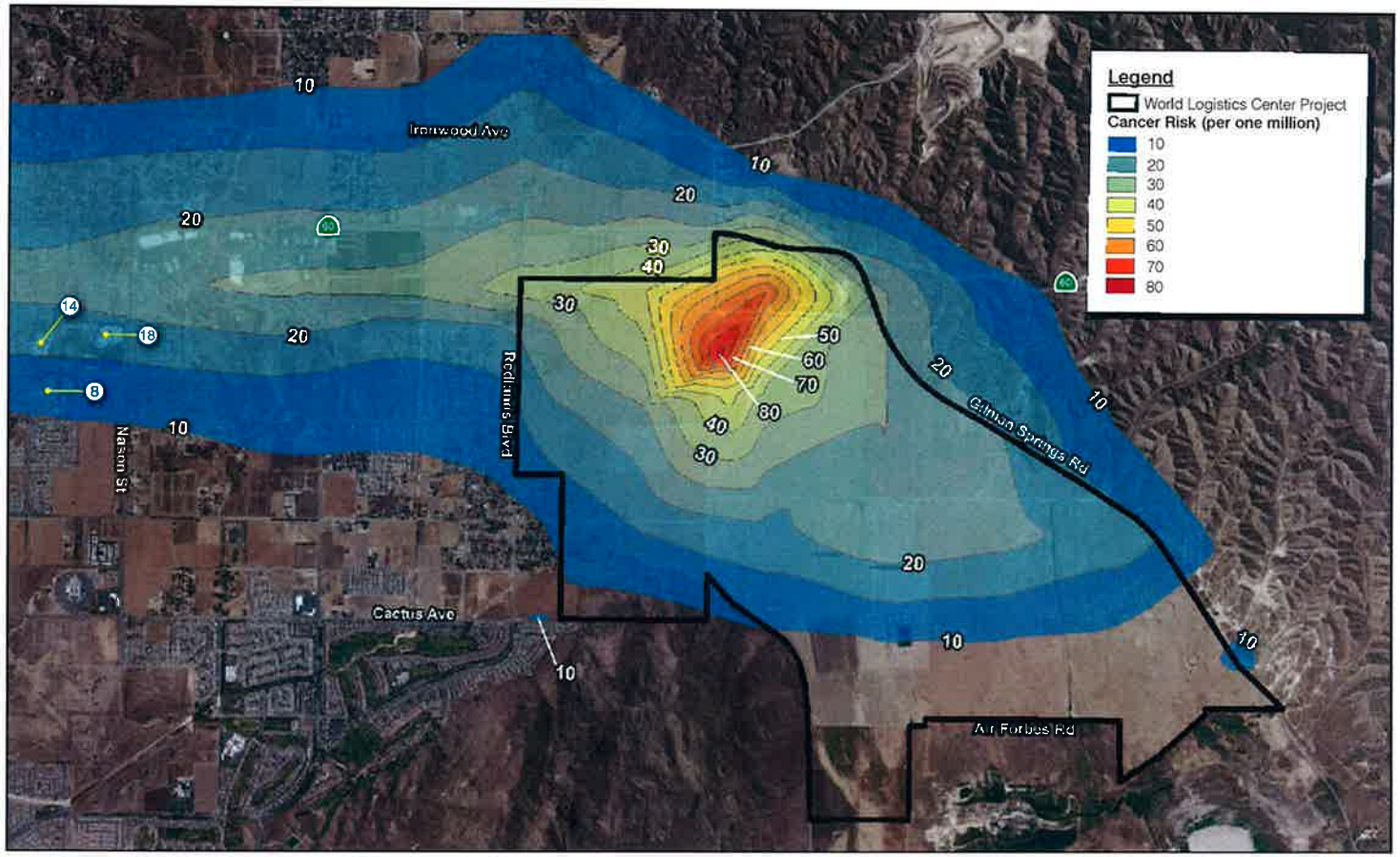
Sincerely,

Judy D. White

MORENO VALLEY UNIFIED SCHOOL DISTRICT
Dr. Judy D. White, Superintendent

Schools and Mitigated Project Incremental Cancer Risk Near Project

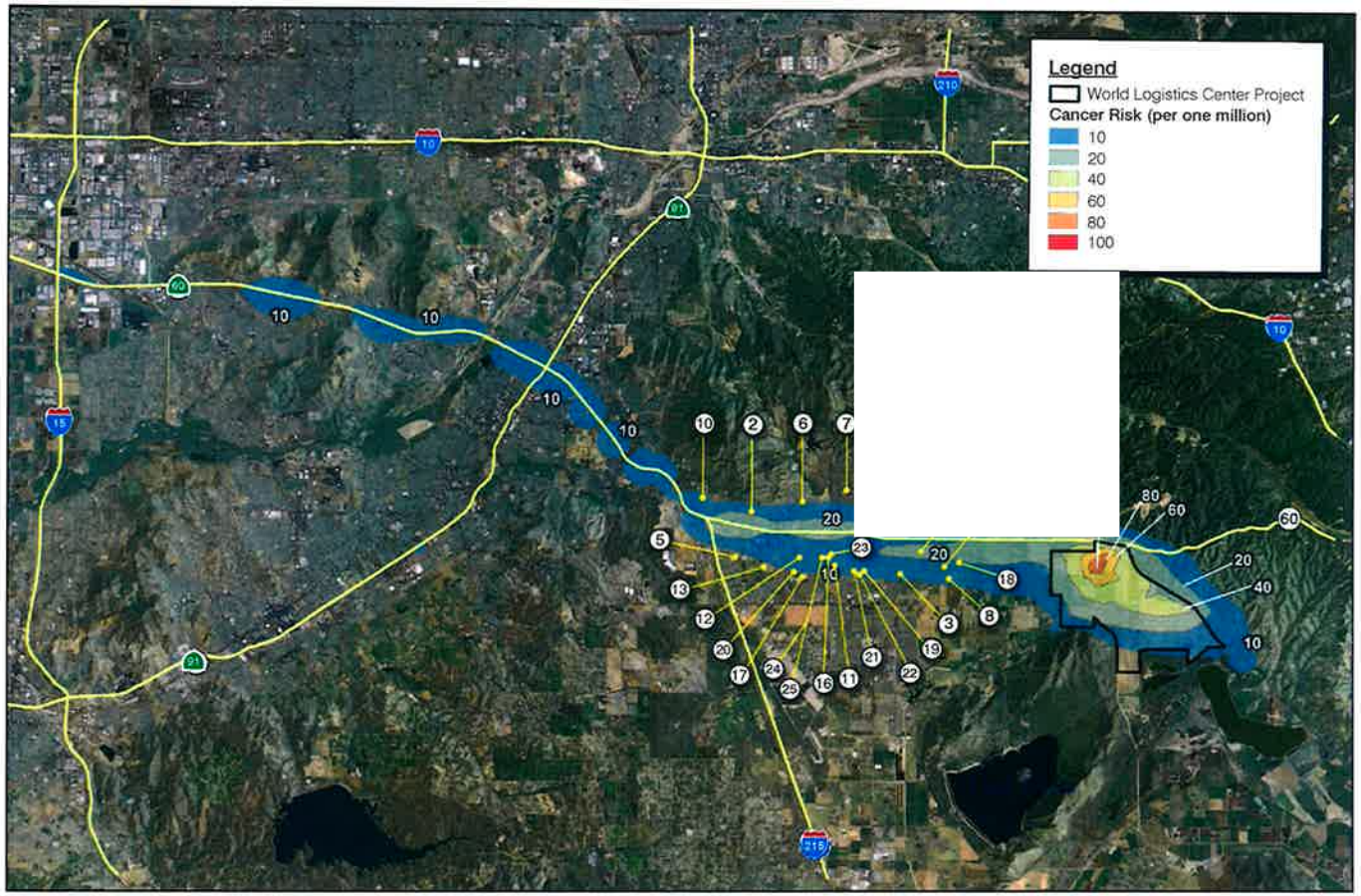
8	**Moreno (1-5)**	26700 Cottonwood Ave
14	**Mountain View (6-8)**	13130 Morrison Ave
18	**Valley View (9-12)**	13135 Nelson Ave



Source: LSA 2013, DEIR, Figure 4.3.13

Schools and Project Incremental Cancer Risk

1. **Bear Valley (1-5)** 25201 J.F. Kennedy Dr
2. **Box Springs (1-5)** 11900 Athens Dr
3. **Butterfield (1-5)** 13400 Kitching Dr
4. **Cloverdale (1-5)** 12050 Kitching Dr
5. **Edgemont (1-5)** 21790 Eucalyptus Ave
6. **Honey Hallow (1-5)** 11765 Honey Hallow St
7. **Midland (1-5)** 11440 Davis St
8. **Moreno (1-5)** 26700 Cottonwood Ave
9. **North Ridge (1-5)** 25101 Kalmia Ave
10. **Seneca (1-5)** 11615 Wordsworth Rd
11. **Sunnymead (1-5)** 24050 Dracaea Ave
12. **Sunnymeadows (1-5)** 23200 Eucalyptus Ave
13. **TownGate (1-5)** 22480 Dracaea Ave
14. **Mountain View (6-8)** 13130 Morrison Ave
15. **Palm (6-8)** 11900 Slawson Ave
16. **Sunnymeade (6-8)** 23996 Eucalyptus Ave
17. **Moreno Valley (9-12)** 23300 Cottwood Ave
18. **Valley View (9-12)** 13135 Nelson Ave
19. **Adult Ed** 13350 Indian St
20. **Alessandro School (SDC K-12)** 23311 Dracaea Ave
21. **March Mountain (10-12)** 24551 Dracaea Ave
22. **March Valley Core (9-12)** 24551 Dracaea Ave
23. **March Valley (1-8)** 23996 Eucalyptus Ave
24. **Rainbow Springs - Head Start** 23990 Eucalyptus Ave
25. **Rainbow Springs - Pre-school** 23990 Eucalyptus Ave



0 1
Scale (Miles)

Source: LSA 2013, DEIR, Figure 4.3.11

RESPONSES TO LETTER E-3

Moreno Valley Unified School District

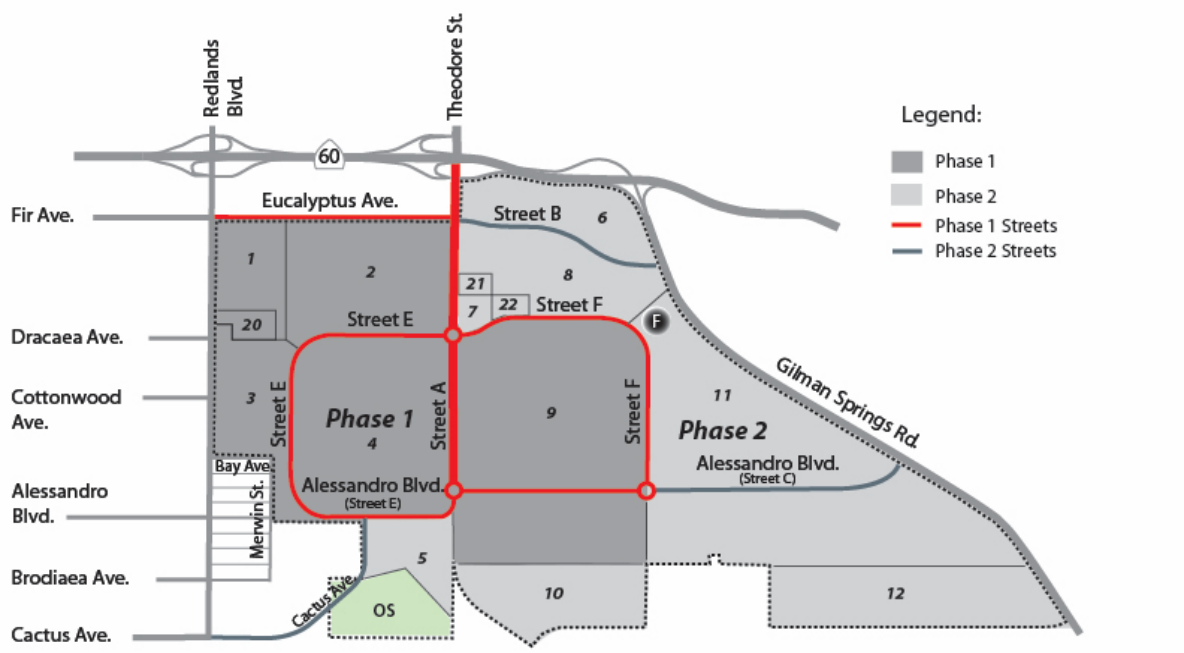
Response to Comment E-3-1. The City understands the Moreno Valley Unified School District (District) has strong concerns about the potential public safety and health risks of the World Logistics Center (WLC) project. The City evaluated the many comments received on the Draft Environmental Impact Report (DEIR), including those of the District. The revised technical studies and DEIR provide additional information, mainly in the form of responding to the many questions and comments received on the DEIR. However, this additional information does not rise to the level of significant new information, nor does it identify any new or substantially different significant environmental impacts from those identified in the DEIR. Therefore, the DEIR will not be recirculated.

Response to Comment E-3-2. The District has accurately summarized the project characteristics that were evaluated in the DEIR. Subsequent to circulation of the DEIR, 100 acres was removed from the WLC Specific Plan (SP) site which also removes 1 million square feet of high-cube logistics development of the proposed project. The revised DEIR document evaluates the impacts of the revised project, which are generally equivalent to those of the project evaluated in the DEIR.

Response to Comment E-3-3. The commenter stated that project truck trips using Alessandro Blvd should be clearly depicted.

As explained in Chapter 4, Section B, Alessandro Blvd. will be severed and will not connect to the project site (see Exhibit E-3-1 in the TIA, copied below). Project-related car traffic heading west will be directed towards Cactus Blvd. Trucks will not be permitted to use the Cactus Blvd. access point and would instead be directed to SR-60. For these reasons, there is no project-related truck traffic expected on Alessandro Blvd.

Exhibit E-3-1 Proposed Roadways and Phasing



Response to Comment E-3-4. The commenter asked that a figure showing the truck routes to the SR-60 and I-215 freeways be added. A figure (Figure 8 in the Traffic Impact Analysis (TIA) Final Environmental Impact Report (FEIR) Volume 2 Appendix L-1) has been added showing the designated truck routes in and around Moreno Valley.

Response to Comment E-3-5. The commenter acknowledges that the trip generation rate used in the TIA (1.68 vehicular trips per thousand square feet per day (VT/KSF/day)) is higher than the rate recommended in the Institute of Transportation Engineer's Trip Generation Manual 8th Edition (1.44 VT/KSF/day) but nevertheless claims that the rate it is too low and results in underreporting the air quality impact and health risk impacts. The commenter cites a recommendation from the South Coast Air Quality Management District (SCAQMD) that a higher rate of 2.59 VT/KSF/day should be used instead. The commenter also notes what appears to be a small (3%) inconsistency between the trip generation rates and the total reported trips in Table 17 in the *Air Quality, Greenhouse Gas, and Health Risk Assessment Report* prepared for the DEIR.

The figure cited by the commenter (2.59 VT/KSF/day) is recommended by SCAQMD for use in evaluating worst-case scenarios for individual warehouses. When ten or more warehouse buildings are evaluated as a group, as is the case for the WLC (Section 2.1 of the Specific Plan states that the WLC will have 15-to-30 logistics warehouses), then SCAQMD recommends the use of the average rate of 1.44 VT/KSF/day (*California Emissions Estimator Model, Appendix E Technical Source Documentation*, California Air Pollution Control Officers Association, page 14), which is lower than the rate of 1.68 VT/KSF/day that used in the TIA. As stated in Section 2.1 of the Specific Plan, it is anticipated that the WLC will have 15-to-30 logistics warehouses As a result, the TIA takes a more conservative approach to traffic analysis than necessary.

It appears that the small inconsistency the commenter is referring to occurs due to the fact that a portion of trips to some destinations were considered pass-by trips. These are trips that, for example, stop at the fueling station as a side trip during the course of a primary trip or from their primary destination in the WLC. Standard engineering practice is to not count these as new trips but rather as part of the longer trip. This is discussed in the revised TIA (FEIR Volume 2, Appendix L-1) at Chapter 2, Section B, the subsection entitled Manual Trip Generation and Assignment for Fueling Station.

Response to Comment E-3-6. The commenter raised several issues dealing with availability and feasibility of demonstration-stage hybrid trucks as additional project mitigation, health impacts from diesel and ultra-fine particulate matter emissions; responses are discussed below.

Additional Mitigation: The commenter suggests that zero emission or hybrid electric trucks should be a mitigation measure. Please refer to Master Response-3 in Comment Letter C-3: Zero Emission or Hybrid Electric Trucks, Vehicles, and Equipment for why this would not be a feasible mitigation measure. The commenter states that there are demonstration projects conducted by the California Energy Commission, United States Environmental Protection Agency (EPA), and the United States Department of Energy. However, no references are provided. Even if there were demonstration programs, there are no commercially viable zero-emission or hybrid trucks available and it is not known whether any such demonstration project would be successful and lead to commercially viable zero-emission or hybrid trucks. In addition, these programs would have funding from those referenced agencies; the project and its tenants would not be guaranteed funding for such programs.

The commenter also claims, "according to SCAQMD, the first generation of zero-emission trucks will be available within the next five years." However, the commenter does not provide a reference for that statement. In its comment letter on this DEIR, the SCAQMD did not recommend zero-emission technologies. The SCAQMD did recommend installing the requisite electrical infrastructure for these trucks when they become commercially available, which is included in Mitigation Measure (MM) 4.3.6.4A. Even if zero-emission trucks are available within the next five years, it is not feasible to

require zero emission trucks, as discussed in Master Response-3 in Comment Letter C-3, Zero Emission or Hybrid Electric Trucks, Vehicles, and Equipment.

Health Impacts from Diesel PM: The commenter points out that diesel PM is responsible for most of the cancer risk in California and is known to cause significant non-cancer health impacts. Discussions on the health risks associated with diesel PM were provided in the DEIR and as discussed in Master Response-2 in Letter C-3: Health Effects of Diesel Particulate Matter.

Assessment of Chronic Non-Cancer Hazards: The commenter also points out that the non-cancer health impacts dealing with chronic and acute non-cancer exposures were not fully estimated because of limitations in methodologies or no thorough analysis.

The assessment of the chronic non-cancer impacts from the project was included in the DEIR (see Section 4.3 of the DEIR) and followed the recommended methodology prescribed by the SCAQMD and the Air Resources Board (ARB), which is based on the concept of a reference exposure level or reference exposure level (REL). The REL is an exposure level of a pollutant below which the pollutant is assumed to not have a deleterious health impact. The assessment of chronic non-cancer hazards presented in the DEIR concluded that exposures to diesel PM from the project would result in exposure levels of diesel PM that are below the REL for diesel PM established by Office of Environmental Health Hazard Assessment (OEHHA) and thus would not result in a significant chronic non-cancer health hazard.

Assessment of Acute Non-Cancer Hazards: The assessment of acute non-cancer hazards contained in the DEIR was discussed qualitatively and has been expanded in the revised analysis by examining the potential hazards associated with the total organic gas (TOG) emissions from both gasoline vehicles and diesel vehicles. Exposures to several components (i.e., chemical species) that make up gasoline and diesel TOG emissions have been associated with acute non-cancer health impacts. For this purpose, estimates were made of the maximum 1-hour emission rates of TOG based on the peak-hour traffic volumes from the project's mobile sources over a network of nearly 500 roadway segments that covered the region from near Palm Springs, the project, and the ports of Los Angeles and Long Beach.

To estimate the levels of these chemical components from the project's TOG emissions, ARB speciation profiles were used to subdivide the estimated TOG impacts into their individual chemical species. Each chemical species has an associated acute non-cancer REL, which is the amount of that species below which that species will not have an acute non-cancer effect. Separate estimates were made for the potential chemical species hazards from the project's gasoline vehicles and diesel vehicles. This discussion and the results are provided in Section 5.2, Impact Analysis, and in Impact AIR-4 Sensitive Receptors of the revised analysis (FEIR Volume 2 Appendix D). The results demonstrate that even during the worst-case condition (assuming that the project would be fully built out in 2012), the project's maximum acute non-cancer hazard was found to be 0.07, substantially less than the SCAQMD's significance threshold of 1.0 at any location examined including residences, schools, and health care facilities.

Ultrafine Particles: The commenter indicates that the DEIR fails to adequately disclose and analyze ultrafine particles (UFP) from the project.

The commenter states, "Scientific research pointing to the adverse health effects from UFPs, especially on children, has continued to grow." The commenter then references the "2012 AQMD Draft Program EIR." It is presumed that the reference is for the 2012 Air Quality Management Plan (AQMP), Chapter 9. However, the 2012 AQMP also states, "New toxicological and epidemiological studies targeting exposure to controlled and uncontrolled emissions from gasoline and diesel vehicles are needed to better characterize the exposure-response relationships to UFPs and to help develop

health guidelines and potential regulations." Although there have been some studies, more are needed in order to identify a level of concern or threshold.

The commenter states that the DEIR "does not account for the wider dispersion zone of UFPs compared with larger particles ($PM_{2.5}$ and PM_{10}). UFPs are 0.1 micron or less in size and will travel farther from the project than larger particulates."

Information regarding UFP has been added to the revised analysis and in the FEIR. However, UFP are not quantified and a significance finding is not presented in the FEIR. This is because the ARB, SCAQMD, and the EPA do not have standards, thresholds, consensus regarding how to standardize particle measurements, approved methodology to estimate emissions of UFP, or mathematical models to estimate the dispersion of these particles. The SCAQMD states further (Page 9-35) of the SCAQMD 2012 Air Quality Management Plan[23] "Currently, U.S. EPA notes that, in their assessment, there is not sufficient health evidence to support a separate standard for UFPs." Thus, even if UFP were able to be quantified, there would be no standard or threshold to which it could be compared, so the significance of such emissions would be speculative.

Response to Comment E-3-7. The commenter provides a discussion indicating that the cancer risk analysis contained in the DEIR underestimates the cancer risk to children by not accounting for the greater sensitivity of children to exposures to toxic air contaminants compared with adults. The commenter points to the need to apply age-specific sensitivity factors and an appropriate exposure time period to assess cancer risks to students.

As discussed in Master Response-2 and Section 4.3 of the EIR, new technology diesel exhaust does not contribute to cancer. Nonetheless, the revised health risk assessment now fully incorporates the Current OEHHA Guidance recently adopted age sensitivity factors to address potential exposures to school-age children from air emissions from the project. The assessment of school-age health risks is discussed in FEIR Section 4.3.3 Risk Assessment Methodology. As discussed therein, the assessment accounted for the duration that children could potentially be exposure during their time at school. For this purpose, the assumptions applied in estimating cancer risks to school-age children were:

Time at School: 180 days per year
School Day: 9 hours per day
School Duration: 9 years
Daily Breathing Rate: 745 liters per kilogram per day as representative of school-age children at the 95th percentage breathing rate
Age Sensitivity Factor: 3

As noted above, the commenter also requested that the DEIR be revised to include exposure durations and age sensitivity factors that more appropriately assess the cancer risks to school-age children. These factors have been included as part of the Current OEHHA Guidance for estimating cancer risks. Age sensitivity factors have been developed by the OEHHA and apply to children in the context of the Current OEHHA Guidance includes both early-life exposures that may result in the occurrence of cancer during childhood and early-life exposures that may contribute to cancers later in life.

Cancer risks were estimated at 36 elementary, middle, and high schools located within the City of Moreno Valley applying the methodologies discussed above. The results of the risk calculations are shown in Table E-3.A (FEIR Volume 2 Appendix D). The results indicate that the SCAQMD cancer risk

[23] SCAQMD 2012. Air Quality Management Plan. Chapter 9. Near Roadway Exposure and Ultrafine Particles. Website: http://www.aqmd.gov/aqmp/2012aqmp/Final-February2013/Ch9.pdf

significance threshold would not be exceeded at any of the schools analyzed, based on the exposure durations appropriate to school-age children. The results of this school-age risk assessment are provided in the table below and are contained in the revised analysis.

Table E-3.A: Estimated Cancer Risks at Nearby Schools				
School Name	**Address in Moreno Valley**	**Estimated Cancer Risk(1)(risk per million)**	**SCAQMD Cancer Risk Significance Threshold (risk/million)**	**Exceeds Significance Threshold?**
Alessandro School	23311 Dracaea Avenue	1.1	10	No
Armada Elementary School	25201 John F Kennedy Drive	1.0	10	No
Badger Springs Middle School	24750 Delphinium Avenue	0.9	10	No
Bear Valley Elementary School	26125 Fir Avenue	2.0	10	No
Box Springs Elementary School	11900 Athens Drive	0.9	10	No
Butterfield Elementary School	13400 Kitching Street	1.3	10	No
Chaparral Hills Elementary School	24850 Delphinium Avenue	0.9	10	No
Cloverdale Elementary School	12050 Kitching Street	1.5	10	No
Creekside Elementary School	13563 Heacock Street	0.9	10	No
Edgemont Elementary School	21790 Eucalyptus Avenue	0.8	10	No
El Potrero Elementary School	16820 Via Pamplona Drive	1.0	10	No
Hendrick Ranch Elementary School	25570 Brodiaea Avenue	1.2	10	No
Honey Hollow Elementary School	11765 Honey Hollow Street	1.0	10	No
La Jolla Elementary School	14745 Willowgrove Place	2.0	10	No
Landmark Middle School	15261 Legendary Drive	1.7	10	No
Lasselle Elementary School	26446 Krameria Avenue	0.9	10	No
March Mountain High School	24551 Dracaea Avenue	1.1	10	No
Midland Elementary School	11440 Davis Street	1.1	10	No
Moreno Elementary School	26700 Cottonwood Avenue	1.9	10	No

Table E-3.A: Estimated Cancer Risks at Nearby Schools				
School Name	Address in Moreno Valley	Estimated Cancer Risk[1](risk per million)	SCAQMD Cancer Risk Significance Threshold (risk/million)	Exceeds Significance Threshold?
Moreno Valley High School	23300 Cottonwood Avenue	0.9	10	No
Mt View Middle School	13130 Morrison St	2.0	10	No
North Ridge Elementary School	25101 Kalmia Avenue	1.2	10	No
Palm Middle School	11900 Slawson Avenue	1.5	10	No
Ramona Elementary School	24801 Bay Avenue	1.1	10	No
Rancho Verde High School	17750 Lasselle Street	0.4	10	No
Ridgecrest Elementary School	28500 John F. Kennedy Drive	3.2	10	No
Seneca Elementary School	11615 Wordsworth	1.0	10	No
Serrano Elementary School	24100 Delphinium Avenue	0.8	10	No
Sunnymead Elementary School	24050 Dracaea Avenue	1.0	10	No
Sunnymead Middle School	23996 Eucalyptus Avenue	1.1	10	No
Towngate Elementary School	22480 Dracaea Avenue	0.8	10	No
Valley Christian School	26755 Alessandro Boulevard	1.6	10	No
Valley View High School	13135 Nason Street	2.1	10	No
Victoriano Elementary School	25650 Los Cabos Drive	0.9	10	No
Vista del Lago High School	15150 Lasselle Street	1.2	10	No
Proposed high school	Ironwood Avenue and Quincy Street	3.4	10	No

Note:
[1] The highest 9-year average occurs once the project commences construction in 2015; therefore the cancer risk was determined over the 9-year time period from 2015 to 2023
Source: Air Quality, Greenhouse Gas, and Health Risk Assessment, 2015.

Response to Comment E-3-8 The commenter requests that the DEIR be revised to include additional efforts to adequately characterize and mitigate the cancer and non-cancer health risks associated with diesel PM for the project.

This comment is addressed in Master Response-2: Health Effects of Diesel Particulate Matter and responses to other comments contained in Comment Letter C-3. The DEIR and the revised analysis examined in great detail the potential impacts of the project and identified both project design features and mitigation measures that would minimize the project's air quality impacts. Among the many mitigation measures designed to reduce the project's emissions include the following:

- The project has committed to requiring all diesel trucks to meet model year 2010 engine standards, the cleanest diesel engines available (see project design feature on page 3-33 of the DEIR, Mitigation Measure 4.3.6.3B(l) in the revised analysis, and Section 12.2 Engine Restrictions of the World Logistics Specific Plan).
- Limiting idling time of all diesel trucks to 3 minutes in accordance with proposed mitigation.
- Use of natural gas fired emergency generators.
- Use of yard hostler trucks that meet either Tier 4 or model year truck engine standards, the cleanest truck engines.
- Pallet jacks, forklifts, and other onsite equipment used during building operation (indoors or outdoors) shall be powered by electricity, natural gas, propane, or other non-diesel fuel.
- Use of off-road construction equipment greater than 50 horsepower meeting Tier 4 standards (MM 4.3.6.2A).
- Prohibiting heavy trucks from traveling on Redlands Boulevard south of Eucalyptus Street to keep trucks away from local residential areas; Cactus Avenue will be designed to prohibit use by heavy trucks.

Response to Comment E-3-9. The commenter suggests that additional mitigation projects be developed that would balance community needs with goods movement to and through the project. Please see the FEIR Mitigation Monitoring Reporting Program for a list of the project's mitigation measures.

<table>
<tr><th>Suggested Mitigation Measure</th><th>Response</th></tr>
<tr><td>The project could have a mitigation grant program. The Mitigation Grant Programs that the Ports of Long Beach and Los Angeles have funded and successfully implemented to address air quality impacts to schools and other receptors. The Port of Long Beach has committed over $17 million for mitigation grant programs.</td><td rowspan="3">Not Included. As part of the revised Health Risk Assessment (HRA), a standard 9-year exposure analysis was conducted for the school sites, including modifications recommended by the Moreno Valley Unified School District (see Response to Comment E-3-7). No significant impacts were found (the incremental cancer risk was less than 10 in a million) and, therefore, no additional mitigation is necessary at those locations. In addition, there is no nexus nor can proportionality be established between a fixed percentage of project development costs and the funding of undetermined mitigation measures. In fact, neither Southern California port is considering a fixed percentage of project development costs to fund a mitigation program. Also see Master Response-5 regarding why air filtration systems are not feasible.</td></tr>
<tr><td>The project could fund high efficiency air filtration installations in local schools. The Port of Long Beach funded installation of high efficiency air filters in local schools in the amount of more than $3 million.</td></tr>
<tr><td>The project could fund the installation of new energy efficient windows and doors with low air leakage for offsite sensitive receptors.</td></tr>
<tr><td>The project could install landscaping with air filtration benefits.</td><td>Not Included. It is not clear from the comment whether the commenter is suggesting this for offsite or onsite. If onsite, the project would plant a wide variety of landscaping features. However, the benefits of such landscaping in reducing pollutant impacts is highly variable depending on landscape variety, age, spacing, leaf density, and wind speed.</td></tr>
</table>

Response to Comment E-3-10. The commenter indicates that the greenhouse gas emissions as estimated in the DEIR are approximately 700,000 metric tons carbon dioxide equivalent ($MTCO_2e$) per year at buildout.

The greenhouse gas emissions analysis has been revised based on the use of forecasted project traffic volumes along the local and regional roadway network (see Master Response-1 in Letter C-3).

The commenter indicates that the greenhouse gas section does not provide an analysis on how this level of greenhouse gas emissions will impact the surrounding area or region. There are no models available to identify how the relatively small quantity of project emissions will influence the surrounding area. The current climate models look at the global climate and global emissions. The project's emissions compared with global emissions are relatively small; the emissions would not be perceptible in the global climate models. Pages 4.7-5 and 4.7-6 of the DEIR explain potential climate change effects to California. Pages 73 through 76 of Appendix D to the DEIR explain potential climate change effects (reduction in water supply, increased wildfires, flooding) to Moreno Valley.

The commenter indicates that the greenhouse gas section should evaluate consistency with the Southern California Association of Government (SCAG) strategies to reduce vehicle miles traveled in the region. Table 4.7.D in the DEIR identifies these strategies as well as the responsible party for implementing those strategies. The DEIR at page 4.7-22 states, "Many of the strategies are similar to the project's mitigation measures and project design features." This table has been expanded in the FEIR to demonstrate that the project is consistent with those strategies.

The commenter indicates that "SCAG's 2012 Regional Transportation Plan/ Sustainable Communities Strategy (RTC/SCS) uses substantially different assumptions for population and employment for the site per the adopted Moreno Highlands Specific Plan. Therefore, consistency of the project must be analyzed with respect to the 2012 RTC/SCS." A comparison of emissions for the Moreno Highlands Specific Plan and the project is shown in the FEIR (the alternatives section). In addition, it is unknown if the SCAG's SCS used the Moreno Highlands Specific Plan variables in its modeling.

Although there is only one mitigation measure required to reduce greenhouse gas (GHG) emissions, other mitigation measures and project design features in the DEIR would also reduce GHG emissions, as shown in Table 4.7.H in the DEIR and Table 4.7.I in the FEIR.

The commenter indicates that project design features that reduce GHG emissions should be outlined in the mitigation program to ensure enforceability. The project design features are included in the WLCSP and will be enforced in tenant leases.

Response to Comment E-3-11A. See Response to Comment E-3-7.

Response to Comment E-3-11B. DEIR Section 4.8.2.2, State Regulations – California Code of Regulations addresses the threshold for businesses to prepare a Hazardous Materials Business Emergency Plan. The California Hazardous Materials Management Act (HMMA) requires that businesses handling or storing certain amounts of hazardous materials prepare a Hazardous Materials Business Emergency Plan (HMBEP), which includes an inventory of hazardous materials stored on site (above specified quantities), an emergency response plan, and an employee training program. An HMBEP is a written set of procedures and information created to help minimize the effects and extent of a release or threatened release of a hazardous material. The intent of the HMBEP is to satisfy federal and State Community Right-to-Know laws and to provide detailed information for use by emergency responders.

Per the California Health and Safety Code (HSC), Chapter 6.95, Section 25500–25532, an HMBEP must be submitted by any business that handles a hazardous material or a mixture containing a hazardous material in quantities equal to, or greater than:

- A total weight of 500 pounds or a total volume of 55 gallons;
- 200 cubic feet of a compressed gas at standard temperature and pressure; and/or
- A radioactive material handled in quantities for which an emergency plan is required pursuant to Parts 30, 40, or 70 of Chapter 10, Title 10, Code of Federal Regulations (CFR), or equal to or greater than the amounts specified above, whichever amount is less.

An HMBEP must be prepared prior to facility operation. Any business subject to HMBEP requirements shall submit an amendment of its HMBEP to the local implementing agency when there is: A 100 percent or more increase in the quantity of a previously disclosed hazardous material; Any handling of a previously undisclosed hazardous material subject to the inventory requirements; Change of business address; Change of ownership; Change of business name; and/or Change of contact information.

In addition, any business subject to HMBEP requirements is also required to certify the inventory of hazardous materials handled at the business every year. Businesses are also required to review their HMBEP at least once every three years to determine if a revision is necessary. Once the review has been conducted, the business must certify in writing to the local implementing agency that a review has been completed and necessary changes were made. For businesses within the City of Moreno Valley, HMBEPs are submitted to and approved by the County of Riverside Community Health Agency, Department of Environmental Health.

Response to Comment E-3-11C. The California Department of Education (CDE) requires a Pipeline Risk Assessment to be conducted for all high-pressure pipelines within 1,500 feet of a proposed elementary or secondary school. No elementary or secondary schools currently exists, nor are any proposed, within 1,500 feet of the project and, therefore, no pipeline risk assessment is required. Relocation of existing natural gas lines is discussed at page 4.16-38 of the DEIR.

It should be noted that the California Public Utilities Commission (CPUC) ensures that the state's natural gas pipeline systems are designed, constructed, operated, relocated and maintained according to safety standards set by the CPUC and the federal government. CPUC gas safety inspectors are trained and certified by the federal government. The CPUC enforces safety regulations, inspects utility work, including the relocation of existing lines, and makes necessary additions and changes to regulations for promoting the safety of the public and the utility employees that work on the gas pipeline systems.

The CPUC created a comprehensive, high-level, Gas Safety Action Plan (ftp://ftp.cpuc.ca.gov/safety/GasSafetyPlanApril2013.pdf) to guide and promote the CPUC's shift in culture from the traditional compliance model to a regulatory structure that sets, monitors, and enforces rules for regulated utilities based on risk assessment and risk management. San Diego Gas and Electric company, which is regulated by the CPUC, currently provides, and will in the future provide, natural gas to the project site. The Gas Safety Action Plan also tracks the CPUC's implementation of improvements responsive to recommendations made by the Independent Review Panel and the National Transportation Safety Board in response to the tragic Pacific Gas and Electric (PG&E) San Bruno pipeline explosion that occurred on September 9, 2010. As part of the Plan, the CPUC engages in an in-depth review of its current practices and procedures to seek areas for improvement in gas pipeline safety.

All new and reconstructed gas piping systems and facilities are to be designed and tested according to the requirements of Title 49 CFR part 192 (PHMSA US Department of Transportation Pipeline and Hazardous Materials Safety Administration). These standards must be followed in connection with the

relocation of any lines and therefor compliance with the required regulations will reduce the risk of an accident to insignificance.

Response to Comment E-3-12. The commenter did not provide any empirical evidence to support the contention that the additional jobs created by the WLC project over the long-term would induce substantial housing or population growth in the City. The project economic studies, included in Appendix O of the DEIR, with revised versions in Appendix O of the FEIR, indicate that new jobs in the WLC project would most likely be filled by existing City residents who are currently out of work (i.e., the City's current unemployment rate varied from 10.7 to 13.3 percent during 2013 (Economagic.com website 2013)). In addition, Section 4.13, *Population and Housing*, of the DEIR discusses the potential housing and population impacts of the WLC project, both direct and indirect, and concludes those impacts are less than significant. According to the District's own School Facilities Impact Fee Justification Reports, industrial uses, especially warehouses, do not generate substantial amounts of new students who would attend local schools. In addition, according to Government Code Section 65995(h), payment of school impact fees is complete and full mitigation so there is no significant impact on the District.

Response to Comment E-3-13. The commenter asked that a figure showing the truck routes to the SR-60 and I-215 freeways be added. They also request that the safety impact of truck trips near schools be analyzed. The commenter also expressed concern about traffic noise near schools.

Figure 8 (FEIR Volume 2 Appendix L-1) has been added to the TIA showing the designated truck routes in and around Moreno Valley. An additional section (Chapter 12, Section B) has been included in the TIA to analyze potential project safety impacts on roads near schools. An additional memorandum dated July 2014 has been written to address the newly proposed high school site # 5 located north of the SR-60. No significant impacts were found. There are very few locations where considerable volumes of project traffic cross pedestrian traffic of any significance near schools. At these locations appropriate safety measures are already in place. Section 4.12 Noise of the EIR examined noise impacts of project traffic, including passenger vehicles and trucks, along the city streets and freeways analyzed in the TIA.

Response to Comment E-3-14. The EIR accurately express the many potential environmental impacts of the proposed WLC project and recommend appropriate feasible mitigation measures. For information on potential recirculation, see Response to Comment E-3-1. As a commenting responsible agency, the District will have a chance to review draft responses to all comments on the DEIR before action is taken on the project, as required under California Environmental Quality Act (CEQA).

Response to Appendix 1. This appendix provides the locations of the nearby schools in relation to the estimated cancer risks from the project as shown in the DEIR. In the revised analysis, an assessment was done that specifically addresses impacts to schoolchildren based on their representative exposures to air pollutants while attending school. The results of this analysis are provided in Response to Comment E-3-6.

Letter E-4: City Of San Jacinto (April 9, 2013)

Letter E-4

RECEIVED
APR 0 9 2013
CITY OF MORENO VALLEY
Planning Division

April 8, 2013

Mr. Mark Gross, AICP
Planning Division
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92553

Dear Mr. Gross,

The City of San Jacinto is pleased to provide this letter in response to the City of Moreno Valley's circulation of the Draft EIR for the World Logistics Center development project. We appreciate the opportunity to review and comment about such a large development, which will have a significant impact to the region.

At this time, the City of San Jacinto does not have any specific comments to offer regarding the environmental impacts discussed in the Draft EIR. We do note that the project will have many significant impacts to traffic congestion on both freeways and surface streets in the area, including roadways outside of Moreno Valley's city limits. The City of San Jacinto is interested in working with other local agencies and the developer to mitigate this project's impact by establishing a method for the finance and construction of infrastructure improvements outside of Moreno Valley. We ask that San Jacinto staff be invited to participate in all future efforts along these lines. 1

Thank you for the opportunity to comment on the World Logistics Center project.

Sincerely,

Tim Hults
City Manager

595 S. San Jacinto Ave. | San Jacinto, CA 92583 | Ph (951) 654-7337 | Fax (951) 654-3728 | www.ci.san-jacinto.ca.us

RESPONSES TO LETTER E-4

City of San Jacinto

Response to Comment E-4-1. The City of Moreno Valley thanks the City of San Jacinto for its positive and constructive comments, and looks forward to working with the City of San Jacinto and others on an appropriate offsite traffic mitigation program.

Letter E-5: City of Redlands (October 7, 2013)

DEVELOPMENT SERVICES
DEPARTMENT

City of
REDLANDS
Incorporated 1888
210 E. Citrus/P.O. Box 3005, Redlands, CA 92373
909-798-7555 ext. 2

OSCAR ORCI
Development Services Director

ROBERT D. DALQUEST, AICP
Assistant Development Services Director

October 7, 2013

John Terell, Planning Official
14177 Frederick Street
Moreno Valley, CA 92553

Re: Review and Comments on the World Logistics Center Project DEIR

Dear Mr. Terell

Thank you for the opportunity to comment on the World Logistics Center Draft Environmental Impact Report (DEIR) prepared by the City of Moreno Valley. The City of Redlands has concerns regarding the traffic analysis, particularly the road segments of San Timoteo Canyon Road and Alessandro Road. The DEIR fails to mention the circulation issues and policies for this area that are addressed within the City of Redland's General Plan. Staff from the City of Redlands, Development Service Department, offers the following responses: 1

- Intersections identified to be within the City of Redlands' jurisdiction include:
    - San Timoteo Canyon Road/Alessandro Road (Intersection -132)
    - San Timoteo canyon Road/Live Oak Canyon Road (Intersection -133)
    - W Crescent Avenue/Alessandro Road (Intersection-135)
    - W Sunset Drive/Alessandro Road (Intersection-136)

The City of Redlands General Plan policies that are not addressed in the DEIR are as follows:

5.20a Maintain LOS C or better as the standard at all intersections presently at LOS C or better

The DEIR identifies existing LOS at intersections No. 135 and 136 as operating with an LOS C or better; however, as indicated in Tables 4.15E, 4.15N, 4.15S, 4.15AN and 4.15AN, 4.15 AS-1 and 4.15 AS-2, the LOS Standard for these two intersections is LOS D. This is not consistent with policy 5.20a; and therefore the project must mitigate this increase in LOS to LOS C, or the project is found to be inconsistent with the Redlands General Plan. 2

5.20c Where the current level of service at a location within the City of Redlands is below the Level of Service (LOS) C standard, no development project shall be approved that cannot be mitigated so that it does not reduce the existing level of service at that location

The DEIR identifies the intersections of San Timoteo Canyon Road/Alessandro Road and San Timoteo Canyon Road/Live Oak Canyon Road as significant and unavoidable. The DEIR states that these intersections already exceed the LOS threshold in both the am and pm peak hours and traffic using the intersection would experience longer delays under Existing Plus Project conditions. Signalizing this intersection would reduce project impacts to a less than significant level. However, because the intersections are outside of the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City of Moreno Valley cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. This is inconsistent with Redlands General Plan policy 5.20c, and the project should be required to mitigate this intersection before the project is operational. 2

Alessandro Road is designated as a collector and pertains to the following policies:

5.32a Design collector streets and implement traffic control measures to keep traffic on collectors at 3,000 vehicles per day or less, where possible.

The DEIR fails to address this policy for Alessandro Road and projected traffic exceeds the 3,000 vehicles per day limitation for collector streets. This is inconsistent with Redlands General Plan policy 5.32a. 3

5.32e Avoid adding traffic to streets carrying volumes above the standards in Policies 5.20a, b, c and consider traffic control measures where volumes exceed the standards and perceived nuisance is severe.

According to the DEIR, LOS for existing (2012), 2017 without project and 2022 without project scenarios state that intersection 135 and 136 exceed the LOS of D for AM and PM peak hour. This is not consistent with Redlands General Plan policy 5.32e. Furthermore, the mitigation proposed within the DEIR fails to restore LOS to acceptable levels.

5.71 Southeast Area Circulation Issues and Policies

5.71c addresses the design of future roadways in the Southeast Area

The Redlands General Plan section 5.71 addresses circulation issues and policies specific to the Southeast Area of Redlands, in San Timoteo and Live Oak canyons. The DEIR fails to address this section within the circulation section; in particular Alessandro Road. The Alessandro Road bridge and its northern approach currently appear marginal and require major revision. The bridge width is inadequate to accommodate even the lowest projected traffic volumes and needs to be widened, and that the curve to the north of the bridge needs to be straightened out. The Traffic Section of the DEIR fails to address the current condition of Alessandro Road Bridge. Consideration should be given to the realignment of the roadway, widening of the bridge, and possibly the need for a relocated bridge. 4

Based on the above comments, the City of Redlands is opposed to the project as it is inconsistent with the Redlands General Plan, and poses traffic impacts that are considered significant and unavoidable, and no mitigation is proposed to reduce these significant impacts to a less than significant level. In addition, the City of Redlands requests that all notices regarding CEQA or public hearings on this project be sent to the City of Redlands. Your considerations of the City of Redlands comments are greatly appreciated. 5

Sincerely,

Tabitha Kevari
Associate Planner, Development Services Department

RESPONSES TO LETTER E-5

City of Redlands

Response to Comment E-5-1. The commenter states that the City of Redlands has concerns regarding the Draft Environmental Impact Report (DEIR). The concerns center on the four study intersections within the City of Redlands, namely: San Timoteo Canyon Rd/Alessandro Rd. (IN-132), San Timoteo Canyon Rd/Live Oak Canyon Rd. (IN-133), W. Crescent Ave. /Alessandro Rd (IN-135), W. Sunset Dr. /Alessandro Rd. (IN-136).

The commenter's general statement is acknowledged; responses are provided to comments about the specific intersections below.

Response to Comment E-5-2. The commenter states that Redlands General Plan sets a target Level of Service (LOS) for all intersections of LOS C or better, whereas the Traffic Impact Analysis (TIA) states that the target LOS is D for Intersection (IN)-135 and IN-136. The comment also states that where the current LOS at a location in the City of Redlands is below the LOS C standard, no development project shall be approved that cannot be mitigated so that it does not reduce the existing LOS at that location. The TIA states that the LOS for IN-132 and IN-133 already exceed the target LOS. The project should be required to mitigate this intersection before the project is operational. The TIA says that the project's impact at these intersections is significant and unavoidable because the intersections are outside of the jurisdiction of the City of Moreno Valley.

The TIA has been revised to show a target LOS of C for IN-135 and IN-136 refer to Final Environmental Impact Report (FEIR) Volume 2 Appendix L-1. Both of these intersections have LOS C or better under both Existing Plus Project and 2035 Plus Project conditions, so the project has no direct or cumulative impact at either location. There are deficiencies in later years that are due to other development projects anticipated in the future.

The World Logistics Center (WLC) project cannot be held responsible for rectifying the existing deficiencies at IN-132 and IN-133. The TIA correctly assigns the project the responsibility for its fair share of the cost of improvements, and includes the payment of a fair share fee to mitigate project impacts to transportation facilities outside of the City of Moreno Valley (see Mitigation Measure (MM)-Trans-5 FEIR Volume 2 Appendix L-1). As stated in the revised TIA, since the City of Moreno Valley cannot guarantee the implementation of improvements for facilities not under its jurisdiction, impacts at these intersections must be identified as significant and unavoidable.

Response to Comment E-5-3. The commenter states that the TIA shows that the LOS for IN-132 and IN-133 would exceed the target LOS under Existing, 2017 No Project, and 2022 No Project conditions. This is not consistent with Redlands General Plan Policy 5.32e. The proposed mitigation fails to restore the LOS to acceptable levels.

As stated in the comment, the LOS problem already exists and this existing deficiency would continue into the future whether the WLC is built or not. The WLC project cannot be held responsible for correcting existing deficiencies. The TIA correctly assigns the project the responsibility for its fair share of the cost of improvements, and includes the payment of a fair share fee to mitigate project impacts to transportation facilities outside of the City of Moreno Valley (see MM-Trans-5 FEIR Volume 2 Appendix L-1). As stated in the revised TIA, since the City of Moreno Valley cannot guarantee the implementation of improvements for facilities not under its jurisdiction, impacts at these intersections must be identified as significant and unavoidable.

Response to Comment E-5-4. The commenter states that the TIA fails to address the current problems of Alessandro Road. The comment says that the Alessandro Road Bridge and its northern

approach currently appear marginal and require major revision. The bridge width is inadequate to accommodate even the lowest projected traffic volumes and needs to be widened, and the curve north of the bridge needs to be straightened out. Consideration should be given to the realignment of the roadway, widening the bridge, and possibly relocating the bridge.

The problems cited in this comment are of long standing; the comment's statement that, "*the bridge and its northern crossing currently appear marginal and require major revision*" comes from the Redlands' General Plan dated August 1998, as does the statement that, "*the bridge width is inadequate to accommodate even the lowest projected traffic volumes and needs to be widened, and the curve north of the bridge needs to be straightened out*." The WLC project cannot be held responsible for correcting existing deficiencies. The TIA correctly assigns the project responsibility for its fair share of the cost of improvements, and includes the commitment of the City of Moreno Valley to work with the City of Redlands to establish a mechanism for collecting this fee (see MM-Trans-5 FEIR Volume 2 Appendix L-1). As stated in the TIA, since the City of Moreno Valley cannot guarantee the implementation of improvements for facilities not under its jurisdiction, impacts at these intersections must be identified as significant and unavoidable.

Exhibit E-5-1: The Alessandro Road Bridge and Curve

Response to Comment E-5-5. The commenter states that the City of Redlands is opposed to the project as it is inconsistent with the Redlands General Plan, has impacts that are significant and unavoidable, and does not propose to mitigate these impacts to less than significant levels. The comment also requests that all notices regarding CEQA or public hearings on the project be sent to the City of Redlands.

As stated in the responses to earlier comments in this letter, the City of Redlands cannot assign responsibility for fixing its existing road problems to warehouse projects in other cities. This is particularly notable considering that the City of Redlands continues to approve warehouse projects in their own city that would have a more direct impact on the deficient roads, such as the City of Redlands City Council's recent (September 2013) approval of a million square-foot warehouse.

The City of Redlands will be provided with all CEQA or public hearing notices regarding the proposed project.

F. LETTERS FROM COMMUNITY/CONSERVATION GROUPS

Letter F-1: Center For Biological Diversity/San Bernardino Valley Audubon Society (April 5, 2013) and Appendices 1-67 (on Flash Drive)

CENTER for BIOLOGICAL DIVERSITY
Because life is good.

San Bernardino Valley
Audubon Society

VIA Email and USPS

Mark Gross
City of Moreno Valley
Community and Economic Development Department
14177 Frederick Street
Post Office Box 88005
Moreno Valley, California 92552
MarkG@moval.org

April 5, 2013

Re: Comments on the Draft Environmental Impact Report for the World Logistics Center Project, State Clearinghouse No. 2012021045

Dear Mr. Gross,

These comments are submitted on behalf of the Center for Biological Diversity, and San Bernardino Valley Audubon Society (collectively "Conservation Groups") on the World Logistics Center Project ("Project"), located south of Interstate 60 on the eastern edge of Moreno Valley. The Project would be the largest master-planned warehouse development in U.S. history, totaling approximately 41.6 million square feet on 2,710 acres. The Project would result in significant impacts to air quality contributing tons of criteria pollutants into an area currently designated as non-attainment under the Clean Air Act, poses a significant impact to climate change, and threatens the adjacent San Jacinto Wildlife Area. 1

The Environmental Impact Report ("EIR") fails to adequately describe the Project and the environmental setting, including the creation of a fictional "CDFW Conservation Buffer Area", which effectively removes over 1000 acres from the San Jacinto Wildlife Area ("SJWA") and core reserve lands under the Western Riverside County Multiple Species Habitat Conservation Plan ("MSHCP"). The EIR also fails to analyze a range of environmental impacts, mitigation measures, and alternatives. At a minimum, the EIR must be revised and recirculated to remedy these deficiencies. However, because of the permanent and irreconcilable conflicts with public health and environmental protection the project should be denied. 2

Alaska • Arizona • California • Florida • Minnesota • Nevada • New Mexico • New York • Oregon • Washington • Washington, DC

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The Center for Biological Diversity is a non-profit environmental organization dedicated to the protection of native species and their habitats through science, policy, and environmental law. The Center for Biological Diversity has over 500,000 members and e-activists throughout California and the western United States, including residents of western Riverside County. The Center has worked for many years to protect imperiled plants and wildlife, open space, air and water quality, and overall quality of life for people in the Inland Empire.

The San Bernardino Valley Audubon Society ("SBVAS") is a local chapter of the National Audubon Society, a 501(c)3 corporation. The SBVAS chapter area covers almost all of Riverside and San Bernardino Counties and includes the project area. It has about 2,000 members, about half of whom live in Riverside County. Part of our chapter's mission is to preserve habitat in our area, not just for birds, but for other wildlife, and to maintain the quality of life in the Inland Empire. 3

I. THE EIR FAILS TO PROVIDE AN ADEQUATE DESCRIPTION OF THE PROJECT AND ITS IMPACTS

The EIR for the Project fails to provide the public with a thorough, properly defined, and finite description of the Project and its environmental impacts. CEQA requires that an EIR analyze the whole of the Project including associated off site impacts and impacts that are further distant in the future. *See* CEQA Guidelines, §§ 15126 (impact from all phases of the project), 15358(a) (direct and indirect impacts). These requirements help ensure that the public and decision makers are reviewing and deciding on the Project know the full scope of the project and its impacts. EIRs that fail to provide these requirements undermine CEQA's fundamental requirement of public disclosure. An accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR. *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185 (an enigmatic or unstable project description impedes public input); *See also San Joaquin Raptor/Wildlife Reserve Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 730. Unfortunately, the EIR contains an incomplete project description and analysis that fails to provide the public and decision makers with the necessary information in order to analyze impacts and mitigation measures. 4

The EIR fails to analyze the whole of the project by, among other things, failing to adequately disclose and analyze off-site improvements and the impacts of future developments and plot plans to be implemented after approval of the EIR. Off-site improvements are not adequately disclosed, analyzed, or mitigated. The EIR discusses approximately 104 acres of off-site improvements required as part of the Project. (DEIR at 1-5). These improvements include the following: debris Basins easterly of Gilman Springs Road; water reservoirs and access roads located northeast, north, and west of the project site; SR-60 interchange improvements; and roadway, water, sewer, drainage, and utility improvements extending north and west from the project. (DEIR at 3-19, 3-25). However, the exact locations, impacts, and mitigation for these off site improvements is not disclosed or analyzed. Where the EIR does contain analysis, it is perfunctory and defers any substantive analysis to a later date. 5

The EIR contains many failures to analyze and mitigate offsite impacts. Offsite improvements could potentially impact jurisditional wetlands and should be analyzed. (DEIR at 4.4-59). Studies for the DEIR recognize that offsite improvements east of Redlands Boulevard may potentially impact drainage features likely considered jurisdictional by regulatory agencies. (DEIR App. E at 125). However, analysis of these impacts is deferred until another date and deprives the public and decision makers of a full and complete analysis of the project or its impacts. Even though these impacts are considered potentially significant, no analysis occurs. 6

The EIR fails to analyze the impacts to cultural, paleontological, and geotechnical off site impacts. The EIR defers analysis of these impacts to future studies when cultural resource assessments, paleontological resource assessments, or geotechnical constraints assessments "will be conducted." (DEIR at 1-16 through 1-19). The EIR further fails to adequately disclose and analyze the significant off-site traffic improvements that would be required and their subsequent impacts. A Project of this scale would have tremendous off site improvements resulting in a broad range of impacts. The EIR's failure to fully disclose and mitigate those impacts violates CEQA. 7

The EIR's attempt to address off site impacts by employing a nebulous and narrow "off site analysis zone" doesn't cure these impacts. (DEIR at 3-25, 7-27). Many of the off site impacts extend geographically beyond the off site analysis zone and the analysis itself is only focused on impacts to biological resources. So any impacts beyond the geographic scope of the off site analysis zone are not analyzed or disclosed and any non- biological resource impacts are not analyzed whatsoever. Even if the scope of the analysis covered all of the geographic and resource categories the vague and ill defined nature of the analysis does not allow for a focused site specific analysis. 8

The EIR figure 4.4.1 shows that the 1,000 foot "off-site analysis zone" is drawn not around the 2710 acre Specific Plan area, but around a misleading "CDFW Conservation Buffer Area" that is actually the SJWA itself. This map shows that the biological, jurisdictional, and MSHCP analysis in the EIR and Appendix were done with the wrong assumptions as to the project site and its boundaries. The erroneous "CDFW Conservation Buffer Area" must be removed from the EIR and all the biological analysis redone. 9

The EIR fails to disclose and analyze the project's impacts from the specific plan and instead improperly defers analysis of impacts to a later approval of plot plans. The EIR proposes a specific plan to allow for the development of 41.4 million square feet of logistics warehousing, up to 200,000 square feet of light logistics uses, and a site for logistics support uses. (DEIR at 7-28). However, the detail regarding the nature, scope, and impacts of that specific plan and the project itself are deferred until later plot plans are proposed. For example, the EIR fails to disclose and analyze impacts to waterways, state or federal jurisdictional waterways, or watercourses. (*See e.g.* DEIR at 4.4-60; DEIR App.E. at 126). Instead of conducting an analysis now the EIR asserts that site specific jurisdictional delineation will occur later when future development will submit grading and drainage studies. (DEIR at 1-38, 4.4-76). The EIR's failure to depict a stable and complete project and its impacts also leads to a failure to analyze impacts on specific resources as described more thoroughly in Section II below. 10

The EIR asserts that this deferral is proper because the jurisdictional delineation is programmatic in nature. (DEIR at 4.4-76). The EIR cannot improperly mask site specific impacts for a specific plan when the impacts should be analyzed at the phase when the whole project is approved, not at a later date when the impacts will be improperly piecemealed to mask the true impacts. The EIR cannot hide behind its own failure to seek out information. CEQA's requires that a lead agency must "use its best efforts to find out and disclose all that it reasonably can" Guidelines §§ 15144. 11

The EIR fails to disclose and analyze the nature, scope and impacts of the tentative parcel map. The EIR discloses that a tentative parcel map is being processed to subdivide 1,539 acres of the project site owned by the project applicant. (*E.g.* DEIR at 7-28.) The EIR further alleges that the parcel map is "for financing purposes only" and would "confer no development rights to the property." (*E.g.* DEIR at 7-28.) Despite numerous references to the same tentative parcel map there is no further discussion of the location, parcel size, layout, or elaboration of what "for financing purposes" actually means. Furthermore there are no provisions for limiting the development rights to the property that is the subject of the parcel map. The EIR's wholesale failure to provide a good faith analysis of what the tentative parcel map constitutes, the potential impacts of that tentative parcel map approval, and mitigation measures to assure that the parcel map approval confers no development rights runs contrary to CEQA. 12

II. THE EIR FAILS TO ADEQUATELY ANALYZE AND MITIGATE IMPACTS TO BIOLOGICAL RESOURCES

The DEIR fails in providing the level of analysis mandated by CEQA because it fails to address numerous aspects of how the project will affect wildlife, as well as providing a thorough analysis of the project's impacts to sensitive species and ecological communities. The Project is also adjacent to several regionally important wildlife preserves including the San Jacinto Wildlife Area ("SJWA"), the San Jacinto/Lake Perris Core Reserve for the Stephens' Kangaroo Rat Habitat Conservation Plan, and Proposed Core 3 and Existing Core H under the Western Riverside County Multiple Species Habitat Conservation Plan. These areas contain a range of rare, sensitive, threatened, and endangered species that must be fully analyzed in the DEIR. (Morton 2008; CNDDB 2013 El Casco; CNDDB 2013 Lakeview; CNDDB 2013 Perris; CNDDB 2013 Sunnymead). The EIR must fully analyze the direct and indirect impacts of the project on biological resources on the project site as well as neighboring areas. 13

CEQA requires that an EIR adequately describe the environment in the area that will be affected by the project. An EIR must include a description of the physical environmental conditions in the vicinity of the project at the time the environmental analysis is commenced with special emphasis placed on environmental resources that are rare or unique to that region and would be affected by the project. Guidelines § 15125 (a), (c). An "inadequate consideration and documentation" in an EIR "of existing environmental conditions renders it impossible for the FEIR to accurately assess the impacts the project will have on wildlife and wildlife habitat or to determine appropriate mitigation measures for those impacts." *San Joaquin Raptor/Wildlife* 14

Rescue Center v. County of Stanislaus, 27 Cal. App. 4th 713, 722 (internal citation omitted). Unfortunately the EIR fails this requirement. 14

A. THE EIR FAILS TO ADEQUATELY ANALYZE RIPARIAN/RIVERINE FEATURES AND JURISDICTIONAL WATERWAYS

The EIR fails to provide an adequate analysis of the significant riparian and jurisdictional areas on the Project site and in the Project vicinity. As noted in Attachment A these remaining and limited wetland and riparian areas are of crucial importance to ecological resources in California. The Project will impact onsite riparian/riverine and jurisdictional areas by increasing non-point source pollution and contamination, altering hydrology, destroying sensitive habitat, and increasing road effects. The EIR fails to properly describe and analyze the total riparian and jurisditional areas, including a proper jurisdictional delineation under the Clean Water Act §§ 401, 403, Porter Cologne Act (California Water Code § 13000 et seq.), and California Fish and Game Code §§ 1600, 1603. 15

One of the EIR's major flaws is the inconsistent and improper description of impacted riparian/riverine resources, the project environment, and the impacts of the project itself. The EIR claims that there are no areas that are subject to the jurisdiction of the U.S. Army Corps of Engineers, or the California Regional Water Quality Control Board. (DEIR at 1-13, 4.4-59, 4.4-76). However, the EIR's own studies contradict this assertion and acknowledge that Drainage Feature 12 "was determined to be jurisdictional waters of the U.S. under Section 404 and 401" of the Clean Water Act. (DEIR App. E at 124-125). The EIR must fully disclose and analyze the impacts to this jurisdictional waterway and discuss the potential alternatives and mitigation measures for this impact prior to project approval. 16

The failure of the EIR to properly disclose and analyze the impacts to riparian/riverine features prohibits the Project's compliance with the Western Riverside County MSHCP (WRCMSHCP, but herein after "MSHCP"). The MSHCP requires a specific analysis for riparian/riverine resources. (MSHCP Section 6.1.2). The MSHCP defines riparian/riverine areas as lands which contain habitat dominated by plants which occur close to or which depend upon soil moisture from a nearby fresh water source, or areas with fresh water flow during all or a portion of the year. (MSHCP Section 6.1.2). The biological studies for the Project recognize that riparian/riverine features occur in drainage features 7, 8, 9, and 14. (DEIR App. E at 124, 134-135, 137). Because the Project will impact these resources a Determination of Biologically Equivalent or Superior Preservation ("DBESP") is required. (MSHCP Section 6.1.2). A DBESP analysis requires, at a minimum, a determination of whether avoidance is feasible, minimization measures for indirect impacts, mitigation that would fully offset any impacts, and a determination that mitigation proposed is biologically equivalent or superior. (MSHCP Section 6.1.2). 17

The EIR fails to conduct the analysis of riparian/riverine features and DBESP analysis required by the MSHCP. Instead, the EIR defers a full analysis of the Project's impacts on riparian/riverine features and a DBESP analysis until the future. (DEIR App. E. at 120, 124, 134-135, 137). Several drainage features, including drainage features 7, 8, 9, and 14, may be 18

subject to the jurisdiction of the California Department of Fish and Wildlife, but site specific jurisdictional delineations, evaluations of impacts, and proposed mitigation measures are deferred. (DEIR at 4.4-76, 1-14, and 1-15). This runs contrary to the requirements of CEQA and the MSHCP regarding the proper timeframe for environmental review and disclosure of a Project's impacts. (MBA 2008; MBA 2009). There is no provision for public input and review when the DBESP is improperly deferred, and the EIR attempts to segment the whole of the project review by improperly avoiding analysis and disclosure of the project being approved. 18

The protection of riparian/riverine resources is also required by the City of Moreno Valley General Plan. General Plan Policy 7.4.3 requires that projects "[p]reserve natural drainage courses in their natural state and the natural hydrology, unless the protection of life and property necessitate improvement as concrete channels." (DEIR at 4.4-60). The EIR acknowledges that 14 drainages or basins occur but defers analysis to determine whether the project is consistent with this policy. (DEIR at 4.4-60; DEIR App. E at 126). The EIR cannot ignore local policies regarding the proper protection of natural resources. 19

The DEIR also fails to adequately disclose and analyze the riparian and riverine features. The DEIR claims that Drainage feature 14 contains "no native riparian habitat." (DEIR at 4.4-59). However, this is again contradicted by the biological surveys for the project, which indicated that the native habitat of "southern willow scrub" dominated Drainage feature 14 and provides habitat for least Bell's vireo, and southwestern willow flycatcher. (DEIR App. E at 54, 120). Attempts to dismiss the riparian areas in the text of the EIR by asserting that it does not provide suitable habitat for riparian/riverine planning species, when the studies for the EIR acknowledge that the area contains habitat that could be used by native wildlife runs contrary to CEQA. The EIR's incomplete and inconsistent analysis renders the EIR invalid. 20

B. THE EIR FAILS TO ADEQUATELY MINIMIZE AND MITIGATE THE IMPACTS OF LIGHT POLLUTION

The DEIR's conclusion that additional mitigation measures may be necessary for the impacts of light pollution on wildlife is inadequate. (DEIR at 4.4-67). This is insufficient to meet CEQA's requirement of fully disclosing impacts. Pub. Res. Code §§ 21061; 21005(a). CEQA Guidelines mandate that relevant information be presented so that agencies and the public are fully informed as to the ramifications of a project. *See e.g.* Pub. Res. Code § 21005(a). Here, the DEIR fails to adequately analyze and mitigate the impacts to wildlife from light pollution on and adjacent to the Project. 21

Light pollution is a major problem that can significantly confuse migratory birds and otherwise disturb and disrupt wildlife foraging and breeding. (CNN, "Light Pollution Threatens National Park," 1999). Light pollution can seriously threaten the continual survival of numerous species; "[t]he cumulative effects of behavioral changes induced by artificial night lighting on competition and predation have the potential to disrupt key ecosystem functions" (Longcore and Rich, 2004). Light pollution is not to be taken lightly in the DEIR, and should be afforded a weighty and detailed analysis. 22

Many bird species fly at night, and have evolved to navigate their migration paths in the dark, aided by star and moon light, which is of course blocked by artificial light sources. (American Bird Conservancy, 2008). Further, birds can be attracted to lit structures, including streetlights, and can become disoriented as a result. (American Bird Conservancy, 2008). Disorientation often results in collisions with the lit structures themselves or with other birds, leading to injury and death. (American Bird Conservancy 2008). More than 100 millions birds are affected by collisions each year in North America, and this includes many endangered species. (Deda, et al). Many such catastrophes have been documented, the worst incidents involving hundreds of birds killed at one building in a single night. (American Bird Conservancy, 2008). Bird species can also become "entrapped" within lighted areas, refusing to move for the night, and thus increasing their risk of predation. (Longcore and Rich, 2004). 23

Another aspect of light pollution that the DEIR does not address is that some species, including certain birds and reptiles, have begun to utilize artificial lights, such as streetlights to forage underneath for food. (Longcore and Rich, 2004). However, this can increase their risk of predation, as well as increase these species dependence on these human structures. (Longcore and Rich, 2004). The EIR should also analyze the potential for night lighting to impact SKR populations both on and off the Project site. SKR often forages and moves around at night. Natural and artificial lighting impacts kangaroo rats because it inhibits their nocturnal foraging and makes them more susceptible to the chance of predation. (COSEWIC 2006). The EIR must discuss the extent that the proposed lighting will reduce SKR habitat adjacent to the project because of predation or avoidance. Therefore, the presence of street lights within the VOL could actually attract some species into the development, prompting problematic interactions between these species and humans or their pets. 24

Plant species are also impacted by light pollution. Plants measure and react to night length, and duration of darkness can manipulate how frequently plants pollinate or flower, how they prepare for dormancy during winter, and even how much photosynthesizing they do. (Deda, et. al). Trees are similarly affected, for instance, an abundance of light pollution can keep a tree from losing its leaves at the correct time. (Deda, et. al). This also impacts animals that depend on these trees for habitat; for instance, birds are prevented from nesting in trees as a result of surrounding light pollution. (Deda, et. al). 25

Furthermore, light pollution need not be highly extensive to have a major impact on nearby plants and wildlife. For instance, one study found that desert rodents reduced foraging activity when exposed to the light of a single camp lantern. (Longcore and Rich, 2004). As well, light pollution has far reaching effects; a study of national parks found that artificial lights over *100 miles away* could still affect national parks and their wildlife. (CNN, "Light Pollution Threatens National Park," 1999). Given this 100 miles perimeter, the buffer of mere acres established in the DEIR is nowhere near sufficient to protect species from light pollution. 26

The DEIR needs to fully disclose these risks; only then can the likely effectiveness of proposed mitigation measures be evaluated when compared to the severity of the risk. Given the impact that light pollution has on wildlife species, particularly migratory birds such as the many species that utilize the SJWA as habitat, the proposed mitigation measures are inadequate to 27

protect against this harm. This is especially true in light of evidence showing that light pollution can be felt as far as 100 miles away. 27

The relatively miniscule buffer the DEIR provides here to protect against light pollution is insufficient. Indeed, the DEIR recognizes that the mitigation measures would not fully mitigate the Project's significant cumulative impacts to biological resources from light pollution, (DEIR at 4.4-67), but fails to adequately propose or analyze additional mitigation measures to address that significant impact. CEQA requires that agencies "mitigate or avoid the significant effects on the environment of projects that it carries out or approves whenever it is feasible to do so." Pub. Res. Code § 21002.1(b). The EIR fails to meet this mandate. 28

C. THE EIR FAILS TO ADEQUATELY ANALYZE AND MITIGATE AIR POLLUTION

The DEIR's analysis of the impacts of air pollution on biological resources and proposed mitigation is inadequate. (DEIR at 4.4-67 to 4.4-71). This data provided insufficient to meet CEQA's requirement of fully disclosing impacts. Pub. Res. Code §§ 21061; 21005(a). The DEIR recognizes some of the numerous impacts to wildlife that can occur from air pollution. (DEIR at 4.4-67 to 4.4-71). Reduced breeding performance of birds in the area close to air pollution due to the direct impacts of pollution on avian species as well as indirect effects due to reductions in prey. (Eeva 1996; Eeva). Air pollution also contributes increased toxicity and fertility problems due to smaller, lighter and thinner-shelled eggs. (Global Times 2011). Biomarkers of air pollution demonstrate connections between other physiological problems such as impaired bone structure. (Eeva 2000). Air pollution also leads to inheritable genetic mutations in wildlife. (Somers 2002). However, it fails to properly analyze the risks posed to wildlife, and in particular sensitive wildlife in adjacent areas. 29

As described in more detail below the DEIR cannot rely on the mitigation measures proposed in the MSHCP to address these impacts. Furthermore, by fabricating a "buffer" that is actually a wildlife area with sensitive resources the EIR improperly minimizes the Project's impacts and engages in a failure to adequately disclose the nature of the existing environment, which prohibits an adequate analysis and mitigation of the Project's impacts. 30

D. THE EIR FAILS TO ADEQUATELY MINIMIZE AND MITIGATE THE IMPACTS TO THE WESTERN BURROWING OWL

The Western Burrowing Owl (*Athene cunicularia hypugaea*) is considered to be a Bird of Conservation Concern by the U.S. Fish and Wildlife Service (USFWS). Burrowing Owls are listed as a Species of Concern in California. California's remaining burrowing owls are threatened primarily by habitat loss to urban development, persecution of ground squirrels, and intensive agricultural practices. The state-approved practice of evicting owls from development sites is accelerating local extinction of owls from rapidly urbanizing areas. Other factors contributing to the decline of owls statewide include destruction of burrows through disking and grading, impacts of pesticides, increased predation by nonnative or feral species, habitat 31

fragmentation, and other human-caused mortality from vehicle strikes, electrified fences, collisions with wind turbines, shooting, and vandalism of nesting sites. 31

The number of breeding owl colonies located in study areas in California has declined by nearly 60 percent from the 1980s to the early 1990s, and the statewide number of owls is currently thought to be declining at about 8 percent per year due to urban development. Breeding burrowing owls have been extirpated from almost one-quarter of their former geographic range in California over the past two decades. (CBD 2003). Surveys in California in 1986-91 found population decreases of 23-52% in the number of breeding groups and 12- 27% in the number of breeding pairs of owls. (DeSante et al. 1997). In southwestern California studies demonstrating overall decline of the burrowing owl populations also predict extirpation of burrowing owls from southwestern California. (Kidd 2007). 32

The EIR fails to adequately account for the Project threats to local and regional populations of the burrowing owl, or adequately mitigate for the loss of burrowing owl populations. Burrowing owls were found on the Project site. (DEIR at 4.4-29; DEIR App. E at 119). The mitigation measures of avoiding burrowing owls when they are present will not mitigate the decline in population and loss of habitat that the project contributes to. Considering the magnitude of threats, and ongoing population decline in the Project area the Project poses a substantial threat to the Burrowing Owl. 33

E. THE EIR'S PROPOSED MITIGATION MEASURES ARE INADEQUATE TO MITIGATE THE PROJECT'S IMPACTS

The EIR relies upon the MSHCP for mitigation of both direct and cumulative biological impacts related to this project. However, the EIR fails to disclose the uncertainty regarding the implementation of mitigation measures contemplated in the MSHCP to provide for the mitigation of potentially significant impacts to biological resources relied upon in the MSHCP and EIR. The failure to require binding and effective mitigation, disclose the uncertainties associated with mitigation, and analyze the provision of other sources of mitigation and the environmental impacts of those mitigation measures violates CEQA. 34

In order to address several issues related to the cost, revenue sources, and plan benefits associated with the MSHCP the Western Riverside County Regional Conservation Authority contracted with the RAND Corporation to provide an independent and objective analysis. (RAND 2008). Entitled "Balancing Environment and Development: Costs, Revenues, and Benefits of the Western Riverside County Multiple Species Habitat Conservation Plan" the study revealed some troubling issues related to the ability of projected revenue to acquire lands relied upon by the MSHCP for mitigation and the ability of the MSHCP to achieve the reserve strategy relied upon by the US Fish and Wildlife Service in their Biological Opinion and CEQA analysis. 35

First, the RAND study revealed that the operating cost "exceeds the original forecast in MSHCP planning documents by $345 million (increasing from $937 million to $1,282 million)." (RAND 2008 at xxvi). This was due primarily to the failure to integrate costs into the original estimate. (RAND 2008 at xxvi). Second, the expected revenue sources do not correlate to the 36

strategy for acquiring land outlined in the MSHCP, and the RAND study did not conclude that "existing local revenue streams will be sufficient to finance the local share of reserve assembly and operation costs." (RAND 2008 at xxvii). Notwithstanding these revenue shortages the RAND study further concluded that the "individual acreage goals cannot all be met using the USFWS CRD [conceptual reserve design]." (RAND 2008 at xxx). In other words, the reserve design relied upon by the US Fish and Wildlife Service and California Department of Fish and Wildlife in determining that biological impacts would be mitigated below a level of significance cannot be achieved. The EIR's failure to disclose, analyze, and plan for the failure of the MSHCP to mitigate impacts does not meet CEQA's information mandate on disclosure to the decision makers and the public or the substantive mandate to adopt all feasible mitigation measures for potentially significant impacts. 36

The DEIR cannot simply rely entirely on the MSHCP because there are areas of significant environmental and public concern that the MSHCP simply does not, and was not meant to, address. This includes the potentially significant impacts from direct deaths to special status species from vehicles. The impacts of vehicular deaths to species such as the Stephen's Kangaroo Rat or burrowing owl for instance, are nowhere discussed in the DEIR or any supporting document. This is cause for concern as the identified impacts to species such as the burrowing owls from collisions with vehicles is documented within the MSHCP, and this project will significantly increase the amount of traffic in the area. (MSHCP, Volume 2 – Threats to Species). Undoubtedly, there will be vehicular caused death as a result of the project. 37

Additionally, the DEIR presents no information regarding impacts to covered species from pesticide use associated with the project. Pesticide use is currently harming many of the species covered in the MSHCP. (See generally, MSHCP §5.2.1) That the DEIR does not address these issues violates both the MSHCP and CEQA. 38

The DEIR cannot simply conclude that it complies with the MSHCP, and that even if the project does comply with the MSHCP, this compliance is enough to ensure that the long-term survival of special-status species will be ensured for the project. Instead, the DEIR needs to provide detailed analysis as to how it specifically complies with all of the MSHCP's requirements. Further, it must insure that even with MSHCP compliance, and that the project still will not result in significant impacts to biological resources and protected species. 39

The EIR improperly treats the state owned property within the San Jacinto Wildlife Area as a buffer to mitigate the Project's impacts. As the biological studies for the DEIR note, "this land cannot be used as MSHCP compensation for the proposed development…" (DEIR App. E at 101). However, the EIR improperly treats the state owned property within the San Jacinto Wildlife Area as a buffer. The biological studies call for a 400 foot setback within the Project site. (DEIR App. E at 134). However, the DEIR itself calls for only a 250 foot "clear zone" that will still permit project specific impacts related to water detention basins and project landscaping. (DEIR at 4.4-71). The EIR would not create a 400 foot buffer for those project impacts, but allow them up to the edge of the SJWA. The project attempts to fabricate a 400 foot setback by adding 150 foot building setback, which could include parking lots, fences, lighting, or other urban development, to the 250 foot clear zone. (DEIR at 4.4-71). The EIR's 40

attempt to limit the setback and require the SJWA to provide the buffer outlined as mitigation measures in studies for the EIR runs contrary to CEQA's requirement that the EIR adopt all feasible mitigation measures. 40

III. THE EIR FAILS TO ADEQUATELY ANALYZE AND MITIGATE IMPACTS TO GREENHOUSE GASES AND GLOBAL CLIMATE CHANGE

The CEQA Guidelines require the lead agency to "make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project." Guidelines § 15064.4(a). Under CEQA, an EIR must reflect a good faith effort at full disclosure, including "detail sufficient to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project." *Laurel Heights Improvement Assn. v. Regents of the University of California* (1988) 47 Cal.3d 376,. at 405; CEQA Guidelines § 15151. Its purpose is to give government agencies and the public the information needed to make informed decisions, thus "protect[ing] not only the environment but also informed self-government." *Laurel Heights I*, 47 Cal.3d at 392. The EIR fails to adhere to the standards of a good faith analysis to provide informed self government. 41

A. THE EIR FAILS TO ANALYZE CONFLICTS WITH APPLICABLE GREENHOUSE GAS REDUCTION PLANS

The EIR fails to adequately disclose and analyze conflicts with regional greenhouse gas reduction plans. CEQA requires that EIRs address the Project's potential to "[c]onflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases." CEQA Guidelines Appendix G, § VII(b). The studies supporting the EIR admit that the Project would be inconsistent with plans, policies, and regulations related to GHG reductions and result in a significant impact climate change impact. (DEIR App. D at 2, 234). However, the EIR tries to mask this significant impact and inconsistency with applicable plans by stating that the "proposed project is consistent with federal and state GHG reduction strategies, the CARB Scoping Plan, the City's General Plan, and the City's Climate Action Strategy." (DEIR at 1-20, DEIR at 4.7-43). The EIR's internal inconsistency and the failure to properly disclose significant impacts is contrary to CEQA. 42

The EIR specifically fails to adhere to several applicable greenhouse gas reduction plans. For example, the Project fails to comply with the City of Moreno Valley Climate Action Strategy and City of Moreno Valley General Plan policies related to the reduction of greenhouse gas emissions and air quality impacts. (*See e.g.* DEIR at 4.7-24, 4.7-25). The EIR admits that the Project is not consistent with local climate action strategy R2-E5 regarding New Construction Commercial Energy Efficiency Requirements that Require energy efficient design for all new commercial buildings to be 10% beyond the current Title 24 standards. (DEIR at 4.7-42). The EIR also asserts that it is consistent with vehicle miles traveled reduction strategies related to encouraging the development of transit priority projects along high quality transit corridors identified in the Southern California Association of Goverments ("SCAG") Sustainable Communities Plan, to allow a reduction in vehicle miles traveled. (DEIR at 4.7-42). However, 43

the Project is not a transit priority project, not along a high quality transit corridor identified by SCAG, and does not reduce vehicle miles traveled. The EIR's 50 mile average for long haul trucks, which actually undercounts mileage, hardly qualifies for a reduction in vehicle miles traveled. 43

The EIR also incorrectly asserts that it is consistent with the Renewable Portfolio Standard of achieving a 33% renewable energy in California and California's Million Solar Roofs Initiative without requiring any renewable energy to be developed onsite or any requirements for renewable energy to be used for the construction or operation of the Project. The EIR also claims that it is consistent with a Sustainable Communities Strategy when no Sustainable Communities Strategy has been adopted for Riverside County and it fails to apply many of the strategies proposed by SCAG because it asserts they are not applicable to the Project. (DEIR at 4.7-22). Finally, there is no quantitative or logical analysis of how the Project's massive contribution to greenhouse gases could be consistent with the ambitious greenhouse gas reduction standards outlined in Executive Order S-3-05. (DEIR at 4.7-44). 44

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The quantitative data provided by the EIR demonstrates that the sheer volume of emissions provided by the Project prohibit the compliance with greenhouse gas reduction strategies. A simple comparison of Table 4.7.B, which provides the Moreno Valley greenhouse gas reduction targets with Table 4.7.I, which provides the Project greenhouse gas emissions illustrates the Project's significant impacts to local greenhouse gas reduction plans.

4.7.1.4 Greenhouse Gas Inventories

The City of Moreno Valley estimated greenhouse gas emissions for the community for 2007 and 2010 and projected emissions for 2020 are shown in Table 4.7.B, which shows the reduced 2020 emissions are below the reduction target.

Table 4.7.B: City of Moreno Valley Projected Greenhouse Gas Emissions

Source Category	Moreno Valley Greenhouse Gas Emissions ($MTCO_2e$ per year)			
	2007	2010	BAU 2020	Reduced 2020
Transportation	517,098	513,581	788,267	421,561
Energy	287,261	277,230	356,192	251,372
Area	69,390	69,437	84,665	73,046
Water and Wastewater	21,595	16,831	20,216	14,158
Solid Waste	44,294	43,633	49,203	38,000
Total	**939,638**	**920,712**	**1,298,543**	**798,137**
Reduction Target	—	—	**798,693**	**798,693**

Notes: $MTCO_2e$ = metric tons of carbon dioxide equivalents BAU = business as usual
Source: Table 9, City of Moreno Valley Greenhouse Gas Analysis, 2012., MBA 2013

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Table 4.7.B demonstrates that the total city greenhouse gas reduction targets total 798,693 metric tons of carbon dioxide equivalents per year in 2020.

Table 4.7.I: Project Operational GHG Emissions (Year by Year with Mitigation)

Source	Emissions with Mitigation and Project Design Features ($MTCO_2e$/year)								
	2014	2015	2016	2017	2018	2019	2020	2021	2022
Vehicles	10,638	21,784	28,283	39,632	52,154	57,836	61,228	65,730	66,329
Trucks	51,111	107,099	141,204	199,737	269,134	304,600	328,592	358,109	366,971
Electricity	14,513	30,387	40,428	58,208	79,917	91,993	101,491	110,174	112,888
Natural gas	177	371	494	711	976	1,124	1,240	1,346	1,379
Water	299	626	833	1,199	1,646	1,895	2,090	2,269	2,325
Waste	12,812	26,826	35,690	51,385	70,550	81,211	89,595	97,261	99,657
Refrigerants	182	380	506	728	1,000	1,151	1,269	1,378	1,412
Construction	37,927	31,634	26,947	94,510	41,743	34,665	26,818	26,818	14,471
Sequestration	-14	-30	-40	-57	-79	-90	-100	-108	-111
Total	**127,645**	**219,077**	**274,345**	**446,053**	**517,041**	**574,385**	**612,223**	**662,977**	**665,321**
Threshold	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Significant?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Reduction summary: local vehicles = 3 percent; waste = 35 percent
Source: Michael Brandman Associates 2013.

Table 4.7.I discloses that the 2020 greenhouse gas emissions attributed to the Project are 612,223 metric tons of carbon dioxide equivalents per year in 2020.

The Project's greenhouse gas emissions are 76% of the City's projected 2020 GHG emissions. The EIR must analyze how the Project would impact the ability of the City of Moreno Valley to achieve their greenhouse gas reduction targets. The EIR cannot hide behind the failure to seek out information regarding the emissions methodologies used by the City in

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making this determination and whether the project was included in the City's greenhouse gas inventory. A lead agency must "find out and disclose all that it reasonably can". Guidelines § 15144. 46

B. THE EIR FAILS TO ANALYZE THE PROJECT'S FULL GREENHOUSE GAS IMPACTS

The EIR also fails to account for the total greenhouse gas emissions from the Project by omitting sources of energy used by the Project, improperly curtailing the vehicle miles traveled and scope of the traffic analysis, and omitting the analysis of global warming pollutants such as black carbon. CEQA requires that an EIR analyze the whole of the Project including associated off site impacts and impacts that are further distant in the future. *See* CEQA Guidelines, §§ 15126 (impact from all phases of the project), 15358(a) (direct and indirect impacts). The EIR's failure to address the full range of greenhouse gas impacts renders it invalid. 47

The EIR must fully disclose and analyze all of the energy used by the project, the pollution resulting from that use and the impacts resulting from that use. The EIR states that over 39 million square feet of industrial facilities will use no natural gas whatsoever. (DEIR at 4.16-36). This attempt to improperly omit energy usage runs contrary to CEQA's project description requirements that energy use by fuel type and end use be provided. CEQA Guidelines Appendix F. The EIR's attempt to omit energy uses from analysis, improperly minimize energy and greenhouse gas impacts, and distort the project description runs contrary to CEQA and analysis of natural gas usage by warehouse facilities. (E Source 2007, East LA College 2009, Center for Energy and Climate Solutions 2012). 48

The EIR improperly minimizes the trip length for vehicle emissions, which omits necessary components of the project's impacts and fails to adequately disclose and analyze the Project's impacts. The Project objective is to "[p]rovide a major logistics center to accommodate the ever-expanding trade volumes at the Ports of Los Angeles and Long Beach." (DEIR at 3-73). Port related long haul trips are 79 miles. (DEIR at App. D at 120, Table 20). However, the "[t]rip length used in regional analysis for long-haul trips 50." (DEIR at App. D at 120, Table 20). The EIR engages in this misleading minimization of impacts by stating that only a small percentage of the trips will be associated with port related traffic. (DEIR at App. D at 120, Table 20). This omits a large number of vehicle miles and their associated air quality impacts for the major project objective of accommodating port related traffic. 49

The EIR also undercounts other long haul routes by setting arbitrarily short distances to regional locations. For example, the EIR sets an arbitrarily short destination for long haul trips of the San Diego County line to the south, the Banning pass to the east, and the Cajon pass to the northeast. (DEIR at App. D at 120, Table 20). The EIR also improperly undercounts local travel by claiming that "the local vehicles travel between 9.6 and 15.4 miles per trip." (DEIR at 4.7-30). These estimates disregard the actual proximity of nearby cities serving the Project. The distance to Riverside is 18 miles; Beaumont is 10 miles, Perris is 21 miles on the freeway, and San Bernardino is 24 miles on the freeway. The EIR also masks full emissions projections by reducing the number of overall trips and truck trips for the facility. Improperly minimizing 50

vehicle miles undercounts numerous Project impacts including greenhouse gas emissions, traffic, and air quality. Importantly, the EIR fails to account for impacts air quality impacts within the Salton Sea Air Basin, Mojave Desert Air District, and the San Diego County Air Basin violating CEQA's requirements that an EIR must analyze whether the Project "[v]iolates any air quality standard or contributes substantially to an existing or projected air quality violation." CEQA Guidelines App. G § III(b). 50

The EIR must also conduct an analysis and quantification of the greenhouse gas emissions associated with water use related to the project. In order to mitigate the PM pollution from the Project during construction the contractors are required to dampen the graded and exposed material to reduce dust that worsens the existing air quality violations. The Project itself will use water related to landscaping, bathroom and kitchen uses, and cleaning. Transport of water throughout the state is extremely energy intensive. The water sector is the largest consumer of energy in California, estimated to account for 19 percent of total electricity and 32 percent of total natural gas consumed in the state. (CEC 2005). In the present case energy will be used to transport water needed for the project via pumps, to move water to southern California from the San Francisco Delta and Colorado River, and tanker trucks to transport and spray water on the project area. 51

The EIR also fails to account for the emissions associated with manufacturing and transport of building materials, and operational goods for the project. For example, construction of 41 million square feet of development will take thousands of cubic yards of construction material including concrete. Cement and concrete manufacture is extremely energy intensive producing a large amount of greenhouse gas emissions. The manufacture of concrete accounts for roughly 3% of California's greenhouse gas emissions. (Masanet 2005). In order to determine ways to reduce greenhouse gas emissions from concrete the Lawrence Berkeley National Laboratory and others have developed methods for analyzing the lifecycle emissions of concrete manufacture. (Manaset 2005, Flower 2007). The EIR also fails to account for the emissions associated with the transportation of goods to the ports that the Project is supposed to serve. (DEIR at 4.7-43). 52

These numbers must be integrated into the greenhouse gas emissions significance determination in order to perform the good faith analysis required under CEQA. CEQA requires that "an agency must use its best efforts to find out and disclose all that it reasonably can" (Guidelines § 15144), that an EIR must make "good faith effort at full disclosure" (Guidelines § 15151), and that an impact may only be deemed speculative "after thorough investigation." (Guidelines § 15145). The EIR cannot prematurely determine that the information is speculative if it does not attempt to compile and analyze the information. (DEIR at 4.7-43). By refusing to include necessary information on Project emissions in the EIR, the City violated the most basic and fundamental requirements of CEQA. *Protect the Historic Amador Waterways*, 116 Cal. App. 4th at 1106 (EIR invalid as a matter of law where "it omits material necessary to informed decision-making and informed public participation."). 53

C. AS PART OF ITS INVENTORY OF GLOBAL WARMING POLLUTION, THE EIR MUST ALSO ANALYZE BLACK CARBON EMISSIONS RESULTING FROM THE PROJECT

As part of its analysis of global warming impacts, the EIR must also address black carbon, an important short-lived pollutant that contributes to global and regional warming. Black carbon is produced by incomplete combustion and is the black component of soot. Although combustion produces a mixture of black carbon and organic carbon, the proportion of black carbon produced by burning fossil fuels, such as diesel, is much greater than that produced by burning biomass. 54

Black carbon heats the atmosphere through a variety of mechanisms. First, it is highly efficient at absorbing solar radiation and in turn heating the surrounding atmosphere. Second, atmospheric black carbon absorbs reflected radiation from the surface. Third, when black carbon lands on snow and ice, it reduces the reflectivity of the white surface which causes increased atmospheric warming as well as accelerates the rate of snow and ice melt. Fourth, it evaporates low clouds. Notably, black carbon is often complexed with other aerosols such as sulfates, which greatly increases its heating potential. (Ramanathan & Carmichael 2008; Jacobson 2001). 55

Due to black carbon's short atmospheric life span and high global warming potential, decreasing black carbon emissions offers an opportunity to mitigate the effects of global warming trends in the short term. (Ramanathan & Carmichael 2008). Black carbon is considered a 'short-lived pollutant' (SLP) because it remains in the atmosphere for only about a week in contrast to carbon dioxide, which remains in the atmosphere for over 100 years. Furthermore, the global warming potential of black carbon is approximately 760 times greater than that of carbon dioxide over 100 years (Reddy & Boucher 2007) and approximately 2200 times greater over 20 years. (Bond & Sun 2005). It is estimated that black carbon is the second greatest contributor to global warming behind carbon dioxide. (Ramanathan & Carmichael 2008). 56

Unlike traditional greenhouse gases, which become relatively uniformly distributed and mixed throughout the Earth's atmosphere, black carbon exerts a regional influence. The impacts of black carbon on a regional level include both atmospheric heating, as discussed above, and hydrological changes. Hydrological changes occur due to alterations in cloud formation and heat gradients. (Ramanathan & Carmichael 2008). For instance, aerosol pollution has been linked to decreases in the summer monsoon season in tropical areas as well as the drought in the Sahel region of Africa. (Ramanathan & Carmichael 2008). California is an area of particular concern because of the drought-fire cycle. The more drought conditions prevail, the more forest fires burn, and the forest fires in turn emit massive quantities of black and organic carbon. The release of these aerosols intensifies the drought effect. 57

Another impact of black carbon is accelerated snowmelt; for instance, black carbon is likely contributing to the retreat of Himalayan glaciers and the resulting water shortage in areas of Asia. (Id.). When black carbon settles on snow, it makes the snow darker so that it absorbs more solar radiation. This directly leads to snow melt. In addition, local atmospheric heating 58

due to black carbon increases the melting rate. These same effects may well be operating on the Sierra Nevada, which would reduce water availability throughout California at crucial times of the year. These localized impacts could also be contributing to a decreased snow pack and earlier snow melt for the San Gabriel, San Bernardino, and San Jacinto mountains. 58

Black carbon is also detrimental to human health. Black carbon has been linked to a variety of circulatory diseases. One study found an increased mortality rate was correlated with exposure to black carbon. (Maynard 2007). The same is true for heart attacks. (Tonne 2007). Another study found that residential black carbon exposure was associated with increased rates of infant mortality due to pneumonia, increased chronic bronchitis, and increased blood pressure. (Schwartz 2007). 59

In developed countries, diesel burning is the main source of black carbon. Diesel emissions include a number of compounds such as sulfur oxides, nitrogen oxides, hydrocarbons, carbon monoxide, and particulate matter. Diesel particulate matter is approximately 75% elemental carbon. The proposed project will require the use of diesel-powered heavy duty trucks, construction equipment, and warehouse equipment. Thus, it is crucial that black carbon be addressed as part of the environmental review for the Project. 60

(1) ANALYZING PARTICULATE MATTER IS INSUFFICIENT TO ADDRESS BLACK CARBON

Particulate matter (PM) refers to the particles that make up atmospheric aerosols. The primary constituents of PM are sulfates, nitrates, and carbon compounds. Sulfates and nitrates form in the atmosphere from the chemical reaction of sulfur and nitrogen dioxides. These may often be present as ammonium sulfate or nitrate salts. Carbon compounds may be directly emitted, e.g. black carbon emitted from combustion, or may form in the atmosphere from other organic vapors, e.g. oxidation of volatile organic compounds. 61

Because PM can be reduced through mitigation of other constituents of PM than black carbon, it is essential that black carbon emission reduction strategies be considered independently from PM reductions. The proportions of the constituents of PM vary over time and by location According to a recent series of surveys conducted at various U.S. cities under the EPA's "Supersite" program, black carbon was often only about 10% of total measured $PM_{2.5}$.[1] 62

In contrast to total $PM_{2.5}$, diesel PM is composed largely of black carbon. Nonetheless, some diesel PM reduction strategies do not affect black carbon. For instance, diesel oxidation catalysts can reduce diesel PM emissions as a whole by approximately 20 to 40%, yet they do not decrease black carbon emissions. (Walker 2004). In addition, while low-sulfur fuel will reduce sulfate emissions, in and of itself low-sulfur fuel will not reduce black carbon. Low-sulfur fuel is important because it *allows* for better technology to reduce black carbon. (*See, e.g.* 69 Fed. Reg. 38957, 38995 (June 29, 2004)). Yet those reductions can only occur once the technology has been implemented. 63

1 For an overview of the program and initial results see http://www.epa.gov/ttn/amtic/supersites.html

(2) METHODS ARE AVAILABLE TO SPECIFICALLY QUANTIFY BLACK CARBON EMISSIONS FROM THE PROJECT

Like greenhouse gases, black carbon emissions from various types of engines and activities can be estimated through numerical calculations. (Bond 2004). Thus, there is no reason why black carbon can reasonably be omitted from these estimates.

The estimated black carbon emissions from the project can be inventoried similarly to other greenhouse gas emissions:

- Estimate the mass of diesel fuel consumed by each type of diesel engine, e.g. ship, machinery, truck, construction equipment, and locomotive.
- Calculate a black carbon emission factor (EF) using reference values available in the literature. For instance, an equation for "EF_{BC}" from various types of diesel engines that takes into account 4 different factors.[2]
- Multiply the emission factor times the mass of diesel (in kilograms) used for each engine type. This will provide the grams of black carbon emitted by that engine type.
- Sum all black carbon emissions from each engine category to obtain total black carbon emissions from the project.

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After obtaining the total black carbon emissions from the project, the relative global warming impact of the emissions can be compared to other global warming pollutants. Carbon dioxide-equivalent values can be obtained by multiplying total black carbon emissions (in kilograms) from the project by the global warming potential (GWP) for black carbon. Although there is some variation in estimated GWP values, representative black carbon GWP values are: 760 over 100 years[3] or 2200 over 20 years (Bond & Sun 2005).

The EIR fails to analyze the impacts of black carbon emissions during both the construction and operation phase of the project. The Project will result in a large increase in diesel exhaust from the existing conditions, which is a major source of black carbon. The Project will require the cut and fill of approximately 42 million cubic yards of earth material that will require thousands of hours of operation of heavy duty construction equipment. Nowhere in the EIR is any quantified analysis performed to determine how these significant impacts could be avoided, reduced, or mitigated.

It is incumbent on the City "disclose all it can" about project impacts and educate itself on methodologies that are available to measure project emissions. *Berkeley Keep Jets Over the Bay Comm. v. Board of Port Comm'rs ("Berkeley Jets")*, 91 Cal. App. 4th 1344, 1370 (2001). Without a complete inventory, the EIR cannot adequately inform the public and decision-makers about the Project's impacts. Similarly, without a complete inventory and analysis of greenhouse

2 See Bond et al. 2004 at 4 and Table 7.
3 The combined global average direct (480) and indirect (281) GWP for black carbon as reported in Reddy & Boucher (2007).

gas emissions that will result from the project, there is simply no way that the EIR can then adequately discuss avoidance and mitigation measures to reduce those impacts. 64

D. THE EIR MUST ANALYZE AND ADOPT ALL FEASIBLE MITIGATION MEASURES TO REDUCE THE PROJECT'S GREENHOUSE GAS EMISSIONS

In addition to thoroughly evaluating project alternatives, because it is clear that the project's greenhouse gas emissions will cumulatively contribute to global warming, "the EIR must propose and describe mitigation measures that will minimize the significant environmental effects that the EIR has identified." *Napa Citizens for Honest Gov't v. Napa County Bd. of Supervisors*, 91 Cal.App.4th 342, 360 (2001). CEQA requires that agencies "mitigate or avoid the significant effects on the environment of projects that it carries out or approves whenever it is feasible to do so." Pub. Res. Code § 21002.1(b). CEQA specifically requires lead agencies to "consider feasible means, supported by substantial evidence and subject to monitoring or reporting, of mitigating the significant effects of greenhouse gas emissions." Guidelines § 15126.4 (c). Mitigation of a project's significant impacts is one of the "most important" functions of CEQA. *Sierra Club v. Gilroy City Council*, 222 Cal.App.3d 30, 41 (1990). Therefore, it is the "policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures which will avoid or substantially lessen the significant environmental effects of such projects." Pub. Res. Code § 21002. 65

There are any number of feasible measures that can be incorporated to reduce vehicle miles traveled, energy use, waste, water consumption and other sources of emissions. The California Air Pollution Control Officer's Association (CAPCOA) White Paper on CEQA and Climate Change identifies existing and potential mitigation measures that could be applied to projects during the CEQA process to reduce a project's GHG emissions. (CAPCOA 2008 at Appendix B). The California Office of the Attorney General also has developed a list of reduction mechanisms to be incorporated through the CEQA process. (California Office of the Attorney General 2010). These resources provide a rich and varied array of mitigation measures to be incorporated in both the programmatic and project level. These mitigation measures are included at Attachment B and must be analyzed to determine whether they are feasible in reducing the Project's significant greenhouse gas impacts. The EIR includes a paltry list of mitigation measures that fails to meet CEQA's substantive requirement to adopt all feasible mitigation. (DEIR at 1-54, DEIR App. D at 2-8). 66

When the EIR does discuss substantive mitigation measures to reduce greenhouse gases through project design it fails to demonstrate why feasible mitigation measures are not adopted. CEQA requires the adoption of all feasible mitigation measures to reduce significant impacts like climate change or there is substantial evidence as to why the mitigation measures are infeasible. Pub. Res. Code § 21081(a)(3). The specific plan allows for the future installation of solar photovoltaic panels (i.e., buildings will be "solar ready") or other alternative energy systems on the roof of each warehouse building to offset the energy demands of the building, up to full roof coverage. (DEIR at 4.16-36, 4.16-38). Unfortunately, the EIR fails to include the installation of solar photovoltaic panels in the first instance. California's programs like the Million Solar Roof 67

Initiative and Renewable Portfolio Standard provide applicable plans to encourage on-site renewable energy in the Project. With a range of federal and state incentives and financing options the EIR must adopt the feasible mitigation of on site renewable energy for the Project. 67

Importantly, mitigation measures must be "fully enforceable through permit conditions, agreements, or other measures" so "that feasible mitigation measures will actually be implemented as a condition of development." *Federation of Hillside & Canyon Ass'ns v. City of Los Angeles*, 83 Cal.App.4th 1252, 1261 (2000). The EIR fails to analyze and adopt LEED certification standards for the Project. The EIR instead claims that "the project intends to achieve applicable elements of certification from the U.S. Green Building Council Leadership in Energy and Environmental Design (LEED), and encourages LEED Certification." (DEIR at 4.16-38). However, these type of non-binding mitigation measures fails to meet CEQA's standards of full enforceability and fails to provide any analysis or demonstration that LEED is not feasible 68

The studies supporting the EIR also discuss other feasible mitigation measures that should be adopted. The greenhouse gas analysis proposes "onsite alternative fueling infrastructure (electric charging stations and/or natural gas fueling), which will help facilitate the use of these low-emitting trucks" and "a site for the sale of food, fuel, and convenience items to minimize the need for trucks to travel off-project to purchase these goods and services." (DEIR App. D at 5). However, the EIR itself doesn't propose these feasible mitigation measures. The greenhouse gas analysis also fails to ensure that the mitigation measures would be fully enforceable and only requires their adoption "as appropriate." (DEIR App. D at 5). 69

A lead agency may only "disclaim[] responsibility to mitigate environmental effects . . . when the other agency said to have responsibility has *exclusive* responsibility" to mitigate that impact. *City of Marina v. Bd. of Trustees* (2006) 39 Cal.4th 341, 366; *Citizens for Quality Growth v. City of Mount Shasta* (1988) 198 Cal.App.3d 433, 442, fn. 8 (city cannot avoid responsibility to mitigate project impacts by pointing to potential action of another agency). Unfortunately, the EIR engages in this type of deceptive analysis in asserting that the "emissions from vehicle exhaust are controlled by the State and Federal governments and are outside the control of the City…. The proposed project is required to comply with existing State and Federal regulations..." (DEIR at 4.7-44). The City cannot absolve of responsibility to adopt other feasible mitigation measures simply because another agency could potentially mitigate similar impacts. 70

After all measures have been implemented to reduce emissions in the first instance, remaining emissions that cannot be eliminated may be mitigated through offsets. Preference should be given to offset mitigation measures in that are in close proximity to the project. (SCAQMD 2008). In other words project applicants should prioritize first on mitigation onsite, then on mitigation in the neighborhood or air district, next in state, then finally out of state. (SQAQMD 2008). Care should be taken to ensure that offsets purchased are real (additional), permanent, and verified, and all aspects of the offsets should be discussed in the EIR. As demonstrated by the Office of the Attorney General and SCAQMD offsets are a feasible CEQA 71

mitigation measures[4] once all feasible mitigation measures have been adopted to reduce the Project's carbon footprint and produce energy using renewable sources. (SCAQMD 2008). 71

IV. THE EIR FAILS TO ANALYZE HOW GLOBAL WARMING WILL COMPOUND PROJECT IMPACTS OVER THE PROJECT'S LIFETIME

The EIR fails to address how the projected effects of global warming will exacerbate the impacts of the Project. CEQA requires that an EIR "analyze any significant environmental effects the project might cause by bringing development and people into the affected area." Guidelines § 15126.2(a). In recent guidance to local governments on the analysis of global warming in a general plan update, the Attorney General noted that "[l]ead agencies should disclose any areas governed by the general plan that may be particularly affected by global warming, e.g., coastal areas that may be subject to increased erosion, sea level rise, or flooding….General plan policies should reflect these risks and minimize hazards for current and future development." (Cal. Attorney General 2009 at 6). This guidance applies with equal force to developments like the Project. 72

A. The EIR Must Analyze Global Warming's Affects on Air Quality in Determining Project Air Quality Impacts

The rise in temperatures resulting from global warming will create a more conducive environment for air pollution formation (Cayan 2007). This will intensify the adverse effects the proposed project will already have on air quality in the project area and threaten residents' health (Cayan 2007). The air quality analysis must disclose how the increased temperatures in the project area will exacerbate the already severe air quality conditions.

Californians experience the worst air quality in the nation, with annual health and economic impacts estimated in at 8,800 deaths (3,000–15,000 probable range) and $71 billion ($36–$136 billion) per year (Cayan 2006). Ozone and particulate matter (PM) are the pollutants of greatest concern (maximum levels are about double California's air quality standards) and the current control programs for motor vehicles and industrial sources cost about $10 billion per year. In light of these underlying conditions it is critical that the air quality analysis be rigorous. The DEIR is required to properly analyze the Projects' direct, indirect, and cumulative contribution to deteriorating air quality. 73

Riverside County in particular, has some of the worst air quality in the nation, even when compared to other highly urban, populated counties in California. Riverside County is ranked as one of the "Dirtiest/Worst Counties" in the US for almost all criteria pollutants under the Clean Air Act. (Criteria Air Pollutant Report; American Lung Association 2005; American Lung Association 2008). Because of this, project proponents have a unique and heavy burden not to 74

4 The California Attorney General's Office has adopted CEQA settlements calling for the auditing, reduction, and offsetting of greenhouse gas emissions related with a Project demonstrating that offsets are a feasible way to reduce a Project's negative environmental effects on global warming. See http://ag.ca.gov/newsalerts/release.php?id=1466&category=global%20warming See generally http://oag.ca.gov/environment/ceqa/measures

add to this already significant health and public safety threat. Given the severe status of air quality in the project area the contribution of global warming to increased ozone formation will only worsen this severe problem; it must be fully analyzed and mitigated. 74

B. The EIR Must Analyze Global Warming's Affect on Water Supply in Determining Project Water Supply Impacts

Significantly for the state, as well as the project area, is global warming's impact on water supply. The IPCC specifically identified the American West as vulnerable, warning, "Projected warming in the western mountains by the mid-21st century is very likely to cause large decreases in snowpack, earlier snow melt, more winter rain events, increased peak winter flows and flooding, and reduced summer flows" (IPCC 2007). Recently, researches found that an increase in atmospheric greenhouse gases has contributed to a "coming crisis in water supply for the western United States" (Barnett 2008). Using several climate models and comparing the results, the researches found that "warmer temperatures accompany" decreases in snow pack and precipitation and the timing of runoff, impacting river flow and water levels (Barnett 2008). These researchers concluded with high confidence that up to 60 percent of the "climate related trends of river flow, winter air temperature and snow pack between 1950-1999" are human-induced (Barnett 2008). This, the researchers wrote, is "not good news for those living in the western United States" (Barnett 2008). 75

The California Center on Climate Change has also recognized the problem global warming presents to the state's water supply and predicts that if greenhouse gas emissions continue under the business-as-usual scenario, this snowpack could decline up to 70-90 percent, affecting winter recreation, water supply and natural ecosystems (Cayan 2007). Global warming will affect snowpack and precipitation levels, and California will face significant impacts, as its ecosystems depend upon relatively constant precipitation levels and water resources are already under strain (Cayan 2007). The decrease in snowpack in the Sierra Nevada will lead to a decrease in California's already "over-stretched" water supplies (Cayan 2007). It could also potentially reduce hydropower and lead to the loss of winter recreation (Cayan 2007). All of this means "major changes" in water management and allocation will have to be made (Cayan 2007). Thus, global warming may directly affect the ability to supply clean, affordable water to the residents, or change how the project will utilize water, and it may also impact other activities outside the project area, such as agriculture. 76

Scientists indicate that climate change will also exacerbate the problem of flooding by increasing the frequency and magnitude of large storms, which in turn will cause an increase in the size and frequency of flood events (NRDC 2007). The increasing cost of flood damages and potential loss of life will put more pressure on water managers to provide greater flood protection (NRDC 2007). At the same time, changing climate conditions (decreased snowpack, earlier runoff, larger peak events, etc.) will make predicting and maximizing water supply more difficult (NRDC 2007). These changes in hazard risk and water supply availability must be considered during environmental review. 77

Water quality, in addition to water quantity and timing, will also be impacted. Changes in precipitation, flow, and temperature associated with climate change will likely exacerbate water quality problems (NRDC 2007). Changes in precipitation affect water quantity, flow rates, and flow timing (Gleick 2000). Shifting weather patterns are also jeopardizing water quality and quantity in many countries, where groundwater systems are overdrawn (Epstein 2005). Decreased flows can exacerbate the effect of temperature increases, raise the concentration of pollutants, increase residence time of pollutants, and heighten salinity levels in arid regions (Schindler 1997). 78

C. The EIR Must Analyze Global Warming's Affects on Biological Resources in Determining Project Impacts

Climate change is having a major adverse impact on numerous plant and animal species. (Cameron and Scheel, 2001). Climate change impacts species by altering the climatic conditions that species need to survive or use a particular location as habitat, including particular temperature, type of food, water levels and water abundance, or weather conditions. (Schwartz, et. al., 2006). This causes massive migration shifts, with species seeking out other areas featuring their needed climatic conditions. (Schwartz, et. al., 2006). However, such migration shifts are not simple. For many species, their habitat is already so limited that there is no other location they can practically relocate to. As well, major impediments such as urban areas can keep species from reaching other habitats. Species migration can also cause increased food and habitat competition as more species attempt to forage, hunt, or breed, in smaller areas. Migration also has the potential to cause many of the issues commonly associated with invasive species. 79

For many species of course, migration just is not possible and, as their habitats quickly change, they will be unable to adapt in time, and will become extinct. Extinction as a direct result of climate change is an imminent possibility for numerous species. (Cameron and Scheel, 2001). 80

The threat of climate change induced species extinction is found to be highest in species with a small current distribution, (Schwartz, et. al. 2006), such as the SKR. This makes sense given that the reason that these species have small habitats in the first place is that they are "habitat specialists," meaning they can only survive in a very specific set of climatic/habitat conditions. (Schwartz, et al., 2006). 81

The DEIR should have disclosed this threat to species, and discussed the potentiality of the project contributing to the massive problem. The lead agency must include such an analysis in their subsequent EIR. The EIR must use its best efforts to find out and disclose all it reasonably can about the impacts of climate change on the environment and—most importantly—use that information to form an educated opinion about how to plan and adapt for the impacts of climate change. 82

Such an analysis is particularly important to include given that the DEIR has already concluded that the project will have a significant contribution to climate change. Because the project will have a significant impact to climate change, the project will also have a significant 83

contribution to the various secondary effects resulting from climate change, including massive migration shifts and species extinction. Further, it is irrelevant that species that are currently receiving the most attention for being at risk of extinction, such as the pika or the polar bear, are not located anywhere near the project site. Climate change is not localized in its effects so that any GHG emissions will cumulatively contribute to climate change induced species extinction. 83

Further, we are just beginning to understand how climate change is impacting species. Little information exists as to how climate change is impacting species that currently exist within the vicinity of the project site such as the burrowing owl or the SKR. However, what data we do have indicates that these species may as well be feeling the effects of climate change. Here, the EIR has not conducted an adequate inquiry into what the potential impacts from climate change to species such as the burrowing owl may be. 84

V. THE EIR FAILS TO ADEQUATELY ANALYZE AND MITIGATE IMPACTS FROM ENERGY USE AND ASSOCIATED FACILITIES

The EIR fails to adequately disclose, analyze, and mitigate the Project's related energy use and facilities including the impacts outlined in Appendix F of the CEQA Guidelines. Among other requirements, Appendix F requires an EIR to analyze the "effects of the project on local and regional energy supplies and on requirements for additional capacity" and the "effects of the project on peak and base period demands for electricity and other forms of energy." Unfortunately the EIR fails to conduct an adequate analysis of the project on local and regional energy supplies; instead it includes vague references to facility upgrades that may be required. (DEIR at 4.16-37, 4.16-38). The EIR similarly fails to analyze the effects of the Project on peak and base electrical demands. The EIR defers analysis of the effects until an undefined later date and will rely on local stations "as long as capacity is still available at that station." (DEIR at 4.16-37). 85

The EIR claims to analyze whether the "proposed WLC project require the construction of new electrical and/or natural gas facilities or expansion of existing facilities, the construction of which would cause significant environmental effects." (DEIR at 4.16-36). However, the EIR simply lists potential electrical upgrades that may be required but doesn't analyze any impacts of those new facilities. (DEIR at 4.16-37, 4.16-38). The failure to analyze all of the necessary components of the project improperly downplays the Project's impacts and fails to provide a stable description of the Project itself. The EIR also engages in an inconsistent analysis of whether the Moreno Valley Electric Utility or Southern California Edison will provide the necessary electrical upgrades for the Project, which fails to provide the public and decision makers with a stable and consistent project description. (DEIR at 3.51, DEIR at 4.16-37). Similarly the EIR's analysis provides a shifting and variable description of whether on-site solar energy would be integrated into the Project. 86

VI. THE EIR FAILS TO ADEQUATELY ANALYZE A REASONABLE RANGE OF ALTERNATIVES

The EIR fails to consider a meaningful analysis of reasonable alternatives to the Project in order to lessen or avoid the Project's significant impacts. CEQA mandates that significant environmental damage be avoided or substantially lessened where feasible. Pub. Res. Code § 21002; Guidelines §§ 15002(a)(3), 15021(a)(2), 15126(d). A rigorous analysis of reasonable alternatives to the project must be provided to comply with this strict mandate. "Without meaningful analysis of alternatives in the EIR, neither courts nor the public can fulfill their proper roles in the CEQA process." *Laurel Heights Improvement Ass'n v. Regents of University of California*, 47 Cal.3d 376, 404 (1988). Moreover, "[a] potential alternative should not be excluded from consideration merely because it 'would impede to some degree the attainment of the project objectives, or would be more costly" even when that alternative includes Project development on an alternative site. *Save Round Valley Alliance v. County of Inyo*, 157 Cal. App. 4th 1437, 1456-57 (2007) (quotations omitted). 87

As discussed in comments on the NOP the EIR must consider a reasonable range of alternatives including the feasibility of rail service to the project and a site served by rail. Unfortunately the EIR fails to conduct that analysis. The EIR also conducts a faulty alternative site analysis claiming that the only feasible alternative site would include "a contiguous 2,635-acre site for 41 million square feet." (DEIR at 6-38). This improperly narrow project objective fails to permit the EIR to conduct an analysis of a reasonable range of alternatives.

VII. THE EIR MUST BE RECIRCULATED FOR PUBLIC REVIEW AND COMMENT

A lead agency must re-circulate an EIR for further public comment under any of four circumstances:

(1) When the new information shows a new, substantial environmental impact resulting either from the project or from a mitigation measure;
(2) When the new information shows a substantial increase in the severity of an environmental impact, except that recirculation would not be required if mitigation that reduces the impact to insignificance is adopted;
(3) When the new information shows a feasible alternative or mitigation measure that clearly would lessen the environmental impacts of a project and the project proponent declines to adopt the mitigation measure; or 88
(4) When the draft EIR was "so fundamentally and basically inadequate and conclusory in nature" that public comment on the draft EIR was essentially meaningless.

CEQA Guidelines §15088.5.

Based on the comments above, it is clear that the EIR must be re-drafted and re-circulated. Conditions (1) and (2) above will be met by meaningful and adequate discussion of the project itself and the project's impacts to biological resources and greenhouse gases. Failure

to address these impacts is inadequate and requires further analysis and recirculation. The combined effect of these omissions makes it clear that the fourth condition has also been met. 88

CONCLUSION

Thank you for your attention to these comments. We look forward to working with the County to assure that the EIR conforms to the requirements of CEQA to assure that all significant impacts to the environment are fully analyzed, mitigated or avoided. Should you have any questions feel free to contact Jonathan Evans at the contact information listed above.

The Center for Biological Diversity, and San Bernardino Valley Audubon Society wish to be placed on the mailing list for all future notices regarding this project. Please mail all notices to CBD at the address listed above (via email at jevans@biologicaldiversity.org); and San Bernardino Valley Audubon Society at drewf3@verizon.net and P. O. Box 10973, San Bernardino, California 92423-0973. 89

Best regards,

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Attachment A

Ecological Value of Riparian Areas and Wetlands

Riparian areas support a disproportionate share of the State's biodiversity and preservation of these vegetation communities is critical to the survival of rare, sensitive, threatened and endangered plants and wildlife. CDFG 2003.

> Over 225 species of birds, mammals, reptiles, and amphibians depend upon California's riparian habitats (Knopf et al. 1988, Saab et al. 1995, Dobkin et al. 1998). In addition, these beautiful examples of California's biodiversity can help reduce flood flows and flood damage, improve groundwater recharge, prevent damaging chemicals and other compounds from reaching open water, and reduce wind and erosion on adjacent lands. . . Unfortunately, human activities have destroyed or fragmented most of this valuable habitat over the past 150 years. No one has documented how much riparian habitat existed in California before 1850. However, a 1984 study estimated that riparian vegetation in the Central Valley and desert regions represented from two to five percent of the pre-1850 amount… Because they are both biologically rich and severely degraded, riparian areas have been identified as the most critical habitat for conserving neotropical migrant birds.

CDFG 2003. (emphasis added).

Wetlands and riparian habitats are truly among the rarest and most sensitive ecosystem types in California. These areas are critical for biodiversity, harboring high concentrations of threatened, endangered, and sensitive species. Krueper (1992) estimates that wetland and riparian habitat occupies less than 1% of the total land area in the western U.S., yet is critical for up to 80% of terrestrial vertebrate species. Riparian habitats are relatively rare in the California deserts, but extensively degraded. As noted above, more than 90% of the State's riparian areas and wetlands have already been lost, but while there are fewer acres of riparian habitat than other plant communities, riparian areas sustain a disproportionately high number of aquatic and terrestrial wildlife species (Faber et al. 1989). Riparian communities in the arid areas of the State are typically surrounded by far drier environments, and the water and riparian vegetation that they provide are vitally important to many species (Krueper 1992).

Terrestrial vertebrates in the State rely heavily on riparian habitats for various life stages, as noted above, the California Department of Fish and Game estimates that over 225 species of birds, mammals, reptiles, and amphibians depend upon California's riparian habitats. A recent study found that there are approximately 173 terrestrial vertebrates in the eastern United States alone that require riparian habitats for some lifehistory function (26 mammals, 27 birds, 50 reptiles, and 70 Amphibians) (Crawford 2007).

Direct and Indirect Impacts to Wetlands and Riparian Areas

Nonpoint source pollution from activities such as urban runoff, agriculture, and habitat modification are considered the primary source of pollutants to waters of the US (USEPA 2002). Many wetlands that persist are significantly degraded through contamination by pollution from urban and agricultural runoff (Dahl 2006).

It is important to recognize that the destruction and modification of riparian and wetland habitat can have broad indirect effects within a watershed and analyze the impacts of those impacts.

> Artificial flow regulation with local or upstream dams and diversions, as well as channel alteration and containment with levees and channelization, can alter plant communities at watershed scales (Ohmart 1994, Hunter et al. 1999). Transportation departments may channelize or re-direct sheet flow to manage rainfall events, altering hydrologic input to desert wash habitats (The Nature Conservancy 2001). Vegetation, and therefore vegetation-dependent wildlife, can be dramatically affected by distant upstream water management practices (Ohmart 1994), so that restoration efforts at specific sites may depend ultimately on the cooperation of partners managing water in the wider landscape.

(CalPIF, The Draft Desert Bird Conservation Plan, 2006).

Specific types of development can have broad ranging effects. Roads are responsible for a suite of indirect effects that impact species dynamics, soil characteristics, water flow regimes, and vegetation cover (Bashore et al. 1985; Reijnen et al. 1996, Forman et al. 2003). The degree of indirect effect varies in relation to the distance from a road, extending to what is known as the "road effect zone" or the outer limit of significant ecological effect (Forman et al. 1997; Forman and Deblinger 1998, 1999). Forman and Deblinger (2000) found that the effects of all nine ecological factors studied extended more than 100 m from the road, with some extending outwards of 1 km of the road. The road-effect zone was asymmetric, had convoluted boundaries and a few long fingers and averaged approximately 600m in width.

Indirect effects often have such broad implications because the "road effect zone," or the outer limit of a significant ecological effect, extends much further than the actual road, route or trail (Forman 2000). Forman et al. (2003) state all roads not only have a physical footprint, but also a "virtual footprint" surrounding their actual location. This virtual footprint includes the "accumulated effect over time and space of all of the activities that roads induce or allow, as well as all of the ecological effects of those activities (Forman et al. 2003)." It is estimated that 19% of the land surface in the U.S. is directly affected by roads, while in total, 22% of the U.S may be ecologically altered by the road network (Forman 2000).

Mitigation for Impacts to Wetlands and Riparian Areas

To protect stream amphibians and other wildlife dependent on riparian areas and wetlands, land managers and policy makers must consider conserving more than aquatic

resources alone (Crawford 2007). Developing core terrestrial habitat estimates and buffer zone widths for wildlife populations is a critical first step in the conservation of many semiaquatic organisms and protecting biodiversity (Crawford 2007). Typically when buffer zones are determined to mitigate edge effects, they are based on criteria that protect aquatic resources alone and do not consider impacts to wildlife, semiaquatic species, and other terrestrial resources (Semlitsch & Bodie 1998; Semlitsch & Jensen 2001). For example, in Oregon, the minimum buffer strip required to protect water resources is 6.1 m, although a minimum buffer of 20 m is needed to protect certain salamander species (Vesely & McComb 2002).

Maintaining appropriate, fully protected buffer strips between streams and upland soil-disturbing activities is critical to sustaining aquatic and riparian ecosystems (Erman et al. 1996). Most of the current literature about estimating appropriate widths of riparian buffer strips takes into account the complexity of landscapes. Research conducted as part of the Sierra Nevada Ecosystem Project (Erman et al. 1996) provided guidance for designating riparian buffers that incorporate steepness of surrounding slopes and erodability of soils: this research concluded that if the average slope were 25 percent, the buffer width should be 524 feet on either side of the stream, and if the slope were 50 percent, the buffer should be 672 feet.

Riparian forests have been found to reduce delivery of nonpoint-source pollution to streams and lakes in many types of watersheds (Vellidis et al. 2002, 2003a; Lowrance et al. 1983, 1984a, 1984b, 1985a, 1985b, 1997). Riparian forest ecosystems are excellent nutrient and herbicide sinks that reduce the pollutant discharge from surrounding agroecosystems (Peterjohn and Correll 1984). For example, studies from coastal plain agricultural watersheds reveal that riparian forest ecosystems are excellent nutrient sinks and buffer the discharge from surrounding agroecosystems (Lowrance 1984a). Riparian buffers are especially important on small streams where intense interaction between terrestrial and aquatic ecosystems occurs (Vellidis et al., 2003b), because first- and second-order streams comprise nearly three-quarters of the total stream length in the US (Leopold et al., 1964).

Attachment B

Greenhouse Gas Mitigation Measures

Table 16
Mitigation Measure Summary

Mitigation Measure	Applicable Project/Source Type[1]	Effective		Feasible (Yes/No)		Secondary Effects (Yes/No)	Agency/Organization/Other[6]	Description/Comments
		Emissions Reduction/Score[2]	Cost (Yes/No)[3]	Technical[4]	Logistical[5]			
Transportation								
Bicycle/Pedestrian/Transit Measures								
MM T-1: Bike Parking	LD (C, M), I, SP, TP, AQP, RR, P/Mobile	1%-5%/High: CCAP presents combined % reductions for a range of mitigation measures (Dierkers et al. 2007). SMAQMD allocates combined reductions among individual measures (e.g., 2.5% reduction for all bicycle-related measures and one-quarter of 2.5% for each individual measure) (TIAX 2005, EDAW 2006, SMAQMD 2007). VTPI presents % reductions for showers and combined measures in the TDM encyclopedia (VTPI	Yes: Lockers ($1,200-$2,950, $700/bike on average), Racks ($70-$2,000, $70/bike on average).	Yes (Caltrans 2005, Dierkers et al. 2007, VTPI 2007)	Yes (Caltrans 2005, Dierkers et al. 2007, VTPI 2007)	Adverse: No Beneficial: CAPs, TACs	Caltrans, Portland Bicycle Master Plan (City of Portland 1998), CCAP Transportation Emissions Guidebook (Dierkers et al. 2007), SMAQMD Recommended Guidance for Land Use Emission Reductions (SMAQMD 2007), VTPI, CA air quality management and control districts, and cities/counties.	Nonresidential projects provide plentiful short- and long-term bicycle parking facilities to meet peak season maximum demand (e.g., one bike rack space per 20 vehicle/employee parking spaces.
MM T-2: End of Trip Facilities	LD (C, M), I, SP, TP, AQP, RR, P/Mobile		Yes	Yes (Caltrans 2005, Dierkers et al. 2007, VTPI 2007)	Yes (Caltrans 2005, Dierkers et al. 2007, VTPI 2007)	Adverse: No Beneficial: CAPs, TACs		Nonresidential projects provide "end-of-trip" facilities including showers, lockers, and changing space (e.g., four clothes lockers and one shower provided for every 80 employee parking spaces, separate facilities for each gender for projects with 160 or more employee parking spaces).
MM T-3: Bike-Parking at Multi-	LD (R, M), SP, AQP, RR,		Yes: Lockers ($1,200-	Yes (Caltrans 2005,	Yes (Caltrans	Adverse: No Beneficial:		Long-term bicycle parking is provided at apartment

AG=Attorney General; ARB=California Air Resources Board; ASTM=American Society for Testing and Material; BAAQMD=Bay Area Air Quality Management District; BEES= Building for Environmental and Economic Sustainability; CA=California; Caltrans=California Department of Transportation; CAPs=Criteria Air Pollutants; CCAP=Center for Clean Air Policy; CF=Connectivity Factor; CIWMB=California Integrated Waste Management Board; CO= Carbon Monoxide; CO_2=Carbon Dioxide; DGS=Department of General Services; DOE=U.S. Department of Energy; DPF=Diesel particulate Filter; E85=85% Ethanol; EERE=Energy Efficiency and Renewable Energy; EOE=Encyclopedia of Earth; EPA=U.S. Environmental Protection Agency; ETC=Edmonton Trolley Coalition; EVs/CNG=Electric Vehicles/Compressed Natural Gas; FAR=Floor Area Ratio; GHG=Greenhouse Gas; ITE=Institute of Transportation Engineers; kg/m^2=kilogram per square meter; km=Kilometer; lb=pound; LEED=Leadership in Energy and Environmental Design; M=Million; NA=Not Available; NEV=Neighborhood Electric Vehicle; NIST=National Institute of Standards and Technology; NO_X=Oxides of Nitrogen; NREL=National Renewable Energy Laboratory; N/S=North/South; PG&E=Pacific Gas and Electric; PM=Particulate Matter; SJVAPCD=San Joaquin Valley Air Pollution Control District; SMAQMD=Sacramento Metropolitan Air Quality Management District; SMUD=Sacramento Municipal Utilities District; SO_x=Sulfur Oxides; SRI=Solar Reflectance Index; TACs=Toxic Air Contaminants; TDM=Transportation Demand Management; TMA=Transportation Management Association; THC=Total Hydrocarbon; ULEV=Ultra Low Emission Vehicle; USGBC=U.S. Green Building Council; and VTPI=Victoria Transit Policy.

Table 16 Mitigation Measure Summary								
Mitigation Measure	Applicable Project/Source Type[1]	Effective	Feasible (Yes/No)			Secondary Effects (Yes/No)	Agency/Organization/Other[6]	Description/Comments
		Emissions Reduction/Score[2]	Cost (Yes/No)[3]	Technical[4]	Logistical[5]			
Unit Residential	P/Mobile	2007). JSA bases estimates on CCAP information (JSA 2004).	$2,950, $700/bike on average), Racks ($70-$2,000, $70/bike on average).	Dierkers et al. 2007, VTPI 2007)	2005, Dierkers et al. 2007, VTPI 2007)	CAPs, TACs		complexes or condominiums without garages (e.g., one long-term bicycle parking space for each unit without a garage). Long-term facilities shall consist of one of the following: a bicycle locker, a locked room with standard racks and access limited to bicyclists only, or a standard rack in a location that is staffed and/or monitored by video surveillance 24 hours per day.
MM T-4: Proximity to Bike Path/Bike Lanes	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile		Yes	Yes (Caltrans 2005, Dierkers et al. 2007, VTPI 2007)	Yes (Caltrans 2005, Dierkers et al. 2007, VTPI 2007)	Adverse: No Beneficial: CAPs, TACs		Entire project is located within one-half mile of an existing/planned Class I or Class II bike lane and project design includes a comparable network that connects the project uses to the existing offsite facility. Project design includes a designated bicycle route connecting all units, on-site bicycle parking facilities, offsite bicycle facilities, site entrances, and primary building entrances to existing Class I or Class II bike lane(s) within one-half mile. Bicycle route connects to all streets contiguous with project site. Bicycle route has minimum conflicts with automobile parking and circulation

Table 16 Mitigation Measure Summary								
Mitigation Measure	Applicable Project/Source Type[1]	Effective		Feasible (Yes/No)		Secondary Effects (Yes/No)	Agency/Organization/Other[6]	Description/Comments
		Emissions Reduction/Score[2]	Cost (Yes/No)[3]	Technical[4]	Logistical[5]			
								facilities. All streets internal to the project wider than 75 feet have Class II bicycle lanes on both sides.

AG=Attorney General; ARB=California Air Resources Board; ASTM=American Society for Testing and Material; BAAQMD=Bay Area Air Quality Management District; BEES= Building for Environmental and Economic Sustainability; CA=California; Caltrans=California Department of Transportation; CAPs=Criteria Air Pollutants; CCAP=Center for Clean Air Policy; CF=Connectivity Factor; CIWMB=California Integrated Waste Management Board; CO= Carbon Monoxide; CO_2=Carbon Dioxide; DGS=Department of General Services; DOE=U.S. Department of Energy; DPF=Diesel particulate Filter; E85=85% Ethanol; EERE=Energy Efficiency and Renewable Energy; EOE=Encyclopedia of Earth; EPA=U.S. Environmental Protection Agency; ETC=Edmonton Trolley Coalition; EVs/CNG=Electric Vehicles/Compressed Natural Gas; FAR=Floor Area Ratio; GHG=Greenhouse Gas; ITE=Institute of Transportation Engineers; kg/m^2=kilogram per square meter; km=Kilometer; lb=pound; LEED=Leadership in Energy and Environmental Design; M=Million; NA=Not Available; NEV=Neighborhood Electric Vehicle; NIST=National Institute of Standards and Technology; NO_X=Oxides of Nitrogen; NREL=National Renewable Energy Laboratory; N/S=North/South; PG&E=Pacific Gas and Electric; PM=Particulate Matter; SJVAPCD=San Joaquin Valley Air Pollution Control District; SMAQMD=Sacramento Metropolitan Air Quality Management District; SMUD=Sacramento Municipal Utilities District; SO_x=Sulfur Oxides; SRI=Solar Reflectance Index; TACs=Toxic Air Contaminants; TDM=Transportation Demand Management; TMA=Transportation Management Association; THC=Total Hydrocarbon; ULEV=Ultra Low Emission Vehicle; USGBC=U.S. Green Building Council; and VTPI=Victoria Transit Policy.

Table 16 Mitigation Measure Summary								
Mitigation Measure	Applicable Project/Source Type[1]	Effective	Feasible (Yes/No)			Secondary Effects (Yes/No)	Agency/Organization/Other[6]	Description/Comments
		Emissions Reduction/Score[2]	Cost (Yes/No)[3]	Technical[4]	Logistical[5]			
MM T-5: Pedestrian Network	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	1%-10%/High: CCAP presents combined % reductions for a range of mitigation measures (Dierkers et al. 2007). SMAQMD allocates 1% for each individual measure (TIAX 2005, EDAW 2006, SMAQMD 2007).	Yes	Yes (Dierkers et al. 2007, VTPI 2007)	Yes (Dierkers et al. 2007, VTPI 2007)	Adverse: No Beneficial: CAPs, TACs	CCAP Transportation Emissions Guidebook (Dierkers et al. 2007), SMAQMD Recommended Guidance for Land Use Emission Reductions (SMAQMD 2007), VTPI, CA air quality management and control districts, and cities/counties.	The project provides a pedestrian access network that internally links all uses and connects to all existing/planned external streets and pedestrian facilities contiguous with the project site. Project design includes a designated pedestrian route interconnecting all internal uses, site entrances, primary building entrances, public facilities, and adjacent uses to existing external pedestrian facilities and streets. Route has minimal conflict with parking and automobile circulation facilities. Streets (with the exception of alleys) within the project have sidewalks on both sides. All sidewalks internal and adjacent to project site are minimum of five feet wide. All sidewalks feature vertical curbs. Pedestrian facilities and improvements such as grade separation, wider sidewalks, and traffic calming are implemented wherever feasible to minimize pedestrian barriers. All site entrances provide pedestrian access.
MM T-6: Pedestrian	LD (R, C, M), I, SP, TP,		Yes	Yes (Dierkers et al. 2007,	Yes (Dierkers et	Adverse: No Beneficial:		Site design and building placement minimize barriers to

Table 16 Mitigation Measure Summary								
Mitigation Measure	Applicable Project/Source Type[1]	Effective		Feasible (Yes/No)		Secondary Effects (Yes/No)	Agency/Organization/Other[6]	Description/Comments
		Emissions Reduction/Score[2]	Cost (Yes/No)[3]	Technical[4]	Logistical[5]			
Barriers Minimized	AQP, RR, P/Mobile			VTPI 2007)	al. 2007, VTPI 2007)	CAPs, TACs		pedestrian access and interconnectivity. Physical barriers such as walls, berms, landscaping, and slopes between residential and nonresidential uses that impede bicycle or pedestrian circulation are eliminated.
MM T-7: Bus Shelter for Existing/Planned Transit Service	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	1%-2%/High: CCAP presents these % reductions (Dierkers et al., 2007). SMAQMD assigns from .25%-1%, depending on headway frequency (TIAX 2005, EDAW 2006, SMAQMD 2007).	Yes: $15,000-$70,000.	Yes (Dierkers et al. 2007, VTPI 2007)	Yes (Dierkers et al. 2007, VTPI 2007)	Adverse: No Beneficial: CAPs, TACs	CCAP Transportation Emissions Guidebook (Dierkers et al. 2007), SMAQMD Recommended Guidance for Land Use Emission Reductions (SMAQMD 2007), VTPI, City of Calgary (City of Calgary 2004), CA air quality management and control districts, and cities/counties.	Bus or streetcar service provides headways of one hour or less for stops within one-quarter mile; project provides safe and convenient bicycle/pedestrian access to transit stop(s) and provides essential transit stop improvements (i.e., shelters, route information, benches, and lighting).

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Mitigation Measure	Applicable Project/Source Type[1]	Effective		Feasible (Yes/No)		Secondary Effects (Yes/No)	Agency/Organization/Other[6]	Description/Comments
		Emissions Reduction/Score[2]	Cost (Yes/No)[3]	Technical[4]	Logistical[5]			
MM T-8: Traffic Calming	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	1%-10%/High: CCAP presents combined % reductions for a range of mitigation measures (Dierkers et al. 2007). SMAQMD allocates .25%-1.0% for each individual measure depending on percent of intersections and streets with improvements (TIAX 2005, EDAW 2006, SMAQMD 2007).	Yes	Yes (Dierkers et al. 2007, VTPI 2007)	Yes (Dierkers et al. 2007, VTPI 2007)	Adverse: No Beneficial: CAPs, TACs	CCAP Transportation Emissions Guidebook (Dierkers et al. 2007), SMAQMD Recommended Guidance for Land Use Emission Reductions (SMAQMD 2007), VTPI, CA air quality management and control districts, and cities/counties.	Project design includes pedestrian/bicycle safety and traffic calming measures in excess of jurisdiction requirements. Roadways are designed to reduce motor vehicle speeds and encourage pedestrian and bicycle trips by featuring traffic calming features. All sidewalks internal and adjacent to project site are minimum of five feet wide. All sidewalks feature vertical curbs. Roadways that converge internally within the project are routed in such a way as to avoid "skewed intersections;" which are intersections that meet at acute, rather than right, angles. Intersections internal and adjacent to the project feature one or more of the following pedestrian safety/traffic calming design techniques: marked crosswalks, count-down signal timers, curb extensions, speed tables, raised crosswalks, raised intersections, median islands, tight corner radii, and roundabouts or mini-circles. Streets internal and adjacent to the project feature pedestrian safety/traffic calming measures such as on-street parking, planter strips with street trees,

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								and chicanes/chokers (variations in road width to discourage high-speed travel).
Parking Measures								
MM T-9: Paid Parking (Parking Cash Out)	LD (C, M), I, SP, TP, AQP, RR, P/Mobile	1%-30%/High: CCAP presents a range of 15%-30% reduction for parking programs (Dierkers et al. 2007). SMAQMD presents a range of 1.0%-7.2%, depending on cost/day and distance to transit (TIAX 2005, EDAW 2006, SMAQMD 2007). Shoupe presents a 21% reduction [$5/day for commuters to downtown LA, with elasticity of -0.18 (e.g., if price increases 10%, then solo driving goes down by 1.8% more)] (Shoupe 2005). Urban Transit Institute	Yes: Vary by location and project size.	Yes (Dierkers et al. 2007, VTPI 2007)	Yes (Dierkers et al. 2007, VTPI 2007)	Adverse: No Beneficial: CAPs, TACs	CCAP Transportation Emissions Guidebook (Dierkers et al. 2007), SMAQMD Recommended Guidance for Land Use Emission Reductions (SMAQMD 2007), VTPI, CA air quality management and control districts, and cities/counties.	Project provides employee and/or customer paid parking system. Project must have a permanent and enforceable method of maintaining user fees for all parking facilities. The facility may not provide customer or employee validations. Daily charge for parking must be equal to or greater than the cost of a transit day/monthly pass plus 20%.

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		Emissions Reduction/Score[2]	Cost (Yes/No)[3]	Technical[4]	Logistical[5]			
		presents a range of 1%-10% reduction in trips to central city sites, and 2%-4% in suburban sites (VTPI 2007).						
MM T-10: Minimum Parking	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	1%-30%/High: CCAP presents a range of 15%-30% reduction for parking programs (Dierkers et al. 2007). SMAQMD presents a maximum of 6% (Nelson/Nygaard Consulting Associates, 2005, TIAX 2005, EDAW 2006).	Yes	Yes (Dierkers et al. 2007, VTPI 2007)	Yes (Dierkers et al. 2007, VTPI 2007), Note that in certain areas of the state, the minimum parking required by code is greater than the peak period parking demand for most land uses. Simply meeting minimum code requirements in these areas would not result in an emissions reduction.	Adverse: No Beneficial: CAPs, TACs	CCAP Transportation Emissions Guidebook (Dierkers et al. 2007), SMAQMD Recommended Guidance for Land Use Emission Reductions (SMAQMD 2007), VTPI, Governor's Office of Smart Growth (Annapolis, Maryland) (Zimbler), CA air quality management and control districts, and cities/counties.	Provide minimum amount of parking required. Once land uses are determined, the trip reduction factor associated with this measure can be determined by utilizing the ITE parking generation publication. The reduction in trips can be computed as shown below by the ratio of the difference of minimum parking required by code and ITE peak parking demand to ITE peak parking demand for the land uses multiplied by 50%. Percent Trip Reduction = 50 * [(min parking required by code – ITE peak parking demand)/ (ITE peak parking demand)]

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MM T-11: Parking Reduction Beyond Code/Shared Parking	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	1%-30%/High: CCAP presents a range of 15%-30% reduction for parking programs (Dierkers et al. 2007). SMAQMD presents a maximum of 12% (Nelson/Nygaard, 2005, TIAX 2005, EDAW 2006).	Yes	Yes (Dierkers et al. 2007, VTPI 2007)	Yes (Dierkers et al. 2007, VTPI 2007)	Adverse: No Beneficial: CAPs, TACs		Provide parking reduction less than code. This measure can be readily implemented through a shared parking strategy, wherein parking is utilized jointly among different land uses, buildings, and facilities in an area that experience peak parking needs at different times of day and day of the week.
MM T-12: Pedestrian Pathway Through Parking	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	1%-4%/Moderate: CCAP presents combined % reductions for a range of mitigation measures (Dierkers et al. 2007). SMAQMD allocates 0.5% reduction for this measure (TIAX 2005, EDAW 2006, SMAQMD 2007).	Yes	Yes (Dierkers et al. 2007, VTPI 2007)	Yes (Dierkers et al. 2007, VTPI 2007)	Adverse: No Beneficial: CAPs, TACs		Provide a parking lot design that includes clearly marked and shaded pedestrian pathways between transit facilities and building entrances.

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		Emissions Reduction/Score[2]	Cost (Yes/No)[3]	Technical[4]	Logistical[5]			
MM T-13: Off - Street Parking	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	1%-4%/Moderate: CCAP presents combined % reductions for a range of mitigation measures (Dierkers et al. 2007). SMAQMD allocates a range of 0.1%-1.5% for this measure (TIAX 2005, EDAW 2006, SMAQMD 2007).	Yes	Yes (Dierkers et al. 2007, VTPI 2007)	Yes (Dierkers et al. 2007, VTPI 2007)	Adverse: No Beneficial: CAPs, TACs		Parking facilities are not adjacent to street frontage.
MM T-14: Parking Area Tree Cover	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	Annual net CO_2 reduction of 3.1 kg/m^2 canopy cover/Moderate (McPherson 2001).	Yes: $19 per new tree for CA, cost varies for maintenance, removal and replacement (McPherson 2001).	Yes	Yes	Adverse: VOCs Beneficial: CAPs, TACs	AG, State of CA Department of Justice (Goldberg 2007) and cities/counties (e.g., parking lot ordinances in Sacramento, Davis, and Los Angeles, CA).	Provide parking lot areas with 50% tree cover within 10 years of construction, in particular low emitting, low maintenance, native drought resistant trees. Reduces urban heat island effect and requirement for air conditioning, effective when combined with other measures (e.g., electrical maintenance equipment and reflective paving material).
MM T-15: Valet Bicycle Parking	LD (C, M), SP, AQP, TP, RR, P/Mobile	NA/Low	Yes	Yes	Yes: Raley Field (Sacramento, CA)	Adverse: No Beneficial: CAPs, TACs	Raley Field (Sacramento, CA).	Provide spaces for the operation of valet bicycle parking at community event "centers" such as amphitheaters, theaters, and stadiums.
MM T-16: Garage Bicycle Storage	LD (R, M), SP, AQP, TP, RR, P/Mobile	NA/Low	Yes: Less than $200/multiple bike rack.	Yes	Yes	Adverse: No Beneficial: CAPs, TACs	City of Fairview, OR	Provide storage space in one-car garages for bicycles and bicycle trailers.

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		Emissions Reduction/Score[2]	Cost (Yes/No)[3]	Technical[4]	Logistical[5]			
MM T-17: Preferential Parking for EVs/CNG Vehicles	LD (C, M), I, SP, TP, AQP, RR, P/Mobile	NA/Low	Yes	Yes	Yes	Adverse: No Beneficial: CAPs, TACs	USGBC, CA air quality management and control districts and cities/counties (e.g., BAAQMD).	Provide preferential parking space locations for EVs/CNG vehicles.
MM T-18: Reduced/No Parking Fee for EVs/CNG Vehicles	LD (C, M), I, SP, TP, AQP, RR, P/Mobile	NA/Low	Yes	Yes	Yes	Adverse: No Beneficial: CAPs, TACs	Hotels (e.g., Argonaut in San Francisco, CA)	Provide a reduced/no parking fee for EVs/CNG vehicles.

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		Emissions Reduction/Score[2]	Cost (Yes/No)[3]	Technical[4]	Logistical[5]			
Miscellaneous Measure								
MM T-19: TMA Membership	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	1%-28%/High: CCAP presents a range of 3%-25% for TDMs with complementary transit and land use measures (Dierkers et al. 2007). VTPI presents a range of 6%-7% in the TDM encyclopedia (VTPI 2007). URBEMIS offers a 2%-10% range in reductions for a TDM that has 5 elements that are pedestrian and transit friendly and 1%-5% for 3 elements. SMAQMD presents a reduction of 5% (TIAX 2005, EDAW 2006, SMAQMD 2007).	Yes	Yes (Dierkers et al. 2007, VTPI 2007)	Yes (Dierkers et al. 2007, VTPI 2007)	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Include permanent TMA membership and funding requirement. Funding to be provided by Community Facilities District or County Service Area or other nonrevocable funding mechanism. TDMs have been shown to reduce employee vehicle trips up to 28% with the largest reductions achieved through parking pricing and transit passes. The impact depends on the travel alternatives.
MM T-20: ULEV	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	NA/Low	Yes: Higher than corresponding gasoline models.	Yes	Yes: Fueling stations might not be readily available depending on location. More than 900 E85 fueling	Adverse: No Beneficial: CAPs, TACs	DGS, CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Use of and/or provide ULEV that are 50% cleaner than average new model cars (e.g., natural gas, ethanol, electric).

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		Emissions Reduction/Score[2]	Cost (Yes/No)[3]	Technical[4]	Logistical[5]			
					stations in the U.S., 5 in CA. Vehicles available in select regions only			
MM T-21: Flex Fuel Vehicles	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	5466.97 lb GHG/year/Low (DOE Fuel Economy)	Yes: E85 costs less than gasoline per gallon, but results in lower fuel economy.	Yes	Yes: More than 900 E85 fueling stations in the U.S., 5 in CA. Vehicles available in select regions only	Adverse: Yes Issues with the energy intensive ethanol production process (e.g., wastewater treatment requirements). Beneficial: CAPs, TACs	DGS, CA air quality management and control districts and cities/counties (e.g., SJVAPCD).	Use of and/or provide vehicles that utilize gasoline/ethanol blends (e.g., E85).
Design								
Commercial & Residential Building Design Measures								
MM D-1: Office/Mixed Use Density	LD (C, M), SP, TP, AQP, RR, P/Mobile	0.05%-2%/Moderate: This range is from SMAQMD, depending	Yes	Yes (VTPI 2007)	Yes (VTPI 2007)	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties	Project provides high density office or mixed-use proximate to transit. Project must provide

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		on FAR and headway frequencies (Nelson/Nygaard Consulting Associates 2005, EDAW 2006, SMAQMD 2007).					(e.g., SMAQMD).	safe and convenient pedestrian and bicycle access to all transit stops within one-quarter mile.
MM D-2: Orientation to Existing/Planned Transit, Bikeway, or Pedestrian Corridor	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	0.4%-1%/Moderate: CCAP attributes a 0.5% reduction per 1% improvement in transit frequency (Dierkers et al. 2007). SMAQMD presents a range of 0.25%-5% (JSA 2005, EDAW 2006, SMAQMD 2007).	Yes	Yes (Dierkers et al. 2007)	Yes (Dierkers et al. 2007)	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Project is oriented towards existing transit, bicycle, or pedestrian corridor. Setback distance between project and existing or planned adjacent uses is minimized or nonexistent. Setback distance between different buildings on project site is minimized. Setbacks between project buildings and planned or existing sidewalks are minimized. Buildings are oriented towards existing or planned street frontage. Primary entrances to buildings are located along planned or existing public street frontage. Project provides bicycle access to any planned bicycle corridor(s). Project provides pedestrian access to any planned pedestrian corridor(s).
MM D-3: Services Operational	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	0.5%-5%/Moderate	Yes	Yes	Yes	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Project provides on-site shops and services for employees.

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MM D-4: Residential Density (Employ Sufficient Density for New Residential Development to Support the Use of Public Transit)	LD (R, M), SP, TP, AQP, RR, P/Mobile	1%-40%/High: #7, EPA presents a range of 32%-40% (EPA 2006). SMAQMD presents a range of 1%-12% depending on density and headway frequencies (Nelson/Nygaard Consulting Associates 2005, JSA 2005, EDAW 2006, SMAQMD 2007). Nelson/Nygaard presents a trip reduction formula: Trip Reduction = 0.6*(1-(19749*((4.814+ households per residential acre)/(4.814+7.14))^-06.39)/25914).	Yes	Yes (VTPI 2007, Holtzclaw 2007)	Yes (VTPI 2007, Holtzclaw 2007)	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Project provides high-density residential development. Transit facilities must be within one-quarter mile of project border. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within one-quarter mile of project border.
MM D-5: Street Grid	LD (R, C, M), I, SP, TP, AQP, RR,	1%/Moderate: SMAQMD presents this % reduction (JSA	Yes	Yes (Dierkers et al. 2007, VTPI 2007)	Yes (Dierkers et al. 2007,	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties	Multiple and direct street routing (grid style). This measure only applies to projects

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	P/Mobile	2005, EDAW 2006, SMAQMD 2007).			VTPI 2007)		(e.g., SMAQMD).	with an internal CF >/= 0.80, and average of one-quarter mile or less between external connections along perimeter of project. [CF= # of intersections / (# of cul-de-sacs + intersections)]. Cul-de-sacs with bicycle/pedestrian through access may be considered "complete intersections" when calculating the project's internal connectivity factor. External connections are bike/pedestrian pathways and access points, or streets with safe and convenient bicycle and pedestrian access that connect the project to adjacent streets, sidewalks, and uses. If project site is adjacent to undeveloped land; streets, pathways, access points, and right-of-ways that provide for future access to adjacent uses may count for up to 50% of the external connections. Block perimeter (the sum of the measurement of the length of all block sides) is limited to no more than 1,350 feet. Streets internal to the project should connect to streets external to the project whenever possible.

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MM D-6: NEV Access	LD (R, C, M), SP, TP, AQP, RR, P/Mobile	0.5%-1.5%/Low: SMAQMD presents this % reduction (EDAW 2006, SMAQMD 2007).	Yes	Yes (Litman 1999, Sperling 1994)	Yes (Litman 1999, Sperling 1994)	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Make physical development consistent with requirements for neighborhood electric vehicles. Current studies show that for most trips, NEVs do not replace gas-fueled vehicles as the primary vehicle.
MM D-7: Affordable Housing Component	LD (R, M), SP, TP, AQP, RR, P/Mobile	0.4%-6%/Moderate: SMAQMD presents this % reduction (Nelson/Nygaard Consulting Associates 2005, EDAW 2006, SMAQMD 2007).	Yes	Yes	Yes	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Residential development projects of five or more dwelling units provide a deed-restricted low-income housing component on-site (or as defined in the code). Developers who pay into In-Lieu Fee Programs are not considered eligible to receive credit for this measure. The award of emission reduction credit shall be based only on the proportion of affordable housing developed on-site because in-lieu programs simply induce a net increase in development. Percentage reduction shall be calculated according to the following formula:

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		Emissions Reduction/Score[2]	Cost (Yes/No)[3]	Technical[4]	Logistical[5]			
								% reduction = % units deed-restricted below market rate housing * 0.04
MM D-8: Recharging Area	LD (R, M), SP, TP, AQP, RR, P/Mobile	NA/Low	Yes	Yes	Yes	Adverse: No Beneficial: CAPs, TACs		Provide residential buildings with a "utility" room or space for recharging batteries, whether for use in a car, electric lawnmower, other electric landscaping equipment, or even batteries for small items such as flashlights.
Mixed-Use Development Measures								
MM D-9: Urban Mixed-Use	LD (M), SP, TP, AQP, RR, P/Mobile	3%-9%/Moderate: SMAQMD presents this % reduction (TIAX 2005, EDAW 2006, SMAQMD 2007).	Yes	Yes (EPA 2006)	Yes (EPA 2006)	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Development of projects predominantly characterized by properties on which various uses, such as office, commercial, institutional, and residential, are combined in a single building or on a single site in an integrated development project with functional interrelationships and a coherent physical design.
MM D-10: Suburban Mixed-Use	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	3%/Moderate: SMAQMD presents this % reduction (TIAX 2005, EDAW 2006, SMAQMD 2007).	Yes	Yes (EPA 2006)	Yes (EPA 2006)	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Have at least three of the following on site and/or offsite within one-quarter mile: Residential Development, Retail Development, Park, Open Space, or Office.
MM D-11: Other Mixed-Use	LD (R, M), SP, TP, AQP, RR, P/Mobile	1%/Moderate: SMAQMD presents this % reduction (TIAX 2005, EDAW	Yes	Yes (EPA 2006)	Yes (EPA 2006)	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	All residential units are within one-quarter mile of parks, schools or other civic uses.

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		2006, SMAQMD 2007).						
MM D-12: Infill Development	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	3%-30%/High: Infill development reduces vehicle trips and VMT by 3% and 20%, respectively (Fehr & Peers 2007). CCAP identifies a site level VMT reduction range of 20%-30% (Dierkers et al. 2007).	Yes	Yes (Dierkers et al. 2007)	Yes (Dierkers et al. 2007)	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Project site is on a vacant infill site, redevelopment area, or brownfield or greyfield lot that is highly accessible to regional destinations, where the destinations rating of the development site (measured as the weighted average travel time to all other regional destinations) is improved by 100% when compared to an alternate greenfield site.
Miscellaneous Measures								
MM D-13: Electric Lawnmower	LD (R, M), SP, AQP, RR, P/Area	1%/Low: SMAQMD presents this % reduction (EDAW 2006, SMAQMD 2007).	Yes	Yes	Yes	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Provide a complimentary electric lawnmower to each residential buyer.

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		Emissions Reduction/Score[2]	Cost (Yes/No)[3]	Technical[4]	Logistical[5]			
MM D-14: Enhanced Recycling/Waste Reduction, Reuse, Composting	LD (R, C, M), I, SP, AQP, RR, P/Stationary & Area	NA/Low	Yes	Yes	Yes: Association with social awareness.	Adverse: No Beneficial: CAPs, TACs	CIWMB	Provide infrastructure/education that promotes the avoidance of products with excessive packaging, recycle, buying of refills, separating of food and yard waste for composting, and using rechargeable batteries.
MM D-15: LEED Certification	LD (R, C, M), I, SP, AQP, RR, P/Stationary & Area	NA/Moderate	Yes: Receive tax rebates, incentives (e.g., EDAW San Diego office interior remodel cost $1,700,000 for 32,500 square feet) (USGBC 2007)	Yes	Yes: More than 700 buildings of different certifications in CA (USGBC 2007).	Adverse: No Beneficial: CAPs, TACs	USGBC, CA air quality management and control districts and cities/counties (e.g., BAAQMD).	LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality.
MM D-16: Retro-Commissioning	LD (C, M), I, SP, AQP, RR, P/Stationary & Area	8%-10% reduction in energy usage/Moderate: (Mills et al. 2004)	Yes: Average $0.28/square feet, varies with building size (Haasl and Sharp 1999).	Yes	Yes: 27 projects underway in CA, 21 more to be completed in 2007, mostly state buildings owned by DGS (DGS 2007).	Adverse: No Beneficial: CAPs, TACs	DGS, CA air quality management and control districts and cities/counties (e.g., BAAQMD).	The process ensures that all building systems perform interactively according to the contract documents, the design intent and the owner's operational needs to optimize energy performance.
MM D-17 Landscaping	LD (R, C, M), I, SP, AQP, RR,	NA/Low	Yes	Yes	Yes	Adverse: No Beneficial: CAPs, TACs	Alliance for the Chesapeake Bay, EPA Green Landscaping	Project shall use drought resistant native trees, trees with low emissions and high carbon

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	P/Stationary & Area						Resources	sequestration potential. Evergreen trees on the north and west sides afford the best protection from the setting summer sun and cold winter winds. Additional considerations include the use of deciduous trees on the south side of the house that will admit summer sun; evergreen plantings on the north side will slow cold winter winds; constructing a natural planted channel to funnel summer cooling breezes into the house. Neighborhood CCR's not requiring that front and side yards of single family homes be planted with turf grass. Vegetable gardens, bunch grass, and low-water landscaping shall also be permitted, or even encouraged.
MM D-18: Local Farmers' Market	LD (M), SP/Mobile, Stationary, &	NA/Low	Yes	Yes	Yes: Associated with social	Adverse: No Beneficial: CAPs, TACs	Cities/counties (e.g., Davis, Sacramento)	Project shall dedicate space in a centralized, accessible location for a weekly farmers' market.

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	Area				choice and public awareness.			
MM D-19: Community Gardens	LD (M), SP/Mobile, Stationary, & Area	NA/Low	Yes	Yes	Yes: Associated with social choice and public awareness.	Adverse: No Beneficial: CAPs, TACs	Cities/counties (e.g., Davis)	Project shall dedicate space for community gardens.
Energy Efficiency/Building Component								
MM E-1: High-Efficiency Pumps	LD (R, C, M), SP, AQP, RR, P/Stationary & Area	NA/Low	Yes	Yes	Yes	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., BAAQMD).	Project shall use high-efficiency pumps.
MM E-2: Wood Burning Fireplaces/Stoves	LD (R, M), SP, AQP, RR, P/Stationary & Area	NA/Low: EDAW 2006	Yes	Yes	Yes	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Project does not feature fireplaces or wood burning stoves.
MM E-3: Natural Gas Stove	LD (R, M), SP, AQP, RR, P/Stationary & Area	NA/Low: EDAW 2006	Yes: Cost of stove—$350 (gas) and $360 (electric) same brand, total yearly cost of $42.17 as opposed to $56.65 for electric (Saving Electricity 2006).	Yes	Yes	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Project features only natural gas or electric stoves in residences.

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MM E-4: Energy Star Roof	LD (R, C, M), I, SP, AQP, RR, P/Stationary & Area	0.5%-1%/Low: SMAQMD presents this % reduction (EDAW 2006, SMAQMD 2007).	Yes	Yes	Yes: 866 Energy Star labeled buildings in California (Energy Star 2007)	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Project installs Energy Star labeled roof materials.
MM E-5: On-site Renewable Energy System	LD (R, C, M), I, SP, AQP, RR, P/Stationary & Area	1%-3%/Moderate: SMAQMD presents this % reduction (USGBC 2002 and 2005, EDAW 2006, SMAQMD 2007).	Yes	Yes (USGBC 2002 and 2005)	Yes (USGBC 2002 and 2005)	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Project provides onsite renewable energy system(s). Nonpolluting and renewable energy potential includes solar, wind, geothermal, low-impact hydro, biomass and bio-gas strategies. When applying these strategies, projects may take advantage of net metering with the local utility.

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MM E-6: Exceed Title 24	LD (R, C, M), I, GSP, AQP, RR, P/Stationary & Area	1%/Moderate: SMAQMD presents this % reduction (EDAW 2006, SMAQMD 2007).	Yes	Yes (PG&E 2002, SMUD 2006)	Yes (PG&E 2002, SMUD 2006)	Adverse: No Beneficial: CAPs, TACs	PG&E, SMUD, CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Project exceeds title 24 requirements by 20%.
MM E-7: Solar Orientation	LD (R, C, M), I, SP, AQP, RR, P/Stationary & Area	0.5%/Low: SMAQMD presents this % reduction (EDAW 2006, SMAQMD 2007).	Yes	Yes	Yes	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Project orients 75% or more of homes and/or buildings to face either north or south (within 30° of N/S). Building design includes roof overhangs that are sufficient to block the high summer sun, but not the lower winter sun, from penetrating south facing windows. Trees, other landscaping features and other buildings are sited in such a way as to maximize shade in the summer and maximize solar access to walls and windows in the winter.
MM E-8: Nonroof Surfaces	LD (R, C, M), I, GSP, AQP, RR, P/Stationary & Area	1.0%/Low: SMAQMD presents this % reduction (EDAW 2006, SMAQMD 2007).	Yes	Yes (USGBC 2002 and 2005)	Yes (USGBC 2002 and 2005)	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Provide shade (within 5 years) and/or use light-colored/high-albedo materials (reflectance of at least 0.3) and/or open grid pavement for at least 30% of the site's nonroof impervious surfaces, including parking lots, walkways, plazas, etc.; OR place a minimum of 50% of parking spaces underground or covered by structured parking; OR use an open-grid pavement system (less than 50% impervious) for a minimum of

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								50% of the parking lot area. The mitigation measure reduces heat islands (thermal gradient differences between developed and undeveloped areas to minimize impact on microclimate and human and wildlife habitats. This measure requires the use of patented or copyright protected methodologies created by the ASTM. The SRI is a measure of the constructed surface's ability to reflect solar heat, as shown by a small rise in temperature. It is defined so that a standard black (reflectance 0.05, emittance 0.90) is "0" and a standard white (reflectance 0.80, emittance 0.90) is 100. To calculate SRI for a given material, obtain the reflectance value and emittance value for the material. SRI is calculated according to ASTM E 1980-01. Reflectance is measured

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								according to ASTM E 903, ASTM E 1918, or ASTM C 1549. Emittance is measured according to ASTM E 408 or ASTM C 1371. Default values for some materials will be available in the LEED-NC v2.2 Reference Guide.
MM E-9: Low-Energy Cooling	LD (C, M), I, SP, AQP, RR, P/Stationary & Area	1%-10%/Low: EDAW presents this percent reduction range (EDAW 2006).	Yes	Yes (USGBC 2002 and 2005)	Yes (USGBC 2002 and 2005)	Adverse: No Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Project optimizes building's thermal distribution by separating ventilation and thermal conditioning systems.
MM E-10: Green Roof	LD (R, C, M), I, SP, AQP, RR, P/Stationary & Area	1.0%/Moderate: SMAQMD presents this % reduction (EDAW 2006, SMAQMD 2007).	Yes	Yes (USGBC 2002 and 2005)	Yes (USGBC 2002 and 2005)	Adverse: Increased Water Consumption Beneficial: CAPs, TACs	CA air quality management and control districts and cities/counties (e.g., SMAQMD).	Install a vegetated roof that covers at least 50% of roof area. The reduction assumes that a vegetated roof is installed on a least 50% of the roof area or that a combination high albedo and vegetated roof surface is installed that meets the following standard: (Area of SRI Roof/0.75)+(Area of vegetated roof/0.5) >= Total Roof Area. Water consumption reduction measures shall be considered in the design of the green roof.
MM E-11: EV Charging Facilities	LD (C, M), SP, AQP, RR, P/Stationary & Area	NA/Low	Yes: $500-$5000/ vehicle site (PG&E 1999)	Yes	Yes: 381 facilities in CA (Clean Air Maps 2007).	Adverse: No Beneficial: CAPs, TACs	DOE, EERE, CA air quality management and control districts and cities/counties (e.g., BAAQMD).	Project installs EV charging facilities.
MM E-12:	LD (R, C, M),	NA/Low: Increasing	Yes: Light	Yes	Yes: Apply	Adverse: No		Project provides light-colored

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Light-Colored Paving	I, SP, AQP, RR, P/Stationary & Area	the albedo of 1,250 km of pavement by 0.25 would save cooling energy worth $15M per year.	colored aggregates and white cement are more expensive than gray cement. Certain blended cements are very light in color and may reflect similarly to white cement at an equivalent cost to normal gray cement.		natural sand or gravel colored single surface treatments to asphalt (EOE 2007).	Beneficial: CAPs, TACs		paving (e.g., increased albedo pavement).
MM E-13: Cool Roofs	LD (R, C, M), I, SP, AQP, RR, P/Stationary & Area	NA/Low	Yes: 0.75–1.5/square feet coating (EPA 2007a)	Yes	Yes: Over 90% of the roofs in the United States are dark colored	Adverse: No Beneficial: CAPs, TACs	CEC	Project provides cool roofs. Highly reflective, highly emissive roofing materials that stay 50-60°F cooler than a normal roof under a hot summer sun. CA's Cool Savings

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Mitigation Measure	Applicable Project/Source Type[1]	Effective		Feasible (Yes/No)		Secondary Effects (Yes/No)	Agency/Organization/Other[6]	Description/Comments
		Emissions Reduction/Score[2]	Cost (Yes/No)[3]	Technical[4]	Logistical[5]			
					(EPA 2007a).			Program provided rebates to building owners for installing roofing materials with high solar reflectance and thermal emittance. The highest rebate went to roofs on air conditioned buildings, while buildings with rooftop ducts and other nonresidential buildings were eligible for slightly less. The program aimed to reduce peak summer electricity demand and was administered by the CEC.
MM E-14: Solar Water Heaters	LD (R, M), SP, AQP, RR, P/Stationary & Area	20%–70% reduction in cooling energy needs/Moderate	Yes: $1675/20 square feet, requires a 50 gallon tank, annual operating cost of $176 (DOE 2007).	Yes	Yes: Based on solar orientation, building codes, zoning ordinances.	Adverse: No Beneficial: CAPs, TACs	Europe	Project provides solar water heaters.
MM E-15: Electric Yard Equipment Compatibility	LD (R, M), SP, AQP, RR, P/Stationary & Area	NA/Low	Yes: $75–$250/outlet from existing circuit (Cost Helper 2007).	Yes	Yes	Adverse: No Beneficial: CAPs, TACs		Project provides electrical outlets at building exterior areas.
MM E-16: Energy Efficient Appliance Standards	LD (R, C, M), SP, AQP, RR, P/Stationary & Area	NA/Low	Yes: Varies for each appliance—higher capital costs, lower operating costs (Energy	Yes	Yes: Major retail stores.	Adverse: No Beneficial: CAPs, TACs		Project uses energy efficient appliances (e.g., Energy Star).

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			Star 2007).					
MM E-17: Green Building Materials	LD (R, C, M), SP, AQP, RR, P/Stationary & Area	NA/Low: 25-30% more efficient on average.	Yes	Yes: BEES software allows users to balance the environmental and economic performance of building products; developed by NIST (NIST 2007).	Yes	Adverse: No Beneficial: CAPs, TACs		Project uses materials which are resource efficient, recycled, with long life cycles and manufactured in an environmentally friendly way.
MM E-18: Shading Mechanisms	LD (R, C, M), I, SP, AQP, RR, P/Stationary, & Area	NA/Low: Up to $450 annual energy savings (Energy Star 2007).	Yes: Higher capital costs, lower operating and maintenance costs (Energy Star 2007).	Yes	Yes: Major retail stores.	Adverse: No Beneficial: CAPs, TACs		Install energy-reducing shading mechanisms for windows, porch, patio and walkway overhangs.

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		Emissions Reduction/Score[2]	Cost (Yes/No)[3]	Technical[4]	Logistical[5]			
MM E-19: Ceiling/Whole-House Fans	LD (R, C, M), I, SP, AQP, RR, P/Stationary, & Area	NA/Low: 50% more efficient than conventional fans (Energy Star 2007).	Yes: $45-$200/fan, installation extra (Lowe's 2007).	Yes	Yes: Major retail stores.	Adverse: No Beneficial: CAPs, TACs		Install energy-reducing ceiling/whole-house fans.
MM E-20: Programmable Thermostats	LD (R, C, M), I, SP, AQP, RR, P/Stationary, & Area	NA/Low: $100 annual savings in energy costs (Energy Star 2007).	Yes: $60/LCD display and 4 settings for typical residential use (Lowe's 2007).	Yes	Yes: Major retail stores.	Adverse: Yes, Mercury Beneficial: CAPs, TACs		Install energy-reducing programmable thermostats that automatically adjust temperature settings.
MM E-21: Passive Heating and Cooling Systems	LD (R, C, M), I, SP, AQP, RR, P/Stationary, & Area	NA/Low	Yes: $800 (wall heaters) to $4,000+ (central systems)	Yes	Yes	Adverse: No Beneficial: CAPs, TACs		Install energy-reducing passive heating and cooling systems (e.g., insulation and ventilation).
MM E-22: Day Lighting Systems	LD (R, C, M), I, SP, AQP, RR, P/Stationary, & Area	NA/Low	Yes: $1,300 to $1,500 depending upon the kind of roof (Barrier 1995), installation extra.	Yes	Yes: Work well only for space near the roof of the building, little benefit in multi-floor buildings.	Adverse: No Beneficial: CAPs, TACs		Install energy-reducing day lighting systems (e.g., skylights, light shelves and interior transom windows).
MM E-23: Low-Water Use Appliances	LD (R, C, M), I, SP, AQP, RR, P/Stationary, & Area	NA/Low: Avoided water agency cost for using water-efficient kitchen pre-rinse spray valves of $65.18 per acre-foot.	Yes: Can return their cost through reduction in water consumption,	Yes	Yes	Adverse: No Beneficial: CAPs, TACs		Require the installation of low-water use appliances.

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			pumping, and treatment.					
MM E-24: Goods Transport by Rail	LD (C, M), I, SP, AQP, RR, P/Mobile	NA/Moderate	Yes	Yes	Yes	Adverse: No Beneficial: CAPs, TACs	ARB Goods Movement Plan (ARB 2007)	Provide a spur at nonresidential projects to use nearby rail for goods movement.
Social Awareness/Education								
MM S-1: GHG Emissions Reductions Education	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile, Stationary, & Mobile	NA/Low	Yes	Yes	Yes: Similar programs currently exist in CA.	Adverse: No Beneficial: CAPs, TACs		Provide local governments, businesses, and residents with guidance/protocols/information on how to reduce GHG emissions (e.g., energy saving, food miles).
MM S-2: School Curriculum	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile, Stationary, & Mobile	NA/Low	Yes	Yes	Yes: Similar programs currently exist in CA.	Adverse: No Beneficial: CAPs, TACs		Include how to reduce GHG emissions (e.g., energy saving, food miles) in the school curriculum.
Construction								
MM C-1: ARB-Certified Diesel Construction Equipment	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	NA/Low	Yes: Oxidation Catalysts, $1,000-	Yes	Yes	Adverse: Yes, NO_x Beneficial: CAPs, TACs	AG, EPA, ARB, and CA air quality management and pollution control districts.	Use ARB-certified diesel construction equipment. Increases CO_2 emissions when trapped CO and carbon particles

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			$2,000. DPF, $5000-$10,000; installation extra (EPA 2007b).					are oxidized (Catalyst Products 2007, ETC 2007).
MM C-2: Alternative Fuel Construction Equipment	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	NA/Low	Yes	Yes	Yes	Adverse: Yes, THC, NO_x Beneficial: CO, PM, SO_x	AG, EPA, ARB, and CA air quality management and pollution control districts.	Use alternative fuel types for construction equipment. At the tailpipe biodiesel emits 10% more CO_2 than petroleum diesel. Overall lifecycle emissions of CO_2 from 100% biodiesel are 78% lower than those of petroleum diesel (NREL 1998, EPA 2007b).
MM C-3: Local Building Materials	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	NA/Low	Yes	Yes	Yes: Depends on location of building material manufacture sites.	Adverse: No Beneficial: CAPs, TACs		Use locally made building materials for construction of the project and associated infrastructure.
MM C-4: Recycle Demolished Construction Material	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile	NA/Low	Yes	Yes	Yes	Adverse: No Beneficial: CAPs, TACs		Recycle/Reuse demolished construction material. Use locally made building materials for construction of the project and associated infrastructure.

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Miscellaneous								
MM M-1: Off-Site Mitigation Fee Program	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile & Area	NA/Moderate-High: Though there is currently no program in place, the potential for real and quantifiable reductions of GHG emissions could be high if a defensible fee program were designed.	Yes	Yes	No: Program does not exist in CA, but similar programs currently exist (e.g., Carl Moyer Program, SJVAPCD Rule 9510, SMAQMD Off-Site Construction Mitigation Fee Program).	Adverse: No Beneficial: CAPs, TACs		Provide/Pay into an off-site mitigation fee program, which focuses primarily on reducing emissions from existing development and buildings through retro-fit (e.g., increased insulation).
MM M-2: Offset Purchase	LD (R, C, M), I, SP, TP, AQP, RR, P/Mobile, Stationary, & Area	NA/Low	Yes	Yes	No: ARB has not adopted official program, but similar programs	No		Provide/purchase offsets for additional emissions by acquiring carbon credits or engaging in other market "cap and trade" systems.

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		Emissions Reduction/Score[2]	Cost (Yes/No)[3]	Technical[4]	Logistical[5]			
					currently exist.			
Regional Transportation Plan Measures								
MM RTP-1: Dedicate High Occupancy Vehicle (HOV) lanes prior to adding capacity to existing highways.	RTP		Yes	Yes	Yes	Adverse: possible local CO Beneficial: regional CAPs, TACs	Caltrans, local government	Evaluate the trip reduction (and GHG reduction) potential of adding HOV lanes prior to adding standard lanes.
MM RTP-2: Implement toll/user fee programs prior to adding capacity to existing highways.	RTP		Yes	Yes	Yes	Adverse: possible local CO. Beneficial: regional CAPs, TACs	Caltrans	Evaluate price elasticity and associated trip reduction (and GHG reduction) potential with adding or increasing tolls prior to adding capacity to existing highways.

Note:
[1] Where LD (R, C, M) =Land Development (Residential, Commercial, Mixed-Use), I=Industrial, GP=General Plan, SP=Specific Plan, TP=Transportation Plans, AQP=Air Quality Plans, RR=Rules/Regulations, and P=Policy. It is important to note that listed project types may not be directly specific to the mitigation measure (e.g., TP, AQP, RR, and P) as such could apply to a variety of source types, especially RR and P.
[2] This score system entails ratings of high, moderate, and low that refer to the level of the measure to provide a substantive, reasonably certain (e.g., documented emission reductions with proven technologies), and long-term reduction of GHG emissions.
[3] Refers to whether the measure would provide a cost-effective reduction of GHG emissions based on available documentation.
[4] Refers to whether the measure is based on currently, readily available technology based on available documentation.
[5] Refers to whether the measure could be implemented without extraordinary effort based on available documentation.
[6] List is not meant to be all inclusive.
Source: Data complied by EDAW in 2007

Addressing Climate Change at the Project Level
California Attorney General's Office

Under the California Environmental Quality Act (CEQA), local agencies have a very important role to play in California's fight against global warming – one of the most serious environmental effects facing the State today. Local agencies can lead by example in undertaking their own projects, insuring that sustainability is considered at the earliest stages. Moreover, they can help shape private development. Where a project as proposed will have significant global warming related effects, local agencies can require feasible changes or alternatives, and impose enforceable, verifiable, feasible mitigation to substantially lessen those effects. By the sum of their actions and decisions, local agencies will help to move the State away from "business as usual" and toward a low-carbon future.

Included in this document are various measures that may reduce the global warming related impacts at the individual project level. (For more information on actions that local governments can take at the program and general plan level, please visit the Attorney General's webpage, "CEQA, Global Warming, and General Plans" at http://ag.ca.gov/globalwarming/ceqa/generalplans.php.)

As appropriate, the measures can be included as design features of a project, required as changes to the project, or imposed as mitigation (whether undertaken directly by the project proponent or funded by mitigation fees). The measures set forth in this package are examples; the list is not intended to be exhaustive. Moreover, the measures cited may not be appropriate for every project. The decision of whether to approve a project – as proposed or with required changes or mitigation – is for the local agency, exercising its informed judgment in compliance with the law and balancing a variety of public objectives.

Mitigation Measures by Category

Energy Efficiency

Incorporate green building practices and design elements.	The California Department of Housing and Community Development's Green Building & Sustainability Resources handbook provides extensive links to green building resources. The handbook is available at http://www.hcd.ca.gov/hpd/green_build.pdf. The American Institute of Architects (AIA) has compiled fifty readily available strategies for reducing fossil fuel use in buildings by fifty percent. AIA "50 to 50" plan is presented in both guidebook and wiki format at http://wiki.aia.org/Wiki%20Pages/Home.aspx.

Meet recognized green building and energy efficiency benchmarks.	For example, an ENERGY STAR-qualified building uses less energy, is less expensive to operate, and causes fewer greenhouse gas emissions than comparable, conventional buildings. http://www.energystar.gov/index.cfm?c=business.bus_index. California has over 1600 ENERGY STAR-qualified school, commercial and industrial buildings. View U.S. EPA's list of Energy Star non-residential buildings at http://www.energystar.gov/index.cfm?fuseaction=labeled_buildings.locator. Los Angeles and San Francisco top the list of U.S. cities with the most ENERGY STAR non-residential buildings. http://www.energystar.gov/ia/business/downloads/2008_Top_25_cities_chart.pdf. Qualified ENERGY STAR homes must surpass the state's Title 24 energy efficiency building code by at least 15%. Los Angeles, Sacramento, San Diego, and San Francisco-Oakland are among the top 20 markets for ENERGY STAR homes nationwide. http://www.energystar.gov/ia/new_homes/mil_homes/top_20_markets.html. Builders of ENERGY STAR homes can be more competitive in a tight market by providing a higher quality, more desirable product. See http://www.energystar.gov/ia/partners/manuf_res/Horton.pdf. There are a variety of private and non-profit green building certification programs in use in the U.S. See U.S. EPA's Green Building / Frequently Asked Questions website, http://www.epa.gov/greenbuilding/pubs/faqs.htm. Public-Private Partnership for Advancing Housing Technology maintains a list of national and state Green Building Certification Programs for housing. See http://www.pathnet.org/sp.asp?id=20978. These include the national Leadership in Energy and Environmental Design (LEED) program, and, at the state level, Build it Green's GreenPoint Rated system and the California Green Builder program. Other organizations may provide other relevant benchmarks.
Install energy efficient lighting (e.g., light emitting diodes (LEDs)), heating and cooling systems, appliances, equipment, and control systems.	Information about ENERGY STAR-certified products in over 60 categories is available at http://www.energystar.gov/index.cfm?fuseaction=find_a_product. The California Energy Commission maintains a database of all appliances meeting either federal efficiency standards or, where there are no federal efficiency standards, California's appliance efficiency standards. See http://www.appliances.energy.ca.gov/. The Electronic Product Environmental Assessment Tool (EPEAT) ranks computer products based on a set of environmental criteria, including energy efficiency. See http://www.epeat.net/AboutEPEAT.aspx. The nonprofit American Council for an Energy Efficient Economy maintains an Online Guide to Energy Efficient Commercial Equipment, available at http://www.aceee.org/ogeece/ch1_index.htm. Utilities offer many incentives for efficient appliances, lighting, heating and cooling. To search for available residential and commercial incentives, visit Flex Your Power's website at http://www.fypower.org/.

Use passive solar design, e.g., orient buildings and incorporate landscaping to maximize passive solar heating during cool seasons, minimize solar heat gain during hot seasons, and enhance natural ventilation. Design buildings to take advantage of sunlight.	See U.S. Department of Energy, Passive Solar Design (website) http://www.energysavers.gov/your_home/designing_remodeling/index.cfm/mytopic=10250. See also California Energy Commission, Consumer Energy Center, Passive Solar Design (website) http://www.consumerenergycenter.org/home/construction/solardesign/index.html. Lawrence Berkeley National Laboratories' Building Technologies Department is working to develop innovative building construction and design techniques. Information and publications on energy efficient buildings, including lighting, windows, and daylighting strategies, are available at the Department's website at http://btech.lbl.gov.
Install light colored "cool" roofs and cool pavements.	A white or light colored roof can reduce surface temperatures by up to 100 degrees Fahrenheit, which also reduces the heat transferred into the building below. This can reduce the building's cooling costs, save energy and reduce associated greenhouse gas emissions, and extend the life of the roof. Cool roofs can also reduce the temperature of surrounding areas, which can improve local air quality. See California Energy Commission, Consumer Energy Center, Cool Roofs (webpage) at http://www.consumerenergycenter.org/coolroof/. See also Lawrence Berkeley National Laboratories, Heat Island Group (webpage) at http://eetd.lbl.gov/HeatIsland/.
Install efficient lighting, (including LEDs) for traffic, street and other outdoor lighting.	LED lighting is substantially more energy efficient than conventional lighting and can save money. See http://www.energy.ca.gov/efficiency/partnership/case_studies/TechAsstCity.pdf (noting that installing LED traffic signals saved the City of Westlake about $34,000 per year). As of 2005, only about a quarter of California's cities and counties were using 100% LEDs in traffic signals. See California Energy Commission (CEC), Light Emitting Diode Traffic Signal Survey (2005) at p. 15, available at http://www.energy.ca.gov/2005publications/CEC 400 2005 003/CEC 400 2005 003.PDF. The California Energy Commission's Energy Partnership Program can help local governments take advantage of energy saving technology, including, but not limited to, LED traffic signals. See http://www.energy.ca.gov/efficiency/partnership/.
Reduce unnecessary outdoor lighting.	See California Energy Commission, Reduction of Outdoor Lighting (webpage) at http://www.energy.ca.gov/efficiency/lighting/outdoor_reduction.html.

Use automatic covers, efficient pumps and motors, and solar heating for pools and spas.	During the summer, a traditional backyard California pool can use enough energy to power an entire home for three months. Efficiency measures can substantially reduce this waste of energy and money. See California Energy Commission, Consumer Energy Center, Pools and Spas (webpage) at http://www.consumerenergycenter.org/home/outside/pools_spas.html. See also Sacramento Municipal Utilities District, Pool and Spa Efficiency Program (webpage) at http://www.smud.org/en/residential/saving-energy/Pages/poolspa.aspx.
Provide education on energy efficiency to residents, customers and/or tenants.	Many cities and counties provide energy efficiency education. See, for example, the City of Stockton's Energy Efficiency website at http://www.stocktongov.com/energysaving/index.cfm. See also "Green County San Bernardino," http://www.greencountysb.com at pp. 4-6. Businesses and development projects may also provide education. For example, a homeowners' association (HOA) could provide information to residents on energy-efficient mortgages and energy saving measures. See The Villas of Calvera Hills, Easy Energy Saving Tips to Help Save Electricity at http://www.thevillashoa.org/green/energy/. An HOA might also consider providing energy audits to its residents on a regular basis.

Renewable Energy and Energy Storage

Meet "reach" goals for building energy efficiency and renewable energy use.	A "zero net energy" building combines building energy efficiency and renewable energy generation so that, on an annual basis, any purchases of electricity or natural gas are offset by clean, renewable energy generation, either on-site or nearby. Both the California Energy Commission (CEC) and the California Public Utilities Commission (CPUC) have stated that residential buildings should be zero net energy by 2020, and commercial buildings by 2030. See CEC, 2009 Integrated Energy Policy Report (Dec. 2009) at p. 226, available at http://www.energy.ca.gov/2009publications/CEC-100-2009-003/CEC-100-2009-003-CMF.PDF; CPUC, Long Term Energy Efficiency Strategic Plan (Sept. 2008), available at http://www.cpuc.ca.gov/PUC/energy/Energy+Efficiency/eesp/.
Install solar, wind, and geothermal power systems and solar hot water heaters.	The California Public Utilities Commission (CPUC) approved the California Solar Initiative on January 12, 2006. The initiative creates a $3.3 billion, ten-year program to install solar panels on one million roofs in the State. Visit the one-stop GoSolar website at http://www.gosolarcalifornia.org/. As mitigation, a developer could, for example, agree to participate in the New Solar Homes program. See http://www.gosolarcalifornia.org/builders/index.html. The CPUC is in the process of establishing a program to provide solar water heating incentives under the California Solar Initiative. For more information, visit the CPUC's website at http://www.cpuc.ca.gov/puc/energy/solar/swh.htm. To search for available residential and commercial renewable energy incentives, visit Flex Your Power's website at http://www.fypower.org/.

Install solar panels on unused roof and ground space and over carports and parking areas.	In 2008 Southern California Edison (SCE) launched the nation's largest installation of photovoltaic power generation modules. The utility plans to cover 65 million square feet of unused commercial rooftops with 250 megawatts of solar technology – generating enough energy to meet the needs of approximately 162,000 homes. Learn more about SCE's Solar Rooftop Program at http://www.sce.com/solarleadership/solar-rooftop-program/general-faq.htm. In 2009, Walmart announced its commitment to expand the company's solar power program in California. The company plans to add solar panels on 10 to 20 additional Walmart facilities in the near term. These new systems will be in addition to the 18 solar arrays currently installed at Walmart facilities in California. See http://walmartstores.com/FactsNews/NewsRoom/9091.aspx. Alameda County has installed two solar tracking carports, each generating 250 kilowatts. By 2005, the County had installed eight photovoltaic systems totaling over 2.3 megawatts. The County is able to meet 6 percent of its electricity needs through solar power. See http://www.acgov.org/gsa/Alameda%20County%20-%20Solar%20Case%20Study.pdf. In 2007, California State University, Fresno installed at 1.1-megawatt photovoltaic (PV)-paneled parking installation. The University expects to save more than $13 million in avoided utility costs over the project's 30-year lifespan. http://www.fresnostatenews.com/2007/11/solarwrapup2.htm.
Where solar systems cannot feasibly be incorporated into the project at the outset, build "solar ready" structures.	U.S. Department of Energy, A Homebuilder's Guide to Going Solar (brochure) (2008), available at http://www.eere.energy.gov/solar/pdfs/43076.pdf.
Incorporate wind and solar energy systems into agricultural projects where appropriate.	Wind energy can be a valuable crop for farmers and ranchers. Wind turbines can generate energy to be used on-site, reducing electricity bills, or they can yield lease revenues (as much as $4000 per turbine per year). Wind turbines generally are compatible with rural land uses, since crops can be grown and livestock can be grazed up to the base of the turbine. See National Renewable Energy Laboratory, Wind Powering America Fact Sheet Series, Wind Energy Benefits, available at http://www.nrel.gov/docs/fy05osti/37602.pdf. Solar PV is not just for urban rooftops. For example, the Scott Brothers' dairy in San Jacinto, California, has installed a 55-kilowatt solar array on its commodity barn, with plans to do more in the coming years. See http://www.dairyherd.com/directories.asp?pgID=724&ed_id=8409 (additional California examples are included in article.)

Include energy storage where appropriate to optimize renewable energy generation systems and avoid peak energy use.	See National Renewable Energy Laboratory, Energy Storage Basics (webpage) at http://www.nrel.gov/learning/eds_energy_storage.html. California Energy Storage Alliance (webpage) at http://storagealliance.org/about.html. Storage is not just for large, utility scale projects, but can be part of smaller industrial, commercial and residential projects. For example, Ice Storage Air Conditioning (ISAC) systems, designed for residential and nonresidential buildings, produce ice at night and use it during peak periods for cooling. See California Energy Commission, Staff Report, Ice Storage Air Conditioners, Compliance Options Application (May 2006), available at http://www.energy.ca.gov/2006publications/CEC-400-2006-006/CEC-400-2006-006-SF.PDF.
Use on-site generated biogas, including methane, in appropriate applications.	At the Hilarides Dairy in Lindsay, California, an anaerobic-lagoon digester processes the run-off of nearly 10,000 cows, generating 226,000 cubic feet of biogas per day and enough fuel to run two heavy duty trucks. This has reduced the dairy's diesel consumption by 650 gallons a day, saving the dairy money and improving local air quality. See http://www.arb.ca.gov/newsrel/nr021109b.htm; see also Public Interest Energy Research Program, Dairy Power Production Program, Dairy Methane Digester System, 90-Day Evaluation Report, Eden Vale Dairy (Dec. 2006) at http://www.energy.ca.gov/2006publications/CEC 500 2006 083/CEC 500 2006 083.PDF. Landfill gas is a current and potential source of substantial energy in California. See Tom Frankiewicz, Program Manager, U.S. EPA Landfill Methane Outreach Program, Landfill Gas Energy Potential in California, available at http://www.energy.ca.gov/2009_energypolicy/documents/2009-04-21_workshop/presentations/05-SCS_Engineers_Presentation.pdf. There are many current and emerging technologies for converting landfill methane that would otherwise be released as a greenhouse gas into clean energy. See California Integrated Waste Management Board, Emerging Technologies, Landfill Gas-to-Energy (webpage) at http://www.ciwmb.ca.gov/LEACentral/TechServices/EmergingTech/default.htm.

Use combined heat and power (CHP) in appropriate applications.	Many commercial, industrial, and campus-type facilities (such as hospitals, universities and prisons) use fuel to produce steam and heat for their own operations and processes. Unless captured, much of this heat is wasted. CHP captures waste heat and re-uses it, e.g., for residential or commercial space heating or to generate electricity. See U.S. EPA, Catalog of CHP Technologies at http://www.epa.gov/chp/documents/catalog_of_%20chp_tech_entire.pdf and California Energy Commission, Distributed Energy Resource Guide, Combined Heat and Power (webpage) at http://www.energy.ca.gov/distgen/equipment/chp/chp.html. The average efficiency of fossil-fueled power plants in the United States is 33 percent. By using waste heat recovery technology, CHP systems typically achieve total system efficiencies of 60 to 80 percent. CHP can also substantially reduce emissions of carbon dioxide. http://www.epa.gov/chp/basic/efficiency.html. Currently, CHP in California has a capacity of over 9 million kilowatts. See list of California CHP facilities at http://www.eea-inc.com/chpdata/States/CA.html. The Waste Heat and Carbon Emissions Reduction Act (Assembly Bill 1613 (2007), amended by Assembly Bill 2791 (2008)) is designed to encourage the development of new CHP systems in California with a generating capacity of not more than 20 megawatts. Among other things, the Act requires the California Public Utilities Commission to establish (1) a standard tariff allowing CHP generators to sell electricity for delivery to the grid and (2) a "pay as you save" pilot program requiring electricity corporations to finance the installation of qualifying CHP systems by nonprofit and government entities. For more information, see http://www.energy.ca.gov/wasteheat/.

Water Conservation and Efficiency

Incorporate water-reducing features into building and landscape design.	According to the California Energy Commission, water-related energy use – which includes conveyance, storage, treatment, distribution, wastewater collection, treatment, and discharge – consumes about 19 percent of the State's electricity, 30 percent of its natural gas, and 88 billion gallons of diesel fuel every year. See http://www.energy.ca.gov/2007publications/CEC 999 2007 008/CEC 999 2007 008.PDF. Reducing water use and improving water efficiency can help reduce energy use and greenhouse gas emissions.
Create water-efficient landscapes.	The California Department of Water Resources' updated Model Water Efficient Landscape Ordinance (Sept. 2009) is available at http://www.water.ca.gov/wateruseefficiency/landscapeordinance/technical.cfm. A landscape can be designed from the beginning to use little or no water, and to generate little or no waste. See California Integrated Waste Management Board, Xeriscaping (webpage) at http://www.ciwmb.ca.gov/organics/Xeriscaping/.

Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls and use water-efficient irrigation methods.	U.S. Department of Energy, Best Management Practice: Water-Efficient Irrigation (webpage) at http://www1.eere.energy.gov/femp/program/waterefficiency_bmp5.html. California Department of Water Resources, Landscape Water Use Efficiency (webpage) at http://www.water.ca.gov/wateruseefficiency/landscape/. Pacific Institute, More with Less: Agricultural Water Conservation and Efficiency in California (2008), available at http://www.pacinst.org/reports/more_with_less_delta/index.htm.
Make effective use of graywater. (Graywater is untreated household waste water from bathtubs, showers, bathroom wash basins, and water from clothes washing machines. Graywater to be used for landscape irrigation.)	California Building Standards Commission, 2008 California Green Building Standards Code, Section 604, pp. 31-32, available at http://www.documents.dgs.ca.gov/bsc/2009/part11_2008_calgreen_code.pdf. California Department of Water Resources, Dual Plumbing Code (webpage) at http://www.water.ca.gov/recycling/DualPlumbingCode/. See also Ahwahnee Water Principles, Principle 6, at http://www.lgc.org/ahwahnee/h2o_principles.html. The Ahwahnee Water Principles have been adopted by City of Willits, Town of Windsor, Menlo Park, Morgan Hill, Palo Alto, Petaluma, Port Hueneme, Richmond, Rohnert Park, Rolling Hills Estates, San Luis Obispo, Santa Paula, Santa Rosa, City of Sunnyvale, City of Ukiah, Ventura, Marin County, Marin Municipal Water District, and Ventura County.
Implement low-impact development practices that maintain the existing hydrology of the site to manage storm water and protect the environment.	Retaining storm water runoff on-site can drastically reduce the need for energy-intensive imported water at the site. See U.S. EPA, Low Impact Development (webpage) at http://www.epa.gov/nps/lid/. Office of Environmental Health Hazard Assessment and the California Water and Land Use Partnership, Low Impact Development at http://www.coastal.ca.gov/nps/lid-factsheet.pdf.
Devise a comprehensive water conservation strategy appropriate for the project and location.	The strategy may include many of the specific items listed above, plus other innovative measures that are appropriate to the specific project.
Design buildings to be water-efficient. Install water-efficient fixtures and appliances.	Department of General Services, Best Practices Manual, Water-Efficient Fixtures and Appliances (website) at http://www.green.ca.gov/EPP/building/SaveH2O.htm. Many ENERGY STAR products have achieved their certification because of water efficiency. See California Energy Commission's database, available at http://www.appliances.energy.ca.gov/.

Offset water demand from new projects so that there is no net increase in water use.	For example, the City of Lompoc has a policy requiring new development to offset new water demand with savings from existing water users. See http://www.cityoflompoc.com/utilities/pdf/2005_uwmp_final.pdf at p. 29.
Provide education about water conservation and available programs and incentives.	See, for example, the City of Santa Cruz, Water Conservation Office at http://www.ci.santa-cruz.ca.us/index.aspx?page=395; Santa Clara Valley Water District, Water Conservation at http://www.valleywater.org/conservation/index.shtm; and Metropolitan Water District and the Family of Southern California Water Agencies, Be Water Wise at http://www.bewaterwise.com. Private projects may provide or fund similar education.

Solid Waste Measures

Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard).	Construction and demolition materials account for almost 22 percent of the waste stream in California. Reusing and recycling these materials not only conserves natural resources and energy, but can also save money. For a list of best practices and other resources, see California Integrated Waste Management Board, Construction and Demolition Debris Recycling (webpage) at http://www.ciwmb.ca.gov/condemo/.
Integrate reuse and recycling into residential industrial, institutional and commercial projects.	Tips on developing a successful recycling program, and opportunities for cost-effective recycling, are available on the California Integrated Waste Management Board's Zero Waste California website. See http://zerowaste.ca.gov/. The Institute for Local Government's Waste Reduction & Recycling webpage contains examples of "best practices" for reducing greenhouse gas emissions, organized around waste reduction and recycling goals and additional examples and resources. See http://www.ca-ilg.org/wastereduction.
Provide easy and convenient recycling opportunities for residents, the public, and tenant businesses.	Tips on developing a successful recycling program, and opportunities for cost effective recycling, are available on the California Integrated Waste Management Board's Zero Waste California website. See http://zerowaste.ca.gov/.
Provide education and publicity about reducing waste and available recycling services.	Many cities and counties provide information on waste reduction and recycling. See, for example, the Butte County Guide to Recycling at http://www.recyclebutte.net. The California Integrated Waste Management Board's website contains numerous publications on recycling and waste reduction that may be helpful in devising an education project. See http://www.ciwmb.ca.gov/Publications/default.asp?cat=13. Private projects may also provide waste and recycling education directly, or fund education.

Land Use Measures

Ensure consistency with "smart growth" principles – mixed-use, infill, and higher density projects that provide alternatives to individual vehicle travel and promote the efficient delivery of services and goods.	U.S. EPA maintains an extensive Smart Growth webpage with links to examples, literature and technical assistance, and financial resources. See http://www.epa.gov/smartgrowth/index.htm. The National Oceanic and Atmospheric Administration's webpage provides smart growth recommendations for communities located near water. See Coastal & Waterfront Smart Growth (webpage) at http://coastalsmartgrowth.noaa.gov/. The webpage includes case studies from California. The California Energy Commission has recognized the important role that land use can play in meeting our greenhouse gas and energy efficiency goals. The agency's website, Smart Growth & Land Use Planning, contains useful information and links to relevant studies, reports, and other resources. See http://www.energy.ca.gov/landuse/. The Metropolitan Transportation Commission's webpage, Smart Growth / Transportation for Livable Communities, includes resources that may be useful to communities in the San Francisco Bay Area and beyond. See http://www.mtc.ca.gov/planning/smart_growth/. The Sacramento Area Council of Governments (SACOG) has published examples of smart growth in action in its region. See Examples from the Sacramento Region of the Seven Principles of Smart Growth / Better Ways to Grow, available at http://www.sacog.org/regionalfunding/betterways.pdf.
Meet recognized "smart growth" benchmarks.	For example, the LEED for Neighborhood Development (LEED-ND) rating system integrates the principles of smart growth, urbanism and green building into the first national system for neighborhood design. LEED-ND is a collaboration among the U.S. Green Building Council, Congress for the New Urbanism, and the Natural Resources Defense Council. For more information, see http://www.usgbc.org/DisplayPage.aspx?CMSPageID=148.
Educate the public about the many benefits of well-designed, higher density development.	See, for example, U.S. EPA, Growing Smarter, Living Healthier: A Guide to Smart Growth and Active Aging (webpage), discussing how compact, walkable communities can provide benefits to seniors. See http://www.epa.gov/aging/bhc/guide/index.html. U.S. EPA, Environmental Benefits of Smart Growth (webpage) at http://www.epa.gov/dced/topics/eb.htm (noting local air and water quality improvements). Centers for Disease Control and Prevention (CDC), Designing and Building Healthy Places (webpage), at http://www.cdc.gov/healthyplaces/. The CDC's website discusses the links between walkable communities and public health and includes numerous links to educational materials. California Department of Housing and Community Development, Myths and Facts About Affordable and High Density Housing (2002), available at http://www.hcd.ca.gov/hpd/mythsnfacts.pdf.

Incorporate public transit into the project's design.	Federal Transit Administration, Transit-Oriented Development (TOD) (webpage) at http://www.fta.dot.gov/planning/planning_environment_6932.html (describing the benefits of TOD as "social, environmental, and fiscal.") California Department of Transportation (Caltrans), Statewide Transit-Oriented Development Study: Factors for Success in California (2002), available at http://transitorienteddevelopment.dot.ca.gov/miscellaneous/StatewideTOD.htm Caltrans, California Transit-Oriented Development Searchable Database (includes detailed information on numerous TODs), available at http://transitorienteddevelopment.dot.ca.gov/miscellaneous/NewHome.jsp. California Department of Housing and Community Development, Transit Oriented Development (TOD) Resources (Aug. 2009), available at http://www.hcd.ca.gov/hpd/tod.pdf.
Preserve and create open space and parks. Preserve existing trees, and plant replacement trees at a set ratio.	U.S. EPA, Smart Growth and Open Space Conservation (webpage) at http://www.epa.gov/dced/openspace.htm.
Develop "brownfields" and other underused or defunct properties near existing public transportation and jobs.	U.S. EPA, Smart Growth and Brownfields (webpage) at http://www.epa.gov/dced/brownfields.htm. For example, as set forth in the Local Government Commission's case study, the Town of Hercules, California reclaimed a 426-acre brownfield site, transforming it into a transit-friendly, walkable neighborhood. See http://www.lgc.org/freepub/docs/community_design/fact_sheets/er_case_studies.pdf. For financial resources that can assist in brownfield development, see Center for Creative Land Recycling, Financial Resources for California Brownfields (July 2008), available at http://www.cclr.org/media/publications/8-Financial_Resources_2008.pdf.
Include pedestrian and bicycle facilities within projects and ensure that existing non-motorized routes are maintained and enhanced.	See U.S. Department of Transportation, Federal Highway Administration, Bicycle and Pedestrian Program (webpage) at http://www.fhwa.dot.gov/environment/bikeped/. Caltrans, Pedestrian and Bicycle Facilities in California / A Technical Reference and Technology Transfer Synthesis for Caltrans Planners and Engineers (July 2005), available at http://www.dot.ca.gov/hq/traffops/survey/pedestrian/TR_MAY0405.pdf. This reference includes standard and innovative practices for pedestrian facilities and traffic calming.

Transportation and Motor Vehicles

Meet an identified transportation-related benchmark.	A logical benchmark might be related to vehicles miles traveled (VMT), e.g., average VMT per capita, per household, or per employee. As the California Energy Commission has noted, VMT by California residents increased "a rate of more than 3 percent a year between 1975 and 2004, markedly faster than the population growth rate over the same period, which was less than 2 percent. This increase in VMT correlates to an increase in petroleum use and GHG production and has led to the transportation sector being responsible for 41 percent of the state's GHG emissions in 2004." CEC, The Role of Land Use in Meeting California's Energy and Climate Change Goals (Aug. 2007) at p. 9, available at http://www.energy.ca.gov/2007publications/CEC-600-2007-008/CEC-600-2007-008-SF.PDF. Even with regulations designed to increase vehicle efficiency and lower the carbon content of fuel, "reduced VMT growth will be required to meet GHG reductions goals." *Id.* at p. 18.
Adopt a comprehensive parking policy that discourages private vehicle use and encourages the use of alternative transportation.	For example, reduce parking for private vehicles while increasing options for alternative transportation; eliminate minimum parking requirements for new buildings; "unbundle" parking (require that parking is paid for separately and is not included in rent for residential or commercial space); and set appropriate pricing for parking. See U.S. EPA, Parking Spaces / Community Places, Finding the Balance Through Smart Growth Solutions (Jan. 2006), available at http://www.epa.gov/dced/pdf/EPAParkingSpaces06.pdf. Reforming Parking Policies to Support Smart Growth, Metropolitan Transportation Commission (June 2007) at http://www.mtc.ca.gov/planning/smart_growth/parking_seminar/Toolbox_Handbook.pdf. See also the City of Ventura's Downtown Parking and Mobility Plan, available at http://www.cityofventura.net/community_development/resources/mobility_parking_plan.pdf, and Ventura's Downtown Parking Management Program, available at http://www.ci.ventura.ca.us/depts/comm_dev/downtownplan/chapters.asp.
Build or fund a major transit stop within or near the development.	"'Major transit stop' means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods." (Pub. Res. Code, § 21064.3.) Transit Oriented Development (TOD) is a moderate to higher density development located within an easy walk of a major transit stop. http://transitorienteddevelopment.dot.ca.gov/miscellaneous/NewWhatisTOD.htm. By building or funding a major transit stop, an otherwise ordinary development can become a TOD.

Provide public transit incentives such as free or low-cost monthly transit passes to employees, or free ride areas to residents and customers.	See U.S. Department of Transportation and U.S. EPA, Commuter Choice Primer / An Employer's Guide to Implementing Effective Commuter Choice Programs, available at http://www.its.dot.gov/JPODOCS/REPTS_PR/13669.html. The Emery Go Round shuttle is a private transportation service funded by commercial property owners in the citywide transportation business improvement district. The shuttle links a local shopping district to a Bay Area Rapid Transit stop. See http://www.emerygoround.com/. Seattle, Washington maintains a public transportation "ride free" zone in its downtown from 6:00 a.m. to 7:00 p.m. daily. See http://transit.metrokc.gov/tops/accessible/paccessible_map.html#fare.
Promote "least polluting" ways to connect people and goods to their destinations.	Promoting "least polluting" methods of moving people and goods is part of a larger, integrated "sustainable streets" strategy now being explored at U.C. Davis's Sustainable Transportation Center. Resources and links are available at the Center's website, http://stc.ucdavis.edu/outreach/ssp.php.
Incorporate bicycle lanes, routes and facilities into street systems, new subdivisions, and large developments.	Bicycling can have a profound impact on transportation choices and air pollution reduction. The City of Davis has the highest rate of bicycling in the nation. Among its 64,000 residents, 17 percent travel to work by bicycle and 41 percent consider the bicycle their primary mode of transportation. See Air Resources Board, Bicycle Awareness Program, Bicycle Fact Sheet, available at http://www.arb.ca.gov/planning/tsaq/bicycle/factsht.htm. For recommendations on best practices, see the many resources listed at the U.S. Department of Transportation, Federal Highway Administration's Bicycle and Pedestrian website at http://www.fhwa.dot.gov/environment/bikeped/publications.htm. See also Caltrans Division of Research and Innovation, Designing Highway Facilities To Encourage Walking, Biking and Transit (Preliminary Investigation) (March 2009), available at http://www.dot.ca.gov/research/researchreports/preliminary_investigations/docs/pi-design_for_walking_%20biking_and_transit%20final.pdf.
Require amenities for non-motorized transportation, such as secure and convenient bicycle parking.	According to local and national surveys of potential bicycle commuters, secure bicycle parking and workplace changing facilities are important complements to safe and convenient routes of travel. See Air Resources Board, Bicycle Awareness Program, Bicycle Fact Sheet, available at http://www.arb.ca.gov/planning/tsaq/bicycle/factsht.htm.

Ensure that the project enhances, and does not disrupt or create barriers to, non-motorized transportation.	See, e.g., U.S. EPA's list of transit-related "smart growth" publications at http://www.epa.gov/dced/publications.htm#air, including Pedestrian and Transit-Friendly Design: A Primer for Smart Growth (1999), available at www.epa.gov/dced/pdf/ptfd_primer.pdf. See also Toolkit for Improving Walkability in Alameda County, available at http://www.acta2002.com/ped toolkit/ped_toolkit_print.pdf. Pursuant to the California Complete Streets Act of 2008 (AB 1358, Gov. Code, §§ 65040.2 and 65302), commencing January 1, 2011, upon any substantive revision of the circulation element of the general plan, a city or county will be required to modify the circulation element to plan for a balanced, multimodal transportation network that meets the needs of all users.
Connect parks and open space through shared pedestrian/bike paths and trails to encourage walking and bicycling. Create bicycle lanes and walking paths directed to the location of schools, parks and other destination points.	Walk Score ranks the "walkability" of neighborhoods in the largest 40 U.S. cities, including seven California cities. Scores are based on the distance to nearby amenities. Explore Walk Score at http://www.walkscore.com/. In many markets, homes in walkable neighborhoods are worth more than similar properties where walking is more difficult. See Hoak, *Walk appeal / Homes in walkable neighborhoods sell for more: study*, Wall Street Journal (Aug. 18, 2009), available at http://www.marketwatch.com/story/homes-in-walkable-neighborhoods-sell-for-more-2009-08-18. By creating walkable neighborhoods with more transportation choices, Californians could save $31 million and cut greenhouse gas emissions by 34 percent, according to a study released by Transform, a coalition of unions and nonprofits. See Windfall for All / How Connected, Convenient Neighborhoods Can Protect Our Climate and Safeguard California's Economy (Nov. 2009), available at http://transformca.org/windfall-for-all#download-report.
Work with the school districts to improve pedestrian and bike access to schools and to restore or expand school bus service using lower-emitting vehicles.	In some communities, twenty to twenty-five percent of morning traffic is due to parents driving their children to school. Increased traffic congestion around schools in turn prompts even more parents to drive their children to school. Programs to create safe routes to schools can break this harmful cycle. See California Department of Public Health, Safe Routes to School (webpage) and associated links at http://www.cdph.ca.gov/HealthInfo/injviosaf/Pages/SafeRoutestoSchool.aspx. See also U.S. EPA, Smart Growth and Schools (webpage), available at http://www.epa.gov/dced/schools.htm. California Center for Physical Activity, California Walk to School (website) at http://www.cawalktoschool.com Regular school bus service (using lower-emitting buses) for children who cannot bike or walk to school could substantially reduce private vehicle congestion and air pollution around schools. See Air Resources Board, Lower Emissions School Bus Program (webpage) at http://www.arb.ca.gov/msprog/schoolbus/schoolbus.htm.

Institute teleconferencing, telecommute and/or flexible work hour programs to reduce unnecessary employee transportation.	There are numerous sites on the web with resources for employers seeking to establish telework or flexible work programs. These include U.S. EPA's Mobility Management Strategies: Commuter Programs website at http://www.epa.gov/otaq/stateresources/rellinks/mms_commprograms.htm; and Telework, the federal government's telework website, at http://www.telework.gov/. Through a continuing FlexWork Implementation Program, the Traffic Solutions division of the Santa Barbara County Association of Governments sponsors flexwork consulting, training and implementation services to a limited number of Santa Barbara County organizations that want to create or expand flexwork programs for the benefit of their organizations, employees and the community. See http://www.flexworksb.com/read_more_about_the_fSBp.html. Other local government entities provide similar services.
Provide information on alternative transportation options for consumers, residents, tenants and employees to reduce transportation-related emissions.	Many types of projects may provide opportunities for delivering more tailored transportation information. For example, a homeowner's association could provide information on its website, or an employer might create a Transportation Coordinator position as part of a larger Employee Commute Reduction Program. See, e.g., South Coast Air Quality Management District, Transportation Coordinator training, at http://www.aqmd.gov/trans/traing.html.
Educate consumers, residents, tenants and the public about options for reducing motor vehicle-related greenhouse gas emissions. Include information on trip reduction; trip linking; vehicle performance and efficiency (e.g., keeping tires inflated); and low or zero-emission vehicles.	See, for example U.S. EPA, SmartWay Transport Partnership: Innovative Carrier Strategies (webpage) at http://www.epa.gov/smartway/transport/what-smartway/carrier-strategies.htm. This webpage includes recommendations for actions that truck and rail fleets can take to make ground freight more efficient and cleaner. The Air Resources Board's Drive Clean website is a resource for car buyers to find clean and efficient vehicles. The web site is designed to educate Californians that pollution levels range greatly between vehicles. See http://www.driveclean.ca.gov/. The Oregon Department of Transportation and other public and private partners launched the Drive Less/Save More campaign. The comprehensive website contains fact sheets and educational materials to help people drive more efficiently. See http://www.drivelesssavemore.com/.
Purchase, or create incentives for purchasing, low or zero-emission vehicles.	See Air Resources Board, Low-Emission Vehicle Program (webpage) at http://www.arb.ca.gov/msprog/levprog/levprog.htm. Air Resource Board, Zero Emission Vehicle Program (webpage) at http://www.arb.ca.gov/msprog/zevprog/zevprog.htm. All new cars sold in California are now required to display an Environmental Performance (EP) Label, which scores a vehicle's global warming and smog emissions from 1 (dirtiest) to 10 (cleanest). To search and compare vehicle EP Labels, visit www.DriveClean.ca.gov.

Create a ride sharing program. Promote existing ride sharing programs e.g., by designating a certain percentage of parking spaces for ride sharing vehicles, designating adequate passenger loading and unloading for ride sharing vehicles, and providing a web site or message board for coordinating rides.	For example, the 511 Regional Rideshare Program is operated by the Metropolitan Transportation Commission (MTC) and is funded by grants from the Federal Highway Administration, U.S. Department of Transportation, the Metropolitan Transportation Commission, the Bay Area Air Quality Management District and county congestion management agencies. For more information, see http://rideshare.511.org/. As another example, San Bernardino Associated Governments works directly with large and small employers, as well as providing support to commuters who wish to share rides or use alternative forms of transportation. See http://www.sanbag.ca.gov/commuter/rideshare.html. Valleyrides.com is a ridesharing resource available to anyone commuting to and from Fresno and Tulare Counties and surrounding communities. See http://www.valleyrides.com/. There are many other similar websites throughout the state.
Create or accommodate car sharing programs, e.g., provide parking spaces for car share vehicles at convenient locations accessible by public transportation.	There are many existing car sharing companies in California. These include City CarShare (San Francisco Bay Area), see http://www.citycarshare.org/; and Zipcar, see http://www.zipcar.com/. Car sharing programs are being successfully used on many California campuses.
Provide a vanpool for employees.	Many local Transportation Management Agencies can assist in forming vanpools. See, for example, Sacramento Transportation Management Association, Check out Vanpooling (webpage) at http://www.sacramento-tma.org/vanpool.html.
Create local "light vehicle" networks, such as neighborhood electric vehicle systems.	See California Energy Commission, Consumer Energy Center, Urban Options - Neighborhood Electric Vehicles (NEVs) (webpage) at http://www.consumerenergycenter.org/transportation/urban_options/nev.html. The City of Lincoln has an innovative NEV program. See http://www.lincolnev.com/index.html.
Enforce and follow limits idling time for commercial vehicles, including delivery and construction vehicles.	Under existing law, diesel-fueled motor vehicles with a gross vehicle weight rating greater than 10,000 pounds are prohibited from idling for more than 5 minutes at any location. The minimum penalty for an idling violation is now $300 per violation. See http://www.arb.ca.gov/enf/complaints/idling_cv.htm.
Provide the necessary facilities and infrastructure to encourage the use of low or zero-emission vehicles.	For a list of existing alternative fuel stations in California, visit http://www.cleancarmaps.com/. See, e.g., Baker, *Charging-station network built along 101*, S.F. Chron. (9/23/09), available at http://articles.sfgate.com/2009-09-23/news/17207424_1_recharging-solar-array-tesla-motors.

Agriculture and Forestry (additional strategies noted above)

Require best management practices in agriculture and animal operations to reduce emissions, conserve energy and water, and utilize alternative energy sources, including biogas, wind and solar.	Air Resources Board (ARB), Economic Sectors Portal, Agriculture (webpage) at http://www.arb.ca.gov/cc/ghgsectors/ghgsectors.htm. ARB's webpage includes information on emissions from manure management, nitrogen fertilizer, agricultural offroad equipment, and agricultural engines. "A full 90% of an agricultural business' electricity bill is likely associated with water use. In addition, the 8 million acres in California devoted to crops consume 80% of the total water pumped in the state." See Flex Your Power, Agricultural Sector (webpage) at http://www.fypower.org/agri/. Flex Your Power, Best Practice Guide / Food and Beverage Growers and Processors, available at http://www.fypower.org/bpg/index.html?b=food_and_bev. Antle et al., Pew Center on Global Climate Change, Agriculture's Role in Greenhouse Gas Mitigation (2006), available at http://www.pewclimate.org/docUploads/Agriculture's%20Role%20in%20GHG%20Mitigation.pdf.
Preserve forested areas, agricultural lands, wildlife habitat and corridors, wetlands, watersheds, groundwater recharge areas and other open space that provide carbon sequestration benefits.	"There are three general means by which agricultural and forestry practices can reduce greenhouse gases: (1) avoiding emissions by maintaining existing carbon storage in trees and soils; (2) increasing carbon storage by, e.g., tree planting, conversion from conventional to conservation tillage practices on agricultural lands; (3) substituting bio-based fuels and products for fossil fuels, such as coal and oil, and energy-intensive products that generate greater quantities of CO2 when used." U.S. EPA, Carbon Sequestration in Agriculture and Forestry, Frequently Asked Questions (webpage) at http://www.epa.gov/sequestration/faq.html. Air Resources Board, Economic Sectors Portal, Forestry (webpage) at http://www.arb.ca.gov/cc/ghgsectors/ghgsectors.htm.
Protect existing trees and encourage the planting of new trees. Adopt a tree protection and replacement ordinance.	Tree preservation and planting is not just for rural areas of the state; suburban and urban forests can also serve as carbon sinks. See Cal Fire, Urban and Community Forestry (webpage) at http://www.fire.ca.gov/resource_mgt/resource_mgt_urbanforestry.php.

Off-Site Mitigation

If, after analyzing and requiring all reasonable and feasible on-site mitigation measures for avoiding or reducing greenhouse gas-related impacts, the lead agency determines that additional mitigation is required, the agency may consider additional off-site mitigation. The project proponent could, for example, fund off-site mitigation projects that will reduce carbon emissions, conduct an audit of its other existing operations and agree to retrofit, or purchase verifiable carbon "credits" from another entity that will undertake mitigation.

The topic of off-site mitigation can be complicated. A full discussion is outside the scope of this summary document. Issues that the lead agency should consider include:

- The location of the off-site mitigation. (If the off-site mitigation is far from the project, any additional, non-climate related co-benefits of the mitigation may be lost to the local community.)

- Whether the emissions reductions from off-site mitigation can be quantified and verified. (The California Registry has developed a number of protocols for calculating, reporting and verifying greenhouse gas emissions. Currently, industry-specific protocols are available for the cement sector, power/utility sector, forest sector and local government operations. For more information, visit the California Registry's website at http://www.climateregistry.org/.)

- Whether the mitigation ratio should be greater than 1:1 to reflect any uncertainty about the effectiveness of the off-site mitigation.

Offsite mitigation measures that could be funded through mitigation fees include, but are not limited to, the following:

- Energy efficiency audits of existing buildings.

- Energy efficiency upgrades to existing buildings not otherwise required by law, including heating, ventilation, air conditioning, lighting, water heating equipment, insulation and weatherization (perhaps targeted to specific communities, such as low-income or senior residents).

- Programs to encourage the purchase and use of energy efficient vehicles, appliances, equipment and lighting.

- Programs that create incentives to replace or retire polluting vehicles and engines.

- Programs to expand the use of renewable energy and energy storage.

- Preservation and/or enhancement of existing natural areas (e.g., forested areas, agricultural lands, wildlife habitat and corridors, wetlands, watersheds, and groundwater recharge areas) that provide carbon sequestration benefits.

- Improvement and expansion of public transit and low- and zero-carbon transportation alternatives.

RESPONSES TO LETTER F-1

Center for Biological Diversity/San Bernardino Valley Audubon Society

Response to Comment F-1-1. The commenter has correctly characterized the World Logistics Center (WLC) project components, and the Draft Environmental Impact Report (DEIR) did examine the potential air quality impacts of the project, as well as potential impacts to the adjacent San Jacinto Wildlife Area (SJWA). The DEIR identified several mitigation measures or actions for air quality and health risks, one extensive measure for greenhouse gas emissions, and 16 measures or actions for potential impacts to biological resources.`

It should be noted the Specific Plan (SP) area has been reduced from 2,710 acres to 2,610 acres (3.7 percent reduction) due to the removal of 100 acres in the southwest corner of the Specific Plan. This results in a reduction of 1 million square feet of logistics warehousing which is now 40.6 million square feet down 2.4 percent from the original 41.6 million square feet.

Response to Comment F-1-2. Several commenters expressed concern regarding the designation of 910 acres of state-owned land within the project area as permanent open space, and "taking credit" for such a designation. This land is referenced as the "CDFW Conservation Buffer Area" in the DEIR. The following information is provided in response to those comments.

The readers need to be aware that prior to being purchased by the state in 2001, these 910 acres were owned by Highland Fairview and were a part of the Moreno Highlands Specific Plan project, approved by the City in 1995. These 910 acres were designated for residential development in the General Plan. Notwithstanding the fact that the California Department of Fish and Wildlife (CDFW) has owned this land since 2001, the 910 acres remain within the City of Moreno Valley and remain a part of the City's General Plan, and remain designated for residential development. The proposed General Plan Amendment will revise the General Plan designation for this property from residential to Open Space but will not change the disposition of the property.

An identical situation exists relative to the City's zoning for the property. These 910 acres continue to be zoned for residential development as a part of the Moreno Highlands Specific Plan. The Zone Change that is part of this project will apply an open space zoning to the property to accurately reflect its long-term use as a part of the SJWA, owned and operated by the CDFW.

In addition to correcting the planned long-term use for this property in the City General Plan and zoning, this General Plan Amendment and Zone Change will allow the City to eliminate this residential designation from its long-range development projections used locally and regionally to predict development trends.

The proposed project applications and the accompanying EIR do not "take credit" for amending the General Plan and zoning to accurately reflect the planned long-range use for these 910 acres. The EIR does not contain any such "credit" statements as there is no such "credit" to be sought. There is no suggestion in the EIR that the CDFW property should be considered for mitigation of any WLCSP impacts. The EIR's discussions regarding this property relate simply to the correction of the City's land use designations for the property and to confirm that the project proposes no development of any kind on the 910 acres.

Additionally, concern has been expressed about the use of the term, "CDFW Conservation Buffer Area" to describe this 910-acre area. That term is used in the EIR to distinguish this land from the remainder of the SJWA and other lands owned by the CDFW in Section 3.4.1 of the DEIR. The "buffer" reference comes from the minutes of the May 18, 2001 meeting of the Wildlife Conservation Board at which the Board authorized the purchase of land (including the subject 910 acres). The minutes state, "The acquisition of the subject properties are important to the wildlife area as *they will*

serve as a buffer from development north of the WLA [wildlife area] and add significant wildlife benefits to the WLA." (emphasis added).

At the time of the acquisition, the 910 acres were already designated for urban development under the Moreno Highlands Specific Plan and protected by a Development Agreement with the City. Nothing has changed since the 910 acres were acquired to suggest that the adjacent property would not be ultimately developed, either with the logistics uses proposed as part of the WLC or as allowed by the Moreno Highlands Specific Plan.

Response to Comment F-1-3. The City acknowledges the makeup of the two commenting organizations and their interests in environmental conservation in the Inland Empire region.

Response to Comment F-1-4. The EIR does provide a complete description of the proposed project (DEIR Section 3.0 with 38 pages of text, 4 tables, and 18 figures). The commenter must remember that the DEIR is a programmatic document and thus project-level data such as actual building footprints are not yet available. In addition, each of the 17 environmental issues that could be affected by development of the project were examined in considerable detail (i.e., approx. 1,100 pages for the entire DEIR) especially considering this is a programmatic EIR because specific information on building size and location is not yet available for this project.

Response to Comment F-1-5. The EIR does provide a complete description of the proposed project with text, tables and figures (DEIR Section 3.0) including a figure showing the locations of the many proposed offsite improvements that would be needed to support future development on the project site (DEIR Section 3.4.11 and Figure 3-7). The Project Description (DEIR Section 3.0) also describes these potential offsite improvements within the limits of knowledge about the project at this time. It must be remembered that this DEIR is a programmatic document and thus project-level data such as actual building footprints are not yet available. In addition, each of the 17 environmental issues that could be affected by development of the project is examined in considerable detail (i.e., approx. 1,100 pages for the entire DEIR) especially considering this is a programmatic EIR because specific information on building size and location is not yet available for this project.

Response to Comment F-1-6. The commenter should note the DEIR contains several mitigation measures (e.g., cultural resources, geotechnical constraints, etc.) that specifically address future work for offsite improvements. The commenter also refers to deferring mitigation, but it must be remembered this is a programmatic document which is providing environmental information on this project at the earliest time, as specifically encouraged by CEQA. A mitigation measure has been added as follows to address potential effects to wetlands for offsite improvements.

4.4.6.3C Prior to issuance of any grading permit for any offsite improvements that support development within the World Logistics Center Specific Plan, the developer shall retain a qualified biologist to prepare a jurisdictional delineation (JD) for any drainage channels affected by construction of the offsite improvements. This jurisdictional delineation shall be submitted to the U.S. Army Corps of Engineers (USACE) and California Department of Fish and Wildlife (CDFW) for review and concurrence. If the offsite improvements will not affect any identified jurisdictional areas, no United States Army Corps of Engineers permitting is required. However, permitting through the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (i.e., Streambed Alternation Agreement) may still be required for these improvements. The applicant shall consult with United States Army Corps of Engineers, California Department of Fish and Wildlife and Regional Water Quality Control Board to establish the need for permits based on the results of the 2012 jurisdictional delineation and final design plans for each of the proposed the facilities. Consultation with the three agencies shall take place and appropriate permits obtained. Compensation for losses associated with any altered offsite drainages shall

> be in agreement with the permit conditions. Any landscaping associated with these offsite improvements shall use only native species to help protect biological resources residing within or traveling through these drainages per Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Table 6.1.2. This measure shall be implemented to the satisfaction of the City Planning Division in consultation with the U.S. Fish and Wildlife Service, U.S. Army Corps. of Engineers, and the California Department of Fish and Wildlife.

The EIR clearly states in many places that future development will require subsequent studies when more specific project information is available, but the DEIR provides adequate programmatic mitigation for anticipated programmatic impacts of overall project development. This "tiering" process is clearly outlined in California Environmental Quality Act (CEQA) Guidelines Sections 15152 and 15385 and encouraged to allow for sequential evaluation of development based on the project information available at the time. The DEIR does not defer mitigation for either onsite or offsite impacts identified in the EIR.

Response to Comment F-1-7. The DEIR does examine potential impacts from offsite improvements and recommends a number of mitigation measures to address geotechnical, cultural, and paleontological impacts (see Mitigation Measure (MM) 4.6.6.1C, MM 4.5.6.1B, and MM 4.5.6.3B, respectively). It must be remembered the DEIR is a programmatic document which evaluates the program-level impacts of WLC development, but a more detailed assessment of specific on- or offsite impacts must wait until specific development information is available (e.g., size and location of logistics warehouse buildings, actual site and size of new reservoir tanks, etc.). The DEIR clearly states that more specific CEQA analysis will be done when more specific project development information is available, which is the appropriate time and process as outlined in CEQA Guidelines Section 15152.The commenter is also incorrect about the analysis of traffic impacts, the DEIR Section 4.15 (pages 4.15-85 through 4.15-226) and the project Traffic Impact Analysis (TIA) (DEIR Appendix L-1) go into tremendous detail about potential traffic impacts from the project on roadways and intersections both in the City of Moreno Valley and many within other jurisdictions.

Response to Comment F-1-8. The WLCSP, as described in the DEIR, includes all project related impacts as well as proposed off-site improvements. Offsite environmental impacts are associated with roadway and utility improvements, several drainage improvements, a water reservoir, and access roads. These off-site improvements are part of the over-all concept of the WLCSP, but have not been completely designed. Specific designs of off-site improvements will not be completed until a project-specific design is proposed. There are no off-site improvements or project related impacts that extent geographically beyond the off-site analysis zone. The DEIR is a programmatic document and the request for site-specific analyses is not possible and not required, but will follow the guidelines outlined in the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). Additional environmental analysis will be conducted with each project-specific proposal. Please refer to Responses to Comments F-1-4 through F-1-7 above.

Response to Comment F-1-9. All areas of the WLCSP study area were examined at some level. Early surveys of the CDFW Conservation Buffer Area were completed however, when FCS-MBA requested permission to survey the lands within the SJWA an email from Dr. Heather Pert at CDFW (June 18, 2013) indicated that since there would be no impacts to the area, she felt that surveys would not be necessary. The burrowing owl surveys completed in July 2013 included a 500-foot buffer area that incorporated a portion of the SJWA (refer to FEIR Volume 2 in Appendix E-7). While there are no impacts associated with the rezoning and general plan amendment changes on the CDFW Conservation Buffer Area, existing conditions were documented for the DEIR and are justified.

Response to Comment F-1-10. An assessment of potential jurisdictional drainages was completed in 2012 and was revised in 2013 as a part of the MSHCP Consistency Analysis (FCS-MBA 2013 FEIR Volume 2, Appendix E-1). These data are reflected in the Section 4.4 *Biological Resources* of

the FEIR Volume 2 and FEIR Appendix E-1. The FEIR depicts a stable and complete project and its impacts are analyzed appropriately. CEQA requires that the impacts be mitigated and the mitigation measure must be clear and feasible. However, in cases where regulatory guidelines and definition of jurisdictional limits change, the impacts and required mitigation may also change. For instance, as a result of the 2001 Solid Waste Agency of North Cook County (SWANCC) case, a wetland must show connectivity to a stream course in order for such a feature to be considered jurisdictional, where previously, all wetland features were under United States Army Corps of Engineers (USACE) jurisdiction. If USACE, CDFW, and/or Regional Water Quality Control Board (RWQCB) guidelines change during the build-out of the WLCSP, the undeveloped projects will be required to follow the most current regulatory requirements.

As noted in the comment, the DEIR is a program level document, as site-specific development will occur over a period of time. Permit requirements cannot be completed until such time that site-specific plans are developed to assess impacts and determine the types of permits required. As an example, the USACE 404 permit structure for Nation Wide Permits (NWP) is revised and evaluated every 5 years. There could be at least three revisions to the NWP process over the life of the project.

All identifiable and potentially jurisdictional drainages on the site were mapped and included in the DEIR and the draft wetland delineation. Currently regulatory jurisdiction of the features is based on the existing regulatory guidance including the 1987 Regional Supplement to the USACE of Engineers Wetland Delineation manual: Arid West Region and Rapanos guidance. Prior to any future development, specific project proposals will have to undergo separate environmental review under CEQA and will be required to secure a formal jurisdictional determination from the USACE as well as jurisdictional determinations from the RWQCB and CDFW.

The applicant shall secure a jurisdictional determination with the USACE and confirm with the RWQCB and CDFW if drainage features mapped on the property are subject to jurisdictional authority and protection. If the features are subject to regulatory protection, the applicant will secure permit approvals with the appropriate agencies prior to initiation of construction. Jurisdictional features will be avoided and unavoidable impacts will mitigated through the construction of compensatory wetland construction. A Compensatory Mitigation Plan will be prepared for all unavoidable impacts and will be consistent with the USACE/ United States Environmental Protection Agency (USEPA's) “Compensatory Mitigation for Losses of Aquatic Resources; Final Rule and the USACE's Standard Operating Procedure for Determination of Mitigation Ratios.”

The updated Jurisdictional Delineation report (refer to FEIR Volume 2 Appendix E-13) assumes CDFW jurisdiction over the entire length of Drainages 7, 8, 9, 12, and 15. In addition these areas are also under the jurisdiction of the RWQCB. A maximum of 5.0 acres of streambed are under CDFW and RWQCB jurisdiction. It should also be noted that Drainages 12 and 15 are both hydrologically connected to downstream waters of the US and are therefore under the USACE jurisdiction.

Impacts to drainage features under USACE, CDFW, and RWQCB jurisdiction are significant impacts requiring mitigation. project related mitigation will be negotiated on a project-by-project basis. Drainage feature impacts will be replaced at a minimum of 1:1 mitigation ratio through the creation of on-site riparian habitat, off-site habitat conservation, or off-site purchase of mitigation credits. Final mitigation requirements will be negotiated during the approval of the appropriate regulatory permits. A project related analysis of the on-site drainage features will be completed on a project-by-project basis.

In summary, as outlined in Responses to Comments F-1-4 and F-1-7 above, the DEIR is a programmatic document which evaluates the program-level impacts of WLC development, but a more detailed assessment of specific on- or offsite impacts must wait until specific development information

is available (e.g., size and location of logistics warehouse buildings, actual site and size of new reservoir tanks, etc.).

Response to Comment F-1-11. The revised DEIR (FEIR Volume 2) takes into consideration the extended amount of time for project build-out with regard to changes to regulatory permitting. The updated data includes estimated jurisdictional limits with regard to USACE, RWQCB, and CDFW, as mentioned above in Response to Comment F-1-10. The DEIR is not attempting to hide information or defer mitigation. Jurisdictional permitting occurs after the CEQA process is complete. The regulatory permitting process can occur concurrently with the CEQA process, but permits cannot be issued until a CEQA document is approved. At this point, a general jurisdictional delineation of waters of the US and waters of the State has been completed, but has not been verified by regulatory agencies. Verification of a jurisdictional delineation report is typically done at project-level when specific designs are available and permits are requested. The WLCSP contains drainage features that are subject to USACE, CDFW, and RWQCB permitting. As currently designed the WLCSP may potentially impact 0.6 acres of waters of the US and up to 5.0 acres of waters of the State, this is subject to agency verification. Mitigation for impacts to drainage features will be a minimum of a 1:1 mitigation ratio to ensure a no net loss of riparian habitat. However, final mitigation requirements will be negotiated during permit acquisition during the project-level development process. The EIR sets performance standards for impacts to jurisdictional drainage features that must be satisfied during the permit acquisition project and is included in MMs 4.4.6.3A and 4.4.6.3B refer to Response to Comment F-1-15.

Response to Comment F-1-12. The attached parcel map (see FEIR Volume 2, Appendix H-2) clearly shows it has no development entitlements associated with it, it simply establishes the legal boundaries of the new parcels within the WLCSP.

Response to Comment F-1-13. Both the DEIR and the MSHCP Consistency Analysis (FCS-MBA 2013 – FEIR Volume 2, Appendix E-1) covered all biological aspects of the project. The study area encompassed 5,970 acres, which included the entire WLCSP (2,610 acres), the areas within the General Plan amendment and zone change (1,104 acres) and 302 acres of potential off site infrastructure and 502 acres of indirect impacts associated with the project near lands with Criteria Cells and/or Public Quasi-Public (PQP) lands.

The analyses included all sensitive plant and wildlife species both covered and not covered by the MSHCP to assure that all impacts to both plant and wildlife species would be examined. This is set forth in both the DEIR (Section 4.4) and Appendix E (Biological Resources). Information from California Natural Diversity Database, California Native Plant Society Electronic Inventory, and the Biological Monitoring Program (BMP) of the MSHCP were included in Tables 3 and 4 of the MSHCP Consistency Analysis (FCS-MBA 2013 FEIR Volume 2, Appendix E-1). While there are many species that appear on the CNDDB and BMP, both the distances to these species and suitable habitat must be used to assess the potential of the species occurring. Tables 3 and 4 of the MSHCP Consistency Analysis (FCS-MBA 2013) provide that assessment (refer to FEIR Volume 2, Appendix E-1).

Response to Comment F-1-14. Both Appendix E in the DEIR and the Appendix E in Volume 2 in the FEIR set forth the physical environment, not only of the areas to be impacted by the proposed action but an area more than double the size of the proposed action (WLCSP is 2,610 acres, plus another 104 acres for potential off site infrastructure). The biological studies covered 5,970 acres inclusive of the 1,104-acre area to be rezoned (with no physical impacts to the land) and 302 acres of offsite infrastructure and an additional 502 acres of indirect impact zone. Tables 2, 3 and 4 of Appendix E of Volume 2 of the FEIR provide information on all of the vegetation communities studied in the 5,970 acres and a breakdown of the impacts on each of the categories. Tables 3 and 4 provide information on all species (both plant and wildlife) that have a potential to occur within seven miles of the boundaries of the study area. The tables include both published data from the California Natural Diversity Data Base (CNDDB) and California Native Plant Society Electronic Inventory (CNPSEI) and

unpublished Geographic Information Systems (GIS) data from the Regional Conservation Authority (RCA). These data, coupled with data on the habitat requirements of each species (covered or not covered by the MSHCP) were used to assess the potential for a species to occur within the WLCSP. This was verified with physical on-ground surveys of the study area as presented in Table B-3.A in Response to Comment B-3-4.

Response to Comment F-1-15. A programmatic Determination of a Biologically Equivalent or Superior Preservation (DBESP) for the WLCSP has been prepared and is an Appendix E Volume 2 of the FEIR. In addition, a jurisdictional assessment of the property was completed for USACE, CDFW, and RWQCB and included as Appendix E-13 Volume 2 of the FEIR.

Section 3.7 of Appendix E-13 provides details on USACE jurisdictional features. Only two of the 15 drainages have connectivity to Traditional Navigable Waters of the U.S. and include Drainage 12 and Drainage 15.

Section 4.12.5 in FEIR Volume 2 Appendix E-13 provides details on riparian/riverine features as defined by the MSHCP. The report states:

"The WLCSP and offsite facilities contain two types of riparian/riverine habitat. The first type consists of unvegetated drainage features, which are described as riverine systems. The second type consists of drainage features with riparian vegetation such as mule fat scrub and southern willow scrub. Both of these riverine/riparian types within the WLCSP are isolated, disturbed, low to moderate in vegetative cover, and generally of poor to moderate habitat quality. Fifteen drainage features were evaluated to determine if they meet the requirements to be considered a riparian/riverine area (Exhibit 8). Nine of the drainage features (Drainage Features 1, 2, 3, 4, 5, 6, 10, 11, and 13) were determined to be upland erosion features and sheet flow within the project site. These features do not provide any function or value as drainage features. Drainage 14 includes two isolated basins that were previously used to collect run-off from a cattle-holding facility. These basins were artificially created as isolated, human-made, catch basin that receives nuisance flows and agricultural runoff from concrete cattle containment areas adjacent to the basin, which have subsequently been removed. There is no evidence of prolonged ponding within the Drainage 14 basins and for this reason, it is not suitable habitat for any of the sensitive fairy shrimp species. The vegetation in the western catch basin comprises sparse southern willow scrub but is not sufficient enough to support any sensitive riparian species. Since Drainage 14 is a man-made feature created in an upland area it is not a riparian/riverine area. The abovementioned 10 features do not meet the minimum criteria to be riverine/riparian and no further discussion is required.

Riverine/Riparian areas are included in Drainages 7, 8, 9, 12, and 15. These features either have riparian habitat or are moderate quality drainage features with a clearly defined bed and bank feature. Drainage 7, 8, and 9 terminate as sheet flow in offsite locations, but are described as riverine because of the function and value of the drainage features. Mule fat scrub, a riparian plant community occurs intermittently in small patches within Drainage Features 7 and 9. Drainage Feature 7 and 8 are both narrow and bordered on each side by disked agricultural fields. Drainage Feature 9 also contains a narrow band of mule fat scrub, but is bordered by relatively undisturbed Riversidean sage scrub. Over time, the drainage feature has been fragmented and currently contains isolated patches of riparian vegetation. Within the mule fat scrub community, tree tobacco and other non-native plant species, have established in approximately equal quantity as mule fat."

An assessment of waters of the state was conducted and Section 4.2.8 of Appendix E-13 Volume 2 FEIR contains the following information:

"Drainages 7, 8, 9, 12, and 15 were determined to be waters of the state and subject to the jurisdiction of both the CDFW and RWQCB. The jurisdictional limits of waters of the state are not

required to have downstream connectivity. There are approximately 3.0 acres of waters of the state, which includes areas with a clearly defined bed and bank feature within the WLCSP and offsite facilities. However, the CDFW makes all final Section 1600 jurisdictional determinations.

Project components affecting stream bed and bank subject to CDFW jurisdiction, including riparian habitat, would require a Streambed Alteration Agreement (SAA) from CDFW."

While impacts cannot be determined as this time, up to 5 acres of riparian/riverine and/or jurisdictional waters could be impacted by the projects. Details on each development are not available and further development of the discussion is speculative. Section 6.8.3 of Appendix E-13 states:

"Fifteen primary drainage features were evaluated for jurisdiction under Section 404 and 401 of the CWA as administered by USACE and RWQCB, respectively; Porter Cologne as administered by the RWQCB; and Section 1600 of the Fish and Game Code as administered by CDFW.

Only Drainage Features 12 and 15 were determined to be jurisdictional waters of the U.S. under Section 404 and 401 of the Clean Water Act (CWA), as they connect with the Perris Drain, which flows into Canyon Lake and the San Jacinto River. The remaining 13 drainage features onsite lack direct connectivity to any downstream navigable waters of the US or relatively permanent waters. The drainage features onsite also do not flow into any tributaries of the above-mentioned features. Therefore, 13 drainage features onsite are considered upland erosion features and are isolated from any downstream drainage features that are under the jurisdiction of the USACE. The eroded features onsite eventually sheet flow within the active agricultural areas or non-native grassland areas prior to flowing into Mystic Lake or San Jacinto River. No jurisdictional wetlands were identified. Projects affecting drainage features 12 and 15 will require regulatory permits under Section 404 and 401 of the CWA as administered by USACE and RWQCB as well as a permit under Section 1600 of the Fish and Game Code. There is approximately 0.6 acres of drainage features under the jurisdiction of the USACE, CDFW, and RWQCB.

Five drainage features (Drainages 7, 8, 9, 12 and 15) were determined to be waters of the state subject to CDFW and RWQCB jurisdiction under Section 1600 of the Fish and Game Code and Porter Cologne Act respectively. There are 3.0 acres of jurisdictional streambed and bank found within Drainage Features 7, 8, 9, 12, and 15. Projects affecting clearly defined bed and bank features, subject to CDFW and RWQCB jurisdiction, would require a stream alteration agreement (SAA) from CDFW and Waste Discharge Requirements respectively. In addition to the 0.6 acres of water of the U.S. under the jurisdiction of the CDFW and RWQCB mentioned above, there is a maximum of 5.0 acres of waters of the State potentially under the jurisdiction of only the CDFW and RWQCB.

MM BIO-2a of Appendix E-7, Volume 2 FEIR provides for mitigation for Riparian/Riverine impacts and it replaces MM 4.4.6.3B in the FEIR Volume 2, Section 4.4.6.3:

~~4.4.6.3B~~ ~~As an alternative to Mitigation Measure 4.3.6.3A, the project developer shall retain a qualified biologist to prepare a Determination of Biologically Equivalent or Superior Project (DBESP) relative to development along Drainage 9 in order to maximize protection or preservation of the drainage, otherwise the DBESP must demonstrate why protection or preservation is not possible. This measure shall be implemented to the satisfaction of the City Planning Division in consultation with the County Resource Conservation Agency (RCA).~~

~~The DBESP shall be prepared to document measures to reduce impacts to riparian/habitats in accordance with the MSHCP as well as CDFW and USFWS guidelines. The DBESP shall include specific measures to reduce impacts to riparian areas and provide mitigation in the form of on-site preservation of riparian areas and/a combination of compensation through purchase and placement of lands with~~

~~riparian/habitat into permanent conservation through a conservation easement and/or restoration or enhancement efforts at off-site or on-site locations.~~

4.4.6.3B As required by the Resource Conservation Agency (RCA), a program-level Determination of a Biological Equivalent or Superior Preservation (DBESP) for impacts to Riverine/Riparian habitat has been prepared and shall be approved by the Resource Conservation Agency prior to project approval. The Determination of a Biological Equivalent or Superior Preservation includes a general discussion of mitigation options for impacts to riverine/riparian areas as well as general location and size of the mitigation area and includes a monitoring program.

If impacts to riparian habitat within the World Logistics Center Specific Plan (WLCSP) cannot be avoided at the time of specific development, then a separate project-level Determination of Biologically Equivalent or Superior Preservation (DBESP) shall be prepared to identify project-specific impacts to riparian habitat and incorporate mitigation options identified in Mitigation Measure 4.4.6.3A.

A project-level Determination of a Biological Equivalent or Superior Preservation for each specific development shall be prepared to document measures to reduce impacts to riparian/riverine habitats in accordance with the Western Riverside County Multiple species Habitat Conservation Plan (MSHCP). The project-level Determination of a Biological Equivalent or Superior Preservation shall include specific measures to reduce impacts to riparian areas and provide mitigation in the form of onsite preservation of riparian areas and/or a combination of compensation through purchase and placement of lands with riparian/riverine habitat into permanent conservation through a conservation easement and/or restoration or enhancement efforts at offsite or onsite locations. Therefore, mitigation required for compensation for impacts to riparian/ riverine areas will require a minimum of 1:1 mitigation ratio of riparian/riverine mitigation land.

As outlined in the WLC programmatic DBESP, erosion control improvements will be installed within Drainage 9 to reduce sediment transport, and additional riparian habitat will be enhanced within this drainage following the installation of the erosion control improvements (MM DBESP 4 and 5).

MM BIO-3a of Appendix E-13, Volume 2 FEIR provides for programmatic mitigation of jurisdictional impacts and a new mitigation measure (MM 4.4.6.3A) has been added to the FEIR Volume 2, Section 4.4.6.3 to replace DEIR MM 4.4.6.3A.

~~**4.4.6.3A** Prior to the approval of any Plot Plans proposing development adjacent to any on-site drainage channels identified in the project programmatic Jurisdictional Delineation (MBA 2012), the developer shall retain a qualified biologist to prepare a site-specific jurisdictional delineation and submit it to the U.S. Army Corps of Engineers (USACE) and California Department of Fish and Wildlife (CDFW) for review and concurrence. If the development plan will not affect identified jurisdictional areas, no USACE permitting is required. However, permitting through the Regional Water Quality Control Board (RWQCB) and CDFW (i.e., Streambed Alternation Agreement) may still be required for this development.~~

~~The applicant shall consult with USACE, CDFW and RWQCB to establish the need for permits based on the results of the 2012 jurisdictional delineation and final design plans for each of the proposed the facilities. Consultation with the three agencies shall take place and appropriate permits obtained. Compensation for losses associated with the altering of drainages on site shall be in agreement with the permit conditions.~~

~~Any development adjacent to Drainage 9 shall be designed with the channel in its relatively natural condition, and shall provide a minimum 25-foot open space setback from the top of each bank. Any landscaping of this setback area shall use only native species to help protect resources residing within or traveling through these drainages between the SJWA and the Badlands, and to protect any riparian vegetation along this drainage. This measure shall be implemented to the satisfaction of the City Planning Division.~~

4.4.6.3A Prior to the issuance of grading permits the applicant shall secure a jurisdictional determination from the United States Army Corps of Engineers (USACE) and confirm with the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (CDFW) if drainage features mapped on the property to be developed are subject to jurisdictional authority. If the features are subject to regulatory protection, the applicant will secure permit approvals with the appropriate agencies prior to initiation of construction. Compensatory riparian habitat mitigation will be provided at a minimum ratio of 1:1 (replacement riparian habitat to impacted riparian habitat) to ensure no net loss of riparian habitat or aquatic resources. It should be noted that this is a minimum recommended ratio but the actual permitting ratio may be higher. These detention basins will be oversized to accommodate the provision of areas of riparian habitat. Maintenance of the basins will be limited to that necessary to ensure their drainage and water quality functions while encouraging habitat growth. Riparian habitat mitigation will be provided concurrent to or prior to impacts. A Compensatory Mitigation Plan will be prepared for all unavoidable impacts and will be consistent with the United States Army Corps of Engineers (USACE)/United States Environmental Protection Agency's Compensatory Mitigation for Losses of Aquatic Resources; Final Rule and the United States Army Corps of Engineers Standard Operating Procedure for Determination of Mitigation Ratios.

The applicant shall consult with United States Army Corps of Engineers, California Department of Fish and Wildlife, and Regional Water Quality Control Board to establish the need for permits based on the results of a recent jurisdictional delineation and final design plans for each of the proposed the facilities. Consultation with the three agencies shall take place and appropriate permits obtained for project-level development. Compensation for losses associated with the altering of drainages on site shall be in agreement with the permit conditions and in coordination with compensation outlined below.

Mitigation will consist of onsite creation, offsite creation, or purchase of mitigation credits from an approved mitigation bank. As outlined in the WLC programmatic DBESP report, onsite riparian habitat will be created at a minimum 1:1 ratio due to the poor quality of onsite habitat. New habitat will be created within the onsite detention/infiltration basins to the extent allowed by the resource agencies to reduce storm flows, improve water quality, and reduce sediment transport. Habitat creation will include the installation of mule fat scrub or similar riparian scrub habitat to promote higher quality riparian habitat, but still maintain the basins for their primary role as detention facilities. The use of these areas as conservation areas would require consent from CDFW and the City of Moreno Valley (MM BIO-2b and MM DBESP 1 through 3).

The proposed project will increase non-point source pollution and contamination, which may alter hydrology and increase road effects. The increase in non-point pollution and contamination will not destroy sensitive habitat. Mitigation measures outlined throughout the DEIR will be imposed by the City of Moreno Valley through its processing of entitlements on a project-by-project basis regarding light, noise, trash, emissions, vectors, fuel management, runoff, water quality, etc. All project

operations within the WLCSP will be required to prepare a Water Quality Management Plan (WQMP), which will specifically detail all of the required safety precautions necessary to eliminate the risk of toxic contamination to any downstream water body.

All project construction activities within the WLCSP will be required to prepare a Storm Water Pollution Prevention Plan (SWPPP), which will specifically detail all of the required safety precautions necessary to eliminate the risk of construction related contamination to any downstream water body. All development within the project area will be required to obtain a statewide general National Pollutant Discharge Elimination System (NPDES) construction permit for all construction activities associated with the proposed project and will be subject to the County of Riverside's regulations to implement the NPDES program.

The NPDES requirements are discussed in detail in Section 4.9 of the DEIR, Hydrology and Water Quality. The vegetated buffer mentioned above as well as a perimeter walls will be used to reduce the emissions leaving the WLCSP, All drainage improvements will be designed to facilitate water quality improvements and will require assessments by vector control to reduce or eliminate standing water, and The SWPPP and NPDES for each project will adequately address all fuel management, runoff water quality requirements.

Response to Comment F-1-16. The DEIR previously stated that no areas subject to USACE and/or RWQCB were identified within the WLCSP. This has been corrected with the revised DEIR (FEIR Volume 2) and the MSHCP Consistency Analysis (FCS-MBA 2013 FEIR Volume 2, Appendix E-1) have been updated to include an updated description of drainage features within the WLCSP. In addition, a revised Jurisdictional Delineation of Waters and Wetlands was also completed to assess all potentially jurisdictional features within the WLCSP. For additional information please refer to Response to Comment F-1-15 above.

Response to Comment F-1-17. A Program-level DBESP was prepared and included as a part of Appendix E-7 (updated Habitat Assessment and MSHCP Consistency Analysis, 2013), Volume 2 FEIR. These MSHCP and DBESP documents have been submitted to the City of Moreno Valley for a Joint Project Review (JPR) and a determination of consistency with the MSHCP.

Response to Comment F-1-18. A programmatic DBESP for the WLCSP has been prepared and is included as part of the Habitat Assessment and MSHCP Consistency Analysis (FCS-MBA 2013) in Appendix E of Volume 2 of the FEIR. See Response to Comment F-1-15, which provides the DBESP response and the process for approval. Section 4.12.5 of Appendix E-7 (FEIR Volume 2) provides details on riparian/riverine features as defined by the MSHCP.

Riparian/Riverine areas are known to occur in Drainages 7, 8, 9, 12, and 15. These features either have riparian habitat or are moderate quality drainage features with a clearly defined bed and bank feature. Drainage 7, 8, and 9 terminate as sheet flow in offsite locations, but are described as riverine because of the function and value of the drainage features. Mule fat scrub, a riparian plant community occurs intermittently in small patches within Drainage Features 7 and 9. Drainage Feature 7 and 8 are both narrow and bordered on each side by disked agricultural fields. Drainage Feature 9 also contains a narrow band of mule fat scrub, but is bordered by relatively undisturbed Riversidean sage scrub. Over time, the drainage feature has been fragmented and currently contains isolated patches of riparian vegetation. Within the mule fat scrub community, tree tobacco and other non-native plant species, have established in approximately equal quantity as mule fat.

While project specific impacts cannot be determined as this time, it is estimated that up to 5 acres of riparian/riverine and/or jurisdictional waters could be impacted by future projects. Details on each development are not available and further development of the discussion is speculative. Section 6.8.3 of Appendix E-13 of Volume 2 FEIR states:

> "*Fifteen primary drainage features were evaluated for jurisdiction under Section 404 and 401 of the CWA as administered by USACE and RWQCB, respectively; Porter Cologne as administered by the RWQCB; and Section 1600 of the Fish and Game Code as administered by CDFW.*
>
> *Five drainage features (Drainages 7, 8, 9, 12 and 15) were determined to be riparian/riverine under MSHCP guidelines and waters of the state subject to CDFW and RWQCB jurisdiction under Section 1600 of the Fish and Game Code and Porter Cologne Act respectively, but have yet to be verified by resource agencies. Any impacts to drainage features considered riparian/riverine or waters of the state is a significant impact requiring mitigation. It is estimate that no more the 5.0 acres of drainage features that occur within the WLCSP as well as off-site improvement areas will be impacted. Drainage feature impacts will be replaced at a minimum of 1:1 mitigation ratio through the creation of on-site riparian habitat, off-site habitat conservation, or off-site purchase of mitigation credits. Final mitigation requirements will be negotiated during the approval of the appropriate regulatory permits. A project related analysis of the on-site drainage features will be completed on a project-by-project basis."*

Response to Comment F-1-19. The City of Moreno Valley General Plan includes the following Objective and Policy regarding natural drainage features. Objective 7.4 says "*Maintain, protect, and preserve biologically significant habitats where practical, Including the San Jacinto Wildlife Area, riparian areas, habitats of rare and endangered species, and other areas of natural significance*." In addition, Policy 7.4.3 states…"*Preserve natural drainage courses in their natural state and the natural hydrology, unless the protection of life and property necessitate improvement as concrete channels.*"

It should be noted that the drainage features on site are not natural occurring features. These drainage features are artificially created channels constructed in previous upland areas to protect the surrounding agricultural fields from erosion during storm events. There is no riparian habitat within the Specific Plan area. Drains 7, 8, 9, 12, and 15 support some facultavite-wetland species, such as mule fat (*Baccharis salicifolia*). These features are not considered biologically significant habitat due to the lack of natural vegetative cover and poor quality habitat and therefore are not being covered under General Plan Policy 7.4.3. Although these drainage features do not support high-quality habitat, they may be under USACE, CDFW, and/or RWQCB jurisdiction and may require regulatory permits and compensatory mitigation if impacted.

Response to Comment F-1-20. Drainage 14 was originally listed as a riparian/riverine feature based on the presence of riparian plant species. Upon further review of the definition of riparian/riverine in the MSHCP document, the MSHCP clearly states, "*With the exception of wetlands created for the purpose of providing wetlands Habitat or resulting from human actions to create open waters or from the alteration of natural stream courses, areas demonstrating characteristics as described above which are artificially created are not included in these definitions*." Therefore, based on the requirements under the MSHCP, this artificially created ponded area is not considered to be a riverine/riparian area. Appendix E-13 of Volume 2 FEIR Section 4.12.5 states:

> *"Drainage 14 includes two isolated basins that were previously used to collect run-off from a cattle-holding facility. These basins were artificially created as isolated, human-made, catch basin that receives nuisance flows and agricultural runoff from concrete cattle containment areas adjacent to the basin, which have subsequently been removed. There is no evidence of prolonged ponding within the Drainage 14 basins and for this reason it is not suitable habitat for any of the sensitive fairy shrimp species. The vegetation in the western catch basin comprises sparse southern willow scrub but is not sufficient enough to support any sensitive riparian species. Since Drainage 14 is a fabricated feature created in an upland area it is not a riparian/riverine area."*

Response to Comment F-1-21. Section 4.1.6.4 (Aesthetics) of the DEIR provides a discussion on light and glare. Section 4.4.1.14(f) of the Revised Draft EIR, discusses lighting impact in relationship to the MSHCP Urban/Wildland Interface Analysis. The Specific Plan also contains requirements for off-site lighting (Specific Plan Section 4.3):

> *"Section 4.1.3 indicates one of the main objectives of the project lighting is "… all lighting in the vicinity of the San Jacinto Wildlife Area shall be designed to confine all direct light rays to the project site and preclude the visibility of direct light rays from the wildlife area" (page 78). The project will also have to comply with the City's new Nighttime Lighting Ordinance 851, which reduces spillover light to 0.25 foot-candles at five feet from the adjacent property lines."*

There are numerous requirements that must be applied on a project specific basis. These include compliance with the City of Moreno Valley Ordinance 851 on lighting. The DEIR refers to Moreno Valley Municipal Code Section 9.08.100(c)(3), which prohibits lighting in excess of 0.25 foot candles within 5 feet of any property lines.

The purpose and intent of City Ordinance 851 *"is to establish regulations and standards for outdoor lighting which will reduce light pollution and trespass generated by residential and non-residential lighting fixtures and devices, while maintaining dark skies."* Based on application of this ordinance and a review of individual projects adjacent to the SJWA during specific project approval, the project would be in compliance with the established mitigation and no significant impacts would remain.

The original MM 4.1.6.4C recommended low pressure sodium lights on WLCSP buildings that face the San Jacinto Wildlife Area (SJWA). This measure was intended to minimize night lighting impacts on biological resources within the SJWA. However, the measure was eliminated due to low pressure sodium lights being prohibited in the City's recently adopted Ordinance 851 which amends City Municipal Code Section 9.08.100. The project will still need to minimize white light spillage into the adjacent SJWA and will comply with Ordinance 851. Light intensity levels will be maintained at levels outlined in that ordinance (i.e., prohibit lighting in excess of 0.25 foot candles within 5 feet of adjacent property lines).

As a result of this discussion, the following MM 4.4.6.4K has been added to address night lighting impacts on the SJWA:

4.4.6.4K Prior to approval of any plot plans for development adjacent to the SJWA, the applicant shall demonstrate that direct light rays have been contained within the development area, per requirements of the MSHCP Section 6.0 which states, "Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting." This measure shall be implemented to the satisfaction of the City Planning Division.

Response to Comment F-1-22. Light pollution is a major problem around large urban developments with regard to its effects on wildlife species. The WLCSP is an extensive area of generally unlighted land, but it is not completely free of existing lighting. Existing light sources include an extensive residential area on the western border of the WLCSP from the base of Mt. Russell to SR-60. The existing Skechers facility is present north of the SJWA boundary and was designed in compliance with City Ordinance 851 (See Response F-1-22). The existing San Diego Gas & Electric (SDG&E) Compressor Station also has extensive lighting along the southern WLCSP boundary.

In addition to these permanent light sources, there is traffic lighting associated with Gilman Springs Road and SR-60 as well as associated night traffic along Eucalyptus Street, Alessandro Boulevard, and other roads through the area. All of these existing light sources are a part of the existing condition and, although speculative, do not appear to have had a significant impact on either migratory birds or

wildlife. Extensive biological studies of the survey area since 2005 have not seen evidence of extensive use of the agricultural lands within the WLCSP by avian species. The area does not contain high densities of either migratory birds or any terrestrial wildlife species.

The development of the WLCSP is projected to occur over a 15-year period and would not immediately subject the entire 2,610 acres to an increase in lighting. The gradual increase in light, which shall be in accordance to both City Ordinance and mitigation measures, will be directed and focused on specific building activities and will not subject wildlife in the area to a radical change that could result in changes to existing foraging and predatory systems in the region.

Response to Comment F-1-23. The potential for birds flying at night and becoming confused by lighting and potentially striking buildings is a reality that cannot be ignored. However, with the lighting efforts incorporated in the Specific Plan Guidelines on Lighting and compliance with City Ordinance 851, lighting impacts would be reduced to insignificant levels. The potential for birds striking buildings is real. Section 4.1.6.1 of the DEIR spells out building heights for the entire Specific Plan. The highest buildings would be no more than 80 feet tall, with "perimeter" buildings along the west north and south perimeters a maximum of 60 feet tall. These requirements are for aesthetic reasons, but also provide a gradual transition from open space areas and should allow for birds to acclimate to buildings both through the transition from shorter to taller buildings, but also through the gradual construction of facilities over 15 years. The Specific Plan guidelines contain standards and design guidelines that require the minimal use of lighting for building visibility and safety at night. These guidelines, which minimizes the extensive use of lighting, should reduce the potential for collisions with buildings by reducing confusion for birds.

Response to Comment F-1-24. Design guidelines and mitigation with regard to lighting have been designed to reduce offsite illumination. This, together with a buffer of 250 feet from buildings and the low design of lighting within the facility at less than 30 feet with building heights of a maximum of 80 feet should reduce the potential for predators taking advantage of night lighting by reducing the available off-site lighting. With regard to predation of Stephens' kangaroo rat (SKR) predation, the species does not currently occupy the WLCSP and while there are numerous trappings of the species nearby, none have been found within the WLCSP. Since light spillage will be minimized and a buffer is provided along the wildlands areas along the southern boundary of the WLCSP, it is unlikely that the increased lighting associated with the development would impact Stephen's kangaroo rat (SKR).

The reader should also see Response F-1-21 for additional information regarding night lighting. It should be noted the WLCSP is within the Mitigation Fee Area for SKR, and payment of the SKR mitigation fee will be required on a project-by-project basis. The fees will be used to purchase off-site lands within core conservation areas that can be used for the long-term conservation of SKR.

Response to Comment F-1-25. Regulations in the WLCSP prohibit direct light rays from being directed off of the project site. While plants may be sensitive to light pollution, the project site is in an area where light sources are already present. Existing plants in the project site consist primarily of ruderal species and/or planted grains. These plants would be removed by the gradual construction of facilities within the WLCSP and would not be impacted by light pollution as they would be removed with the construction of the facilities.

Trees both within the WLCSP and the 5,970-acre study area in general are very limited. There are some ornamental trees associated with the SDG&E compressor station that would remain following the full build-out of the WLCSP, but they are over 1,500 feet from the southernmost edge of proposed development. A series of tamarisk associated with Drainage Feature 14 could be impacted by the additional lighting as could trees in the residential development along Redlands Blvd. The residential areas are already subject to existing light sources. Based on the minimal amount of trees and the location of trees, even the potential for changes to tree activity should not cause any changes to bird nesting activities in the study area.

Response to Comment F-1-26. Light activities on National Parks and desert habitat is completely different than the effects of light pollution on a relatively urbanized area like the City of Moreno Valley. Many of the nation's National Parks and deserts are extremely isolated with no nearby development. Light impacts associated at a 100-mile distance in an urban area seem unlikely and impossible to detect and are therefore speculative at best. Low levels of light pollution in an otherwise urbanized area is not a significant impact.

The WLCSP is located within the second largest city in Riverside County and not in an isolated wilderness area. The article cited (Letter F-1 Appendix 22) discusses light pollution with regard to "star-gazing." The references for wildlife involved sea turtles hatchlings being confused on a return to the sea and migratory waterfowl. With regard to waterfowl, the existing light pollution in southern California in general should not radically increase with the application of City Ordinance 851 and proposed mitigation. City Ordinance 851 requires a reduction of light pollution generated by the proposed WLCSP, while maintaining dark skies.

Response to Comment F-1-27. The City of Moreno Valley is extremely conservative when it comes to project related effects with regard to light pollution impacts. Project-specific lighting requirements will include compliance with the City of Moreno Valley Ordinance 851 on lighting and two mitigation measures provided in the DEIR. See Responses to Comments F-1-21 and F-1-26 for additional information. Citing light pollution up to 100 miles away in an urbanized area is not applicable to this project.

Response to Comment F-1-28. The DEIR provides a variety of measures to reduce the effect of lighting off site. Application of City Ordinance 851 provides a guideline for light pollution. This will be followed by the Specific Plan Lighting guidelines. MM 4.1.6.4A and MM 4.1.6.4B are required to meet the City of Moreno Valley's requirements regarding potential lighting impacts. The buffer area along the southern portion of the WLCSP is part of the overall project concept and is a project design feature that provides an additional barrier to reduce off-site glare from the proposed development.

Response to Comment F-1-29. See Response to Comment F-13-51 regarding indirect air quality impacts and biological resources.

Response to Comment F-1-30. See Response to Comment F-1-2.

Response to Comment F-1-31. Focused burrowing owl surveys conducted within the study area since 2005 have found burrowing owls within the WLCSP, but only in very limited numbers (no more than a single breeding pair) and only sporadically (not every year). No more than a single pair of burrowing owl has ever been observed or recorded within the boundaries of the WLCSP. Based on the Biological Monitoring Program Burrowing Owl Survey Report 2011 for the SJWA/Mystic Lake/Lake Perris Area (Table 1 pg. 7, FEIR Volume 2, Appendix E-5), no breeding pairs of burrowing owl were found within the SJWA. Burrowing owls have only been identified outside of the breeding season within the SJWA. The report states that this is a decline from the 21 detections in 2006 and the 14 detections in 2007. These sightings are within existing conservation areas but generally more than 1 mile from the WLCSP boundaries. The lack of suitable habitat for burrowing owls in the WLCSP is due to the extensive disking and ground disturbance associated with the dry land agriculture. Suitable burrows for occupancy by burrowing owl have been identified in all surveys conducted by FCS-MBA, but only a single pair has ever been found in a survey season within the WLCSP.

This suggests that the habitat of dry land agriculture (the existing condition of most of the WLCSP area) is moderately suitable for burrowing owls and the loss of this moderately suitable land would not have a long-term impact on the survival of burrowing owls. Notwithstanding these conditions, pre-

construction surveys will be required within 30-days of any vegetation removal or soil impacts for future projects as described in MM 4.4.6.4D in Response to Comment F-1-33.

Response to Comment F-1-32. While the City agrees there has been a decline in the population of burrowing owls throughout California, the causes do not appear to be apparent. The RCA study mentioned in Response to Comment F-1-31 indicates that a decline in burrowing owls occurred in an area that was in conservation for three consecutive years of study (2006, 2007, and 2011). The cause is not from a change in habitat status on MSHCP Core Lands, but could be related to weather conditions, prey base, or a combination of factors. Burrowing owls, while found within the WLCSP, were not found every year and were found in limited numbers. The limited number of owls found on the WLCSP site has also varied from year to year, reflecting the conditions of the surrounding area, which tend to be subject to less disturbance. Based on the MSHCP requirements, the loss of a single pair or breeding burrowing owls is not considered a significant impact since the portion of the WLCSP that the burrow owls were observed is considered a non-Criteria Cell area. If a single pair of burrowing owl is observed within a Criteria Cell, then 90% of the area must be conserved until the mitigation goal for burrowing owl has been meet. However, if during the project-level protocol surveys, more than three pairs of burrowing owl are observed, conservation of 90% of the occupied habitat will be required and a Determination of a Biologically Equivalent or Superior Preservation (DBESP) will be prepared. Neither is the case within the WLCSP.

Response to Comment F-1-33. Mitigation measures requiring preconstruction surveys prior to construction (MM Bio 6b) would provide for protection to both breeding burrowing owls as well as owls found during the non-breeding season. MM BIO-6b from the MSHCP Consistency Report will reduce the impacts to burrowing owl to a less than significant level. This measure became MM 4.4.6.4D in the DEIR.

4.4.6.4D~~C~~ ~~Prior to issuance of any grading permits, a~~ A pre-construction clearance survey for burrowing ~~owls~~owl shall be ~~prepared~~conducted by a qualified biologist ~~andsubmitted to the City. This survey shall be required and conducted~~ no more than thirty (30) days prior to ~~initiation of~~ any grading or ground disturbing activities within the project area.

In the event no burrowing owls are observed within the limits of ground disturbance, no further mitigation is required.

If construction is to be initiated during the breeding season (February 1 through August 31) and burrowing owl is determined to occupy any portion of the ~~study~~disturbance area during the 30-day pre-construction survey, ~~consultation with the CDFW and USFWS shall take place and no~~ construction activity shall ~~take place within~~maintain a 500 ~~feet of an~~ foot buffer area around any active nest/burrow until it has been determined that the nest/~~burrow~~burrow is no longer active, and all juveniles have fledged the nest/burrow. If this avoidance buffer cannot be maintained, consultation with the California Department of Fish and Wildlife (CDFW) shall take place and an appropriate avoidance distance established. No disturbance to active burrows shall occur without appropriate permitting through the ~~MBTA~~Migratory Bird Treaty Act and/or ~~CDFW~~California Department of Fish and Wildlife.

If active burrowing owl burrows are detected outside the breeding season (September through January), or within the breeding season but owls are not nesting or in the process of nesting, active and/or passive relocation may be conducted following consultation with the ~~CDFW and USFWS.~~California Department of Fish and Wildlife. A relocation plan may be required by California Department of Fish and Wildlife if active and/or passive relocation is necessary. The relocation plan will outline the basic process and provides options for avoidance and mitigation. Artificial burrows -may be constructed within the buffer area south of the World Logistics

Center Specific Plan. Construction activity may occur within 500 feet of the ~~active nests~~burrows at the discretion of the biological monitor in consultation with CDFW.
~~If active nests are identified in a development area, the nests shall be avoided or the owls actively or passively relocated to the 250-foot setback area in the southern portion of the Specific Plan site (see Mitigation Measure 4.4.6.1A). This setback area shall be considered a "conservation area" for burrowing owl or other species of animals or plants that need to be relocated from the portions of the WLCSP site to be developed. In the event no burrowing owls have been identified within the limits of ground disturbance, no further mitigation is required. In the event burrowing owls are identified within the limits of ground disturbance, Mitigation Measure 4.4.6.4D shall apply. To avoid active nests adequately, no grading or heavy equipment activity shall take place within at least 250 feet of an active nest during the breeding season (February 1 through August 31) and 160 feet during the non-breeding season. This measure shall be implemented to the satisfaction of the City Planning Division.~~

~~**4.4.6.4D** If active burrowing owl burrows are detected outside the breeding season, passive and/or active relocation may be undertaken following consultation with and approval by the CDFW and/or USFWS. The installation of one-way doors may be installed as part of a passive relocation program. Burrowing owl burrows shall be excavated with hand tools by a qualified biologist when determined to be unoccupied, and back filled to ensure that animals do not re-enter the holes/dens. Owls may also be actively relocated on site to the 250 foot clear buffer zone along the southern boundary of the WLCSP, as outlined in Mitigation Measure 4.4.6.1A. This measure shall be implemented to the satisfaction of the City Planning Division.~~

A relocation plan may be required by California Department of Fish and Wildlife if active or passive relocation is necessary. Artificial burrows may be constructed within appropriate burrowing owl habitat within the proposed open space/conservation area (Planning Area 30), a 74.3-acre area in the southwest portion of the Specific Plan. This area abuts the Lake Perris State Recreation Area (LPSRA) which is already in conservation. If suitable habitat is not present in Planning Area 30, owls may be relocated to the SJWA, the 250-foot buffer area or other suitable on-site or off-site areas. Construction activity may occur within 500 feet of the burrows at the discretion of the biological monitor

This series of measures would protect the loss of individuals. The WLCSP does not have more than moderately suitable foraging habitat for the loss of 2,610 acres of foraging habitat in a region with thousands of acres of foraging habitat would not be considered significant with the implementation of the following new MM 4.4.6.4C has been added to FEIR Volume 2 Section 4.4.6.3:

4.4.6.4C The loss of foraging habitat for golden eagle and white-tailed kite will be mitigated by payment of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) fee and the creation of a landscaped buffer area adjacent to the San Jacinto Wildlife Area property (SJWA). First, the payment of the Western Riverside County Multiple species Habitat Conservation Plan fee will be required on a project-by-project basis. Second, a 250-foot setback as described in Mitigation Measure 4.4.6.1A will be established within the World Logistics Center Specific Plan area. This area will reduce impacts to raptor species foraging in the adjacent San Jacinto Wildlife Area open space areas.

Response to Comment F-1-34. There is no evidence that the MSHCP will fail to protect biological resources in western Riverside County. The RAND Report (2008) discussed the potential for an imbalance in conservation dollars being available. This was primarily due to the changes to the

housing industry and lack of development throughout the County causing a reduction in lands put into conservation. The converse of this is that less land is being impacted. The RCA 2012 Annual Report discusses issues associated with the MSHCP. One area of concern is that one of the 37 rough step vegetation categories is out of Rough Step. Rough Step Unit 8: Grasslands is not sufficiently conserved. The RCA will continue to work toward acquiring properties with the appropriate vegetation category to address the Rough Step Unit that is not currently in Rough Step.

While the target for conservation is currently below originally established thresholds, the acres of loss are also below projected numbers. The 2012 report also states that "*The RCA Board received the Fiscal Year 2011-12 (July 1, 2011 to June 30, 2012) Financial Statements and Independent Auditors' Report of the RCA with no reportable findings.*" Therefore, it is reasonable to assume that the mitigation measures proposed in the DEIR, with regard to MSHCP, will remain viable during the 15-year build-out period for the WLCSP.

Response to Comment F-1-35. There have been no follow-up studies to the RAND study over the past 5 years. In the report, costs assumptions regarding the MSHCP program were discussed in terms of the 2007 market value of land. These assumptions are the key statement of the RAND study and must be evaluated under current land values, which are substantially lower than they were in 2007 (RAND Report 2008). To speculate on current and future land values associated with acquisition is unwarranted. There have been no statements by either the United States Fish and Wildlife Service (USFWS) or CDFW on the MSHCP program being in jeopardy. The MSHCP program does regulate the fee-to-land values and these are updated on a regular basis. Furthermore, land values will most likely change over the 15-year build out of the WLCSP.

Response to Comment F-1-36. The DEIR is not responsible for speculating on the long-term life of the MSHCP. Since the WLCSP EIR is a program level document, and development is projected to occur over a 15 year period and individual analyses of projects as they require permits and approvals is necessary, there should be no issue. The WLCSP lands were never considered for Reserve Assembly (Conservation with the MSHCP) and therefore, the losses were not considered significant. The payment of fees for the right to develop has regularly been adjusted and fee payment would occur at the time of project specific development. To speculate on the "what ifs" of a collapse of the MSHCP is beyond the scope of this EIR. The general paucity of sensitive species within the WLCSP must also be considered. There will be very little biological impact and substantial mitigation included in the EIR adequately provides for these impacts.

Response to Comment F-1-37. The relatively small population of burrowing owl in the region, as discussed in Responses to Comments F-1-31 through F-1-33, indicates that indirect impacts associated with vehicle collisions is extremely unlikely. Although the City cannot completely rule out the possibility that a vehicle may strike burrowing owl, the possibility of severe losses of burrowing owl due to vehicular deaths is highly unlikely.

While traffic will increase along Theodore Street and SR-60, there is no data on the current number of "road kills" in the area therefore, it is difficult to project increases or decreases caused by changes in traffic patterns and new development. However, due to the disturbed nature of the WLCSP, it is unlikely that a significant amount of wildlife species will be impacted by an increase in traffic. However, as a project design feature, several culverts beneath Gilman Springs Road and SR-60 will be maintained or replaced, which will provide a crossing to greatly reduce impacts to smaller, more mobile, wildlife species.

A similar statement can be made for the SKR. The WLCSP habitat of primarily dry land agriculture is not suitable habitat for the SKR. There are currently no figures on "road kill" of SKR for the general project area. Speculation on increased "kills" due to increased traffic on the roadways in the vicinity cannot be made. Regardless, SKR is covered under the SKR HCP and payment of the SKR Mitigation Fee is required on a project-by-project basis and will reduce project related impacts to a

level less than significant. The SKR mitigation fees will be used to purchase off-site land that is currently occupied and within the Core Reserve Area for SKR.

Response to Comment F-1-38. Since the vast majority of the WLCSP and a large portion of the CDFW Conservation Buffer Area is currently in agriculture, the current level of pesticide use, particularly herbicides for weed control would be reduced by implementation of the WLCSP.

Currently any pesticides would be washed into the drainages present on the site and carried offsite. BMPs will be put in place as a requirement for any future project. If and when rodenticides are used, the applicant will only use bait products for rodent elimination, which must contain chlorophacinone or diphacinone as requested by CDFW and included in Response to Comment B-3-32.

Section 4.9.6 of the DEIR provides a number of measures, primarily associated with water quality concerns, to reduce the effects of pesticides on biological resources (MMs 4.9.4.1A, 4.9.6.2A, 4.9.6.2B, 4.9.6.3A, and 4.9.6.3C).

Site design Best Management Practices (BMPs) are implemented to create a hydrologically-functional project design that attempts to mimic the natural hydrologic regime. In accordance with the Riverside County WQMP, projects shall implement site design concepts that achieve each of the following:

1. Minimize Urban Runoff
    a. Maximize the permeable area.
    b. Incorporate landscaped buffer areas between sidewalks and streets.
    c. Maximize canopy interception and water conservation by planting native or drought-tolerant trees and large shrubs.
    d. Use natural drainage systems.
    e. Where soil conditions are suitable, use perforated pipe or gravel filtration pits for low flow infiltration.
    f. Construct on-site ponding areas or retention facilities to increase opportunities for infiltration consistent with vector control objectives.
2. Minimize Impervious Footprint
    a. Maximize the permeable area.
    b. Construct streets, sidewalks, and parking lot aisles to the minimum widths necessary, provided that public safety and a walk able environment for pedestrians are not compromised.
    c. Reduce widths of street where off-street parking is available.
    d. Minimize the use of impervious surfaces such as decorative concrete, in the landscape design.
3. Conserve Natural Areas
    a. Conserve natural areas.
    b. Maximize canopy interception and water conservation by planting native or drought-tolerant trees and large shrubs.
    c. Use natural drainage systems.
4. Minimize Directly Connected Impervious Areas (DCIAs)
    a. Runoff from impervious areas will sheet flow or be directed to treatment control BMPs.
    b. Streets, sidewalks, and parking lots will sheet flow to landscaping/bio retention areas.

All of these measures reduce the potential for pesticide use to cause impact to the biological resources that would be onsite after full development and the surrounding area.

Response to Comment F-1-39. The DEIR provides several appropriate mitigation measures that will reduce significant biological resource impacts to a less than significant level. Compliance with the MSHCP guidelines is only one portion of the required mitigation for project related impacts, however, it is the only mitigation measure that is required that ensures long-term conservation of special status plant and wildlife species.

As designed and negotiated with federal and state resource agencies, the MSHCP provides incidental take authority for sensitive plant and wildlife species and the payment of the MSHCP Development Fee is used to purchase lands within Core Conservation Areas for the long-term conservation of high-quality habitat for those species. All MSHCP requirements are discussed in the Habitat Assessment and MSHCP Consistency Analysis (FCS-MBA 2013 FEIR Volume 2, Appendix E-1) and compliance with the MSHCP will reduce the potentially significant impacts to a less than significant level. There will be no impacts to vernal pools, narrow endemic plants, and/or riparian bird species due to a lack of suitable habitat. Under the MSHCP, the only required survey and assessment is for burrowing owl and riparian/riverine areas and appropriate mitigation measures are discussed in MMs 4.4.6.4C and 4.4.6.4D regarding burrowing owl and MM 4.4.6.3B regarding riparian/riverine.

Response to Comment F-1-40. See Response to Comment F-1-2.

Response to Comment F-1-41. The commenter indicates that the EIR fails to adhere to the standards of a good faith analysis. The DEIR quantifies greenhouse gas emissions (see Section 4.7.6.1 in DEIR). In addition, the greenhouse gas analysis was refined in the FEIR and addresses concerns raised by the commenter (refer to FEIR Volume 2 Section 4.7).

Response to Comment F-1-42. The commenter claims that the EIR fails to disclose and analyze conflicts with regional greenhouse gas plans. However, the DEIR conducted a good faith effort to address consistency with the applicable plans, as shown in Impact 4.7.6.2 (pages 4.7-36 through 4.7-43) in the DEIR. Please refer to Master Response-1 in Response to Comment C-3, which explains the differences in the greenhouse gas approach between the DEIR and the FEIR.

Response to Comment F-1-43. The commenter questions whether the project is consistent with vehicle miles traveled (VMT) reduction strategies in that it is not along a high quality transit corridor. The commenter also states that a 50-mile average truck trip, which he believes is an under-estimate, "*hardly qualifies for a reduction in vehicle miles traveled*."

The TIA concurs with the commenter that transit service to the project site is poor, but points out that this is due to the current lack of demand at a site that currently consists of dry-agriculture fields and seven houses. The project would include transit-supportive features (see Chapter 12, Section D of the TIA, FEIR Volume 2, Appendix L-1) and it is expected that transit service will be provided once the project reaches a transit-supportable level of operations.

The project is consistent with VMT reduction strategies because it improves jobs-housing balance in the City of Moreno Valley (See Chapter 3, Section E sub-section entitled Moreno Valley's Economy of the TIA, FEIR Volume 2, Appendix L-1). In doing so, the project would reduce VMT for workers who would otherwise travel to more distant employment locations (See Chapter 4, Section D sub-section entitled WLC Auto Traffic of the TIA, FEIR Volume 2, Appendix L-1).

The 50 mile figure for average truck distance is a default value suggested by the SCAQMD for use when modeling data is not available. Tests with the Riverside County Traffic Analysis Model (RivTAM) model suggest that the actual average truck trip length for the WLC would be 30 to 40 miles, so the 50-mile figure is a conservative estimate since it over-states rather than under-states project impacts. The commenter claims that the project fails to comply with the City of Moreno Valley General Plan policies.

The analysis of consistency with greenhouse gas related Moreno Valley General Plan policies is contained in the DEIR (see Table 4.7.L, page 4.7-41) and in the revised analysis and concludes that the project does comply with the General Plan policies.

The commenter claims that the project fails to comply with the City of Moreno Valley Climate Action Strategy (Strategy). The project was inconsistent with the Strategy because it was not required to exceed Title 24 requirements. However, MM 4.16.4.6.1C requires that the project exceed Title 24 by 10 percent. Therefore, the project is now consistent with the Strategy. The DEIR included a thorough analysis of the project consistency with the Strategy (the table is contained in Appendix D of Appendix D of the DEIR). The revised report also contains this analysis (FEIR Volume 2 Appendix D).

The commenter indicates that the project would not be consistent with the City's Strategy R2-T1, Land Use Based Trips and VMT Reduction Policies. The DEIR stated that the project would be consistent with the strategy with MM 4.3.6.4A (page 4.7-41 of the DEIR). However, this is a typographical error. As shown in the January 2013 air quality report (Appendix D of the DEIR, page 226), this is shown as not applicable. This change has been made in the FEIR. (refer to EIR Volume 2 Section 4.7)

The commenter makes reference to the DEIR assumption that trucks would travel 50 miles per trip. This has been refined in the revised analysis pursuant to substantial evidence provided in the revised TIA and now reflects roadway and freeway project-specific traffic volumes and provides a more specific and detailed analysis (refer to Response to Comment F-1-50).

Response to Comment F-1-44. The commenter states that the project would not be consistent with the Renewable Portfolio Standard of achieving a 33 percent renewable energy. The project would be required to comply with MM 4.16.4.6.1C, which requires that the project provide solar power generation. In addition, the Renewable Portfolio Standard requires that energy utilities, not electricity users, incorporate at least 33 percent renewable energy; therefore, the standard is not technically applicable to the project. Please see the Mitigation Monitoring Reporting Program in the FEIR Volume 1 for a list of the project's mitigation measures.

The commenter questions why the EIR claims to be consistent with a Sustainable Communities Strategy (SCS) when one has not been adopted for Riverside County and because the project fails to apply SCAG strategies because they are not applicable to the project. The greenhouse gas section in the DEIR does not make this claim; it is not clear to what the commenter is referring.

The commenter indicates that there is no quantitative or logical analysis of how the project's greenhouse gas emissions could be consistent with Executive Order S-3-05. This has been clarified in the FEIR, see Section 4.7.6.2.

Response to Comment F-1-45 and F-1-46. The commenter indicates that the volume of project emissions of greenhouse gases would prohibit Moreno Valley's compliance with greenhouse gas (GHG) reduction strategies. The commenter states that the project's greenhouse gas emissions are 76 percent of the City's projected 2020 GHG emissions. This percent comparison is incorrect for the following reasons:

a) As discussed in the DEIR (App. D at page 215), the City inventory and the project emissions cannot be directly compared because the emissions estimation methodology differs between the two analyses and because the project's emissions include emissions in the entire South Coast Air Basin (SCAB), not only the City. This is further clarified in the revised air quality analysis:

The project's operational emissions cannot be directly compared with the citywide community emissions inventory prepared for the City of Moreno Valley for the following reasons. First, the City's future inventory does not include the project's greenhouse gas emissions. The City's inventory was prepared prior to the Notice of Preparation of this project's EIR. The Notice of Preparation was released in January 2012 and the inventory was finalized in February 2012 (it was prepared in 2011).

Second, the methodology used to derive the City's inventory is different. The motor vehicle estimates in the City inventory use the Transportation Analysis and Simulation System (TRANSIMS) model, and includes trips that begin and/or end within the City limits and includes miles from all trips within Moreno Valley and half of the miles from trips that begin or end in Moreno Valley. The project's motor vehicle emissions include emissions throughout the entire SCAB. Due to the fundamental differences in approach of estimating emissions, comparisons between the two inventories are meaningless. (refer to the revised air quality analysis in FEIR Volume 2 Appendix D)

b) *If the emissions were compared, the mitigated emissions at the year 2020 should be used, not the emissions at buildo*ut (after year 2031). In addition, the project's emissions were not included in the City's greenhouse gas inventory; therefore, the project's emissions should be added to the City's emissions for a direct comparison. The revised greenhouse gas analysis estimated greenhouse gas emissions in the year 2020 at approximately 164,000 metric tons carbon dioxide equivalent ($MTCO_2e$) (total AB 32 capped and uncapped emissions, mitigated, including construction). Added to the City's emissions would be approximately 962,000 $MTCO_2e$ (164,000 + 798,000). Therefore, project emissions would be 17 percent, not 76 percent. The project's buildout emissions (after the year 2031) should not be compared with the City's inventory because the City did not estimate emissions after the year 2020. However, as discussed in (a) above, the project's emissions include emissions outside of the City's jurisdiction and boundaries so a direct comparison should not be made, with the 17 percent resulting in a grossly overestimated project contribution to the City's greenhouse gas inventory. For this reason and those stated earlier, such comparisons lack meaningful value.

c) As stated above, the project is not included in the City's GHG inventory. If the project was included, both the City's business as usual emissions in 2020 and the reductions would be greater.

The commenter questions how the project would impact the ability of the City to achieve its greenhouse gas reduction targets. As shown in the DEIR, the project is consistent with the policies in the City's Climate Action Strategy. The Strategy states, "The purpose and intent of these policies is to achieve compliance with AB 32 and reduce GHG by 15 percent by 2020" (Strategy, page 6). Regulations are included in both the unmitigated and mitigated project greenhouse gas emissions; therefore, it is difficult to identify the percent reduction from regulation. For the greenhouse gas emissions that are not covered by AB 32 (the uncapped emissions), mitigation would reduce these emissions by approximately 70 percent at build out. For the AB 32 capped emissions, mitigation would reduce those emissions by 4 percent. This exceeds the greenhouse gas emission reduction goal identified in the City's Climate Action Strategy.

Response to Comment F-1-47. This is an introductory paragraph that outlines the comments that follow; see Responses to Comments F-1-48 through F-1-53.

Response to Comment F-1-48. The analysis of the energy use by fuel type was included in the DEIR and is summarized in Tables 4.16.I and 4.16.J. It is expected that natural gas distribution systems will need to be installed to accommodate gas usage within the project. It is assumed that gas usage will be limited to the office space included within the logistics buildings. The warehouse portion of the building is typically un-air conditioned spaces (no heating or cooling other than fans), the other

energy demands come from the lighting and the material handling equipment neither of which utilizes natural gas. Therefore the warehousing portion of the building is not expected to produce a demand for natural gas. Table F-1.A (Table 4.16.J of Section 4.16 of the FEIR Volume 2) has been updated to reflect that office space is a use within the logistic building not a stand-alone land use. In addition, the revised Specific Plan requires future users to install photovoltaic solar panels to generate electricity.

There are back-up generators that are used to power the Information Technologies (IT) systems in the event of a brown/blackout. Single or interim demands from back-up generators are typically not included in calculating yearly natural gas demands. However, for a typical air quality analyses, it is assumed that each generator will operate 50 hours per year (for testing).

Table F-1.A: Natural Gas Demand and Consumption

Use within Logistics Building	% of Total Square Footage	Building Area (sf)	Natural Gas Consumption Factor (cf/yr/sf)[1]	Natural Gas Consumption (cf/yr)[1]
Warehouse	97	39,382,000	—	—
Office Space	3	1,218,000	12.00	14,616,000
Total	**100**	**40,600,000**	—	14,616,000

1. cf = cubic feet.

Source: Technical Memorandum – Dry Utilities, Utility Specialists, October 24, 2013.

Response to Comment F-1-49. The commenter states the TIA used an incorrect geographic scope in that the freeway analysis did not extend to the ports of Los Angeles (ports).

An additional section (Chapter 12, Section F) has been included in the TIA (FEIR Volume 2, Appendix L-1) that analyzes project impacts on freeways to the ports. The analysis found that only a small percentage of WLC truck traffic would be to and from the ports. See Table 86 in the revised TIA (FEIR Volume 2 Appendix L-1), repeated below as Table F-1.B. This is based on SCAG survey data.

Table F-1.B: Percentage of WLC Trucks to or from the Port

Year	% of Warehouse Space Used for Port-Related Cargo	% of Truck Trips Going to and from the Ports
2012	5.00%	2.07%
2022	9.30%	3.86%
2035	16.30%	6.76%

No impacts were found that were not already covered in the DEIR.

Response to Comment F-1-50. The commenter claims the DEIR undercounts long haul routes by setting arbitrarily short distance to regional locations. For example, the DEIR sets an arbitrarily short distance for long haul trips of the San Diego County line to the south, Banning Pass to the east, and the Cajon Pass to the northeast (Air Quality, Greenhouse Gas, and Health Risk Assessment Report, DEIR, Appendix D, Table 20). The DEIR also improperly undercounts local traffic by claiming that "the local vehicles travel between 9.6 and 15.4 miles per trips." These estimates disregard the actual proximity of nearby cities serving the project. The distance to Riverside is 18 miles, Beaumont is 10 miles, Perris is 21 miles on the freeway, and San Bernardino is 24 miles on the freeway. The DEIR also masks full emissions projections by reducing the overall number of trips and truck trips for the facility.

The truck trip percentages shown in Table 20 in Appendix D of the DEIR, copied below, are from a SCAG survey of truck trips (see *Draft Regional Transportation Plan 2012-2035*, *Goods Movement*). In the right-most column of the table the DEIR uses this distribution and an estimated trip length to compute an illustrative weighted average trip length of 36 miles (see box in blue below). As was described in both the text and the table, this was not used in the analysis. Instead, a default figure of 50 miles was used (see red box below) in the DEIR.

Table 20: Heavy Duty Truck Long-Haul Trip Lengths

Type of Trip	Direction	Determination of Trip Length within the South Coast Air Basin	Truck Trips (%)		Trip Length (miles)
			SCAG Region	RC	
Internal	SCAG region	From the 2012 RTP, take daily truck vehicle miles traveled throughout SCAG counties from Table A12 of the Highways and Arterials chapter (30,201,000) and divide by the internal truck trips for all counties in Table 5 of the Goods Movement Chapter (1,011,993). This is a method identified by the SCAQMD in its CEQA comment letter for the Bandini Industrial Center (South Coast Air Quality Management District 2012d).	87.3	87.9	30
External	North	Project to Lebec, California (northern border of South Coast Air Basin) along I-210 and I-5	2.7	4.0	140
	Northeast Southeast	Distance from project to Cajon Pass along CA-60, I-215, and I-15	1.5	2.2	47
	East	Distance from project to Banning Pass along CA-60 and I-10	0.8	1.1	23
	South	Distance from project to San Diego County line along CA-60, I-215, and I-15	2.0	3.0	50
Port-related/ intermodal	Ports	Distance from project to Ports of Los Angeles/Long Beach along CA-60 and Highway 91	5.7	1.8	79
Weighted average trip length based on values above for SCAG Region					**36**
Weighted average trip length based on values above for Riverside County (RC)					**36**
Trip length used in regional analysis for long-haul trips					**50**

Notes:
SCAG = Southern California Association of Governments; RC = Riverside County.
2012 RTP = SCAG's 2012 Regional Transportation Plan.
Source of truck trip percentage from project specific traffic study, the table "Daily Truck Trips by Major Category" and the figure "Major Truck Flows in the SCAG Region, 2010" (Parsons Brinckerhoff 2012).
Source of trip length: Michael Brandman Associates using methodology described in determination of trip length column.

The 50-mile figure for average truck distance is a default value suggested by the South Coast Air Quality Management District (SCAQMD) for use when modeling data is not available. The traffic analysis did not use this figure but instead used the RivTAM model to determine the distribution of origins and destinations for project-related trips. This is in accordance with City guidance and with best industry practice. The air quality analysis originally used the 50 mile figure but the analysis has since been revised using the trip distribution pattern from the RivTAM model since it more realistic and better reflects the anticipated change in travel patterns over time.

The figures cited in the comment for trip distances for local trips came from California Emissions Estimator Model (CalEEMod) 2011, an emissions forecasting model. These were originally used in the air quality analysis but the analysis has since been revised using the trip distribution pattern from the RivTAM model since it more realistic and better reflects the anticipated change in travel patterns over time.

Response to Comment F-1-51. The commenter questions how much greenhouse gas emissions would be associated with the water used during construction. This analysis has been incorporated into the revised analysis. The greenhouse gas emissions associated with water used during grading is 6,703 $MTCO_2e$ (refer to FEIR Volume 2 Section 4.7).

The greenhouse gas emissions from operational water use were estimated in the DEIR (Table 4.7.F and 4.7.I) are approximately 2,320 $MTCO_2e$ per year at buildout (unmitigated), which is less than 1 percent of the total unmitigated emissions. The refined amount in the FEIR is approximately 2,000 $MTCO_2e$ (refer to FEIR Volume 2 Section 4.7).

Response to Comment F-1-52. The commenter states that the EIR does not estimate emissions associated with manufacturing of building materials and operational goods. As stated on page 215 of Appendix D of the DEIR, lifecycle emissions were not estimated in the DEIR or the revised analysis, pursuant to (California Air Pollution Control Officers Association (CAPCOA) (see pages 29-30 of CAPCOA's document, Quantifying Greenhouse Gas Mitigation Measures, http://capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf) and State Office of Planning and Research (OPR) guidance as well as CEQA Guidelines Sections 15144 and 15145 regarding upstream/lifecycle emissions.

Response to Comment F-1-53. The commenter indicated that "these numbers" must be integrated into the greenhouse gas analysis. It is assumed that "these numbers" refer to the emissions from water transport (Response to Comment F-1-51) and lifecycle emissions (Response to Comment F-1-52). As stated in those responses to comments, emissions from water use are included. Lifecycle emissions are not included.

Response to Comment F-1-54, F-1-55, F-1-56, F-1-57, F-1-58, F-1-59, F-1-60. The commenter requests that black carbon emissions be estimated in the analysis. Estimates of black carbon have been included in the revised analysis (FEIR Volume 2 Section 4.7 and Appendix D), even though the DEIR (Appendix D, pages 79-80) discusses how methods for estimating black carbon are still in the initial stages of development. The International Panel for Climate Change, the U.S. Environmental Protection Agency (EPA), the Air Resources Board (ARB), and the SCAQMD have not identified a global warming potential for black carbon. Nonetheless, the global warming potential as suggested by the commenter is used in this analysis (760).

The commenter identified global warming potential value for a 20 year interval (2,100) is not used in this analysis to be consistent with the global warming potentials for the other greenhouse gases, which are those for a 100-year interval.

The commenter discusses the health effects of black carbon. Black carbon is a component of PM_{10} and $PM_{2.5}$; the health effects of PM_{10} and $PM_{2.5}$ were identified and discussed in the DEIR (i.e., pages 4.3-6 and 4.3-9), in the FEIR Volume 2 Section 4.7, and in Master Response-2 – Health Effects of Diesel Particulate Matter in Response to Comment Letter C-3.

Estimation of black carbon has also been added to the revised analysis (FEIR Volume 2 Section 4.7). The findings of the analysis indicate that black carbon during construction constitutes approximately 14 and 2 percent of the total unmitigated and mitigated construction emissions, respectively. Black carbon during operation constitutes approximately 1.3 and 0.2 percent of the total unmitigated and mitigated operational greenhouse gas emissions, respectively.

Response to Comment F-1-61, F-1-62. The commenter indicates that black carbon emission reduction strategies be considered independently from particulates matter (PM) reductions. The EIR's

mitigation measures are quantified and are accounted to black carbon emissions where appropriate, as discussed in Response to Comment F-1-63.

Response to Comment F-1-63. The commenter discusses mitigation strategies that would reduce diesel particulate matter but do not reduce black carbon emissions. Black carbon emissions were estimated in the FEIR Volume 2 Section 4.7. Construction MM 4.3.6.2A would reduce black carbon emissions by 87 percent during construction by requiring Tier 4 construction equipment (1.78 tons unmitigated to 0.23 ton mitigated, averaged over 30 years). The total construction emissions would be reduced by 17 percent (264,900 $MTCO_2e$ total unmitigated and 219,500 $MTCO_2e$ total mitigated).

MM 4.3.6.3A, requires 2010 model year or later trucks would reduce black carbon mobile source emissions after completion of Phase 1 by 1.4 percent (0.663 ton unmitigated and 0.654 ton mitigated). Reductions at buildout are not as large because the emission factors for 2030 and 2035 assume newer heavy-duty trucks on the road. Additionally, as a project design feature, the project would require non-diesel onsite forklifts and MM 4.3.6.3B requires non-diesel emergency generators and yard trucks which would also reduce black carbon emissions. At buildout, unmitigated total black carbon emissions are 2.97 tons and after mitigation are 0.91 tons (69 percent reduction) – see Table 4.7.G in revised analysis in FEIR Volume 2 Section 4.7.

Response to Comment F-1-64. The commenter identifies a variety of methods that could be used to estimate black carbon. While the global warming potential identified by the commenter (760) is used to convert tons of black carbon to metric tons of carbon dioxide equivalents ($MTCO_2e$), the revised analysis used other quantification methods identified by the U.S. EPA in its *Report to Congress on Black Carbon*, dated March 2012.[24] The time interval for the global warming potential is 100 years, to be consistent with the global warming potential time frames for the other greenhouse gases. The commenter suggested estimating black carbon emissions based on the mass of diesel fuel consumed. However, since the air quality analysis estimates $PM_{2.5}$ emissions from diesel fueled vehicles, the black carbon emissions are estimated based on a percentage of the $PM_{2.5}$ emissions, consistent with the Environmental Protection Agency's (EPA) document. Additionally, activity-based estimates of emissions, used in this analysis, provide better estimates of emissions than energy-based estimates. Activity-based estimates can better take into account factors such as vehicle type, vehicle speed, and emissions controls, all of which impact the emissions estimate. Energy-based emissions estimates are generally used when insufficient information is available to conduct an activity-based emissions estimate. Conducting an energy-based emissions estimate here would provide no value since it would generally be less accurate than the activity-based emissions estimate and would not be comparable to any other information presented in the air quality analysis.

Response to Comment F-1-65. The commenter indicates that feasible mitigation measures should be incorporated to reduce greenhouse gas emissions. The revised analysis has added mitigation measure 4.16.4.6.1C, which requires onsite solar, exceeding Title 24 requirements by at least 10 percent, and Leadership in Energy and Environmental Design (LEED) certification (refer to FEIR Volume 2 Section 4.7). The other mitigation measures in the air quality analyses have been refined as well.

Response to Comment F-1-66. The commenter indicates that there are potential mitigation measures in the California Air Pollution Control Officers Association (CAPCOA) white paper and the Attorney General's list.

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[24] U.S. Environmental Protection Agency. 2012. Report to Congress on Black Carbon, March 2012. Department of the Interior, Environment, and Related Agencies Appropriations Act, 2010. EPA-450/R-12-001. Website: http://www.epa.gov/blackcarbon/2012report/fullreport.pdf.

As stated in the DEIR (App. D, page 219), these sources were reviewed during mitigation measure identification: "Several different sources were explored for feasible mitigation measures that may apply to the project, including the following:

- Office of the California Attorney General (Attorney General 2010).
- California Air Pollution Control Officers Association, CEQA & Climate Change, Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act (California Air Pollution Control Officers Association 2008).
- The Governor's Office of Planning and Research Technical Advisory (Governor's Office of Planning and Research 2008).
- California Air Pollution Control Officers Association (2010), Quantifying Greenhouse Gas Measures.
- Notice of Preparation comment letter for the project from the Sierra Club, March 26, 2012."

Nevertheless, the Attorney General suggested measures are explored for feasibility in the table below.

Attorney General Suggested Mitigation Measure	Response
Incorporate green building practices and design elements.	**Already Included.** MM 4.16.4.6.1A, MM 4.16.4.6.1B, MM 4.16.4.6.1C require additional energy efficiency, lighting, and green building features that would exceed current requirements.
Meet recognized green building and energy efficiency benchmarks.	
Install energy efficient lighting (e.g., light emitting diodes (LEDs)), heating and cooling systems, appliances, equipment, and control systems.	
Use passive solar design, e.g., orient buildings and incorporate landscaping to maximize passive solar heating during cool seasons, minimize solar heat gain during hot seasons, and enhance natural ventilation. Design buildings to take advantage of sunlight.	**Included.** Page 4.16-39 of the DEIR states, "The project will encourage passive heating and cooling opportunities into the design or modification of the high-cubed warehouse developments and ancillary land uses." Page 3-59 of the DEIR project description also states, "The Specific Plan will incorporate the use of passive heating and cooling into the design or modification of the high-cube warehouse development (e.g., white building colors and roof insulation to minimize heat gain, and landscaping to help shade buildings). These requirements are included in MM 4.16.4.6.1A and MM 4.16.4.6.1B.
Install light colored "cool" roofs and cool pavements.	**Already Included.** MM 4.16.4.6.1A requires cool roofs and cool pavements.
Install efficient lighting, (including LEDs) for traffic, street and other outdoor lighting.	**Already Included.** MM 4.16.4.6.1B includes high efficiency outdoor lighting.
Reduce unnecessary outdoor lighting.	**Included.** Section 5 of the Specific Plan includes the following guidelines regarding lighting: 5.4.2.2 All exterior on-site lighting must be shielded and confined within site boundaries. No direct rays or glare are permitted to shine onto public streets or adjacent lots. 5.4.2.3 Lighting fixtures are to be of clean, contemporary design.

Attorney General Suggested Mitigation Measure	Response
	5.4.2.4 Lighting must meet all requirements of the City of Moreno Valley. 5.4.2.5 Tilted wall fixtures (i.e., light fixtures which are not 90 degrees from vertical) are not permitted. Lights mounted to the roof parapet are not permitted. Wall-mounted light fixtures used to illuminate vehicular parking lots are not permitted. 5.4.2.6 Wall-mounted utility lights that cause off-site glare are not permitted. "Shoebox" lights are preferred. MM 4.16.4.6.1B has been edited to require no more outdoor lighting than is necessary to ensure safety.
Use automatic covers, efficient pumps and motors, and solar heating for pools and spas.	**Not applicable.** The project would not have pools or spas.
Provide education on energy efficiency to residents, customers and/or tenants.	**Incorporated.** MM 4.3.6.4A incorporates this suggested mitigation measure.
Meet “reach” goals for building energy efficiency and renewable energy use.	**Incorporated.** The project would require onsite solar through MM 4.16.4.6.1C. Other forms of alternative energy are not necessary for the project because the project is incorporating solar.
Install solar, wind, and geothermal power systems and solar hot water heaters.	
Install solar panels on unused roof and ground space and over carports and parking areas.	**Partially Incorporated.** The project is now proposing to install sufficient roof-mounted PV (see MM 4.16.4.6.1C) . As a result, requiring the installation of PV on parking lots is unnecessary. In addition, the project would use cool pavements in all areas feasible (see MM 4.16.4.6.1A).
Where solar systems cannot feasibly be incorporated into the project at the outset, build “solar ready” structures.	**Not Incorporated.** The project would install solar (MM 4.16.4.6.1C); therefore, this mitigation measure is unnecessary.
Incorporate wind and solar energy systems into agricultural projects where appropriate.	**Incorporated.** The proposed project is not an agricultural project. In addition, the project is incorporating solar (MM 4.16.4.6.1C). Wind power is not feasible or necessary.
Include energy storage where appropriate to optimize renewable energy generation systems and avoid peak energy use.	**Not Incorporated.** Although the project is incorporating onsite solar.
Use onsite generated biogas, including methane, in appropriate applications.	**Not Incorporated.** The project would not produce the components necessary for onsite generated biogas (such as manure). In addition, onsite solar is required by mitigation.
Use combined heat and power (CHP) in appropriate applications.	**Not Incorporated.** The project would install onsite solar to generate electricity; this suggested mitigation measure is therefore not required Combined heat and power (CHP) systems are used in campus facilities where fuel is used to produce steam. CHP captures the waste heat for reuse. The WLC will not be using fuel to produce steam and to operate as a campus facility would mean several buildings are linked with piping to a common heat source. Linking buildings means piping is crossing public streets and Public Utilities Commission (PUC) Rule 218 prohibits such crossings of public streets.

Attorney General Suggested Mitigation Measure	Response
Incorporate water-reducing features into building and landscape design.	**Already Included.** MM 4.16.1.6.1A and 4.16.1.6.1B require outdoor and indoor water efficiency. In addition, the WLCSP requires use of native and drought tolerant plants, minimizing the use of irrigation and encourages non-irrigated landscape.
Create water-efficient landscapes.	
Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls and use water-efficient irrigation methods.	
Make effective use of graywater. Graywater is untreated household wastewater from bathtubs, showers, bathroom washbasins, and water from clothes washing machines. Graywater to be used for landscape irrigation.)	**Not Incorporated.** The project would not generate sufficient quantities of graywater to support this system. Graywater is more feasible to residential projects. In addition, Eastern Municipal Water District (EMWD) and the County Health Department prohibit graywater in industrial and commercial uses.
Implement low-impact development practices that maintain the existing hydrology of the site to manage storm water and protect the environment.	**Already Included.** Project design features would manage storm water effectively, which are enforced by MM 4.9.6.2A, MM 4.9.6.2B, MM 4.9.6.3A, MM 4.9.6.3B, and MM 4.9.6.3C.
Devise a comprehensive water conservation strategy appropriate for the project and location.	**Already Included.** The WLCSP includes a section on Water Conservation Measures. MM 4.16.1.6.1A and MM 4.16.1.6.1B also contain water conservation measures.
Design buildings to be water-efficient. Install water-efficient fixtures and appliances.	**Already Included.** MM 4.16.1.6.1B requires this.
Offset water demand from new projects so that there is no net increase in water use.	**Not Incorporated.** The project is incorporating multiple water conservation features and mitigation measures to reduce water use. It is not feasible to have no net increase in water use as the current site is dry land farmed with little to no water use.
Provide education about water conservation and available programs and incentives.	**Already Included.** MM 4.16.1.6.1B requires that information regarding indoor water use be provided.
Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard).	**Already Included.** The California Green Buildings Standards Code requires the following: Recycle and/or salvage for reuse a minimum 50 percent of the nonhazardous construction and demolition waste (5.408.1) 100 percent of trees, stumps, rocks and associated vegetation and soils resulting from land clearing shall be reused or recycled (5.408.3).
Integrate reuse and recycling into residential industrial, institutional and commercial projects.	**Already Included.** MM 4.7.6.1A requires additional waste reduction measures.
Provide easy and convenient recycling opportunities for residents, the public, and tenant businesses.	
Provide education and publicity about reducing waste and available recycling services.	
Ensure consistency with “smart growth” principles – mixed-use, infill, and higher density projects that provide alternatives to individual vehicle travel and promote the efficient delivery of services and goods.	**Already Included.** The project consists of 40.6 million square feet of warehouse development, allowing for the potential consolidation of smaller warehouses distributed throughout Southern California, thereby promoting the efficient delivery of goods. Typical smart growth benchmarks are for residential, retail, and commercial/office land use placement to reduce vehicle miles traveled. In the case of warehouse and distribution centers, the addition of residential is not always desired by the local jurisdictions.
Meet recognized “smart growth” benchmarks.	

Attorney General Suggested Mitigation Measure	Response
Educate the public about the many benefits of well-designed, higher density development.	**Not applicable.** This measure was meant for residential development or mixed use development where people could be in closer proximity to where they work or shop or for residential development where it may be feasible to cluster homes and leave more open space onsite. This measure is not appropriate for a high-cube warehouse development. The City has Greenhouse Gas Emissions policies in its General Plan and its Climate Action Strategy. The DEIR discusses in Section 4.7 Greenhouse Gas Emission Subsection 4.7.2.6 City of Moreno Valley Climate Action Strategy contains policies concerning the reduction of greenhouse gas emissions in the City. The one that relates to land development" is R2-T1 Land Use Based Trips and VMT Reduction Policies. Encourage the development of Transit Priority Projects along High Quality Transit Corridors identified in the SCAG Sustainable Communities Plan, to allow a reduction in vehicle miles traveled. It is beyond the scope of this project to provide this information to the public.
Incorporate public transit into the project's design.	**Included.** The project would include transit-supportive features (see Chapter 12, Section D of the revised TIA in FEIR Volume 2 Appendix L-1) and it is expected that transit service will be provided once the project reaches a transit-supportable level of operations.
Preserve and create open space and parks. Preserve existing trees, and plant replacement trees at a set ratio.	**Already Included.** The project would incorporate open space and would plant onsite trees (see WLCSP Section 4.2.3.1 and 5.4).
Develop "brownfields" and other underused or defunct properties near existing public transportation and jobs.	**Not Applicable.** The project site is not a "brownfield."
Include pedestrian and bicycle facilities within projects and ensure that existing non-motorized routes are maintained and enhanced.	**Already Included.** The project would provide bicycle lanes, bicycle parking, pedestrian facilities (MM 4.3.6.4A), and a multi-use trail (project design feature).
Meet an identified transportation-related benchmark. A logical benchmark might be related to vehicles miles traveled (VMT), e.g., average VMT per capita, per household, or per employee. As the California Energy Commission has noted, VMT by California residents increased "a rate of more than 3 percent a year between 1975 and 2004, markedly faster than the population growth rate over the same period, which was less than 2 percent. This increase in VMT correlates to an increase in petroleum use and GHG production and has led to the transportation sector being responsible for 41 percent of the state's GHG emissions in 2004."	**Not Applicable.** To our knowledge, there is no identified transportation-related benchmark such as a VMT per capita for the project area. However, the project would be providing employment opportunities in a housing rich area, thereby providing the potential to reduce VMT from home/work trips. Please refer to the revised TIA in FEIR Volume 2 Appendix L-1).

Attorney General Suggested Mitigation Measure	Response
Adopt a comprehensive parking policy that discourages private vehicle use and encourages the use of alternative transportation.	**Partially Included.** Employers operating at WLC will be required to comply with SCAQMD Rule 2202, which achieves the goals requested by the commenter. In addition, MM 4.3.6.4A requires preferential parking spaces for fuel-efficient vehicles and carpools.
Build or fund a major transit stop within or near the development.	**Included.** Public transit would be incorporated into the design of the WLC. See Section 3.4.6.2 of the FEIR Volume 2.
Provide public transit incentives such as free or low-cost monthly transit passes to employees, or free ride areas to residents and customers.	**Already Included.** MM 4.3.6.4A requires that tenants participate in Riverside County's rideshare program. According to the information contained at: www.rctc.org/commuters/commuter-assistance/employer-programs, the program provides incentives to employees to try ridesharing and a commuter club that rewards those who already share the ride. In addition, employers operating at WLC will be required to comply with SCAQMD Rule 2202, which achieves the goals requested by the commenter.
Promote "least polluting" ways to connect people and goods to their destinations.	**Already Included.** The project would encourage alternative fuels through the following: MM 4.3.6.3C, which provides an alternative fueling station onsite; electric vehicle charging stations onsite (MM 4.3.6.4A); and the project design, which allows companies to maintain efficiency in distributing goods.
Incorporate bicycle lanes, routes and facilities into street systems, new subdivisions, and large developments.	**Already Included.** MM 4.3.6.4A requires bicycle lanes.
Require amenities for non-motorized transportation, such as secure and convenient bicycle parking.	**Already Included.** MM 4.3.6.4A includes bicycle parking, lockers, and showering facilities.
Ensure that the project enhances, and does not disrupt or create barriers to, non-motorized transportation.	**Already Included.** Section 3.4.6.2 of the DEIR states that in addition to public sidewalks provided adjacent to project streets, Section 3.3.1 of the WLCSP, Pedestrian Circulation and Trails, requires the construction of a trail connection between the Redlands Boulevard / Cottonwood Avenue intersection and the existing Cactus Avenue trail connection to the Lake Perris Recreational Area. This new trail will continue across the Open Space area and connect to the San Jacinto Wildlife Area at the former Davis Road alignment (see Figure 3.12). Engineering details of the new trail will be provided with project-specific development applications in this portion of the project area.
Connect parks and open space through shared pedestrian/bike paths and trails to encourage walking and bicycling.	
Create bicycle lanes and walking paths directed to the location of schools, parks and other destination points.	
Work with the school districts to improve pedestrian and bike access to schools and to restore or expand school bus service using lower-emitting vehicles.	**Not Applicable.** The project does not involve schools or school districts.
Institute teleconferencing, telecommute and/or flexible work hour programs to reduce unnecessary employee transportation.	**Partially Included.** MM 4.3.6.4A allows for some of these activities which may be appropriate for some office workers, but warehouse workers must be onsite for specific shifts, even if they are during off-peak times. Future development will also comply with the City's established greenhouse gas policies.

Attorney General Suggested Mitigation Measure	Response
Provide information on alternative transportation options for consumers, residents, tenants and employees to reduce transportation-related emissions.	**Incorporated.** This is incorporated into MM 4.3.6.4A.
Educate consumers, residents, tenants and the public about options for reducing motor vehicle-related greenhouse gas emissions. Include information on trip reduction; trip linking; vehicle performance and efficiency (e.g., keeping tires inflated); and low or zero-emission vehicles.	**Partially Included.** MM 4.3.6.4A requires that information be provided to tenants regarding onsite alternative transportation information. In addition, the Riverside County's rideshare program could provide some of this information to the tenants.
Purchase, or create incentives for purchasing, low or zero-emission vehicles.	**Not Included.** It is beyond the scope of the project to provide incentives for low emission vehicles. However, MM 4.3.6.4A requires electric charging stations and MM 4.3.6.3C requires alternative fueling.
Create a ride-sharing program. Promote existing ride sharing programs e.g., by designating a certain percentage of parking spaces for ride sharing vehicles, designating adequate passenger loading and unloading for ride sharing vehicles, and providing a web site or message board for coordinating rides.	**Already Included.** The project is not going to create a ride-sharing program but is to be part of Riverside County's program (MM 4.3.6.4A). In addition, employers operating at WLC will be required to comply with SCAQMD Rule 2202, which achieves the goals requested by the commenter.
Create or accommodate car sharing programs, e.g., provide parking spaces for car share vehicles at convenient locations accessible by public transportation.	**Already Included.** MM 4.3.6.4A and the California Green Building Standards Code requires priority parking for low-emitting, fuel-efficient, and carpool/van pool vehicles. In addition, employers operating at WLC will be required to comply with SCAQMD Rule 2202, which achieves the goals requested by the commenter.
Provide a vanpool for employees.	**Already Included.** MM4.3.6.4A requires that tenants participate in the Riverside County rideshare program, which coordinates vanpools. In addition, employers operating at WLC will be required to comply with SCAQMD Rule 2202, which achieves the goals requested by the commenter.
Create local "light vehicle" networks, such as neighborhood electric vehicle systems.	**Partially Included.** The project would provide infrastructure for electric vehicles (MM 4.3.6.4A). There is not expected to be any relationship between tenants at the WLC. As result, there is no need for individuals to travel between buildings on a routine basis. As such, there is no need for a neighborhood electric vehicle system.
Enforce and follow limits idling time for commercial vehicles, including delivery and construction vehicles.	**Already Included.** MM 4.3.6.3B prohibits idling for longer than 3 minutes and state law prohibits idling more than five minutes.
Provide the necessary facilities and infrastructure to encourage the use of low or zero-emission vehicles.	**Already Included.** MM 4.3.6.4A would provide this infrastructure.
Require best management practices in agriculture and animal operations to reduce emissions, conserve energy and water, and utilize alternative energy sources, including biogas, wind and solar.	**Not Applicable.** The project would not involve animals. However, the project would be providing solar (MM 4.16.4.6.1C).
Preserve forested areas, agricultural lands, wildlife habitat and corridors, wetlands, watersheds, groundwater recharge areas and other open space that provide carbon sequestration benefits.	**Partially Included.** The project would convert some agricultural land to urban uses. However, the project will also provide open space and storm water basins that will retain runoff and allow for infiltration.

Attorney General Suggested Mitigation Measure	Response
Protect existing trees and encourage the planting of new trees. Adopt a tree protection and replacement ordinance.	**Partially Included.** The project would plant new trees. However, it is not feasible for the project to adopt a tree protection ordinance.

The Attorney General's list of potential mitigation measures also discusses carbon offsets, as follows:

> "Off-Site Mitigation (offsets). If, after analyzing and requiring all reasonable and feasible onsite mitigation measures for avoiding or reducing greenhouse gas-related impacts, the lead agency determines that additional mitigation is required, the agency may consider additional off-site mitigation. The project proponent could, for example, fund off-site mitigation projects that will reduce carbon emissions, conduct an audit of its other existing operations and agree to retrofit, or purchase verifiable carbon "credits" from another entity that will undertake mitigation.
>
> The topic of off-site mitigation can be complicated. A full discussion is outside the scope of this summary document. Issues that the lead agency should consider include:
>
> - The location of the off-site mitigation. (If the off-site mitigation is far from the project, any additional, non-climate related co-benefits of the mitigation may be lost to the local community.)
> - Whether the emissions reductions from off-site mitigation can be quantified and verified. (The California Registry has developed a number of protocols for calculating, reporting and verifying greenhouse gas emissions. Currently, industry-specific protocols are available for the cement sector, power/utility sector, forest sector and local government operations. For more information, visit the California Registry's website at http://www.climateregistry.org/.)
> - Whether the mitigation ratio should be greater than 1:1 to reflect any uncertainty about the effectiveness of the off-site mitigation.
>
> Offsite mitigation measures that could be funded through mitigation fees include, but are not limited to, the following:
>
> - Energy efficiency audits of existing buildings.
> - Energy efficiency upgrades to existing buildings not otherwise required by law, including heating, ventilation, air conditioning, lighting, water heating equipment, insulation and weatherization (perhaps targeted to specific communities, such as low-income or senior residents).
> - Programs to encourage the purchase and use of energy efficient vehicles, appliances, equipment and lighting.
> - Programs that create incentives to replace or retire polluting vehicles and engines.
> - Programs to expand the use of renewable energy and energy storage." (Attorney General).

Please refer to Master Response 1 (located in Response to Comment C-3), which explains the differences in the approach for greenhouse gas emissions. The project's significance finding is based on emissions that are not capped by AB 32. The emissions that are capped (such as emissions from fuel combustion and electricity generation) are not compared with the threshold. The project's uncapped emissions are less than the South Coast Air Quality Management District's significance

threshold; therefore, emissions are not cumulatively considerable and therefore require no further mitigation, including the purchase of carbon offsets.

The proposed project is implementing mitigation measures to reduce the projects impacts related to greenhouse gas emissions from the generation of waste. In addition, although it is not required to reduce emission to below significance. New MM 4.16.4.6.1C, would also reduce greenhouse gas emission which is as follows:

4.16.4.6.1C Prior to the issuance of a building permit, new development shall demonstrate that each building has implemented the following:

1) Install solar panels with a capacity equal to the peak daily demand for the ancillary office uses in each warehouse building;
2) Increase efficiency for buildings by implementing either 10 percent over the 2008 Title 24's energy saving requirements or the Title 24 requirements in place at the time the building permit is approved, whichever is more strict; and
3) Require the equivalent of "Leadership in Energy and Environmental Design Certified" for the buildings constructed at the World Logistics Center based on Leadership in Energy and Environmental Design Certified standards in effect at the time of project approval.

This measure shall be implemented to the satisfaction of the Building and Safety and Planning Divisions.

In addition, currently, the following are not exchanges currently in operation:

- The South Coast Air Quality Management District's SoCal Climate Solutions Exchange (Rule 2701) is not in operation.
- The Climate Action Reserve is not an exchange and focuses on developing standardized GHG reduction project protocols, serving as a registry for GHG reduction projects, and tracking GHG offsets through a publicly accessible database.
- In 2011, many states and jurisdictions dropped out of the Western Climate Initiative; California remained. The Initiative restructured and now provides administrative and technical services to support the implementation of state and provincial GHG emissions trading programs.[25] It is not an exchange.
- The Chicago Climate Exchange (CCX) traded GHG emission allowances from 2003 but trading ended in 2010 due to a flawed system.[26] In December 2011, a group of investors sued the CCX alleging fraud and violations of Illinois' Consumer Fraud and Deceptive Business Practices Act.[27]

California's Cap-and-Trade Regulation (Regulation) took effect on January 1, 2012, with amendments to the Regulation effective September 1, 2012. The enforceable compliance obligation began on January 1, 2013. The project is not defined as a covered entity because it does not have one or more of the processes or operations listed in the Regulation and because it does not have stationary sources that emit more than 25,000 $MTCO_2e$ per year. The current price per allowance (or $MTCO_2e$)

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[25] Western Climate Initiative. 2012. Website: http://www.westernclimateinitiative.org/history

[26] New York Times. 2011. Chicago Climate Exchange Closes Nation's First Cap-and-Trade System but Keeps Eye to the Future. Website: www.nytimes.com/cwire/2011/01/03/03climatewire-chicago-climate-exchange-closes-but-keeps-ey-78598.html?pagewanted=all

[27] Siros, Steven. 2012. CCX Sued for Fraud. Website: www.lexisnexis.com/community/environmental-climatechangelaw/blogs/environmentallawandclimatechangeblog/archive/2012/01/06/ccx-sued-fraud-chicago-climate-futures-exchange.aspx.

is approximately 11 dollars.[28] A voluntarily associated entity (VAE) is defined in the Regulation as any entity which does not meet the requirements of a covered entity or an opt-in covered entity and that intends to purchase, hold, sell, or voluntarily retire compliance instruments. A voluntarily associated entity is not obligated to surrender any allowances or offset credits to ARB in order to comply with the Cap-and-Trade Program. A voluntarily associated entity can be an organization or an individual. Therefore, the developer could be a VAE.

The following is a feasibility analysis of the mitigation measures in CAPCOA's 2010 report, "Quantifying Greenhouse Gas Mitigation Measures."

CAPCOA Mitigation Measure		Response
BE-1	Buildings exceed Title 24 building envelop energy efficiency standards.	**Included.** MM 4.16.4.6.1A requires that the project exceed Title 24 requirements.
BE-2	Install programmable thermostat timers for residential dwellings.	**Not applicable.** The project does not contain residential dwellings.
BE-3	Obtain third-party HVAC commissioning and verification of energy savings.	**Already Included**. This would be fulfilled as part of meeting LEED requirements.
BE-4	Install energy efficient appliances.	**Already Included.** MM 4.16.4.6.1A requires energy-efficient appliances.
BE-5	Install energy efficient natural gas boilers.	**Included.** However, as a separate mitigation measure (MM 4.16.1.6.1B) to accomplish the same goals, the project will be using flash water heaters or solar heating and is not expected to use natural gas boilers.
LE-1	Install higher efficacy public street and area lighting.	**Included.** WLCSP Section 5.5.3 requires that driveways and parking area lighting be metal halide or Light-Emitting Diode (LED). Metal halide lights can be 3 to 5 times more efficient than incandescent lights. WLCSP Section 4.3.2 requires that street lighting be high pressure sodium or LED, which both have high efficacy.
LE-2	Limit outdoor lighting requirements.	**Included.** Outdoor lighting is required for safety reasons; however, MM 4.16.4.6.1B has been edited to require no more outdoor lighting than is necessary to ensure safety.
LE-3	Replace traffic lights with LED traffic lights.	**Included.** MM 4.16.4.6.1B has been amended to include installing LED traffic signals that meet City standards.
AE-1	Establish onsite renewable or carbon-neutral energy systems.	**Included.** MM 4.16.4.6.1C requires onsite solar.
AE-2	Establish onsite renewable energy systems – solar power.	**Included.** MM 4.16.4.6.1C requires onsite solar.
AE-3	Establish onsite renewable energy systems – wind power.	**Not Included.** This measure is not necessary because the project is incorporating onsite solar.
AE-4	Utilize a combined heat and power system.	**Not Included.** The project is installing onsite solar; therefore, this is not necessary. Also refer to Response to Comment F-3-21.
AE-5	Establish methane recovery in landfills.	**Not Applicable.** The project is not a landfill project.
AE-6	Establish methane recovery in wastewater treatment plants.	**Not Applicable**. The project is not a wastewater treatment plant.

[28] California Air Resources Board Quarterly Auction 5, November 2013, Summary Results Report. http://www.arb.ca.gov/cc/capandtrade/auction/november-2013/results.pdf

CAPCOA Mitigation Measure		Response
LUT-1	Increase density. The reductions for this mitigation measure are related to jobs per acre greater than 20.	**Not Included.** It is not in the project design to provide a greater density. The Fiscal and Economic Impact Study contained in Appendix O of the DEIR indicates that the number of jobs from the project would be approximately 20,300 at full development (page 22). That value divided by the acreage allocated for the WLCSP (2,610 acres) is approximately 7.8 jobs/acre. In order to receive an emissions reductions for this measure, the density needs to be greater than 20; therefore, no reduction is applied.
LUT-2	Increase location efficiency. This measure is not intended as a separate strategy but rather a documentation of empirical data to justify the "cap" for all land use/location strategies. The location of the Project relative to the type of urban landscape such as being located in an urban area, infill, or suburban center influences the amount of VMT compared to the statewide average. This is referred to as the location of efficiency since there are synergistic benefits to these urban landscapes. To receive the maximum reduction for this location efficiency, the project will be located in an urban area/ downtown central business district	**Not Included.** The project is not located in an urban area/downtown central business district.
LUT-3	Increase diversity of urban and suburban developments (mixed use).	**Not Applicable.** The project's land uses are not suitable for mixed use.
LUT-4	Increase destination accessibility. The project will be located in an area with high accessibility to destinations. Destination accessibility is measured in terms of the number of jobs or other attractions reachable within a given travel time, which tends to be highest at central locations and lowest at peripheral ones. The location of the project also increases the potential for pedestrians to walk and bike to these destinations and therefore reduces the VMT.	**Not Applied.** No reductions were applied for this measure, even though the project would have pedestrian and bicycle features.
LUT-5	Increase transit accessibility.	**Incorporated.** Public transit would be incorporated into the design of the WLC. See Section 3.4.6.2 of the FEIR Volume 2.
LUT-6	Integrate affordable and below market rate housing. (Appropriate for residential and mixed-use projects.)	**Not applicable.** The project is not a residential project.
LUT-7	Orient project toward non-auto corridor. A project that is designed around an existing or planned transit, bicycle, or pedestrian corridor encourages alternative mode use. For this measure, the project is oriented towards a planned or existing transit, bicycle, or pedestrian corridor. Setback distance is minimized.	**Partially Included.** The project would incorporate transit, bicycle, and pedestrian uses. See above responses.

CAPCOA Mitigation Measure		Response
LUT-8	Locate project near bike path/bike lane.	**Included.** MM 4.3.6.4A requires that the project incorporate bike lanes.
LUT-9	Improve design of development. The project will include improved design elements to enhance walkability and connectivity. Improved street network characteristics within a neighborhood include street accessibility, usually measured in terms of average block size, proportion of four way intersections, or number of intersections per square mile. Design is also measured in terms of sidewalk coverage, building setbacks, street widths, pedestrian crossings, presence of street trees, and a host of other physical variables that differentiate pedestrian-oriented environments from auto-oriented environments.	**Already Included.** Project design features (i.e., the onsite trail) and MM 4.3.6.4A requires pedestrian features. See responses to the attorney general suggested measures, above.
SDT-1	Provide pedestrian network improvements.	**Already Included**. MM 4.3.6.4A requires pedestrian access and features.
SDT-2	Provide traffic calming measures. Providing traffic calming measures encourages people to walk or bike instead of using a vehicle. This mode shift will result in a decrease in VMT. Project design will include pedestrian/bicycle safety and traffic calming measures in excess of jurisdiction requirements. Roadways will be designed to reduce motor vehicle speeds and encourage pedestrian and bicycle trips with traffic calming features. Traffic calming features may include: marked crosswalks, count-down signal timers, curb extensions, speed tables, raised crosswalks, raised intersections, median islands, tight corner radii, roundabouts or mini-circles, on-street parking, planter strips with street trees, chicanes/chokers, and others.	**Included.** The project includes the incorporation of sidewalks, median islands, roundabouts, and planter strips with street trees. Some measures such as count-down signal timers are mutually exclusive with measures such as roundabouts, where there will be no signalized control. Additionally, some measures such as tight corner radii are infeasible due to the need to serve trucks that require wide turning radii.
SDT-3	Implement a neighborhood electric vehicle network.	**Not Included.** There is not expected to be any relationship between tenants at the WLC. As result, there is no need to for individuals to travel between buildings on a routine basis. As such, there is no need for a neighborhood electric vehicle system.
SDT-4	Create urban non-motorized zones.	**Partially Included.** The project would have an onsite trail, which would not allow motorized vehicles.
SDT-5	Incorporate bike lane street design (onsite)	**Already Included.** MM 4.3.6.4A requires bike lanes.
SDT-6	Provide bike parking in non-residential projects.	**Included.** MM 4.3.6.4A requires bicycle parking.
SDT-7	Provide bike parking with multi-unit residential projects.	**Not Applicable.** The project does not contain residential uses.
SDT-8	Provide electric vehicle parking.	**Included.** MM 4.3.6.4A requires preferential parking for low-emitting vehicles and electric vehicle charging.

CAPCOA Mitigation Measure		Response
SDT-9	Dedicate land for bike trails.	**Included.** MM 4.3.6.4A requires bicycle lanes on the streets. The trail connection (WLCSP Section 3.3.5) would be designed to accommodate pedestrian and bicycle use.
PDT-1	Limit parking supply.	**Not Included.** These measures are intended to reduce the number of single occupant trips that occur at the site. That goal will be achieved through other measures. MM 4.3.6.4A requires that the tenants participate in Riverside County's Rideshare Program. In addition, employers operating at WLC will be required to comply with SCAQMD Rule 2202, which achieves the goals requested by the commenter.
PDT-2	Unbundle parking costs from property cost.	
PDT-3	Implement market price public parking (on-street).	
PDT-4	Require residential area parking permits.	**Not Included.** The project does not consist of residential uses and project trucks would not park in the surrounding residential areas.
TRT-1 TRT-2	Implement commute trip reduction program.	**Partially Included.** MM 4.3.6.4A requires that the project participate in Riverside County's rideshare program.
TRT-3	Provide ride-sharing programs.	**Included.** MM 4.3.6.4A requires that the project participate in Riverside County's rideshare program.
TRT-4	Implement subsidized or discounted transit program. This project will provide subsidized/discounted daily or monthly public transit passes. The project may also provide free transfers between all shuttles and transit to participants. These passes can be partially or wholly subsidized by the employer, school, or development. Many entities use revenue from parking to offset the cost of such a project.	**Partially Included.** MM 4.3.6.4A requires that the project participate in Riverside County's rideshare program, which currently provides a $2/day incentive for alternative transportation for the first three months. (www.ie511.org/commuter-incentives.aspx).
TRT-5	Provide end of trip facilities (showers, bike lockers, changing spaces).	**Included.** MM 4.3.6.4A requires these facilities.
TRT-6	Encourage telecommuting and alternative work schedules.	**Included.** MM 4.3.6.4A requires this measure. May be appropriate for some office workers, but warehouse workers must be onsite for specific shifts, even if they are during off-peak times.
TRT-7	Implement commute trip reduction marketing. The project will implement marketing strategies to reduce commute trips. Information sharing and marketing are important components to successful commute trip reduction strategies. Implementing commute trip reduction strategies without a complementary marketing strategy will result in lower VMT reductions. Marketing strategies may include: - New employee orientation of trip reduction and alternative mode options - Event promotions - Publications	**Included.** This has been incorporated into MM 4.3.6.4A.
TRT-8	Implement preferential parking permit program.	**Partially Included.** The project would provide preferential parking according to MM 4.3.6.4A.
TRT-9	Implement car-sharing program.	**Partially Included.** The project would participate in

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		Riverside County's rideshare program pursuant to MM 4.3.6.4A.
TRT-10	Implement a school pool program (applicable to residential and mixed-use projects).	**Not Applicable.** The project is not a residential or mixed use project.
TRT-11	Provide employer-sponsored vanpool-shuttle. This project will implement an employer-sponsored vanpool or shuttle. A vanpool will usually service employees' commute to work while a shuttle will service nearby transit stations and surrounding commercial centers. Employer-sponsored vanpool programs entail an employer purchasing or leasing vans for employee use, and often subsidizing the cost of at least program administration, if not more. The driver usually receives personal use of the van, often for a mileage fee. Scheduling is within the employer's purview, and rider charges are normally set on the basis of vehicle and operating cost.	**Not Included.** This measure is intended to reduce the number of single occupant trips that occur at the site. That goal will be achieved through other measures. MM 4.3.6.4A requires that the tenants participate in Riverside County's Rideshare Program. In addition, employers operating at WLC will be required to comply with SCAQMD Rule 2202, which achieves the goals requested by the commenter. Finally, transit-oriented design is being incorporated into the design in order for the Riverside Transit Agency (RTA) to provide service to the site and access to transit hubs (WLCSP Section 3.3.4).
TRT-12	Implement bike-sharing program. Establish a bike sharing program. Stations should be at regular intervals throughout the project site. The number of bike-share kiosks throughout the project area should vary depending on the density of the project and surrounding area. Paris' bike share program places a station every few blocks throughout the city (approximately 28 bike stations/square mile). Bike-station density should increase around commercial and transit hubs.	**Not Included.** This measure is intended to reduce the number of single occupant trips that occur at the site. That goal will be achieved through other measures. MM 4.3.6.4A requires that the tenants participate in Riverside County's Rideshare Program. In addition, employers operating at WLC will be required to comply with SCAQMD Rule 2202, which achieves the goals requested by the commenter. In addition, bicycle sharing at this location would not achieve the goals the sought by the commenter. Bike sharing is useful in mixed-use urban cores where individuals can take advantage of short distance trips. However, since the proposed project is not a mixed-use development, people would need to travel to the site by other means to take advantage of bike sharing, which defeats the purpose of bike sharing.
TRT-13	Implement school bus program.	**Not applicable.** The project does not involve residential or school uses.
TRT-14	Price workplace parking.	**Not Included.** These measures are intended to reduce the number of single occupant trips that occur at the site. That goal will be achieved through other measures. MM 4.3.6.4A requires that the tenants participate in Riverside County's Rideshare Program. In addition, employers operating at WLC will be required to comply with SCAQMD Rule 2202, which achieves the goals requested by the commenter.
TRT-15	Implement employee parking "cash-out."	
TST-1	Provide a bus rapid transit system.	**Not Included.** This measure is typically only productive in an urban setting and not for this type of project.
TST-2	Implement transit access improvements.	**Already Included.** As described in the WLCSP Section 3.3.4, the project already incorporates transit-oriented design.

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TST-3	Expand transit network.	**Already Included.** As described in the WLCSP Section 3.3.4, the project already incorporates transit-oriented design that will allow the Riverside Transit Authority to expand their transit service.
TST-4	Increase transit service frequency/speed.	**Partially Included.** The proposed project would be served by the RTA. As an independent agency, the RTA would determine in what manner to best serve the project site in terms of service frequency/speed.
TST-5	Provide bike parking near transit. Provide short-term and long-term bicycle parking near rail stations, transit stops, and freeway access points. The benefits of Station Bike Parking have no quantified impacts as a standalone strategy and should be grouped with Transit Network Expansion (TST-3) and Increase Transit Service Frequency and Speed (TST-4) to encourage multimodal use in the area and provide ease of access to nearby transit for bicyclists.	**Already Included.** Bicycle parking would be provided throughout the project site as described in WLCSP Sections 5.2.7.3 and 5.2.7.4.
TST-6	Provide local shuttles.	**Not Included.** Measures TST-6 and RPT-1 are intended to reduce the number of single occupant trips that occur at the site. That goal will be achieved through other measures. MM 4.3.6.4A requires that the tenants participate in Riverside County's Rideshare Program. In addition, employers operating at WLC will be required to comply with SCAQMD Rule 2202, which achieves the goals requested by the commenter. Finally, transit-oriented design is being incorporated into the design in order for the RTA to provide service to the site and access to transit hubs (WLCSP 3.3.4).
RPT-1	Implement area or cordon pricing.	
RPT-2	Implement improvements to smooth traffic flow, reduce idling, eliminate bottlenecks, and management speed.	**Already Included.** The proposed project already incorporates all feasible mitigation to improve traffic flow. In addition, the proposed project would also pay DIF and TUMF fees to ensure that further mitigates traffic impacts from the proposed project. See Chapter 11 of the Final Traffic Impact Analysis for a detailed listing all the traffic mitigation that is part of the proposed project and a discussion of DIF and TUMF fees that would be paid.
RPT-3	Required project contributions to transportation infrastructure improvement projects.	
RPT-4	Install park and ride lots near transit stops and HOV lanes.	**Not Included.** The proposed mitigation is not applicable to the project as the proposed project is not a transit hub or origin of commuter trips.
VT-1	Electrify loading docks and/or require idling-reduction systems. Heavy-duty trucks transporting produce or other refrigerated goods will idle at truck loading docks and during layovers or rest periods so that the truck engine can continue to power the cab cooling elements. Idling requires fuel use and results in GHG emissions. The Project Applicant should implement an enforcement and education program that will ensure compliance with this measure. This includes posting signs regarding idling restrictions as	**Included**. MM 4.3.6.3E states: "*Refrigerated warehouse space is prohibited unless it can be demonstrated that the environmental impacts resulting from the inclusion of refrigerated space and its associated facilities, including, but not limited to, refrigeration units in vehicles serving the logistics warehouse, do not exceed any environmental impact for the entire World Logistics Center identified in the program Environmental Impact Report. Such environmental analysis shall be provided with any warehouse plot plan application proposing refrigerated space. Any such proposal*

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	well as recording engine meter times upon entering and exiting the facility.	*shall include electrical hookups at dock doors to provide power for vehicles equipped with Transportation Refrigeration Units (TRUs).* Therefore, refrigeration hookups and amenities for refrigerated warehouses are required by MM 4.3.6.3E. In addition, MM 4.3.6.2A and MM 4.3.6.3B requires that equipment and vehicles idle no more than 3 minutes.
VT-2	Utilize alternative fueled vehicles.	**Partially Included.** MM 4.3.6.3B requires alternative fueled yard trucks and emergency generators. WLCSP Section 12.3 requires pallet jacks, forklifts and other onsite equipment be powered by non-diesel fuel. Refer to Master Response-3 in Response to Comment Letter C-3 for reasons why requiring all vehicles and trucks to be alternative fueled is not feasible.
VT-3	Utilize electric or hybrid vehicles.	
WSW-1	Use reclaimed water.	**Partially Included.** MM 4.16.1.6.1C requires that the project install the infrastructure for recycled water.
WSW-2	Use gray water.	**Not Included.** The project would only use minimal indoor water usage. Graywater would not be feasible for the types of water usage anticipated for the project. In addition, it is unlikely that the EMWD and the County Health Department would allow graywater discharge from industrial uses.
WSW-3	Use locally sourced water supply.	**Partially Included.** MM 4.16.1.6.1C requires that development provide separate irrigation lines for recycled water if it becomes available in the future.
WUW-1	Install low-flow water fixtures.	**Included.** MM 4.16.1.6.1B requires indoor low-flow appliances.
WUW-2	Adopt a water conservation strategy.	**Partially Included.** The project includes water conservation features (see MM 4.16.1.6.1A, MM 4.16.1.6.1B, and MM 4.16.1.6.1C).
WUW-3	Design water-efficient landscapes.	**Included.** MM 4.16.1.6.1A requires outdoor water-efficient landscapes.
WUW-4	Design water-efficient landscape irrigation systems.	**Included.** MM 4.16.1.6.1A requires outdoor water-efficient irrigation systems.
WUW-5	Reduce turf in landscapes and lawns.	**Already Included.** As discussed in Section 5.2.3 Sustainable Design of the WLCSP, the proposed project incorporates the use of native landscaping to reduce water usage.
WUW-6	Plant native or drought-resistant trees and vegetation.	**Included.** As discussed in Section 5.2.3 Sustainable Design of the WLCSP, the proposed project incorporates the use of native landscaping to reduce water usage.
A-1	Prohibit gas powered landscape equipment.	**Not Included.** The air quality analysis had negligible emissions from landscaping using the CalEEMod defaults.
A-2	Implement lawnmower exchange program.	**Not Included.** This measure is more applicable to residential projects.
A-3	Electric yard equipment compatibility.	**Not Included.** The air quality analysis had negligible emissions from landscaping using the CalEEMod defaults.

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SW-1	Institute or extend recycling and composting services.	**Included.** MM 4.7.6.1A requires that recycling be provided to the project during operation.
SW-2	Recycle demolished construction material.	**Included.** The project would not require demolition. The California Green Building standards require that at least 50 percent of waste during construction be recycled.
V-1	Urban tree planting.	**Included.** The project would plant new trees (see WLCSP Section 4.2.3.1, Section 5.2.7.7).
V-2	Create new vegetated open space.	**Partially Included.** The project would conserve some open space; however, the project would not demolish development to create open space.
C-1	Use alternative fuels for construction.	**Not Included.** The project would be requiring the most efficient fleet of construction equipment, pursuant to MM 4.3.6.2A.
C-2	Use electric and hybrid construction equipment.	**Partially Included.** There are some hybrid Tier 4 construction equipment, which may be used by the project pursuant to MM 4.3.6.2A (as an example, the CAT 336E H Hybrid, www.cat.com/en_US/products/new/equipment/excavators/large-excavators/18378156.html). However, the project is not requiring all equipment to be hybrid because testing of hybrid construction vehicles finds a reduction in fuel consumption but an increase in emissions (University of California, Riverside. Hybrid Not Always Greener. Website: http://ucrtoday.ucr.edu/18506).
C-3	Limit construction equipment idling beyond regulation requirements. Heavy duty vehicles will idle during loading/unloading and during layovers or rest periods with the engine still on. Idling requires fuel use and results in emissions. The ARB Heavy-Duty Vehicle Idling Emission Reduction Program limits diesel-fueled commercial motor vehicles idling time to 5 minutes. There are some exceptions to the regulation such as positioning or providing a power source for equipment or operations such as lift, crane, pump, drill, hoist or other auxiliary equipment. Reduction in idling time beyond required under the regulation would further reduce fuel consumption and thus emissions. The project applicant should develop an enforceable mechanism that monitors the idling time to ensure compliance with this mitigation measure.	**Partially Included.** MM 4.3.6.2A requires that equipment and vehicles idle less than 3 minutes, which is beyond what the regulation requires. In addition, being consistent with state regulation increases the probability that individual drivers will comply with a requirement they are already familiar with and are already required to implement.
C-4	Institute a heavy-duty off-road vehicle plan. The Project Applicant should provide a detailed plan that discusses a construction vehicle inventory tracking system to ensure compliances with construction mitigation measures.	**Partially Included.** The Mitigation Monitoring and Reporting Plan (MMRP) would serve as the tool to ensure that all construction equipment meet the requirements of the mitigation measures. In addition, compliance with the mitigation measures would be documented on an on-going basis in the MMRP.
C-5	Implement a construction vehicle inventory tracking system.	
Misc-1	Establish a carbon sequestration project.	**Not Included (Misc. 1, 2, 5, 6).** As discussed in

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Misc-2	Establish off-site mitigation.	Master Response 1 (Response to Comment C-3), the project's greenhouse gas emissions are less than significant after implementation of mitigation. Therefore, offsets are not required.
Misc-5	Require environmentally responsible purchasing.	
Misc-6	Implement an innovative strategy for GHG mitigation.	
Misc-3	Use local and sustainable building materials.	**Partially Included.** WLCSP Section 1.3.2 indicates that the project would use local sources of building materials to the extent feasible.
Misc-4	Require best management practices in agriculture and animal operations.	**Not applicable.** The project would not have animal operations or agriculture.

Response to Comment F-1-67. The commenter states that the EIR fails to include the installation of solar panels. Solar panels are now incorporated into the FEIR as part of MM 4.16.4.6.1C (refer to FEIR Volume 2 Section 4.16).

Response to Comment F-1-68. The commenter indicates that the EIR fails to adopt LEED certification standards for the project. However, LEED certification is now required by the project pursuant to MM 4.16.4.6.1C (refer to FEIR Volume 2 Section 4.16).

Response to Comment F-1-69. The commenter indicates that the greenhouse gas analysis proposes onsite alternative fueling infrastructure and a site for the sale of food, fuel, and convenience items but those measures are not included in the DEIR. However, the measures were included in the DEIR as MM 4.3.6.3C and MM 4.3.6.3D, respectively (DEIR page 1-43). Refinements were made to the measures in the FEIR for clarity. Although these measures are not required to reduce greenhouse gas emissions to less than significant, they could reduce emissions.

The commenter also indicates that the analysis fails to ensure that the mitigation measures would be fully enforceable and only requires their adoption "as appropriate." It is unknown what mitigation measures the commenter is referring to. The air quality and greenhouse gas mitigation measures in the DEIR do not use the words "as appropriate." The only air quality or greenhouse gas related measures that include the words "where feasible" in the DEIR are as follows:

- MM 4.3.6.2A(e), which requires that onsite electrical hook ups be provided for construction tools where feasible. This is because to require that all construction tools be electric is not feasible because there are instances where fueled equipment may be required.

- MM 4.3.6.2A(l), which requires that forklifts used during construction be electric, propane, or natural gas where feasible.

- MM 4.7.6.1A(h), which requires that existing onsite street material be recycled for new project streets to the extent feasible. It would not be feasible for all new streets to use existing onsite street material for the following reasons. First, there is likely not enough existing street material to use for all the new project streets. Secondly, the quality of the existing material may not meet current street standards.

Response to Comment F-1-70. The commenter indicates that the DEIR points to the potential action of another agency for mitigating environmental effects, as in the regulation of vehicle exhaust.

It is a fact that motor vehicle exhaust is regulated by state and federal regulations; the City is not absolving responsibility because the EIR is implementing all feasible measures to reduce motor vehicle emissions, including the following:

- MM 4.3.6.3B(l), which requires that diesel duty trucks be model year 2010 or later. (This was a project design feature in the DEIR.)
- MM 4.3.6.3B(k), which requires that yard trucks be non-diesel and meet 2010 or Tier 4 Interim engine standards.
- MM 4.3.6.4A(g), which requires the project to install electric vehicle charging stations.

Response to Comment F-1-71. The commenter indicates that the project should implement carbon offsets. The commenter claims that the SCAQMD have demonstrated that carbon offsets are a feasible mitigation measure and the commenter provides reference to the SCAQMD's 2008 Draft Greenhouse Gas Significance Thresholds. The SCAQMD document does not specifically state that offsets are a feasible mitigation measure. The SCAQMD document does state the following regarding offsets: "*offset markets not well established" (page 2-11) and "it is currently uncertain how offsite mitigation measures, including purchased offsets, interact with future AB 32 Scoping Plan measures…"* (page 3-16). The SCAQMD did not recommend carbon offsets in its comment letter on this project.

The commenter claims that the California Attorney General has adopted CEQA settlements calling for the auditing, reduction, and offsetting of greenhouse gas emissions related with a project demonstrating that offsets are a feasible way to reduce a project's negative environmental effects on global warming. The commenter then references what is apparently the ConocoPhillips settlement (http://ag.ca.gov/newsalerts/print_release.php?id=1466). The ConocoPhillips project's emissions of 500,000 $MTCO_2e$ are from the expansion of an oil refinery (hydrogen plant). The source of the emissions differs from the project's main source of emissions. The WLC's emissions are primarily from offsite motor vehicle/truck travel on offsite roads. The "onsite" greenhouse gas emissions from the project would consist of a small percentage of the mobile emissions (from onsite travel), yard trucks, generator, refrigerants, natural gas, and forklifts. Solar would be generated onsite. All other emissions would be emitted offsite.

Response to Comment F-1-72. This comment is an introductory comment indicating that the EIR fails to address how the projected effects of global warming will exacerbate the impacts of the Project. Refer to Response to Comments F-1-73 through F-1-84.

Response to Comment F-1-73. The commenter discusses research that predicts that a rise in temperatures from global warming will create a more conducive environment for air pollution formation. The commenter requests that the air quality analysis must disclose how the increased temperatures in the project area will exacerbate the already severe air quality conditions. The commenter indicates that the contribution of global warming to increased ozone formation must be fully analyzed and mitigated.

The DEIR (page 4.7-5) states that if temperatures rise to the medium warming range, there could be 75 to 85 percent more days with weather conducive to ozone formation in Los Angeles. However, as discussed on pages 4.3-12 through 4.3-20 of the DEIR, in Section 4.3 of the FEIR, and in Master Response-1 in Response to Comment Letter C-3, air quality in the region has been improving and is projected to improve. It has been improving because of various efforts by the state and local agencies, in addition to increased vehicle and truck control. MM 4.3.6.3B requires that the diesel trucks that access the project would be model year 2010 or later; those trucks have greater controls on particulate matter and NOx and have achieved a 96 and 90 percent emission reduction in NOx and particulate matter, respectively, as compared to 1994 model year trucks.

In addition, the DEIR (page 4.3-83 and page 4.3-87) and the revised analysis (refer to FEIR Volume 2 Section 4.3 conclude that the project's contribution to ozone is significant and unavoidable. The DEIR does not specify under which conditions or days of the year impacts to ozone are significant; to do so would not be possible with the current air quality and climate models and would be speculative.

Also refer to Master Response-2 in Response to Comment Letter C-3, which discusses health impacts from air pollution.

Response to Comment F-1-74. The commenter suggests the DEIR address climate change impacts on the project and the project's overall effects on climate change. CEQA does not require that an EIR analyze the impacts of the environment on the project. The DEIR has adequately dealt with all the effects that can be expected from climate change nonetheless, and is consistent with recommendations to respond to the impacts of climate change outlined in the DEIR Water Supply Assessment (WSA) contained in Appendix M of the DEIR the project has reduced its water supply needs by implementing water use efficiencies throughout the project. These efficiencies include the use of low water use fixtures in the buildings, drought tolerant landscaping, and recycled water where available. As outlined in the WSA Section 3.2 *project Demand* the projected water demand for the project is made up of two components, building demand and irrigation demand. As stated in the WSA, "*A majority of the estimated demand would be for landscape irrigation. The developers of this project are proposing very low water use landscaping which would reduce the projected project demand significantly*."

Climate Change is discussed in Appendix A of the WSA, Section 7. The WSA states "*EMWD has considered the impact of climate change on water supplies as part of our long term strategic planning. Climate change has the potential to affect not only local demand and supplies, but to reduce the amount of water available for import. Potential changes that may impact water supply include:*

- *Warmer temperatures leading to higher demand for water within EMWD's service area and throughout California;*
- *Reduction in the Sierra Nevada snow pack;*
- *Increased intensity and frequency of extreme weather events; and*
- *Rising sea levels resulting in increased risk of damage from storms in the Delta, high tide event and the erosion of levees in the Delta.*

"*To limit the impact of climate change, EMWD's long term planning focuses on the development of reliable local recourses and the implementation of water use efficiency. This includes the full utilization of recycled water and the recharge of local groundwater basins to increase supply reliability during periods of water shortage. EMWD is also focused on reducing demand for water supplies, especially outdoors. Increasing the use of local resource and reducing the need for imported water has the dual benefit of not only improving water quality reliability, but reducing the energy required to import water to EMWD's service area."*

As discussed above, this project is consistent with these water use efficiencies and MMs 4.16.1.6.1A, 4.16.1.6.1B, and 4.16.1.6.1C will be implemented to mitigate the water supply impacts, including the impacts of climate change on the project, to less than significant.

DEIR Section 4.16.1.6.1 Adequate Water Supply

The City is amending the text in Draft EIR Section 4.16.1.6.1 to clarify the inclusion of impacts to the project from climate change. This change to the Draft EIR does not result in a significant impact and has no material effect on the findings of the EIR. The addition to the text of the Draft EIR is as follows:

> <u>The Water Supply Assessment considered the impact of climate change on water supplies. Climate change has the potential to affect not only local demand and supplies, but to reduce</u>

the amount of water available for import. Potential changes that may impact water supply include:

- Warmer temperatures leading to higher demand for water within EMWD's service area and throughout California;
- Reduction in the Sierra Nevada snow pack;
- Increased intensity and frequency of extreme weather events; and
- Rising sea levels resulting in increased risk of damage from storms in the Delta, high tide event and the erosion of levees in the Delta.

One of the outcomes of climate change could be more frequent limitations on imported supplies. To limit the impact of climate change, EMWD's long term planning focuses on the development of reliable local recourses and the implementation of water use efficiency. This includes the full utilization of recycled water and the recharge of local groundwater basins to increase supply reliability during periods of water shortage. EMWD is also focused on reducing demand for water supplies, especially outdoors. Increasing the use of local resource and reducing the need for imported water has the dual benefit of not only improving water quality reliability, but reducing the energy required to import water to EMWD's service area. The project developer is committed to water use efficiency and minimizing the use of potable water for landscape irrigation by using low water use fixtures, drought tolerant plants and recycled water where available as outlined in MMs 4.16.1.6.1A, 4.16.1.6.1B, and 4.16.1.6.1C.

Response to Comment F-1-75. The commenter suggests the DEIR address the climate change impacts on the project and the projects overall effects on climate change. CEQA does not require that an EIR analyze the impacts of the environment on the project. The DEIR has adequately dealt with all the effects that can be expected from climate change nonetheless consistent with the recommendations to respond to the impacts of climate change outlined in the WSA contained in the DEIR Appendix M the project has reduced its water supply needs by implementing water use efficiencies throughout the project. These efficiencies include the use of low water use fixtures in the buildings, drought tolerant landscaping and recycled water where available. As outlined in the WSA Section 3.2 *Project Demand* the projected water demand for the project is made up of two components, building demand and irrigation demand. As stated in the WSA, "*A majority of the estimated demand would be for landscape irrigation. The developers of this project are proposing very low water use landscaping which would reduce the projected project demand significantly.*"

Climate Change is discussed in Appendix A of the WSA, Section 7. Refer to Response to Comment F-1-74 on a discussion on climate change and water supply. As discussed above, this project is consistent with these water use efficiencies and MMs 4.16.1.6.1A, 4.16.1.6.1B, and 4.16.1.6.1C will be implemented to mitigate the water supply impacts, including the impacts of climate change on the project, to less than significant.

Response to Comment F-1-76. See Response to Comment F-1-75.

Response to Comment F-1-77. The commenter suggests the DEIR address the climate change impacts on the project and the projects overall effects on climate change. CEQA does not require that an EIR analyze the impacts of the environment on the project. The DEIR has adequately dealt with all the effects that can be expected from climate change nonetheless climate change is taken into account as part of the rainfall characteristics and is accounted for in the hydrologic and hydraulic analysis of the drainage facilities. As stated in Section 3.2 Design Guidelines of the DEIR Master Drainage Report (Appendix J-1) "*Drainage facilities shall be designed in accordance with the Riverside County Hydrology Manual and Design Manual Standard Drawings*." The Hydrology Manual includes the most up-to-date rainfall characteristics as required by the local, state, and federal regulations. The design of the drainage facilities include a factor of safety in the form of freeboard to account for uncertainties due to climate change, rainfall patterns, friction factors and other

uncertainties. One foot of freeboard was included in the detention basins and drainage facilities to account for these uncertainties. At the time of final design the amount of freeboard to account for these uncertainties will be finalized. MM 4.9.6.1.A below requires the project to mitigate its impacts, including any impacts to the project as a result of climate change.

4.9.6.1A Prior to issuance of ~~any development~~ any building permit within the Specific Plan area, the developer shall ~~place~~ construct storm drain pipes and conveyances, as well as, combined detention and infiltration basin(s), bioretention areas, and spreading area(s) ~~as appropriate~~ within each proposed watershed, as outlined in the project hydrology plan, to mitigate the impacts of increased peak flow rate, velocity, flow volume and reduce the time of concentration by storing ~~increased runoff for a limited period of a time and release the outflow at a rate that does not exceed the pre-development condition~~ and infiltrating increased runoff for a limited period of time and release the outflow at a rate that does not exceed the pre-development peak flows and velocities for the 2, 5, 10, 25, and 100-year storms and volumes as assessed in the water balance model for historical conditions. For the purpose of this mitigation measure, the term "construct" shall mean to substantially complete construction so as to function for its intended purpose during construction with complete construction prior to occupancy. Field investigations will be conducted to determine the infiltration rate of soils underlying the proposed locations of bioretention areas and detention basins. The infiltration rate of the underlying soils will be used to properly size the bioretention areas and detention basins/infiltration basins to ensure that adequate volumes of runoff, in cumulative total for all bioretention areas and detention basins are captured and infiltrated. The water balance model will be updated and rerun for the site-specific conditions encountered to confirm the water balance. This measure shall be implemented to the satisfaction of the City Engineer. Energy dissipaters shall be used as the spillways of basins to reduce the runoff velocity and dissipate the flow energy. Drainage weir structures shall be constructed at the downstream end of the watersheds flowing to the San Jacinto Wildlife Area to control the runoff and spread the flow ~~in~~ such ~~a way~~ that the flows exiting the project boundary will return to the sheet flow pattern similar to the existing condition. Detention basins and spreading areas shall be designed to account for the amount of the sediment transported through the project boundary so that the existing sediment carrying capacity is maintained.

DEIR Section 4.9.6.1 Drainage Pattern and Capacity-Related Impacts - Project or Specific Plan Design Features

The City is amending the text in Draft EIR Section 4.9.6.1 to clarify the inclusion of impacts to the project from climate change. This change to the Draft EIR does not result in a significant impact and has no material effect on the findings of the EIR. The addition to the text of the Draft EIR is as follows:

> These facilities will be designed based on the most up–to-date hydrology based on the latest rainfall to runoff patterns in compliance with local, state, and federal regulations. The design of the drainage facilities include a factor of safety in the form of freeboard to account for uncertainties due to climate change, rainfall patterns, friction factors and other uncertainties. One foot of freeboard was included in the detention basins and drainage facilities to account for these uncertainties. At the time of final design the amount of freeboard to account for these uncertainties will be finalized. The facilities are being designed to provide both detention and infiltration to mitigate increases in runoff volume, velocity and peak discharge as outlined in the following mitigation measure.

See also Response to Comment F-1-75 for mitigation of impacts for water supply.

Response to Comment F-1-78. The commenter suggests the DEIR address climate change impacts on the project and the projects overall effects on climate change. CEQA does not require that an EIR analyze the impacts of the environment on the project. The DEIR has adequately dealt with all the effects that can be expected from climate change nonetheless the project will comply with the *Water Quality Management Plan for the Santa Ana Region of Riverside County* (approved by the Santa Ana Regional Water Quality Control Board October 22, 2012), which requires the use of Low Impact Development (LID) BMPs that maximize infiltration, harvest and use, evapotranspiration and/or bio-treatment. Flows from the project will be treated first by LID BMPs where the flow will be infiltrated, evapotranspired, or treated. As required by MM 4.9.6.1A, the treated flows will then be reduced to below or equal to pre-development conditions by routing the on-site storm water flows through a series of on-site detention and infiltration basins before flows are released off site. These basins will provide incidental infiltration and secondary treatment downstream of the LID BMPs. All runoff from the site will be treated by LID BMPs and then routed through the detention and infiltration basins before it leaves the project area and into Mystic Lake and the San Jacinto Wildlife Area. The effects of climate change on pollutant loadings and residence time will be addressed in accordance with the requirements at the time of final design. LID BMPs have been shown to maximize the benefit for improved water quality. This would include the design based on the appropriate pollutant loads for the project from all sources including climate change.

The Water Quality Management Plan Guidance Document for the Santa Ana Region of Riverside County discusses water quality impacts and the use of LID BMPs:

> "*LID BMPs have been shown in studies throughout the country to be effective and reliable at treating a wide range of Pollutants that can be found in urban runoff, including those listed above, and those subject to adopted Total Maximum Daily Loads (TMDLs) in the Santa Ana Region of Riverside County (Bacteria and Nutrients). As such, the LID BMPs required in this WQMP are expected to treat discharges of urban-sourced 303(d) listed Pollutants from subject projects to an impaired waterbody on the 303(d) list such that the discharge from the project would not cause or contribute to an exceedance of Receiving Water Quality Objectives*." (p. 19)

DEIR Section 4.9.6.3 Operational Related Water Quality Impacts Treatment Control BMPS

The City is amending the text in DEIR Section 4.9.6.3 to clarify the inclusion of impacts to the project from climate change. This change to the DEIR does not result in a significant impact and has no material effect on the findings of the EIR. The addition to the text of the DEIR is as follows:

All development within the project will be required to incorporate on-site water quality features to meet or exceed the approved Master WQMP's water quality requirements identified previously. <u>This would include the design based on the appropriate pollutant loads for the project from all sources including climate change.</u>

Response to Comment F-1-79. Global warming and climate change is of growing concern, but is often difficult to determine if a proposed project has a potentially significant impact. The project site is located within a Mediterranean climate, which varies in temperature from 40 to 90 degree Fahrenheit. Any incremental increase in local temperatures will not likely have a noticeable change with regard to vegetation communities in the general vicinity of the project site. Any change in vegetation community would be speculative at best without specific data that would indicate that global warming was responsible for a vegetation community conversion. MM 4.7.6.1A is specifically designed to reduce greenhouse gas (GHG) emissions, and cumulative impacts regarding GHG emission are less than significant after mitigation.

Response to Comment F-1-80. The incremental change in global warming over the next 15 to 20 years is not likely to cause a quick conversion of a plant community. Typically, vegetation community changes, with the exception of natural disasters can take many decades. Any change in vegetation

community would be speculative at best without specific data that would indicate that reason for the conversion. MM 4.7.6.1A is specifically designed to reduce GHG emissions, and cumulative impacts regarding GHG emission are less than significant after mitigation.

Response to Comment F-1-81. This comment seems to be informative and does not require a response. The City generally agrees with the statement that habitat specialists can only survive in very specific set of climatic/habitat conditions. That is one of the major reasons why the MSHCP was designed to incorporate large areas of occupied habitat to account for slight changes in the climate. This allows for sensitive wildlife species to adjust to slight shifts in micro-habitat without the threat of development within the conservation areas.

Response to Comment F-1-82. The commenter asks what effects climate change will have on project resources. Global climate change will have a variety of direct and indirect effects on biological resources including streambeds, riparian areas, wetland, vernal pools, alluvial fan habitats, wildlife corridors, wildlife foraging habitats, or wildlife movement areas, aquatic habitats, sensitive species, and other sensitive habitats, open lands, open space, and adjacent natural habitats. These effects will occur as global temperatures slowly increase regional rainfall decreases climate patterns change and wildfire threats increase. Beyond this it is overly speculative to attempt to predict what specific impacts global climate change will have on the WLC project. A complete discussion of the impacts to biological resources can be found in the project MSHCP/DBESP document contained in Appendix E of the FEIR.

Response to Comment F-1-83. See Response to Comment F-1-82.

Response to Comment F-1-84. See Response to Comment F-1-82. The list of potential impacted resources from global climate change include SKR and burrowing owl.

Response to Comment F-1-85. The DEIR does address the peak demand of electricity for the project (DEIR page 4.16.36) in Table 4.16.I. It further explains that the project will require the addition of two new 28 megawatt (MW) distribution banks to be built out at the existing Moreno Valley substation to accommodate construction beyond the first three logistics buildings (DEIR page 4.16.37). It goes on to state that in order to meet the project's ultimate demands, Moreno Valley Utility (MVU) will require the addition of a new 112 MW substation within the project. The determining factors of timing and location of the new substation will be determined by MVU based on the growth of Moreno Valley and the direction of needed expansion within its service area. The analysis of the WLC project on the overall MVU system is ongoing by MVU as their needs change based on additional demands to its system from all current and future customers within its service area.

Response to Comment F-1-86. Since the loading of MVU's current circuits is proprietary and can only be changed by MVU, it is impossible for WLC to determine the exact timing of the need for any new systems. It is described (page 4.16.37 of the DEIR) that based on the current projected demand for the project; a new substation will be required. Potential locations of this substation have been shown on pages 7-9 of the Dry Utility Final Memo "Substation Location" within Appendix N-1 of the DEIR. The CEQA impacts of these improvements on-site have been analyzed throughout the EIR. Any off site impacts to SCE's system in order to serve MVU with additional capacity cannot be analyzed by this project since SCE's system loading and circuit information is also proprietary. The assumption that would be necessary to analyze them would create highly speculative information that may not conform to SCE's current and or future required construction and/or circuit demands on their system.

To address concerns about solar power, MM 4.16.4.6.1C *includes requirements to incorporate onsite solar (refer to the FEIR Volume 2 Revised DEIR for the exact wording)*

Response to Comment F-1-87. The commenter is merely stating that a reasonable range of alternatives must be evaluated in an EIR, and the EIR does evaluate a reasonable range of alternatives, based on the potential significant environmental impacts of the project identified in the DEIR and the project objectives. The commenter has failed to state why the alternatives selected for analysis in the DEIR are not reasonable. The revised TIA (FEIR Volume 2, Appendix L-1) clearly shows rail service is not only not available to the WLC project site, but would cause considerable environmental damage to residential neighborhoods to the west of the WLC site, and would not be physically feasible given the topographic limitations of any potential connection to available rail service to the west. In addition, rail service for a project that would mainly serve the Inland Empire would not be cost effective. Finally, there is no CEQA requirement cited to that requires the EIR to examine a rail alternative for this project if it is not feasible and would create additional significant environmental impacts.

Two of the most important project objectives of the project is to "*create substantial employment opportunities for the citizens of Moreno Valley and surrounding communities and to significantly improve the City's jobs/housing balance and help reduce unemployment within the Cit*y." These objectives cannot be met if the high-cube logistics center is located outside the City limits.

Response to Comment F-1-88. The new information provided on the project, the various technical studies, and in the DEIR does not meet any of the four requirements outlined in CEQA and cited by the commenter. The City evaluated the many comments received on the DEIR, including those of these two commenting organizations. The revised technical studies and DEIR provide additional information, mainly in the form of responding to the many questions and comments received on the DEIR. However, this additional information does not rise to the level of significant new information, nor does it identify any new or substantially different significant environmental impacts from those identified in the DEIR. Therefore, the DEIR will not be recirculated.

Response to Comment F-1-89. The Center for Biological Diversity and San Bernardino Valley Audubon Society are on the City's CEQA mailing list for this project and will continue to receive notices and documents as appropriate relative to the WLC project. All commenters on the DEIR will be provided a copy of the Response to Comments Volume I of the FEIR 10-days prior to the public hearing before the City Council of the proposed project. The City looks forward to any additional comments these two organizations may have regarding this project.

Response to Appendix 1. The commenter provided a Federal Register article regarding the Control of Emissions of Air Pollution from Non-road Diesel Engines and Fuel (69 Fed. Reg.). This reference discusses EPA's adoption of Tier 4 non-road standards and is referenced in Comment F-1-63.

Perhaps the commenter provided this reference to recommend Tier 4 standards for off-road construction equipment to reduce black carbon emissions. As stated in MM 4.3.6.2A(a), Tier 4 construction equipment are required in the revised mitigation measure.

Response to Appendix 2 (Earth Hour: Turning Lights Off Reduces Greenhouse Emissions, Protects Migratory Birds). This appendix was not directly referenced in the comment letter. The project biologist assumes that the appendix is intended to provide additional information about effect of turning off lights in a city for even just one hour in reducing greenhouse gas emissions, saving energy and benefiting migratory birds. The information was considered in preparing the response to comments.

Response to Appendix 3. The commenter provided an American Lung Association State of the Air in 2005 in Riverside County, in support of Comment F-1-74. The reference indicates that ozone and particle pollution in 2005 received a grade of "F." The DEIR discusses the poor air quality in the project area; however, it also discusses how air quality has been improving. See Response to Comment F-1-74 and G-49-2.

Response to Appendix 4. The commenter provided an American Lung Association State of the Air in 2008 report to support Comment F-1-74, in stating that Riverside County is ranked as one of the worst counties in the US for criteria pollutants. The DEIR (page 4.3-69, 4.3-83, and 4.3-87) and the revised analysis (FEIR Volume 2 Section 4.3 Air Quality) concluded significant impacts for ozone and particulate matter and also discussed the existing air setting in the project area and in the South Coast Air Basin.

Response to Appendix 5. The commenter provided *Human-Induced Changes in Hydrology of the Western United States* (Barnett 2008). See Response to Comment F-1-75.

Response to Appendix 6 (Analysis of Deer-Vehicle Collision Sites in Pennsylvania). This appendix was not directly referenced in the comment letter. The project biologist assumes that the appendix is intended to provide additional information about factors that increase the likelihood of deer-vehicle collisions. The information was considered in preparing the response to comments.

Response to Appendix 7. The commenter provided an article, *Can Reducing Black Carbon Emissions Counteract Global Warming?* (Bond and Sun 2005). Please refer to Response to Comments F-1-54 through F-1-64.

Response to Appendix 8. The commenter provided the California Attorney General's list of mitigation measures. For an analysis of project feasibility to those measures, please refer to Response to Comment F-1-66.

Response to Appendix 9 (The Riparian Bird Conservation Plan - A strategy for reversing the decline of riparian associated birds in California). This appendix was not directly referenced in the comment letter. The project biologist assumes the appendix is intended to explain strategies for conservation of riparian habitat especially in connection to birds living in these habitats. The information was considered in preparing the response to comments.

Response to Appendix 10 (The Desert Bird Conservation Plan - A Strategy for Protection and Managing Desert Habitats and Associated Birds in the Mojave and Colorado Desert). This appendix was not directly referenced in the comment letter. The project biologist assumes the appendix is intended to explain strategies for protecting desert birds and their habitats. The information was considered in preparing the response to comments.

Response to Appendix 11. The commenter provided an article titled, *Getting Warmer: Effect of Global Climate Change on Distribution of Rodents in Texas.* Please refer to Response to Comment F-1-79 through F-1-84.

Response to Appendix 12. The commenter provided CAPCOA's *CEQA and Climate Change* report that was published in 2008. See Response to Comment F-1-66, which contains a feasibility analysis of the measures.

Response to Appendix 13. The commenter provided a white paper prepared by the California Climate Change Center in 2006, *Scenarios of Climate Change in California: an Overview.* Please refer to Response to Comments F-1-72 through F-1-84.

Response to Appendix 14. The commenter provided a paper, *Our Changing Climate, Assessing the Risks to California.* The DEIR included this reference as "Climate Change Center 2006" and incorporated the information (Appendix D of DEIR page 72).

Response to Appendix 15 (Contraction of California Burrowing Owl Range). This appendix was directly referenced in the comment letter. The project biologist assumes the appendix is intended to

provide additional information about the population of burrowing owls in California. The information was considered in preparing the response to comments.

Response to Appendix 16 (Staff Report on Burrowing Owl Mitigation). This appendix was not directly referenced in the comment letter. The project biologist assumes the appendix is intended to provide additional information about burrowing owls and strategies for conservation and mitigation. The information was considered in preparing the response to comments.

Response to Appendix 17. The commenter provided a paper on natural gas. Please refer to Response to Comment F-1-48.

Response to Appendix 18 (Unprocessed CNDDB Data for EL CASCO Quad). This appendix was directly referenced in the comment letter. The project biologist assumes the appendix is intended to provide additional information about special status plant and wildlife species recorded to occur within the El Casco, California USGS 7.5-minute topographic quadrangle map based on information within the California Natural Diversity Database (CNDDB). The information was considered in preparing the response to comments.

Response to Appendix 19 (Unprocessed CNDDB Data for LAKEVIEW Quad). This appendix was directly referenced in the comment letter. The project biologist assumes the appendix is intended to provide additional information about special status plant and wildlife species recorded to occur within the Lakeview, California USGS 7.5 minute topographic quadrangle map based on information within the CNDDB. The information was considered in preparing the response to comments.

Response to Appendix 20 (Unprocessed CNDDB Data for PERRIS Quad). This appendix was directly referenced in the comment letter. The project biologist assumes the appendix is intended to provide additional information about special status plant and wildlife species recorded to occur within the Perris, California USGS 7.5 minute topographic quadrangle map based on information within the CNDDB. The information was considered in preparing the response to comments.

Response to Appendix 21 (Unprocessed CNDDB Data for SUNNYMEAD Quad). This appendix was directly referenced in the comment letter. The project biologist assumes the appendix is intended to provide additional information about special status plant and wildlife species recorded to occur within the Sunnymead, California USGS 7.5 minute topographic quadrangle map based on information within the CNDDB. The information was considered in preparing the response to comments.

Response to Appendix 22 (Light pollution threatens National Parks). This appendix was directly referenced in the comment letter. The project biologist assumes the appendix is intended to provide additional information about the negative impacts of light pollution on National Parks. The information was considered in preparing the response to comments.

Response to Appendix 23 (COSEWIC Assessment and Update Status Report on the Ord's kangaroo rat *Kipodomys orii* in Canada). This appendix was directly referenced in the comment letter. The project biologist assumes the appendix is intended to provide additional information about light impacts on endangered kangaroo rats. The species documented in the report is from Canada. The information was considered in preparing the response to comments.

Response to Appendix 24. The commenter provided a criteria air pollutant report for Riverside County, which indicates that Riverside County is one of the dirtiest counties in the United States. The DEIR (page 4.3-69, 4.3-83, and 4.3-87) and the revised analysis (FEIR Volume 2 Section 4.3 Air Quality) concluded significant impacts for ozone and particulate matter and also discussed the existing air setting in the project area and in the South Coast Air Basin.

Response to Appendix 25 (Status and Trends of Wetlands in the Conterminous United States 1998 to 2004). This appendix was not directly referenced in the comment letter. The project biologist assumes the appendix is intended to provide additional information about wetland habitats. The information was considered in preparing the response to comments.

Response to Appendix 26 (Light Pollution and the Impacts on Biodiversity, Species and Their Habitats). This appendix was directly referenced in the comment letter. The project biologist assumes the appendix is intended to provide additional information about light pollution effects on biodiversity, species and their habitats. Darkness has a functional importance and is indispensable for a healthy ecosystem. This information was considered in preparing the response to comments.

Response to Appendix 27 (South Gate Educational Center Draft EIR - Table 4.11-12: Estimated Project Natural Gas Usage from Project Site) The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information about natural gas consumption.

Response to Appendix 28 (Direct and Indirect Effects of Air Pollution on Two Hole-Nesting Bird Species). This appendix was directly referenced in the comment letter. The project biologist assumes the appendix is intended to provide additional information about the effects of air pollution on bird species. The study was conducted in town of Harjavalta, SW Finland. The purpose of the study was to measure individual and population level effects of air pollution, both heavy metal contamination and acidification. The project site will not likely contain heavy metal contamination and/or acidification and the likelihood of having hole-nesting birds on the project site is highly unlikely. The information was considered in preparing the response to comments.

Response to Appendix 29 (Air pollution impacts on birds and insects). This appendix was directly referenced in the comment letter. The project biologist assumes the appendix is intended to provide additional information about the effects of air pollution on bird species. This report is an updated on recent results of studies that have been ongoing at copper smelter in Harjavalta, SW Finland. Breeding success of great tit and pied flycatcher were markedly decreased when heavy metal emissions markedly decreased. In addition, birds did not show reduced immuno-competence in polluted areas. The project site is not associated with a copper smelter and the likelihood of having heavy metals similar to those in a copper smelter, occurring with the WLCSP is highly unlikely. The information was considered in preparing the response to comments.

Response to Appendix 30 (Biomakers and fluctuating asymmetry as indicators of pollution-induced stress in two hole-nesting passerines). This appendix was directly referenced in the comment letter. The project biologist assumes the appendix is intended to provide additional information about the effects of air pollution on bird species. The study was conducted in town of Harjavalta, SW Finland and included the effects of air pollution gradients of a copper smelter on hole-nesting passerines. The project site is not associated with a copper smelter and the likelihood of having hole-nesting birds on the project site is highly unlikely. The information was considered in preparing the response to comments.

Response to Appendix 32 (Riparian Areas and Wetlands). This appendix was not directly referenced in the comment letter. The project biologist assumes the appendix is intended to provide additional information about riparian areas including the needs they serve and the impact humans have on them. The information was considered in preparing the response to comments.

Response to Appendix 31 (Climate Change Futures - Health, Ecological and Economic Dimensions). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information about the overarching impacts of climate change.

Response to Appendix 32 (Riparian Areas and Wetlands). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information about riparian areas including the needs they serve and the impact humans have on them.

Response to Appendix 33 (Improving Energy Efficiency in Warehouses). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information about way to improve energy efficiency in warehouses.

Response to Appendix 34. The commenter provided an article written in Australia regarding greenhouse gas emissions from concrete manufacturing. As discussed in Response to Comment F-1-52, lifecycle emissions are not quantified because they are speculative.

Response to Appendix 35 (Roads and Their Major Ecological Effects). This appendix was not directly referenced in the comment letter. The project biologist assumes the appendix is intended to provide additional information about effects roadways have on the environment and its inhabitants. The information was considered in preparing the response to comments.

Response to Appendix 36 (Estimate of the Area Affected Ecologically by the Road System in the United States). This appendix was not directly referenced in the comment letter. The project biologist assumes the appendix is intended to provide additional information about how large the ecological effects of roadways are in the United States. The information was considered in preparing the response to comments.

Response to Appendix 37 (The Ecological Road-Effect Zone of a Massachusetts (U.S.A.) Suburban Highway). This appendix was not directly referenced in the comment letter. The project biologist assumes the appendix is intended to provide additional information about the road-effect zone and the ecological impacts within it. The information was considered in preparing the response to comments.

Response to Appendix 38. The commenter provided a report on the potential consequences of climate variability and change for water resources in the United States. Please refer to Response to Comments F-1-75 through F-1-78.

Response to Appendix 39. The commenter provided an article regarding the impacts of air pollution on birds. Please refer to Response to Comment F-1-79 through F-1-84.

Response to Appendix 40. The commenter provided a report accepted by the Intergovernmental Panel on Climate Change (IPCC 2007), to indicate that the west coast is vulnerable to changes in water events. This reference and information is contained in the DEIR (Appendix D, pages 72-75). See Response to Comment F-1-75 through F-1-78.

Response to Appendix 41. The commenter provided a letter regarding radiative heating due to black carbon. Please refer to Response to Comments F-1-54 through F-1-64.

Response to Appendix 42 (Status of Burrowing Owls in Southwestern California). This appendix was directly referenced in the comment letter. The project biologist assumes t the appendix is intended to provide additional information about the population of burrowing owls in southwestern California. Based on the study, burrowing owl populations occur in very small colonies and are so fragmented and diminished that long-term persistence is unlikely. The study recommends large-scale conservation efforts to preserve existing populations. The information was considered in preparing the response to comments.

Response to Appendix 43 (Ecological Light Pollution). This appendix was directly referenced in the comment letter. The project biologist assumes the appendix is intended to provide additional information about the effects of light pollution on natural habitats. Based on the report conclusion, the understanding of the effects of artificial night lighting is still limited and additional investigation on artificial night lighting is required. The information was considered in preparing the response to comments (e.g., see Response F-1-21).

Response to Appendix 44 (Riparian Forests as Nutrient Filters in Agricultural Watersheds). This appendix was not directly referenced in the comment letter. The project biologist assumes the appendix is intended to provide additional information about the benefits of riparian vegetation as nutrient filters near agro-ecosystems. The information was considered in preparing the response to comments.

Response to Appendix 45. The commenter provided a report regarding reducing greenhouse gas emissions through product life-cycle optimization for personal computers and concrete. Please refer to Response to Comment F-1-52.

Response to Appendix 46. The commenter provided an article, *Mortality Risk Associated with Short-Term Exposure to Traffic Particles and Sulfates.* The article is referenced in regard to black carbon. Please refer to Response to Comment F-1-59.

Response to Appendix 47 (Determination of Biologically Equivalent or Superior Preservation (DBESP) Alessandro Commerce Center). This appendix was directly referenced in the comment letter. The project biologist assumes the appendix is intended to provide a comparison DBESP within Moreno Valley. The proposed Alessandro Commerce Center impacted a total of 0.32 acres of riparian/riverine habitat and restored 0.64 acres of riparian/riverine habitat. The mitigation required for impacts to riparian/riverine habitat was biological superior to existing conditions. The information was considered in preparing the response to comments.

Response to Appendix 48 (Environmental Impact Report for the Alessandro Commerce Center). This appendix was directly referenced in the comment letter. The project biologist assumes the appendix is intended to provide a comparison EIR within Moreno Valley. Only the biological resources section was included in the appendix. Mitigation measures include conducting a nesting bird survey, preparing a DBESP, Payment of the SKR HCP Fee. The information was considered in preparing the response to comments.

Response to Appendix 49 (San Jacinto Wildlife Area Bird List (including Lake Perris State Recreation Area). This appendix was directly referenced in the comment letter. The project biologist assumes the appendix is intended to provide additional information about birds living in the surrounding area. A list of 319 species were identified as occurring within the SJWA and Lake Perris State Recreation Area. The information was considered in preparing the response to comments.

Response to Appendix 50. The commenter provided a report, *Water Management Strategies to Weather the Effects of Global Warming.* Please refer to Response to Comment F-1-75 through F-1-78.

Response to Appendix 51 (Nutrient Dynamics in an Agricultural Watershed: Observations on the Role of a Riparian Forest). This appendix was not directly referenced in the comment letter. The project biologist assumes the appendix is intended to provide additional information about the benefits of riparian vegetation as nutrient filters in agricultural watersheds. The information was considered in preparing the response to comments.

Response to Appendix 52. The commenter provided an article regarding black carbon. Please refer to Response to Comment F-1-54 through F-1-64.

Response to Appendix 53 (RAND - Balancing Environment and Development: Costs, Revenues, and Benefits of the Western Riverside County Multiple Species Habitat Conservation Plan). This appendix was directly referenced in the comment letter. The project biologist assumes the appendix is intended to provide additional information about the costs and benefits of the MSHCP with regard to mobility and mobility projects. The analysis does not consider benefits that result from faster improvement of the region's major roads or the faster completion of road safety and maintenance projects. The information was considered in preparing the response to comments.

Response to Appendix 54 (RAND - Balancing Environment and Development: Costs, Revenues, and Benefits of the Western Riverside County Multiple Species Habitat Conservation Plan). Contained within Appendix 53.

Response to Appendix 55 (Final MSHCP- Section 6.0 MSHCP Implementation Structure). This appendix was directly referenced in the comment letter. The project biologist assumes the appendix is intended to provide additional information about the implementation strategies for the MSHCP. Section 6.0 of the MSHCP describes the implementation structure of the MSHCP with regard to property needed for MSHCP Conservation. Projects that are not included in a Criteria Cell are not required for MSHCP conservation. Discretionary projects within Criteria Cells are subject to review under the HANS process. The information was considered in preparing the response to comments.

Response to Appendix 56. The commenter provided an article regarding the climate impact of black carbon. Please refer to Response to Comment F-1-54 through F-1-64.

Response to Appendix 57 (San Jacinto Valley Crownscale Map). This appendix was not directly referenced in the comment letter. The project biologist assumes the appendix is intended to provide a map of the USFWS designated Critical Habitat for San Jacinto Valley crownscale. The information was considered in preparing the response to comments.

Response to Appendix 58. The commenter provided SCAQMD's Draft Guidance Document – Interim CEQA Greenhouse Gas Significance Threshold (2008). Please refer to Response to Comment F-1-71.

Response to Appendix 59. The commenter provided an article, *Effects of Climate Change on In-Stream Biology and Freshwater Ecosystems.* Please refer to Response to Comments F-1-79 through F-1-84.

Response to Appendix 60. The commenter provided a paper, *Predicting Extinctions as a Result of Climate Change*. Please refer to Response to Comments F-1-79 through F-1-84.

Response to Appendix 61. The commenter provided information on black carbon and climate change. Please refer to Response to Comment F-1-54 through F-1-64.

Response to Appendix 62 (Are Small, Isolated Wetland Expendable?). This appendix was not directly referenced in the comment letter. The project biologist assumes the appendix is intended to provide additional information about the importance of small wetlands for biodiversity. The information was considered in preparing the response to comments.

Response to Appendix 63 (Air pollution induces heritable DNA mutations). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information about the connection between air pollution and heritable DNA mutations.

Response to Appendix 64 (A Case-Control Analysis of Exposure to Traffic and Acute Myocardial Infarction). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information about the association of traffic exposure to risk of AMI.

Response to Appendix 65. The Fact Sheet Nonpoint Source Pollution: The Nation's Largest Water Quality Problem, Pointer No. 1, EPA841-F-96-004A was reviewed. The Fact Sheet states that non-point source pollution is a problem. The Fact Sheet states that significant improvements have been made over the last 10 years as a result of compliance with the Nonpoint Source Management Program established by the 1987 Clean Water Act Amendments. The Program established the National Pollution Discharge Elimination System (NPDES) permit.

As part of the requirements of the NPDES permit, a Water Quality Management Plan was prepared for the project which analyzes the potential for non-point source pollution due to the project. A number of potential sources of pollution were identified in DEIR Section 4.9.3.1 *Pollutants of Concern and Assessment Methodology*, Table 4.9.C: *Anticipated and Potential Pollutants Generated by Land Use Type*. These pollutants of concern include bacterial indicators, metals, nutrients, pesticides, toxic organic compounds, sediments, trash & debris, and oil & grease). Best Management Practices to mitigate these impacts have been incorporated into the project and are identified in DEIR Sections 4.9.6.2 *Construction-Related Water Quality Impacts* and 4.9.6.3 *Operational-Related Water Quality Impacts.*

Although adherence to the NPDES requirements is required of all development within the City, the incorporation of these requirements as MMs 4.9.6.2A and 4.9.6.2B (refer to Responses to Comments F-5-13 and F-5-23) are designed to ensure that any future development within the WLCSP area obtains coverage under the NPDES General Construction permit, and to track compliance with these requirements as part of the Mitigation Monitoring and Reporting Plan or Program.

Response to Appendix 66 (Impact and Control of Agricultural RUNOFF). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information about the benefits of riparian vegetation as nutrient buffers near agricultural land uses.

Response to Appendix 67. The commenter provided the first two pages of an article, *Controlling particulate emissions from diesel vehicles*. This article was published in the United Kingdom and discusses legislation in the United Kingdom. The article was provided in support of black carbon mitigation. Please refer to Response to Comment F-1-54 through F-1-64.

Letter F-2: American Lung Association (April 5, 2013)

Letter F-2

AMERICAN LUNG ASSOCIATION®
IN CALIFORNIA

411 Mac Kay Drive
San Bernardino, CA 92408
909-884-5864 phone
909-884-6249 fax

April 5, 2013

Mark Gross, Senior Planner
City of Moreno Valley
Community and Economic Development Department
14177 Frederick Street
Moreno Valley, CA 92553

Re: World Logistics Center DEIR

Dear Mr. Gross,

The American Lung Association in California is submitting this letter in response to our concerns about the significant air pollution-related health impacts of the proposed World Logistics Center (WLC) development and the need for the draft Environmental Impact Report (DEIR) to fully address those impacts.

After reviewing the DEIR, we are extremely concerned that the proposed project will generate significant health risks to the community, one that is already burdened by significant air pollution. The American Lung Association *State of the Air* report lists Riverside County as having a failing grade for both ozone and particle pollution, and among the worst air pollution in the nation. The DEIR states that air pollution-related cancer risks from the proposed project would exceed the threshold of 10 in one million and that the daily and annual emissions of all pollutants would exceed the South Coast Air Quality Management District's regional emissions significance levels and would also continue to exceed the localized significance thresholds. In addition to cancer risk, emissions from the project will also impact sensitive receptors, including those living with chronic cardiovascular and respiratory illnesses, the elderly and our children. In Riverside County, more than 160,000 people suffer from asthma, including 41,000 children. An additional 66,000 have chronic bronchitis and 28,000 have emphysema, who suffer even further when breathing polluted air. The DEIR fails to address these impacts. 1

Air pollution is a critical public health issue; everyone is at risk, but people with lung disease, children and the elderly are most vulnerable. The DEIR fails to analyze the health impacts of this 2

Letter F-2

AMERICAN LUNG ASSOCIATION® IN CALIFORNIA

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project on these vulnerable populations, including those with respiratory disease, or the impact of cumulative emissions from this project and others in the vicinity that are also being planned. We ask the City of Moreno to seek a full analysis of the potential health impacts from the increased pollution from the proposed project and to request additional project alternatives that would mitigate those impacts. 2

Sincerely,

Terry M. Roberts
Area Director

RESPONSES TO LETTER F-2

American Lung Association

Response to Comment F-2-1 and F-2-2. The commenter notes concerns regarding the significant health impacts to the community from the project and that the Draft Environmental Impact Report (DEIR) fails to address these impacts. The commenter requests additional analyses of potential health impacts and identification of project alternatives that would mitigate those impacts.

Health effects of diesel particulate matter (PM) are discussed in Master Response-2: Health Effects of Diesel Particulate Matter (refer to Response to Letter C-3). The DEIR has presented a comprehensive evaluation of the project's air quality and health impacts. The DEIR used emission and assessment methods and tools approved by the Air Resources Board (ARB) and South Coast Air Quality Management District (SCAQMD). Detailed estimates were made of the project's construction and operational emissions as part of the project's localized air quality assessment, regional emission assessment, and health risk assessment. The project's potential impacts were then compared with the significance thresholds established by the SCAQMD from which it was determined that the project would result in significance air quality impacts. These thresholds are designed to protect public health. The project's impacts are fully disclosed in the DEIR and in the revised analysis, including the identification of project design features and mitigation measures designed to minimize the project's pollutant impacts.

Letter F-3: California Clean Energy Committee (April 8, 2013) and Appendix List, Petition, and Appendices 1-187 (on Flash Drive)

Letter F-3

California Clean Energy Committee

"We're all working together to do a better job for the country."

April 8, 2011

Mr. Mark Gross, Senior Planner
City of Moreno Valley
14177 Frederick Street
Moreno Valley, California 92553

Re: Comments on Draft Program Environmental Impact Report
World Logistics Center Project
(SCH # 2012021045)

Dear Mr. Gross:

This letter will constitute comments by the California Clean Energy Committee on the Draft Environmental Impact Report for the World Logistics Center Project (EIR).

The California Clean Energy Committee is a California non-profit corporation headquartered in Davis which seeks to promote energy conservation, greenhouse gas reduction, and the development of clean-energy resources in California. It actively supports the application of the California Environmental Quality Act (CEQA) to energy conservation and related impacts. 1

Over 20 individuals in the Moreno Valley area have joined Clean Energy's campaign to request that that city require robust energy conservation and environmental stewardship in the World Logistics Center project design.

All notices regarding this project are requested to be sent to 3502 Tanager Avenue, Davis, California 95616-7531. Please feel free to contact the undersigned for additional information.

Accompanying this letter is a USB flash drive containing electronic copies in pdf format of all the documents listed in the appendix to this letter. Please contact us if you have any difficulty displaying the documents. 2

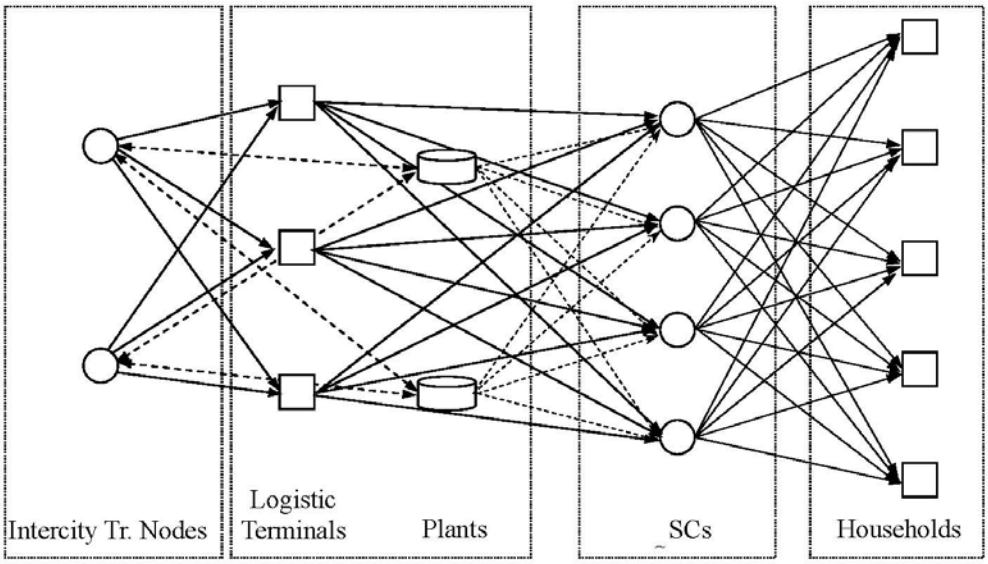
The EIR should be amended to incorporate an analysis of energy conservation, to include feasible mitigation for GHG emissions, to fully address transportation impacts and mitigation, and to incorporate a reasonable range of alternatives and then recirculated. The 3

logistics industry is uniquely situated to enable a wide variety of companies to pursue corporate responsibility and environmental sustainability goals in a cost-effective way. Sustainability is a key buying criterion for a growing number of consumers and a key factor in determining the reputation and success of companies. The development of sustainable logistics solutions should be a key element of the planning and development of the World Logistics Center. — 3

1. Logistics Sprawl — 4

According to the Southern California Association of Governments (SCAG), Southern California already faces severe congestion on its transportation routes with truck traffic as one of the major culprits. SCAG projects that warehousing in western Riverside County will increasingly serve the ports of Los Angeles and Long Beach. This will entail increased hauling distances and will contribute to traffic congestion and will lead to greater environmental and economic impacts on the region.

Figure 1: Supply Chain Network for Retail Goods in a City.



SCAG expects truck traffic to grow significantly on key east-west freeway segments. Increased truck traffic will cause longer delay to both trucks and general traffic. SCAG has planned a new East-West Freight Corridor that would run adjacent to SR-60 in an effort to accommodate truck traffic generated by projects such as this one.

The EIR should evaluate the potential cumulative impact of increased heavy-duty truck traffic from the ports. SCAG provides a Heavy Duty Truck modeling program which is a four-step data model for projecting the effects of increased trucking to the Inland Empire.

Urban package delivery is connected with increasing levels of traffic congestion, climate impacts, air quality impacts, and energy use. By locating the WLC at a considerable distance from the businesses and consumers that will ultimately receive the products, the project increases the amount of travel required to deliver goods and the related impacts to their ultimate destination. The EIR should evaluate the impact of increasing the total net distance travelled by trucks to reach their final destinations in the region. 4

2. Mitigation of Transportation Impacts

The project will have significant and unmitigated impacts to SR-60, SR-91, and I-215. The Perris Valley Line, which is now under development in Riverside County, projects that it will serve 4,350 riders daily and that the diversion from private car use to rail will reduce VMT by approximately 34 million miles per year reducing GHG emissions in the region. Riverside Transit Authority (RTA) has numerous transit routes serving the area. 5

The city should implement a transit funding charge on the project to fund mass transit operation expenses, van pools, real-time ridesharing, alternative mode marketing, transit pass programs, guaranteed ride home, truck routing and scheduling information, and management time to implement a traffic demand management measures that to mitigate freeway impacts. Transportation system impacts can be off-set by programs that increase transit mode share. Additional transit ridership would reduce congestion caused by the project. 6

Impacts could further reduced by implementing a transit-oriented development (TOD) design. TOD integrates transit service into the layout for the project so that transit services are convenient and obvious at employment sites. The proposed project should be designed around an effective transit plan which would encourage transit by designing it as a simple, convenient, clean, and economic way for employees to commute to work. This requires that the land use plan for the project be designed to integrate transit and that upgraded transit facilities be required so as to maximize transit mode share. 7

The project should subsidize transit fees, promote transit ridership, insure adequate transit service, and improve transit intermodal connections so as to increase transit ridership and reduce impacts to transportation system, air quality, energy, and GHG emissions.

ITE trip generation rates for a traditional warehouse are about 4.96 trips per thousand square feet. The trip generation analysis for the project is estimating .11 per thousand square feet. This means that a warehouse on site is projected to have about 2 percent as much traffic as a traditional warehouse. This is unreasonable and unsupported given that the number of truck trips would be similar for the two uses and given that employment, while much lower at this project, is not expected to be only 2 percent of a traditional warehouse. 8

The project concludes that certain transportation impacts are mitigated by the TUMF fee. However, TUMF mitigation does not account for the additional trips generated by the project being disproportionately truck trips which require considerably more infrastructure investment due to their greater traffic congestion impacts. 9

3. Transportation Management District

A Mello-Roos district should be established for the project to fund the design and operation of an on-going transportation management district and a commuter benefits program to serve the project's transportation demand. Employers should be required to contribute on either a square footage basis or an employee formula. A commuter benefits program provides alternatives and incentives that encourage commuting by more sustainable modes such as transit, rail, biking, van pools, and car-pooling. Commuter benefits programs are based on a traffic mitigation plan that includes public outreach to commuters through various media including workplace promotion, social media, on-line ride matching, signage, on-site transit pass sales, on-site transit information, discounted transit passes, and coordination with transit agencies. Employers located at the project site should mitigate transportation impacts by actively participating in a commuter benefits program. Such a program could be operated under the joint supervision of the City of Moreno Valley and the Riverside County Transportation Agency. By securing the participation of all employers on site through a Mello-Roos district and CC&Rs, companies can minimize the expense and administrative burdens of setting up individual programs while providing a more effective and responsive program under the supervision of specialized staff working with RTA. 10

4. Freight Rail

The EIR should analyze mitigation that would require the project applicant to develop freight facilities in along the San Jacinto Branch Line or take advantage of the intermodal facilities in San Bernardino to reduce impacts to regional freeways resulting from the shipment of cargo by truck to the project site from the San Pedro Bay ports, from other intermediate distance locations, and from elsewhere in the United States and Canada. The EIR should discuss whether the selection of the proposed site forecloses future use of energy efficient freight rail transportation. 11

5. Vehicle Miles Travelled

The EIR assumes that there will be no traffic impact other than trip generation because the jobs/housing balance in Moreno Valley will be improved by the project. At the same time the EIR claims that the project will involve high-cube warehouse space that will employ only a few people resulting in a very low trip generation rate. These are contradictory assumptions. 12

The EIR should specify what a high-cube warehouse is and assure that only warehouses with the projected low levels of employment would actually be built on site. Monitoring should be provided that would insure that high-employment uses would not be accommodated or that additional mitigation would be required if traffic counts ultimately exceeded the low-employment levels that the traffic analysis projects.

The number of employees expected to work at the project should be projected along with a how many of those employees would be expected to live in Moreno Valley, how many of them would be new residents, and how the jobs-housing ratio would be affected in view of those numbers.

12

The project is expected to generate 71,085 vehicle trips daily. Those are trips that will either begin or end at the project site. There is no support for the proposition that 71,085 less auto trips will be made elsewhere in the Los Angeles Basin as a result of this project. The EIR must analyze the vehicle miles travelled (VMT) associated with this project. SB 375 provides that regional transportation plans must lay out a land use pattern with the goal of reducing GHG emissions through VMT reductions. (Cal. Gov. Code Section 65080(b)(2)(B)(vii).) Locating the warehousing on the periphery of the urbanized area may increase the distance trucks are required to travel thus off-setting any potential reduction resulting from an improved jobs-to-housing ratio. The analysis should consider that some trips generated by the project will be made by delivery vehicles which may travel hundreds of miles, frequently stopping, before returning to the project site.

6. Alternative Fuels

13

Shippers operating from the project should be required to use alternative fuels to reduce the air pollution, energy, and climate impacts of the project. This includes zero-emission vehicles such as electric delivery vans and trucks operating on natural gas for as many of the new vehicles acquired for the project as feasible as well as for equipment operating on the site such as forklifts.

Heavy fleet operation can be based on fuel cell vehicles using hydrogen as a fuel source. The alternative fueling station for the project should provide for H2 fueling to be incorporated. The project should provide funding to Riverside Transit Authority to provide H2-powered transit taking advantage of the H2 fueling station. Fleet operations may make hydrogen fuel cell vehicles

cost-effective. The EIR should evaluate mitigation that requires companies to operate with sustainably-fueled, zero-emissions vehicles. Solar photovoltaic on warehouse roofs can charge vehicle batteries or operate hydrogen electrolysis to power zero-emissions fleet vehicles. 14

7. Parking

All employers owning or leasing buildings in the project site should be required to offer parking cash-out to employees. Parking cash out requires employers to offer employees the option to choose cash in lieu of any parking subsidy offered. Implementation of parking cash-out by individual employers can be used to reduce transportation impacts whether or not employers are able to reduce the number of parking spaces they own or rent. 15

The project should adopt shared parking through either a parking district or public parking in lieu of minimum parking requirements. Employers should be allowed to reduce the number of shared parking spaces they construct or lease based upon (i) the likelihood that multiple facilities will not all require maximum parking at the same time and (ii) the extent to which individual facilities can implement cash-out parking. This reduces costs to employers and moderates single-occupant vehicle demand.

8. Co-Loading and Back-Hauling

The project should require companies locating at the project site to participate in the VICS Empty Miles program or an equivalent program to reduce empty backhauls and to facilitate co-loading opportunities. The design of the program should be tailored to take advantage of economies of scale at the WLC site. 16

9. SmartWay

Companies operating at the project should be required to participate in the U.S. EPA's Smart Way Program. Under that program freight shippers commit to use SmartWay freight carriers for 50 percent or more of their shipping resulting in more freight being carried by freight companies that are taking steps to reduce energy consumption and emissions. 17

Smart Way allows ground shippers to track supply chain emissions using data supplied to the SmartWay system by trucking and rail companies. It also allows shippers to model strategies to reduce emissions. The EPA is continually upgrading this tool, and it is being

integrated into logistics programs. The SmartWay shippers can pick carriers to meet performance targets for emissions reductions. This allows shippers to drive efficiency in the supply chain and encourages freight carriers to adopt strategies such as idle reduction, improved aerodynamics, improved freight logistics, automatic tire inflation systems, single wide-base tires, and driver training. 17

10. Evaluation of Energy Resources

The EIR should evaluate the economic viability of potentially-feasible renewable energy strategies and energy efficiency tools available that could reduce energy demand from the project. The EIR should evaluate options for putting the entire project on 100 percent renewable electrical energy, or some lesser percentage as may be feasible, and evaluate the extent to which transportation systems associated with the construction and operation of the project can be fueled from renewable electrical generation or other reduced-emission fuels. 18

The EIR should compare the relative efficiency of different technologies to could provide energy to the project for operation, construction, transportation, and other uses. The EIR should discuss the projected energy use of the project and the impact of requiring additional generation facilities to serve the anticipated load. Project loads should be estimated based upon typical high-cube warehouse space operations including lighting, space conditioning, battery recharging, equipment, transportation, water heating, etc. Energy resources potentially available include natural gas, solar radiation, grid-sourced electricity, petroleum, wind, geothermal, biofuels, and biomass. The EIR should evaluate ways in which the projected electric demand can be served in an efficient and environmentally-sustainable way. The EIR should evaluate strategies for reducing reliance on fossil fuels, increasing reliance on renewable resources, reducing peak loads, and reducing the impacts of reliance on remote generation facilities. 19

The planned 40,000,000 square feet of commercial space comprising the project would yield 28,000,000 square feet of rooftop solar PV at a 70 percent coverage ratio. At an average of 4 mWh daily produced per mW of solar generation capacity, the available solar generation would produce 204,400 mWh annually. The cost of purchasing an equivalent amount of power using $0.1401 per kWh, which is the time-of-use rate for summer peak for large commercial users of the Moreno Valley Electric Utility, is over $28 million per year. 20

SOLAR ENERGY PER YEAR	
Gross Floor Space (sf)	40,000,000
Available Roof Space for Solar PV (sf) [1]	28,000,000
Roof Space Required per MW of Generation (sf) [2]	200,000
Solar Generation Capacity (mW) [3]	140
Annual Solar Generation (mWh) [4]	204,400
Annual Cost of an Equivalent Amount of Electric Power purchased from Moreno Valley Utility [5]	**$28,636,400**

20

Using the CPUC-determined starting price for the SB32 feed-in-tariff of $89.23/mWh and a 20 percent adder for solar time-0f-use characteristics, the annual wholesale value is $21,829,920. The shading effect of rooftop solar arrays reduces cooling demand and should be included in the energy benefits.

The addition of solar generation to the project could be centrally managed by a third party or under contract with Moreno Valley Utility. Excess power could be sold to the Moreno Valley Utility under a long-term power purchase agreement or sold to SCE. Moreno Valley Utility could enter a long-term lease agreement and finance the solar at municipal bond rates. Ratepayers would benefit because the Moreno Valley Utility would meet its renewable portfolio standard (RPS) obligation at no additional cost, rather than being required to pay a premium for renewable energy purchased through the RAM auction.

The EIR should discuss how failing to implement reliable and efficient local energy generation would pre-empt future clean energy development. By failing to adopt renewable energy when the project is implemented, project occupants become subject to administrative and financial obstacles as well as additional construction costs associated with retro-

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[1] 40,000,000 square feet of commercial space would yield 28,000,000 square feet of usable roof space at a 70 percent usable ratio.
[2] Solar generation at Orange County Convention Center delivers 1.016 MW from 200,000 s.f. of roof space.
[3] 28,000,000 square feet of roof space used for solar panels would generate 140 mW (28,000,000/200,000=140).
[4] Assuming conservatively 4 mWh per day of generation for each mW of solar generation capacity, 140 mW of capacity would produce 204,400 mWh of electricity per year (4 mWh * 140 * 365).
[5] 204,400,000 kWh * $0.1401.

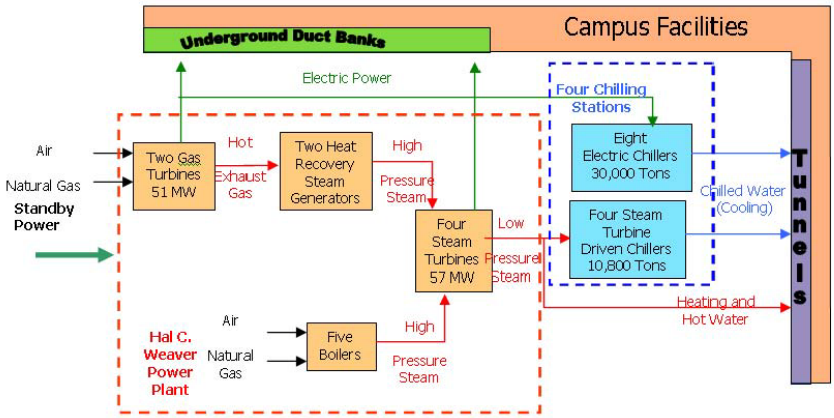
fitting renewable generation to an operating commercial building, rather than installing it as a component of the initial construction. 20

11. District Heating and Cooling

District heating and chilled water should be evaluated for use project-wide in lieu of packaged HVAC units. Either centrifugal chillers or centralized solar collection technology driving single or double effect absorption chillers should be considered. Chilled water and hot water service could be produced via one or more solar thermal installations. The payback period on such a system can be less than five years. Chilled water can also provide cost-effect thermal storage taking advantage of off-peak electricity rates and solar thermal resources.

District heating and cooling should also be evaluated based on implementing combined-cycle gas turbine generation with a combined heat and power application that uses waste heat to power an absorption chiller. To the extent that new natural-gas-fired generation would serve the project's electrical demand, generation should be located close to project load in order to reduce the cumulative impact of requiring additional long-distance transmissions lines, to reduce transmission line losses, and to facilitate combined heat and power applications using waste heat. The EIR should also consider the GHG impacts from sulfur hexafluoride emissions (SF6), a human-made chemical that is used as an electrical insulating fluid for power distribution. In 1998, atmospheric concentrations of SF6 were 4.2 ppt and steadily increasing in the atmosphere. SF6 is the most powerful GHG listed in IPCC studies with a GWP of 23,900 (Intergovernmental Panel on Climate Change 1996). Avoiding reliance on grid-sourced power also increases power reliability avoiding costly power outages for business locating in the WLC. CHP is especially attractive in hotter inland areas because of high cooling loads. 21

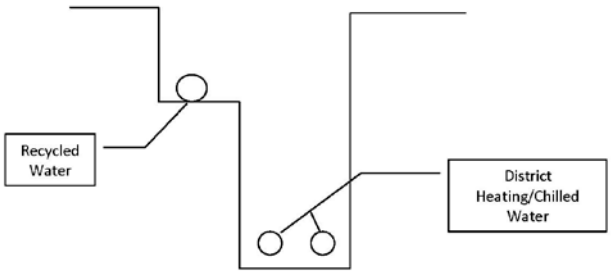
University of Texas at Austin Combined Heat and Power Plant



Investment tax credits and municipal bonding by a cooperative agreement with the Moreno Valley Electric Utility can be combined with a Mello-Roos district reduce capital costs to approximately 4 percent while taking advantage of tax incentives available only to the private sector. The combination is considerably less than the cost of financing separate HVAC units as part of the construction take-out financing. A Mello-Roos district and appropriate mitigation provisions as a condition of project approval would insure adequate project demand to insure financial viability and justify financing.

As noted, capital costs are substantially reduced for renewable energy systems integrated into the initial project design and installed during initial construction, as opposed to being retrofitted at some later date. Chilled water distribution piping installed as a component of the initial project is another good example of this. Piping would be sequenced into construction of underground utilities such as water, sewer, natural gas, electricity, data services, recycled water, etc. using an appropriate joint trench design. 21

District chilled water reduces capital costs and maintenance costs for individual warehouses the cost to purchase and install large HVAC units, the cost of structural components required to support heavy HVAC equipment on roofs, the cost of sizing substations and power distribution systems to serve peak demand for numerous large HVAC systems, the costs to construct floor space for HVAC equipment, and the cost of duct work throughout warehouses. HVAC maintenance costs and replacement costs are reduced because individual buildings do not have HVAC systems to maintain or replace. Air handler units and chilled-water piping are used. The overall cooling capacity that must be purchased is reduced because system size is based on overall peak demand rather than by equipping each building to meet peak cooling demand individually. Further cost savings could be achieved by selling credits from the project under the AB 32 cap and trade program.



Combined Trench for Recycled Water and District Heating/Chilled Water

12. <u>Ground Source Heat Pumps and Solar Water Heating</u>

Ground source or geothermal heat pumps can reduce heating and cooling expenditures for buildings by 40 to 70 percent. Ground source heat pumps take advantage of relatively consistent ground temperatures. The city should evaluate the use of ground source heat pumps and solar water heating to increase project efficiency and reduce impacts. Horizontal or vertical loops could be installed quickly and efficiently prior to initiating foundation work. Applicable federal tax credits increase the economic returns. Ground source heat pumps can supply hot water, or they can be paired with solar water heating to provide an alternative design to district heating and cooling. 22

13. Lighting and Energy Efficiency

The total cost of ownership of LED lamps is considerably less than incandescent and florescent lamps. Up to 80% of the electrical energy used in warehouses is consumed by electric lighting. The EIR should consider requiring LED lighting throughout including the use of LED lighting in parking lots because of the reduced energy requirements of LED lighting. Many projects now exceed Title 24, Part 6. The EIR should also evaluate incorporating additional energy efficiency up to 40 percent beyond Title 24. 23

14. Microgrid and Storage

A microgrid is a cluster of electricity sources and possibly controllable loads that are connected to the traditional wider power system but which may, as circumstances dictate, disconnect from it and operate as an island for short periods of time. Microgrids can consist of multiple buildings or locations. Micro-grids provide the power quality and reliability benefits of on-site generation with semiautonomous control as well as cost, efficiency and environmental benefits. The EIR should evaluate the use of a microgrid for the WLC project area. Microgrids are suitable for projects that require high reliability and availability of electricity supply. Microgrids allow the efficient integration of project-wide renewable energy resources, enable consumption shift to off-peak hours, facilitate energy storage, reduce environmental impacts, and enhance the safety, reliability and affordability of electric service to business users. Energy storage should be evaluated for combinations of thermal storage, vehicle batteries (V2G), and hydrogen electrolysis for vehicle and equipment use. 24

Chilled Water Storage

15. Ancillary Benefits

The combination of solar photovoltaic, energy conservation, a district chilled water system and enhanced Title 24 plus compliance would bring the project near to net zero with no additional lifecycle cost. Clean energy systems provide on-going, long-term savings to companies operating on the project site. They also make the project more attractive to companies intending to meet sustainability goals. Sustainability has become a key buying criteria for consumers, and sustainability is a critical factor in shaping the reputation of a company. Sustainable projects sell more quickly because they provide economic benefits to prospective owners. Faster sales reduce the developer's project carrying costs.

Renewable energy facilities provide additional value for the invested dollar because they increase the reliability of the energy supply. Black-outs cause considerable economic losses to businesses and typically require expensive, inefficient, and decentralized back-up power supplies. Incorporating micro-grid technology into the WLC grid would greatly increase the resilience of the Moreno Valley electric grid and allow for islanding the site and maximizing local generation while shedding of non-essential load during power emergency conditions. The combined-cycle gas turbine/chilled water plant at the UC Davis Medical Center in Sacramento was to a large extent initiated because of the reliability of locally-sourced generation. 25

Buildings that incorporate on-site renewable generation have increased market value and that market value grows over time. By contrast, brown power is only an expense and carries no investment return. Further, an investment in renewable energy locks in the cost of energy for the lifetime of a project. It provides companies a hedge against energy price increases resulting from factors such as volatile fossil fuel prices or the cost of decommissioning nuclear facilities.

16. Mello-Roos District

The city should condition approval of the World Logistic Center on the formation of a Mello-Roos district encompassing the project site to generate long-term funding sufficient to insure the operating cost for more efficient and more economical project operation.

The Mello-Roos Community Facilities Act of 1982 (Gov. Code, § 53311 et seq.) authorizes local government agencies to form community facilities districts to "finance the purchase, construction, expansion, improvement, or rehabilitation of any real or other tangible property with an estimated useful life of five years or longer," as well as related planning and design work. (Gov. Code, § 53313.5.) The financed facilities need not be physically located within the Mello-Roos district. (Gov. Code, § 53313.5.) Funding under the act is through the use of special taxes, submitted to a two-thirds voter approval. (Gov. Code, §§ 53326, 53328.) 26

The Legislature has recognized importance of dramatically reducing California's reliance on fossil-fuel powered electrical generation by adopting the California Renewable Portfolio Standard, which will help to reduce air pollution in the state, meet the state's climate change goals, promote stable retail rates for electric service, meet the state's need for a diversified and balanced energy generation portfolio, assist meeting the state's resource adequacy requirements, contribute to the safe and reliable operation of the electrical grid, provide a predictable electrical supply, voltage support, lower line losses, and congestion relief, and to implement the state's transmission and land use planning activities related to development of eligible renewable energy resources. (Pub. Utilities Code, § 399.1(b).)

Proceedings for the formation of a community facilities district are initiated by adoption of a resolution of intention to establish the district. The resolution of intention sets a time for a public hearing on the establishment of the district, at which time interested persons may protest or otherwise comment on formation of the district. (Gov. Code, §§ 53321, 53323.) If a majority protest has not been made, the legislative body may adopt a resolution of formation establishing the district. (Gov. Code, § 53325.1.) Following establishment of the community facilities district, an election must be held within the district to authorize the proposed special tax. If fewer than 12 registered voters reside within the boundaries of the district on the date 90 days before the date of the hearing, then the tax is voted on by persons who own property within the district on the date of the hearing, each receiving 1 vote for each acre of land owned. If 12 or more registered voters reside within the district, then the election is by registered voters within the district. (Gov. Code, § 53326.) **26**

17. Farmland Impact

The project will have a significant impact on conversion of unique farmland and farmland of local importance. The city should provide mitigation for the farmland impacts by requiring the purchase of conservation easements for an amount of land equivalent to the farmland that will be occupied by the project. The easements should be held by the city or by a suitable land trust. **27**

18. Alternate Sites

The EIR should fully evaluate alternative sites, or a combination of alternative sites, that are capable of supporting a large-scale, logistics warehouse project. The City of Beaumont contains at least three parcels that would support large-scale logistics warehousing. The City of Calimesa has a large amount of vacant land near Singleton Road and I-10. Union Pacific's El Paso Line runs through Beaumont. The City of Perris has considerable land that could be used for large-scale logistics warehousing. Riverside County has considerable land already zoned for light industrial or business park uses along the I-215 corridor south of Moreno Valley where logistics warehousing would be appropriate. The March Joint Powers Authority has over 700 acres of developable land. San Jacinto has **28**

considerable land available for a large logistics warehouse. BNSF has trackage rights for freight service on the San Jacinto Branch Line, which runs parallel to I-215 from Riverside through Perris and Hemet to San Jacinto. 28

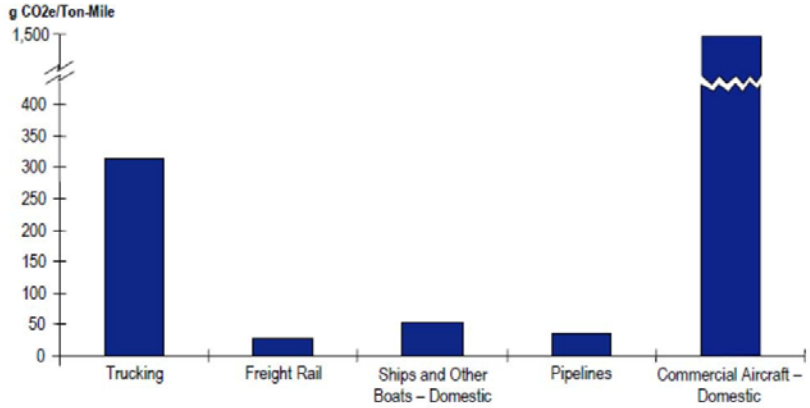


Exhibit 2.10: GHG Emissions per Freight Ton-Mile by Freight Transportation Mode, 2006

Source: U.S. EPA, 2008, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990 to 2006*; and Bureau of Transportation Statistics, National Transportation Statistics.

19. Mixed-Use Design

The EIR does not contain a plausible mixed-use alternative. Modeling should be done to develop an optimized mixed-use design. The EIR should analyze the vehicle-miles travelled reduction for the mixed-use alternative. Trip counts should be reduced for the mixed-use alternatives based on the resulting internal capture of vehicle trips on the project site.

The Mixed-Use A alternative contains no residential and thus fails to achieve the reduced travel impacts that are associated with locating residential development close to commercial and business uses. Mixed Use B alternative eliminates all commercial development and again fails to locate commercial and residential near to each other where trip generation and vehicle miles travelled would be reduced. The mixed use alternatives have not been design in a manner that would achieve the benefits of mixed-use design. 29

The project should be evaluated for consistency with AB 32, the SCAG Sustainable Communities Strategy and with Executive Order S-03-05. 30

20. Covenants, Conditions and Restrictions

The project applicant should be required to record a set of CC&Rs on the entire project site that implements cost-effective energy and climate mitigation including the various components described in this comment letter. Particular focus should be given to energy 31

efficient designs, development of renewable energy resources, the use of transportation energy, smart-grid integration, and the implementation of district heating and cooling. 31

Respectfully submitted,

/s/ Eugene S. Wilson

Eugene S. Wilson

Enclosures

RESPONSES TO LETTER F-3

California Clean Energy Committee

Response to Comment F-3-1. The City acknowledges that the Committee has expressed interest in energy conservation as it applies to the World Logistics Center (WLC) project. The City is interested in finding ways to conserve various forms of energy and help reduce the emission of greenhouse gases.

Response to Comment F-3-2. The City did received the cited information on the flash drive and it has been incorporated as various appendices to this comment letter. Much of the appended materials were general articles on energy conservation, air pollution control, etc. this may or may not bear a direct relationship to the WLC project. Since the commenter did not indicate how these materials relate to the WLC project and Environmental Impact Report (EIR), the City will not speculate as to their appropriateness, but simply conclude that many measures to conserve energy through building design, reduce vehicle fuel consumption, and provide for alternatives to traditional internal combustion and diesel engines onsite will be implemented as appropriate, and as outlined in various sections of the Draft Environmental Impact Report (DEIR) (e.g., 4.3, *Air Quality*, 4.7, *Greenhouse Gases*, and 4.16, *Transportation*). The World Logistics Center Specific Plan (WLCSP) also has a section on sustainability that addresses building design, landscaping, water use, lighting, etc. (WLCSP Section 1.3.2).

Response to Comment F-3-3. The DEIR contains a number of measures to conserve energy through building design, reduce vehicle fuel consumption, and provide for alternatives to traditional internal combustion and diesel engines onsite have been proposed in various sections of the DEIR (e.g., 4.3, *Air Quality*, 4.7, *Greenhouse Gases*, and 4.16, *Transportation*).

Response to Comment F-3-4. The commenter discusses the expected growth in truck traffic on the freeway system and suggests the Traffic Impact Analysis (TIA) analysis of truck traffic should be extended to the Los Angeles ports.

An additional section (Chapter 12, Section F) has been included in the revised TIA (FEIR Volume 2, Appendix L-1) that analyzes project impacts on freeways to the ports. The analysis found only a small percentage of WLC truck traffic would be to and from the ports. See Table 86 in the revised TIA (FEIR Volume 2 Appendix L-1), repeated below as Table F-3.A. This is based on Southern California Association of Governments (SCAG) survey data.

Table F-3.A: Percentage of WLC Trucks to or from the Ports

Year	% of Warehouse Space Used for Port-Related Cargo	% of Truck Trips Going to and from the Ports
2012	5.00%	2.07%
2022	9.30%	3.86%
2035	16.30%	6.76%

No impacts were found that were not already covered in the TIA. The freeway analysis in the TIA takes into account the cumulative effect of reasonably foreseeable future development that would affect the overall volume of truck traffic. The growth in truck traffic stems from a variety of factors including population and economic growth, increasing internal and external trade, and locational decisions dependent on the availability and cost of land.

Response to Comment F-3-5. The commenter is correct that the project TIA identifies significant impacts to the identified freeways which cannot be mitigated because the Lead Agency (City) does not have control over how improvement funds are spent in other jurisdictions. However, the revised TIA (Chapter 4, Section F, Volume 2, Appendix L-1) does fully evaluate the potential for rail service to this site and concludes it is not physically feasible, practical, and would result in substantial environmental impacts to residential neighborhoods west of the WLC project if a new rail line were brought in to serve this project. The analysis showed rail service to the project site is not viable due to a range of factors, including high fixed costs, secondary impacts on the community, terrain, and capacity constraints within the rail system.

Response to Comment F-3-6. The project is proposing to increase transit ridership and decrease single-occupant vehicle demand through strategies other than through a transit funding charge, though the outcomes are expected to be similar. Section 3.4.6.2 of the DEIR describes various ways the project would incorporate strategies to reduce congestion. Specifically, the DEIR states "*The Specific Plan states that project site development will support alternative transportation options for employees through implementation of onsite bicycle storage, preferred parking for low-emitting and fuel-efficient cars, carpool high-occupancy vehicles, and access to public transit.*" These requirements can be found in the WLCSP at Sections 3.3.4 – Mass Transit Circulation, 3.3.5 – Emergency Access/Trail Connection, 3.4.2 Multi-Use Trails, 3.4.3 – Bicycle Circulation, and 6.0 – Sustainability.

In addition, all facilities at the WLC would be required to participate in programs that will achieve the goal sought by the commenter. A requirement already contained within the DEIR is Mitigation Measure (MM) 4.3.6.4A requires that tenants participate in Riverside County's rideshare program, which has an established program to distribute information and coordinate carpooling and public transportation. In addition, all tenants will need to comply with the requirements of South Coast Air Quality Management District (SCAQMD) Rule 2202, which accomplishes the same goals as requested by the commenter. All of the methods identified above are means to comply with SCAQMD Rule 2202.

With regard to truck routing, trucks are required to use designated truck routes within the City of Moreno Valley. Other jurisdictions have the option of establishing truck routes or prohibiting trucks from selected streets as it meets their jurisdiction's need to do so. Since this is programmatic document and it is not known what tenants would occupy the proposed buildings or their business needs, it is speculative to determine that a truck scheduling system would be compatible with their operations. Additionally, as indicated in the TIA, Section 4.D, the vast majority of truck traffic would occur outside peak traffic times and scheduling system would not eliminate the need for truck trips that do occur during peak traffic times.

Response to Comment F-3-7. The commenter requests that the project use a transit-oriented development (TOD) design.

The TIA concurs with the commenter that transit service to the project site is poor, but points out that this is due to the current lack of demand at a site that currently consists of dry-agriculture fields and seven houses. The project would include transit-supportive features (see Chapter 12, Section D of the revised TIA, FEIR Volume 2, Appendix L-1) and it is expected that transit service will be provided once the project reaches a transit-supportable level of operations.

Response to Comment F-3-8. The commenter states the TIA's trip generation rates of 0.11 vehicular trips per thousand square feet per day (VT/KSF/day) is too low when compared to Institute of Transportation Engineers' (ITE's) warehouse rate for traditional warehouses (4.96 VT/KSF/day).

The commenter misstates the trip generation rate that was used in the TIA analysis. The commenter seems to have mistaken the 0.11 VT/KSF/day figure from the fifth column in TIA Table 22, which refers to the AM peak hour only, for the daily rate. The correct figure for the daily rate is presented in

the right-most column of TIA Table 22 and is 1.68 trips per thousand square feet per day. This figure is appropriate for high-cube warehouses and is supported by studies from the ITE. ITE has established separate trip generation rates for traditional and high-cube warehouses because the latter typically involve a much higher degree of automation and so have a smaller labor force, and consequently fewer commute trips, than traditional warehouses. The WLCSP would include restrictions on the types of operations allowed on site to maintain consistency with the trip generation assumptions.

Response to Comment F-3-9. The commenter states that TUMF fee mitigation does not adequately account for the project being disproportionately truck trips due to their greater traffic congestion impact.

The TUMF fee schedule adheres to the "rough proportionality" requirement in the Mitigation Fee Act. It is not within the City's authority to change this formula.

Response to Comment F-3-10. A transportation management district and commuter benefits program where included as part of the DEIR through MM 4.3.6.4A and through the requirements of Air Quality Management District (AQMD) Rule 2022. A requirement already contained within the DEIR is MM 4.3.6.4A requires that tenants participate in Riverside County's rideshare program, which has an established program to distribute information and coordinate carpooling and public transportation. In addition, all tenants will need to comply with the requirements of SCAQMD Rule 2202, which accomplishes the same goals as requested by the commenter.

The commenter discusses Mello-Roos Districts as a vehicle to fund design and operation of an on-going transportation management district, the commenter makes no connection between Mello-Roos Districts and any environmental issue and no response is required. The City Council will consider all comments on the project before making a decision on the project.

Response to Comment F-3-11. The commenter states the TIA should address using rail as a mitigation measure.

An additional section (Chapter 4, Section F) has been included in the TIA (FEIR Volume 2, Appendix L-1) that analyzes the potential for serving project trips by rail. The analysis showed rail service to the project site is not viable due to a range of factors, including high fixed costs, secondary impacts on the community, terrain, and capacity constraints within the rail system.

Response to Comment F-3-12. The commenter questions the seeming contradiction between the project helping the jobs/housing balance in Moreno Valley and the low employee trip generation rate. The commenter also wants assurances that employment levels will actually be as low as forecasted. The commenter claims that there is no support for the proposition that if the project generates 71,085 trips daily that these would substitute for work trips that would otherwise go to other parts of the Los Angeles Basin and that SB-375 requires land use plans that reduce greenhouse gas emissions through vehicle miles traveled (VMT) reductions.

The TIA correctly shows the WLC would improve the jobs-housing imbalance in the City of Moreno Valley by creating needed employment opportunities (Chapter 4, Section D, FEIR Volume 2, Appendix L-1). However, it is clear that the project would not in-itself resolve the entire issue of out-commuting from Moreno Valley and no such claim was made in the report. The specific plan for the project includes a definition of high-cube warehouse that would prohibit labor-intensive activities in areas zoned for high-cube warehouse, which will result in employment levels as forecasted.

The commenter's contention that there is "no support" for the proposition that work trips to the WLC would substitute for work trips that would otherwise go to other parts of the Los Angeles Basin is not correct. The very heart of SB-375 and subsequent sustainable community strategies is to redress the

current problem of long commutes caused by jobs being located in urban cores while housing spreads out to suburbs and exurbs. Moreno Valley, which has one of the lowest jobs-to-housing ratios in the six-county SCAG region, is an extreme example of this problem. A large majority (70%) of Moreno Valley workers commute to jobs outside the city, and many commute long distances far outside the city. According to the U.S. Census Bureau, 20.2% of Moreno Valley workers commute more than 50 miles one way to work, and another 22.2% drive 25 to 50 miles one way (U.S. Census Bureau. 2013. OnTheMap Application. Longitudinal-Employer Household Dynamics Program. http://onthemap.ces.census.gov/). There is every reason to foresee that if 20,000 jobs, closely matching the skill set of the Moreno Valley labor force, were to become available in Moreno Valley many residents of the city would take up those jobs in lieu of working at more distant locations, thus reducing the amount of long-distance commuting. While not every job at WLC would be taken by a local resident, the TIA made no claim to such effect. Census data suggests that something like one-third of the jobs in Moreno Valley are taken by residents of the city; some similar percentage may also occur for WLC employees, depending on how much new housing is developed in the city.

Response to Comment F-3-13. The proposed Specific Plan contains regulations which directly address the alternative fuels issues raised by the commenter. Section 1.3.2 "Green Building – Sustainable Development" contains specific design features that will reduce the project's environmental footprint including accommodating alternative means of transportation, requiring the establishment of an on-site fueling facility for alternative fuels, and providing for alternative power sources including roof-top solar systems on individual buildings. To encourage the use of such fuels, MM 4.3.6.3C and 4.3.6.3D requires the alternative fueling site to be operational prior to the end of the first phase of the WLC.

It is infeasible to require that all trucks utilize alternative fuels exclusively. Trucking operators need to make business decisions to remain viable, one of which relates to selecting a type of fuel suited to its particular needs. The fuel market is dominated by fossil-fuel based vehicles and these vehicles need to be accommodated as well as alternatively fueled trucks. As stated above, the WLC project is imposing the highest current restrictions on all trucks accessing the individual sites and is committing to provide fueling facilities for alternative fuels.

It is not possible at this time to commit to a phase-in for alternative fueled vehicles for the WLC for several reasons. First, it is unknown who the tenants of the WLC will be and the specific nature of their operations (e.g., long-haul trucking versus regional trucking), which would determine the availability of alternatively-fueled vehicles. Furthermore, the trucks serving the WLC are not under the control of the developer and, most likely, would not be under the control of tenants. It is typical that trucking needs would be arranged by the ultimate cargo owner through the use of third parties, such as third-party logistics providers (more commonly known as 3PLs). As a result, the tenant would not have the necessary control to require a phase-in schedule for alternatively-fueled trucks. Additionally, phase-in schedules for alternative-fueled vehicles are unworkable in the context of the WLC. Since most tenants are not expected to have direct control over the trucks that call the WLC facilities, there would be no practical way to allocate responsibility for alternative-fueled vehicles among a multitude of trucking companies, whom the tenants may not even have prior knowledge of. It is for implementation reasons such as this that the WLC has committed that all medium-heavy and heavy duty trucks, those weighing 15,000 pounds (Gross vehicle weight (GVW)) or more, serving WLC facilities must be 2010 compliant to engine emission standards of the State of California and United States Environmental Protection Agency (USEPA), a standard that can be easily communicated and equitably enforced. The WLC project is believed to be the first project of its size to mandate this standard. Finally, while the economics of alternatively-fueled trucking may be changing, there is yet not significant enough market penetration of alternatively-fueled trucks (for instance, no alternatively-fueled trucks have been added to the ports of Long Beach and Los Angeles' drayage fleet since the ports have ended subsidies for alternatively-fueled trucks) to expect them to reliably serve the WLC through a phase-in schedule.

Response to Comment F-3-14. The commenter indicates that the EIR should evaluate mitigation that requires sustainable zero-emissions vehicles; solar can charge vehicle batteries or operate hydrogen electrolysis to power zero-emission fleet vehicles.

Refer to Master Response-3, Zero Emission and Hybrid Electric Trucks, Vehicles, and Equipment, which discusses the reasons for why zero-emissions vehicles are not feasible for this project (see Comment Letter C-3).

Response to Comment F-3-15. There is no evidence that shared or district parking will, in itself, reduce or moderate single-occupant vehicle demand. It is merely a method of organizing parking among multiple of tenants/owners. It would have no impact on the demand by employees for parking and is speculative that multiple facilities would not require maximum parking at the same time. However, all facilities at the WLC would be required to participate in programs that will achieve the goals sought by the commenter. A requirement already contained within the DEIR is MM 4.3.6.4A requires tenants participate in Riverside County's rideshare program, which has an established program to distribute information and coordinate carpooling and public transportation. In addition, all tenants will need to comply with the requirements of SCAQMD Rule 2202, which accomplishes the same goals as requested by the commenter. Specifically, it contains a provision for parking cash-out programs as one method to reduce single-occupant vehicle demand.

Response to Comment F-3-16. The proposed project is programmatic in nature. As a result, it is unknown which specific companies will choose to operate at the WLC or the nature of their operations. As a result, it is impossible to determine if a program like VICS Empty Miles is compatible with future possible tenants. There are too many possible participants and possible variations of participants (trucking companies, cargo owners, facility managers, beneficial cargo owners, 3PLs (third party logistics providers), ocean carriers, and others to understand how they could work with a program like Voluntary Interindustry Commerce Solutions (VICS) Empty Miles at this stage. To a large degree, such programs are unnecessary because to the extent that there are economic opportunities for backhaul, companies already take advantage of them. No trucking company chooses to drive empty. Even so, there are many backhaul trips that remain empty because there are major logistical and liability issues associated with interchanging equipment or cargo, which these programs essentially require to work. To a large degree, some companies are not expected to have any control over the truck fleets that call on their facility. This is because some companies do not own their own trucks. While other companies may be engaged in a proprietary operation that is not suited to coordination with other companies' cargo operations. Historically, these programs have not been successful for the reasons indicated and, in fact, the VICS Empty Miles program website (www.emptymiles.org) is unreachable at the time this response was prepared.

For these reasons, it is unknown whether the VICS Empty Miles program or similar programs would successfully reduce empty backhaul miles. The use of the VICS Empty Miles program or equivalent would be best evaluated at the project level, should any exist at that time. Therefore, the following mitigation measure will be added to the traffic section to encourage future users to take advantage of this program if they are able:

~~**4.15.7.4G** City shall work directly with WRCOG to request that TUMF funding priorities be shifted to align with the improvements identified in this TIA.~~

4.15.7.4G City shall work directly with Western Riverside Council of Governments to request that Transportation Uniform Mitigation Fee funding priorities be shifted to align with the needs of the City, including improvements identified in the World Logistics Center Specific Plan traffic impact analysis. Toward this end, City shall meet regularly with Western Riverside Council of Governments.

Response to Comment F-3-17. The commenter indicates that the project should be required to participate in the Environmental Protection Agency's (EPA's) SmartWay Program.

The diesel trucks that would access the project site would be required to be model year 2010 or newer. SmartWay features (low rolling resistance tires and aerodynamic devices) are required through California's Tractor-Trailer Greenhouse Gas Regulation. In addition, MM 4.3.6.3B encourages tenants to become SmartWay partners and maximize the number of SmartWay trucks. Tenants will be encouraged through the terms in the lease agreement but the developer cannot require them to become SmartWay partners. Participation in this program would be of benefit to many but not all potential tenants of the WLC project, so MM 4.3.6.3B only encourages and does not require participation in this program. If participation is economically feasible and advantageous, many WLC project businesses will certainly want to participate in it, but is unknown at this time what that would mean to a specific business and/or operations since no specific uses or users are proposed at this time. Please see the Final Environmental Impact Report (FEIR) Mitigation Monitoring Reporting Program for a list of the project's mitigation measures.

Response to Comment F-3-18. A comparison of the relative efficiency of different feasible renewable energy technologies is unnecessary to achieve the goal sought by the commenter, which is fueling the construction and operation of the project from renewable electric generation of reduced emission fuels. Regardless of the specific incentive or measure identified above, the various proposed mitigation measures proposed in the FEIR Volume 2 Sections 4.3 and 4.7 share the same goal of a reduction in greenhouse gas emissions.

The proposed project is implementing mitigation measures to reduce the project's impacts related to greenhouse gas emissions, other than those arising from vehicles which are not under the City's control. In the FEIR, the project has incorporated a new MM 4.16.4.6.1C, which requires the following:

4.16.4.6.1C Prior to the issuance of a building permit, new development shall demonstrate that each building has implemented the following:

1) Install solar panels with a capacity equal to the peak daily demand for the ancillary office uses in each warehouse building;

2) Increase efficiency for buildings by implementing either 10 percent over the 2008 Title 24's energy saving requirements or the Title 24 requirements in place at the time the building permit is approved, whichever is more strict; and

3) Require the equivalent of "Leadership in Energy and Environmental Design Certified" for the buildings constructed at the World Logistics Center based on Leadership in Energy and Environmental Design Certified standards in effect at the time of project approval.

This measure shall be implemented to the satisfaction of the Building and Safety and Planning Divisions.

Taken together, these measures exceed the goals established by AB 32 for reducing greenhouse gas emissions, reduce reliance on fossil fuels, increases reliance on renewable resources, and reduce peak loads as suggested by the commenter. The greenhouse gas and climate change impacts analyzed in the FEIR as it relates to the project's incremental use of onsite electricity and corresponding generation of greenhouse gases is not cumulatively considerable and therefore requires no further mitigation. With regard to using onsite power generation to power electric vehicles,

please refer to Master Responses (refer to Response to Letter C-3) regarding the feasibility and availability of electric vehicles.

The commenter also indicates that the EIR should evaluate options for 100 percent renewable electrical energy or a lesser percentage. The project is implementing solar, according to MM 4.16.4.6.1C. Also refer to Response to Comment F-3-20.

The commenter also indicates that the EIR should evaluate the extent to which transportation systems can be fueled by renewable electricity or other reduced emission fuels. The project requires yard trucks, generators, and onsite equipment during operation to be powered by non-diesel fuel. In addition, electric vehicle charging infrastructure is being installed in the project. However, requiring additional transportation related measures is not feasible as discussed in Master Response-3, Zero Emission and Hybrid Electric Trucks, Vehicles, and Equipment, and Response to Comment C-3-8.

Response to Comment F-3-19. Since this project falls within MVU's service territory, it is the serving utilities responsibility to secure additional power from Southern California Edison (SCE). WLC has provided all of the current information to Moreno Valley Utility (MVU) for their use in evaluating what additional power requirements they will have in the area. MVU will work with SCE to do a complete and thorough review of SCE's systems in order to properly serve MVU's needs. Any off site impacts to SCE's system in order to serve MVU with additional capacity cannot be analyzed by this project since SCE's system loading and circuit information is also proprietary.

The project's electrical demand is based on typical high-cube warehouses energy demands provided by MVU (see full analysis in Appendix N-1 of FEIR Volume 2). An analysis of twelve similar operations within the utility's service territory was evaluated to establish the projected energy demands for the project.

The benefits of providing various types of renewable energy for this project have been evaluated. In making the evaluation, the project has taken into consideration current California Public Utilities Commission (CPUC) requirements. Currently this project is committed to providing renewable energy through solar panels that will be installed on the rooftops of buildings to help offset the power requirements within the project (MM 4.16.4.6.1C). A detailed solar analysis is included in Appendix N-2 of FEIR Volume 2.

Response to Comment F-3-20. The project has done extensive research in evaluating the energy requirements necessary for the project as well as the possibility of providing solar power options to help offset the electrical demand. Currently the project does have a solar commitment (refer to Response to Comment F-3-18).

Response to Comment F-3-21. It is understood that District heating and cooling facilities is widely used on large campus single owner parcels to distribute power and provide heating and cooling opportunities for all buildings. While it may also be used on similar projects outside of California, the state currently does not allow private District heating and cooling systems such as those that have been suggested by the commenter to cross Public rights of way to serve individual property owners (California Public Utilities Code Section 218). All of the streets within the WLC will be public.

District heating and cooling facilities provide an environmental benefit when heat waste from power generation can be utilized for ancillary uses. However, the project will be required to use solar panels to reduce the projects reliance on grid source power (see MM 4.16.4.6.1C and Responses to Comments F-3-18 thru 20).

Response to Comment F-3-22. The facilities planned for the WLC will generally have limited domestic hot water requirements and only seasonal space heating requirements. Ideally geo-exchange loops would be located in an area of the site where they could be maintained in the future.

The commenter suggests the horizontal or vertical loops can be placed below the foundation this is problematic since the loop may interfere with the location of future foundations for the racking and material handling equipment that is typically installed after the construction of the core and shell of the building. Citing Geo exchange loops within parking or truck yard areas would be problematic to maintain or repair because they would require interruption of the operations of the building.

Solar thermal systems are not viable for the proposed project because there is a limited demand for domestic hot water during the times where the solar thermal system would be able to produce heated water. In addition, the project will require future users to install photovoltaic panels to generate electricity, so many of the systems, like hot water, that typically use natural gas, may use electricity instead, such as flash heaters.

Response to Comment F-3-23. The facilities planned for the WLC will include energy efficient interior lighting systems that will exceed the 2013 California Building Energy Efficiency Standards (Title-24 Part 6) by 10%. Light-Emitting Diode (LED) lighting for interior applications will be incorporated into the project as a part fulfillment of MM 4.16.4.6.1C (exceeding Title 24 by 10%).

Section 4.1.6.4 in the DEIR (Aesthetics) provides a discussion on light and glare and the effect not only on the adjacent residential areas, but also specifically addresses issues of the SJWA to the south and other “natural” areas. There are numerous requirements that must be applied on a project specific basis. These include compliance with the City of Moreno Valley Ordinance 851 on lighting and two mitigation measures to minimize “white” light spillage into the SJWA. LED lighting for exterior applications will be incorporated into project to the extent it meets the requirements outlined above. Also refer to Responses to Comment F-3-18 through F-3-20 and also to Responses F-1-21 regarding low pressure sodium lighting.

Response to Comment F-3-24. It is understood that Microgrid facilities is widely used on large campus single owner parcels to distribute power for all buildings. While it may also be used on similar projects outside of California, the state currently does not allow private District heating and cooling systems such as those that have been suggested by the commenter to cross public rights of way to serve individual property owners (California Public Utilities Code Section 218). All of the streets within the WLC will be public.

Thermal storage allows excess thermal energy to be collected for later use, hours, days or many months later, at individual building, multiuser building, district, town or even regional scale depending on the specific technology. This is not possible since the project is not using co-generation or district heating and cooling (See Response to Comment F-3-21).

Vehicle Batteries (V2G) is a system in which plug-in electric vehicles, such as electric cars (BEVs) and plug-in hybrids (PHEVs), communicate with the power grid to sell demand response services by either delivering electricity into the grid or by throttling their charging rate. This is not possible for this project as MVU does not have a smart grid (based on a phone call with the Jeannette Olko Electric Utility Division Manager for MVU.

Hydrogen Electrolysis for vehicle and equipment use is an automobile that hypothetically derives its energy directly from water. Please see Master Response in Letter C-3 regarding use of alternative fuel vehicle as part of the project.

Response to Comment F-3-25. The WLC is proposing to provide a combination of solar photovoltaic, energy conservation, and enhanced Title 24 plus compliance to reduce the impacts of the project. These clean energy systems will make the project more attractive to companies intending to meet sustainability goals.

Please see Responses to Comments F-3-20 through F-3-24 regarding the feasibility of implementing mitigation measures summarized in this comment.

Response to Comment F-3-26. The commenter discusses Mello-Roos Districts as a vehicle to fund project infrastructure but does not make any specific suggestions for how this funding mechanism might be utilized in connection with the WLC project. Further, the commenter makes no connection between Mello-Roos Districts and any environmental issue regarding the WLC project other that a general statement relative to the State's push to reduce reliance on fossil-fuel powered electrical generation. Further because a Mello-Roos District requires voter approval, the City can't force anyone to vote in favor of setting one up.

Response to Comment F-3-27. The commenter has suggested the project mitigate the loss of farmland by a conservation easement. In fact, a new MM 4.2.6.1A has been added to the FEIR Volume 2 requiring the acquisition of a conservation easement be recorded over land of comparable productive value to preserve offsite farmland or equal or more agricultural productivity compared to the unique farmland. It should be noted the revised Parsons Brinckerhoff report and the *California (California) Land Evaluation and Site Assessment (LESA) Model* report (FEIR Volume 2, Appendix C-1 though C-4) have determined that conversion of the Farmland of Local Importance does not represent a significant impact based on the results of the revised LESA model assessment (see also Response F-7A-39 to Letter F-7A for more information on agricultural impacts).

Response to Comment F-3-28. The commenter is referred to Section 6.3.9 of the DEIR that provides a detailed analysis of potential alternative sites in eleven different jurisdictions up to 20 miles from the WLC project site, including several sites mentioned by the commenter. DEIR Figure 6.1 shows the locations of the various jurisdictions that were contacted and/or analyzed for alternative sites and Table 6.R presents the results of that analysis. The DEIR concluded that there were no adequate sites available for various reasons, including size, freeway accessibility (project will not be rail served as explained previously), etc.

Response to Comment F-3-29. An EIR is not required to provide detailed and costly land use plans or designs as part of its analysis of alternatives, but rather the level of detail is dictated by the results of the environmental assessment (i.e., what significant environmental impacts were identified) and what is the overall level of detail provided in the EIR. In this case, this is a programmatic EIR so therefore analysis of land uses at a programmatic level are appropriate and reasonable. Similarly, CEQA does not require a detailed traffic study be prepared for each alternative developed, but a general assessment of impacts (e.g., trip generation comparison) rather than an expensive and detailed traffic study for each alternative that would not yield substantial new information relative road and intersection impacts. Impacts of alternatives are necessarily characterized relative to the proposed project, so a percentage more or less than the impacts of the proposed project is sufficient for a programmatic environmental analysis such as in this EIR.

Response to Comment F-3-30. The commenter is referred to Section 4.7 of the DEIR which specifically addresses consistency with AB 32, SCAG Sustainable Communities Strategy (SCS), Executive Order S-3-05, and the various implementation guidelines developed subsequent to 2006 when the law was signed. In addition, it must be remembered this is a programmatic EIR and future specific development will have to comply with more specific energy conservation requirements in the future. Pages 4.7-38 through 4.7-40 of the DEIR discusses project consistency with the AB 32 Scoping Plan. In Appendix D of the DEIR (pages 229-230), the Sustainable Communities Strategy is discussed. The revised report contains additional information regarding consistency with the Regional Transportation Plan (RTP).

Response to Comment F-3-31. Covenants, conditions and restrictions **(**CC&Rs) are a normal element of master-planned projects that will ultimately be owned or leased by multiple entities. CC&Rs ensure that a mechanism is in place to manage the overall project and any properties owned

in common. The WLC project will have a comprehensive set of CC&Rs to ensure these functions are properly managed.

The commenter's concerns with issues such as energy efficiency and climate mitigation are more properly regulated and enforced by the applicable land use regulations, not through CC&Rs. Section 11.3.2 of the WLCSP requires site-specific discretionary Plot Plan approvals which will evaluate the details of each building proposed in the WLC and provides the opportunity for the City to impose and enforce appropriate conditions of approval to address these issues and any others that may arise. In addition, each Plot Plan will have its own CEQA evaluation to ensure that environmental issues are appropriately evaluated prior to a project approval.

Response to Appendix 1 (Energy Design Resources Design Brief Chiller Plant Efficiency). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to District Heating and Cooling.

Response to Appendix 2 (Application Opportunities for Absorption Chillers by Johnson Controls). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to District Heating and Cooling.

Response to Appendix 3 (Optimize your facility's energy utilization with free heat by Johnson Controls). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to District Heating and Cooling.

Response to Appendix 4 (Improve your HVAC-energy utilization by Johnson Controls). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to Heat Pumps.

Response to Appendix 5 (Use Low-Grade Waste Steam to Power Absorption Chillers by US Department of Energy). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to District Heating and Cooling.

Response to Appendix 6 (CASE STUDY: Central Plant District Cooling and Heating on College Campus). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to District Heating and Cooling

Response to Appendix 7 (Project Profile - Toyota Motor Sales South Campus Office Development Torrance, California). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to LEED.

Response to Appendix 8 (Macy's Goes Solar and Improves Energy Efficiency in 28 California Stores with SunPower - Case Study). The appendix was not directly referenced in the comment letter. It is assumed that the appendix is intended to provide additional information related to Solar Power.

Response to Appendix 9 (FedEx Goes Solar with SunPower - Case Study). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to Solar Power.

Response to Appendix 10 (USGBC Project Profile - OFFICE DEPOT AUSTIN, TX). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to LEED.

Response to Appendix 11 (USGBC Project Profile - EMERYVILLE MARKETPLACE EMERYVILLE, CALIFORNIA). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to LEED.

Response to Appendix 12 (USGBC Project Profile - JACKSON SQUARE REDEVELOPMENT INITIATIVE ROXBURY AND JAMAICA PLAIN, ROXBURY AND JAMAICA PLAIN, MASSACHUSETTS). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to LEED.

Response to Appendix 13 (Tiffany's saves $450,000 annually with SunPower - Case Study). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to Solar Power.

Response to Appendix 14 (Same as Appendix 13). Same as Appendix 13.

Response to Appendix 15 (Wal-Mart Renewable Energy: Ohio). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to Solar Power.

Response to Appendix 16 (Talbott Solar & Radiant Estimate). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to Solar Power.

Response to Appendix 17 (California's Transition To Local Renewable Energy: 12,000 Megawatts By 2020). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to Renewable Energy.

Response to Appendix 18 (Solar Means Business: Top Commercial Solar Customers in the U.S.). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to Solar Power.

Response to Appendix 19 (Clean Power Estimator). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to Solar Power.

Response to Appendix 20 (Solar, Renewable Grid Parity Reached in California – Clean Technical). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to Solar Power.

Response to Appendix 21 (Solar energy measurement - message board). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to Solar Power.

Response to Appendix 22 (Case study Orange County Convention Center Orlando, Florida). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to Solar Power.

Response to Appendix 23 (Cost of electricity by source From Wikipedia, the free encyclopedia). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to the cost of electricity.

Response to Appendix 24 (Understanding the Cost of Power Interruptions to U.S. Electricity Consumers). The appendix was not directly referenced in the comment letter. It is assumed that the appendix is intended to provide additional information related to the cost of electricity.

Response to Appendix 25 (U.S. Energy Information Administration - FAQ: How much electricity does an American home use?). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to the average home's electricity use.

Response to Appendix 26 (Decision Revising Feed-In Tariff Program, Implementing Amendments to Public Utilities Code). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to the feed-in tariff program.

Response to Appendix 27 (Moreno Valley Utility Electric Rates). The appendix provides electric rates for the comparison calculation of annual cost of electric power, Chart "Solar Energy Per Year." The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to the cost of solar energy.

Response to Appendix 28 (Moreno Valley Resident Services: MV Utilities). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to the background of Moreno Valley Electric Utility.

Response to Appendix 29. It is assumed the appendix is intended to provide additional information related to the service area of Moreno Valley Electric Utility.

Response to Appendix 30. The commenter provided the City of Moreno Valley Energy Efficiency and Climate Action Strategy. This was incorporated into the analysis of WLC project impacts in DEIR Section 4.7 (DEIR pages 4.7-25, 4.7-41, 4.7-42).

Response to Appendix 31 (International District Energy Association-Combined Heat and Power: Essential for a Cost Effective Clean Energy Standard). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended as a source for information in the District Heating and Cooling section.

Response to Appendix 32 (International District Energy Association-Community Energy: Planning, Development and Delivery). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to community energy efficiency planning.

Response to Appendix 33 (District heating From Wikipedia, the free encyclopedia). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to district heating systems.

Response to Appendix 34 (Vancouver Green Capital - Neighborhood Energy Utility). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide an example of a city already implementing renewable, innovative and adaptable energy solutions.

Response to Appendix 35 (City of Boise - Geothermal Heating District). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide an example of a city using geothermal heating rather than grid power.

Response to Appendix 36 (The University of Texas at Austin - A Study in the Benefits of Efficiency Improvements to Emissions and Fuel Costs). The appendix provides the graphic

"Combined Heat and Power Plant" and information about the University of Texas's efficiency measures.

Response to Appendix 37 (The University of Texas at Austin - Power Plant and Chilling Stations). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide an example of energy efficiency measures being taken at the University of Texas at Austin.

Response to Appendix 38 (District Energy St. Paul - Combined Heat and Power). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to combined heat and power (CHP).

Response to Appendix 39 (District Energy St. Paul - Solar Thermal). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to solar thermal integration into district heating.

Response to Appendix 40 (District Energy St. Paul - Thermal Storage). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to thermal storage.

Response to Appendix 41 (District Energy St. Paul - District Heating). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to district heating systems.

Response to Appendix 42 (District Energy St. Paul - District Cooling). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to district cooling.

Response to Appendix 43 (District Energy St. Paul – Customers). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information about companies giving customers a choice in energy supply.

Response to Appendix 44 (District Energy St. Paul – History). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information about the history of District Energy St. Paul.

Response to Appendix 45 (Central Solar Hot Water Systems Design Guide). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to hot water systems design.

Response to Appendix 46 ("Potential for Combined Heat and Power and District Heating and Cooling from Waste-to-Energy Facilities in the U.S. – Learning from the Danish Experience"). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to combined heat and power (CHP) and heating and cooling from waste-to-energy facilities.

Response to Appendix 47 (U.S. Department of Energy International District Energy Association - District Energy, CHP First Order Screening Tool). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to district energy, CHP first order screening tool.

Response to Appendix 48 (Oak Ridge National Laboratory: Combined Heat and Power - Effective Energy Solutions for a Sustainable Future). The appendix was not directly referenced in

the comment letter. It is assumed the appendix is intended to provide additional information related to combined heat and power (CHP).

Response to Appendix 49. The commenter provided a letter from the California Air Resources Board to the California State Assembly regarding combined heat and power facilities. Please refer to Response to Comment F-3-21 regarding this issue.

Response to Appendix 50. The commenter provided California Energy Commission, The Carbon Dioxide Abatement Potential of California's Mid-Sized Commercial Buildings (www.energy.ca.gov/2010publications/CEC-500-2010-050/CEC-500-2010-050.pdf). The article is regarding medium-sized commercial buildings, while this project consists of large warehouses, therefore the information in this article does not apply to the WLC project.

Response to Appendix 51 (ICF International, Inc. Combined Heat and Power: Policy Analysis 2011-2030 Market Assessment). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to combined heat and power (CHP) systems in California.

Response to Appendix 52 (Case Study: U.S. Marine Corps Air Ground Combat Center Twentynine Palms, California). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to energy and facility upgrades with lasting energy efficiencies.

Response to Appendix 53 (Case Study: Whitehall/Coplay School District Whitehall, Pennsylvania). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to energy and facility upgrades with lasting energy efficiencies.

Response to Appendix 54 (Geothermal Heat Pump From Wikipedia, the free encyclopedia). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide background information related to geothermal heat pumps.

Response to Appendix 55 (U.S. Department of Energy - Geothermal Technologies Office). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide background information related to geothermal technologies.

Response to Appendix 56 (U.S. Department of Energy - Guide to Geothermal Heat Pumps). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide background information related to geothermal heat pumps.

Response to Appendix 57 (FEMP's Geothermal Heat Pump Program). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to geothermal heat pump programs.

Response to Appendix 58 (Office of Geothermal Technologies - Geothermal Heat Pumps for Medium and Large Buildings). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to geothermal heat pumps.

Response to Appendix 59 (Commercial Geothermal Heat Pumps). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to geothermal heat pumps.

Response to Appendix 60. The commenter provided an article regarding the first DHL carbon neutral warehouse in the United Kingdom. The warehouse uses a ground source heat pump for heating and cooling and motion sensors for electric lighting systems. The warehouse switched to a green energy tariff. The United Kingdom has different energy standards and electricity generation facilities than Southern California. The project will be incorporating onsite and will meet LEED certified standards (MM 4.16.4.6.1C).

Response to Appendix 61 (ICLEI: City Planners' Energy Action Resource Guide - Greenhouse Gas Reduction Measures for New Development). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to energy efficiency in community design.

Response to Appendix 62 (Department of Energy - Estimating the Cost and Energy Efficiency of A Solar Water Heater). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to cost and energy efficiency of a solar water heater.

Response to Appendix 63 (Solar Water Heating From Wikipedia, the free encyclopedia). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to solar water heating.

Response to Appendix 64 (Energy Efficiency and Renewable Energy - Solar Water Heating). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to solar water heating.

Response to Appendix 65 (White Paper: Solar Thermal Energy: The Time Has Come). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to solar thermal energy.

Response to Appendix 66 (U.S. Department of Energy - Building Technologies Office). The appendix provides information about LEDs and specifications for parking lots referenced in Section 13. Lighting and Energy Efficiency. The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to LEDs and energy consumption.

Response to Appendix 67 (Product Snapshot: LED Replacement Lamps). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to LED lamps.

Response to Appendix 68 (My LED Lighting Guide). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to LED lamps.

Response to Appendix 69 (California Energy Commission - Local Ordinances Exceeding 2008 Building Energy Efficiency Standards). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to local ordinances exceeding building energy efficiency standards.

Response to Appendix 70 (City of Malibu Local Energy Efficiency Standards). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to Malibu's building energy efficiency standards.

Response to Appendix 71 (Santa Monica Municipal Code - Green Building Standards Code). The appendix was not directly referenced in the comment letter. It is assumed the appendix is

intended to provide additional information related to Santa Monica's building energy efficiency standards.

Response to Appendix 72. The commenter provided the City of Mountain View's application to the California Energy Commission for Green Building Standards Code Local Amendments. This application was not directly referenced in the commenter's letter, so it is unclear why the material was provided, however, MM 4.16.4.6.1C in Section 4.16 of the DEIR requires the project to exceed Title 24 standards by 10 percent.

Response to Appendix 73. The commenter provided a City of Healdsburg ordinance, which adopts Title 24 California Code of Regulations, "2010 California Green Building Standards Code." The comment letter did not discuss why this reference was provided. As discussed in the DEIR (Table 4.7.J, page 4.7-36), the project would be required to comply with all existing requirements, including the California Green Building Standards Code, and MM 4.16.4.6.1C in Section 4.16 of the DEIR requires the project to exceed Title 24 standards by 10 percent.

Response to Appendix 74 (Galvin Electricity Initiative - What are Smart Microgrids?). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to microgrids.

Response to Appendix 75 (Galvin Electricity Initiative - Understanding Microgrids). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to microgrids.

Response to Appendix 76 (Galvin Electricity Initiative - The Value of Smart Distribution and Microgrids). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to microgrids.

Response to Appendix 77 (Southern California Association of Governments, Regional Transportation Plan, Goods Movement Appendix (2012)). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide support to the comment that Port-related truck activity is expected to increase in the future.

Response to Appendix 78 (SCAG, Industrial Space in Southern California: Future Supply and Demand for Warehousing and Intermodal Facilities (Task 5 Report) (Jul. 2010)). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide support to the comment that "warehousing in western Riverside County will increasingly serve the ports of Los Angeles and Long Beach."

Response to Appendix 79 (Chapter 7 – Heavy Duty Truck Model from SCAG 2008 Regional Model: SCAG Regional Travel Demand Model and 2008 Model Validation). The appendix was mentioned in the comment letter when stating that the EIR "should evaluate the potential cumulative impact of increased heavy-duty truck traffic from the ports."

Response to Appendix 80 (A presentation on the Southern California Association of Governments, Southern California Region Heavy Duty Truck Model). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide support to the comment stating that the EIR "should evaluate the potential cumulative impact of increased heavy-duty truck traffic from the ports."

Response to Appendix 81 (Southern California Association of Governments, On the Move: Southern California Delivers the Goods (Dec. 2012)). The appendix was not directly referenced in

the comment letter. It is assumed the appendix is intended to provide support to the comments relating to goods movement in the Southern California region.

Response to Appendix 82 (Wikipedia, Transportation Forecasting). The appendix was not directly referenced in the comment letter It is assumed the appendix is intended to provide support to the comments relating to travel demand forecasting.

Response to Appendix 83. The commenter did not indicate what the purpose was of including this document as an appendix to its comment letter. While the City will not overly speculate on its purpose, it appears to suggest a methodology for estimating indirect effects of growth since it is entitled "Guidance for Preparers of Growth-Related, Indirect Impact Analyses" produced by FHWA, US EPA, and Caltrans. However, the introduction of Section 2 in this report clearly states "This guidance refers to a specific type of indirect effect—the effects of growth that can be linked to the development of a Caltrans' transportation project." Therefore, this information is not relevant to a large logistics warehouse project such as WLC and will not be investigated further.

Response to Appendix 84 (Delivering Tomorrow Towards Sustainable Logistics by Deutsche Post DHL). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to sustainable logistics.

Response to Appendix 85 (UPS: Shipping Green by Environmental Defense Fund). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to improve the environmental characteristics of the company's express packaging.

Response to Appendix 86. The commenter did not indicate what the purpose was of including this document as an appendix to their comment letter. While the City will not overly speculate on its purpose, it appears to suggest ways that logistics shipping can be made more efficient. It was prepared by the Environmental Defense Fund and does not appear to have had any direct industry input or review. While this information may be of general relevance to the logistics industry as a whole, the commenter has made no effort to connect it to a logistics warehouse project such as WLC. Therefore, this information will not be investigated further.

Response to Appendix 87 (How To Stay Clean In A Dirty World: A Vision For A Smarter, Healthier Supply Chain by Environmental Defense Fund). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to Improving Supply Chain Efficiency And Sustainability.

Response to Appendix 88 (Dablanc, L. & Rakotonarivo, D., The Impacts of Logistics Sprawl: How Does the Location of Parcel Transport Terminals Affect the Energy Efficiency of Goods' Movements in Paris and What Can We Do About It? (2010)). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to the environmental impact of goods movements related to warehousing.

Response to Appendix 89 (Riverside County Transportation Commission, Draft Environmental Impact Report Perris Valley Line (Apr. 2010)). The appendix was mentioned in the comment letter when discussing the mitigation of transportation impacts. Facts from the Perris Valley Line study were included in the comment letter, such as: "the diversion from private car use to rail will reduce VMT by approximately 34 million miles per year reducing GHG emissions in the region."

Response to Appendix 90 (Texas A&M Transportation Institute, TTI's 2012 Urban Mobility Report (Dec. 2012)). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to general changes in levels of truck congestion.

Response to Appendix 91 (Texas A&M Transportation Institute, Carpooling). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to the comment that a "Mello-Roos district should be established for the project to fund the design and operation of an on-going transportation management district and a commuter benefits program to serve the project's transportation demand."

Response to Appendix 92 (Texas A&M Transportation Institute, Vanpool). Same comment as Appendix 91.

Response to Appendix 93 (Texas A&M Transportation Institute, Real-Time Ride Sharing). Same comment as Appendix 91.

Response to Appendix 94 (Federal Highway Administration, Mitigating Traffic Congestion: The Role of Demand-Side Strategies). Same comment as Appendix 91.

Response to Appendix 95 (City and County of San Francisco, Memo to Planning Commission: In-formation Presentation on the Transportation Sustainability Program (Jan. 2012)). Same comment as Appendix 91.

Response to Appendix 96 (City and County of San Francisco, San Francisco Transportation Sustainability Fee Nexus Study (Mar. 2012)). Same comment as Appendix 91.

Response to Appendix 97 (California Air Resources Board, ARB 1998 Criteria and Guidelines for the Use of Motor Vehicle Registration Fees: Design of Successfully Demonstrated Projects: Design of Successfully Demonstrated Projects). Same comment as Appendix 91.

Response to Appendix 98 (City of Riverside, Riverside Go Transit Program Guidelines). Same comment as Appendix 91.

Response to Appendix 99 (City of Riverside, Riverside Go Transit Frequently Asked Questions). Same comment as Appendix 91.

Response to Appendix 100 (Riverside Transit Agency, RTA Awarded $2.4 Million in Federal Grant). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to the comment that RTA has "numerous transit routes serving the area" and that the compressed natural gas buses intended to be purchased with the grant mentioned in the appendix would help to reduce GHG emissions in the region.

Response to Appendix 101 (Riverside Transit Agency, System Map). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to the comment that the Project "should subsidize transit fees, promote transit ridership, insure adequate transit service, and improve transit intermodal connections so as to increase transit ridership and reduce impacts to transportation system, air quality, energy, and GHG emissions."

Response to Appendix 102 (Texas A&M Transportation Institute, Express Bus Service). Same comment as Appendix 91.

Response to Appendix 103 (Victoria Transport Policy Institute, Transit Station Improvements). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to the comment that the Project could further reduce impacts by implementing a transit oriented development design.

Response to Appendix 104 (Victoria Transport Policy Institute, Trip Reduction Tables). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to the comment that the Project should subsidize transit fees.

Response to Appendix 105 (U.S. DOT. Public Transportation's Role in Responding to Climate Change (January, 2010)). Same comment as Appendix 101.

Response to Appendix 106 (Google, Maps of Freeway Segments). The appendix was not referenced in the comment letter. We have reviewed the maps and provided similar maps in the FEIR Volume 2 Appendix L-1.

Response to Appendix 107 (Riverside Transit Agency, Short Range Transit Plan (May, 2012)). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to the comment that RTA has "numerous transit routes serving the area" and that the project should subsidize transit fees. The appendix could also be provided to support the request that the City of Moreno Valley and the RTA operate a transportation management district for the project.

Response to Appendix 108 (Riverside County Transportation Commission, Strategic Analysis of Express Bus Service for Western Riverside County (2011)). Same comment as Appendix 91.

Response to Appendix 109. The commenter provided *Moving Cooler, an Analysis of Transportation Strategies for Reducing Greenhouse Gas Emissions.* The comment letter did not discuss why this reference was provided. The DEIR and FEIR considered options to reduce greenhouse gas emissions and many are included as project design features and mitigation measures (see Master Response-1).

Response to Appendix 110 (City of Seattle, Best Practices in Transportation Demand Management)**.** Same comment as Appendix 91.

Response to Appendix 111 (Texas A&M Transportation Institute, Transportation Management Associations). Same comment as Appendix 91.

Response to Appendix 112 (Online TDM Encyclopedia - TDM Marketing). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related Transportation Demand Management.

Response to Appendix 113 (Victoria Transport Policy Institute, Transport Management Associations). Same comment as Appendix 91.

Response to Appendix 114 (Montgomery County Code, Article II, Sections 42A). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to Montgomery County's ridesharing and transportation management code.

Response to Appendix 115 (Victoria Transport Institute, Transit-Oriented Development). Same comment as Appendix 103.

Response to Appendix 116 (Caltrans. Transit-Oriented Development Compendium (June, 2005)). Same comment as Appendix 103.

Response to Appendix 117 (Caltrans. Transit-Oriented Development Compendium (June, 2005)). Same comment as Appendix 103.

Response to Appendix 118 (Western Riverside Council of Governments, Transportation Uniform Mitigation Fee: Fee Calculation Handbook (2012)). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to the comments that the "TUMF mitigation does not account for the additional trips generated by the project being disproportionately truck trips which require considerably more infrastructure investment due to their greater traffic congestion impacts."

Response to Appendix 119 (Western Riverside Council of Governments, Transportation Uniform Mitigation Fee Nexus Study Final Report (2009)). Same comment as Appendix 118.

Response to Appendix 120 (Al-Kaisy, A. & Jung, Y., Examining the Effect of Heavy Vehicles During Congestion Using Passenger Car Equivalents). Same comment as Appendix 118.

Response to Appendix 121 (City of San Jose, Envision San Jose 2040, Transportation Analysis (2011)). The appendices are not referenced in the comment letter. The appendices are transportation sections of EIRs, with two of the PDFs being over a hundred pages. It is not clear what is unique about the included transportation sections of the EIR and how it relates to the WLC EIR.

Response to Appendix 122 (Southern California Association of Governments, 2012-2035 RTP/SCS Draft Program EIR, Transportation, Traffic & Security (2012)). The appendices are not referenced in the comment letter. The appendices are transportation sections of EIRs, with two of the PDFs being over a hundred pages. It is not clear what is unique about the included transportation sections of the EIRs and how it relates to the WLC EIR.

Response to Appendix 123 (Tahoe Regional Planning Agency, Homewood Mountain Resort Ski Area Master Plan EIR/EIS, Transportation, Parking and Circulation (2011)). The appendices are not referenced in the comment letter. The appendices are transportation sections of EIRs, with two of the PDFs being over a hundred pages. It is not clear what is unique about the included transportation section of the EIR and how it relates to the WLC EIR.

Response to Appendix 124. The commenter provided the Southern California Association of Governments 2012-2035 Regional Transportation Plan (RTP). This document is discussed in the DEIR (Appendix D, pages 229-231). The FEIR also contains an analysis of how the project is consistent with the strategies in the RTP.

Response to Appendix 125. The commenter provides an article regarding how the UPS fleet will add 100 electric delivery vehicles to its fleet. The Electric Vehicles International (EVI) trucks cost about $150,000 each and have a 75-mile range. As discussed in Master Response-3, Zero Emission and Hybrid Electric Trucks, Vehicles, and Equipment, it is not feasible to require electric trucks/vehicles for the WLC project.

Response to Appendix 126. The commenter provides an article regarding hydrogen fuel-powered forklifts at a Coca-Cola location. As discussed in the DEIR (page 3-33) and in the WLCSP (Section 12.3), the WLC project requires non-diesel forklifts during operation of the project. If the tenants find it feasible, they may implement hydrogen fueled forklifts as well.

Response to Appendix 127. The commenter provided a report by the California Governor's Working Group on Zero-Emission Vehicles, *2013 ZEV Action Plan, a roadmap toward 1.5 million zero-emission vehicles on California roadways by 2025*. As discussed in Master Response-3, Zero Emission and Hybrid Electric Trucks, Vehicles, and Equipment, it is not feasible for the project to require zero-emission vehicles. However, MM 4.3.6.4A requires electrical charging stations at future buildings within the WLCSP.

Response to Appendix 128 and Appendix 129. The commenter provides information regarding hydrogen fuel cell and zero emission buses, but the project would not likely have many buses. In addition, Master Response-3, Zero Emission and Hybrid Electric Trucks, Vehicles, and Equipment, indicates that it is not feasible for the project to require non-diesel trucks.

Response to Appendix 130. The commenter provides information on well to tank hydrogen fuel cells. Master Response-3, Zero Emission and Hybrid Electric Trucks, Vehicles, and Equipment, indicates that it is not feasible for the project to require non-diesel trucks.

Response to Appendix 131 through Appendix 138. The commenter provides information about hydrogen fuel stations and locations. Master Response-3, Zero Emission and Hybrid Electric Trucks, Vehicles, and Equipment, indicates that it is not feasible for the project to require non-diesel trucks.

Response to Appendix 139. The commenter provided a report regarding bringing hydrogen fuel cell electric vehicles to California. It is not feasible to require electric or hydrogen fuel cell vehicles as part of the project (refer to Master Response-3). However, MM 4.3.6.4A requires electric vehicle charging stations.

Response to Appendix 140. The commenter provided an article regarding ACE Hardware providing 65 hydrogen fuel cell power lift trucks (forklifts). The project prohibits diesel powered forklifts during operation of the project (MM 4.3.6.3B). If future tenants find it feasible to implement hydrogen fuel cell forklifts, they may do so.

Response to Appendix 141. The commenter provided a reference regarding parking management. MM 4.3.6.4A requires that the project participate in Riverside County's Rideshare Program and requires preferred parking for low-emitting, fuel-efficient, and carpool/van pool vehicles.

Response to Appendix 142. The commenter provided a report on an overview of U.S. parking management policies. MM 4.3.6.4A requires that the project participate in Riverside County's Rideshare Program and requires preferred parking for low-emitting, fuel-efficient, and carpool/van pool vehicles.

Response to Appendix 143. The commenter provided a report on parking cash out. MM 4.3.6.4A requires that the project participate in Riverside County's Rideshare Program and requires preferred parking for low-emitting, fuel-efficient, and carpool/van pool vehicles.

Response to Appendix 144. The commenter provided draft text of Senate Bill No. 582 which was vetoed by the Governor on August 1, 2011. Consideration of Governor's veto stricken from file on February 2, 2012. The comment letter did not discuss why this reference was provided.

Response to Appendix 145. The commenter provided information on California's parking cash-out program. MM 4.3.6.4A requires that the project participate in Riverside County's Rideshare Program and requires preferred parking for low-emitting, fuel-efficient, and carpool/van pool vehicles.

Response to Appendix 146. The commenter provided a definition on shared parking, a parking management strategy. MM 4.3.6.4A requires that the project participate in Riverside County's Rideshare Program and requires preferred parking for low-emitting, fuel-efficient, and carpool/van pool vehicles.

Response to Appendix 147. The commenter provided information on commuter financial incentives. MM 4.3.6.4A requires that the project's tenants participate in Riverside County's Rideshare Program, which encourages alternative forms of transportation.

Response to Appendix 148. The commenter provided information on parking management. MM 4.3.6.4A requires that the project participate in Riverside County's Rideshare Program and requires preferred parking for low-emitting, fuel-efficient, and carpool/van pool vehicles.

Response to Appendix 149 (Voluntary Interindustry Commerce Solutions, VICS Collaboration Zone: Frequently Asked Questions). The appendix was indirectly referenced in the comment letter in the Co-Loading and Back-Hauling section. The appendix provides additional information on the VCIS Empty Miles program.

Response to Appendix 150 (Voluntary Interindustry Commerce Solutions, VICS Empty Miles). Same comment as Appendix 149.

Response to Appendix 151 (GS1 US, National Retail Systems: Doing What's Good for Clients). Same comment as Appendix 149.

Response to Appendix 152 through Appendix 154. The commenter provided information on SmartWay. Please refer to Response to Comment F-3-17.

Response to Appendix 155 (U.S. EPA, Overview of Carrier Strategies). Same comment as Appendix 152.

Response to Appendix 156 (U.S. EPA, Ship Smarter - You and the Environment Both Win (June 2007)). Same comment as Appendix 152.

Response to Appendix 157 (U.S. EPA, Shipper Partner 2.0.11 Tool: Technical Documentation 2011 Data Year - United States Version). Same comment as Appendix 152.

Response to Appendix 158 (Moreno Valley General Plan Final Program EIR - 5.8 Agricultural Resources). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide Moreno Valley's original General Plan's EIR agricultural resources section.

Response to Appendix 159 (California Farmland Conservancy Program Funded Easements, 1997 to 2012). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to California farmland easements from 1997 to 2012.

Response to Appendix 160 (Riverside County Agricultural Production Report 2011). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to Riverside County's agricultural production.

Response to Appendix 161 (Riverside County Important Farmland 2010 (Sheet 1 of 3)). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to the farmland distribution in Riverside County.

Response to Appendix 162 (Riverside County Important Farmland 2010 (Sheet 2 of 3)). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to the farmland distribution in Riverside County.

Response to Appendix 163 (Riverside County Important Farmland 2010 (Sheet 3 of 3)). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to the farmland distribution in Riverside County.

Response to Appendix 164 (Riverside County 2008-2010 Land Use Conversion). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to Riverside County's land use conversion from to 2008 to 2010.

Response to Appendix 165 (Riverside Land Conservancy). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to Riverside Land Conservancy.

Response to Appendix 166. The commenter did not indicate what the purpose was of including this document as an appendix to their comment letter. While the City will not overly speculate on its purpose, it is a resolution by the City of Perris approving a FEIR and Statement of Overriding Considerations for the Perris Marketplace project. The commenter has made no effort to explain a connection between this document and the proposed WLC project, and it is from another jurisdiction. Therefore, this information will not be investigated further.

Response to Appendix 167 (American Farmland Trust - California Agricultural Land Loss & Conservation: The Basic Facts). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to agricultural land use in California.

Response to Appendix 168 (Letter from the Department of Conservation - Division of Land Resource Protection to City of Perris Planning Department). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to the DEIR for Perris Valley Commerce Center from the Division of Land Resource Protection.

Response to Appendix 169 (Surrounding City Maps showing rail transit lines). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to local rail lines.

Response to Appendix 170. The April 8, 2013 Letter F-3 from the California Clean Energy Commission discusses the need for energy conservation and the use of clean energy, and includes an attachment not cited in the Letter's text that is entitled "*Industrial Space in Southern California: Future Supply and Demand for Warehousing and Intermodal Facilities."* This study, which was prepared by the Southern California Association of Governments ("SCAG"), was not discussed in the Letter, so it is unclear why it was attached. However, in summary, <u>this study supports the need for more warehousing space</u>. The study's Executive Summary states the following:

- "According to assumed growth rates, the region will run out of suitably zoned vacant land in about the year 2028. At that time, forecasts show that the demand for warehousing space will be approximately 1,023 million square feet.

- During the year 2035, there will be a **projected shortfall of space of about 228 million square feet**, unless other land not currently zoned for warehousing becomes available."

The WLC will contribute to the supply of warehouse space necessary to satisfy a portion of this demand. This SCAG Report supports other data presented by David Tausig and Associates (DTA) in its responses to DEIR comments that there will be more than sufficient demand to support the WLC.

Response to Appendix 171 (Sperry, B., Comparing Methodologies to Estimate Internal Trip Capture at Mixed-Use Developments). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to the comments on mixed-use design.

Response to Appendix 172 (Bochner, B. & Sperry, B., Internal Trip Capture Estimator for Mixed-Use Developments (Feb. 2010)). Same comment as Appendix 171.

Response to Appendix 173 (Nelson/Nygaard Consulting. Crediting Low-Traffic Developments: Adjusting Site-Level Vehicle Trip Generation Using URBEMIS (Aug. 2005)). Same comment as Appendix 171.

Response to Appendix 174 (BNSF, BNSF California Operating Division). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to the comments on freight rail, specifically that the Project should develop freight facilities along nearby freight lines, such as the San Jacinto Branch Line.

Response to Appendix 175 (The Environmental Benefits of Moving Freight by Rail by the Association of American Railroads). The appendix was not directly referenced in the comment letter. It is assumed that the appendix is intended to provide additional information related to environmental advantages of moving freight by rail. However, Response F-3-5 explains why rail service to the project site is not feasible and would produce its own environmental impacts.

Response to Appendix 176 (Freight Railroads Help Reduce Greenhouse Gas Emissions). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to freight rail environmental significance.

Response to Appendix 177 (Riverside County Transportation Commission, San Jacinto Branchline/I-215 Corridor Study (2004)). Same comment as Appendix 174.

Response to Appendix 176. The commenter provides a reference, *Freight Railroads Help Reduce Greenhouse Gas Emissions.* An additional section (Chapter 4, Section F) has been included in the TIA that analyzes the potential for serving project trips by rail. That analysis shows that rail service to the project site is not viable due to a range of physical and economic factors, including high fixed costs, onsite topographic constraints, secondary impacts on the community, terrain, and capacity constraints within the rail system.

Response to Appendix 179 (Sperry, B., Comparing Methodologies to Estimate Internal Trip Capture at Mixed-Use Developments). Same comment as Appendix 174.

Response to Appendix 180 (Nelson/Nygaard Consulting. Crediting Low-Traffic Developments: Adjusting Site-Level Vehicle Trip Generation Using URBEMIS (Aug. 2005)). Same comment as Appendix 171.

Response to Appendix 181 (Institute of Transportation Engineers, Trip Generation Handbook, Chpt. 7 (2001)). Same comment as Appendix 171.

Response to Appendix 182 (City of Moreno Valley, Moreno Valley General Plan: Circulation Element). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to the Moreno Valley transportation-related comments. The appendix was reviewed and is reflected in the analysis of in the revised TIA and Section 4.15 of the FEIR Volume 2.

Response to Appendix 183 (City of Moreno Valley, General Plan Final Environmental Impact Report: 5.2 Traffic/Circulation (Oct. 2006)). Same response as Appendix 182.

Response to Appendix 184. The commenter provided ARB's Climate Change Scoping Plan. This reference was included and discussed in the DEIR (pages 4.7-17, 4.7-23, and 4.7-38-4.7-40).

Response to Appendix 185. The commenter provided the Office of Planning and Research technical advisory, CEQA and Climate Change. This document was referenced in the DEIR (page 4.7-26).

Response to Appendix 186. The commenter provided a report regarding technologies and policies to consider for reducing greenhouse gas emissions in California. The commenter did not indicate why this reference was included. The project is incorporating mitigation measures and project design features to reduce project emissions of greenhouse gases.

Response to Appendix 187. The commenter provided the text of California's Executive Order S-3-05. It is unknown why the commenter included this reference. This reference is discussed in the DEIR (page 4.7-17).

Letter F-4: California Outdoor Heritage Alliance (April 8, 2013)

CALIFORNIA
OUTDOOR
HERITAGE
ALLIANCE

"...promoting wildlife conservation and protecting our hunting heritage."

1215 K Street, Suite 1150 • Sacramento, CA 95814
916.228.4279 *phone* • 916.228.4280 *fax* • www.outdoorheritage.org

Letter F-4

April 8, 2013

Mr. John Terell
City of San Moreno
Community & Economic Development Department
14177 Frederick Street
Post Office Box 88005
Moreno Valley, CA 92553

Re: World Logistic Center - DEIR

Dear Mr. Terell,

The California Outdoor Heritage Alliance (COHA) – an organization representing the interests of over 50 organizations and entities dedicated to the promotion of wildlife conservation – has serious concerns regarding the Draft Environmental Impact Report (DEIR) prepared to evaluate the environmental impacts associated with the proposed World Logistics Center Project ("project") in Rancho Belago in the eastern portion of the City of Moreno Valley. 1

California once boasted over 5 million acres of naturally occurring wetland habitats. Today – largely due to development, flood control and other projects – over 90% of these critical habitats have been destroyed, resulting in significant impacts on all wetland-dependent species. In fact, as a direct result of the substantial loss of this important habitat type, roughly 50% of our state's threatened and endangered species are, in some way, wetland-dependent. Due to the significant changes in California's natural hydrology, our remaining interior wetlands must now be artificially irrigated and intensely managed – at a significant cost to the landowner – to recreate seasonal wetland habitat for these special status species.

This proposed project covers 3,918 acres – including 3,814 acres of land which is the subject of various entitlements, and an additional 104 acres of land affected by off-site improvements needed to support the proposed development. Any development of this substantial size would have serious environmental impacts. However, in this case, the proposed project area is located in one of the most environmentally important and sensitive wetland habitat complexes remaining in California. The project's environmental impacts to our already severely impacted wetland base and wetland-dependent species would be significant and unacceptable without substantial appropriate mitigation measures. Specifically, in the case of this gigantic project, as just one example, the DEIR woefully understates the project's impacts on waterbirds and other species on the Department of Fish and Wildlife's (DFW) San Jacinto Wildlife Area (SJWA) and adjacent privately owned and managed wetland habitats. It follows that the mitigation measures proposed, including requiring a minimum 250-foot setback from environmentally sensitive areas, are substantially inadequate and unacceptable. 2

Making matters worse, the DEIR incorrectly designates an area adjacent to the SJWA and part of the World Logistic Center project as a "conservation buffer". However, the area described within this

"conservation buffer" is owned and maintained by DFW as part of their SJWA. This area was acquired by the Wildlife Conservation Board over a decade ago for addition to the SJWA for endangered and threatened species habitat and associated wildlife conservation efforts in the county of Riverside. Designating this area as a "conservation buffer" and mitigation in the DEIR is not only incorrect, it is inappropriate and misleading. 2

On behalf of the general public of California, and the natural resources of our state that they hold in public trust, DFW, the Wildlife Conservation Board and others have invested over $100 million in the SJWA and surrounding unique habitats that would be unacceptably impacted by this project. As a result of the location, substantial size, inadequate analyses of wildlife impacts and the overly insufficient mitigation offered within the DEIR, our organization has no choice but to take serious issue with the document and strongly urge it be wholly rejected by the City of Moreno 3

Sincerely,

Bill Gaines, President

RESPONSES TO LETTER F-4
California Outdoor Heritage Alliance

Response to Comment F-4-1. The City acknowledges this organization has an interest in wildlife conservation.

Response to Comment F-4-2. Both the Draft Habitat Assessment and (Western Riverside County) Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis (FCS-MBA 2013, FEIR Volume 2, Appendix E-1) (hereafter MSHCP Consistency Analysis) and Section 4.4 of the Draft Environmental Impact Report (DEIR) adequately assess all impacts to biology. The statement that 3,918 acres would be impacted by the World Logistics Center Specific Plan (WLCSP) is incorrect. Approximately 2,610 acres are a part of the WLCSP, with another 1,104 acres analyzed as a part of a General Plan Amendment to further protect these acres within the San Jacinto Wildlife Area (SJWA) by changing the zoning to open space.

Since there are no wetlands on any of the analyzed areas, (5,970 acres were included in the WLCSP study area) the potential impacts to wetland and wetland-based species is not likely to occur. The northern portions of the SJWA identified as the California Department of Fish and Wildlife (CDFW) Conservation Buffer Area in the DEIR and MSHCP Consistency Analysis (FCS-MBA 2013 FEIR Volume 2, Appendix E-1) document was purchased by the state to serve as a buffer between the SJWA and future development areas to the north and to protect resources associated with the wetland areas. This project does nothing to jeopardize this and in fact by providing the appropriate zoning (Open Space) for the CDFW property further protects the resources. The 250-foot buffer at the southern edge of the WLCSP is intended to reduce indirect impacts associated with the Urban/Wildlands Interface sections of the MSHCP and appropriately reduces impacts from light, noise, toxics, and water pollution/sedimentation.

Repeated biological surveys of the area only identified six sensitive species within the WLCSP or in the SJWA within the CDFW Conservation Buffer Area. All six of these species are either California species of concern or California fully protected species. The loss of low quality foraging habitat for avian species not listed as federally or state threatened or endangered species is not a significant impact. However, impacts to a fully protected species is considered a significant impact.

The MSHCP anticipated the loss of habitat in lands not originally slated for conservation through the use of Criteria Cells. The funds provided through the MSHCP mitigation fees can be used by the Regional Conservation Authority to purchase lands slated for conservation within these Criteria Cells that will contribute to the overall conservation of large areas of high quality habitat. All six of the sensitive species identified within the WLCSP and adjacent SJWA are all covered under the MSHCP and payment of the fee will reduce impacts to a less than significant level.

With regard to the comment on reference to the CDFW Conservation Buffer Area, it is a defined term in DEIR Section 4.3.1:

> *The term "CDFW buffer area" is not a CDFW term. It is a term used by the consulting biologist to identify the 910–acre portion of the project area owned by the state that is being rezoned to "open space." It is CDFW land and it was acquired as a buffer (and for other reasons as well). Calling it the CDFW buffer is not inaccurate or misleading.*

The General Plan Amendment provides for the designation of the CDFW and portions of the San Diego Gas and Electric (SDG&E) lands as open space. If impacted, the CDFW Conservation Buffer Area would have a greater potential impact on species of the region, due to the distance from the high-quality habitat of the SJWA. The WLC project does not "take credit" for re-zoning this area as open space. The current General Plan and zoning for the property is a mix of residential, public, and

open space designations that need to be revised since those uses are no longer planned and will never be developed.

The May 18, 2001 Wildlife Conservation Board Agenda (page 43) recommended that 5 separate parcels totaling approximately 1,000 acres (910 acres of which were part of the Moreno Highland Specific Plan) be purchased as expansions of the California Department of Fish and Game's San Jacinto Wildlife Area.

> "*Acquisitions of the proposed expansions will allow for the protection of a portion of Mystic Lake and its associated upland habitat which is important to a number of sensitive plant and animal species." "The DFG has identified the subject properties as being a Significant Natural Area and has recommended the purchase of the property as an addition to the existing WLA. The acquisition of the subject properties are important to the wildlife of the area as they will serve as a buffer from development north of the WLA and add significant wildlife benefits to the WLA. It is anticipated that the addition of these properties will enhance public recreational opportunities, as the upland habitat and wetland areas are restored."*

The "CDFW Conservation Buffer Area" was incorporated into the San Jacinto Wildlife Area following the sale of the subject lands to the State in 2001. As stated previously, the "CDFW Conservation Buffer Area has been incorrectly zoned for more than 12 years. The proposed General Plan Amendment corrects the designation of this land to Open Space.

These lands, while a part of the SJWA are currently used by CDFW for agricultural use and generally consists of disked fields with winter grain crops, planted and harvested yearly. Development of the WLCSP will have no direct impact on the CDFW Conservation Buffer Area. A buffer of 400 feet has been provided in the Specific Plan between the conservation area and the warehouse buildings. The 250 foot buffer would exclude buildings but would allow for roads, landscaping, and drainage facilities. The commenter is referred to Mitigation Measures (MMs) 4.4.6.1A through 4.4.6.1B and 4.4.6.4F for details regarding the buffer to be established between the WLCSP and the SJWA, and also to Draft EIR Section 4.4.1.18, *Other Issues – Setbacks*, that explains why 250 feet is appropriate for this project buffer.

The lands within the CDFW Conservation Buffer Area are further protected by the MSHCP by being included within a series of Criteria Cells (1364, 1370, 1377, 1386, 1389, 1390, 1483, 1482, 1477, and 1577). Under the MSHCP, each Criteria Cell has a specific conservation goal. In addition to the Criteria Cell protections, the land within the CDFW is also considered Public/Quasi Public Lands according to the MSHCP. Lands designated as Public/Quasi Public Lands are typically lands that are set aside by Cities and/or Counties as conservation areas and are typically part of Core Conservation Areas or Proposed Core Conservation Areas. Sections of the DEIR correctly spell out measures associated with the requirements of Section 6.1.4 of the MSHCP on the Urban/Wildlands Interface to protect adjacent resources. These include, light, noise, toxics, and water quality. Project design features and mitigation measures have been incorporated into the Specific Plan and CEQA document to protect the resources associated with the CDFW Conservation Buffer Area and the SJWA and are included as MM 4.4.6.1A.

Response to Comment F-4-3. Section 4.4.1.11 of the DEIR went into great detail as to the history and use of the conservation area between the WLC project and the SJWA and Mystic Lake. The term CDFW Conservation Buffer Area is a termed that is used to identify the 910-acre parcel owned by the State adjacent and south the WLC site (refer to DEIR page 3-19). Regardless of what this area is called, it was originally part of the Moreno Highlands Specific Plan property and was acquired by the state (refer to Response to Comment F-4-2) at least in part to act as a buffer between the SJWA/Mystic Lake area and future suburban development within the City (i.e., the currently proposed WLCSP). It is currently being dry farmed just like the adjacent WLCSP property. The DEIR does not indicate the WLC project is "taking credit" or is otherwise accounting for this "buffer" area in an

inappropriate way. In fact, the WLCSP and DEIR establish a new 400-foot buffer between the northern boundary of CDFW conservation land and any new warehouse buildings within the WLCSP.

Letter F-5: Inland Empire Waterkeeper (April 8, 2013)

Letter F-5

Inland Empire Waterkeeper
Advocacy • Education • Restoration • Enforcement
6876 Indiana Avenue, Suite D
Riverside, CA 92506
Phone (714) 850-1965
Fax (714) 850-1592
Website www.iewaterkeeper.org

April 8, 2013

City of Moreno Valley
Community and Economic Development Department
ATTN: John C. Terell, Planning Official
14177 Frederick Street
PO Box 88005
Moreno Valley, CA 92552

Sent via email: johnt@moval.org

Re: World Logistics Center Project, Draft Environmental Impact Report, State Clearinghouse No. 2012021045.

Dear Mr. John C. Terell,

Inland Empire Waterkeeper (Waterkeeper) is a non-profit environmental organization dedicated to advocacy, education, restoration and enforcement in the Santa Ana River Watershed. Waterkeepers' members use and enjoy the unique waterways of the Inland Empire and rely on our region's surface and groundwater on an everyday basis. We write on behalf of our collective membership to express our concerns with the World Logistics Center Project Draft Environmental Impact Report, released on February 4, 2013 (DEIR). Waterkeeper participated in the scoping process, and submitted written comments on March 7, 2012 regarding the Notice of Preparation of the Draft Environmental Impact Report for the World Logistics Center Specific Plan. Waterkeeper supports responsible development and seeks to ensure that the World Logistics Center (WLC) goes forward in a manner that is both economically viable and environmentally responsible. 1

Waterkeeper has reviewed the DEIR in its entirety, but we have largely confined our comments to the Hydrology and Water Quality Section of the DEIR, Section 4.9, and Appendix J, the Project Specific Water Quality Management Plan required by Riverside County. However, we comment on other sections of the DEIR when relevant to the analysis of water quality impacts. 2

The purpose of an environmental impact report is to provide public agencies and the public in general with detailed information about the effect which a proposed project is likely to have on the environment; to list ways in which the significant effects of a project might be minimized; and to indicate alternatives to such a project.[1] With this in mind, the primary focus of this letter is to assess whether direct and indirect impacts to water resources are adequately addressed and analyzed, the project is consistent with the applicable Water Quality Management Plan, R8-2010-0033, October 3

[1] CA Pub. Res. Code § 2106.

22, 2012; and Riverside County Flood Control and Water Conservation District's Design Handbook for Low Impact Development, Best Management Practices, and that the proposed mitigation is adequate to compensate for project impacts.

Waterkeeper finds that the DEIR is deficient because it is overly speculative regarding the project's effect on groundwater recharge; does not describe treatment and control methods for surface water runoff in sufficient detail; and fails to adequately address cumulative impacts to the San Jacinto Wildlife Area. — 3

I. The Project Area.

The proposed WLC project covers 3,918 acres in the eastern portion of the City of Moreno Valley, in northwestern Riverside County. The project site is immediately south of State Road 60, between Redlands Boulevard and Gillman Springs Road. The site slopes at approximately 2% from north to south. (DEIR, § 3.2, p. 3-1.)

Immediately south of the project site is the San Jacinto Wildlife Area, which includes the Upland Game Hunting Area, Mystic Lake, and the Lake Perris State Recreation Area." (DEIR p. 3-7.) Most of these lands are owned by various state agencies. The San Jacinto Wildlife Area is owned and operated by the California Department of Fish and Wildlife and contains approximately 20,000 acres of restored wetlands and ponds. The project's Specific Plan extends to the northern border of the San Jacinto Wildlife Area. (DEIR, § 3.2.3, pp. 3-7 - 3-11.) The San Jacinto Wildlife Area contains several habitat areas, including rare inland wetland, which provides habitat for many wetland plant and wildlife species. The San Jacinto Wildlife Area has a very high diversity and abundance of bird species, and is recognized nationally and internationally for its bird population. (DEIR, § 4.4.18, p. 4.4-15.) — 4

Mystic Lake, which pools in a shallow depression of the San Jacinto River, is one of the last ephemeral water bodies that once covered 5 million acres of inland California, today, about 90% of all such wetlands are gone.[2] Mystic Lake is an important stop on the Pacific Flyway, with more than 150 species of birds visiting annually.[3] At its fullest, Mystic Lake can cover more than 3,000 acres as it spills over surrounding roads and floods the ponds and reconstructed wetlands of the San Jacinto Wildlife Area. — 5

Runoff entering the Project area originates upstream in the foothill area known as "The Badlands," as well as a small swath of moderately developed area and open space. The flows from upstream collect in natural drainage courses and flow south under State Road 60 and Gilman Springs Road, through existing drainage culverts and onto the project site.[4] — 6

Runoff leaving the project area flows south to the San Jacinto River. There is a topographic divide in the project area, located just west of Theodore Street, which separates storm water flows to the San Jacinto River in two directions. For planning purposes, the lead agency has divided the project's

[2] California Wetlands Conservation Policy, Executive Order W-59-93.
[3] Friends of the Northern San Jacinto Valley, *The Road Runner,* February 2011, available at: http://www.northfriends.org/images/RoadrunnerFebruary2011.pdf
[4] Draft Master Plan of Drainage Report § 2.1.2, p. 2.

study area into six distinct watershed (drainage) subareas. Two drainage subareas, west of the divide, drain to the Perris Valley Storm Drain and eventually to the Perris Valley Hydrologic Subarea. The remaining four drainage subareas, east of the divide, drain directly to the San Jacinto Wildlife Area and Mystic Lake, and then south to the Gilman Hot Springs Hydraulic Subarea. Both Hydrologic Subareas eventually flow to the San Jacinto River, about 10 miles south of the project site.[5] The San Jacinto River, a major tributary to the Santa Ana River, is ephemeral, flowing only during large storm events. The San Jacinto River flows through Canyon Lake and typically terminates in Lake Elsinore.[6] Lake Elsinore and Canyon Lake are currently on the Environmental Protection Agency's 303(d) list of Impaired Waters. 6 7

The proposed project will impact water resources and alter the hydrologic characteristics of the watershed through: increased percentage of impervious area, increased peak flow, reduced time to reach peak flow, increased hydraulic efficiency of the drainage systems from natural drainage courses to improved underground drainage systems and detention basins.[7] 8

II. <u>The Project Will Substantially Interfere With Groundwater Recharge and No Mitigation Measures are Proposed.</u>

The California Department of Water Resources identifies groundwater wells located within the project area.[8] Groundwater measurements from 1939 to 1985 indicate a depth range from approximately 100 to 150 feet below ground surface. Groundwater was measured at 106 feet below ground surface within an onsite well.[9] The DEIR does not contemplate the groundwater wells in the project area and the Draft Master Drainage Report does not explain how the wells will be incorporated into the project area. The Water Supply Assessment prepared for the proposed project indicates that development of the project will not include groundwater for water supply, however Waterkeeper urges the City of Moreno Valley to identify in the DEIR who is responsible for the maintenance of groundwater wells in the project area. 9

The DEIR finds that the project will not substantially interfere with groundwater recharge, "as any decreased groundwater recharge due to increased impervious surface area will be offset by infiltration due to irrigation." (DEIR, § 4.9.5.3, p. 4.9-19.) In order to offset groundwater recharge through irrigation, the project area must have the capacity to hold all precipitation on site. Furthermore, there must be sufficient demand for the stored water in order to draw down the supply and allow for additional capture volume. The DEIR does not describe a method to capture and store all precipitation that falls upon the project area and the proposed use for landscape irrigation is inadequate because the Specific Plan calls for the instillation of drought tolerant landscape which requires minimal irrigation, especially after storm events when most precipitation will be captured on the project area. 10

Therefore, this finding is speculative and requires further investigation by the City of Moreno Valley. The Project Description is contrary to a finding of no substantial interference with groundwater

[5] Draft Master Plan of Drainage Report § 2.1.2, p. 2.
[6] California Regional Water Quality Control Boards, Region 8 Fact Sheet.
[7] Draft Master Plan of Drainage Report § 3.1.2, p. 6
[8] Draft Master Plan of Drainage Report, § 2.1.2, p. 2.
[9] *Id.*

recharge. The Specific Plan requires the developer to install xeriscape, or drought-tolerant landscaping, which involves minimal irrigation. (DEIR, § 3.4.7.2, p. 3-59) Without more information, it is unreasonably speculative to conclude that irrigation of the planned xeriscaping will fully replace the natural rate of groundwater recharge in the project area. Speculation or unsubstantiated opinion is not substantial evidence. Substantial evidence includes "facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts."[10] Given the size of the project area, it is foreseeable that the proposed project will substantially interfere with groundwater recharge; the DEIR does not provide substantial evidence that irrigation of landscaping will offset the effects of the project on groundwater recharge. A project has a significant effect on the environment when it will potentially degrade the quality of the environment.[11] The recharge of groundwater is an important factor in the San Jacinto River Watershed and for floodplain management; on site recharge is promoted in the San Jacinto River Watershed Management Plan.[12] The project's interference with groundwater recharge could potentially degrade the quality of the environment. 10

The California Environmental Quality Act requires that mitigation plans be established for all impacts. No mitigation measure has been proposed for the potential impact to groundwater recharge in the project area. The Environmental Impact Report must identify mitigation measures that could minimize significant adverse impacts.[13] The Project Specific Water Quality Management Plan (in Appendix J of the DEIR) acknowledges that infiltration testing has not been performed at the project site but that a preliminary review of the feasibility of infiltration has been conducted, finding that the majority of the study area consists of a Hydrologic Soil Group which is considered appropriate for infiltration. (DEIR Appendix J-2 and WQMP, p. 16, Section D.1.) Currently, the majority of the precipitation, particularly in smaller storms, infiltrates into the subsurface of the project area. (DEIR, § 4.9.6, p. 4.9-29.) The project area covers 3,198 acres (the Specific Plan covers 2,710), the majority of which is currently unpaved. As of the writing of this letter, the area of the impervious project footprint has not been determined. The Project Specific Water Quality Management Plan states that it will be determined in the final Water Quality Management plan. The project description calls for the construction of impervious surfaces, such as roadways, parking lots, and buildings, over the majority of the specific plan area yet the DEIR speculates that irrigation will offset "any decreased groundwater recharge." (DEIR § 4.9.5.3.) Given that the project area will undergo a massive increase in impervious surface area, it is overly speculative to assume that the loss of groundwater recharge will be offset by irrigation of the project's drought tolerant landscaped areas. 11

III. <u>The Project Will Significantly Increase Surface Water Runoff, and Treatment Methods are Inadequately Described.</u> 12

The project may significantly increase off-site runoff. (DEIR § 4.9.6, p. 4.9-22.) Currently, the project site has a low runoff coefficient, meaning that runoff during storms represents a relatively

[10] CA Pub. Res. Code § 21082.2(c).
[11] CA Pub. Res. Code § 21083 (b)(1).
[12] San Jacinto River Watershed management Plan, available at http://www.cityofcanyonlake.com/uploads/files/sanjacintoirwmp_entiredocument.pdf
[13] CA Pub. Res. Code, §§ 21002, 21002.1, subd. (a)(b), 21100, subd. (b)(3)(4).

small portion of the total rainfall. (DEIR, § 4.9.6, p. 4.9-29.) The Specific Plan calls for development of the project area with impervious surfaces, such as roadways, parking lots, and buildings. This development would result in a condition in which nearly all rainfall becomes runoff. (DEIR § 4.9.6, p. 4.9-29.) The majority of the runoff from the project site flows south to Mystic Lake and during times of high storm flow, and reaches the San Jacinto River south of the San Jacinto Wildlife Area. Conditions resulting from the project will include increased runoff volumes and velocity; reduced infiltration; increased flow frequency, duration, and peak; shorter time to reach peak flow; and degradation in water quality. However, the City of Moreno Valley finds that this increase in runoff will be reduced to a less than significant impact because volume is to be stored in basins and released at a controlled rate after the storms. (DEIR § 4.9.6, p. 4.9-29.) Releasing contaminated storm water at a controlled rate after a storm event will change the hydrology of downstream areas such as Mystic Lake by providing a more regular flow of water into the ephemeral lake. The DEIR is insufficiently detailed in its description of the type of treatment captured water will undergo before it is released into Mystic Lake. 12

Mitigation measures must be feasible, measurable and specific.[14] Mitigation Measure 4.9.6.1A, purports to "reduce potential impacts associated with runoff from the project site to less than significant levels" through the construction of "drainage structures" at the downstream end of the drainage subareas flowing to the San Jacinto Wildlife Area "to control the runoff and spread the flow in such a way that the flows exiting the project boundary will return to the sheet flow pattern similar to the existing condition." This mitigation measure is unreasonably vague because it does not specify the type of "drainage structures" suitable for the project or how effective "drainage structures" are at releasing runoff to mimic natural sheet flow. Furthermore, this mitigation measure ignores the changes in the quality of the runoff that will flow to Mystic Lake and the San Jacinto Wildlife Area. 13

All runoff from the site must be treated before it leaves the project area and enters the San Jacinto Wildlife Area. The Specific Plan for the project area does not address the changes in the quality of water that will run off the project area during a storm event. The Specific Plan describes a "system of underground drainage lines and detention basins" that will convey the storm water runoff and "manage the increased flow due to the proposed development." (World Logistics Center Specific Plan, § 3.5.4, p. 41.) This statement is general and does not adequately describe how the "increased flow" will be managed in order to protect the quality of the water in Mystic Lake or the San Jacinto Wildlife Area. The DEIR fails to describe what types of "detention basins" are contemplated and whether they will have the capacity to treat polluted runoff before release. The DEIR must specify the type of treatment captured storm water will undergo prior to release into Mystic Lake and the San Jacinto Wildlife area. 14

According to the Specific Plan, peak flows at downstream discharge points, at the southerly project boundary with the San Jacinto Wildlife Area, will not exceed the peak flows for the existing condition. Concentrated flows released from detention basins will be spread to mimic existing sheet flow patterns. (World Logistics Center Specific Plan, § 3.5.4, pp. 42-43.) This is overly speculative because the Plan does not describe how or if the storm water runoff will be filtered or treated according to Low Impact Development Best Management Practices (BMPs.) The DEIR simply lists 15

[14] Cal. Code Reg. Tit. 14, § 15126.4

treatment control BMPs (in section 4.9.6.3) but fails to describe where, specifically, these BMPs will be implemented or how effective these treatments will be at mimicking existing sheet flow patterns or treating water before release. 15

The degree of specificity in an EIR must correspond to the degree of specificity involved in the underlying activity which is described in the EIR.[15] Since this is a construction project, the effects of construction can be predicted with a fair amount of accuracy and therefore must be described in sufficient detail.[16] The DEIR is too general because it describes detention basins and spreading areas designed "to account for the amount of sediment transported through the project boundary so that the existing sediment carrying capacity is maintained," but the DEIR does not describe what the existing carrying capacity for sediment is or whether it is feasible to maintain this capacity with mitigation. (DEIR § 4.9, p. 4.9-30.) 16

IV. Construction Related Water Quality Impacts Will Be Significant.

The project may cause surface water pollution during construction. (DEIR §4.9.6.2, p. 4.9-31.) The Environmental Protection Agency has cited sediment-laden runoff from construction projects as one of the most potentially damaging forms of water pollution. Sediment leaving construction sites may deliver toxic chemicals and nutrients into waterways. The threat of increased sedimentation to Mystic Lake must be analyzed in the DEIR. Treatment Control BMPs listed in the DEIR do not include treatment for sediment. Instead, the DEIR relies on the future acquisition of an NPDES permit to address the control of sediment discharges from the project site. 17

The DEIR finds that short term water pollutant discharges from the project area will be mitigated through compliance with the required NPDES permits, however, National Pollution Discharge Elimination permits are an issue that should be addressed early in the planning process so that methods for compliance with the Total Maximum Daily Loads (TMDLs) can be determined. In order to comply with the TMDLs, the project may need to keep all water on site or face penalties under the NPDES program.

Waterkeeper is further concerned about the status of necessary permits for the project site. In Appendix J of the DEIR, the status of the United States Army Corps of Engineers Clean Water Act section 404 permit for the discharge of dredged and fill material into waters of the United States is "To Be Determined." (DEIR, Appendix J, p. 8.) It is more than likely that grading of the construction site will release dredged or fill material into navigable waters, this activity is prohibited without a permit from the Army Corps of Engineers. Waterkeeper urges the City of Moreno Valley to comply with the Clean Water Act and prepare to apply for all applicable permits.[17] 18

[15] Cal. Code Reg. Tit. 14, § 15146.
[16] Cal. Code Reg. Tit. 14, § 15146.
[17] 33 U.S.C.A. § 1344(a)

V. Operational Water Quality Impacts: The Project Must Comply With Total Maximum Daily Loads and The DEIR Must Specifically Address Methods of Compliance With LID BMPs.

The project may result in surface water pollution during operation. (DEIR §4.9.6.3, p. 4.9-33.) During the operational phase of any urban use, the major source of pollution is storm water runoff, which carries contaminants that have accumulated on the land surface over which runoff passes. Storm water runoff from the roadways, parking lots, and commercial and industrial buildings can carry a variety of pollutants such as sediment, petroleum products, commonly utilized construction materials, landscaping chemicals, and trace metals such as zinc, copper, lead, cadmium, and iron, which may lead to the degradation of downstream water bodies and channels. Runoff from landscaped areas may contain elevated levels of phosphorus, nitrogen, and suspended solids. (DEIR §4.9.6.3, p. 4.9-33.) 19

a) Receiving Waters from the Project Site are on the 303(d) List of Impaired Waters; the Project Must Comply with TMDLs.

Runoff from the project area drains to the San Jacinto River, approximately 10 miles south of the proposed project. The San Jacinto River flows through Canyon Lake and typically terminates in Lake Elsinore.[18] Storm water runoff from the roadways, parking lots, and commercial and industrial buildings can carry a variety of pollutants, including nutrients. (DEIR § 4.9.6.3, p. 4.9-33). Lake Elsinore and Canyon Lake are currently on the Environmental Protection Agency's 303(d) list of Impaired Waters. The California Regional Water Quality Control Board - Santa Ana Region established a Resolution Amending the Water Quality Control Plan for the Santa Ana River Basin to Incorporate Nutrient Total Maximum Daily Loads (TMDLs) for Lake Elsinore and Canyon Lake, Resolution No. R8-2004-0037. A TMDL is the amount of a pollutant a water body can receive in a day and still meet water quality standards.[19] The TMDL program is a complicated process, typically spanning 19 years, and requires all agencies and developers in the watershed to commit to the program under threat of penalty. The proposed WLC project would increase the volume of water and pollutants entering Canyon Lake and Lake Elsinore. 20

Table 4.9.1 of the DEIR lists the adopted TMDL pollutants in Canyon Lake (phosphorus and nitrogen) and in Lake Elsinore (phosphorus, nitrogen, and dissolved oxygen.) (DEIR §4.9.6.3, p. 4.9-34.) The table also identifies pollutants associated with operation of the proposed project: sediments, nutrients (such as nitrogen and phosphorous), toxic organic compounds, trash and debris, bacterial indicators, oil and grease, pesticides, and metals. (DEIR § 4.9.6.3, p. 4.9-34.) The DEIR addresses this impact to water quality with assurance that as "specific developments within the project are developed," updates to the Master Water Quality Management Plan for the World Logistics Center Specific Plan "will be required to ensure that water quality treatment is being maintained per city requirements." (DEIR, § 4.9.6.3, p. 4.9-35.) In order for the environmental review process to be meaningful, the method of water quality treatment should be discussed in the DEIR. Methods for complying with city and county Water Quality Management Plans should be specifically analyzed early in the planning process so that cost projections are accurate and potential environmental

[18] California Regional Water Quality Control Board, Region 8 Fact Sheet.
[19] United States Environmental Protection Agency, Laws and Regulations, Total Maximum Daily Loads (303d); available at: http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/overviewoftmdl.cfm

impacts can be addressed. NPDES permits are also an issue that should be addressed at this stage, so that methods for compliance with the TMDLs can be determined. In order to comply with the TMDLs, the project may need to keep all water on site, or face penalties applicable in the NPDES program. [20] 20

b) Methods for Compliance with Low Impact Development Best Management Practices are Not Sufficiently Addressed in the EIR.

The Water Quality Management Plan for the project identifies Best Management Practices (BMPs) that have the potential to minimize the project's effect on hydrology; however, the DEIR does not specify how these BMPs will be integrated into the project; where on the project site the BMPs will be incorporated; or how effective these BMPs are at mitigating the specific environmental effects of the project. An EIR for a specific development project must be specific, because it focuses on site-specific effects that can be predicted with some accuracy.[21] The specific locations in the project area of the BMPs are not shown in the current Specific Plan. (Project Specific Water Quality Management Plan, p. 16.)

Waterkeeper urges the City of Moreno Valley to implement Site Design BMPs from highest to lowest priority: (1) infiltration, (2) harvest and reuse and (3) bioretention.[22] Infiltration BMPs have advantages over other types of BMPs, including reduction of the volume and rate of runoff, as well as full treatment of all potential pollutants contained in storm water runoff. Site Design BMPs require the maximization of permeable surfaces such as permeable pavement with infiltration beds, infiltration trenches and surface and sub-surface infiltration basins. Permeable Pavement provides infiltration and evaporation by reducing the volume and peak of storm water runoff as well as mitigates pollutants from storm water runoff. 21

The DEIR indicates multiple site design BMPs that, in accordance with Riverside County's Water Quality Management Plan, should be implemented. Neither the DEIR or the Specific Plan provide specific details about how these site design BMPs will be implemented or whether or not they will be effective in ensuring the project has as little impact as possible on the local hydrology. Waterkeeper commends the City of Moreno Valley for encouraging minimization of urban runoff, minimization of impervious footprint, conservation of natural areas and minimization of directly connected impervious areas, but is concerned that the practical implementation of these concepts is not fully addressed in the DEIR. The DEIR should detail how Low Impact Development practices will be implemented, where specific designs will be used and the potential effectiveness of such designs.

[20] Where a water body is already impaired by a pollutant, a developer may not be entitled to an NPDES permit for a discharge of that pollutant that is the cause of the water body being listed on the 303(d) list. *Friends of Pinto Creek v. United States Environmental Protection Agency*, 504 F 3d 1007 (9th Cir. 2007).

[21] Cal. Code Reg. tit. 14 § 15151; *Greenebaum v. City of Los Angeles*, 153 Cal. App. 3d 391, 409 (2d Dist. 1984); *Karlson v. City of Camarillo*, 100 Cal. App. 3d 789, 807 (2d Dist. 1980); *San Francisco Ecology Center v. City and County of San Francisco*, 48 Cal. App. 3d 584, 594, 596 (1st. Dist. 1975).

[22] California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2010-0033, NPDES No. CAS 618033, § E. 8. A, p. 95

c) Water Quality Impacts to San Jacinto Wildlife Area Are Significant and the Proposed Mitigation is Inadequate.

The majority of the project area drains towards the Gillman Hot Springs Hydrologic Subarea, which lies south of the San Jacinto Wildlife Area (SJWA.) The WLC project borders the northern boundary of the SJWA and four of the six drainage subareas identified in the DEIR flow directly to the SJWA. The hydraulic conditions of wetlands, such as the SJWA, are strongly influenced by sources and distribution of water. The project may result in surface water pollution during operation. (DEIR, § 4.9.6.3, p. 4.9-33). Storm water runoff from the roadways, parking lots, and commercial and industrial buildings can carry a variety of pollutants such as sediment, petroleum products, construction materials, landscaping chemicals and trace minerals. (DEIR, § 4.9.6.3, p. 4.9-33).

The DEIR lists multiple design features such as detention basins and bioswales but fails to analyze how effective these design features will be in capturing and treating polluted runoff before release into the SJWA. The proposed drainage system identifies seven "basins" along the southern border of the project area, facing the SJWA. (DEIR, § 4.9.6.1, Figure 4.9.3, p. 4.9-27.) The detention basins have outlets that drain directly to the SJWA. The DEIR does not describe what types of detention basins are contemplated and whether they will have the capacity to treat polluted water before release. Riverside County Flood Control and Water Conservation District's Design Handbook for Low Impact Development Best Management Practices recommends the use of Extended Detention Basins, which are designed to detain storm water and maximize opportunities for volume losses through infiltration, evaporation, evapotranspiration and surface wetting. Pollutant removal is provided by sedimentation inside the basin so that pollutants are not released with the water. Infiltration Basins are more effective BMPs than concrete detention basins (or reinforced concrete boxes) because they provide infiltration, evapotranspiration, evaporation and sedimentation.[23] 22

The DEIR is insufficient because it does not designate specific site design BMPs, rather it lists possible BMPs that the developer "should implement as appropriate." (DEIR p. 4.9-37). Implementation of these BMPs should be mandatory and not a part of the developer's discretionary decision making. "Reliance on tentative plans for future mitigation after completion of the CEQA process significantly undermines CEQA's goals of full disclosure and informed decision making;" mitigation plans have been overturned on judicial review as constituting "improper deferral of environmental assessment."[24]

Mitigation Measure 4.9.6.3 C states that a pre-construction survey must be "completed to determine general water quality baseline conditions prior to and during development of the southern portion" of the project. (DEIR, § 4.9.6.3, p. 4.9-41). The baseline water quality conditions on the project site, especially the southern border that abuts the San Jacinto Wildlife Area, should be established before any development on the project site is approved because a study conducted after the approval of a project "will inevitably have diminished influence on decision making."[25] 23

[23] Riverside County Flood Control and Water Conservation District's Design Handbook for Low Impact Development, Best Management Practices, § 3.1.
[24] *Communities for a Better Environment et al., v. City of Richmond*, 184 Cal.App.4th 70, 73 (2010).
[25] *Id.*

VI. The Cumulative Impacts of Development in the Region are Not Adequately Addressed in the DEIR.

Cumulative impacts, by definition, are the impacts of other projects combined with the project's direct and indirect impacts.[26] Cumulative impacts include other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions.[27] Development within the watershed will result in an increase in impervious surfaces in addition to changes in land use and associated pollutant runoff characteristics. Increased impervious surfaces are likely to alter existing hydrology and increase potential pollutant loads. (DEIR §4.9.7, p. 4.9-42.) The DEIR does not contemplate other reasonably foreseeable future projects that may have direct or indirect impacts on receiving waters and the adjacent San Jacinto Wildlife Area, such as the proposed Mid County Parkway Project.

In the DEIR, the City of Moreno Valley dismisses the possibility of cumulative environmental impacts on receiving waters by assuming that since "all new developments will be required to mitigate for impacts to water quality, a less than significant impact to water quality will occur." This analysis is insufficient. A cumulative impact analysis must be substantively meaningful.[28] A cumulative impact analysis "which understates information concerning the severity and significance of cumulative impacts impedes meaningful public discussion and skews the decision-maker's perspective concerning the environmental consequences of the project, the necessity for mitigation measures, and the appropriateness of project approval."[29] For purposes of its cumulative impacts analysis, the City of Moreno Valley should either list other reasonably foreseeable probable future projects that produce related or cumulative impacts, including other projects that are currently under environmental review, or it should contain a summary of projections from previously adopted or certified planning or environmental documents.[30] Not only must reasonably anticipated future projects be considered in an environmental impact report, but they also must be discussed in a cumulative analysis.[31] The DEIR does not contain a discussion of reasonably anticipated future projects and their potential impact on hydrology in the watershed. There are currently numerous development projects planned throughout the San Jacinto River watershed, including improvements to three regional roadways: Cajalco Road, I-215, and SR-79. 24

Potential cumulative impacts to the San Jacinto Wildlife Area are significant. The WLC project area borders the northern boundary of the SJWA, and the project contemplates a 250-foot "safe zone" set back to help minimize potential impacts on biological resources of the SJWA. (DEIR, § 4.4.6, p. 4.4-63 - 64.) However, the DEIR fails to consider encroachment on the southern border of the SJWA by other reasonably foreseeable future projects. The proposed Mid County Parkway Project would require the acquisition of 3.4 acres of land within the SJWA.[32] This would destroy an important ecological buffer zone on the south side of the SJWA, which protects important 25

[26] CA Pub Res. Code § 21803 (b)
[27] 40 CFR §1508.7
[28] Cal. Code Reg. Tit. 14, § 15130
[29] *Joy Road Area Forest and Watershed Ass. v. California Department of Forestry*, 142 Cal App 4th, 656, 676 (2006).
[30] Cal. Code Reg., tit. 14, § 15130, subd. (b)(1)(A) and (B); *Terminal Plaza Corp. V. City and County of San Francisco*, 177 Cal. App. 3d. 892 (1984).
[31] *City of Santee v. County of San Diego*, 214 Cal. App. 3d 1438, 263 Cal. Rptr. 340 (4th Dist. 1989).
[32] Mid County Parkway Project, Re-circulated Draft Environmental Impact Report/Supplemental Draft Environmental Impact Statement, Appendix B, Section 7.4.2.)

biological resources. The SJWA is facing a potential loss of habitat on both its north and south sides due to proposed development in the area; the consequences to biological resources in the wildlife area must be analyzed in light of the cumulative impacts of all reasonably foreseeable future development. The potential effects of increased sound and light to the SJWA should be considered in a cumulative analysis. The northern portion of the SJWA will experience increased noise levels during construction and operation and given the potential impacts from other foreseeable projects, a 250-foot set back may not be sufficient to mitigate effects such as behavioral changes in wildlife. (DEIR § 4.4.6 p. 4.4-66.) Lighting associated with the planned development on the southern portion of the project area may also have significant direct and indirect impacts to wildlife in the SJWA. (DEIR § 4.4.6, p. 4.4-67.) These effects, along with all other potential impacts, should be considered in a cumulative impacts analysis. 25

VII. Necessary Findings: The DEIR Identifies Significant Environmental Effects.

The City of Moreno Valley cannot approve or carry out a project when the EIR identifies significant effects on the environment, unless it makes a finding supported by substantial evidence that: (1) there are no feasible alternatives to the project as proposed; (2) changes have been required which mitigate the adverse effects; or (3) such changes are within the jurisdiction of another agency which has adopted, or should adopt, them; or (4) economic, social, or other considerations make mitigation infeasible.[33] 26

VIII. Conclusion

Waterkeeper supports responsible development and encourages the City of Moreno Valley to develop a DEIR that more specifically addresses how the direct and indirect impacts of the project to the region's water quality will be mitigated. 27

Please do not hesitate to contact me directly at (714) 850-1965 ext. 307 or email me at colin@iewaterkeeper.org with any questions or comments on our WLC position. We look forward to working with the City of Moreno Valley on resolving these and other issues with this priority project.

Regards,

Colin Kelly
Staff Attorney
Inland Empire Waterkeeper

[33] CA Pub. Res. Code § 21081. *City of Marina v. Board of Trustees of the California State University,* 39 Cal. 4th 341, 346 (2006).

RESPONSES TO LETTER F-5

Inland Empire Waterkeeper

Response to Comment F-5-1. The City understands the commenter's interest in clean water and environmental resource protection through the CEQA process.

Response to Comment F-5-2. Again, the City understands your commenter's orientation to water quality. The commenter should also refer to the many comments by other conservation organizations and public agencies that also deal with water quality. For more information regarding water quality, see Responses to Comments B-3-37 through B-3-39 to Letter B-3 from the California Department of Fish and Wildlife (CDFW).

Response to Comment F-5-3. The analysis of potential water quality impacts of the World Logistics Center (WLC) project have been adequately addressed at a programmatic level, as outlined in Section 1.0, *Introduction*, of the Draft Environmental Impact Report (DEIR). Section 4.9, *Hydrology and Water Quality*, of the DEIR examines these potential impacts in detail, and proposes a number of measures to mitigate the anticipated impacts from construction with Mitigation Measures (MMs) 4.9.6.2A and 4.9.6.2B and operations with MMs 4.9.6.3A, 4.9.6.3B, and 4.9.6.3C. In addition, the DEIR clearly indicates that future development within the WLC Specific Plan (SP) will have subsequent environmental analysis which is allowed under the tiering requirements of CEQA.

Response to Comment F-5-4. The commenter has accurately characterized the habitat areas south of the WLCSP development area, and the Specific Plan and DEIR establish a 400-foot buffer zone without logistics buildings to provide additional setback from the San Jacinto Wildlife Area (SJWA) area.

Response to Comment F-5-5. The commenter has accurately characterized the Mystic Lake habitat areas south of the WLCSP development area. Section 4.4.1.10, *Wildlife, SJWA and Mystic Lake*, of the DEIR describe the Mystic Lake and SJWA resources, and Section 4.4.1.14, *MSHCP Consistency Analysis*, and Section 4.4.6.1 of the DEIR analyze the potential impacts of the WLC project on these resource areas. Based on the project design, and with implementation of the recommended mitigation measures, the DEIR concluded that impacts to these areas would be less than significant.

Response to Comment F-5-6. The commenter has accurately characterized the surface drainage regime in the project area and downstream areas. However, the project hydrology study indicates the WLC project would not result in increased runoff or water pollution downstream of the project site through the creation of a number of detention basins along the southern portion of the WLCSP site. These basins are outlined in the Specific Plan, the project hydrology study (DEIR Appendix J-1), and described in MMs 4.9.6.1A and 4.9.6.3A through 4.9.6.3C dealing with water quality and MMs 4.4.6.1B and 4.4.6.4F dealing with biological resources. These measures are sufficient to protect regional water quality, and the DEIR concluded that project impacts would be less than significant.

Response to Comment F-5-7. The commenter is correct, Lake Elsinore is on the U.S. Environmental Protection Agency (EPA's) 303(d) list of Impaired Water Bodies. However, as previously stated, the project hydrology study indicates that the WLC project would not result in increased runoff or water pollution downstream of the project site through the creation of a number of detention basins along the southern portion of the WLCSP site (see Response to Comment F-5-6). Therefore, the WLC project will not have any demonstrable impacts on Lake Elsinore.

Response to Comment F-5-8. The commenter is correct the project will change the stated hydrology conditions of the area, however, the project hydrology study indicates the WLC project would not result in increased runoff or water pollution downstream of the project site through the creation of a

number of detention basins along the southern portion of the WLCSP site (see Response to Comment F-5-6).

Response to Comment F-5-9. There are five existing water wells on the project site. All of the wells, with the exception of the well located at the southwest corner of Alessandro Boulevard and Virginia Street, will be abandoned due to their low production and poor condition. Use of the remaining well for domestic water is not viable due to the high costs and energy demands to treat the well water to bring it into compliance with drinking water standards. Additionally, the high salt content of the well water makes it unsuitable for irrigation purposes. However, this well water is suitable for construction uses and may be used for those purposes on the project site in conformance with the West San Jacinto Groundwater Basin Groundwater Management Plan 2012. The well will remain in private use or may be transferred to a property owners' association for long-term ownership, operation, and maintenance.

Response to Comment F-5-10. Text was added to the DEIR Section 4.9 *Hydrology and Water Quality*, page 4.9-19 (FEIR Volume 2) to clarify the changes in infiltration will not be compensated by irrigation at the project site. The document entitled *World Logistics Center Specific Plan Infiltration Analysis* (CH2M HILL 2013 - FEIR Volume 2, Appendix J-1) explains in detail the post project expected change in the water balance based on available 23 years of historical precipitation data. The key findings of the Infiltration analysis are as follows:

Infiltration in pre-project conditions occurs over large areas, which typically results in only partially saturating the soil column after most rainfall events. Then, plants draw this widely dispersed infiltrated water from storage in the soil column, further reducing soil moisture storage, such that infiltrated water does not percolate beyond the root depth. Therefore, only a fraction of infiltrated water becomes groundwater recharge. On the other hand, for the post-project conditions, increases in infiltration are occurring at focused areas with volumes of water that can easily fill the soil column beyond root zone depths, so that much of the infiltrated water will percolate and contribute to groundwater recharge.

The main differences between Pre and Post Project conditions, presented in Figures 3 and 4 of the WLCSP Infiltration Analysis document (CH2M HILL, 2013 - FEIR Volume 2, Appendix J-1), are the shift between run off and direct infiltration, and the reduction in evapotranspiration. Under pre-project conditions, approximately 82 percent of the precipitation, which was on average 2010 acre-feet per year (af/yr) for the 1990 through 2012 period, becomes infiltration. The Post Project Conditions will reduce the direct infiltration to approximately 13 percent of the precipitation. The reduction in direct infiltration will be compensated by reduction in evapotranspiration and the increase of infiltration through the implementation of bio retention areas and detention basins.

The reduction in evapotranspiration from the original 15 percent to approximately 2 percent of the total precipitation will be the result of the project's use of drought-tolerant landscaping. With less water consumed by vegetation, more will be available for infiltration. The implementation of bio retention and detention Basin areas will make possible for approximately 92 percent to 97 percent of the precipitation will be infiltrated, a range that is consistent with the historical infiltration at the site. The remaining direct infiltration, reduction of evapotranspiration, and implementation of bio retention and detention basins can not only offset the direct loss in Infiltration when compared to baseline, but also increase the groundwater recharge at the proposed project site.

Response to Comment F-5-11. In response to this and other earlier comments regarding water quality, MMs 4.9.6.1A and 4.9.6.1B were modified as shown in Response to Comment B-3-39 in Letter B-3 from the California Department of Fish and Wildlife (refer to Response to Comment F-5-23).

Response to Comment F-5-12. The project will comply with the *Water Quality Management Plan for the Santa Ana Region of Riverside County* (approved by the Santa Ana Regional Water Quality Control Board October 22, 2012), which requires the use of Low Impact Development (LID) Best

Management Practices (BMPs) that maximize infiltration, harvest and use, evapotranspiration and/or bio-treatment. Flows from the project will be treated first by LID BMPs where the flow will be infiltrated, evapotranspired, or treated. As required by MM 4.9.6.1A, the treated flows will then be reduced to below or equal to pre-development conditions by routing the on-site storm water flows through a series of on-site detention and infiltration basins before flows are released off site. These basins will provide incidental infiltration and secondary treatment downstream of the LID BMPs. All runoff from the site will be treated by LID BMPs and then routed through the detention and infiltration basins before it leaves the project area and into Mystic Lake and the SJWA.

The *Water Quality Management Plan Guidance Document for the Santa Ana Region of Riverside County* discusses water quality impacts and the use of LID BMPs:

> "*LID BMPs have been shown in studies throughout the country to be effective and reliable at treating a wide range of Pollutants that can be found in urban runoff, including those listed above, and those subject to adopted* Total Maximum Daily Loads *(TMDLs) in the Santa Ana Region of Riverside County (Bacteria and Nutrients). As such, the LID BMPs required in this WQMP are expected to treat discharges of urban-sourced 303(d) listed Pollutants from subject projects to an impaired waterbody on the 303(d) list such that the discharge from the project would not cause or contribute to an exceedance of Receiving Water Quality Objectives."* (p. 19)

Response to Comment F-5-13. As outlined in DEIR Appendix J-1 *Hydrology and Water Quality Master Plan of Drainage Report Section 3.2 Proposed Drainage Systems* and Figures 8 and 9 of the report the "drainage structures" refer to the basins and energy dissipaters constructed at the downstream end of the drainage subareas flowing to the SJWA. The outflow from the energy dissipation area will weir flow over a level curb. The basins will reduce flow to below or equal to pre-development conditions, and the energy dissipaters and level curbs at the basin spillways will reduce the runoff velocity and dissipate the flow energy to mimic natural sheet flow conditions. MM 4.9.6.1.A has also been revised to be more specific as follows:

4.9.6.1A Prior to issuance of ~~any development~~ any building permit within the Specific Plan area, the developer shall ~~place~~ construct storm drain pipes and conveyances, as well as, combined detention and infiltration basin(s), bioretention areas, and spreading area(s)~~ as appropriate~~ within each proposed watershed, as outlined in the project hydrology plan, to mitigate the impacts of increased peak flow rate, velocity, flow volume and reduce the time of concentration by storing ~~increased runoff for a limited period of a time and release the outflow at a rate that does not exceed the pre-development condition~~ and infiltrating increased runoff for a limited period of time and release the outflow at a rate that does not exceed the pre-development peak flows and velocities for the 2, 5, 10, 25, and 100-year storms and volumes as assessed in the water balance model for historical conditions. For the purpose of this mitigation measure, the term "construct" shall mean to substantially complete construction so as to function for its intended purpose during construction with complete construction prior to occupancy. Field investigations will be conducted to determine the infiltration rate of soils underlying the proposed locations of bioretention areas and detention basins. The infiltration rate of the underlying soils will be used to properly size the bioretention areas and detention basins/infiltration basins to ensure that adequate volumes of runoff, in cumulative total for all bioretention areas and detention basins are captured and infiltrated. The water balance model will be updated and rerun for the site-specific conditions encountered to confirm the water balance. This measure shall be implemented to the satisfaction of the City Engineer. Energy dissipaters shall be used as the spillways of basins to reduce the runoff velocity and dissipate the flow energy. Drainage weir structures shall be constructed at the downstream end of the watersheds flowing to the San Jacinto Wildlife Area to control the runoff and spread the flow ~~in~~ such ~~a way~~ that the

flows exiting the project boundary will return to the sheet flow pattern similar to the existing condition. Detention basins and spreading areas shall be designed to account for the amount of the sediment transported through the project boundary so that the existing sediment carrying capacity is maintained.

MMs 4.9.6.3.A, 4.9.6.3B and 4.9.6.3C address water quality. MM 4.9.6.3C has been revised to be more specific as follows:

4.9.6.3C Prior to issuance of future discretionary permits for any development along the southern boundary of the World Logistics Center Specific Plan (WLCSP), the project developer of such sites, in cooperation with the Property Owners Association (POA), shall establish and annually fund a Water Quality Mitigation Monitoring Plan (WQMMP) to confirm that project runoff will not have deleterious effects on the adjacent San Jacinto Wildlife Area (SJWA). This program shall include at least quarterly sampling along the southern boundary of the site (i.e., at the identified outlet structures of the project detention basins) during wet season flows and/or when water is present, as well as sampling of any dry-season flows that are observed entering the San Jacinto Wildlife Area property from the project property, including Drainage ~~"H,"~~ 9, which is planned to convey only clean off-site flows from north of the World Logistics Center Specific Plan site across Gilman Springs Road. The program shall also include at least twice yearly sampling after completion of construction, and a pre-construction survey must be completed to determine general water quality baseline conditions prior to and during development of the southern portion of the World Logistics Center Specific Plan. This sampling shall be consistent with and/or comply with the requirements of applicable Storm Water Pollution Prevention Plans (SWPPPs) for the development site.

The project developer of sites along the southern border of the World Logistics Center Specific Plan shall be responsible for preventing or eliminating any toxic pollutant (not including sediment) found to exceed applicable established public health standards. In addition, the discharge from the project shall not cause or contribute to an exceedance of Receiving Water Quality Objectives for the potential pollutants associated with the project as identified in Table 4.9.J. Once development is complete, the developer shall retain qualified personnel to conduct regular (i.e., at least quarterly) water sampling/testing of any basins and their outfalls to ensure the San Jacinto Wildlife Area will not be affected by water pollution from the project site. ~~The City Planning and/or Land Development Division shall file an annual water quality report with the Moreno Valley City Council, State Department of Recreation (Mystic Lake Manager), and Eastern Municipal Water District.~~ This measure shall be implemented to the satisfaction of the City ~~Planning and/or Land Development~~ Land Development Division Manager based on consultation with the project developer, Eastern Municipal Water District, the Regional Water Quality Control Board-Santa Ana Region, and the Mystic Lake Manager.

Response to Comment F-5-14. All runoff from the site will be treated by LID BMPs and then routed through detention basins with 2 feet of dead storage for infiltration and energy dissipaters before it leaves the project area and into Mystic Lake and the San Jacinto Wildlife Area. The outflow from the energy dissipation areas will weir flow over a level curb. The basins will reduce flow to below or equal to pre-development conditions, and the energy dissipaters and level curbs at the basin spillways will reduce the runoff velocity and dissipate the flow energy to mimic natural sheet flow conditions. The LID BMPs located upstream of the infiltration and detention basins will consist of infiltration, bio retention, and/or biotreatment BMPs. The project will implement LID BMPs in compliance with the *Water Quality Management Plan for the Santa Ana Region of Riverside County* (approved by the Santa Ana Regional Water Quality Control Board October 22, 2012), and will design the LID BMPs

according to the Riverside County Flood Control and Water Conservation District (RCFCWCD) Design Handbook for Low Impact Development Best Management Practices. This will mitigate water quality impacts to the San Jacinto Wildlife Area.

Response to Comment F-5-15. Flows from the project will be treated first by LID BMPs where the flow will be infiltrated, evapotranspired, or treated. As required by MM 4.9.6.1A, the treated flows will then be reduced to below or equal to pre-development conditions by routing the on-site storm water flows through a series of on-site detention and infiltration basins before flows are released off site. Detailed site plans showing the location of treatment BMPs will be prepared as part of the Tentative Tract plans and provided as part of the final project-specific Water Quality Management Plan (WQMP). Currently, the WQMP is at a Specific Plan level and details cannot be provided at this stage. The locations of the LID BMPs are not shown in the current Specific Plan phase, but will be shown in the final project-specific WQMP.

Response to Comment F-5-16. The project is the construction and operation of the WLC. The approvals currently being sought are only the first of many. Section 6 in the *Master Plan of Drainage Report* of Appendix J-1 Hydrology and Water Quality in the DEIR analyzed the sediment carrying capacity of the existing and proposed conditions as outlined below.

Sediment Analysis for Existing Condition

Under the existing condition, offsite tributary areas north of SR-60 and Gilman Springs Road have the potential to generate sediment. This is shown by the accumulation of sediment and debris at the culverts crossing SR-60 and Gilman Springs Road. Recent field visits found that some of the culverts do not function properly or are completely buried due to the accumulation of sediment and debris. Ultimately, the culverts will need to be cleaned out and increased in size to convey the 100-year offsite runoff.

The amount of sediment generated was estimated for each drainage course. In general, sediment is carried by flows in the existing drainage courses. When velocities are high the channel erodes and picks up sediment. When flow velocities are low the sediment drops out and deposition occurs. An estimation of the existing drainage courses flow capacity and velocities was conducted to determine whether the existing drainage courses are eroding or depositing sediment. Depending on the vegetative cover, eroding channels generally have velocities greater than 3 to 7 feet per second (fps). Vegetated channels will begin carrying sediment at velocities from 5 to 7 fps. Clean, sandy or silty channels will begin to erode with velocities ranging from 3 to 5 fps. Velocities greater than 8 fps generally cause significant erosion. Each of the existing drainage courses is analyzed in order to determine their ability to erode or deposit sediment.

The existing drainage course in watershed "A" downstream of the outlet of the existing reinforced concrete box (RCB) is heavily vegetated and consists of a channel with a bottom width of 5 feet and a depth of 4 feet. The top width of the channel is 37 feet. Through normal depth calculations, it is estimated that the drainage course can convey 375 cubic feet per second (cfs) flow at a velocity of 4.5 fps. Because the velocity is less than 5 fps sediment will generally deposit in the existing drainage course and the majority of the sediment generated from Watershed "A" will be deposited along traveling routes due to the vegetated soil cover.

The existing drainage course in watershed "B" is vegetated and consists of a bottom width of 2 feet and a depth of 2 feet. The top width of the drainage course is 18 feet. Through normal depth calculations, it is estimated that the existing drainage course can convey 55 cfs flow at a velocity of 2.8 fps. Because the velocity is less than 5 fps sediment will generally deposit in the existing drainage course and the majority of the sediment generated from Watershed "B" will be deposited along traveling routes due to the vegetated soil cover.

The existing drainage course in watershed "C" is heavily vegetated and consists of a bottom width of 3 feet and a depth of 3 feet. The top width of the drainage course is 27 feet. Through normal depth

calculations, it is estimated that the existing drainage course can convey 163 cfs flow at a velocity of 3.6 fps. Because the velocity is less than 5 fps sediment will generally deposit in the existing drainage course and the majority of the sediment generated from Watershed "C" will be deposited along traveling routes due to the vegetated soil cover.

The existing drainage course in watershed "D" is heavily vegetated and consists of a bottom width of 3 feet and a depth of 2 feet. The top width of the existing drainage course is 19 feet. Through normal depth calculations, it is estimated that the existing drainage course can convey 63 cfs flow at a velocity of 2.9 fps. Because the velocity is less than 5 fps sediment will generally deposit in the existing drainage course and the majority of the sediment generated from Watershed "D" will be deposited along traveling routes due to the vegetated soil cover.

The existing drainage course in watershed "E" is heavily vegetated and consists of a channel with a bottom width of 30 feet and a depth of 10 feet. The top width of the existing drainage course is 110 feet. Through normal depth calculations, it is estimated that the existing drainage course can convey 6,220 cfs flow at a velocity of 8.9 fps. Because the flow velocities are above 5 fps, erosion within the channel will occur. However, it is proposed to leave this facility as is and as such the sediment carrying capacity will remain the same.

The existing drainage course in watershed "F" is heavily vegetated and consists of a bottom width of 4 feet and a depth of 2 feet. The top width of the channel is 20 feet. Through normal depth calculations, it is estimated that the existing drainage course can convey 70 cfs flow at a velocity of 2.9 fps. Because the velocity is less than 5 fps sediment will generally deposit in the existing drainage course and the majority of the sediment generated from Watershed "F" will be deposited along traveling routes due to the vegetated soil cover.

Sediment Analysis for Proposed Condition

It is important to avoid excessive sediment transported downstream, which could cause sediment filling the downstream channel, leading to a decrease in channel capacity and an increase in flooding and overbank deposition. The culverts at Gilman Springs Road should be maintained by the County of Riverside to ensure proper conveyance of the offsite flows. The majority of the sediment will deposit upstream of Gilman Springs Road. Ultimately, sediment basins could be constructed upstream of Gilman Springs Road to contain the existing sediment and minimize the total suspended solids in the runoff. However, because sediment basins upstream of Gilman Springs Road are not to be constructed as part of this project, it is expected that some of the offsite sediment will continue to be transported through the culverts along Gilman Springs Road.

Response to Comment F-5-17. As required by MM 4.9.6.2B, a project-specific Storm Water Pollution Prevention Plan (SWPPP) will be prepared during the final design phase of the project.

> "*The SWPPP shall include a surface water control plan and erosion control plan citing specific measures to control on-site and off-site erosion during the entire grading and construction period. In addition, the SWPPP shall emphasize structural and nonstructural best management practices (BMPs) to control sediment and nonvisible discharges from the site."* (Page 4.9-31).

Table 4.9.H (DEIR Section 4.9) lists possible construction site BMPs for runoff control, sediment control, erosion control, and housekeeping that may be used during the construction phases of the proposed WLC project. The implementation of an approved SWPPP with appropriate construction site BMPs will control erosion and sediment transport such that contaminated sediment and runoff will not significantly affect the water quality at Mystic Lake. According to *the Comprehensive Nutrient Reduction Plan for Lake Elsinore and Canyon Lake*, which is the implementation plan for the Lake Elsinore and Canyon Lake Nutrient Total Maximum Daily Loads, there are no requirements for the project to keep all water on site during construction. The inspector is required to verify that a SWPPP is on-site and check that construction BMPs are being implemented properly.

Response to Comment F-5-18. At such time as a grading permit is requested permits for the filling of drainages (USACE 404 and 401 permits); stream alteration permits (California Department of Fish and Wildlife (Section 1600 permits) and permits from the Santa Ana Regional Quality Control Board will be necessary. Since the DEIR is a program-level environmental document, the details of these permits and exact impacts on the drainages cannot be determined until project-level permits are requested and a detailed analysis has been completed.

Project-related impacts to any Waters of the U.S. or Waters of the State are considered significant and mitigation measures are required. Based on the 2013 wetland delineation report (FCS-MBA 2013 – Final (F)EIR Volume 2, Appendix E-13), Drainage features 12 and 15 are considered waters of the U.S. and Drainage Features 7, 8, 9, 12, and 15 are considered Waters of the State. These impacts will be mitigated through on-site creation, or offsite conservation, and/or purchase of in kind habitat at replacement ratios established during the permit process. Habitat replacement will be no less than a 1:1 mitigation ratio to ensure a no net loss of habitat.

As specific projects are designed, new jurisdictional delineations will be required and impacts to jurisdictional drainages will be calculated and permit requirements met. Since the proposed development will take place over a 15 year period and permitting requirements by the United States Army Corps of Engineers (USACE) are revised frequently, it is impossible to know what the permit requirements will be. All projects will comply with the regulations in effect at the time permits are issued, which will include mitigation to reduce project related impacts to a less than significant level. Also refer to Responses to Comments F-1-6 and F-1-15.

Response to Comment F-5-19. The comment repeats text taken from the DEIR Section 4.9.6.3, p. 4.9-33. No response is required.

Response to Comment F-5-20. The project will comply with the Nutrient TMDL for Lake Elsinore and Canyon Lake by implementing LID-based BMPs. According to the Comprehensive Nutrient Reduction Plan for Lake Elsinore and Canyon Lake, "*Post-construction LID-based BMPs required for new development and significant re-development projects are the only structural watershed-based BMPs currently included in the CNRP. The newly developed WQMP requirements ensure that a portion of the wet weather runoff will be contained onsite for all future development projects subject to WQMP requirements. Implementation of WQMP requirements over time coupled with the in-lake remediation projects (described below) are expected to provide sufficient mitigation of nutrients.*" (p. 2-3)

Response to Comment F-5-21. As stated in the Preliminary WQMP (DEIR, Appendix J-2) and also in Section 4.9 of the DEIR, the BMP strategy for the project is to select LID BMPs that promote infiltration and evapotranspiration. Infiltration BMPs will be preferred, but may not be feasible on sites with low infiltration rates, or located on compacted engineered fill. In situations where infiltration BMPs are not appropriate, bio retention and/or biotreatment BMPs that provide opportunity for evapotranspiration and incidental infiltration will be required based on soil conditions. considered. All of these BMPs are considered as LID BMPs and will treat a wide range of pollutants, including the Pollutants of Concern that have been identified for the project.

Response to Comment F-5-22. The purpose of the basins along the southern border of the project area, facing the SJWA, is to reduce the flow to below or equal to pre-development conditions. These basins will be designed to reduce the runoff quantities and volumes and not specifically as Extended Detention Basins according to the RCFCWCD Design Handbook for Low Impact Development Best Management Practices. However, they will provide water quality benefits and all runoff will be treated by LID BMPs prior to flowing to these basins. These LID BMPs will consist of infiltration, bio retention, and/or biotreatment BMPs. The project will implement LID BMPs in compliance with the Water Quality Management Plan for the Santa Ana Region of Riverside County, and will design the LID BMPs

according to the RCFCWCD Design Handbook for Low Impact Development Best Management Practices. This will mitigate water quality impacts to the San Jacinto Wildlife Area.

Response to Comment F-5-23. The project is required to perform a Water Quality Monitoring Program on the adjacent SJWA. MM 4.9.6.3C (refer to Response to Comment F-5-13) a very detailed process that must be implemented to ensure the SJWA will not be affected by water pollution from the project site. The pre-construction survey will be performed prior to issuance of future discretionary permits.

Changes to DEIR, Section 4.9 Hydrology and Water Quality, page 4.9-19.

The City of Moreno Valley is amending the text in DEIR Section 4.9, Page 4.9-19, to correct the text related to the infiltration of precipitation for the proposed project. This change to the DEIR does not result in a significant impact and has no material effect on the findings of the EIR. The revision to the text of the DEIR is as follows:

> ~~As identified in the City's General Plan, the proposed project will not substantially interfere with groundwater recharge as any decreased groundwater recharge due to increased impervious surface area will be offset by infiltration due to irrigation.~~[1] The proposed project will not substantially interfere with groundwater recharge due to the project implementation of bio retention areas and detention basins with infiltration capacity that mitigates the impact of reduced pervious areas. ~~Bioretention~~Bio retention areas and detention basins will be implemented in addition to the remaining impervious areas. The only use of groundwater may be to support continued agriculture on portions of the WLCSP property that have not yet been developed. The Eastern Municipal Water District (EMWD) developed the West San Jacinto Groundwater Basin Management Plan to help ensure that local groundwater resources are conserved and groundwater overdraft does not occur, based on projections of future growth and expected water supply conditions. The Plan projects the water consumption demands of existing and future development based on rates of growth assumed by regional planning organizations (i.e., Southern California Association of Governments (SCAG) and Western Riverside Council of Governments (WRCOG)) and estimates water demand versus available supply under different water supply scenarios (e.g., multiple dry years).

Consistent with the comments provided by Letter F-5 (Inland Empire Waterkeeper), the text in DEIR Section 4.9.6.1, (refer to FEIR Volume 2) is amended to include more specific requirements to MM 4.9.6.1A. MM 4.9.6.1B has been added to ensure the performance and monitoring of the drainage and infiltration facilities. The modified mitigation measures resulting from the comment is not considerable, and is considered to be a minor refinement of the existing measures. The change to the DEIR does not result in a significant impact and has no material effect on the findings of the EIR. The revisions to the text of the DEIR are as follows:

4.9.6.1A Prior to issuance of ~~any development~~ any building permit within the Specific Plan area, the developer shall ~~place~~ construct storm drain pipes and conveyances, as well as, combined detention and infiltration basin(s), bioretention areas, and spreading area(s)~~ as appropriate~~ within each proposed watershed, as outlined in the project hydrology plan, to mitigate the impacts of increased peak flow rate, velocity, flow volume and reduce the time of concentration by storing ~~increased runoff for a limited period of a time and release the outflow at a rate that does not exceed the pre-development condition~~ and infiltrating increased runoff for a limited period of time and release the outflow at a rate that does not exceed the pre-development peak flows and velocities for the 2, 5, 10, 25, and 100-year storms and volumes as assessed in the water balance model for historical conditions. For the purpose of this mitigation measure, the term "construct" shall mean to substantially complete construction so as to function for its intended purpose during construction with

complete construction prior to occupancy. Field investigations will be conducted to determine the infiltration rate of soils underlying the proposed locations of bioretention areas and detention basins. The infiltration rate of the underlying soils will be used to properly size the bioretention areas and detention basins/infiltration basins to ensure that adequate volumes of runoff, in cumulative total for all bioretention areas and detention basins are captured and infiltrated. The water balance model will be updated and rerun for the site-specific conditions encountered to confirm the water balance. This measure shall be implemented to the satisfaction of the City Engineer. Energy dissipaters shall be used as the spillways of basins to reduce the runoff velocity and dissipate the flow energy. Drainage weir structures shall be constructed at the downstream end of the watersheds flowing to the San Jacinto Wildlife Area to control the runoff and spread the flow ~~in~~ such ~~a way~~ that the flows exiting the project boundary will return to the sheet flow pattern similar to the existing condition. Detention basins and spreading areas shall be designed to account for the amount of the sediment transported through the project boundary so that the existing sediment carrying capacity is maintained.

4.9.6.1B The bioretention areas and detention/infiltration basins shall be designed to assure infiltrations rates. The monitoring plan will follow the guidelines presented by the California Storm Water Quality Association (CASQA) in the California Storm Water Best Management Program (BMP) Handbook, Municipal, January 2003 Section 4, Treatment Control Best Management Programs Fact Sheets TC-11 Infiltration Basin and TC-30 Vegetated Swale).

For the Bioretention areas, as needed maintenance activities shall be conducted to remove accumulated sediment that may obstruct flow through the swale. Bioretention areas shall be monitored at the beginning and end of each wet season to assess any degradation in infiltration rates. The maintenance activities should occur when sediment on channels and culverts builds up to more than 3 inches (CASQA 2003). The swales will need to be cultivated or rototilled if drawdown takes more than ~~48~~ 72 hours.

For the detention/infiltration basins, a 3-5 year maintenance program shall be implemented mainly to keep infiltration rates close to original values since sediment accumulation could reduce original infiltration rate by 25-50%. Infiltration rates in detention basins will be monitored at the beginning and end of each wet season to assess any degradation in infiltration rates. If cumulative infiltration rates of all detention basins drops below the minimum required rates, then the detention basins will be reconditioned to improve infiltration capacity by scraping the bottom of the detention basin, seed or sod to restore groundcover, aerate bottom and dethatch basin bottom (CASQA 2003).

Response to Comment F-5-24. The commenter is stating "cumulative impacts of development in the region are not adequately addressed in the DEIR and the DEIR did not contemplate other reasonably foreseeable future project that may have a direct or indirect impact on receiving waters and the adjacent San Jacinto Wildlife Area, such as the proposed Mid County Parkway."

The commenter should note that DEIR Section 1.6, Cumulative Impacts, explains that CEQA (Guidelines Section 15130) allows two different types of cumulative analyses to be conducted, and the lead agency is responsible to choose the most appropriate method based on the project and other local conditions. In this case, the City chose to use the "summary of projections" method (CEQA Guidelines Section 15130b.1.B) rather than the "list" method due to the size, location, and development phasing or horizon of the project. For the WLC project, the DEIR used the City's General Plan buildout projections as a basis to characterize cumulative impacts.

The programmatic EIR for this project examined general project-type impacts of the WLC project as an incremental part of regional water quality impacts that will eventually occur as the general area develops with more suburban-level development (refer to DEIR Sections 4.9.6.2 *Construction-Related Water Quality Impacts* and 4.9.6.3 *Operational-Related Water Quality Impacts*). It was determined "although adherence to NPDES requirements is required of all development within the City for construction, the incorporation of these requirements as MMs 4.9.6.2A and 4.9.6.1B are designed to ensure that any future development within the WLCSP area obtains coverage under the National Pollutant Discharge Elimination System (NPDES) General Construction permit." DEIR Page 4.9-32. While on-site grading and development activities will increase the potential for the erosion of soils, adherence to the BMPs mandated by MM 4.9.6.2A and 4.9.6.2B will reduce impacts associated with short-term (construction) storm water discharges during project construction to a less than significant level.

As identified in Table 4.9.I (DEIR page 4.9-34), pollutants associated with the operations of the proposed logistics land uses include sediments, nutrients, toxic organic compounds, trash and debris, bacterial indicators, oil and grease, pesticides, and metals. Based on the *Water Quality Management Plan* (WQMP) prepared for the project (DEIR Appendix J-2), all downstream receiving waters to which a project directly or indirectly discharges have been identified. The selection of treatment controls for the project shall be based primarily on the potential pollutants associated with the project that are also present in impaired receiving waters. The WQMP identifies the following BMPs to be implemented that will minimize the project's effects on site hydrology, urban runoff flow rates, and pollutant loads. This comprehensive water quality approach will be implemented throughout the project and will establish a three-tier program for achieving water quality goals through the enforcement of site design, source control, and treatment control BMPs. For operation the proposed project is required to implement MM 4.9.6.3A which requires each subsequent plot plan approval prepare a site-specific WQMP. The WQMP shall specifically identify site design, source control, and treatment control BMPs that shall be used on site to control pollutant runoff and to reduce impacts to water quality to the maximum extent practicable. MM 4.9.6.3C (refer to Response to Comment F-5-13) also requires for any development along the southern boundary of the WLCSP, the project developer of such sites, in cooperation with the Master Property Owners Association (MPOA), shall establish and annually fund a Water Quality Monitoring Plan to confirm that project runoff will not have deleterious effects on the adjacent San Jacinto Wildlife Area (refer to DEIR pages 4.9-37 through 4.9-42).

It is reasonable to assume that if each individual cumulative project mitigates its own water quality impacts, then the cumulative water quality impacts of even extensive development can be effectively mitigated to less than significant levels, which is what was indicated in DEIR Section 4.9.7 *Cumulative Impacts*, page 4.9-42.

Response to Comment F-5-25. DEIR Section 4.4.6 *Cumulative Impacts*, pages 4.4-63 – 64, discusses the cumulative impacts of the project on biological resources. The DEIR correctly assesses impacts for the SJWA. There would be no direct impacts to biological resources within the SJWA as a result of the implementation of the WLCSP. This is further strengthened by Criteria Cells along the northern section of the SJWA (the CDFW Conservation Buffer Area) and by Criteria Cells along Gilman Springs Road. The DEIR correctly assessed those areas and provided an analysis of the potential offsite impacts through the Urban/Wildlands Interface analysis discussed in both the MSHCP Consistency Analysis Document (Sections 5.2; 6.2; and 6.8.6) and in Sections 4.4.6.1 and 4.4.6.2 of the DEIR.

The objective of the MSHCP is to provide plant and wildlife species in Western Riverside County with secured lands to support the continued existence of the species. This is being done through conservation of existing lands with the SJWA being a major part of this effort in the San Jacinto Valley region through Existing Core H and the conservation of major portions of the Badlands to the east of the WLCSP in proposed Core 3.

Full development of the WLCSP could under the current fee schedule of the MSHCP provide more than $16,000,000 toward the purchase of lands.

The loss of lands of the SJWA through the Mid County Parkway project within the southern area is an activity that was planned for in the MSHCP and the losses of 3.4 acres is a minor but expected loss. There is no loss on the northern boundary as a result of the WLCSP. A buffer has been created of 250 feet and within that buffer habitat enhancements are proposed as development occurs. These enhancements in the way of increased riparian habitat in the detention basins would replace current agricultural lands. Proposed detention basins in this buffer area would further control erosion and sedimentation that moves toward Mystic Lake and would improve water quality. There is an additional 150-foot building setback for structures, making the total setback from structures of 400 feet.

Response to Comment F-5-26. The City understands its obligations under CEQA relative to approving projects with significant environmental impacts, and the City will comply with CEQA in this regard.

Response to Comment F-5-27. The organization will be sent responses to all comments prior to any action being taken on the WLC project.

Letter F-6: Endangered Habitats League (April 8, 2013)

Letter F-6

BY ELECTRONIC MAIL

April 8, 2013

Mark Gross, AICP (MarkG@moval.org)
Senior Planner, City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92553

RE: World Logistics Center DEIR Comments

Dear Mr. Gross:

The Endangered Habitats League (EHL) submits the following comments on the Draft Environmental Impact Report (DEIR) for the World Logistics Center (Project), a proposal to construct over 42 million square feet of warehouse space in a location where there is insufficient infrastructure to support it. For the last two decades, EHL has participated extensively in planning for sustainability and natural resource protection in Riverside County was a key stakeholder in the development of the County's Multiple Species Habitat Conservation Plan (MSHCP), and has played a prominent role in regional transportation planning through participation in the Southern California Association of Governments' development of Regional Transportation Plans. As we explain below, the Project constitutes an ill-conceived attempt to facilitate private investment return by burdening already congested local and regional highways with massive additional truck traffic that these highways cannot bear without heavy external congestion and pollution costs imposed on the public. Despite significant and purportedly unavoidable adverse traffic, climate change and air quality impacts, neither the Project proponent nor the City of Moreno Valley—the Lead Agency under CEQA—have made any attempt to explore the feasibility of environmentally superior alternatives involving direct rail access and egress to reduce the number of truck trips on highways. — 1

Unless this flaw is addressed, the final EIR will violate CEQA. It is well settled that under CEQA, a lead agency must make two sets of findings to approve a project with significant unavoidable impacts. The first finding must address how the agency responds to significant effects identified in the environmental review process, either by finding that these effects will be mitigated, or that "[s]pecific economic, legal, technological, or other considerations . . . make — 2

infeasible the mitigation measures *or project alternatives* identified in the final EIR." (CEQA Guidelines § 15091, subd. (a)(3).) The second set concerns any statement of overriding considerations, permitting an agency to approve a project despite the existence of significant environmental impacts. (CEQA Guidelines, § 15093.) Because the findings requirements implement CEQA's substantive mandate that public agencies refrain from approving projects with significant environmental impacts when there are feasible alternatives or mitigation measures that can lessen or avoid these impacts, an agency is prohibited from reaching the second set until it has properly addressed the first. (See CEQA Guidelines, § 15091, subd. (f), subd. (c); *Mountain Lion Foundation v. Fish & Game Commission* (1997) 16 Cal. 4th 105, 134.)

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Both sets of findings must be supported by substantial evidence in the record. (Pub. Res. Code § 21081.5; CEQA Guidelines, § 15091, subd. (b).) Any finding that an alternative is infeasible must not only reflect a reasoned analysis, but must be based on specific and concrete evidence. For example, in *Citizens of Goleta Valley v. Board of Supervisors* (1988) 197 Cal.App.3d 1167, the court rejected a finding of infeasibility of alternatives based on conclusory assertions of unacceptable cost, noting that "[t]he fact that an alternative may be more expensive or less profitable is not sufficient to show that the alternative is financially infeasible. What is required is *evidence* that the additional costs or lost profitability are sufficiently severe as to render it impractical to proceed with the project." (Id. at p. 1181.) Only if this finding of infeasibility can properly be made may a lead agency rely on a statement of overriding considerations.

Applying these principles here, the DEIR does not even attempt to explore the feasibility of working with rail companies to extend a rail spur to connect with the Project. Whether couched as an alternative or mitigation, direct rail access to and from the Project site has the potential to take many thousands of polluting and dangerous trucks off of local highways, thereby substantially reducing air, GHG and traffic impacts that the DEIR without basis concludes are unavoidable. Because direct rail access is potentially feasible, it must be analyzed as an alternative or as mitigation to comply with CEQA.

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Thank you for your attention to our concerns.

Very truly yours,

Michael D. Fitts

Staff Attorney

RESPONSES TO LETTER F-6

Endangered Habitats League

Response to Comment F-6-1. The commenter declared,

> "*The Endangered Habitats League (EHL) submits the following comments on the Draft Environmental Impact Report (DEIR) for the World Logistics Center (project), a proposal to construct over 42 million square feet of warehouse space in a location where there is insufficient infrastructure to support it. For the last two decades, EHL has participated extensively in planning for sustainability and natural resource protection in Riverside County was a key stakeholder in the development of the County's Multiple Species Habitat Conservation Plan (MSHCP), and has played a prominent role in regional transportation planning through participation in the Southern California Association of Governments' development of Regional Transportation Plans. As explained below, the project constitutes an ill-conceived attempt to facilitate private investment return by burdening already congested local and regional highways with massive additional truck traffic that these highways cannot bear without heavy external congestion and pollution costs imposed on the public. Despite significant and purportedly unavoidable adverse traffic, climate change and air quality impacts, neither the project proponent nor the City of Moreno Valley—the Lead Agency under CEQA—have made any attempt to explore the feasibility of environmentally superior alternatives involving direct rail access and egress to reduce the number of truck trips on highways*."

Rail was not considered a viable component of the proposed project for number of reasons. In response to this comment and other similar comments, a detailed response regarding the infeasibility of rail serving the WLC site is now included in the revised Traffic Impact Analysis (TIA) as Section 4.F (FEIR Volume 2, Appendix L-1). An additional section (Chapter 4, Section F, FEIR Volume 2, Appendix L-1) has been included in the TIA that analyzes the potential for serving project trips by rail. The analysis showed that rail service to the project site is not viable due to a range of factors, including high fixed costs, secondary impacts on the community, terrain, and capacity constraints within the rail system (refer to Responses to Comments G-53-4 and G-70-5).

It should be noted the Specific Plan area has been reduced from 2,710 acres to 2,610 acres (3.7 percent reduction) due to the removal of 100 acres in the southwest corner of the Specific Plan. This results in a reduction of 1 million square feet of logistics warehousing which is now 40.6 million square feet down 2.4 percent from the original 41.6 million square feet.

Response to Comment F-6-2. The commenter is citing California Environmental Quality Act (CEQA) law as it relates to the City's obligation to adopt a statement of overriding considerations and to make findings for impacts that are significant and unavoidable and for rejecting alternatives, specifically the environmentally superior alternative to the proposed project. The commenter states the City must first "mitigated significant environmental impacts or make findings that specific economic, legal, technological or other considerations make infeasible the mitigation measures or project alternatives identified in the Final (F)EIR. In addition, the Lead Agency can adopt a statement of overriding considerations permitting an agency to approve a project only after providing substantial evidence in the record that all feasible alternatives and mitigation measures to lessen or avoid impacts are properly addressed. The rail alternative identified by the commenter in Comment F-6-1 above, would not lessen the significant impacts of the proposed project and a rail alternative is not feasible. The revised TIA did analyze a rail alternative. That analysis is contained in Appendix L-1 in the FEIR Volume 2 (also refer to Responses to Comments G-53-4 and G-70-5). The City understands its obligations under CEQA relative to approving projects with significant environmental impacts, alternatives, etc., and the City will comply with CEQA in this regard.

Response to Comment F-6-3. The commenter requests that the study address using rail as a mitigation measure. An additional section (Chapter 4, Section F) has been included in the TIA (FEIR Volume 2, Appendix L-1) that analyzes the potential for serving project trips by rail. The analysis showed that rail service to the project site is not viable due to a range of factors, including high fixed costs, secondary impacts on the community, terrain, and capacity constraints within the rail system (refer to Responses to Comments G-53-4 and G-70-5).

Letter F-7A: Lozeau Drury LLP (April 5, 2013)

Letter F-7A

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Via Electronic Email and Overnight Delivery

APRIL 5, 2013

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RE: Comment on the Draft Environmental Impact Report for the World Logistics Center Project (SCH # 2012021045)

Dear Mr. Gross:

I am writing on behalf of Laborers International Union of North America, Local Union No. 1184 and its members living in Riverside County (collectively "LIUNA Local Union No. 1184" or "LIUNA" or "Commenters") regarding the Draft Environmental Impact Report ("DEIR") prepared for the World Logistics Center Project, State Clearinghouse No. 2012021045 ("Project").

We have reviewed the DEIR with the assistance of:

1. Hydrogeologist, Matthew Hagemann, C.Hg., MS.
2. Biologist, Scott Cashen, M.S.
3. Agricultural Consultant, Gregory A. House.

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These experts have prepared written comments that are attached hereto, and which are incorporated in their entirety. The City of Moreno Valley ("City") should respond to the expert comments separately. These experts and our own independent review demonstrate that the DEIR is woefully inadequate and that a new supplemental EIR is required to be prepared and recirculated for public comment. In particular, the EIR suffers from the following significant errors and omissions, among others:

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- BASELINE: The DEIR fails to establish an accurate baseline for hazardous materials and biological resources by failing to conduct and/or rely on adequate surveys and/or assessments. 2
- LOSS OF FARMLAND: The DEIR acknowledges that the Project's conversion of approximately 3,500 acres of active and designated farmland is a significant impact, but the DEIR fails to adequately mitigate for the loss of farmland. Its conclusion that agricultural mitigation banks are infeasible is unsupported by substantial evidence. 3
- AIR QUALITY: The DEIR fails to adequately mitigate significant construction and operational air quality impacts. The DEIR also fails to adequately analyze and mitigate significant indirect source pollution. 4
- BIOLOGICAL RESOURCES: The DEIR fails to adequately analyze and mitigate the Project's impacts on biological resources. 5
- GREENHOUSE GAS EMISSIONS: The DEIR fails to adequately analyze and mitigate the Project's construction and operational GHG emissions. 6
- HAZARDOUS MATERIALS: The DEIR fails to establish an adequate environmental baseline for the Project site because (1) it relies on inadequate sampling of pesticides in Project site soils from past uses and (2) it failed to evaluate the entire Project site for potential hazards. 7
- HYDROLOGY AND WATER QUALITY: The DEIR fails to adequately analyze and mitigate stormwater impacts on water quality. 8
- CUMULATIVE IMPACTS ANALYSIS: The DEIR's entire cumulative impacts analyses are based on outdated and inaccurate summary of projections. The DEIR also fails to adequately analyze and mitigate the Project's cumulative impacts for the following topics: (1) agricultural resources, (2) biological resources, and (3) air quality. 9
- ALTERNATIVES: The DEIR fails to adequately analyze Project alternatives and fails to implement the environmentally superior Alternative 1. 10

Commenters urge the City to revise the EIR to adequately describe, analyze, and mitigate the Project and its impacts.[1] The revised EIR should be recirculated to allow public review and comment. 11

[1] We reserve the right to supplement these comments at later hearings and proceedings for this Project. (See, *Galante Vineyards v. Monterey Water Dist*. (1997) 60 Cal. App. 4th 1109.)

I. PROJECT DESCRIPTION

The Project site encompasses 3,918 acres of land located in Rancho Belago, the eastern portion of the City of Moreno Valley, and is situated directly south of State Route 60 (SR-60) with the Badlands area to the east and northeast, the Mount Russell Range to the southwest, and Mystic Lake and the San Jacinto wildlife Area to the southeast. (DEIR, p. 3-19.)

This mega-scale Project proposes to construct a maximum of 41.4 million square feet of "high-cube logistics" warehouse distribution uses classified as "Logistics Development" (LD) and 200,000 square feet (approx. 0.5%) of warehousing-related uses classified as "Light Logistics" (LL) on 2,710 acres within the World Logistics Center ("WLC") Specific Plan. (DEIR, p. 3-19.) The Project will be used primarily for the storage and/or consolidation of manufactured goods, imported through the Ports of Los Angeles and Long Beach, prior to their distribution to secondary retail outlets. (DEIR, p. 3-26.)

In addition to the Specific Plan area, the Project site includes (1) 910 acres of the California Department of Fish and Wildlife (CDFW) Conservation Buffer area to the south, (2) 194 acres of Public Facilities Lands area, and (3) 104 acres of Off-site Improvement Area. (DEIR, p.3-26.)

The Project site primarily consists of active farmland. (DEIR, pp.3-1, 3-2.) 12
Approximately 3,389 acres, or 89 percent of the 3,814-acre project area, are designated as Farmland of Local Importance and approximately 25 acres are designated as Unique Farmland. (DEIR, p. 4.2-7.) The site is also scattered with seven residences. (DEIR, p. 3-2.)

The Project would require significant changes to the General Plan, overhaul of the existing Specific Plan and zoning changes, including:

- General Plan Amendment: The Project includes an amendment to the General Plan that will permit the establishment of logistics land uses on the 3,814-acre property. The following General Elements will be amended: Community Development; Circulation; Parks, Recreation and Open Space; Safety; Conservation; and General Plan Goals and Objectives. (DEIR, p.3-25.)

- Adoption of a Specific Plan: The Project includes a Specific Plan, the World Logistics Center Specific Plan, to implement the amended General Plan and is a master plan for the 2,710-acre site for the development of up to 41.6 million square feet of modern high-cube logistics and related warehouse distribution facilities defined as Logistics Development and Light Logistics. (DEIR, p.3-74.) The Project will also replace most of the currently approved Moreno Highlands Specific Plan ("MHSP"), which covers 3,038 acres of the project area. (DEIR, p.3-25.) The MHSP contemplates the development of a mixed-use community

consisting of up to 7,763 residential dwelling units and approximately 603 acres of business, retail, institutional, and other uses. (Id.)

- Zone Change: The Project includes a Zone Change covering the Project's entire 3,814-acre property, which will designate 2,710 acres for the World Logistics Center Specific Plan, 1,084 acres of land for Open Space, and 20 acres for Public Facilities. (DEIR, p.3-74.) 12

The Project also encompasses pre-annexation zoning for an 85-acre parcel of land and a Development Agreement between the City and Highland Fairview (the project applicant).

II. STANDING

Members of Local Union No. 1184 live, work, and recreate in the immediate vicinity of the Project site. These members will suffer the impacts of a poorly executed or inadequately mitigated Project, just as would the members of any nearby homeowners association, community group, or environmental group. Hundreds of LIUNA Local Union No. 1184 members live and work in areas that will be affected by traffic, air pollution, and water pollution generated by the Project. 13

In addition, construction workers will suffer many of the most significant impacts from the Project as currently proposed, such as from air pollution emissions from poorly maintained or controlled construction equipment, possible risks related to hazardous materials on the Project site, and other impacts. Therefore, LIUNA Local Union No. 1184 and its members have a direct interest in ensuring that the Project is adequately analyzed and that its environmental and public health impacts are mitigated to the fullest extent feasible. 14

III. LEGAL STANDARDS

A. EIR

CEQA requires that an agency analyze the potential environmental impacts of its proposed actions in an environmental impact report ("EIR") (except in certain limited circumstances). (See, e.g., Pub. Resources Code, § 21100.) The EIR is the very heart of CEQA. (*Dunn-Edwards v. BAAQMD* (1992) 9 Cal.App.4th 644, 652.) "The 'foremost principle' in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." (*Communities for a Better Environment v. Cal. Resources Agency* (2002) 103 Cal.App.4th 98, 109 (*"CBE v. CRA"*).) 15

CEQA has two primary purposes. First, CEQA is designed to inform decision makers and the public about the potential, significant environmental effects of a project. (14 Cal. Code Regs. ("CEQA Guidelines") § 15002(a)(1).) "Its purpose is to inform the

public and its responsible officials of the environmental consequences of their decisions before they are made. Thus, the EIR 'protects not only the environment but also informed self-government.'" (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal. 3d 553, 564.) The EIR has been described as "an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return." (*Berkeley Keep Jets Over the Bay v. Bd. of Port Comm'rs*. (2001) 91 Cal. App. 4th 1344, 1354 ("*Berkeley Jets*"); *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.)

Second, CEQA requires public agencies to avoid or reduce environmental damage when "feasible" by requiring "environmentally superior" alternatives and all feasible mitigation measures. (CEQA Guidelines, § 15002(a)(2) and (3); See also, *Berkeley Jets*, *supra*, 91 Cal. App. 4th at p. 1354; *Citizens of Goleta Valley, supra*, 52 Cal.3d at p. 564.) The EIR serves to provide agencies and the public with information about the environmental impacts of a proposed project and to "identify ways that environmental damage can be avoided or significantly reduced." (CEQA Guidelines, §15002(a)(2).) If the project will have a significant effect on the environment, the agency may approve the project only if it finds that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns." (Pub. Resources Code, § 21081; CEQA Guidelines, § 15092(b)(2)(A) & (B).) 15

While the courts review an EIR using an "abuse of discretion" standard, "the reviewing court is not to 'uncritically rely on every study or analysis presented by a project proponent in support of its position. A 'clearly inadequate or unsupported study is entitled to no judicial deference.'" (*Berkeley Jets*, 91 Cal. App. 4th at p. 1355 (emphasis added), quoting, *Laurel Heights Improvement Assn. v. Regents of University of California*, 47 Cal. 3d 376, 391 409, fn. 12 (1988).) As the court stated in *Berkeley Jets*, 91 Cal. App. 4th at p. 1355:

> A prejudicial abuse of discretion occurs "if the failure to include relevant information precludes informed decisionmaking and informed public participation, thereby thwarting the statutory goals of the EIR process." (*San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 722; *Galante Vineyards v. Monterey Peninsula Water Management Dist*. (1997) 60 Cal. App. 4th 1109, 1117; *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal. App. 4th 931, 946.)

B. SUPPLEMENTAL EIR

Recirculation of an EIR prior to certification is required "when the new information added to an EIR discloses: (1) a new substantial environmental impact resulting from the project or from a new mitigation measure proposed to be implemented (cf. CEQA Guidelines, § 15162, subd. (a)(1), (3)(B)(1)); (2) a substantial increase in the severity of 16

an environmental impact unless mitigation measures are adopted that reduce the impact to a level of insignificance (cf. CEQA Guidelines, § 15162, subd. (a)(3)(B)(2)); (3) a feasible project alternative or mitigation measure that clearly would lessen the environmental impacts of the project, but which the project's proponents decline to adopt (cf. CEQA Guidelines, § 15162, subd. (a)(3)(B)(3), (4)); or (4) that the draft EIR was so fundamentally and basically inadequate and conclusory in nature that public comment on the draft was in effect meaningless." (*Laurel Heights Improvement Assn. v. Regents of University of California* (1993) 6 Cal. 4th 1112, 1130, citing *Mountain Lion Coalition v. Fish & Game Comm'n* (1989) 214 Cal.App.3d 1043.)

> Significant new information requiring recirculation can include:
>
> (1) A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
>
> (2) A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance. 16
>
> (3) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it.
>
> (4) The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

(CEQA Guidelines, § 15088.5(a).)

The DEIR fails to analyze significant environmental impacts pertaining to the Project and to fully consider available mitigation measures to address those impacts. A revised EIR is required to be prepared and recirculated to address these deficiencies.

IV. THE DEIR FAILS TO ACCURATELY ESTABLISH THE PROJECT'S ENVIRONMENTAL SETTING OR "BASELINE."

A. CEQA BASELINE STANDARD

To facilitate its informational goals, an EIR must contain an accurate description of the project's environmental setting, or "baseline." The CEQA "baseline" is the set of environmental conditions against which to compare a project's anticipated impacts. (*Communities for a Better Environment v. So Coast Air Qual. Mgmnt. Dist*. (2010) 48 Cal. 4th 310, 321.) CEQA Guidelines section 15125(a) states, in pertinent part, that a lead agency's environmental review under CEQA: 17

> …must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time [environmental analysis] is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a Lead Agency determines whether an impact is significant.

(See, *Save Our Peninsula Committee v. County of Monterey* (2001) 87 Cal.App.4th 99, 124-125 ("*Save Our Peninsula*").) As the court of appeal has explained, "the impacts of the project must be measured against the 'real conditions on the ground,'" and not against hypothetical permitted levels. (*Id.* at 121-123.) The court has explained, using such a skewed baseline "mislead(s) the public" and "draws a red herring across the path of public input." (*San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 656; *Woodward Park Homeowners v. City of Fresno* (2007) 150 Cal.App.4th 683, 708-711.) **17**

B. THE DEIR FAILS TO ADEQUATELY ANALYZE HAZARDS AND HAZARDOUS MATERIALS AND ESTABLISHES AN ERRONEOUS BASELINE.

1. Residual Pesticides in the Soil May Pose Health Risks to Workers and Nearby Residents.

The DEIR recognizes that the Project area has been historically used for dry farming and livestock grazing, and almost all of the Project area (3,238 acres or 97%) is currently dry farmed. (DEIR, pp. 4.4-4, 4.8-2.) Based on these uses of the Project site, there is a potential that residual pesticides remain in the soil, which may pose health risks to workers and nearby residents. However, the DEIR and supporting documents fail to provide any information reflecting the "real conditions on the ground" on the types of pesticides that have been used on the Project site in association with these agricultural operations. (*Save Our Peninsula*, *supra,* 87 Cal.App.4th at pp. 121-123.) Therefore, the DEIR fails to adequately describe the environmental setting for the Project and fails to serve its informational purpose. **18**

According to Mr. Hagemann, the DEIR and the eighteen Phase I Environmental Site Assessments ("Phase I ESAs") did not conduct adequate sampling of pesticides in Project site soils from past uses:

> Eighteen Phase I Environmental Site Assessments ("Phase I ESAs") were completed for the site from May 2003 to January 2013 and are included as Appendix I to the DEIR. The January 2013 Phase I ESA, which includes a summary of the findings of the previous Phase I ESAs, states that past uses of the site included a chicken ranch, three dairies, and agriculture (2013 Phase I ESA, p. 1).

The 2013 Phase I ESA states that there are no recognized environmental conditions (RECs)[2] associated with the Project site (2013 Phase I ESA, p. 35). Our review shows that the Phase I ESA and the DEIR do not thoroughly evaluate current soil conditions at the site. Failure to adequately disclose baseline conditions at the Project site that may result in significant impacts to construction workers and nearby residents. 18

Inadequate sampling of pesticides in Project site soils from past uses

Currently, the Project site is used for dry farming and wheat is typically grown on the Project site (DEIR, p. 4.2-2). The DEIR states that dry farming does not typically use pesticides (DEIR, p. 4.8-4) but our review of data for the Project site from the California Department of Pesticide Regulation (CDPR) shows that pesticides such as 2,4-D, 2-ethylhexyl ester were used on the site for wheat cultivation (see Attachment A).

The 2013 Phase I ESA, however, does not mention recent pesticide usage. The 2013 Phase I does include sampling results for organochlorine pesticides (OCPs). The ESA notes that OCP sampling results were below regulatory levels (2013 Phase I ESA, p. 2). However, only 52 samples were collected from the Project site in previous investigations. 19

The "Interim Guidance for Sampling Agricultural Properties" prepared by the Department of Toxic Substances Control (DTSC) recommends that, when testing for OCPs, samples for sites over 50 acres should be collected at over 60 locations.[3] The Project site, at 2,710 acres, is well over 50 acres. Therefore, the 52 samples collected over the last ten years[4] are likely insufficient to provide an accurate assessment of the Project site's soil conditions and collecting such a limited number of samples may not reliably disclose current environmental concerns associated with Project site soils. In addition, because these samples were collected a minimum of eight years ago, sampling results are outdated and cannot be used to baseline conditions.

The Project site has been used for agricultural purposes since at least 1948 (2013 Phase I ESA, p. 15). OCPs such as DDT and DDE were used

[2] A REC is defined as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. *See*http://www.astm.org/Standards/E1527.htm
[3] Department of Toxic Substances Control, Interim Guidance for Sampling Agricultural Properties (Third Revision). http://www.dtsc.ca.gov/Schools/upload/Ag-Guidance-Rev-3-August-7-2008-2.pdf, p. 8
[4] 42 samples were collected in 2003, 9 samples were collected in 2004, and one sample was collected in 2005.

> starting in 1940s.[5] Although their use was banned in the 1970s, these compounds can persist in soil for hundreds of years.[6]
>
> The limited number of samples collected on the Project site may not fully show the total extent of OCP concentrations throughout the Project site. The Applicant should disclose how many acres of the 2,710-acre site were historically and currently used for agricultural activities and should collect 60 soil samples per 50-acre portion. For example, if 100 acres of the Project site was used for agriculture, 60 samples on each 50-acre portion should be collected for a total of 120 samples. 19

(Exhibit 1, pp. 1-3.)

Based on Mr. Hagemann's findings, the DEIR fails to adequately disclose baseline conditions at the Project site by relying on inadequate sampling of pesticides in Project site soils. If contaminated soil exists at the Project site, construction workers, such as LiUNA members are likely to suffer some of the most significant exposures since they may come in contact with soil contamination during excavation, site grading and earth movement during Project construction. 20

2. The Phase I Environmental Site Assessments Completed for the Project are Outdated and Inadequate.

Additionally, the DEIR relies on Phase I Environmental Site Assessments (ESAs) which are outdated and inadequate, establishing an erroneous baseline for hazards and hazardous materials. (DEIR, p. 4.8-1; Appendix I.) According to Mr. Hagemann,

> The Project site is currently used for wheat cultivation but no samples were collected in association with the 2013 Phase I ESA. Because the Project site is still used for agricultural purposes, relying on sampling results from eight years ago will not reflect pesticide residuals that may exist in site soils from agricultural use of the site from 2005 to present-day. Additional pesticide sampling, to include 2, 4-D, 2-ethylhexyl ester and any other pesticides that may have been used for wheat farming, should be conducted. 21
>
> Project construction will require grading, excavation, vegetation removal, and trenching. Construction workers can be exposed, via inhalation and dermal contact, to pesticides in soil that can become airborne during these ground-disturbing activities. Exposure to these pesticides can pose significant health risks. Oral exposure to 2, 4-D, 2-ethylhexyl ester can

[5] U.S. EPA, DDT – A Brief History and Status. http://www.epa.gov/pesticides/factsheets/chemicals/ddt-brief-history-status.htm
[6] *Ibid.*, p. 3

result in vomiting, diarrhea, headache, confusion, and bizarre behavior. Dermal exposure can result in irritation and inhalation exposure can lead to coughing and burning sensations in the upper respiratory tract and chest.[7] Exposure to DDT can result in headaches, nausea, and convulsions[8] as well as damage the liver, nervous, and reproductive system.[9] 21

There are seven residences located onsite (DEIR, p. 4.5-12) and residences are also located directly adjacent to the Project site along the western boundary of the Project site (DEIR, Figure 3.8). These residents may also be adversely affected from exposure to pesticide-containing soil during Project construction. Inhalation of pesticide-contaminated soil has been linked to asthma in recent research.[10] A report prepared by the California Department of Health identifies pesticides as an asthma trigger.[11]

Limited soil sampling was conducted on the Project site eight years ago. Sampling did not target pesticides used for wheat cultivation, such as 2, 4-D, 2-ethylhexyl ester. Project soils should be tested for all pesticides that may have been used on the site. All sampling results should be compared to appropriate human health regulatory levels[12] as well as construction worker thresholds[13] to determine if the Project may pose significant health risks. A revised DEIR should be prepared to disclose sampling results and any mitigation, if necessary, to ensure that the Project will not result in significant public health impacts. 22

(Exhibit 1, pp. 3-4.)

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[7] National Pesticide Information Center. 2, 4-D Technical Fact Sheet. http://npic.orst.edu/factsheets/2,4-DTech.pdf, p. 2.
[8] U.S. EPA, DDE. http://www.epa.gov/ttnatw01/hlthef/dde.html
[9] U.S. EPA, DDT. http://www.epa.gov/pbt/pubs/ddt.htm
[10] U.S. National Library of Medicine, Pesticides and Asthma. http://www.ncbi.nlm.nih.gov/pubmed/21368619
[11] California Department of Public Health, Strategic Plan for Asthma in California, 2008-2012. http://www.cdph.ca.gov/programs/caphi/Documents/AsthmaStrategicPlan.5-5-08.pdf, p. 22.
[12] *See* California Human Health Screening Levels: http://www.calepa.ca.gov/brownfields/documents/2005/CHHSLsGuide.pdf
[13] *See* Table K-2 of the February 2013 San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels: http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/ESL/Lookup_Tables_Feb_2013.pdf

3. The DEIR's Hazardous Conditions Baseline Does Not Include the Entire Project Area.

Moreover, the DEIR's hazardous conditions baseline is inaccurate since the DEIR and the eighteen Phase I ESAs failed to survey the entire Project site for potential hazards. According to Mr. Hagemann,

> Our review of the areas evaluated in the 18 Phase I ESAs shows that an approximately 50-acre portion of the Project site located south of Alessandro Blvd., east of Merwin St., and north of Brodiaea Ave has not been surveyed (see Attachment B). The land use map in the DEIR shows that this area will be used for logistics development (DEIR, Figure 3.8).
>
> Project construction will occur in areas that have not been surveyed by the Phase I ESA. Therefore, conclusions in the DEIR about the absence of environmental concerns on the Project site are not completely substantiated. If environmental hazards exist on this portion of the site, Project construction may pose significant risks to workers and other site personnel.
>
> A new Phase I ESA should be prepared to survey, identify and disclose baseline conditions of the entire Project site, to be included with a revised DEIR. If hazardous conditions are found, all appropriate mitigation measures should be identified to prevent the exposure of workers to conditions that would present health risks during construction and operation of the Project.

(Exhibit 1, p. 4.)

Pursuant to Mr. Hagemann's recommendations, new sampling of Project soil must be conducted for all pesticides that may have been used on the Project site to establish an accurate hazardous conditions baseline. The entire Project site must also be evaluated for potential hazards. Thereafter, a revised DEIR must then be prepared to analyze and mitigate potential hazards and establish an accurate hazardous conditions baseline. 23

C. THE DEIR FAILS TO ESTABLISH AN ACCURATE BASELINE FOR SENSITIVE BIOLOGICAL RESOURCES.

Establishing an accurate baseline is the sine qua non to adequately analyzing and mitigating the significant environmental impacts of the Project. (See CEQA Guidelines, § 15125(a); *Save Our Peninsula*, *supra,* 87 Cal.App.4th at pp. 121-123.) Unfortunately, the DEIR's failure to investigate and identify the occurrences of sensitive biological resources at the Project site resulted in a skewed baseline. Such skewed 24

baseline ultimately "mislead(s) the public" by engendering skewed and inaccurate analyses of environmental impacts, mitigation measures and cumulative impacts for biological resources. (See *San Joaquin Raptor Rescue Center, supra,* 149 Cal.App.4th at p. 656; *Woodward Park Homeowners, supra,* 150 Cal.App.4th at pp. 708-711.) 24

1. The DEIR Fails to Accurately Disclose the Value of Project Site to Raptors.

The DEIR fails to adequately assess the value of the Project site as raptors' habitat. Mr. Cashen, a biological expert, states,

> The DEIR identifies the Project site as providing "marginal foraging habitat for some raptors species."[14] This statement is not substantiated by survey data. Indeed, two different studies that were conducted in the Project area demonstrate (or strongly suggest) that the Project site provides very important habitat for raptors.
>
> McCrary et al. (1985) conducted a 2-year fall and winter study of raptors in the San Jacinto Valley to provide baseline data on populations in southern California and to quantify the importance of the valley as a wintering area for raptors.[15] The study area was predominately agricultural lands (alfalfa and grain crops) and dairy farms, and it included the southern half of the Project site.[16] The investigators detected 14 raptor species during their study, and raptor densities were 5 to 17 times higher than those reported for other regions. This led the authors to conclude that "*the San Jacinto Valley and similar surrounding areas are of major importance to wintering birds of prey*."[17] 25
>
> Beckman et al. (2011) replicated the raptor surveys between 2005 and 2009 and derived a comparable conclusion regarding the importance of the region to raptor species.[18] Furthermore, both studies indicate the San Jacinto Valley provides important wintering grounds for the white-tailed kite, northern harrier, ferruginous hawk, golden eagle, and prairie falcon—all of which are special-status species. The State of California indicates 22 overwintering raptor species are known to utilize the San Jacinto Valley, and that the San Jacinto Valley consistently ranks in the top one to

[14] DEIR, p. 4.4-28.
[15] McCrary MD, RL McKernan, WD Wagner, RE Landry. 1986. Roadside raptor census in the San Jacinto Valley of southern California. Western Birds 17:123-130. (Attachment A).
[16] *Ibid,* p. 123 and Figure 1.
[17] *Ibid.* [emphasis added].
[18] Beckman A, S Hoffman, R Zembal, and others. 2011. Roadside Raptor Surveys of the Santa Ana River Watershed in Riverside and San Bernardino Counties, California, 2005-2009 [Abstract]. 2011 Annual Conference of the Western Section of the Wildlife Society, Riverside, California. (Attachment B).

> two percent in species diversity for the North American Christmas Bird Counts.[19]

25

(Exhibit 2, p. 2.)

2. The Burrowing Owl Surveys are Incomplete and Failed to Adhere to Survey Protocols.

The DEIR relies on burrowing owl surveys which are incomplete and failed to adhere to the MSHCP's survey protocols. (DEIR, p. 4.4-29; Appendix D.) Thus, the DEIR's biological resources baseline for burrowing owl is inaccurate. According to Mr. Cashen:

> The Western Riverside County Multiple Species Habitat Conservation Plan ("MSHCP") identifies the Project site as being within an area requiring focused surveys for burrowing owls. The Applicant did not conduct surveys throughout all portions of the Project site that provide suitable habitat for burrowing owls, nor did it conduct surveys according to the protocol established by the MSHCP.[20]

26

> Burrowing owls occur in open habitat types (e.g., grassland, shrub steppe, desert, agriculture, and ruderal, among others) if the vegetation structure is suitable and there are useable burrows and foraging habitat in proximity.[21] As the DEIR acknowledges, almost all of the Project site and surrounding buffer area provide potentially suitable habitat for burrowing owls.[22] The DEIR suggests protocol surveys for the burrowing owl were conducted throughout the entire Project site, and that much of the Project site has been subject to several years of protocol-level surveys. To the contrary, the survey reports that accompany the DEIR suggest the burrowing owl surveys were cursory, and that some portions of the Project site providing suitable burrowing owl habitat were never surveyed.
>
> <u>2005 Surveys</u>
>
> In 2005, the Applicant's consultants used aerial photographs to categorize the potential (i.e., low, moderate, and high potential) for burrowing owls to occur in various portions of the 1,778-acre Bel Lago Property (a subset of the Project site). The consultants then conducted four surveys "on foot

[19] State of California. 2008. San Jacinto Wildlife Area, Expansion 31, Riverside County [internet]. Available at: http://bondaccountability.resources.ca.gov/NewsArticle.aspx?pid=4&id=133
[20] Regional Conservation Authority. 2006. Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area. Available at: http://www.wrc-rca.org/library.asp#id164.
[21] CDFG. 2012. Staff Report on Burrowing Owl Mitigation. Available at: www.dfg.ca.gov/wildlife/nongame/docs/BUOWStaffReport.pdf.
[22] DEIR, p. 4.4-29.

and by vehicle within suitable habitat on the Project site and within a 100-foot buffer around the suitable habitat."[23] In my opinion, those surveys were insufficient for documenting habitat suitability; and the presence, abundance, and distribution of burrowing owls in the survey area.

First, the presence and abundance of suitable burrows is an essential element of burrowing owl habitat, and thus, the suitability of the habitat as a whole. It would have been impossible for the Applicant's consultants to use aerial photographs to map the presence of burrows. This issue is confounded because the conclusions in the survey report pertaining to habitat suitability are internally inconsistent and/or are not supported by scientific literature. For example, the report first states habitat within the "low potential" area had little to no vegetation, but it subsequently states "low potential" habitat typically contained 100% vegetation coverage that provided poor habitat for burrowing owls due to limited visibility of ground dwelling species.[24]

Second, the surveys did not adhere to the methods described in the California Department of Fish and Wildlife's ("CDFW") Staff Report on Burrowing Owl Mitigation, as required by the MSHCP. CDFW's 2005 Staff Report states: "[s]urveys should be conducted by *walking* suitable habitat on the entire project site and (where possible) in areas within 150 meters (approx. *500 ft.*) of the project impact zone."[25] Indeed, administrators of the MSHCP have established that burrowing owl surveys that are conducted while driving are unacceptable.[26] Although the surveyors detected a breeding pair of burrowing owls on the Project site they did not conduct additional surveys to identify the location of the nest site.[27] **26**

<u>2007 Surveys</u>

The Applicant's consultant conducted additional surveys for burrowing owls in 2007. However, the surveys were limited to the site for the 158.4-acre Highland Fairview Corporate Park and the surrounding 500-foot buffer zone.[28] The surveys did not encompass the location where

[23] *Ibid*, Appendix E. Michael Brandman Associates. 2005 Sep 12. DRAFT Focused Burrowing Owl Survey Report for the 1,778-acre Bel Lago Property, p. 6.
[24] *Ibid*, pp. 6 and 10.
[25] California Department of Fish and Game. 1995. Staff Report on Burrowing Owl Mitigation. [emphasis added].
[26] Regional Conservation Authority. 2006. Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area. Available at: http://www.wrc-rca.org/library.asp#id164.
[27] DEIR, Appendix E. Michael Brandman Associates. 2005 Sep 12. DRAFT Focused Burrowing Owl Survey Report for the 1,778-acre Bel Lago Property, p. 6.
[28] *Ibid*. Michael Brandman Associates. 2008 Feb 5. Burrowing Owl Focused Survey: Highland Fairview Corporate Park.

burrowing owls were detected in 2005, and thus they were incapable of determining continued use of the site by the breeding pair.[29]

2010 Surveys

In 2010, the Applicant's consultant conducted surveys within the 4,321-acres Highlands Specific Plan area. According to the survey report, a single biologist conducted the burrow survey (Part A of the protocol) and first focused burrowing owl survey (Part B of the protocol) between 0630 and 0730 hours on June 9, 2010.[30] Only areas identified in the initial survey as having potential burrows and adjacent foraging habitat for owls were surveyed during the remaining three surveys.[31] As a result, the survey effort was limited to four drainages within the entire Project site and surrounding buffer zone.[32] Such an effort would have been insufficient for documenting the presence, abundance, and distribution of burrowing owls within the Project site. 26

First, it would have been impossible for a single biologist to identify the presence of potentially suitable burrows across several thousand acres of potentially suitable habitat within one hour. Furthermore, the "Sensitive Plant Focused Survey" report indicates the biologist was conducting sensitive plant surveys within four drainages at the exact same time and date. Consequently, he could not have been conducting the burrow and burrowing owl survey across the entire Project site and buffer—as the report indicates.

Second, each of the remaining three focused surveys was limited to two biologists conducting surveys for one hour per day.[33] At the same time, one of the two biologists was reported to have been conducting surveys for sensitive plant species.[34] It would have been impossible for the biologists to reliably survey the four drainages for burrowing owls and sensitive plants during such a short period of time, especially given that there were numerous burrows throughout the survey area.[35]

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[29] *Ibid,* Exhibit 4. *See also* DEIR, Appendix E. Michael Brandman Associates. 2005 Sep 12. DRAFT Focused Burrowing Owl Survey Report for the 1,778-acre Bel Lago Property, Exhibit 4.
[30] DEIR, Appendix E. Michael Brandman Associates. 2010 Dec 13. Burrowing Owl Focused Survey: Highlands Specific Plan, p. 18.
[31] *Ibid,* p. 13.
[32] *Ibid,* Exhibit 4.
[33] *Ibid,* Table 2.
[34] DEIR, Appendix E. Michael Brandman Associates. 2010 Dec 13. Sensitive Plant Focused Survey: Highlands Specific Plan, Table 3.
[35] *Ibid*. Michael Brandman Associates. 2010 Dec 13. Burrowing Owl Focused Survey: Highlands Specific Plan, p. 18.

The survey report indicates: "[t]here is no additional suitable habitat within 500 feet surrounding the project site. Therefore, although evaluated, protocol burrowing owl surveys were not conducted within the 500-foot buffer area."[36] This statement is misleading and undermines the information presented in the DEIR. First, it is clear the Applicant's consultant did not walk through (evaluate) the entire Project site and 500-foot buffer zone to determine the presence of potentially suitable burrows for burrowing owls. Second, the survey area appears to have been dictated by habitat suitability for sensitive plant species, which does not necessarily coincide with that for burrowing owls.[37] Third, the consultant's statement conflicts with information presented in its 2005 survey report, which identifies most of the Project site as having "moderate potential habitat" for burrowing owls.[38] Fourth, the consultant's statement conflicts with: (a) its map of vegetation communities; (b) imagery available through Google Earth (Figures 1 and 2); and (c) information provided in the DEIR.[39] These sources suggest there is considerably more suitable habitat for burrowing owls than suggested in the consultant's 2010 survey report. 26

2007 and 2012 Surveys

The DEIR indicates focused burrow and burrowing owls surveys also were conducted in 2006 (750 acres) and 2012 (3,300 acres).[40] However, the DEIR does not provide survey reports or any other information that describes and documents the survey efforts. As a result, I am unable to evaluate the value of those survey efforts in providing information pertaining to the burrowing owl.

A single burrowing owl was observed within the temporary detention basin located south of the Highland Fairview Corporate Park during a March 2012 site visit associated with the Jurisdictional Delineation.[41] Although this observation was important given the scarcity of owls in the MSHCP plan area, the Applicant's consultant apparently made no attempt to determine the breeding status of the owl.

The Applicant's consultant has concluded the burrowing owl "is not considered a permanent resident within the entire study area." [42] The

[36] *Ibid.*
[37] *Ibid*, Exhibit 4. *See also* DEIR, Appendix E. Michael Brandman Associates. 2010 Dec 13. Sensitive Plant Focused Survey: Highlands Specific Plan, p. 10 and Exhibit 5.
[38] DEIR, Appendix E. Michael Brandman Associates. 2005 Sep 12. DRAFT Focused Burrowing Owl Survey Report for the 1,778-acre Bel Lago Property, Exhibit 4.
[39] *Ibid*, p. 4.4-29.
[40] *Ibid.*
[41] *Ibid*, Appendix E, p. 46.
[42] *Ibid.*

consultant has no basis for its conclusion because it did not conduct any surveys to evaluate winter residency. Moreover, it appears that at least one burrowing owl was detected south of the Highland Fairview Corporate Park (Skecher's Logistic Center) each time the area was surveyed.[43] This information, and the knowledge that burrowing owls have high site fidelity, strongly suggests that the burrowing owl is a breeding season resident on the Project site.

26

Figure 1. Potentially suitable burrowing owl habitat at proposed debris basin site east of Gilman Springs Road.

[43] *Ibid.*

Figure 2. Potentially suitable burrowing owl habitat at proposed debris basin site east of Gilman Springs Road.

(Exhibit 2, pp. 2-7.)

26

3. The DEIR's Baseline Fails to account for the Presence of Los Angeles Pocket Mouse.

The DEIR's baseline fails to account for the occurrences of Los Angeles Pocket Mouse at the Project site and consequently, fails to analyze and mitigate the Project's impacts on such species. According to Mr. Cashen,

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> The Los Angeles pocket mouse is a state listed Species of Special Concern and a MSHCP Group 3 species. The Los Angeles pocket mouse is associated with fine, sandy soils in intermittent drainages, non-native grassland, Riversidean sage scrub, Riversidean alluvial fan sage scrub, chaparral and redshank chaparral habitats.[44] The DEIR relays the opinion of the Applicant's consultant that the species is absent from the Project area.[45] That conclusion is unjustified for two reasons.

[44] MSHCP, Vol II-B, Species Accounts: Mammals. Available at: http://www.wrc-rca.org/library.asp
[45] DEIR, p. 4.4-30.

First, focused surveys for the Los Angeles pocket mouse were not conducted throughout all potentially suitable habitats. In 2005, trapping surveys were limited to nine acres of suitable habitat within "Drainage Feature 9."[46] In 2010, surveys were limited to trapping along approximately 1,000 feet of Drainage Feature 9, and within two ephemeral drainages (each also approximately 1,000 feet) dominated by mule fat but within an agricultural field.[47] Trapping surveys were never conducted in other portions of the Project area that contain potentially suitable habitat for the Los Angeles pocket mouse. These include: (a) the northern portion of "Drainage Feature 7" where it is associated with native vegetation; (b) the drainages and native vegetation communities east of Gilman Springs Road and north of Highway 60; (c) the grassland community within the Project area; and (d) the remaining scrub communities in the Project area.

Second, it is well established in the field of wildlife science that it is nearly impossible to prove absence. This is especially true for the Los Angeles pocket mouse, which appears to occur at low densities and is difficult to trap.[48] 27

Potentially significant Project impacts to the Los Angeles pocket mouse cannot be properly disclosed, analyzed, and mitigated until trapping surveys have been completed throughout all potentially suitable habitats in the Project area and buffer zone.

(Exhibit 2, pp. 9-10.)

4. The DEIR Fails to Provide Sufficient Information on Special-Status Plant Species Which May be Impacted by the Project.

The DEIR never conducted protocol-level plant surveys. The surveys that the DEIR did rely on (1) did not encompass the entire Project area and (2) used inappropriate methodology. Therefore, the DEIR's baseline fails to account for all special-status plant species and as a result, fails to adequately analyze the Project's impacts on such species. According to Mr. Cashen, 28

<u>Protocol-Level Plant Surveys Were Not Conducted</u>

Failure to survey the entire Project area and buffer-

[46] *Ibid*, Appendix E. Michael Brandman Associates. 2005 Sep 26. DRAFT Focused Los Angeles Pocket Mouse Survey Report for the 1,778-Acre Bel Lago Property, p. 7.
[47] *Ibid*, p. 10.
[48] MSHCP, Vol II-B, Species Accounts: Mammals, p. M-92. Available at: http://www.wrc-rca.org/library.asp

The Applicant's consultant conducted rare plant surveys in June 2010. These surveys, however, were based on the footprint for the Highlands Specific Plan, and they were limited to four drainages within the Project site.[49] The Applicant's consultant did not survey any other portions of the Project area, including the Riversidean Sage Scrub communities, which the DEIR identifies as having the potential to support rare plant species that are not covered by the MSHCP.[50]

CDFW survey guidelines indicate focused botanical surveys should be conducted *whenever natural or naturalized vegetation occurs on a project site* and the project has the potential for direct or indirect effects on vegetation.[51] Natural and naturalized vegetation occur on and adjacent to the Project site, and the Project will have direct and indirect impacts on that vegetation.[52] Therefore, to establish existing conditions and comply with CDFW guidelines, the Applicant needs to conduct appropriately timed botanical surveys throughout all portions of the Project area and buffer zone containing natural or naturalized vegetation. Data from those surveys are required to fully assess existing conditions, analyze Project impacts, and formulate appropriate mitigation for impacts to sensitive botanical resources. **28**

Inappropriate methodology-

The methods used to survey special-status plants on the Project site had numerous flaws that have resulted in unreliable information on baseline conditions and Project impacts.

The Applicant's consultant concluded that three sensitive plant species have a "moderate" potential to occur on the Project site. The sensitive plant surveys were limited to a search for those three species.[53] The "list approach" implemented by the Applicant's consultant is not an accepted technique for disclosing and analyzing the impacts of a project. Indeed, the CDFW specifically advises against the "list approach" for botanical inventories. Its survey guidance states:

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[49] DEIR, Appendix E. Michael Brandman Associates. 2010 Dec 13. Sensitive Plant Focused Survey: Highlands Specific Plan, p. 2. and Exhibit 5.
[50] *Ibid*, pp. 4.4-26 and -27.
[51] CDFG. 2009. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. Available at: http://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html#Plants.
[52] DEIR, Figure 4.4-1.
[53] *Ibid*, Appendix E. Michael Brandman Associates. 2010 Dec 13. Sensitive Plant Focused Survey: Highlands Specific Plan, p. 1.

> This list [of special-status plants with potential to occur within a particular region] can serve as a tool for the investigators and facilitate the use of reference sites; however, special status plants on site might not be limited to those on the list. Field surveys and subsequent reporting should be comprehensive and floristic in nature and *not restricted to or focused only on this list*…"Focused surveys" that are limited to habitats known to support special status species or are restricted to lists of likely potential species are not considered floristic in nature and **are not adequate** to identify all plant taxa on site to the level necessary to determine rarity and listing status.[54]

As the survey report acknowledges, "[t]he focused plant survey…is not considered a comprehensive botanical survey to record all observed species within the survey areas."[55]

28

According to the survey report, the 2010 surveys were conducted within the known flowering period of the special-status species potentially occurring within the Project footprint.[56] However, the phenology of plants can vary considerably within the known flowering period depending on environmental conditions. Contrary to guidance issued by the CDFW, the Applicant's biologist did not visit reference sites to determine the phenology of the target species and to confirm they were identifiable at the time of the surveys.[57]

The sensitive plant surveys were limited to seven man-hours, during which time the biologist was also searching for burrowing owls.[58] In my opinion, it would have been impossible for the biologist to reliably survey the four drainages for burrowing owls <u>and</u> sensitive plants during such a short period of time.

Due to the issues described above, the DEIR lacks reliable information on existing conditions, and it is not possible for the City of Moreno Valley

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[54] CDFG. 2009. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. Available at: http://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html#Plants. [emphasis added].
[55] DEIR, Appendix E. Michael Brandman Associates. 2010 Dec 13. Sensitive Plant Focused Survey: Highlands Specific Plan, p. 9.
[56] *Ibid.*
[57] CDFG. 2009. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. Available at: http://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html#Plants.
[58] DEIR, Appendix E. Michael Brandman Associates. 2010 Dec 13. Sensitive Plant Focused Survey: Highlands Specific Plan, Table 3. *See also* DEIR, Appendix E. Michael Brandman Associates. 2010 Dec 13. Burrowing Owl Focused Survey: Highlands Specific Plan, Table 2.

("City") to conclude special-status plant species are absent from the Project site. 28

(Exhibit 2, pp. 7-9.)

5. The DEIR's Baseline Fails to Account for All Special-Status Species.

The DEIR fails to account for the presence of all special-status species, including Northwestern San Diego Pocket Mouse, San Diego Desert Woodrat, American Badger, Western Yellow Bat, Bell's Sage Sparrow, Grasshopper Sparrow, White-tailed Kite, and Ferruginous Hawk and Merlin. Therefore, the DEIR's biological resources baseline fails to account for such special-status species and as a result, fails to analyze the Project's impacts on such species. More specifically, according to Mr. Cashen,

<u>Northwestern San Diego Pocket Mouse</u> 29

The Northwestern San Diego pocket mouse is a state listed Species of Special Concern. According to the DEIR, the Northwestern San Diego pocket mouse has a low potential of occurring in the Project area.[59] This conclusion is incorrect. The Applicant's consultant captured seven Northwestern San Diego pocket mice during its 2010 trapping surveys on the Project site.[60] Development of the Project will have an adverse effect on the Northwestern San Diego pocket mouse. The City must disclose, analyze, and provide mitigation for this potentially significant impact.

<u>San Diego Desert Woodrat</u>

The San Diego Desert woodrat is a state listed Species of Special Concern. The Applicant's consultant captured eight San Diego desert woodrats during its trapping surveys on the Project site.[61] The DEIR does not disclose the presence of San Diego desert woodrats on the Project site, nor does it analyze potentially significant impacts to the (sub)species. 30

<u>American Badger</u>

The American badger is a state listed Species of Special Concern that is not covered under the MSHCP. The DEIR incorrectly states that the Project area does not contain habitat for the American badger.[62] The 31

[59] DEIR, Table 4.4.D.
[60] *Ibid*, Appendix E. Michael Brandman Associates. 2010 Dec 13. Focused Los Angeles Pocket Mouse Survey Report: Highlands Specific Plan, Table 2.
[61] *Ibid*. Michael Brandman Associates. 2005 Sep 26. Focused Los Angeles Pocket Mouse Survey Report for the 1,778-acre Bel Lago Property, Table 1.
[62] *Ibid*, p. 4.4-27.

American badger occurs in herbaceous, shrub, and open stages of most habitats with dry, friable soils.[63] American badgers have the potential to occur on the Project site, especially in the patches of habitat that have not been subject to periodic discing. As a result, the City must disclose, analyze, and provide mitigation for potentially significant Project impacts to the American badger. 31

Western Yellow Bat

The western yellow bat is a state listed Species of Special Concern that is not covered under the MSHCP. The DEIR states there is no suitable habitat for the species in the Project area even though (a) no bat surveys were conducted for the Project; and (b) the species has been documented occurring in the Project region.[64]

The western yellow bat is a "tree-roosting" species commonly found roosting in the skirt of dead fronds in both native and non-native palm trees.[65] It is believed to form small maternity groups in trees and palms, including in ornamental plantings in residential areas and orchards.[66] One of the primary threats to the species in the U.S. is the cosmetic trimming of palm fronds.[67] Palms occur in the Project area and presumably may be impacted by the Project.[68] 32

Bats are very vulnerable to disturbance.[69] Construction activities associated with the Project have the potential to cause bats to abandon roosts and maternity colonies. The DEIR does not disclose, assess, or provide mitigation for this potentially significant impact.

[63] California Department of Fish and Game. California Interagency Wildlife Task Group. 2005. California Wildlife Habitat Relationships version 8.1 personal computer program. Sacramento, California.
[64] California Natural Diversity Database, Biogeograhic Data Branch, Department of Fish and Game. 2012 Feb 7 (Version 3.1.0). *See also* DEIR, p. 4.4-27.
[65] Western Bat Working Group. 2005 [updated]. Species accounts. Available at: http://www.wbwg.org/species_accounts.
[66] California Wildlife Habitat Relationships System. 2005. California Department of Fish and Game. California Interagency Wildlife Task Group. CWHR version 8.1 personal computer program. Sacramento (CA). *See also* Western Bat Working Group. 2005 [updated]. Species accounts. Available at: http://www.wbwg.org/species_accounts.
[67] Western Bat Working Group. 2005 [updated]. Species accounts. Available at: http://www.wbwg.org/species_accounts.
[68] DEIR, Appendix E.
[69] Western Bat Working Group. 2005 [updated]. Species accounts. Available at: http://www.wbwg.org/species_accounts.

Bell's Sage Sparrow

The Bell's sage sparrow is a U.S. Fish and Wildlife Service ("USFWS") Bird of Conservation Concern, a CDFW Watch List species, and a MSHCP Group 2 species. The DEIR states there is no suitable habitat for the Bell's sage sparrow within the Project area.[70] The DEIR fails to acknowledge that the subspecies was detected during small mammal trapping surveys on the Project site.[71] As a result, the City must disclose and analyze potentially significant Project impacts to the Bell's sage sparrow. 33

Grasshopper Sparrow

The grasshopper sparrow is a state listed Species of Special Concern. The species is not covered by the MSHCP because the species-specific conservation objectives defined in the MSHCP have not yet been met.[72] The grasshopper sparrow was detected on the Project site.[73] However, the DEIR does not disclose, analyze, or provide mitigation for potentially significant Project impacts to the species. 34

White-tailed Kite

The DEIR concludes "[n]o suitable nesting habitat for white-tailed kite or American peregrine falcon occurs within the area due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native low-quality vegetation."[74] This conclusion conflicts with scientific information. White-tailed kites are known to nest in a variety of different tree species.[75] Furthermore, agricultural habitat, especially dryland field crops (e.g., wheat and barley), may play an important role as foraging habitat for nesting white-tailed kites because the fields are known to provide prey for foraging raptors. The City must disclose and analyze potentially significant Project impacts to the white-tailed kite. 35

[70] DEIR, p. 4.4-27.
[71] *Ibid*, Appendix E. Michael Brandman Associates. 2005 Sep 26. Focused Los Angeles Pocket Mouse Survey Report for the 1,778-acre Bel Lago Property, Appendix A: Floral and Faunal Compendia.
[72] MSHCP, Vol II-B, Species Accounts: Birds. *See also* MSHCP 2011 Annual Report, Table 25. Available at: http://www.wrc-rca.org/library.asp
[73] DEIR, Table 4.4.D.
[74] *Ibid*, p. 4.4-26.
[75] Niemela CA. 2007. Landscape characteristics surrounding white-tailed kite nest sites in Southwestern California. MS Thesis, Humboldt State University, Arcata, California.

Ferruginous Hawk and Merlin

The ferruginous hawk is a USFWS Bird of Conservation Concern and a CDFW Watch List species. The merlin is a CDFW Watch List species. The DEIR states the Project site provides suitable foraging habitat for these two species, but no suitable nesting habitat.[76] Both the ferruginous hawk and merlin are known to occur in the Project region.[77]

It is well established that ferruginous hawks and merlins do not nest in California, and that the special-status designations for these two species apply to birds on their *wintering* grounds. Therefore, the lack of nesting habitat on the Project site is irrelevant to the potential for Project impacts under CEQA. As a result, the City must disclose and analyze Project impacts to the ferruginous hawk and merlin, and it must identify how potentially significant impacts to the two species would be mitigated. 36

(Exhibit 2, pp. 10-12.)

6. The DEIR Inaccurately Characterizes the Jurisdictional Status of Drainages of the Project area.

According to Mr. Cashen,

The DEIR states the drainage features in the Project area are not subject to the jurisdiction of the CDFW.[78] This statement is inconsistent with information provided in the Jurisdictional Delineation report, which identifies portions of Drainages 7 and 9 as being jurisdictional under 1600 of the Fish and Game Code.[79] 37

The DEIR states that the Project site does not contain any features under the jurisdiction of the Regional Water Quality Control Board ("RWQCB").[80] This statement appears to be based on the false impression that features not under the jurisdiction of the U.S. Army Corps of Engineers are also not under the jurisdiction of the RWQCB.[81]

[76] DEIR, p. 4.4-27.
[77] eBird. 2011. eBird: An online database of bird distribution and abundance [web application]. Version 2. eBird, Ithaca, New York. Available: http://www.ebird.org. (Accessed: 2013 Feb 2).
[78] DEIR, p. 4.4-51.
[79] *Ibid*, Appendix E. Michael Brandman Associates. 2012 Apr 23. Assessment of Jurisdictional Waters and Wetlands, p. 42.
[80] *Ibid*, p. 4.4-59.
[81] *For example, see*: DEIR, Appendix E. Michael Brandman Associates. 2012 Apr 23. Assessment of Jurisdictional Waters and Wetlands, p. 32.

> The jurisdictional reach of Porter-Cologne Water Quality Control Act (i.e., RWQCB) extends to all "waters of the state."[82] That term is defined as "any surface water or groundwater, including saline waters, within the boundaries of the state."[83] Because Porter-Cologne applies to any water and the federal Clean Water Act only applies to certain waters, California's jurisdictional reach is broader and more comprehensive than the federal government's.[84]

(Exhibit 2, p. 13.)

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In sum, the DEIR failed to adequately investigate and identify in sufficient detail the existence of all sensitive biological resources at the Project site. Consequently, the DEIR established a skewed biological resources baseline, ultimately resulting in the DEIR's failure to analyze and mitigate the Project's potential impacts on sensitive plants and wildlife. A revised DEIR must conduct the necessary surveys and investigations to establish an accurate baseline for biological resources.

V. THE DEIR FAILS TO ANALYZE AND MITIGATE ALL POTENTIALLY SIGNIFICANT IMPACTS.

An EIR must disclose all potentially significant adverse environmental impacts of a project. (Pub. Resources Code, § 21100(b)(1); CEQA Guidelines, § 15126(a); *Berkeley Jets*, 91 Cal. App. 4th 1344, 1354.) CEQA requires that an EIR must not only identify the impacts, but must also provide "information about how adverse the impacts will be." (*Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 831). The lead agency may deem a particular impact to be insignificant only if it produces rigorous analysis and concrete substantial evidence justifying the finding. (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692 ("*Kings County*").)

38

CEQA requires public agencies to avoid or reduce environmental damage when "feasible" by requiring mitigation measures. (CEQA Guidelines, § 15002(a)(2) and (3); See also, *Berkeley Jets*, *supra*, 91 Cal. App. 4th at p. 1354; *Citizens of Goleta Valley, supra,* 52 Cal.3d at p. 564.) The EIR serves to provide agencies and the public with information about the environmental impacts of a proposed project and to "identify ways that environmental damage can be avoided or significantly reduced." (CEQA Guidelines, §15002(a)(2).) If the project will have a significant effect on the environment, the agency may approve the project only if it finds that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that

[82] State Water Resources Control Board. 2013 Jan 28. PRELIMINARY DRAFT: WATER QUALITY CONTROL POLICY for Wetland Area Protection and Dredged or fill Permitting, p. 4. Available at: http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/wrapp/policy_draft.pdf
[83] *Ibid.*
[84] *Ibid.*

any unavoidable significant effects on the environment are "acceptable due to overriding concerns." (Pub. Resources Code, § 21081; CEQA Guidelines, § 15092(b)(2)(A) & (B).)

In general, mitigation measures must be designed to minimize, reduce, or avoid an identified environmental impact or to rectify or compensate for that impact. (CEQA Guidelines, § 15370.) Where several mitigation measures are available to mitigate an impact, each should be discussed and the basis for selecting a particular measure should be identified. (*Id.*, at § 15126.4(a)(1)(B).) A lead agency may not make the required CEQA findings unless the administrative record clearly shows that all uncertainties regarding the mitigation of significant environmental impacts have been resolved.

CEQA requires the lead agency to adopt feasible mitigation measures that will substantially lessen or avoid the Project's potentially significant environmental impacts (Pub. Resources Code, §§ 21002, 21081(a)), and describe those mitigation measures in the CEQA document. (Pub. Resources Code, § 21100(b)(3); CEQA Guidelines, § 15126.4.) A public agency may not rely on mitigation measures of uncertain efficacy or feasibility. (*Kings County, supra,* 221 Cal.App.3d at p. 727 (finding groundwater purchase agreement inadequate mitigation measure because no record evidence existed that replacement water was available).) "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors. (CEQA Guidelines, § 15364.) To demonstrate economic infeasibility, "evidence must show that the additional costs or lost profitability are sufficiently severe as to render it impractical to proceed with the project." (*Citizens of Goleta Valley v. Board of Supervisors* (1988) 197 Cal.App.3d 1167, 1181.) The EIR must provide evidence and analysis to show project cannot be economically implemented. (*Kings County, supra*, 221 Cal.App.3d at pp. 734-737.) This requires not just cost data, but also data showing insufficient income and profitability. (*See Burger v. County of Mendocino* (1975) 45 Cal.App.3d 322, 327 (infeasibility claim unfounded absent data on income and expenditures showing project unprofitable); *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656, 694 (upholding infeasibility finding based on analysis of costs, projected revenues, and investment requirements).) Mitigation measures must be fully enforceable through permit conditions, agreements, or other legally binding instruments. (CEQA Guidelines, § 15126.4, subd. (a)(2).) **38**

A lead agency may not conclude that an impact is significant and unavoidable without requiring the implementation of all feasible mitigation measures to reduce the impacts of a project to less than significant levels. (CEQA Guidelines, §§ 15126.4, 15091.)

A. THE DEIR FAILS TO ADEQUATELY MITIGATE FOR THE LOSS OF FARMLAND.

1. Preservation is an Appropriate Mitigation Measure for the Loss of Agricultural Resources.

Preservation can be used as a tool to mitigate impacts of urbanizing land and it is encouraged and supported by legislative pronouncements and case law. For example,

> [s]ee the following legislative pronouncements to the effect that conversion of agricultural land is of significant concern, and that the preservation of agricultural land is significant goal of the state. Gov. Code, § 51220 (Williamson Act findings that agricultural preservation is valuable and necessary); Civ. Code, § 815 (legislative declaration that preservation of agricultural lands "is among the most important environmental assets of California"); Pub. Resources Code, § 10200 *et seq.* (California Farmland Conservancy Program Act (formerly the Agricultural Land Stewardship Program of 1995), promoting the establishment of agricultural easements as a means to preserve agricultural land); Pub. Resources Code, §§ 21031.1, 21061.2, 21095 (CEQA provisions requiring the Resources Agency to take steps it to ensure that the environmental effects of agricultural land conversion are quantitatively and consistently considered in the environmental review process); Stats. 1993, ch. 812, § 1, subd. (d) (declaring a legislative intent that CEQA should play an important role in the preservation of agricultural lands). 39
>
> In *Mira Mar* [*Mobile Community v. City of Oceanside* (4th Dist. 2004) 119 Cal. App. 4th 477 [14 Cal. Rptr. 3d 176]], the court heard a challenge to the City of Oceanside's approval of a condominium project on 7.5 acres of private property. The project would cause the loss of about .86 acres of coastal sage scrub, which was identified as a significant impact to a sensitive resource. The EIR required the applicant to mitigate for this loss at a ratio of 3 to 1 (or 2.58 acres of mitigation for .86 acres of last habitat). In implementing this mitigation measure, the city required the preservation of .65 acres of undisturbed coastal sage scrub, the restoration and preservation of 2.3 acres of disturbed coastal sage scrub, and the creation of .63 acres of new coastal sage scrub on site. Petitioners argued that this mitigation was inadequate because *preservation* of coastal sage scrub does not mitigate for lost habitat, making the measure "illusory and inadequate." 119 Cal. App. 4th 477, 495. The Court of Appeal disagreed, citing CEQA Guildelines section 15370, as well as the opinions of various resource agencies, for the proposition that preservation can be a feasible means of reducing or eliminating the impact of lost habitat.

> While the *Mira Mar* case deals specifically with biological and habitat resources, the reasoning of this case seems to have more general applicability to mitigation for lost resources, including agricultural resources.

39

(Guide to CEQA, Michael H. Remy, et. al., eleventh edition, p. 549-550.)

2. The City Should Preserve Agricultural Land To Prevent Continual and Systematic Losses of Such Land.

According to Mr. Gregory House, an agricultural expert, there are many reasons to preserve agricultural land in the City of Moreno Valley:

> — Moreno Valley, including the subject property has many physical advantages for agricultural production including a benign climate, good soils and sufficent [*sic*] water at a cost competitive in southern California and many areas of the Central Valley of California.
>
> — Moreno Valley's location creates huge marketing opportunities for direct marketing of agricultural produce to the four-county area of Los Angeles, Orange, Riverside and San Bernardino urban area.
>
> — Moreno Valley's location also creates a cost of transportation advantage for commodity crops and products needing processing, such as fresh milk in the nearby metropolitan areas. For several years California dairies have participated in a price pooling that attempts to standardize raw milk prices to milk processors throughout the state. Since the cost of transporting the raw milk to the bottling plants is a significant cost, the farther the milk source is from the plants, the higher the transportation cost charged to the dairyman. With the increasing costs of fuel for transport, milk processors south of the Techacapi Mountains are finding it increasingly difficult to source adequate amounts of raw milk. The situation is a growing problem without an immediate solution.[85] This creates an opportunity for Riverside County dairyman that a decade ago did not exist.
>
> — Agriculture is a vibrant industry that is very adaptable and quickly changes to meet new challenges and opportunities. New opportunities on the horizon include dry farming of biofuel crops; urban farming and direct marketing of high value food crops such as fruits, vegetables, eggs and honey; and changing economics in milk production. Moreno Valley has potential in all of these agricultural opportunities.

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[85] See *Milk must move farther to serve south-state plants,* Ag Alert, March 27, 2013.

— There is a huge and growing interest in urban agriculture and small farming among people of all ages, but especially young people under 30 years of age. The Secretary of Agriculture recently called for the development of 100,000 new farmers during his tenure at USDA, most of whom are acknowledged to be, and intended to be, young persons. USDA has implemented many new programs to effect this sea-change, including a new program of low-interest micro-loans for new and beginning farmers.

— Growing interest in sustainable urban planning is examining the importance of local agriculture to the long term food security and resilience of local economies. With the inevitable increases in food transportation costs, it is incumbent upon the City of Moreno Valley to plan for its long term sustainability. As food is essential, so is agriculture to a sustainable and vibrant local economy. 40

(Exhibit 3, pp. 11-12.)

3. The DEIR Fails to Adequately Mitigate the Loss of Farmland.

The Project proposes to convert vast acres of farmland to industrial uses. Over 90 percent of the Project site is designated farmland – 25 acres designated as Unique Farmland and 3,389 acres of Farmland of Local Importance. (DEIR, p. 4.2-7.) 97%, or 3,238 acres, of the Project site is currently used for dry farming. Not surprisingly, the DEIR admits that the loss of approximately 3,500 acres of active and designated farmland will result in significant impacts on agricultural resources. (DEIR, pp. 4.2-16 ~20, 4.4-4, 4.8-2.) 41

For reasons set forth below, the DEIR fails to adequately mitigate the Project's significant impacts to valuable agricultural resources.

(a) The DEIR's Conclusion that it is Economically Infeasible to Mitigate the Significant Loss of Farmland is Unsupported.

The DEIR cites to the decline of agricultural industry in the Inland Empire to conclude that any mitigation that would artificially preserve or prolong agricultural activities on the Project site would be infeasible and unnecessary. (DEIR, p. 4.2-17.) However, the DEIR fails to offer any concrete analysis of the economic feasibility of agricultural production in the Project area. Moreover, the DEIR blatantly ignores the important fact that over 90% of the Specific Plan site is <u>currently</u> farmed and contributing to the local economy. 42

Mr. House agrees:

The studies do not offer any tangible analysis of the economics of agricultural production in the area, however, and this is a serious deficiency of the "significant and unavoidable impact" finding of the DEIR. How can the DEIR conclude no agriculture is viable without an analysis of its feasibility? The very fact that agriculture in the form of dry farmed wheat continues on the subject property begs the question that if it is not economically remunerative, why does it continue?

Information is available to conduct a well documented, considered feasibility study of agricultural enterprises in the Moreno Valley area. The University of California Cooperative Extension (UCCE) publishes an extensive collection of studies on the costs, income and profitability of hundreds of crops. A brief view of the archives for the Southeast Interior area of California, which includes Riverside County, lists indicates that UCCE studies are available on the profitability of such crops as alfalfa, avocados, barley, beans, broccoli, cabbage, cantaloupes, carrots, corn, grain, grapefruit, lemons, lettuce, melons and wine grapes. Any real attempt to analyze the feasibility of agriculture in Moreno Valley would reference these studies and examine them for relevant information concerning the viability of agriculture in the Moreno Valley area.

42

While it is clear that local trends are reducing agriculture in the area, what is not been examined is any new trends that might affect the viability of agriculture in the Moreno Valley area. For instance, the price of most agricultural commodities has risen substantially, some 30 to 50 percent, in the last several years. The Riverside County Agricultural Commissioner reports for 2011:

> This year's report represents a total gross valuation of $1,282,256,116, an increase of $188.6 million (17.2%) over the 2010 value and a new record for Riverside County. Agricultural crops rose 15.4% to $990,225,736, while Livestock and Poultry production increased nearly 24% to $202,030,380.

This does not sound like a dying industry.

In that previous mentioned economic feasibility study of a small property in Moreno Valley which we conducted last October, We concluded that the operation, which would utilize irrigation water from Eastern Municipal Water District (EMWD), would likely produce an annual net profit of approximately $60,000 per acre, after all expenses were paid.

(Exhibit 3, pp. 8-9.)

The DEIR's conclusion that mitigating the loss of farmland is economically infeasible is not supported by substantial evidence. (See CEQA Guidelines, § 15364; *Citizens of Goleta Valley*, *supra*, 197 Cal.App.3d at p. 1181; *Kings County, supra*, 221 Cal.App.3d at pp. 734-737.) On the contrary, evidence supports a finding that such mitigation is not only economically feasible but could actually be economically beneficial for the City. 42

(b) The DEIR's Conclusion that an Agricultural Mitigation Bank is Infeasible is Not Supported by Substantial Evidence.

The DEIR hastily considers contributing to an agricultural mitigation bank (or agricultural conservation easements) to mitigate the loss of farmland and just as quickly dismisses it. (DEIR, p.4.2-17.) The DEIR rationalizes that since Riverside County had deemed mitigation banks infeasible, it would be infeasible to carry out such a mitigation measure on a citywide basis. (*Id*.) However, Riverside County's dismissal of mitigation banks back in 2003 is not sufficient evidence to support a finding that agricultural mitigation bank <u>for this Project</u> is infeasible <u>for the City</u> <u>for this Project</u> <u>in this instance</u>.

According to Mr. House, countless cities have demonstrated that agricultural mitigation is feasible at the municipal level:

> There are numerous examples of cities in California that have chosen to conserve their agricultural resources independently of local county policies. The City of Davis, for instance, where we live, established an agricultural land mitigation requirement in 1995 and in 2007 increased the mitigation ratio such that 2 acres of farmland are conserved for every one acre converted to urban uses. 43
>
> Numerous other cities in California also have agricultural mitigation requirements, including Stockton, Lathrop, Manteca, and Tracy in San Joaquin County; Brentwood in Contra Costa County; Elk Grove in Sacramento County; and Woodland in Yolo County. Bakersfield in Kern County in 2007 began requiring mitigation of agricultural land loss in 2007, Salinas in Monterey County has used agricultural conservation easements to limit its urban growth, and the City of Morgan Hill in Santa Clara County, a rapidly urbanizing area within Silicon Valley, is in the process of establishing an agricultural mitigation program that will utilize agricultural conservation easements paid for by developers.[86]

(Exhibit 3, pp. 9-10.)

[86] Gregory House, co-author of this report is consultant to Morgan Hill on the creation of this program

Additionally, conservation easements are widely accepted as a feasible way to mitigate a project's impacts to agricultural resources. Agricultural conservation easements can be accomplished in two ways: (1) by permanently preserving farmland or (2) by requiring conservation fees from developers. According to Mr. House,

> Conservation easements have been used for decades to conserve agricultural land where it is threatened by conversion to other uses. The American Farmland Trust has recently written a paper entitled Saving Farmland, Growing Cities which describes conservation easements in easy to understand terms.
>
> > Conservation easements area means of permanently preserving farmland under legal covenants voluntarily agreed to by landowners. Their purchase provides compensation to landowners who want to recover equity from their property while continue to farm it, something that would be impossible if they were to sell the land for non-agricultural purposes. Not only does this provide an innovative solution that recognizes private property rights, but it also provides an injection of capital into the agricultural economy.
> > …Funding for conservation easements can come from many sources...
> > An increasingly popular alternative is to require developers who convert farmland to pay a fee to preserve a comparable amount of land or to acquire the land itself for preservation.
> > This can also satisfy the requirement that environmental impacts of development be offset or mitigated [u]nder the California Environmental Quality Act."

43

(Exhibit 3, p. 10.)

Mr. House also provides details on ways to implement such agricultural conservation easements:

> The California cities mentioned above have a variety of strategies to implement their agricultural preservation programs. Some have opted for a in-lieu mitigation fee (which will later be used by the city to purchase a conservation easement), others require the develop to purchase a conservation easement directly. The ratio of land conserved to land converted is typically 1:1 although the City of Davis has a 2:1 requirement. The latter method of requiring developers to purchase the conservation easements, utilized by both Yolo County and the City of Davis, has several advantages: low administration costs, the cost of the easement is current market value for the developer, and there is less likely to be a

> closed or fixed market of available properties as easement sources; the former method, a mitigation in-lieu fee, involves greater administrative costs by the governing agency, and can lead to a price floor on the purchase price of the conservation easements such as experienced in Elk Grove in the late 2000's.
>
> A successful strategy to keep the price of the conservation easements affordable for developers (who typically plan to factor the cost of the easements into their overall finished home or commercial real estate product sales price) is for the municipality to permit the conserved agricultural land to be some distance from the city limits, thus reducing speculative influence on the price of the easement. Simply put, it is common to find property that is second or third tier from the city limits to be less costly than property immediately adjacent. Since the principal effect of the agricultural conservation easement is to extinguish any current or future potential subdivision or urban development rights, the further a property is from development in space and time, the less costly will be the price of the conservation easement. **43**
>
> We recently conducted a study of 25 conservation easements in northern and central California which supports the observation that the farther from existing development the lower the cost of the easement. Our study, which included easements in seven counties from Merced to Yolo and several urban areas with high land costs (agricultural land values at $30,000 to $50,000 per acre), indicated there is a Wide range in the cost of the easement relative to the fee value of the land. The range (of the cost of the agricultural conservation easement as a percent of the fee value of the property) spanned from a low of 15 percent in Monterey County in 2000 to a high of 73 percent in Solano County in 2006. At the high end were properties immediately adjacent to urban areas, freeways, etc. At the low end were properties in largely rural areas, much less or not at all affected by real estate speculation on urban development.
>
> Agricultural land-conversion mitigation is feasible and being conducted by numerous cities, as well many counties in California. It is a serious lack of the DEIR that it does not examine any of the current mechanisms being employed in so many parts of California, nor attempt to consider the feasibility of implementing an agricultural mitigation program.

(Exhibit 3, pp. 10-11.)

Therefore, the DEIR's conclusion that agricultural mitigation bank is infeasible is unsupported by sufficient analysis and evidence. (See CEQA Guidelines, § 15364; *Citizens of Goleta Valley*, *supra*, 197 Cal.App.3d at p. 1181; *Kings County, supra*, 221 Cal.App.3d at pp. 734-737.)

(c) The DEIR's Mitigation Measure to Dedicate 5-acres to Heritage Farming is Inadequate.

In lieu of implementing the more appropriate agricultural mitigation bank, the DEIR provides one mitigation measure to address the loss of over 3,400 acres of active farmland.[87] (DEIR, p. 4.2-17.) The mitigation measure proffers to dedicate meager 5-acres to "heritage farming." (*Id*.) However, at a minimum, the acceptable mitigation ratio is 1:1, conserving 1 acre of farmland for 1 acre lost. (See *Citizens for Open Gov't v. City of Lodi* (2012) 205 Cal.App.4th 296, 323.) Mr. House corroborates that the typical mitigation ratio is 1:1, with the City of Davis demonstrating that 2:1 is also feasible. (Exhibit 3, pp. 10-11.) Thus, 5 acres for "heritage farming" falls vastly short of the 1:1 minimum ratio and is insufficient to mitigate the permanent loss of almost 3,500 acres of active and designated farmland at the Project site. 44

(d) The DEIR Overlooks the Development of Irrigation as a Potential, Feasible Mitigation Measure.

According to Mr. House, a potential, feasible way to mitigate the sweeping loss of farmland at the Project site is to develop irrigation on the highly rated soils of farmland in the Project's vicinity. Mr. House states:

> If Moreno Valley is serious about conserving agricultural land, it might consider requiring as a mitigation measure the development of irrigation on the very highly rated soils of the nearby dry land farming areas. This could be done with the recycled irrigation water discussed in the Agricultural Resource Assessment prepared by Parsons Brinckerhoff for the DEIR, which notes that "EMWD plans to continue to extending the distribution infrastructure for recycled water." Nothing would be more supportive of agriculture in the area than to increase the availability of irrigation water, and then place a conservation easement on that land which prohibits urban development. 45

(Exhibit 3, p. 11.)

Mr. House's comments are premised on the fact that recycled water could be used to irrigate a wide variety of crops:

> The DEIR presents conflicting information concerning the price and availability of water for crops and livestock in Moreno Valley. The Agricultural Resources Assessment prepared by Parsons Brinckerhoff in section 1.4 states that the cost of agricultural water is $53 per acre-foot in

[87] Although the DEIR mentions another mitigation measure in the Agricultural Resources section, Mitigation Measure 4.2.6.1B, it is not detailed in the DEIR and appears to have been mentioned in error.

the winter and $90 per acre foot in the summer. It later states in section 2.2.2 that the cost of recycled water varies from $38 per acre foot to $250 per acre foot, and that additional pipeline would be required to service the project site with recycled water bring the cost of the water to well over $100 per acre foot.

The same study summarily states that the "cost of irrigation Water makes the production of irrigated crops economically infeasible in the Moreno Valley area." This is unsupported, and easily refuted by inquiry into the cost of water in such areas as the Central Valley of California. For instance, the water cost in the Arvin Edison Water Storage District (southern Kern County), the cost per acre foot of irrigation Water is $130,[88] in Westlands Water District (Fresno County) the cost per acre foot is $100 to $400,[89] in the Del Puerto Water District (Merced County), irrigation water costs $55 to $225 per acre foot,[90] and in the Fallbrook Water District (San Diego County), irrigation water costs $1,400 per acre foot.[91] From this we discern that the stated EMWD rates for irrigation water would not be excessive relative to many highly productive agricultural areas of California, and do not pose a substantial competitive disadvantage for Moreno Valley agriculture especially for the higher value crops such as fruits and vegetables suitable for growing in Moreno Valley as described in section 4.1.1, above. 45

The Agricultural Resources Assessment prepared by Parsons Brinckerhoff also states, again without support, "Commonly, in a low-rainfall area like Moreno Valley, a crop requires three acre feet of water per year and the profit from a majority of crops in California ranges from $0 to $500 per acre per year." This supposition does not take into account the wide variation in water usage by the many different crops that could be grown in Moreno Valley (see section 4.1.1 above) nor the timing of planting and harvest of such crops, nor rainfall that becomes stored soil moisture and thus contributes to crop evapotranspiration needs; nor advances in irrigation technology that could be utilized in Moreno Valley agriculture such as drip irrigation that reduce total irrigation water needs of crops.

We have recently (October, 2012) conducted a economic feasibility study of a 4-acre property in Moreno Valley that a local farmer wishes to use for the production of certified organic fruits and vegetables for sale to local stores and at farmers' markets. As part of that analysis we investigated

[88] source: personal files of AEWSD water bills
[89] source: (http://science.kqed.org/ quest/2012/05/04/q-a-with-jason-peltier-of-wwd/) and Notice to Landowners of Proposed Water Rates, Charges and Land-Based Charges, Westlands Water District, January 4, 2013
[90] source: personal communication with landowner and water user, 2013
[91] source: As Water prices rise, farmers face the 'tipping point', Ag Alert, June 8, 2011

> water sources and concluded that water from Eastern Municipal Water District (EMWD) was the most reliable source. We calculated the crop water needs based on local Riverside area evapotranspiration data available from the University of California and the California Irrigation Management Information Service.[92] From this we concluded that the wide variety of fruits and vegetables intended to be grown on the property would require approximately 1.7 acre feet of applied irrigation water per year using drip irrigation, only about half of the 3 acre feet supposed in the Parsons Brinckerhoff report.
>
> As an aside, it should be noted that a wide variety of crops can be grown with recycled water; the DEIR correctly notes there are strict guidelines for its use and prohibition for use in growing food crops; however this does not affect feed crops, fiber crops, biofuel crops, and high value crops such as vegetable seeds.

(Exhibit 3, pp. 7-8.) 45

In conclusion, the DEIR fails to adequately analyze all feasible ways to adequately mitigate the loss of extensive agricultural land. Moreover, the fact remains that the very cause of the decline of agricultural industry in the Inland Empire, and within the City, is projects like the current one, which have converted or seek to convert valuable farmland to urban uses <u>without adequate mitigation</u>. As the City would have it, its continued failure to preserve farmland to make way for urbanization will eventually result in the complete eradication of <u>all</u> farmland within the City limits. To prevent such a catastrophic result, the DEIR must sufficiently analyze all potential mitigation measures and implement them to the extent feasible. 46

Thus, a supplemental EIR is required to analyze and require implementation of these feasible mitigation measures to reduce the Project's impacts on agricultural land.

B. AIR QUALITY IMPACTS HAVE NOT BEEN ADEQUATELY ANALYZED OR MITIGATED.

1. The DIER Fails to Mitigate Significant Particulate Matter Emissions from Project Construction to the Extent Feasible.

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The DEIR recognizes that the impacts from emissions of particulate matter (PM10) during project construction will be significant. To mitigate such impacts, the DEIR requires compliance with regional rules, including portions of SCAQMD Rule 403, and adoption of Mitigation Measures 4.3.6.2A through 4.3.6.2D. The DEIR then concludes that despite mitigation, the Project's PM10 emissions will be significant and unavoidable (DEIR, p. 4.3-57.) However, the DEIR's conclusion of significant and

[92] (www.ipm.ucdavis.edu/weather)

unavoidable PM10 impact is flawed because it ignores other applicable and feasible mitigation measures. (*Id*.)

According to Mr. Hagemann,

<u>Additional mitigation for particulate matter should be incorporated</u>

Particulate matter (PM10) emissions from Project construction will exceed the South Coast Air Quality Management District (SCAQMD) thresholds throughout the construction period (DEIR, p. 4.3-55). The DEIR discusses SCAQMD Rule 403, established to reduce fugitive dust emissions, and provides the following four measures from Rule 403 as mitigation for the Project's significant emissions of PM10:

- all clearing, grading, earthmoving, or excavation activities shall cease when winds exceed 25 miles per hour per SCAQMD guidelines in order to limit fugitive dust emissions;
- the contractor shall ensure that all disturbed unpaved roads and disturbed areas within the project are watered at least three times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day; **47**
- cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 0.6 meter (2 feet) of freeboard (vertical space between the top of the load and top of the trailer) in accordance with the requirements of California Vehicular Code Section 23114; and
- the contractor shall ensure that traffic speeds on unpaved roads and project site areas are 15 miles per hour or less to reduce fugitive dust haul road emissions (DEIR, p. 4.3-55).

Mitigation measures 4.3.6.2A through 4.3.6.2D also address PM10 emissions. However, the Project's PM10 emissions will be significant even after mitigation (DEIR, 4.3-57). Additional mitigation measures to reduce fugitive dust emissions are identified in Rule 403 but not in the DEIR. These measures should be identified in a revised DEIR to ensure that all applicable and feasible measures will be implemented to reduce Project emissions, to include:

- limiting fugitive dust emissions from any active operation, open storage pile, or disturbed surface area if the dust emission exceeds 20 percent opacity;
- prohibiting track-out to extend 25 feet or more in cumulative length from the point of origin from an active operation. Notwithstanding the preceding, all track-out from an active operation shall be removed at the conclusion of each workday or evening shift; and

- not disturbing an area of five or more acres, or with a daily import or export of 100 cubic yards or more of material, without utilizing at least one of the following measures at each vehicle driveway from the site to a paved public road:

  - installation of gravel pads;
  - pave any surface extending at least 100 feet and at least 20 feet wide;
  - utilize a wheel shaker and wheel washer to remove dirt and mud from tires and vehicles before they exit the site.[93]

  Rule 403 also states that active operations cannot be conducted unless all applicable best available control measures included in Table 1 are included.[94] Table 1 provides mitigation measures for trenching, cut-and-fill, truck loading, road maintenance, and earth-disturbing activities.[95] Project construction will require these types of activities. Review of the DEIR shows that not all measures listed in Table 1 are included as mitigation. A revised DEIR should be prepared that includes all applicable measures in Table 1. The Project, defined as a large operation[96] under Rule 403, should also follow all the applicable dust control measures listed in Table 2.[97]

(Exhibit 1, pp. 5-6.)

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2. The DIER Fails to Mitigate Significant Localized Construction and Operational Air Quality Impacts to the Extent Feasible.

The DEIR also recognizes that the construction and operation of the proposed Project has the potential to exceed localized thresholds that may affect sensitive receptors. (DEIR, p. 4.3-58.) However, the DEIR erroneously concludes, despite the availability of additional feasible mitigation measures, that such localized air quality impacts are significant and unavoidable.

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According to Mr. Hagemann:

Air dispersion modeling shows that localized concentrations of PM10 emissions also exceed SCAQMD thresholds (DEIR, p. 4.3-66). Significant localized PM10 emissions will pose adverse health risks to nearby residents and construction workers. The DEIR, however, only states that

[93] South Coast Air Quality Management District, Rule 403. Fugitive Dust. http://www.aqmd.gov/rules/reg/reg04/r403.pdf, pp. 403-6 – 403-7.
[94] *Ibid.,* p. 403-6.
[95] *Ibid.*, p. 403-13.
[96] *Ibid.*, p. 403-3.
[97] *Ibid.*, p. 403-19.

air quality impacts remain "significant and unavoidable" in the absence of feasible mitigation (DEIR, p. 4.3-66).

We have identified additional feasible mitigation measures that can further reduce PM10 emissions and mitigate these impacts to the extent feasible. For example, a recent ruling by the California Attorney General for construction of an industrial project in Jurupa Valley, a city located 17 miles west of the Project site, required the following measures:

- installation of air filtration systems in home of adjacent residents;
- air quality monitoring in surrounding area; and
- a "green" project site, including a 100kW capacity solar photovoltaic system, LEED Silver certified project buildings, and electric vehicle charging stations.[98]

The press release accompanying the settlement[99] notes that Riverside County is home to numerous warehouse projects whose associated truck trips are negatively impacting resident health. Because the above-referenced mitigation measures were required for a similar project in a nearby city, it seems reasonable that these measures are feasible and should be implemented by the Applicant to protect resident health and local air quality. – 48

Other mitigation, such as use of newer technology, should also be implemented to ensure that all feasible mitigation measures are being used to reduce emissions. Tier 4 technology, which applies to diesel engines used for off-road equipment,[100] uses new higher pressure fuel injection systems and electronic engine controls[101] and can reduce PM10 emissions by 90% as compared to older technology.[102] The DEIR discusses this technology but states that it will not be required until 2013 (DEIR, p. 4.3-57) and allow for the use of older Tier 3 technology in mitigation measure 4.3.6.2A (DEIR, p. 4.3-56). However, review of 40 CFR Part 1039, which establishes regulation about emissions standards, shows that Tier 4 technology will be phased in starting in 2011.[103] The

[98] State of California Department of Justice, Office of the Attorney General. Attorney General Kamala D. Harris Announces Settlement to Protect Public Health in Jurupa Valley. http://oag.ca.gov/news/press-releases/attorney-general-kamala-d-harris-announces-settlement-protect-public-health
[99] *Ibid.*
[100] Clean Diesel Technology for Off-Road Engines and Equipment: Tier 4 and More. http://www.aem.org/AllDocuments/AEM/SRT/SRTTopics/DTF_Tier4WP_FIN.pdf, p. 2.
[101] *Ibid.*, p. 3.
[102] U.S. EPA, Nonroad Engines, Equipment, and Vehicles. Nonroad Diesel Engines. http://www.epa.gov/otaq/nonroad-diesel.htm
[103] *See* http://www.epa.gov/otaq/standards/nonroad/nonroadci.htm; and http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&SID=0a57ac29b59ade8455648e60e739a181&rgn=div5&view=text&node=40:34.0.1.1.5&idno=40#40:34.0.1.1.5.1.1.2

> U.S. EPA has recommended the use of Tier 4 technology on other projects under CEQA review.[104] Because Project emissions are still significant even after mitigation, equipment used for the Project should meet Tier 4 standards to achieve maximum reduction in emissions.
>
> The Project is located in the South Coast Air Basin, which is designated non-attainment for PM10. Because the air basin suffers from poor air quality from PM10, significant emissions of PM10 can worsen regional air quality. Because the Project will result in significant PM10 emissions, all feasible mitigation measures should be implemented to reduce emissions to the maximum extent feasible to ensure that Project construction will not contribute to a degradation of air quality. A revised DEIR should be prepared to implement all recommended mitigation measures, to include air filtration systems in residents' homes, equipment with Tier 4 technology, and all applicable Rule 403 measures.

(Exhibit 1, pp.6-7.)

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Pursuant to Mr. Hagemann's findings and conclusions, a revised DEIR should be prepared to implement all applicable and feasible mitigation measures to address localized air quality impacts to sensitive receptors.

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3. The DIER Fails to Analyze or Mitigate Significant Indirect Source Pollution.

CEQA requires analysis of both direct and indirect environmental impacts. "Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects." (CEQA Guidelines, § 15126.2, subd. (a).) The Project will be a major source of indirect pollution since it will attract thousands of diesel trucks to the area. The emissions from these trucks will result in significant levels of diesel particulate matter, nitrogen oxides (NOx), reactive organic compounds (ROCs), greenhouse gases (GHGs) and other pollutants.

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The EIR should analyze a requirement that the Project be required to implement mitigation measures similar to those required by San Joaquin Valley Air Pollution Control District (SJVAPCD) Rule 9510 – the Indirect Source Rule ("ISR"). Rule 9510 requires large sources of indirect air pollution to implement measures to reduce particulate matter and NOx pollution by approximately 50%.

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[104] U.S. EPA Detailed Comments on the Draft Environmental Impact Statement for the Proposed Alta East Wind Project, Kern County, California, September 27, 2012. http://www.epa.gov/region9/nepa/letters/blm/ca/alta-east-wind-project-kern-county-deis.pdf, p. 2.

Although the Project is not located in the San Joaquin Air Basin, and the SCAQMD does not have a similar rule, there is no question that the rule is "feasible," which is the standard under CEQA. The fact that the rule is being implemented just over the county line in the SJVAPCD indicates that it is "feasible." (See, *Hall v. U.S. Environmental Protection Agency* (9th Cir. 2001) 263 F.3d 926.) The rule has been upheld in court as within the Air District's powers. There is no legal or technological reason that the rule could not be enforced as a CEQA mitigation measure as a way to reduce pollution from the Project by up to 50%.

The San Joaquin Air District promulgated Rule 9510, the "Indirect Source Rule," on December 15, 2005. EPA approved SJVAPCD Rule 9510 as part of the California State Implementation Plan ("SIP") May 9, 2011. (76 Fed. Reg. 26609 (May 9, 2011); 40 C.F.R. §52.220(c)(348)(i)(A)(3).) Industry groups challenged Rule 9510, but the District Court, Ninth Circuit Court, and California Courts upheld the rule. (*Cal. Bldg. Indus. Ass'n. v. San Joaquin Valley Air Pollution Control Dist. ("CBIA v. SJVAPCD*") (2009) 178 Cal.App.4th 120, 126-127; *NAHB v. SJVAPCD*, 2008 U.S. Dist. LEXIS 70931 (E.D.Cal. 2008); *Nat'l Ass'n of Home Builders v. San Joaquin Valley Unified Air Pollution Contol Dist*., 627 F.3d 730 (9th Cir. 2010).) In upholding Rule 9510, the Court stated:

> The District determined that increase in indirect source emissions, including new residential and commercial development, nullified emissions reductions achieved from other regulations…
>
> In short, Rule 9510 targets indirect sources of air pollution. Rule 9510 sets target reductions for emissions associated with construction ("construction emissions") and future operation of development projects ("operational emissions"). For construction, Rule 9510's target is to reduce PM10 emissions by 45 percent and NOx by 20 percent as compared to emissions generated using "average" construction equipment in California. For future operation, Rule 9510's target is to incorporate mitigation measures into project design to reduce emissions that would be otherwise indirectly caused by the project (e.g., increased traffic) over a 10-year period. The PM10 target is to reduce unmitigated operational emissions by 50 percent. The NOx target is to reduce emissions by 33.3 percent.

(*NAHB*, *supra,* US. Dist. LEXIS 70931, at *13-14.)

Rule 9510 defines an indirect source as "any facility, building, structure, or installation, or combination thereof, which attracts or generates mobile source activity that results in emissions of any pollutant, or precursor thereof, for which there is a state ambient standard." (Rule 9510, §3.17; see also 42 U.S.C. §7410(a)(5)(C).)

Rule 9510 provides that any heavy industrial facility of 100,000 square feet or larger in size must apply for an Indirect Source Rule or "ISR" permit, Rule 9510 §2.1.4, prior to receiving final discretionary approval for its project. Id. at §5.0. The Rule

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requires the Air District to formulate a list of site-specific pollution reduction measures to reduce construction emissions by 20% for nitrogen oxides ("NOx") and 45% for particulate matter under 10 microns in diameter ("PM10"). (Rule 9510 at §6.1.) It also requires the Air District to formulate a list of site-specific measures to reduce operational emissions by 33% for NOx and 50% for PM10. (*Id.* at §6.2.)

A facility subject to Rule 9510 may achieve all or part of its emission reductions by paying a fee that the Air District must use to achieve pollution reductions elsewhere in the air basin. Rule 9510 §3.24 states, "Off-Site Fees shall only apply to off-site emission reductions required, and shall only be used for funding off-site emission reduction projects." Off-site reductions achieved through the fee must be "obtained reasonably contemporaneous with emissions increases associated with the project." (*Id*. at §5.5.) Rule 9510 contains a complex formula intended to achieve equivalent emission reductions off-site as would have occurred through direct compliance on-site, based on the average statewide cost of emission reductions. (*Id*. at §7.0.) The current cost of off-site pollution reductions is over $9000 per ton. (*Id*. at §7.2.) 50

The DEIR should analyze and implement requirements similar to those set forth in Rule 9510, in an effort to mitigate the Project's impacts of indirect source pollution. The rule is feasible as is evidenced by the fact that it is being implemented in the adjacent county. Requiring the Project to comply with the rule would reduce pollution by almost 50%.

C. THE DEIR FAILS TO ADEQUATELY ANALYZE AND MITIGATE IMPACTS TO BIOLOGICAL RESOURCES.

It is the policy of the State of California to "[p]revent the elimination of fish and wildlife species due to man's activities, insure that fish and wildlife populations do not drop below certain self-perpetuating levels, and preserve for future generations representations of all plant and animal communities." (Pub. Resources Code, § 21001, subd. (c).)

As discussed below, the DEIR contravenes the state preservation policy and fails to adequately assess the Project's impacts to wildlife, especially sensitive species and native plants. As a result, the DEIR did not adequately mitigate the potential impacts to the extent feasible. The DEIR must be revised to analyze and evaluate all potential impacts to biological resources and, where appropriate, propose adequate mitigation measures with definite terms and verifiable performance standards. 51

1. The DEIR Fails to Adequately Analyze the Full Extent of the Project's Impacts Due to lack of Survey Data.

Due to the inaccurate biological resources baseline (see Part IV.C, *supra*), the DEIR fails to adequately analyze the Project's impacts to such resources. According to Mr. Cashen,

For reasons previously discussed, project impacts to the burrowing owl, Los Angeles pocket mouse, and special-status plants cannot be sufficiently assessed due to the lack of comprehensive survey data. The lack of comprehensive survey data on burrowing owls is especially problematic because it is a MSHCP "Group 3" species (with additional survey needs and procedures), and because the species is known to occur on the Project site.

Burrowing Owl

Burrowing owls have been documented occurring on the Project site.[105] As a result, the Project is likely to have significant direct and indirect impacts on burrowing owl resources (including burrows, foraging habitat, and individual owls). However, the extent and magnitude (e.g., number of afflicted owls) cannot be fully evaluated and mitigated until surveys that comply with CDFW's 2012 survey requirements have been conducted. Moreover, it is not possible to rule out the potential for the Project to significantly impact burrowing owls until surveys that adhere to the protocol have been conducted. 51

(Exhibit 2, pp. 13-14.)

2. The DEIR Fails to Sufficiently Analyze Impacts to Raptor Habitat.

According to Mr. Cashen,

The City's analysis of Project impacts to raptor foraging habitat is limited to the following statements:

The WLCSP [World Logistics Center Specific Plan] and off-site facilities contain flat, open areas with sparse vegetation, which could be considered foraging habitat for some raptor species. Due to the regular, heavy disturbance associated with the various agricultural activities in the WLCSP and off-site facilities resulting in a rather limited prey base, and the limited size of the site in relation to the expansive foraging habitat in the near vicinity including both the CDFW Conservation Buffer Area and the SJWA[San Jacinto Wildlife Area], LSSRA [Lake Perris State Recreation Area] and the extensive Badlands to the east, the foraging habitat on site is considered marginally suitable and an adverse but not significant impact to raptor foraging habitat is anticipated.[106] 52

[105] DEIR, Appendix E, p. 46.
[106] *Ibid*, p. 4.4-75.

These statements are not supported by actual analysis.

First, neither the Applicant nor the City conducted any studies to quantify the prey base for raptors. Whereas agricultural activities can reduce the prey base, certain activities (e.g., harvesting, discing, mowing, flood irrigation, and burning) increase hunting efficiency by reducing cover or otherwise increasing the exposure of prey to foraging raptors. Indeed, some raptor species (e.g., Swainson's hawk) have learned to exploit the abundance of prey made available by agricultural activities. For example, Estep (1989) reported that Swainson's hawks in the Central Valley spent 52.8% of their foraging time hunting in apparent response to harvesting, discing, mowing, or irrigation.[107]

Second, the Project site cannot be characterized as being of "limited size" in relation to the expansive foraging habitat in the vicinity. Indeed, the Applicant's consultant identified the study area as containing "extensive raptor foraging habitat."[108] The consultant also concluded that impacts to the large amount of raptor foraging habitat on the site may be a significant impact under CEQA.[109] 52

Whereas I do not contest that there is a considerable amount of foraging habitat in the Project vicinity, it is overly simplistic for the City to conclude that the loss of over 2,700 acres of foraging habitat would not have a significant impact on raptors. Some raptor species are intolerant of even small amounts of urban development.[110] For example, Berry et al. (1998) concluded that even small amounts of urbanization usually rendered *whole landscapes* unacceptable to bald eagles, ferruginous hawks, rough-legged hawks, and prairie falcons.[111] In addition, raptors that are displaced from the Project site to suboptimal habitats would likely experience reduced survivorship. Thus, the City's analysis of Project impacts to raptors must consider (a) the size and configuration of remnant foraging habitat in relation to urbanization; and (b) the quality and carrying capacity of the habitat remaining in the region.

(Exhibit 2, pp. 14-15.)

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[107] Estep JA. 1989. Biology, movements, and habitat relationships of the Swainson's Hawk in the Central Valley of California, 1986-87.Calif. Dept. Fish and Game, Nongame Bird and Mammal Sec. Rep., 52 pp. Available at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentVersionID=70479
[108] DEIR, Appendix E, p. 3.
[109] *Ibid.*
[110] Berry ME, CE Bock, SL Haire. 1998. Biodiversity of open space grasslands at a suburban/agricultural interface, Part III: Abundance of diurnal raptors on open space grasslands in an urbanized landscape. Final report to the Biological Resources Division, U.S. Geological Survey and Department of Open Space/Real Estate, City of Boulder. Contract No. 1445-CA09-96-0025. Available at: http://www.bouldercolorado.gov/ (Attachment C).
[111] *Ibid.*

3. The DEIR Fails to Disclose, Analyze, or Mitigate Biological Resources Impacts Associated with the Proposed Relocation.

According to Mr. Cashen,

The DEIR indicates burrowing owls, Los Angeles pocket mice, and perhaps other sensitive species may be "relocated" to the 250-foot setback zone along the southern boundary of the Project site. Relocating sensitive wildlife to the setback zone defeats its intent, which is to provide a buffer between the Project and sensitive biological resources. Moreover, relocating wildlife outside of the construction area does not ensure impacts are mitigated.

In a comprehensive review of translocation projects involving birds and mammals, Griffith et al. (1989) concluded overall success rates were apparently dependent on a variety of ecological factors, including the quality of the habitat where animals were released.[112] When an animal is moved to an unfamiliar location, it has no knowledge of the habitat resources essential for its survival (e.g., food, water, and cover). The lack of cover in an unfamiliar setting makes a prey species (e.g., Los Angeles pocket mouse) an easy target for predators. In addition, many animals exhibit an intrinsic homing response that is energetically taxing, and that may preclude procurement of food and cover resources. Elevated stress hormone levels an organism generates when it is handled and moved may synergistically interact with increased energetic demands to further reduce possibility of survival. Even if the translocated animal is placed in an area with readily available resources, aggressive competitors may prevent the displaced animal from accessing the resources, and from mating. 53

Burrowing owl-

Consistent with CDFW guidelines, passive relocation is a potentially significant impact under CEQA that must be analyzed.[113] Specifically, the temporary or permanent closure of burrows may result in: (a) significant loss of burrows and habitat for reproduction and other life history requirements; (b) increased stress on burrowing owls and reduced reproductive rates; (c) increased depredation; (d) increased energetic costs; and (e) risks posed by having to find and compete for available burrows.[114] The City must thoroughly analyze the effects of passive relocation if it may be implemented at the Project site.

[112] Griffith B, JM Scott, JW Carpenter, C Reed. 1989. Translocation as a species conservation tool: status and strategy. Science 245:477-480. (Attachment D).
[113] CDFG. 2012. Staff Report on Burrowing Owl Mitigation, p. 10.
[114] *Ibid.*

The need for full analysis of potential impacts from passive relocation is further supported by research that indicates most translocation projects have resulted in fewer breeding pairs of burrowing owls at the mitigation site than at the original site, and that translocation projects generally have failed to produce self-sustaining populations.[115] Investigators attribute the limited success of translocation to: (a) strong site tenacity exhibited by burrowing owls, and (b) potential risks associated with forcing owls to move into unfamiliar and perhaps less preferable habitats.[116]

Each of these issues exemplifies the need for the Applicant to prepare a detailed translocation plan that is approved by the resource agencies before translocation occurs. At a minimum, the plan should contain:

1. an assessment of potential release sites, with special attention dedicated to estimating the size of the receiving population.
2. an assessment of threats at the release site (e.g., predators, pesticide use, land management activities), and a discussion of how these threats have been (or will be) mitigated.
3. a detailed description of the monitoring and adaptive management measures that will be implemented after animals are released.

(Exhibit 2, pp. 15-16.)

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4. The DEIR Fails to Establish Adequate Buffers to Mitigate Potentially Significant Impacts of Air Pollution on Biological Resources.

The DEIR admits that buffer zones, or setbacks, are necessary to adequately mitigate the Project's potentially significant air pollution impacts to biological resources. (DEIR, pp. 4.4-62~72.) The South Coast Air Quality Management District ("SCAQMD") and the California Air Resources Board ("CARB") both recommend that a project's setbacks to sensitive receptors should be 1,000 ft.[117] Contrary to such recommendation, the DEIR concludes that 250 ft setbacks would suffice. (*Id.* at p. 4.4-71.)

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The DEIR's proposed 250 ft setback is inadequate for the following reasons: (1) the setback zones are insufficient to adequately mitigate the Project's air pollution impacts to biological resources, (2) the DEIR erroneously concludes that the

[115] Smith BW, JR Belthoff. 2001. Burrowing owls and development: short-distance nest burrow relocation to minimize construction impacts. J. Raptor Research 35:385-391. (Attachment E).
[116] *Ibid.*
[117] SCAQMD's Review of the Draft Specific Plan for the Proposed World Logistics Center Project, p. 3, available at http://www.aqmd.gov/ceqa/igr/2012/May/DSPworldlogistics.pdf

recommended 1,000 ft setbacks are not necessary, and (3) the DEIR fails to explain why the recommended 1,000 ft setbacks are infeasible.

First, Mitigation Measure 4.4.6.1A's 250 ft setbacks are inadequate to serve their purpose of "buffering" biological resources from the Project's significant air pollution impacts. Mr. Cashen agrees:

> According to the DEIR, "[t]he most significant potential environmental impact on local wildlife (i.e., within the SJWA and Badlands) may be exposure to vehicular exhaust and especially diesel particulates and toxic air contaminants from truck exhaust as the WLCSP project builds out. New development will produce *significant amounts* of diesel-related air pollutants that will be released into the atmosphere, including gases and particles of various sizes."[118] Nevertheless, the City has concluded "[t]he 250-foot setback identified in Mitigation Measure 4.4.6.1A, and the presence of the CDFW Conservation Buffer Area, will effectively mitigate potential indirect impacts of air pollutants, including diesel particulate matter, on wildlife within the SJWA."[119]
>
> The DEIR fails to establish a monitoring and reporting program to ensure the proposed buffer mitigates the effects of air pollution on wildlife, vegetation, and aquatic resources. Moreover, information provided in the DEIR does not support the City's conclusion that a 400-foot buffer is sufficient to mitigate Project impacts to a less-than-significant level. Specifically, the DEIR cites research by the California Air Resources Board ("CARB") that indicates 80 percent of the particulates generally settle out of the atmosphere within 1,000 feet of the emission source.[120] Analyses by both the CARB and the South Coast Air Quality Management District indicate that providing a buffer of 1,000 feet would substantially reduce diesel PM concentrations and public exposure downwind of a distribution center.[121] Because wildlife may be more susceptible to air pollutant impacts than humans, one can infer that a buffer of at least 1,000 feet is needed to protect wildlife from air pollutants.[122]

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(Exhibit 2, pp. 17-18.)

Additionally, the DEIR admits that burrowing owls, Los Angeles pocket mice, and perhaps other sensitive species may be "relocated" to the 250-foot setback zone along

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[118] DEIR, Appendix E, p. 128. [emphasis added].
[119] *Ibid*, p. 4.4-72.
[120] *Ibid*, p. 4.4-70.
[121] California Air Resources Board (CARB) and California Environmental Protection Agency (CEPA). 2005. Air Quality and Land Use Handbook: A Community Health Perspective. Available at: http://www.arb.ca.gov/ch/landuse.htm
[122] DEIR, Appendix E, p. 129.

the southern boundary of the Project site. (DEIR, pp. 4-71~72.) However, as Mr. Cashen notes, relocating sensitive wildlife to the setback zone eviscerates the very purpose of establishing setbacks, which is to provide a buffer between the Project and sensitive biological resources. (See Exhibit 2, p. 15.) Therefore, the relocation component of Mitigation Measure 4.4.6.1A renders the setbacks, regardless of amount, ineffective to mitigate the Project's air pollution impacts on biological resources.

Second, the DEIR appears to conclude that the recommended 1,000 ft setbacks are not necessary. The DEIR rationalizes that the CDFW Conservation Buffer Area would function as an additional buffer to the 250 ft setback along the Project's southern boundary. (DEIR, pp. 4.4-69~70.) However, such rationale overlooks the fact that the CDFW Conservation Buffer Area may support the very wildlife that the setbacks are intended to protect. (DEIR, p. 4.4-11 [the DEIR admitting that the CDFW Conservation Buffer Area may support wintering raptors and game birds].) Therefore, the CDFW Conservation Buffer Area cannot be used in place of establishing the recommended 1,000 ft setback. 54

Finally, the DEIR does not provide sufficient reasons as to why the recommended 1,000 ft setbacks are infeasible. Accordingly, a revised DEIR must (1) revise Mitigation Measure 4.4.6.1A to prohibit the relocation of any impacted biological resources to setback zones and (2) adequately analyze the feasibility of 1000 ft setbacks to mitigate air pollution impacts to sensitive biological resources.

5. The DEIR Fails to Adequately Mitigate Project's Impacts to Special-Status Plant Species.

According to Mr. Cashen,

> Mitigation proposed by the City for Project impacts to special-status plant species includes:
>
> Prior to the approval of any Plot Plans for development within the project area, the applicant shall submit a biological assessment of the proposed development site prepared by a qualified biologist to identify if any of the following sensitive plants (i.e., Coulter's goldfields, smooth tarplant, or thread-leaved brodiaea) are present on the proposed development site. If plants are found in the proposed development area, they may be relocated to the 250-foot clear setback area outlined in the Specific Plan and discussed in Mitigation Measure 4.4.6.1A. Alternatively, an appropriate impact fee may be paid to the Western Riverside County Regional Conservation Authority (RCA) or other appropriate conservation organizations to offset for the loss of these species on the WLC project site.[123] 55

[123] *Ibid*, pp. 4.4-74 and -75.

The proposed measures do not ensure Project impacts to special-status plant species are mitigated to a less-than-significant level.

First, Coulter's goldfields, smooth tarplant, and thread-leaved brodiaea are MSHCP Group 3 species. As a result, if any of these species occur within a proposed development area, the City must require the project proponent to conform to the procedures listed in Section 6.3.2 in the MSHCP. Section 6.3.2 states: "[f]or locations with positive survey results, 90% of those portions of the property that provide for long-term conservation value for the identified species shall be avoided until it is demonstrated that conservation goals for the particular species are met."[124]

Second, the special-status plant species with the potential to occur in the Project area are not limited to the three species identified in the mitigation measure.[125] In accordance with CDFW guidelines, the City must require surveys that are floristic in nature, meaning that every plant taxon that occurs on site is identified to the taxonomic level necessary to determine rarity and listing status.[126] 55

Third, the DEIR suggests mitigation may be limited to relocating plants to the buffer area. Although salvage and relocation have some merits as a last resort, it is generally not an effective means of mitigating impacts. Fiedler (1991) conducted a thorough review of mitigation-related transplantation, relocation and reintroduction attempts involving special-status plants in California.[127] The author reported only 8 of the 53 (15%) attempts reviewed in her study should be considered fully successful.[128] Although Fiedler reported several causes for the failed attempts, the common result was that the plants died. Unless the City can provide evidence that potentially impacted plants can be transplanted and/or propagated successfully, it must require fee payment to the Regional Conservation Authority.

Fourth, the City must identify the specific mitigation measure (or suite of potential measures) that will be required if a sensitive plant or animal

[124] MSHCP, Vol I, Section 6.3.2. Available at: http://www.wrc-rca.org/library.asp
[125] *Ibid*, Table 4.4.D.
[126] CDFG. 2009. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. Available at: http://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html#Plants.
[127] Fiedler PL. 1991. Mitigation-related transplantation, relocation and reintroduction projects involving endangered and threatened, and rare plant species in California. Final Report. Available at: nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=3173.
[128] *Ibid.*

species that is not covered under the MSHCP is detected within a proposed development area.

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(Exhibit 2, pp. 18-19.)

6. The DEIR Fails to Adequately Mitigate Impacts to Burrowing Owls.

According to Mr. Cashen,

The conservation goals established in the MSHCP have not yet been met for the burrowing owl, and thus sites with burrowing owls appear to be subject to the provisions listed in Section 6.3.2 in the MSHCP.[129] Because the burrowing owl was recently (2012) detected on the Project site, the City needs to clarify whether the Project is subject to the provisions of MSHCP Section 6.3.2. If the Project is subject to those provisions, the City must identify how the Project will be capable of avoiding 90% of those portions of the site that provide for the long-term conservation value for the burrowing owl.

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Burrowing owls have the potential to occupy the Project site prior to development.[130] The DEIR indicates "[t]his is a potentially significant impact requiring mitigation."[131] However, it fails to define the impact(s) or provide any mitigation to offset the impact(s). Instead, it simply requires a pre-construction survey, establishment of buffer zones around active burrows, and the exclusion of owls from their burrows during the non-breeding season (which in itself is a potentially significant impact).

<u>Pre-construction Survey</u>

The DEIR requires a pre-construction survey for burrowing owls no more than 30 days prior to initiation of ground-disturbing activities.[132] This condition is not consistent with CDFW guidelines, which recommend an initial preconstruction survey within the 14 days prior to ground disturbance, followed by a subsequent survey within 24 hours prior to ground disturbance.[133] As the CDFW's 2012 Staff Report acknowledges, "burrowing owls may re-colonize a site after only a few days."[134] As a

[129] MSHCP 2011 Annual Report, Table 25. Available at: http://www.wrc-rca.org/library.asp
[130] DEIR, p. 4.4-77.
[131] *Ibid.*
[132] *Ibid.*
[133] CDFG. 2012. Staff Report on Burrowing Owl Mitigation. Available at: <www.dfg.ca.gov/wildlife/nongame/docs/BUOWStaffReport.pdf>, pp. 29-30.
[134] *Ibid*, p. 30.

result, a single pre-construction survey up to 30 days in advance of construction is insufficient to avoid and minimize take of burrowing owls.

The City must clarify that "take avoidance" (i.e., pre-construction) surveys for the burrowing owl are not a substitute for the four surveys required to assess Project impacts and formulate appropriate mitigation. The City must require the Applicant to conduct the protocol surveys described by CDFW, and the results of those surveys need to be released in a revised DEIR.[135]

Buffers

The DEIR provides inconsistent information on the buffer distance required around active burrows (i.e., 250 feet or 500 feet).[136] Furthermore, the CDFW no longer uses the default standard of 250-foot buffers during the breeding season and 160-foot buffers during the non-breeding season. Instead, CDFW indicates that indirect impacts and appropriate mitigation should be determined through site-specific analyses that incorporate the wide variation in natal area, home range, foraging area, and other factors influencing burrowing owls and burrowing owl population persistence in a particular area.[137] CDFW guidelines indicate buffers may need to be up to 500 meters, depending on the level of disturbance.[138] 56

Burrow Exclusion

In accordance with CDFW guidelines, burrowing owls should not be excluded from burrows unless or until the Applicant:

1. develops a Burrowing Owl Exclusion Plan that is approved by the CDFW;
2. secures off-site compensation habitat and constructs artificial burrows in close proximity (< 100 m) to the eviction sites;
3. mitigates the impacts of temporary exclusion according to the methods outlined by CDFW;
4. conducts site monitoring prior to, during, and after exclusion of burrowing owls from their burrows; and,
   documents excluded burrowing owls using artificial or natural burrows on an adjoining mitigation site.[139]

(Exhibit 2, pp. 19-21.)

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[135] *Ibid*, Appendix D.
[136] DEIR, p. 4.4-79.
[137] CDFG. 2012 Mar 7. Staff Report on Burrowing Owl Mitigation. Available at: www.dfg.ca.gov/wildlife/nongame/docs/BUOWStaffReport.pdf. p. 12.
[138] *Ibid*, p. 9.
[139] *Ibid,* pp. 10 and 11.

D. THE DEIR FAILS TO ADEQUATELY ANALYZE AND MITIGATE THE PROJECT'S GREENHOUSE GAS EMISSIONS.

The DEIR also recognizes that greenhouse gas emissions ("GHG") from the construction and operation of the proposed Project are potentially significant. (DEIR, pp. 4.7.29~31.) However, the DEIR fails to adequately mitigate the significant impacts from greenhouse gas emissions.

1. The DEIR Underestimates the Project's Operational GHG Emissions and Fails to Mitigate the Actual Extent of GHG Impacts.

According to Mr. Hagemann:

Operational emissions

The DEIR estimates project operational emissions to be 752,000 mt CO2e/year, more than 75 times the SCAQMD's significance threshold of 10,000 mt CO2e per year. The DEIR correctly concludes that emissions are significant (p. 4.7-30) and provides mitigation. Even after mitigation, operational GHG emissions are nearly 70 times greater than the thresholds (Table 4.7.I). As high as these emissions remain, even after mitigation, the estimate of post-mitigation GHG emissions is based on incorrect assumptions. If correct estimates of long-haul truck trips were used, estimates of GHG emissions would even be higher. Because emissions are so high, a revised DEIR should be prepared to identify additional mitigation measure to attempt to reduce GHG impacts. 57

Underestimating the GHG emissions in the DEIR stems largely from incorrectly estimating long haul truck trip distances which make up more than half of all Project operational emissions (DEIR, p. 4.7-30). The DEIR states that long-haul trucks travel an average of 50 miles per trip (p. 4.7-30). No basis for making this estimate of long-haul travel distances is provided in the DEIR.

The DEIR states the project would be haul cargo containers from the Port of Los Angeles or the Port of Long Beach (p. 4.7-43). Google maps show routes to the Project average about 80 miles from the Ports of Los Angeles Long Beach, a distance 60% greater than the 50 mile distance estimated in the DEIR (Attachment C). Long-haul trips, even as underestimated in the DEIR, constitute the biggest component of operational emissions, by far, from Project operation (DEIR, p. 4.7-30).

The Project operational emissions are so significant, they constitute significant majority of the entire City of Moreno Valley's GHG emissions

> estimates for the year 2020. The DEIR states that the City of Moreno Valley's mitigated GHG emissions in 2020 will be 798,000 mt CO2e/year (DEIR, p.4.7-9). In 2020, Project's emissions, after mitigation, are estimated to be 612,000 mt CO2e/year (DEIR, p, 4.7-35), or 77% of the entire business as usual estimate for the City of Moreno Valley.
>
> Because emissions vastly exceed thresholds, additional mitigation, in the form of offsets, should be included in a revised DEIR. The Project applicant should obtain emission reduction credits, or carbon offsets, to reduce the Project's emissions to a less than significant level. Offsets should be chosen in a revised DEIR to show that offsets are verifiable and efficient. The DEIR should not be certified until the Applicant discloses that the Project's GHG emissions are significant during the construction period and mitigates emissions through the purchase of carbon offsets. 57

(Exhibit 1, pp. 9-10.)

The Project should be required to implement all of the GHG reductions measures set forth in the Greenhouse Gas reduction guidelines published by the California Attorney General. (Exhibit 5.) These measures are feasible and would help reduce the Project's GHG impacts.

2. The DEIR Fails to Mitigate Significant Construction GHG Emissions.

The DEIR acknowledges that there would be significant GHG emissions during the Project's construction. (DEIR, pp. 4.7-29~30, Table 4.7.E.) However, the DEIR fails to mitigate such significant GHG emissions in any way. According to Mr. Hagemann:

> <u>Construction emissions</u>
>
> Construction GHG emissions from 2013 to 2021 are estimated to total 434,126 mt CO2e. The DEIR uses an amortization technique for a 30 year period to estimate emissions of 14,000 mt CO2e (p. 4.7-30). The emissions are significant in that they exceed the threshold of South Coast AQMD threshold of 10,000 mt CO2e.[140] 58
>
> The DEIR does not identify any mitigation measures for construction GHGs in excess of thresholds. Many mitigation measures for construction GHGs are commonly recommended by the South Coast AQMD in their review of DEIRs.[141] A revised DEIR should be prepared to include all mitigation measures that would be feasible in reducing GHG emissions. If

[140] http://www.aqmd.gov/ceqa/handbook/signthres.pdf
[141] http://www.aqmd.gov/ceqa/igr/2012/December/DEIRglenarm.pdf, p. 3

> these measures are not sufficient, carbon offsets should be purchased to reduce emissions to reduce GHG emissions to below the threshold.

(Exhibit 1, p. 10.)

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The Project should be required to implement all of the GHG reductions measures set forth in the Greenhouse Gas reduction guidelines published by the California Attorney General. (Exhibit 5.) These measures are feasible and would help reduce the Project's GHG impacts.

E. STORMWATER IMPACTS ON WATER QUALITY HAVE NOT BEEN ADEQUATELY ANALYZED OR MITIGATED.

1. Construction-Related Stormwater Impacts Have Not Been Adequately Analyzed.

The DEIR admits that during Project construction, storm runoff containing large volumes of sediment may cause significant water quality impacts to adjacent waterways. (DEIR, p. 4.9-31.) The DEIR also recognizes that such storm runoff from the Project site would ultimately reach Lake Elsinore. (DEIR, p. 4.9-2.) However, the DEIR fails to disclose that Lake Elsinore is impaired for sedimentation and sedimentation toxicity. (DEIR, p. 4.9-5.) As a result, the DEIR fails to analyze how the storm runoff containing sediment would further degrade the water quality at Lake Elsinore.

According to Mr. Hagemann,

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> Project construction will require extensive grading, vegetation removal, and excavation. Approximately 42 million cubic yards of cut-and-fill will be required to grade the entire site (DEIR, p. 3-61). Project construction may lead to erosion of site soils. The DEIR states that pollutants associated with the Project include sediments, nutrients, bacteria, toxic organic compounds, and pesticides (DEIR, p. 4.9-34). During periods of rainfall, water that washes over eroded soil can entrain these contaminants and discharge into adjacent waterways.
>
> The DEIR states that Project runoff from the western portion flows into the Perris Valley storm drain while runoff from the eastern portion flows into Mystic Lake and the San Jacinto River (DEIR, p. 4.9-22) which is located ten miles south of the Project site. From the San Jacinto River, flow ultimately reaches Lake Elsinore (DEIR, p. 4.9-2). The DEIR identifies that Lake Elsinore is listed under the California Regional Water Quality Control Board's 303(d) List of Impaired Water Bodies for nutrients, low dissolved oxygen, and PCBs (DEIR, p. 4.9-5). The DEIR, however, does not disclose that Lake Elsinore is also impaired for sedimentation and

> sediment toxicity.[142] If rainfall washes over disturbed soil stockpiled on site during Project construction, contaminated sediment and runoff can eventually drain to Lake Elsinore, further degrading water quality.

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(Exhibit 1, p. 4.)

2. The DEIR Fails to Adequately Mitigate Construction-Related Soil Erosion and Storm Runoff Impacts on Water Quality.

The DEIR also fails to adequately mitigate the Project's construction-related impacts of soil erosion and storm runoff on water quality. Based on current and historical uses of the Project site, there is a high potential for the presence of OCPs and other pesticides in the soil. Despite the high potential, the DEIR fails to include any feasible best management practices (BMPs) or mitigation measures to address these potentially significant water quality impacts on adjacent waterways.

According to Mr. Hagemann,

> The DEIR states that during operational activities, stormwater runoff can carry trace metals such as zinc, copper, lead, cadmium, and iron and that treatment controls will be based on these pollutants (DEIR, pp. 4.9-33-4.9-34). However, the DEIR does not consider the possibility that ground-disturbing activities during Project construction can also lead to erosion and transport of these contaminants deposition to adjacent waterways.

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> The DEIR states that a SWPPP will be prepared and identifies measures that will be implemented to reduce impacts from soil erosion (DEIR, p. 4.6-13). Mitigation measure 4.9.6.3A lists best management practices (BMPs) that will be implemented to reduce water quality impacts (DEIR, p. 4.9-37). However, no measures or BMPs are provided that specifically identify that OCPs and other pesticides, which may exist from previous uses of the site, can flow into the adjacent waterways. To ensure that Project construction will not result in significant impacts to hydrological resources, the SWPPP should be prepared prior to Project construction to include BMPs such as erosion control and treatment measures specifically designed to address OCPs and other pesticides.

(Exhibit 1, pp. 4-5.)

Pursuant to Mr. Hagemann's conclusions, the DEIR should be revised to require the preparation of a SWPPP to address the potentially significant impacts of soil erosion and storm runoff to valuable hydrological resources. The SWPPP should be included

[142] *Search for* Elsinore, Lake at http://www.waterboards.ca.gov/water_issues/programs/tmdl/2010state_ir_reports/category5_report.shtml

as a mitigation measure in a recirculated DEIR so that the public and decisionmakers may analyze the SWPPP to determine its adequacy. 60

VI. THE DEIR FAILS TO ADEQUATELY ANALYZE AND MITIGATE CUMULATIVE IMPACTS.

A. LEGAL STANDARDS

An EIR must discuss significant cumulative impacts. (CEQA Guidelines, § 15130(a).) This requirement flows from Public Resources Code section 21083, which requires a finding that a project may have a significant effect on the environment if "the possible effects of a project are individually limited but cumulatively considerable… 'Cumulatively considerable' means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." "Cumulative impacts" are defined as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." (CEQA Guidelines, § 15355(a).) "[I]ndividual effects may be changes resulting from a single project or a number of separate projects." (CEQA Guidelines, § 15355(a).)

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"The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time." (*CBE v. CRA, supra*, 103 Cal.App.4th at p. 117.) A legally adequate cumulative impacts analysis views a particular project over time and in conjunction with other related past, present, and reasonably foreseeable probable future projects whose impacts might compound or interrelate with those of the project at hand. "Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time." (CEQA Guidelines, § 15355(b).)

As the court stated in *CBE v. CRA,* 103 Cal. App. 4th at p. 114:

> Cumulative impact analysis is necessary because the full environmental impact of a proposed project cannot be gauged in a vacuum. One of the most important environmental lessons that has been learned is that environmental damage often occurs incrementally from a variety of small sources. These sources appear insignificant when considered individually, but assume threatening dimensions when considered collectively with other sources with which they interact.

(Citations omitted.)

In *Kings County, supra,* 221 Cal.App.3d at p. 718, the court concluded that an EIR inadequately considered an air pollution (ozone) cumulative impact. The court said: "The EIR concludes the project's contributions to ozone levels in the area would be immeasurable and, therefore, insignificant because the [cogeneration] plant would emit relatively minor amounts of [ozone] precursors compared to the total volume of [ozone] precursors emitted in Kings County. The EIR's analysis uses the magnitude of the current ozone problem in the air basin in order to trivialize the project's impact." The court concluded: "[t]he relevant question to be addressed in the EIR is not the relative amount of precursors emitted by the project when compared with preexisting emissions, but whether any additional amount of precursor emissions should be considered significant in light of the serious nature of the ozone problems in this air basin."[143] The *Kings County* case was reaffirmed in *CBE v. CRA,* 103 Cal.App.4th at 116, where the court rejected cases with a narrower construction of "cumulative impacts."

Similarly, in *Friends of Eel River v. Sonoma County Water Agency,* (2003) 108 Cal. App. 4th 859, the court held that the EIR for a project that would divert water from the Eel River had to consider the cumulative impacts of the project together with other past, present and reasonably foreseeable future projects that also divert water from the same river system. The court held that the EIR even had to disclose and analyze projects that were merely proposed, but not yet approved. The court stated, CEQA requires "the Agency to consider 'past, present, and probable future projects producing related or cumulative impacts . . . .'" (Guidelines, § 15130, subd. (b)(1)(A).) The Agency must interpret this requirement in such a way as to 'afford the fullest possible protection of the environment.'" (*Friends of Eel River, supra,* at pp. 867, 869.) The court held that the failure of the EIR to analyze the impacts of the project together with other proposed projects rendered the document invalid. "The absence of this analysis makes the EIR an inadequate informational document." (*Id.,* at p. 872.) 61

The Court in *Citizens to Preserve the Ojai v. Bd. of Supervisors,* 176 Cal.App.3d 421 (1985), held that an EIR prepared to consider the expansion and modification of an oil refinery was inadequate because it failed to consider the cumulative air quality impacts of other oil refining and extraction activities combined with the project. The court held that the EIR's use of an Air District Air Emissions Inventory did not constitute an adequate cumulative impacts analysis. The court ordered the agency to prepare a new EIR analyzing the combined impacts of the proposed refinery expansion together with the other oil extraction projects.

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[143] *Los Angeles Unified v. City of Los Angeles*, 58 Cal.App.4th at pp. 1024-1026 found an EIR inadequate for concluding that a project's additional increase in noise level of another 2.8 to 3.3 dBA was insignificant given that the existing noise level of 72 dBA already exceeded the regulatory recommended maximum of 70 dBA. The court concluded that this "ratio theory" trivialized the project's noise impact by focusing on individual inputs rather than their collective significance. The relevant issue was not the relative amount of traffic noise resulting from the project when compared to existing traffic noise, but whether any additional amount of traffic noise should be considered significant given the nature of the existing traffic noise problem.

In sum, an EIR's cumulative impacts analyses are critical in taking a project out of its artificial vacuum. By evaluating the true extent of a project's environmental impacts, taking into consideration all relevant past, present, and probable future projects in the project's vicinity, the EIR could serve its informational purpose adequately. 61

B. THE DEIR'S ENTIRE CUMULATIVE IMPACTS ANALYSES ARE IMPROPERLY BASED ON OUTDATED AND INACCURATE SUMMARY OF PROJECTIONS.

The CEQA Guidelines set forth two methods for satisfying the cumulative impacts analysis requirement: the list-of-projects approach and the summary-of-projections approach. (CEQA Guidelines, § 15130(b).) But either way, an EIR must analyze a project's cumulative impacts in conjunction with other related past, present, and reasonably foreseeable future projects whose impacts might compound or interrelate with those of the project at hand. (Pub. Resources Code, § 21083, subd. (b); CEQA Guidelines, §§ 15130, 15355; *San Joaquin Raptor/Wildlife Rescue Center*, *supra*, 27 Cal.App.4th at pp. 739-741.)

At the outset, the DEIR explains that it would rely solely on the summary-of-projections method in analyzing the Project's cumulative impacts. (DEIR, p. 2-22.) The DEIR's summary-of-projections consists of the growth projections contained in the Moreno Valley General Plan and regional growth projections based on Regional Transportation Plan. (DEIR, p. 2-22, 2-23.) Using these projections, the DEIR analyzes cumulative impacts for each environmental topic in the respective sections (EIR Sections 4.1 through 4.16.) 62

Courts have recognized that the use of the summary-of-projections method can be problematic. "Use of a planning document does not preclude challenge to the accuracy or sufficiency of the cumulative impacts analysis. As recognized in a respected CEQA treatise, '[t]he summary-of-projections approach may present problems if the projections in the general plan or related planning document are inaccurate or outdated.'" (*Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1217 [emphasis added].) In this instance, the growth projections that the DEIR utilizes are both outdated and inaccurate because they are based on the 2006 General Plan which does not account for the recent influx of similar warehouse projects in the City.

The Inland Empire is home to the nation's biggest concentration of warehouses. In recent years, the City has been setting aggressive economic goals to pursue new development in logistics and distribution.[144] The City has followed through with those goals and the latest Economic Development Summary highlights the multitude of

[144] Moreno Valley Economic Development Action Plan 1/18/2012, p. 11, available at http://www.moreno-valley.ca.us/city_hall/departments/econ-dev/pdfs/forum/CITY-PPT.pdf

recent, large scale warehouse projects. (Exhibit 4, Moreno Valley Economic Development Summary 3/2013, pp. 5-7.) The following is a list of 20 similar projects in the City that are approved, undergoing environmental review, in construction or have recently opened:

Logistics-Warehouse Projects in Moreno Valley, CA

	Name	Size	Description	Location
	Recently Opened			
1	Highland Fairview Corporate Park (HFCP)/Skechers Distribution Center	1.82 million sq. ft.	Highland Fairview, the Project's developer, has recently opened a large scale distribution center for Skechers USA.	Just northwest of the Project site, between Redlands Boulevard and Theodore Street.
2	Ross Stores Moreno Valley Distribution Center	1.58 million sq. ft	Second phases added 612,000 sq. ft., plus additional 285,000 sq. ft. mezzanine to the existing 686,000 sq. ft. building.	17800 Perris Blvd, Moreno Valley
3	United Natural Foods Inc. Distribution Center	613,174 sq. ft.	An expansion of the distribution facility for United Natural Foods Inc.	Goldencrest Drive
In Planning/Pending Environmental Review				
4	Prologis Eucalyptus Industrial Park	2,224,419 sq. ft.	This project would include the construction of a warehouse facility comprising six buildings and is currently undergoing environmental review.	South of Highway 60 to Eucalyptus Avenue between Pettit and Quincy streets
5	Westridge Commerce Center	943,800 sq. ft.	The proposed project is currently on hold, pending a challenge to the EIR by Sierra Club in Riverside Superior Court.	Located just west of the Project site, at north of Eucalyptus Avenue and Redlands Boulevard.
Approved/In Plan Check				
6	Inland Empire Global Logistics Center	1.56 million sq. ft.	Distribution center developed by Panattoni Development Company	SWC of Indian St. and Iris Ave.
7	Lowe's Distribution Center	746,340 sq. ft	A Lowe's distribution center by Alere Property Group.	Located on the east side of Heacock St. north of Cardinal Way.

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8	San Michele Distribution Center	423,015 sq. ft.	A distribution center by Alere Property Group.	Indian St. and San Michele Rd.
9	First Apache Warehouse	569,200 sq ft.	Industrial complex warehouse facilities by First Industrial Realty Trust	Perris and Storm Channel
10	Harbor Freight Tools at Centerpointe Business Park	1.28 million sq. ft.	Currently occupies 779,016 sq. ft. with plans to expand by 507,720 sq. ft. totaling 1.28 million sq. ft.	NWC of Cactus Ave. and Graham St.
11	Distribution/warehouse facility at Centerpointe Business Park	607,430 sq. ft.	A distribution/ warehouse facility located at Centerpointe Business Park	NWC of Brodiaea Ave. and Graham St.
12	Nandina Distribution Center – Building A	413,598 sq. ft.	Part of a two building complex with total of 1.82 million sq. ft.	NWC of Nandina Ave. and Indian St.
13	Komar	283,100 sq. ft.	Industrial/distribution building on 13.75 acres.	SEC of Heacock Ave. and San Michele Rd.
14	Rados – Warehouse distribution center	409,598 sq. ft.	Part of a seven building project with total of 619,127 sq. ft.	NEC of Heacock St. and Iris Ave.
15	Vogel Engineers Inc/Sares-Regis warehouse distribution building	1.62 million sq. ft.	A warehouse distribution building on 71.15 acres.	North of Oleander Storm Drain between Indian St. and Perris Blvd.
16	March Business Center	1.48 million sq. ft.	Four buildings total, three of which (1.32 million sq. ft.) would be used for warehouse distribution uses.	SEC of Iris Ave. and Heacock St.
Under Construction				
17	First Inland Logistics Center	865,960 sq. ft.	An industrial/distribution facility in two buildings. Tenant improvements underway.	Located on the north side of Nandina Ave., west of Perris Blvd.
18	Nandina Distribution Center – Building B	769,320 sq. ft.	Part of a two building complex with total of 1.82 million sq. ft.	NWC of Nandina Ave. and Indian St.
19	Centerpointe Logistics Center	522,774 sq. ft.	Logistics-distribution building on 25.9 acres developed by Overton Moore Properties.	NWC of Cactus Ave. and Frederick St.
20	I-215 Logistics Center	1.25 million sq. ft.	Industrial warehouse in two buildings developed by Trammell Crow Company.	Heacock St. and San Michele Rd.

(Exhibit 4, Moreno Valley Economic Development Summary 3/2013, pp. 5-7.)

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To accommodate the recent surge of large warehouse projects within the City, the City's General Plan was amended multiple times. For example, ProLogis Eucalyptus Industrial Park Project is currently undergoing environmental review and requires amendments to the City's General Plan and zoning designations to the Project Site from Residential to Business Park.[145] A recently-approved March Business Center Project also included an adoption of a General Plan Amendment.[146] These are mere examples of the numerous amendments to the General Plan that have occurred or will occur to make way for the warehouse projects in the City.

The General Plan amendments that postdate the 2006 Update are not accounted for in the growth projections contained in the general plan.[147] Thus, the General Plan fails to account for the City's recent growth spurt in the warehouse industry and contains outdated and inaccurate growth projections. (See *Bakersfield Citizens for Local Control, supra*, 124 Cal.App.4th at pp. 1217-1218.) The DEIR's use of inaccurate growth projections means that the resultant cumulative impacts analyses are underinclusive. 62

Proper cumulative impacts analysis is absolutely critical to meaningful environmental review. The DEIR's cumulative impact analyses are inadequate in their entirety because they did not take into account the environmental impacts of other past, present and reasonably foreseeable projects in the Project's vicinity. As a result, the cumulative impacts analyses are underinclusive and misleading. The DEIR must revise its cumulative impacts analyses for each and every environmental issue (DEIR Sections 4.1 through 4.16) using updated and accurate growth projections or a list-of-projects approach, or a combination of both. (CEQA Guidelines, § 15130(b).)

C. THE DEIR FAILS TO ADEQUATELY ANALYZE AND MITIGATE CUMULATIVE AGRICULTURAL RESOURCE IMPACTS.

In addition to using inaccurate projections, the DEIR's cumulative agricultural resources impacts analysis fails to consider other related present and reasonably foreseeable future projects. The DEIR only focuses on past projects, primarily relying on past inventories of farmland in Riverside County from 2000 to 2010, which illustrate a steady loss of farmland. (DEIR, p. 4.2-21, Tables 4.2B, 4.2.C.) Relying on these past inventories, the DEIR concludes that the countywide decline in farmland will continue and rationalizes the Project's removal of over 3,500 acres of Important Farmland and the lack of any mitigation efforts. (DEIR, pp. 4.2-20~21.) 63

As previously noted, an EIR must analyze a project's cumulative impacts in conjunction with other related past, present, and reasonably foreseeable future projects

[145] ProLogis Draft EIR, at p. 1-2, available at http://www.moval.org/misc/pdf/prologis/ProLogis%20DEIR-min.pdf
[146] March Business Center Final EIR, at p. S-3, available at http://www.moval.org/misc/pdf/march/MBCDraftEIR04-26-12.pdf
[147] Moreno Valley General Plan, Final Program EIR, pp. 3-8, 3-9, available at http://www.moreno-valley.ca.us/city_hall/general-plan/06gpfinal/ieir/eir-tot.pdf

whose impacts might compound or interrelate with those of the project at hand. (Pub. Resources Code, § 21083, subd. (b); CEQA Guidelines, §§ 15130, 15355 [emphasis added].) The DEIR admits that the cumulative area for agricultural resource impacts is Riverside County. (DEIR, p. 4.2-21.) Therefore, the DEIR's cumulative agricultural resource analysis is inadequate and fails to analyze the Project's agricultural resource impacts in conjunction with other related present and reasonably foreseeable future projects within Riverside County. 63

Moreover, the DEIR fails to mitigate the significant cumulative agricultural impacts in any way. (DEIR, pp. 4.2-20~21.) Such failure is improper for the same reasons as provided in Part V.A.3, *supra* (discussing the DEIR's failure to mitigate the Project's significant agricultural impacts.)

D. THE DEIR FAILS TO ADEQUATELY ANALYZE AND MITIGATE CUMULATIVE IMPACTS TO BIOLOGICAL RESOURCES.

The DEIR fails to provide <u>any</u> analysis on how the Project, in combination with all relevant past, present and potential future projects, can cause cumulative impacts to biological resources. According to Mr. Cashen,

> The DEIR provides virtually no analysis of the Project's contribution to cumulative impacts to sensitive biological resources. It simply concludes: "the regional (cumulative) implications of the project can be addressed through the fee payment program of the MSHCP because it provides a regional and comprehensive approach to conservation planning," and that "no significant cumulative effect on biological resources would result from the development of the proposed uses with implementation of the identified program mitigation measures."[148] 64
>
> The City's justification fails to consider the Project's contribution to potentially significant impacts to species not covered by the MSHCP. Indeed, the Final EIR/EIS for the MSHCP states: "implementation of the MSHCP <u>will result in cumulatively significant impacts</u> on the Non-Covered Species because the issuance of incidental take permits will remove an impediment to development outside of the MSHCP Conservation Area. Non-Covered Species would receive little or no protection outside the reserves under existing ordinances and regulations."[149] In my opinion, the Project may contribute to cumulatively considerable impacts to Non-Covered Species, and those impacts would not be mitigated by the measures proposed by the City.

[148] DEIR, p. 4.4-81.
[149] MSHCP, p. 5.1-7. [emphasis added].

> Many assumptions were incorporated into the MSHCP. The assumptions pertain to biological conditions (and relationships), development within the plan area, and actual implementation of the MSHCP. Some of the assumptions that were incorporated into the MSHCP have proven to be incorrect. For example, the MSHCP has been unsuccessful in the conservation of burrowing owls within the plan area.[150] This example highlights the flaws with the City's conclusion that the MSHCP will eliminate any potential for cumulative impacts. 64
>
> Ultimately, the Project's contribution to cumulative impacts cannot be analyzed because the City has not identified the other projects within the cumulative effects analysis area. At a minimum, the City must identify the other projects may contribute to cumulatively considerable impacts to raptors, jurisdictional waters, the Northwestern San Diego pocket mouse, and other sensitive biological resources in the Project region.

(Exhibit 2, pp. 16-17.)

E. THE DEIR FAILS TO ADEQUATELY MITIGATE CUMULATIVE AIR IMPACTS.

The DEIR also fails to adequately mitigate significant cumulative air quality impacts to human health. According to Mr. Hagemann:

> <u>Cumulative air impacts are inadequately mitigated</u>
>
> The DEIR predicts cumulative impacts to human health from the Project and other nearby projects to exceed risk thresholds set by the SQAQMD. The DEIR (p. 4.3-88) includes modeling results that estimate health impacts as follow: 65

Table 4.3.AC: Comparison of Cancer Risk Values

Receptor Location	Cancer Risk (risk per million)		
	Project Increment	Cumulative	MATES-III
Maximum affected receptor located outside of the boundaries of the WLC Specific Plan	45[1]	193[1]	1,029[2]
Maximum affected sensitive receptor located within of the boundaries of the WLC Specific Plan	76.8	121.1	496
Existing residences located across Redlands Boulevard	20.9	45.9	496

[150] *Ibid*, Burrowing Owl Survey Report 2011. Available at: http://www.wrc-rca.org/library.asp *See also* Wilkerson RL and RB Siegel. 2010. Assessing changes in the distribution and abundance of burrowing owls in California, 1993-2007. Bird Populations 10: 1-36. (Attachment F).

The table shows that the incremental impacts from the Project range from 20.9 to 76.8 cancer risks which greatly exceed the SCAQMD threshold of 10 additional cancer risks in a population of one million.[151] The table also shows that a sensitive receptor who already faces a risk level well in excess of the SCQAQMD threshold (496 in a million) will have that risk increased by an increment of 121 in a population of a million (or 12 in a population of 100,000), a 24% increase, from cumulative project construction. Existing residences across Redlands Blvd. will see cumulative risk levels increase 9% (existing cancer risk of 45.9/MATES III risk of 496 = 9.3%).

Cancer risks that residents currently face in the area of the Project are primarily driven by diesel particulate matter (DEIR, 4.3-87). The California Air Resources Board has classified diesel particulate matter as a toxic air contaminant for both its cancer and non-cancer health effects.[152] In addition the California Office of Environmental Health Hazard Assessment found that exposure to diesel particulate resulted in an increased risk of cancer and an increase in chronic non-cancer health effects including a greater incidence of cough, labored breathing, chest tightness, wheezing, bronchitis, and asthma.[153] 65

Emissions of diesel particulate matter from cumulative project emissions will increase, driven by an increase in truck traffic from the Project and from other cumulative projects in the area. The DEIR offers no mitigation for diesel particulate matter emissions. Because current cancer risks greatly exceed thresholds, and will get significantly worse from cumulative impacts, all feasible mitigation should be considered for nearby residents, especially sensitive receptors. The mitigation should target reductions in diesel particulates, the most significant contributor to health risks.
Other projects, where risks from diesel particulates are as high as those estimated in the DEIR, have instituted mitigation that is considered to be Best Available Control Technologies for Toxics and which are capable of reducing potential cancer and non-cancer risks to an acceptable level. These Best Available Control Technologies and other mitigation measures include:

- Installation of Minimum Efficiency Reporting Value (MERV) filters rated at 13 or better at all residential units where incremental cancer risk exceeds one in one hundred thousand[154];

[151] http://www.aqmd.gov/ceqa/handbook/signthres.pdf
[152] http://www.oehha.ca.gov/public_info/facts/dieselfacts.html
[153] Ibid.
[154] http://cityplanning.lacity.org/EIR/CornfieldArroyo/RDEIR/RP-DEIR_Volume%20I.pdf, http://www.ci.berkeley.ca.us/uploadedFiles/Planning_and_Development/Level_3_-_Redevelopment_Agency/West%20Berkeley%20MMP.pdf

- Plant tiered vegetation along the project site boundaries -- laboratory studies show that cedar trees can remove some of the fine particulate matter emitted from traffic under low wind speeds[155];
- Providing notification to nearby residents in areas of estimated cumulative risk that exceeds one in one hundred thousand population that operation of the project may have detrimental health impacts as noted by California Air Resources Board and the South Coast Air Quality Management District.

  A revised DEIR should be prepared to identify additional mitigation to reduce cancer risks from diesel particulates from cumulative project construction. The DEIR should include all feasible mitigation and should include modeling estimates to show risk reduction to levels less than the SCAQMD threshold of one in a million cancer risk.

(Exhibit 1, pp. 7-9.) 65

VII. THE DEIR FAILS TO PROVIDE ADEQUATE ALTERNATIVES ANALYSIS AND FAILS TO IMPLEMENT THE ENVIRONMENTALLY SUPERIOR ALTERNATIVE 1.

A. LEGAL STANDARDS

One of CEQA's fundamental requirements is that the DEIR must identify the "environmentally superior alternative," and require implementation of that alternative unless it is infeasible. (CEQA Guidelines, §15126.6(e)(2); Kostka & Zischke, *Practice Under the California Environmental Quality Act* §15.37 (Cont. Educ. Of the Bar, 2008).) Typically, a DEIR identifies the environmentally superior alternative, which is analyzed in detail, while other project alternatives receive more cursory review. 66

The analysis of project alternatives must contain an accurate quantitative assessment of the impacts of the alternatives. In *Kings County, supra,* 221 Cal.App.3d at pp. 733-735, the court found the EIR's discussion of a natural gas alternative to a coal-fired power plant project to be inadequate because it lacked necessary "quantitative, comparative analysis" of air emissions and water use.

Additionally, when project objectives are defined too narrowly, the EIR's alternatives analysis may be inadequate. (*City of Santee v. San Diego* (1989) 214 Cal.App.3d 1438; *Preservation Action Council v. San Jose* (2006) 141 Cal.App.4th 1336.)

[155] http://www.ci.berkeley.ca.us/uploadedFiles/Planning_and_Development/Level_3_-_Redevelopment_Agency/West%20Berkeley%20MMP.pdf, p. 3

A "feasible" alternative is one that is capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors. (Pub. Res. Code, § 21061.1; CEQA Guidelines, § 15364.) California courts provide guidance on how to apply these factors in determining whether an alternative or mitigation measure is economically feasible.

The lead agency is required to select the environmentally preferable alternative unless it is infeasible. As explained by the Supreme Court, an environmentally superior alternative may not be rejected simply because it is more expensive or less profitable: 66

> The fact that an alternative may be more expensive or less profitable is not sufficient to show that the alternative is financially infeasible. What is required is evidence that the additional costs or lost profitability are sufficiently severe as to render it impractical to proceed with the project.

(*Citizens of Goleta Valley, supra,* 197 Cal.App.3d at pp. 1180-81; see also, *Burger, supra,* 45 Cal.App.3d 322 [county's approval of 80 unit hotel over smaller 64 unit alternative was not supported by substantial evidence].)

As discussed below, the DEIR fails to meet the legal standards for an adequate CEQA alternatives analysis.

B. THE DEIR IMPROPERLY DISMISSES THE LESS ENVIRONMENTALLY DAMAGING AND FEASIBLE REDUCED DENSITY ALTERNATIVE (ALTERNATIVE 1).

The DEIR considers the Reduced Density Alternative (Alternative 1) as an alternative to the proposed Project. Alternative 1 would decrease logistics use by 28 percent, which would result in corresponding decreases in environmental impacts. For one, Alternative 1 would reduce the operational emissions all across the board, including approximately 30% reductions for CO, VOC, NOx, PM10, and PM2.5.[156] 67
(DEIR, Table 6.L.) Traffic impacts would also decrease by 30% under Alternative 1. (DEIR, pp.6-25, 6-26.)

The DEIR admits that Alternative 1 is "environmentally superior" to the proposed Project. As such, the environmentally superior Alternative 1 must be selected unless it is infeasible. (*Citizens of Goleta Valley, supra,* 197 Cal.App.3d at 1180-81; see also, *Burger, supra,* 45 Cal.App.3d 322.) Instead, the DEIR improperly dismisses it as not meeting "most of the major goals of the proposed project mainly because of the reduced total square footage by 30 percent...." (DEIR, pp.6-22, 6-44.) Such reasoning, or lack

[156] The DEIR contains a calculation error which in effect downplays the reduction of NOx emissions for Alternative 1 from the Proposed project. Table 6.L provides the net change in emissions of NOx from the proposed project (3,059) and Alternative 1 (2,141) as -645 when it should in fact be -918. (DEIR, Table 6.L.)

thereof, does not amount to substantial evidence to support a conclusion that Alternative 1 is infeasible. To put it simply, a reduced scale alternative cannot be rejected solely because it is reduced in scale. Such circular reasoning makes a mockery of the alternatives analysis.

Furthermore, the DEIR downplays the significant environmental benefits of Alternative 1 by illogically concluding that despite the 30 percent reduction in operational emissions, the impacts from emissions would be significant and unavoidable in "approximately the same manner as the proposed project." (DEIR, p. 6-24.) Similarly, the DEIR deemphasizes Alternative 1's 30 percent decrease in traffic as being similar to those impacts identified for the Proposed Project. (DEIR, pp. 6-25, 6-26.) On the whole, the DEIR dismisses Alternative 1's substantial reductions of environmental impacts by concluding that all impacts identified as significant and unavoidable under the Proposed Project would still be significant under Alternative 1 in "approximately the same and/or in the same exact manner as the proposed project." (DEIR, p. 6-28.) However, it is puzzling how 30 percent decreases in emissions and traffic under Alternative 1 would be "the same" as no reduction at all under the proposed Project. If anything, the logical conclusion of this reasoning is that the City must consider an even smaller reduced scale alternative. 67

Thus, the DEIR fails to provide substantial evidence to support the dismissal of the environmentally superior alternative because it does not meet the project objectives "to the same degree as the proposed project." (DEIR, Table 6.M.) Such logic is insufficient to support a conclusion that Alternative 1 is infeasible. Additional analysis is required to consider this environmentally superior alternative before the Board may reject it. (Pub. Res. Code, §21002; *Sierra Club v. Gilroy City Council* (1990) 220 Cal.App.3d 30, 31.)

C. THE DEIR ERRONEOUSLY CONCLUDES THAT THERE ARE NO FEASIBLE ALTERNATIVE SITES NEAR THE PROJECT AREA.

Additionally, the DEIR summarily concludes that all of the alternative sites near the project area are infeasible. However, the DEIR's conclusion of infeasibility is based on extremely narrow project objectives, which the DEIR sums up as including "a contiguous 2,635-acre site for 41 million square feet of high-cube logistics warehouse uses." (DEIR, pp. 6-2, 6-38.) These narrow objectives effectually eliminated from consideration <u>all</u> potential "feasible" sites which could have served the Project's broader purpose of providing warehouses, though not in the same scale as the Project. 68

The DEIR's application of extremely narrow project objectives of securing an alternative site similar in scale as the Proposed Project renders the Alternative Sites Analysis inadequate. For example, the DEIR ignored all potential sites within the City by focusing only on the large scale and concluding that "there are no sites available within the City that have nearly that amount of vacant land planned [as the Project site] or designated for industrial-related uses." (DEIR, Table 6.R.) Therefore, the DEIR did

not consider any smaller sites within the City which could have been less environmentally damaging than the Project and perhaps some distance away from active farmland and/or from sensitive receptors like the San Jacinto Wildlife Area. (See id.)

In sum, the DEIR's improper dismissal of the "environmentally superior" Alternative 1 and its erroneous conclusion that no feasible alternative sites exist near the project area violates the mandates of CEQA. The revised DEIR must select the environmentally superior alternative, Alternative 1, and adequately analyze potential alternative sites in the Project's vicinity without focusing solely on fulfilling the Project's narrow objective of constructing a logistics warehouse similar in scale to the proposed Project. 68

VIII. CONCLUSION

For the foregoing reasons, LIUNA Local Union No. 1184 and its members living in the City of Moreno Valley and the surrounding areas, urge the City to continue the matter for future consideration pending completion of a supplemental EIR addressing the Project's significant impacts and mitigation measures. Thank you for your attention to these comments. Please include this letter and all attachments hereto in the record of proceedings for this project. 69

Sincerely,

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Attorneys for LIUNA Local Union No. 1184

RESPONSES TO LETTER F-7A

Lozeau Drury LLP

Response to Comment F-7A-1. The separate comments/commenters indicated by the commenter of this letter are addressed as Letters F-7B and F-7C following this letter. The City does not consider the Draft Environmental Impact Report (DEIR) to be inadequate or inaccurate, however, a number of corrections and additions have been made to the DEIR text to make it more accurate, to expand on concepts discussed in the DEIR, or to address comments made on the DEIR.

Response to Comment F-7A-2. According to Section 15125 of the CEQA Guidelines,

> "*An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. The baseline for the evaluation of biological resources is based on a current, thorough site visit. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary to an understanding of the significant effects of the proposed project and its alternatives*."

The Notice of Preparation for the World Logistics Center (WLC) was published February 21, 2012, and was used to establish the environmental setting, or baseline for the WLC.

In support of the DEIR, project biologists conducted biological resource field surveys for the WLCSP and additional areas to characterize the biological resources present at the site and identify sensitive resources and communities that may be impacted by the proposed project. Biological surveys were conducted between 2005 and 2012 to provide base-line information within the WLC Specific Plan (SP) for the Notice of Preparation (NOP) that was submitted on February 21, 2012. Surveys were conducted in 2013 to provide additional information and to confirm information related to the 2012 baseline. The main focus was on sensitive habitats and any areas with the potential to support sensitive flora or fauna species. In addition, project biologists conducted focused surveys for burrowing owl, Los Angeles pocket mouse (LAPM), and a comprehensive sensitive plant survey. A delineation of jurisdictional waters and wetlands was also conducted. Table F-7A.A below summarizes the survey dates, the type of survey, and FCS-MBA lead staff. Information on where the surveys were performed as the project evolved through time are presented in Exhibit 5 of the *Draft Habitat Assessment and MSHCP Consistency Analysis* (FCS-MBA 2013 - FEIR Volume 2, Appendix E-1 and E-4) (hereafter MSHCP Consistency Analysis). In addition, project biologists contacted Riverside Conservation Authority (RCA) staff to obtain recorded occurrence data for sensitive plant and wildlife species observed within and adjacent to the San Jacinto Wildlife Area (SJWA).

Table F-7A.A: Summary of Survey Types, Dates, Locations, and Staff

Report Year	Field Survey Date(s)	Survey	Parcel Name	Staff
2005	May 10, 20, 23 Aug 29	Biological Resource Assessment Survey	Bel Lago	S. Crawford
2005	May 10	MSHCP Habitat Assessment	Bel Lago	S. Crawford
2005	May 10, 20, 23 Aug 29	Burrowing Owl Focused Surveys	Bel Lago	S. Crawford

Table F-7A.A: Summary of Survey Types, Dates, Locations, and Staff

Report Year	Field Survey Date(s)	Survey	Parcel Name	Staff
2005	May 10, Aug 29	Jurisdictional Delineation Riparian/Riverine and Vernal Pool Habitat	Bel Lago	S. Crawford
2005	August 21 through 26	Los Angeles Pocket Mouse Focused Surveys	Bel Lago	K. Rios
2006	August 16, 26	MSHCP Habitat Assessment	Tentative Tract Map 34848 (Bel Lago South)	M. Romich J. Hickman S. Hongola
2006	August 16, 17, 19, 22	Burrowing Owl Focused Surveys	Tentative Tract Map 34848 (Bel Lago South)	M. Romich J. Hickman S. Hongola
2007	May 1, 2, 3, 4	Burrowing Owl Focused Surveys	Highland Fairview Corporate Park Property	S. Crawford K. Workman S. Hongola K. Osmundson
2007	May 10	Jurisdictional Delineation Riparian/Riverine and Vernal Pool Habitat	Highland Fairview Corporate Park Property - Logistics Building Area	K. Osmundson
2007	September 18	Jurisdictional Delineation Riparian/Riverine and Vernal Pool Habitat	Highland Fairview Corporate Park Property	T. Mullen
2007	May 15 July 19	MSHCP Habitat Assessment	Highland Fairview Corporate Park Properties	K. Lord
2007	May 15-18, 22-24, 30-31, June 1, 5-7, 12-14, 19-20, 26, July 3, 6, 11, 12	Burrowing Owl Focused Surveys	Highland Fairview Properties	S. Crawford
2007	September 27 2006	MSHCP Habitat Assessment	398-Acre Anderson Property	K. Workman S. Hongola
2007	August 15, 16, 22, 23 2006	Burrowing Owl Focused Survey	398-Acre Anderson Property	K. Workman K. Osmundson
2008	January 10	MSHCP Habitat Assessment	Highland Fairview Properties	K. Lord
2010	June 9, 10, 11, 16, 22, 23, 24	Sensitive Plant Surveys	Highland Specific Plan	S. Crawford
2010	June 9 through 24	Burrowing Owl Focused Surveys	Highland Specific Plan	S. Crawford
2010	June 27, 28, 29, 30, Jul 1, 2	Los Angeles Pocket Mouse Focused Surveys	Highland Specific Plan	K. Rios
2011	October 24	MSHCP Habitat Assessment	Highland Specific Plan	S. Crawford D. Hameister

Table F-7A.A: Summary of Survey Types, Dates, Locations, and Staff

Report Year	Field Survey Date(s)	Survey	Parcel Name	Staff
2012	March 16	Delineation of Jurisdictional Waters and Wetlands	WLCSP	S. Crawford
2012	June 28, July 5, 6 and 9	Burrowing Owl Focused Surveys	WLCSP	T. Molioo D. Lloyd D. Hameister
2012	July 1-6	Los Angeles Pocket Mouse Focused Surveys	WLCSP	K. Rios
2013	June 13, 20, 21, 27, July 3, 7, and 9	Burrowing Owl Focused Surveys	WLCSP	D. Hameister T. Molioo S. Crawford Z. Ziade L. Westmoreland C. Lytle
2013	July 8-11	Los Angeles Pocket Mouse Focused Surveys	WLCSP	K. Rios S. Crawford

Response to Comment F-7A-3. The commenter has suggested the project mitigate the loss of farmland by a conservation easement. In fact, a new Mitigation Measure (MM) 4.2.6.1A has been added to the Final Environmental Impact Report (FEIR) Volume 2 requiring the acquisition of a conservation easement be recorded over land of comparable productive value to preserve offsite farmland or equal or more agricultural productivity compared to the unique farmland. It should be noted the revised Parsons Brinckerhoff report and the *California (California) Land Evaluation and Site Assessments (LESA) Model* report (FEIR Volume 2, Appendix C-1 though C-4) have determined that conversion of the Farmland of Local Importance does not represent a significant impact based on the results of the revised LESA model assessment (see also Response F-7A-39 to Letter F-7A for more information on agricultural impacts).

Response to Comment F-7A-4. The commenter claims that the DEIR fails to adequately mitigate significant construction and operational air quality impact and indirect source pollution.

The DEIR addresses all potential impacts and applies feasible mitigation to reduce impacts, but not to below a level of significance. Please see the FEIR Mitigation Monitoring Reporting Program for a list of the project's mitigation measures. Refer to the response to comments which follow.

Response to Comment F-7A-5. The revised DEIR as well as Section 6.9 of the (Western Riverside County) Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis (FCS-MBA 2013 – FEIR Volume 2, Appendix E-1) were specifically updated to adequately analyze all potential project-related impacts at a programmatic level and developed mitigation measures that will reduce potentially significant impacts to less than significant levels.

Response to Comment F-7A-5. The DEIR describes potentially significant impacts associated with Plummer's mariposa lily, burrowing owl, nitrogen deposition, riverine/riparian areas, drainage features under United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB) and California Department of Fish Wildlife (CDFW) jurisdiction, MSHCP, Migratory Bird Treaty Act (MBTA), Raptor foraging habitat, City of Moreno Valley Municipal Code related to

biological resources, Urban/Wildlands Interface (including toxics, lighting, noise invasive species, barriers, access, grading/land development, and fuels management), and Stephens' kangaroo rat (SKR). The revised DEIR as well as Section 6.9 of the MSHCP Consistency Analysis (FCS-MBA 2013 - FEIR Volume 2, Appendix E-1) specifically addresses required mitigation measures that will reduce impacts to less than significant levels.

Response to Comment F-7A-6. The commenter claims that the DEIR fails to adequately analyze and mitigate the project's construction and operational greenhouse gas (GHG) emissions.

The DEIR addresses all potential impacts and applies feasible mitigation to reduce impacts, but not to below a level of significance. Refer to the response to comments which follow.

Response to Comment F-7A-7. A comment was made about the DEIR's failure to adequately analyze hazards and hazardous materials and establishes an erroneous baseline. The comment references the Department of Toxic Substance Control Interim Guidance for Sampling Agricultural Properties (Third Revision), dated August 7, 2008 as the standard that should have been used for pesticide sampling conducted during the several Phase I Environmental Site Assessment (ESA) reports for various parcels that comprise the site.

The referenced (California) Department of Toxic Substance Control (DTSC) document is:

> "*specific to agricultural properties where pesticides and/or fertilizers were presumably applied uniformly, for agricultural purposes consistent with normal application practices. It is applicable to agricultural properties that are currently under cultivation with row, fiber or food crops, orchards, or pasture. It is also applicable to fallow and former agricultural properties that are no longer in production and have not been disturbed beyond normal disking and plowing practices. Each field of the same crop is assumed to have been watered, fertilized and treated with agricultural chemicals to the same degree across the field. Because of this homogeneous application, contaminant levels are expected to be similar at any given location within the field. This is the underlying premise of the guidance…*"

Properties not requiring agricultural sampling under the referenced guidance include property used exclusively as grazing lands or pasture. The guidance also states that dry-land farming, which is the practice of growing a crop without irrigation, are not treated with pesticides or infrequently treated, since the lack of water does not provide a desirable habitat for most agricultural pests. Properties that clearly qualify as dry-land farming do not need further investigation for pesticides or metals. "*For properties where there is uncertainty regarding dry-land farming, limited sampling may be conducted at a rate of four discrete samples per site, with one sample collected in each quadrant*."

The DTSC 2003 Interim Guidance for Sampling Agricultural Properties, which they referenced as to why additional samples for organo-chloro-phosphate (OCPs) were necessary, was taken out of context. The 2008 Interim Guidance for Sampling Agricultural Properties speaks to how an environmental assessor for the DTSC should conduct an evaluation of an agricultural property to be converted into another use. The guidance is envisioned as being most relevant to sites on which schools will be constructed or for residential use. However, it does apply to any project with DTSC oversight. Properties not subject to this guidance include former agricultural property that has been graded for construction or other purposes, land used exclusively for grazing or pasture, most dry-land farming fields, and sites that were agricultural properties prior to 1950. The subject site would be an exempted site as it was dry farmed land.

DEIR Section 4.8.1.1 states that the number of soil samples taken at the subject site during the many Phase I ESAs has demonstrated that pesticide use was infrequent and limited over the site, and are at levels that are below regulatory requirements for residential property. These are the baseline conditions with respect to pesticide use at the site. The herbicide commonly called 2, 4-D or 2,4-

Dichlorophenoxyacetic acid is the 3rd most common herbicide used in the United States. It can be purchased at retailers like Home Depot. It has a half-life of about 2 weeks. So in 6 months there is less than 0.5 percent of the original product in the soil, therefore, this is not a significant soil contamination issue.

In terms of sample frequency, the sampling pattern should be sufficient to characterize the site. The guidance, done for school and residential properties, apparently interprets this as a range for properties from one acre to fifty acres (with the number of each of the following categories increasing every few acres), of between 4 and 60 borings, 4 and 15 composite organo-chloro-phosphate (OCP) samples. For acreages greater than 50, consultation with the DTSC is required. However, mitigation of frequency is available to sites based on documentation of consistent ownership, operator, and use. It should be noted that none of our samples were composites but all were discrete samples, so they are more representative of what is actually on the properties. The DTSC's document is a guidance document for school sites and residential properties not those that are to be commercial/industrial. The intent is to avoid having children (schools, residential) from coming in contact with soils with high levels of OCPs.

The bottom line is there are no significant OCPs present on the site. The trace amounts detected in our sampling probably represent the presence of an irrigated crop, such as watermelons, or potatoes at one time, on portions of the property. None to trace amounts of OCPs, orders of magnitude below any regulatory level for residential property, were detected in all of our 50 plus samples over the site.
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Response to Comment F-7A-8. Responses are provided for specific comments regarding storm water impacts on water quality. Refer to Responses to Comments F-1-38, F-1-78, F-5-10, F-5-12, F-5-13, F-5-15, F-5-16, F-5-22, F-5-23, and F-7B-5.

Response to Comment F-7A-9. The commenter believes the EIR has not adequately evaluated the project's cumulative impacts or recommended mitigation for loss of agriculture, biological resources, or air quality. The commenter is encouraged to review the revised and new agricultural reports (FEIR Volume 2 Appendices C-2 and C-4, respectively), the revised biological reports (FEIR Volume 2 Appendices E-1 through E-4), and the revised air quality report (FEIR Volume 2 Appendix D) for a more thorough evaluation of the programmatic and cumulative impacts of the project on these environmental issues. The FEIR explains that additional mitigation (MM 4.2.6.1A – see Response to Comment F-7A-39) was added in response to comments for agriculture (i.e., acquisition of an offsite conservation easement for loss of farmland), and revised mitigation measures for biological resources and air quality (FEIR Volume 2, Sections 4.4 and 4.3, respectively). Each of those sections of the DEIR did examine potential cumulative impacts of the WLC project on those environmental issues, which was based on growth projections in the City's General Plan and regional Southern California Association of Governments (SCAG) documents. There has been no evidence provided that would indicate why the cumulative analysis was inaccurate or inappropriate, and the rationale for the design of the cumulative analysis was clearly outlined in Section 2.10 of the DEIR. The analysis of cumulative impacts in the DEIR is adequate under California Environmental Quality Act (CEQA) for this project.

Based on the revised DEIR and the (Western Riverside County) Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis (FCS-MBA 2013 - FEIR Volume 2, Appendix E-1), the cumulative impacts are based on updated and accurate data collected during the 2013 survey season. CEQA requires the discussion of the cumulative impacts of proposed projects. The WLCSP was assessed based on closely related past, present, and future projects that may be developed in the foreseeable future. These guidelines allow for either a List Method or a Regional Growth Projection Method. Since the WLCSP is a program-level document, the Regional Growth Project Method is an appropriate methodology to evaluate cumulative impacts. The significant impacts

associated with the WLCSP were assessed based on the contribution to cumulative impacts on a regional basis.

Adoption of the City of Moreno Valley General Plan EIR did not result in significant direct impacts to existing biological resources; however, adoption of the General Plan would lead to future indirect impacts through approval of development projects within the City of Moreno Valley.

Project-related impacts resulting in quantifiable direct impacts to biological resources would be addressed subsequently through analysis at a lower tier, project-specific level of environmental review. MMs 4.4.6.1A-B, 4.4.6.2A-B, 4.4.6.3A-C, and 4.4.6.4A-I, as listed in the DEIR, will reduce the project related impacts to a level less than significant. As a result, the contribution of impacts associated with projects within the WLCSP are fully mitigated and will reduce the cumulative impacts of the WLCSP to a less than significant level.

The WLCSP is located within the Central Planning Area of the City of Moreno Valley General Plan. The CDFW Conservation Buffer Area is located within the San Jacinto Wildlife Area - Mystic Lake Planning Area. Under the General Plan, further environmental review at the project-specific level will be required to minimize the risk of unmitigated impacts being authorized through adoption of the WLCSP.

The following mitigation measures were adopted for the General Plan to provide assurances that potential significant biological impacts associated with the implementation of the proposed General Plan Update would be mitigated. Subsequent project-level environmental review could identify more detailed site-specific mitigation measures. Impacts to Stephens' kangaroo rat, sensitive plant and wildlife species, and Riverine/Riparian Habitat associated with drainage features, could be considered a cumulative impact without mitigation. The following mitigation measures are required under the General Plan and the WLCSP EIR proposes MM 4.4.6.1A-B, 4.4.6.2A-B, 4.4.6.3A-C, 4.4.6.4A-I to reduce project-related impacts to a level less than significant:

1. Private development projects within the City shall comply with the Long-term Habitat Conservation Plan (HCP) for the Stephens' Kangaroo Rat.
2. Private development projects shall comply with the Western Riverside County Multi-Species Habitat Conservation Plan and the associated state and federal permits.
3. Where feasible, projects shall be designed to minimize impacts on sensitive habitat.
4. Prior to physical disturbance of any natural drainage course or wetland determined to contain riparian vegetation or otherwise qualify as a "jurisdictional" wetland or Non-wetland Water of the U.S., the applicant shall obtain a Streambed Alteration Agreement and/or permit, or written waiver of the requirement for such an agreement or permit, from all resource agencies with jurisdiction over such areas (CDFW and USACE).

The long-term HCP for the Stephens' Kangaroo Rat (SKR) was designed to compensate for the loss of SKR individuals and SKR habitat on a regional basis. A total of 48 acres of suitable habitat for SKR occurs within the WLCSP area. Future projects that impact suitable habitat would significantly impact SKR. Projects that are consistent with the requirement of the long-term HCP for SKR would not result in significant project-level impacts, and therefore would also not result in cumulative impacts to SKR on a regional basis. A mitigation fee is required on a project-level basis and is based on the overall size of the project site. Payment of the mitigation fee will reduce the level of impacts to a less than significant impact. The mitigation fees are used to purchase land within the core conservation areas for SKR.

Portions of the WLCSP contains non-native grasslands and Riversidean sage scrub. The past habitat loss along with potential; future development is a potentially significant impact with regard to raptor

foraging habitat, especially for those raptor species that are over-wintering in the Moreno Valley area. The MSHCP has been designed to compensate for the loss of biological resources throughout western Riverside County, and cumulative impacts to existing biological resources resulting through increased future development have been addressed in the MSHCP FEIR/EIS dated June 17, 2003. The MSHCP was designed to set aside large areas of native habitat necessary for the long-term conservation of sensitive plant and wildlife species, while at the same time providing a streamlined process for future development.

Therefore, future development projects within the planning area that conform to the MSHCP would not result in cumulatively considerable impacts for those biological resources adequately covered by the MSHCP. The MSHCP project fee will be used to purchase off-site mitigation lands that will partially compensate for significant impacts associated with raptor foraging habitat. Implementation of MMs 4.4.6.1A-B, 4.4.6.2A-B, 4.4.6.3A-C, and 4.4.6.4A-I will reduce the project related impacts to a level less than significant. Subsequent CEQA review will be required on a project-by-project basis to ensure conformance with the MSHCP and future implementing plans/ordinances at the project-specific level.

The commenter also questions the analysis of cumulative biological impacts from the project. However, as with agricultural impacts described above, the WLC project would be the single largest project in the surrounding area to potentially affect biological resources because much of the remaining open land is owned by the state and already set aside for habitat and species conservation (e.g., Lake Perris, Mystic Lake, SJWA). In response to many comments about cumulative raptor foraging habitat, the MSHCP consistency report and DEIR Section 4.4 were revised to include an analysis of the effect the loss of the WLC property would have on regional raptor foraging habitat. The revised DEIR section concluded these impacts were potentially significant, but that payment of the established MSHCP mitigation fee, which would eventually result in the preservation of thousands of acres of open space habitat and conservation land, represents appropriate mitigation and impacts would be less than significant with payment of that mitigation fee.

For resources not covered adequately by the MSHCP, additional mitigation may be necessary. Any impacts to wetlands or non-wetland waters of the US or waters of the state are cumulatively considerable. Compliance with federal and state regulations (implementation of mitigation measures identified in the Biological Resources Section 4.4 in the DEIR) is expected to reduce these impacts to a level below significance or less than cumulatively considerable. Impacts to non-covered sensitive species or resources resulting from the Land Use Alternatives are not expected to be cumulatively considerable.

The commenter claims that the DEIR's entire cumulative impacts analyses are based on outdated and inaccurate summary of projections. The DEIR also fails to adequately analyze and mitigate the Project's cumulative impacts for agricultural resources and air quality.

The DEIR addresses all potential impacts, is based on the best available data, and applies all feasible mitigation to reduce impacts. However, regarding air quality, mitigation does not reduce cumulative impacts to below a level of significance. Refer to the response to comments which follow. The commenter does not indicate how the summary of projections is either outdated or inaccurate. The air quality analysis provides the most relevant air quality data with regard to cumulative impacts drawing on both regional air quality trends, analysis of the assumptions contained in South Coast Air Quality Management District's (SCAQMD's) Air Quality Management Plan, and analyses conducted by the SCAQMD as part of the Multiple Air Toxics Exposure Study (MATES)-III study. Together, this detailed information provides the basis for cumulative analysis and determination.

The analysis of cumulative agricultural impacts is actually less dependent on growth projections because the WLC project would be the single largest project in the surrounding area to convert

agricultural land to development, as much of the remaining open land is owned by the state and set aside for conservation (e.g., Lake Perris, Mystic Lake, SJWA). In response to many comments about direct and cumulative agricultural impacts, the applicant has agreed to provide a conservation easement on offsite agricultural land to mitigate for the loss of unique farmland. It should be noted that the revised agricultural assessments determined the loss of farmland of local importance was in fact not significant under CEQA based on the results of the revised LESA model (see FEIR Section 1.6 for more information).

Response to Comment F-7A-10. The alternatives analysis did identify several alternatives to the project that would lessen some of the significant environmental impacts of the WLC project. However, it must be remembered that any development project of this size would create significant environmental impacts, including air quality, traffic, noise, etc. For example, under the current SCAQMD thresholds, only an alternative that was substantially smaller (i.e., less than 2.5 percent or 1 million square feet) of warehousing would have less than significant air quality impacts. This drawback of the project size was discussed in the introduction to the alternatives section. As shown in DEIR Table 6.S, Alternative 1 (Less Intense Development) reduces air quality, greenhouse gas, and noise impacts of the proposed project, but not to less than significant levels mainly due to the size of the alternative land use plan. Any substantial development project on the WLC property that produces a large amount of new employment (e.g., office, commercial, light industrial) would result in a number of significant impacts such as traffic, air quality, noise, etc., many of which would be similar to those of the proposed WLC project, including truck exhaust pollution issues which would also be generated by light industrial and commercial uses. Therefore, the DEIR correctly rejected Alternative 1 in favor of the proposed project because Alternative 1 would not reduce one or more significant impacts of the proposed project and did not meet the goals of the project as well as the proposed project.

Response to Comment F-7A-11. A large number of comments on the DEIR have been received and responded to. They are included in Volume 1 of the FEIR. The DEIR has been revised to incorporate the information in the responses and has been presented in both redlined (FEIR Volume 2) and clean versions (FEIR Volume 3) so that the changes can be easily identified. The FEIR, including the DEIR as revised, adequately describes and analyzes the project and its impacts and, where appropriate, sets forth appropriate mitigation measures.

While some of the responses contain new information, the new information does not show the existence of new significant environmental impacts nor does it show any substantial increase in the severity of environmental impacts previously identified. Further, the FEIR, which includes the responses to the comments, will be made available for public review prior to the City Council's determination whether to certify the EIR as having been prepared in compliance with CEQA.

Response to Comment F-7A-12. The commenter has accurately summarized the project characteristics that were evaluated in the DEIR, however, several minor changes have been made to the project description since the time the DEIR was circulated, so the commenter should review Section 1.3 of FEIR Volume 1 for additional information in this regard.

Response to Comment F-7A-13. There is no way of verifying the claims of the commenter regarding where its members live, or that hundreds of its members will be impacted by development of the WLC project. However, the City acknowledges the WLC project may result in air pollutant-related health impacts to many residents in the City and surrounding communities, especially those along the SR-60 and other freeways that would serve WLC project traffic. Refer to Master Response-2 in Letter C-3 addressing air quality and health risk.

Response to Comment F-7A-14. The commenter claims that construction workers will be exposed from air pollution emissions from poorly maintained or controlled construction equipment. This potential impact is mitigated by MM 4.3.6.2A, which among other things requires the following: construction equipment shall have Tier 4 engines (which are the cleanest on the market), construction

equipment shall be properly maintained according to manufacturer specifications, construction equipment and vehicles shall be turned off when not in use, onsite idling is limited to three minutes in any one hour, etc. Therefore, the construction equipment will be properly maintained and the emissions are controlled.

In addition, the commenter again mentions the possible risks related to hazardous materials on the project site. The commenter is referred to Response to Comment F-7A-7.

Response to Comment F-7A-15. The City acknowledges the commenter's summary of CEQA requirements regarding goals, alternatives, and abuse of discretion is relatively accurate. The EIR complies with the intent and legal requirements of CEQA in these regards.

Response to Comment F-7A-16. Please see the Response to Comment F-7A-11.

Response to Comment F-7A-17. The DEIR has provided an accurate assessment of baseline conditions on the project site, including those related to hazardous materials, as is discussed later in these comments and responses (refer to Responses to Comments F-7A-18 through F-7A-24). The information provided in this section by the commenter consists mainly of excerpts from CEQA and court cases that dealt with baseline issues.

Response to Comment F-7A-18. The commenter believes the Phase 1 documents for the project site do not provide an accurate assessment of current soil conditions. The City disagrees and contends the many Phase 1 reports done on many parcels throughout the WLC property and over a long period of time constitutes an extensive random sampling of the onsite soils, and demonstrate the site does not contain widespread soil contamination from pesticides. Dry farming does not use a variety of agricultural chemicals because it relies on ambient rainfall and other conditions to support the limited crops grown on the site. Many of the organo-chloro-phosphate (OCP) based chemicals used for more intensive irrigated crops are not used in dry farming due to their cost and lack of irrigation to distribute the chemicals. In addition, the chemicals used in dry farming typically break down quickly in the soil and are not broadcast but rather applied by hand sprayers, so any applications would be necessarily limited. There is no practical reason why intense crop herbicides or pesticides like dichlorodiphenyltrichloroethane (DDT) would be used in conjunction with dry farming in general, and there is no evidence such chemicals were used on the WLC site in the past. In fact, onsite soil sampling conducted for the Phase 1 reports found no evidence of significant OCP contamination on the WLC site. The chicken ranch and related facilities that were on the site for a time are in the process of being removed, including any surficial materials with waste products. There has been no empirical evidence presented that would demonstrate there is actual contamination by agricultural chemicals or wastes on the WLC site.

Response to Comment F-7A-19. The commenter suggests the site has inadequate soil sampling and refers to a DTSC publication for guidance (suggests dichlorodiphenyltrichloroethane (DDT) or dichlorodiphenyldichloroethylene (DDE) may be present). As outlined in the previous Response to Comment F-7A-18, there is no reason to believe or evidence to demonstrate that the site is actually contaminated by OCPs such as DDT or DDE. The references cited by the commenter are general for those chemicals and are not specific to the WLC project site, and do not demonstrate that these chemicals were specifically used on the WLC site. However, the commenter does cite more recent data from the DTSC in later comments that indicates which pesticides and other agricultural chemicals have actually been used on the project site (see Responses to Comments F-7A-21 and 22 below for details).

Response to Comment F-7A-20. The commenter suggests construction workers may be exposed to hazardous chemicals from past agricultural activities during project grading. There has been no evidence presented that actually demonstrate the WLC site has significant pesticide or other

contamination related to past or ongoing agricultural activities (see Responses to Comments F-7A-19, -21, and -22 below for details). Therefore, there is no reason to believe that construction workers will be exposed to significant levels of hazardous materials during grading.

Response to Comment F-7A-21. Comments were made about the Phase I ESAs completed for the project. The commenter believes the assessment is outdated and inadequate. The project site is currently used for wheat cultivation but no samples were collected in association with the 2013 Phase I ESA. The commenter believes because the project site is still used for agricultural purposes, relying on sampling results from eight years ago will not reflect pesticide residuals that may exist in site soils from agricultural use of the site from 2005 to present-day. The commenter also believes additional pesticide sampling, to include 2, 4-D, 2-ethylhexyl ester, and any other pesticides that may have been used for wheat farming, should be conducted.

According to records from the DTSC provided by the commenter, dry farmed agricultural properties of the WLC project site have had pesticides like 2,4-Dichlorophenoxyacetic acid, commonly called 2, 4, D applied in the past. 2, 4 D is the 3rd most common herbicide used in the US and can be purchased at retailers like Home Depot and Lowes. 2,4 D has a half-life of a few days to two weeks, depending on site conditions (available water, sun etc.). Within a few months after application, the residual amount of pesticide is less than 1 percent. Dry farming operations, and any pesticide application, will have ceased well before the actual grading of the site, and any current pesticide application, will have biodegraded to less than significant levels. 2,4 D was the most common pesticide applied to the site, often combined with Agri-Dex (as indicated in the DTSC records) which is used as a wetting agent to increase absorption of the 2, 4 D. The DTSC records indicate these chemicals were applied to grapes on the site, but there are no areas of cultivated grapes at present on the WLC site. It is possible some of these materials were used on the rural residences on the site, however the 2, 4 D and Agri-Dex were by far the most common chemical used on the site by weight in 2010, which accounted for almost a thousand pounds of chemical applied. Other chemicals applied to properties within the WLC site during that time include pyrethrins, spinosad, beta-cyfluthrin, sulfur, “Roundup” (glyphosate), “scythe, and rimsuffuron mainly as herbicides and fungicides, but less than one pound of each of these materials was typically applied at a given time, so the overall potential exposure is considered to be relatively minor at present. Therefore, there is no evidence there will be adverse environmental impacts on adjacent property owners or WLC site workers from past pesticide applications at the site, including 2, 4 D. However, to err on the side of caution, MM 4.8.6.1A has been modified to include soil sampling for agricultural chemicals prior to grading of the 7 rural residential lots where it is possible more chemical materials were applied in more concentrated locations than broadcast on large wheat fields.

Response to Comment F-7A-22. The commenter expresses concern about pesticide exposure for the 7 onsite rural residences especially to 2,4-Dichlorophenoxyacetic acid. As outlined in Responses to Comments F-7A-18 and F-7A-21, the City does not believe the site contains significant soil contamination that would affect onsite workers or residents of the 7 rural residences. In addition, the main pesticide of concern cited by the commenter has a short life (half-life of a few days to two weeks) and breaks down quickly in the soil when present. However, MM 4.8.6.1A will be modified to include soil sampling for agricultural chemicals prior to grading of the 7 rural residential lots.

Response to Comment F-7A-23. Comments were made that the DEIR’s baseline regarding hazardous materials or conditions was not accurate because it did not include the entire project area.

The Phase I ESA (January, 2013) has been amended to include these parcels. The parcels are and have been historically the same as the adjacent parcels, that is vacant, and/or dry farmed land. The inclusion of these parcels into the Phase I ESA does not change the conclusions and recommendations presented in that report, (see attached Addendum Letter dated October 22, 2013 located in FEIR Volume 2, Appendix I).

Response to Comment F-7A-24. Based on the updated DEIR and the MSHCP Consistency Analysis (FCS-MBA 2013 - FEIR Volume 2, Appendix E), the cumulative impacts are based on updated and accurate data collected during the 2013 survey season. An updated cumulative impact section fully analyzes all WLCSP cumulative impacts and determined that there would be no significant impacts with implementation of the project mitigation identified FEIR Volume 2 Section 4.4.

Response to Comment F-7A-25. The DEIR did not identify the loss of raptor foraging habitat as a potentially significant impact due to the lack of significant prey base and poor quality foraging habitat. Based on the revised DEIR and the MSHCP Consistency Analysis (FCS-MBA 2013 - FEIR Volume 2, Appendix E-1), the loss of low-quality foraging habitat remains unchanged and is still not considered a significant impact.

Although the findings the McCrary, et al. and the Beckman, et al. reports are not discounted, the WLCSP is dominated by routinely disked agricultural fields that are dry-land farmed and rely on natural rainfall for irrigation. The McCrary, et al. and the Beckman, et al. reports are based on survey areas with much different foraging habitats than foraging habitat associated with the WLCSP. The vegetation communities within the WLCSP do not provide moderate to high quality foraging habitat for sensitive raptor species. The majority of the suitable foraging habitat in the vicinity of the WLCSP area includes artificially irrigated alfalfa fields, grain crops, and dairy farms.

Due to the relatively close proximity of the SJWA, which contains moderate to high quality raptor foraging habitat, there is a potential for the loss of low-quality foraging habitat for California fully protected species such as golden eagle and white-tailed kite. Any impact to California fully protected species is considered a potentially significant impact requires mitigation. These species are considered covered under the MSHCP and payment of the MSHCP Development Fee may be used to purchase off-site habitat within core conservation areas that will provide long-term conservation of moderate to high quality foraging habitat. However, the WLCSP does not have more than moderately suitable foraging habitat for the loss of 2,610 acres of foraging habitat in a region with thousands of acres of foraging habitat would not be considered significant with the implementation of the following new MM 4.4.6.4C has been added to FEIR Volume 2 Section 4.4.6.3:

4.4.6.4C The loss of foraging habitat for golden eagle and white-tailed kite will be mitigated by payment of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) fee and the creation of a landscaped buffer area adjacent to the San Jacinto Wildlife Area property (SJWA). First, the payment of the Western Riverside County Multiple species Habitat Conservation Plan fee will be required on a project-by-project basis. Second, a 250-foot setback as described in Mitigation Measure 4.4.6.1A will be established within the World Logistics Center Specific Plan area. This area will reduce impacts to raptor species foraging in the adjacent San Jacinto Wildlife Area open space areas.

Response to Comment F-7A-26. In response to comments on the DEIR, the MSHCP Consistency Analysis (FCS-MBA 2013 - FEIR Volume 2, Appendix E-1) included an updated 2013 burrowing owl survey. The 2013 burrowing owl survey complied with all applicable MSHCP guidelines for conducting burrowing owl surveys. The previous burrowing owls surveys (2005, 2007, and 2010), were included in the DEIR as additional information to provide background information regarding burrowing owl. The 2013 surveys began with a complete survey of the entire WLCSP area, including off-site improvement areas. All surveys were conducted on foot and no portion of the WLCSP was surveyed by vehicle. A total of five biologists conducted surveys over a three day period to cover the entire WLCSP area. All potential burrow sites were identified and mapped. All suitable habitat areas, which included these burrow locations, were surveyed on four separate occasions, approximately one week apart.

A single burrowing owl pair was observed onsite during the 2013 survey season. The pair is considered a nesting pair and at least one of the fledglings was killed shortly after fledging the nest. The owl was most likely killed by a feral dog, which are known to occur within the project site, but was not confirmed. Because of the different kind of surveys that have been conducted on the project site and the number of surveys over the last 8 years, burrowing owl populations have been monitored over the years.

The first burrowing owl observation was made on May 10, 2005. The first burrowing owl was observed just south of Dracaea Avenue at the western end of a windrow. The actual burrow was not observed because it was located beneath a stack of trash and debris that was stack on the side of a dirt berm. In an attempt to minimize impacts to potentially nesting burrowing owls, there was no attempt to remove the debris to find the burrow. However, this area was resurveyed during the 2007, 2010, and 2013 focused surveys and no burrowing owls were observed.

During a wetland delineation survey, a burrowing owl individual was observed within the detention basin located at the north end of the WLCSP, south of the Skechers facility. This individual burrowing owl was not observed in any nesting or courtship behavior. Following the wetland delineation fieldwork, the project site was visited on a number of subsequent site visits to check on the status of the burrowing owl. This information was not included in the burrowing owl survey, because it was not part of a burrowing owl protocol survey. The detention basin was visited in June and July 2012 and no burrowing owl were observed.

Based on the number of surveys conducted within the project site and the recorded occurrences of burrowing owl, nesting activities has only been recorded to occur in 2005 and 2013. Burrowing owl has only been recorded in 2005, 2012, and 2013. Although infrequent, it appears that at least one pair of burrowing owl is a breeding season resident within the project site. However, there has been no observation of burrowing owl within a Criteria Cell. Any impact to a single breeding pair of burrowing owl located outside of a Criteria Cell does not require conservation under MSHCP guidelines. If more than three pairs of burrowing owl are observed within the WLCSP, conservation of 90% of the suitable habitat will be required until the conservation goals for burrowing owl as described in the MSHCP are met.

MM 4.4.6.4A, B, and D requires a pre-construction clearance survey for burrowing owl be conducted by a qualified biologist no more than thirty (30) days prior to any grading or ground disturbing activities for all projects with the WLCSP.

If construction is to be initiated during the breeding season (February 1 through August 31) and burrowing owl is determined to occupy any portion of the proposed ground-disturbing activity during the 30-day pre-construction survey, construction activity shall maintain a 500-foot buffer area around any active nest/burrow until it has been determined that the nest/burrow is no longer active, and all juveniles have fledged the nest/burrow. If this avoidance buffer cannot be maintained, consultation with the CDFW shall take place and an appropriate avoidance distance established. No disturbance to active burrows shall occur without appropriate permitting through the Migratory Bird Treaty Act and/or CDFW.

If active burrowing owl burrows are detected outside the breeding season (September through January), or within the breeding season but owls are not nesting or in the process of nesting, passive relocation may be conducted following consultation with the CDFW. A relocation plan may be required by CDFW if passive relocation is necessary. Artificial burrows locations will be identified in a Burrowing Owl Relocation Plan, which will be approved by CDFW prior to burrowing owl relocation. Construction activity may occur within 500 feet of the burrows at the discretion of the biological monitor.

Response to Comment F-7A-27. Protocol surveys for Los Angeles pocket mouse (LAPM) were conducted within all suitable habitat areas within the WLCSP, including off-site improvement areas during the 2013 survey season. Since there is no formally written protocol for LAPM, the survey protocol for Pacific pocket mouse (a federally endangered species) was utilized. The Pacific pocket mouse is a subspecies related to the LAPM. Protocol surveys were also conducted in 2010 and 2012. No LAPM were observed during any of the surveys. Based on Riverside Conservation Authority (RCA) data, no recorded occurrences of LAPM occur within the vicinity of the WLCSP. This species is considered absent from the WLCSP and there will be no project related impacts to LAPM. Therefore, no mitigation measures are required.

Response to Comment F-7A-28. Under the MSHCP, protocol level plant surveys are required within areas designated as Narrow Endemic Plant Survey Areas as well as Cell Criteria Plant Survey Areas (MSHCP Section 6.3.2). There are no portions of the WLCSP that fall within a designated Narrow Endemic Plant Survey Areas and/or Cell Criteria Plant Survey Area (FCS-MBA 2013 - FEIR Volume 2, Appendix E-6). Therefore, protocol surveys are not required for those species that are considered covered under the MSHCP. Focused plant surveys were conducted in 2010 to identify sensitive plant species that were not covered by the MSHCP or are conditionally covered by the MSHCP. The entire WLCSP was assessed to determine the suitable habitat areas that require surveys. It was determined that the suitable habitat areas did not include the entire WLCSP are, but was limited to the undisturbed portions of the WLCSP, which typically includes the drainage features.

The 2010 focused plant survey was conducted within the four drainages of the WLCSP that contain suitable habitat for sensitive plant species within the appropriate flowering period for the sensitive plant species that potentially occur within the project site. The surveys were conducted based on CDFW approved sensitive plant survey protocol. The Riversidean Sage Scrub communities within the survey area are not within the proposed development footprint and will not be impacted by project development. At this point, impacts to sensitive plant species are not expected to occur within the WLCSP.

However, recent surveys were not conducted within the WLCSP because of the extended drought conditions, which has resulted in less than average rainfall since the 2010 surveys were conducted. Since the development of the WLCSP may take up to 15 years, updated focused plant surveys may be required as part of the project specific assessment required for the CEQA process, but will not be required for any Narrow-Endemic or Criteria Cell Plant species. The WLCSP is not located within the survey area for any Narrow-Endemic or Criteria Cell Plant species.

Response to Comment F-7A-29. In response to comments on the DEIR, an updated MSHCP Consistency Analysis (FCS-MBA 2013, FEIR Volume 2, Appendix E) was prepared including an updated list of special-status wildlife species, as designated by the USFWS and CDFW. The list of species includes Northwestern San Diego Pocket Mouse, San Diego Desert Woodrat, Bell's Sage Sparrow, White-tailed Kite, and Ferruginous Hawk and Merlin. All of these species are covered under the Western Riverside County MSHCP. American Badger and Western Yellow Bat are not covered under the MSHCP and grasshopper sparrow is a conditionally covered species under the MSHCP, but these species are not likely to occur within the project site.

Seven Northwestern San Diego pocket mouse were captured during the 2010 surveys and seventeen Northwestern San Diego pocket mouse were captured in 2013. Development of selected portions of the WLCSP will have an adverse effect on Northwestern San Diego pocket mouse. The only place within the WLCSP that contains suitable habitat and is considered occupied for Northwestern San Diego pocket mouse is within Drainage 9 south of Alessandro Boulevard and north of the existing gas pipeline. Northwestern San Diego pocket mouse is a covered species under the MSHCP; therefore, mitigation for adverse effects on Northwestern San Diego pocket mouse will require payment of the MSHCP fee. It should also be noted that Drainage 9 will remain as an open drainage feature with

several erosion control modifications, such as drop structures or other similar device, and will be regraded along the northern portion of the drainage to provide a more gradual transition at the Alessandro Boulevard crossing.

Response to Comment F-7A-30. Eight San Diego desert woodrat were captured during the 2010 surveys and a single San Diego desert woodrat was caught during the 2013 surveys. Development of selected portions of the WLCSP will have an adverse effect on San Diego desert woodrat. The only place within the WLCSP that contains suitable habitat and is considered occupied for San Diego desert woodrat is within Drainage 9 south of Alessandro Boulevard and north of the existing gas pipeline and within the northern portion of Drainage 8, just north of Gilman Springs Road, in a potential off-site detention basin location. San Diego desert woodrat is a covered species under the MSHCP, therefore mitigation for adverse effects on San Diego desert woodrat will require payment of the MSHCP fee. It should also be noted that Drainage 9 will remain as an open drainage feature with several erosion control modifications and will be regraded along the northern portion of the drainage to provide a more gradual transition at the Alessandro Boulevard crossing. Drainage improvements may occur within the active channel of Drainage 8, just north of Gilman Springs Road. If this location is selected for a detention basin, the basin will be incorporated with the existing channel to minimize impacts to this species as a project design feature.

Response to Comment F-7A-31. Based on the revised MSHCP Consistency Analysis (FCS-MBA 2013 - FEIR Volume 2, Appendix E), all American badger recorded occurrences within the vicinity of the project site have been limited to the Badlands area north and east of the WLCSP. No evidence or observations of American badger have occurred during the 8 years of surveys within the WLCSP. American badger is known to occur within the rolling foothills adjacent to valley areas. This species is typically not found within areas of cultivated soils. Therefore, it is unlikely that this species occurs within the WLCSP. It was given a low-potential to occur within the project site, due to the close proximity of suitable habitat, which is associated with the Badlands area north of Gilman Springs Road. It is highly unlikely that the American badger would utilize any portion of the WLCSP and therefore no adverse effect will occur and no mitigation will be required.

Response to Comment F-7A-32. Based on the revised MSHCP Consistency Analysis (FCS-MBA 2013 - FEIR Volume 2, Appendix E), the western yellow bat occurs in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. It has also been observed within native and non-native palm trees in more urbanized areas, but is commonly found near water features such as stock tanks, ponds, streams, and rivers. There are no such water features within the WLCSP. Although a few palm trees are still standing within the WLCSP, they have been unmaintained for years and are in poor health. Most of the palms have lost their skirt of dead fronds and therefore, no longer provide suitable roosting habitat. This species is unlikely to occur within the WLCSP and no further mitigation is required.

Response to Comment F-7A-33. A single incidental observation of Bell's sage sparrow was observed during a burrowing owl survey in 2005. This is the only recorded observation of this species within the WLCSP during the last eight years of surveys. This species is considered present within the project site, although its presence is limited (FCS-MBA 2013 - FEIR Volume 2, Appendix E). Bell's sage sparrow is a covered species under the MSHCP; therefore, mitigation for adverse effects on Bell's sage sparrow will be satisfied by payment of the MSHCP Development Fee.

Response to Comment F-7A-34. The reference to grasshopper sparrow as present within the WLCSP was incorrect and has been corrected. The DEIR references the presence of grasshopper sparrow from a previous burrowing owl protocol survey, but the DEIR does not reference the date of the survey. Based on a review of the 2005, 2008, 2010, 2012, and 2013 burrowing owl survey reports, this species was not observed.

Also, based on the revised MSHCP Consistency Analysis (FCS-MBA 2013 - FEIR Volume 2, Appendix E), grasshopper sparrow is not likely to occur within the project site. This species is commonly found in grasslands, but may also be found in prairies, old fields, some agricultural fields, and open savannas. This species is an uncommon and very local summer resident on grassy slopes and mesas west of the deserts. Since grasshopper sparrow in not likely to occur within the WLCSP, no additional mitigation measures are required.

Response to Comment F-7A-35. White-tailed kites are considered present within the project site (FCS 2013). This species is listed as California fully protected species. The CDFW does not provide incidental take authority for any state fully protected species, unless specifically covered under a MSHCP. Impacts to white-tailed kites are considered a potentially adverse impact. White-tailed kites are covered under the MSHCP (Section 2.1.4) and therefore payment of the MSHCP fee will fully mitigate for adverse impacts to white-tailed kites.

In addition, nesting activities of white-tailed kites are also protected under the Federal Migratory Bird Treaty Act. MMs 4.4.6.4A and 4.4.6.4B outlined in the DEIR will be required on a project-by-project basis to reduce impacts to nesting birds and burrowing owls to less than significant levels.

Response to Comment F-7A-36. Both ferruginous hawk and merlin have a low potential to occur within the project site due to a lack of suitable foraging habitat. Ferruginous hawk typically occur in open grasslands, sagebrush flats, desert scrub, low foothills, and fringes of pinyon-juniper habitats. It has also been observed in irrigated croplands in southern California during the winter. Merlin commonly occur within seacoast, tidal estuaries, open woodlands, savannahs, edges of grasslands and deserts, farms and ranches. Clumps of trees or windbreaks are required for roosting in open country.

Although it is unlikely that ferruginous hawk and merlin occur within the WLCSP, it cannot be completely ruled out. Therefore, the loss of foraging habitat for ferruginous hawk and merlin may be considered an adverse impact but less than significant, based on the poor quality of habitat.

The loss of low-quality foraging habitat is not a potentially significant impact and will not require mitigation (FCS-MBA 2013 - FEIR Volume 2, Appendix E). The WLCSP is dominated by routinely disked agricultural fields that are dry-land farmed and rely on natural rainfall for irrigation. This type of habitat does not provide moderate to high quality foraging habitat for sensitive raptor species. However, raptor species, such as golden eagle and white-tailed kite, may utilize the project site for foraging. Impacts to these California fully protected species is considered a potentially significant impact that require mitigation. Due to the close proximity of the SJWA, which contains moderate to high quality raptor foraging habitat, impacts to the WLCSP will require mitigation to off-set potentially significant impacts. The MSHCP Development Fee, may generate as much as $14 million in fees, which may be used to purchase land to contribute to the core conservation areas established under the MSHCP. This land will be used to compensate for the loss of low-quality raptor foraging habitat. However, payment of the MSHCP fee will reduce the project related impacts to low-quality raptor foraging habitat to a less than significant level by the long-term acquisition of land that supports raptor foraging, as outlined in the MSHCP (FEIR Volume 2 Appendix E-1).

Response to Comment F-7A-37. An updated wetland delineation report (2013 - FEIR Volume 2, Appendix E-13) was prepared to address concerns regarding regulatory agency jurisdiction over the drainage features within the WLCSP. The previous jurisdictional delineation assumed CDFW jurisdiction over a select portion of Drainages 7 and 9. It also assumed that since the drainage features were all isolated and not likely under USACE jurisdiction that the drainage features were also not under RWQCB jurisdiction.

All identifiable and potentially jurisdictional drainages on the site were mapped and included in the draft Program EIR and the draft wetland delineation. Currently regulatory jurisdiction of the features is based on the existing regulatory guidance including the 1987 Regional Supplement to the USACE Wetland Delineation manual: Arid West Region and Rapanos guidance. Prior to any future development, specific project proposals will have to undergo separate environmental review under CEQA and will be required to secure a formal jurisdictional determination from the USACE as well as jurisdictional determinations from the RWQCB and CDFW.

MM 4.4.6.3A requires that the applicant shall secure a jurisdictional determination with the USACE and confirm with the RWQCB and CDFW to determine if drainage features mapped on the property are subject to jurisdictional authority and protection. If the features are subject to regulatory protection, the applicant will secure permit approvals with the appropriate agencies prior to initiation of construction.

The updated jurisdictional delineation report assumes CDFW jurisdiction over the entire length of Drainages 7, 8, 9, 12, and 15. In additional these areas are also under the jurisdiction of the RWQCB. A maximum of 5.0 acres may be under CDFW and RWQCB jurisdiction. It should also be noted that Drainages 12 and 15 are hydrologically connected to downstream waters of the US and are also under the USACE jurisdiction. Mitigation for impacts to no more than 5.0 acres of waters of the State will be mitigated by the creation of a minimum of 5.0 acres of habitat creation or purchase of credits at an approved mitigation bank. Revised MM 4.4.6.3A addresses potentially significant impacts to waters of the State (refer to Response to Comment A-1-1, F-1-10, F-1-15, F-7C-16, and F-8-19).

Any impact to drainage features that are under regulatory agency jurisdiction or are considered riparian/riverine areas under the MSHCP are considered potentially significant and will require compensatory mitigation at a minimum of a 1:1 mitigation ratio through onsite creation, off-site creation, or purchase of available mitigation credits through an approved mitigation bank. Compensatory mitigation will be negotiated during the permit acquisition process.

A Compensatory Mitigation Plan may be required for all unavoidable impacts and will be consistent with the USACE/USEPA's *Compensatory Mitigation for Losses of Aquatic Resources; Final Rule* and the USACE's *Standard Operating Procedure for Determination of Mitigation Ratios*.

In response to the general discussion regarding the adequacy of the investigation of the existence of all sensitive biological resource at the project site, it should be noted that a complete assessment of the biological resources within the WLCSP was updated during the 2013 field season. A review of the resource agencies comments regarding the Notice of Preparation provided the necessary information to adequately assess and analyses project related impacts to sensitive biological resources. Updated surveys were conducted for burrowing owl, LAPM, vegetation mapping, jurisdictional delineation, and possible off-site facilities. This update can be found in the MSHCP Consistency Analysis (FCS-MBA 2013 - FEIR Volume 2, Appendix E-1) and Determination of Biologically Equivalent or Superior Preservation (DBESP) Report (FCS-MBA 2013 - FEIR Volume 2, Appendix E-7).

Response to Comment F-7A-38. This comment is mainly excerpts from CEQA and the CEQA Guidelines, as well as several court cases related to significant impacts and the requirement to apply all feasible mitigation. The DEIR as amended does provide all feasible mitigation, yet due to the size of the project, some significant impacts will remain. Therefore a Statement of Overriding Considerations is required to be adopted by the City Council which demonstrates what overriding economic or other benefits the WLC project may have that outweigh the significant impacts.

Response to Comment F-7A-39. The commenter's statements about agricultural mitigation, as well as recent court cases on that topic, have led to the reconsideration of the issue of what is feasible mitigation for loss of agricultural land. Accordingly, the following mitigation measure is included in the FEIR Volume 2:

4.2.6.1~~B~~A Prior to the issuance of any grading permit affecting land designated as "Unique Farmland" (Figure 4.2.2 in the World Logistics Center EIR), an Agricultural Conservation Easement shall be recorded over land of equivalent or better agricultural economic productivity of the offsite easement property compared to the WLC property. The calculation of comparable agricultural productivity shall take into account soil conditions, drainage, irrigation limitations, and reasonable estimates of crop types and average yields for both sites. The form and content of this easement, as well as the estimates of agricultural productivity, shall be reviewed and approved in advance by the Planning Official.

This measure was added to address the loss of Unique Farmland which was identified in the revised Draft EIR as a significant impact of the WLCSP project. The EIR analysis was modified to incorporate data from a revised study and a new study of agricultural impacts based on the State LESA Model (see FEIR Volume 2 Appendix C-2).

Response to Comment F-7A-40. The region's benign climate and good soils have not been adequate to sustain the Inland Empire's agriculture industry. The region's purported transportation advantages have not been adequate to sustain the region's agriculture industry. Changes in the market economy have not been adequate to sustain the Inland Valley's agriculture market. Despite trends and different government programs, agriculture production and employment has generally continued to shrink in the Inland Empire. In fact, the Inland Empire region was dead last in agriculture production growth and agriculture employment growth between 2004 and 2010. Agriculture production shrank by 28% and agriculture employment shrank by 27% in that time period. This has occurred despite the fact that the production in the Inland Empire as a whole and agriculture production for the state as a whole modestly grew during that time period. Moreover, agriculture has become a diminishing segment of Inland Empire economy. In 2004, it accounted for 5.7% of the economy and by 2010, it accounted for 4.1%, representing a 28.1% decline in relative size. Sales to local markets have not been adequate to sustain the Inland Valley's agriculture market.

Response to Comment F-7A-41. The commenter acknowledges the DEIR concludes that loss of the "locally significant" agricultural land on the WLC project site is a significant impact. A new mitigation measure which would largely mitigate this impact, is outlined in Response to Comment F-7A-39 and is included in the FEIR Volume 2.

Response to Comment F-7A-42. The agricultural assessment for the WLC project (DEIR Appendix C) clearly outlines why "active" (irrigated, cultivated) agriculture is no longer viable in this portion of western Riverside County (DEIR Appendix C-1). The commenter states most of the WLC site is currently farmed, but fails to note it is dry farmed meaning minimal tillage and no there is no active irrigation (only natural precipitation). Dry farming is usually only marginally productive economically, and is only pursued when more active farming and more lucrative crops can be grown. As indicated in the Chang report (DEIR Appendix C), the most influential reasons for the economic decline of farming in this area are rising land prices as urban growth expands into rural areas, and rising water costs. The commenter argues against declining agriculture in this area, and cites data from the Riverside County Farm Bureau to support the argument. However, the commenter fails to note that as agriculture has declined in the western portion of the County, it has slowly moved out to more rural areas in the far southwest and eastern portions of the County (e.g., San Jacinto, Coachella Valley). This trend is the reason for the increased agricultural production numbers county-wide. In any event, the commenter should refer to Response to Comment F-7A-39 which outlines a new mitigation measure (MM 4.2.6.1A) that will protect agricultural land into the future. In addition, Response to Comment F-7A-45 explains why local groundwater cannot be used to irrigate onsite crops.

Response to Comment F-7A-43. The DEIR has been revised to require the project applicant obtain conservation easements over agricultural land so as to provide for the preservation of agricultural land of equal quality to that which will be converted to non-agricultural uses as a result of the development of the area subject to the WLCSP. See MM 4.2.6.1A in Response to Comment F-7A-39.

Response to Comment F-7A-44. The project does not propose the "loss of over 3,400 acres of active farmland" as stated in this comment. As stated in the DEIR (DEIR, page 4.2-16), the project will impact 25 acres of "Unique Farmland," and 2,610 acres of "Farmland of Local Importance." The additional LESA Model studies and the revised Draft EIR (FEIR Volume 2) determined that the only significant agricultural impact of the WLCSP project was the loss of the Unique Farmland, and the revised DEIR proposed a revised mitigation measure (MM 4.2.6.1A, offsite agricultural easement) to address this impact. See Response to Comment B-6-10 regarding the heritage farm mitigation (MM 4.2.6.1A) which has been eliminated in favor of the new mitigation measure language.

In response to comments received regarding the issue of the loss of agricultural resources, additional analysis was conducted on the subject by the Agribusiness, Natural Resources & Energy Practice Group of Cushman & Wakefield Western, Inc. Part of their analysis included the preparation of a LESA Model report to validate assumptions made in the DEIR. The Cushman & Wakefield analysis (FEIR Volume 2 Appendix C-4) determined that, contrary to the information in the DEIR, the project will impact 25 acres of unique farmland and 2,201 acres of farmland of local importance, but that only the loss of the Unique Farmland is considered a significant impact. Based on the corrected numbers and application of the LESA Model, as documented in the revised ag study and the new Cushman Wakefield study, the project's only impact on agricultural resources is the loss of Unique Farmland. Based on this revised information, it was determined that MM 4.2.6.1A (the 5-acre heritage farm) as no longer the most appropriate mitigation, but instead proposes revised mitigation language (offsite agricultural easement) as the most appropriate mitigation for project impacts to agriculture.

The reader should refer to Responses to Comments B-6-10 and F-7A-39 for information on an additional mitigation measure for loss of agricultural land, consistent with the commenter's recommendations.

Response to Comment F-7A-45. The commenter provides extensive information about potential crops that could be grown in the Moreno Valley area if economical reclaimed water was available. It should also be noted the recent study cited and prepared by the commenter was for a small parcel of land to raise organic vegetables, which have a much higher sales price than most typical row crops or other crops typically grown in this area.

At this time, reclaimed water is not economically available to the WLC project site, and would require an extensive network of irrigation pipelines to be installed to support raising irrigated crops on the site. When the cost of infrastructure improvements necessary to actually supply reclaimed water to the site are factored in, irrigated crops are not financially feasible over the long-term for the WLC property. In addition, local groundwater, which could be available via several onsite agricultural wells, cannot be used to irrigate crops due to its high nitrate and salinity. In the California LESA Model Report prepared by Cushman & Wakefield Western, Inc. December 2013 (FEIR Volume 2 Appendix C-4), it was noted "…the ground water quality is poor and would not be able to support production of high value crops needed to produce enough income to cover water costs. A water study provided from a 2012 well test revealed the ground water to be inadequate for most landscaping plants. In fact, the water's Total Dissolved Solids (TDS) level of 980 milligrams per liter (mg/L) exceeds the maximum level that the Eastern Municipal Water District (EMWD) has set for sewer water discharge (800 mg/L)."

EMWD monitors the West San Jacinto Ground Water Basin and has expressed concern with well water use on the project. These concerns revolve around overdraft of the groundwater basin and the shift in the migration of poor water quality into areas with good water quality. In addition, extensive

water use with crop production has the potential to leach more salts from the ground into the groundwater. In the Metropolitan Water District September 2007 "Groundwater Basin Reports - West San Jacinto Basins" they cited the consideration for the West San Jacinto Basins include: "*The primary constraint on groundwater extraction is poor water quality, which limits use of groundwater as a potable water source. Another related limiting factor involves controlling the migration of poor quality water into areas of pumped good quality groundwater.*" The Department of Water Resources - California Groundwater Bulletin 118 draws a similar conclusion on the impairment of the groundwater noting "*Pumping is causing groundwater of high TDS content to move from the western part of the basin into groundwater of lower TDS content in the central part of the basin* (TechLink 202; EMWD 2003)."

According to Highland Fairview, there are numerous wells located in the project area. Currently, the wells are either sealed or no longer have an electrical power source for pump operation. Well operation typically results in a rough cost of $300 to $350 per acre-foot of water to lift it out of the ground (pumping costs do not include well maintenance and reserves for repairs). However, the ground water quality is poor and would not be able to support production of high value crops needed to produce enough income to cover water costs. A water study provided from a 2012 well test revealed the ground water to be inadequate for irrigating most landscaping plants. In fact, the water's Total Dissolved Solids (TDS) level of 980 mg/L exceeds the maximum level that the EMWD has set for sewer water discharge (800 mg/L). Additionally, capital expenditures would be needed to bring the irrigation system back to functional operation. Therefore, this would not a feasible source of irrigation water based upon ground water quality and irrigation costs (personal communication P. Revere, December 30, 2013).

Response to Comment F-7A-46. As outlined in Response to Comment F-7A-39, a new mitigation measure (MM 4.2.6.1A) that requires the acquisition of an agricultural conservation easement to preserve land of comparable productivity for agricultural use, as recommended by the commenter.

Response to Comment F-7A-47. The commenter claims that the DEIR fails to mitigate particulate matter emissions from project construction. The commenter then identifies additional mitigation for particulate matter, which are already included in SCAQMD Rule 403. The project is already required to comply with SCAQMD Rule 403 because it is an existing regulation; therefore, the fugitive dust measures are not required as mitigation (which is over and above compliance with established laws and regulations).

Suggested Mitigation Measure	Response
- All clearing, grading, earthmoving, or excavation activities shall cease when winds exceed 25 miles per hour per SCAQMD guidelines in order to limit fugitive dust emissions; - The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the project are watered at least three times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day; - Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 0.6 meter (2 feet) of freeboard (vertical space between the top of the load and top of the trailer) in accordance with the requirements of California Vehicular Code Section 23114; and - The contractor shall ensure that traffic speeds on unpaved roads and project site areas are 15 miles per hour or less to reduce fugitive dust haul road emissions.	**Already Included in SCAQMD Rule 403.** As discussed in the DEIR, fugitive dust reduction measures are already included in SCAQMD Rule 403 and therefore are not required to be mitigation measures. The project will comply with all applicable requirements in SCAQMD Rule 403.
- Limiting fugitive dust emissions from any active operation, open storage pile, or disturbed surface area if the dust emission exceeds 20 percent opacity;	

Suggested Mitigation Measure	Response
- Prohibiting track-out to extend 25 feet or more in cumulative length from the point of origin from an active operation. Notwithstanding the preceding, all track-out from an active operation shall be removed at the conclusion of each workday or evening shift; and - Not disturbing an area of five or more acres, or with a daily import or export of 100 cubic yards or more of material, without utilizing at least one of the following measures at each vehicle driveway from the site to a paved public road: installation of gravel pads; pave any surface extending at least 100 feet and at least 20 feet wide; utilize a wheel shaker and wheel washer to remove dirt and mud from tires and vehicles before they exit the site.	

Response to Comment F-7A-48. The commenter identifies some additional mitigation measures to integrate into the project. These measures are discussed below.

Suggested Mitigation Measure	Response
Installation of air filtration systems in home of adjacent residents.	**Not Incorporated.** Please refer to Master Response-5.
Air quality monitoring in surrounding area.	**Not Incorporated.** Air quality monitoring would not reduce emissions or impacts; the commenter did not identify any potential benefit for air quality monitoring. In addition, there is an air quality monitoring station in Riverside, which provides a background sufficient for purposes of determining whether the project area is in attainment.
100 kW capacity solar photovoltaic system.	**Incorporated.** MM 4.16.4.6.1C requires onsite solar.
LEED Silver certified project buildings.	**Partially Incorporated.** MM 4.16.4.6.1C requires LEED certification for all buildings; LEED silver is not applied as discussed in Response to Comment A-4-4.
Electric vehicle charging stations.	**Already Included.** This measure is included in MM 4.3.6.4A.
Tier 4 off-road equipment (construction).	**Partially Included.** MM 4.3.6.2A has been refined and requires that off-road diesel powered construction equipment greater than 50 horsepower meet Tier 4 standards.

Response to Comment F-7A-49. The commenter believes the DEIR should be revised. The DEIR and technical studies have been revised to amplify and clarify information (see Response to Comment F-7A-11). The commenter indicates that a revised DEIR should be prepared to implement all applicable and feasible mitigation measures. As discussed in Response to Comments F-7A-48, several of the feasible mitigation measures as suggested by the commenter are implemented.

Response to Comment F-7A-50. The commenter indicates that CEQA requires analysis of both direct and indirect environmental impacts.

This was accomplished in the DEIR and in the revised analysis. The air quality and greenhouse gas analysis quantifies direct emissions (architectural coatings, consumer products, natural gas, onsite equipment, and emergency generators) and indirect emissions (offsite mobile vehicles, electricity, and waste). Emissions of VOC, NOx, CO, PM_{10}, and $PM_{2.5}$ are above the SCAQMD's operational significance thresholds. Estimation of emissions from onsite equipment was added to the revised air quality analysis (FCS/MBA 2015). The greenhouse gas analysis quantifies direct emissions (onsite equipment, emergency generator, refrigerants, and natural gas) and indirect emissions (mobile vehicles/trucks, electricity, waste, and water use). Both the air quality and greenhouse gas analysis estimate construction related emissions as well (DEIR, Impact 4.3.6.2 (pages 4.3-53 – 58), Table 4.7.E - page 4.7-29; revised analysis (FCS/MBA 2015).

The commenter also indicates that the project would be a major source of indirect pollution since it will attract diesel trucks to the area. The air pollution generated by these diesel trucks was quantified in the DEIR (see Impact 4.3.6.4 for a quantification of the regional emissions; Impact 4.3.6.3 for the localized impact; Impact 4.3.6. for the health risk impact) and in the revised analysis (FCS/MBA 2015).

The commenter requests that the EIR should analyze a requirement that the project implement a mitigation measure similar to San Joaquin Valley Air Pollution Control District (SJVAPCD) Rule 9510, the Indirect Source Rule. The project cannot implement a rule similar to Rule 9510 for the following reasons.

1. The rule is only applicable to the San Joaquin Valley Air Pollution Control District and not to the SCAQMD.

2. The commenter states that this measure could "reduce pollution by almost 50%." Rule 9510 does not require that all pollution of the project be reduced by 50 percent. For operational emissions, it requires that applicants do the following:

   - Reduce 33.3 percent of the project's operational baseline NOx emissions over a period of ten years as quantified in an approved Air Impact Assessment (AIA) and
   - Reduce 50 percent of the project's operational baseline PM_{10} emissions over a period of ten years as quantified in an approved AIA.

   The AIA required by Rule 9510 is prepared using different methodology and assumptions than in CEQA analyses. The SJVAPCD AIA allows the developer to propose project specific information like vehicle fleet, trip length (such as the default CalEEMod trip lengths), and to use a phasing plan to spread out the development; it does not need to match the EIR. The AIA also uses the CalEEMod mitigation component for operational mitigation measures; therefore, the project would be able to deduct a greater percentage for things like pedestrian features and bicycle lanes.

3. The project applicant and the City do not have the resources and the same potential emission reduction sources that the SJVAPCD has available. Rule 9510 works in the San Joaquin Valley because the SJVAPCD manages it. The SJVAPCD also finds offsite emission reduction projects, such as replacing old agricultural engines with newer and cleaner equipment. The project applicant and the City do not have those resources available.

Response to Comment F-7A-51. See Response to Comment B-3-4.

Response to Comment F-7A-52. The DEIR, Section 4.4.1.13 generally discussed raptor foraging habitat, but did not provide a detailed discussion of the subject and did not provide a sufficient analysis to assess whether the loss of raptor foraging habitat within the WLCSP is considered significant. Although a raptor foraging study was not conducted within the WLCSP area, information regarding wildlife usage of the WLCSP area was gathered over an 8 years period.

The WLCSP provides low-quality raptor foraging habit for a variety of raptors such as burrowing owl, barn owl, red-tailed hawk, white-tailed kite, and American kestrel (see Response to Comment F-7A-25). The prey base is rather limited due to on-going agricultural practices that eliminate burrows for small rodents. Based on the most current burrowing owl survey (FCS-MBA 2013 - FEIR Volume 2, Appendix E-5), 270 suitable burrows were documented within the WLCSP. The burrows are generally located along the margins of the roads and drainage features, which usually contains the least amount of disturbance. No more than 20 burrows were observed in the middle of the disked agricultural fields. That amounts to 1 burrow for every 10 acres of habitat, which is sufficient to

support a few raptors, but does not provide a sufficient amount of prey to be used as wintering foraging habitat by large numbers of raptor species.

The portion of the WLCSP that contains the least amount of burrows is the area east of Theodore Street and south of Alessandro Boulevard, which is the area immediately adjacent to the SJWA. With the exception of the burrows located within Drainage 9, approximately 20 burrows were observed within an area of approximately 740 acres. That amounts to 1 burrow for every 36 acres of habitat.

Another limited factor in determining the amount of available prey, is the availability of moisture. The extensive agricultural areas are dry-land farmed and do not receive any supplemental watering. This lack of irrigation water greatly reduces the amount of vegetation and the diversity of vegetation required to support a large population of prey for local raptors. The WLCSP also contains a population of feral dogs, which would reduce the population of available prey. These animals have been abandoned by their owners and forage on prey items within the undisturbed portions of the WLCSP, which is generally limited to the drainage features. All of these factors combined indicate that the prey-base is limited compared to the amount of habitat that is available for foraging.

The CDFW Conservation Buffer Area, similarly also has on going agricultural. The loss of low-quality foraging habitat associated with the development of the WLCSP would be gradual due to phased construction. The abundance of surrounding open lands associated with Core Area H and Proposed Core 3 provides ample foraging lands for the existing raptor population that over-winter around Mystic Lake. The loss of foraging habitat within the WLCSP consists of low-quality habitat with a limited prey base (2,610 acres).

When compared to the remaining higher quality open-space areas still available for foraging, such as the adjacent badlands area (16,000 acres) and the SJWA (20,000 acres), the loss of the WLCSP as a foraging area is less than 10 percent of the available foraging habitat in the surrounding area. However, with the development of the WLCSP, much of the existing foraging habitat within the eastern portion of the City of Moreno Valley will be removed. The WLCSP is not located within a Core Conservation Area or a Proposed Core area. The majority of the WLCSP is outside of any Criteria Cells and therefore is not required for long-term conservation of raptor foraging habitat. This would cause a potentially significant affect with regard to impacts to locally sensitive raptor species such as white-tailed kite (a CDFW fully protected species) and mitigation is required.

The loss of raptor foraging habitat associated with potentially significant impacts to white-tailed kite will be mitigated in a number of ways including payment of the MSHCP Development Fee and the creation of a buffer area along the southern boundary of the WLCSP. The MSHCP Development Fee will be used to purchase off-site lands that will be used to conserve high-quality foraging habitat within the Core Conservation Land or proposed conservation lands. Second, a 250-foot setback as described in MM 4.4.6.1A of the DEIR will be established between the WLCSP and the CDFW Conservation Buffer Area. This area will reduce impacts to raptor species foraging in the adjacent open space areas. These measures will reduce raptor foraging impacts to a less than significant level.

Response to Comment F-7A-53. Based on the revised MSHCP Consistency Analysis (FCS-MBA 2013 - FEIR Volume 2, Appendix E-1) and the most current protocol survey results, no LAPM occur within the WLCSP and therefore relocation of this species will not be required. Based on the 2010 focused plant survey, no sensitive plant species occur within the WLCSP and therefore relocation of sensitive plants will not be required.

A single breeding pair of burrowing owl is known to occur within a non-criteria cell area of the MSHCP. Conservation of a single pair of burrowing owl outside of a criteria cell or proposed conservation area will not provide long-term conservation of this species and is not required under MSHCP guidelines. Conservation measures are only required outside of criteria cells if more than

three pairs of burrowing owl are observed. If more than three pairs of burrowing owl are identified within the WLCSP, conservation of 90% of the suitable habitat will be conserved until the conservation goal for conserving occupied burrowing owls habitat has been met.

In an attempt to minimize impacts to a single breeding pair of this species, passive relocation, as described in MM 4.4.6.4B, may be required if burrowing owls are observed on-site during a 30-day preconstruction survey. Passive relocation is an acceptable means of minimizing project related impacts to burrowing owl.

Passive relocation will be consistent with the CDFW guidelines. One-way trap doors will be installed at the burrow entrance and left in place for several days. Once the burrows are unoccupied, they can be collapsed to reduce the number of available burrows owls may use for relocation. Since no evidence of burrowing owl was observed within the northern portion of the SJWA, relocation of owls to the area immediately south of the WLCSP will not cause an overcrowding of this species. Artificial burrows will be created in the 250-foot buffer area to provide suitable nesting burrows within an area that is being set aside as a buffer between the proposed development and the adjacent open space.

There is more than enough area to relocate a single pair of burrowing owl within the 250-foot buffer area. Threats to burrowing owl will include large raptors from the SJWA, feral dogs, coyote, and active disking for the agricultural fields. Many of these threats such as feral dogs, and active disking will be eliminated following project build-out, which will improve overall habitat suitability for burrowing owls.

Response to Comment F-7A-54. See Response to Comment F-11-25.

Response to Comment F-7A-55. A focused plant survey was conducted in all areas of the WLCSP and CDFW Conservation Buffer Area with suitable habitat in 2010 and no special-status plant species were found (MBA 2013, FEIR Volume 2, Appendix E-6). The WLCSP and CDFW Conservation Buffer Area have limited suitable habitat for sensitive plant species to occur on site. It should be noted that the WLCSP and CDFW Conservation Buffer Area are currently under routine agricultural use for the dry-land farming of wheat and is disked regularly, which limits value and potential for rare/protected plants. Based on the most current information, three sensitive plant species were identified as having a moderate potential to occur within the project site, thread-leafed brodiaea (*Brodiaea filifolia*), smooth tarplant (*Centromadia pungens* ssp. *laevis*), and Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*). The 2010 sensitive plant survey was not limited to finding just these three species, but surveys were conducted for all sensitive plant species that were identified as potentially occurring within the project site.

Following the sensitive plant surveys and a better understanding of the function and value of the vegetation communities within the project site, the potential for occurrence of sensitive plant species was reevaluated based on current site conditions. Base on the constituent habitat elements within the WLCSP, the three sensitive plant species previously identified as potentially occurring within the WLCSP were determined by the project biologist as not likely to occur within the project site. The thread-leafed brodiaea is usually associated with annual grasslands and vernal pools in clay soils. Smooth tarplant often occurs in alkali meadow and alkali scrub. Coulter's goldfield is usually found on alkali soils in playas, sinks, and grasslands. Suitable habitat associated with these species is not found within the project site and therefore these species are not likely to occur within the project site.

Based on the revised Draft Habitat Assessment and MSHCP Consistency Analysis (FCS-MBA 2013, FEIR Volume 2, Appendix E-1) (hereafter MSHCP Consistency Analysis), four species were determined to have a low to moderate potential to occur within the WLCSP. These include Plummer's mariposa lily (*Calochortus plummerae*), Parry's spineflower (*Chorizanthe parryi* var. *parryi*), slender-horned spineflower (*Dodecahema leptoceras*), and Robinson's peppergrass (*Lepidium virginicum* var.

robinsonii). The WLCSP contains marginal quality habitat for these four species and/or there is a close-recorded occurrence of these species within the vicinity of the WLCSP. These are the criteria used to determine the potential for occurrence.

None of these four species were observed during the 2010 focused plant survey. Based on the current site conditions and the necessary constituent habitat elements required for the sensitive plant species to potentially occur within the project site, it is unlikely that any of the seven sensitive plant species mentioned above occur within the WLCSP.

Due to drought conditions over those past three years, sensitive plant surveys have not been repeated on the WLCSP. However, the site has been visited on several occasions by qualified biologists during the known flowering period for these species, and no sensitive plants have been observed (See Table B-3.A in Response to Comment B-3.4 in Letter B-3 CDFW: Summary of Survey Types, Dates, Locations, and Staff).

Under CEQA guidelines, focused surveys for sensitive plant species should be conducted at the time of the CEQA document is submitted for public review. Based on the most current information available, no sensitive plant species occur within the WLCSP. However, the build-out for the specific plan may take up to 15 years to complete. Therefore, additional focused sensitive plant surveys will be required on a project-by-project basis during the project-level CEQA process and are described in MM 4.4.6.1B.

If any sensitive plant species are observed within the project site during focused surveys for sensitive plant species, project-related impacts may be considered significant and require mitigation measures.

Thread-leafed brodiaea, smooth tarplant, Coulter's goldfields, and slender-horned spineflower are all covered species under the MSHCP and if found within the project site during focused plant surveys, payment of the MSHCP fee will fully mitigate impacts to these species.

Plummer's mariposa lily (California Native Plant Society (CNPS) 4.2) and Parry's spineflower (CNPS 1B.1) are conditionally covered species under the MSHCP. These species will become fully covered under the MSHCP once they meet a specific conservation goal. Since the WLCSP has an extended build-out period, these two species may become covered prior to construction of individual projects, and payment of the MSHCP fee will fully mitigate impacts to these species. Until then, if these species are observed within the WLCSP during focused surveys before the conservation goals are met, then 90% of the occupied habitat must be avoided until the conservation goal is met. If the 90% cannot be avoided, then a DBESP for impacts to Plummer's mariposa lily and Parry's spineflower will be required.

Robinson's pepper grass (CNPS 4.3) and San Bernardino aster (CNPS 1B.2) are not covered under the MSHCP and have no legal protection under the federal or state Endangered Species Acts. If these species are identified within a project site during project-specific focused plant surveys, then an assessment must be conducted to determine the significance of the population that is found as described in MM 4.4.6.1B. The loss of a few individual plants would not be considered a significant impact, since it would not reduce the population of this plant to a level that is no longer self-sustaining. However, if a large population of these plants is observed within a project site, and the removal of those plants will likely cause the population to fall below a self-sustaining level, then avoidance, minimization, and mitigation measures will be required. The preferred method of mitigation is to redesign the proposed project and avoid the plant population. If avoidance is not an option, then off-site purchase of land that contains occupied habitat may be required. Alternatively, an appropriate impact fee may be paid to the RCA or other appropriate conservation organizations to offset for the loss of these species on the WLC project site. A third option is to relocate these plants to the proposed buffer area and placed into conservation. A plant relocation plan will be required prior to relocation. The CDFW does not recommend this option, since it is extremely hard to relocate

sensitive plant species and maintain a viable population, but it is included as an option as a worst case scenario. MM 4.4.6.1B will reduce impacts to a less than significant level.

Response to Comment F-7A-56. The WLCSP is within a required survey area for burrowing owl, since the required conservation goals established for burrowing owl under the MSHCP have not be met. Under MSHCP guidelines, the conservation of 90 percent of suitable habitat that provides for long-term conservation value for burrowing owl is only required if the project site contains more than one pair of burrowing owl within project sites that are within Criteria Cells and more than three pairs for projects that are outside of Criteria Cells. Only a single pair of burrowing owls has been recorded to occur within the WLCSP. However, if more than one pair of burrowing owl is observed within the portion of the WLCSP that contains Criteria Cells or more than three pairs for those areas outside of Criteria Cells, conservation of 90% of suitable habitat that provides for long-term conservation value for burrowing owl will be required until the conservation goal is met.

Based on the DEIR MM 4.4.6.4D, a pre-construction clearance survey for burrowing owl shall be conducted by a qualified biologist no more than thirty (30) days prior to any grading or ground disturbing activities within the WLCSP to identify if any burrowing owl occur within the WLCSP. The CDFW's 2012 Staff Report, recommends pre-construction clearance surveys occur 14 days prior to ground disturbance, followed by a subsequent survey within 24 hours of any ground disturbance. However, the MSHCP guidelines have incorporated the following protocol with regard to burrowing owl surveys, which must be followed to be consistent with the MSHCP. Based on the number of owls that have been identified within the WLCSP over the last 8 years, it can be assumed that the WLCSP is considered occupied and additional focused surveys for burrowing owl may be required on a project-by-project basis at the discretion of the City of Moreno Valley planning staff.

Based on the "Burrowing Owl Survey Instructions" for the Western Riverside Multiple Species Habitat Conservation Plan Area, all project sites containing burrows or suitable habitat (based on Step I/Habitat Assessment) whether owls were found or not, require pre-construction surveys that shall be conducted within 30 days prior to ground disturbance to avoid direct take of burrowing owls (MSHCP Species-Specific Objective 6).

If construction is to be initiated during the breeding season (February 1 through August 31) and burrowing owl is determined to occupy any portion of the proposed ground-disturbing activity during the 30-day pre-construction survey, construction activity shall maintain a 500-foot buffer area around any active nest/burrow until it has been determined that the nest/burrow is no longer active, and all juveniles have fledged the nest/burrow. If this avoidance buffer cannot be maintained, consultation with the CDFW shall take place and an appropriate avoidance distance established at a minimum of 250-feet. No disturbance to active burrows shall occur without appropriate permitting through the Migratory Bird Treaty Act and/or CDFW.

If active burrowing owl burrows are detected outside the breeding season (September through January), or within the breeding season but owls are not nesting or in the process of nesting, passive relocation may be conducted following consultation with the CDFW. A relocation plan may be required by CDFW if passive relocation is necessary. Artificial burrows should be constructed within the 250-foot buffer area along the southern boundary of the WLCSP. Construction activity may occur within 500 feet of the burrows at the discretion of the biological monitor. This will satisfy mitigation as described under MM 4.4.6.4D of the DEIR and will reduce impacts to burrowing owl to a less than significant level.

Response to Comment F-7A-57. The commenter claims that GHG emissions are under-estimated because the analysis used an average distance of 50 miles for trucks while the distance to the Los Angeles ports is 80 miles.

The 50 mile figure for average truck distance is a default value suggested by the SCAQMD for use when modeling data is not available. An additional section (Chapter 12, Section F) has been included in the Traffic Impact Analysis (TIA) (FEIR Volume 2, Appendix L-1) that describes in detail how trips to the ports were estimated. The analysis found that only a small percentage of WLC truck traffic would be to and from the ports. Tests with the Riverside County Traffic Analysis Model (RivTAM) model suggest the actual average truck trip length for the WLC would be 30 to 40 miles, so the 50-mile figure, which was used in the DEIR, is a conservative estimate since it over-states rather than under-states project impacts. The air quality analysis has been updated in the FEIR (refer to FEIR Volume 2, Appendix D-1) to use the trip distribution pattern from the RivTAM model since it more realistic and better reflects the anticipated change in travel patterns over time.

The commenter claims that the DEIR underestimates the project's operational greenhouse gas emissions and fails to mitigate. The greenhouse gas emissions as estimated in the DEIR have been revised to account for more detailed construction and operational assumption information as discussed in Master Response-1.

The commenter indicates that the long haul truck trip distance was underestimated. The commenter claims that no basis for making the estimate of 50 miles per truck trip was provided in the DEIR. However, this is incorrect, as Appendix D of the DEIR (pages 119-120) described the reasoning for the 50 miles per truck trip. Nevertheless, the revised TIA provides substantial evidence for the use of roadway and freeway specific traffic volumes, which are used in the revised analysis and result in decreased emissions estimates.

The commenter indicates that the project's greenhouse gas emissions constitute a majority of the City of Moreno Valley's greenhouse gas emissions. Please refer to Response to Comment F-1-45.

The commenter indicates that greenhouse gas offsets should be applied to reduce emissions. However, offsets are not feasible as discussed in Response to Comment F-1-66.

The commenter indicates that all of the greenhouse gas measures as set forth by the California Attorney General should be applied. Refer to Response to Comment F-1-66, which assesses the feasibility of the Attorney General measures individually.

Response to Comment F-7A-58. The commenter indicates that construction greenhouse gas emissions should be mitigated. The commenter then references a comment letter prepared by the SCAQMD. Review of that comment letter reveals that there are no construction mitigation measures to reduce greenhouse gas emissions that the project is not already implementing.

The commenter indicates that carbon offsets should be purchased to reduce construction emissions to below the threshold. The SCAQMD threshold of 10,000 metric tons carbon dioxide equivalent per year ($MTCO_2e$/year) is for a combination of the construction emissions (averaged over 30 years) and operational emissions. Refer to Response to Comment F-1-66 for a discussion of why carbon offsets are not feasible or required.

Response to Comment F-7A-59. Sediment toxicity was added to the 2010 303(d) list of impaired water bodies for Lake Elsinore and Table 4.9.A in the DEIR is updated (FEIR Volume 2 Section 4.9 Table 4.9D). As required by MM 4.9.6.2B, a project-specific Storm Water Pollution Prevention Plan (SWPPP) will be prepared during the final design phase of the project. "The SWPPP shall include a surface water control plan and erosion control plan citing specific measures to control on-site and off-site erosion during the entire grading and construction period. In addition, the SWPPP shall emphasize structural and nonstructural best management practices (BMPs) to control sediment and nonvisible discharges from the site." (page 4.9-31). The SWPPP will be prepared meeting all requirements of the Construction General Permit. Table 4.9.H lists possible construction site BMPs for runoff control, sediment control, erosion control, and housekeeping that may be used during the

construction phases of the proposed WLC project. The implementation of an approved SWPPP with appropriate construction site BMPs will control erosion and sediment transport such that contaminated sediment and runoff will not significantly affect the water quality at all downstream water bodies, including Mystic Lake, Lake Elsinore, and San Jacinto River.

Response to Comment F-7A-60. There are no anticipated legacy pollutants as a result of past uses. A Phase I Environmental Site Assessment for the WLCSP (FEIR Volume 2, Appendix I-22) revealed no evidence of recognized environmental conditions (RECs) indicative of releases or threatened releases of hazardous substances on, at, in, or to the subject site. However, construction-related impacts from any pollutants that may be present based on current and historical uses of the project site, including organo-chloro-phosphate (OCPs) and other pesticides, or trace metals, will be mitigated by implementing appropriate construction BMPs to control erosion and sediment transport. Controlling erosion and sediment transport will also eliminate the transport of pollutants that attach to the sediments.

The SWPPP will identify specific construction site BMPs that will be required for the project. During construction, a registered Qualified SWPPP Practitioner (QSP) will be required to verify that a SWPPP is on site and check that construction BMPs are being implemented properly. Preparation of a SWPPP at the Specific Plan phase is not appropriate because no specific details of construction or grading are available at the specific plan level. The SWPPP will be prepared prior to issuance of any grading permit for development in the WLCSP area.

Response to Comment F-7A-61. Most of the comment are excerpts from the CEQA Statute and Guidelines, and court cases that relate to cumulative impacts. The DEIR did contain an analysis of cumulative impacts for each environmental topic (DEIR Sections 4.1-4.16). DEIR Section 2.10, *Cumulative Impacts*, explains that CEQA (Guidelines Section 15130) allows two different types of cumulative analyses to be conducted, and the lead agency is responsible to choose the most appropriate method based on the project and other local conditions. In this case, the City chose to use the “summary of projections” method (CEQA Guidelines Section 15130b.1.B) rather than the “list” method due to the size, location, and development phasing or horizon of the project. For the WLC project, the DEIR used the City’s General Plan buildout projections as a basis to characterize cumulative impacts. The programmatic EIR for this project examined general project-type impacts of the WLC project as an incremental part of regional impacts that will eventually occur as the general area develops with more suburban-level development.

Response to Comment F-7A-62. The commenter must remember the WLCSP EIR is a programmatic document that outlines general development on the WLC site for a period of at least 15 years. The cumulative analysis in the TIA (FEIR Volume 2 Appendix L-1) does include appropriate projects from the commenters list except for the “recently approved projects” (1-3) which have already been constructed and are part of the environmental baseline. The traffic study used a specific set of cumulative projects to estimate traffic levels on area streets at interim years, the cumulative analysis for other environmental issues used the growth projections of the City, Western Riverside Council of Governments (WRCOG), and Southern California Association of Governments (SCAG) to estimate future conditions under which WLC project impacts should be characterized. Given the type and size of this project, the summary of projections method is the most appropriate way to estimate cumulative impacts.

The TIA for the WLC project developed its own list of projects that would contribute traffic on the short- and long-term to the City and surrounding areas, which was necessary to anticipate traffic at the 136 intersections that the TIA examined. However, the other impacts of the WLC project were more regional in nature, and it was determined their characterization did not depend on the timing of specific development projects but rather on overall growth in the region consistent with that identified in the City’s General Plan buildout and SCAG’s Regional Comprehensive Plan (RCP), and SCAG’s

Regional Transportation Plan (RTP). None of information presented on cumulative impacts have indicated why the list method would be more accurate or appropriate for estimating cumulative impacts of the WLCSP, they merely make the claim. The City continues to believe the growth projections method is the most appropriate method of estimating cumulative impacts of the WLCSP given its size, location, timing, and uses proposed.

Response to Comment F-7A-63. The commenter states the assessment of cumulative agricultural impacts is inadequate and recommends no mitigation. The Response to Comment F-7A-39 outlines the changes made to the agricultural resources assessment for the project (FEIR Volume 2 Appendix C-2). In addition, a new MM 4.2.6.1A has been added to the FEIR Volume 2 requiring the acquisition of a conservation easement be recorded over land of comparable productive value to preserve offsite farmland or equal or more agricultural productivity compared to the unique farmland (refer to Response to Comment F-7A-39). It should be noted that the revised agricultural assessments determined the loss of farmland of local importance was in fact not significant under CEQA based on the results of the revised LESA model (see FEIR Volume 2 Appendix C-4 for more information).

Response to Comment F-7A-64. Section 4.4.7 of the DEIR discusses cumulative impacts with regard to the MSHCP, which is a regional planning document that provides for long-term conservation goals for the western Riverside County area. The DEIR does not discuss cumulative impacts with regard to sensitive habitats or species that are not covered under the MSHCP. The CEQA requires the discussion of the cumulative impacts of proposed projects. The WLCSP was assessed based on closely related past, present and future projects that may be developed in the foreseeable future. Cumulative impacts are typically analyzed using either a List Method or a Regional Growth Projection Method. Since the WLCSP is a program-level document, the Regional Growth Project Method is an appropriate methodology to re-evaluate cumulative impacts. The project related impacts associated with the WLCSP were assessed based on the contribution to cumulative impacts on a regional basis.

Adoption of the City of Moreno Valley General Plan EIR did not result in significant direct impacts to existing biological resources. All future development projects anticipated in the General Plan can feasibly be mitigated to less than significant levels and therefore, would not contribute to a cumulative impact on a regional basis. However, adoption of the General Plan would lead to future indirect impacts through approval of development projects within the City of Moreno Valley.

Project-related impacts resulting in quantifiable direct impacts to biological resources not currently covered under the MSHCP would be addressed subsequently through analysis at a lower tier, project-specific level of environmental review. However, conservation of lands purchased with MSHCP Development Fees for the long-term conservation of sensitive species covered under the MSHCP, will also provide similar conservation for plant and wildlife species not covered under the MSHCP. For instance, lands purchased in a Core Conservation Area that contains coastal sage scrub and/or chaparral will provide suitable habitat for Parry's spineflower, which is a covered species under the MSHCP. It will also provide habitat for Robinson's pepper grass, which is not covered under the MSHCP. MM 4.4.6.1B, as listed in the DEIR, will reduce the project related impacts to a level less than significant. As a result, the contribution of impacts associated with project within the WLCSP, are fully mitigated and will not contribute to cumulative impacts within the region.

The following mitigation measures were developed to provide assurances that potential significant biological impacts associated with the implementation of the General Plan will be mitigated. The General Plan is a regional development plan and has included the WLCSP as a part of the development plan for the City of Moreno Valley. Subsequent project-level environmental review could identify more detailed site-specific mitigation measures. Impacts to Stephens' kangaroo rat, sensitive plant and wildlife species, and Riverine/Riparian Habitat associated with drainage features, could be considered a cumulative impact without mitigation. The following mitigation measures are required under the General Plan to reduce project-related impacts to a level less than significant:

1. Private development projects within the City shall comply with the Long-term Habitat Conservation Plan (HCP) for the Stephens' Kangaroo Rat (SKR).
2. Private development projects shall comply with the Western Riverside County Multi-Species Habitat Conservation Plan (MSHCP) and the associated state and federal permits.
3. Where feasible, projects shall be designed to minimize impacts on sensitive habitat.
4. Prior to physical disturbance of any natural drainage course or wetland determined to contain riparian vegetation or otherwise qualify as a "jurisdictional" wetland or Non-wetland Water of the U.S., the applicant shall obtain a Streambed Alteration Agreement and/or permit, or written waiver of the requirement for such an agreement or permit, from all resource agencies with jurisdiction over such areas (CDFW and USACE).

The long-term HCP for the Stephens' Kangaroo Rat was designed to compensate for the loss of SKR individuals and SKR habitat on a regional basis. A total of 48 acres of suitable habitat for SKR occurs within the WLCSP area. Future projects that impact suitable habitat would significantly impact SKR. Projects that are consistent with the requirement of the long-term HCP for SKR would not result in significant project-level impacts, and therefore would not result in cumulative impacts to SKR on a regional basis. A mitigation fee is required on a project-level basis and is based on the overall size of the project site. Payment of the mitigation fee will reduce the level of impacts to a less than significant impact. The mitigation fees are used to purchase land within the core conservation areas for SKR.

Portions of the WLCSP contains non-native grasslands and Riversidean sage scrub. The past habitat loss along with potent future development is a potentially significant impact with regard to Raptor foraging habitat, especially for those raptor species that are over-wintering in the Moreno Valley area. The MSHCP has been designed to compensate for the loss of biological resources throughout western Riverside County, and cumulative impacts to existing biological resources resulting through increased future development have been addressed in the MSHCP FEIR/EIS dated June 17, 2003. The MSHCP was designed to set aside large areas of native habitat necessary for the long-term conservation of sensitive plant and wildlife species, while at the same time providing a streamlined process for future development.

Therefore, future development projects within the planning area that conform to the MSHCP would not result in cumulatively considerable impacts for those biological resources adequately covered by the MSHCP. The MSHCP project fee will be used to purchase off-site mitigation lands that will fully compensate for significant impacts associated with raptor foraging habitat. Implementation of MMs 4.4.6.1A-B, 4.4.6.2A-B, 4.4.6.3A-C, and 4.4.6.4A-I will reduce the project related impacts to a level less than significant. Subsequent CEQA review will be required on a project-by-project basis to ensure conformance with the MSHCP and future implementing plans/ordinances at the project-specific level.

For resources not currently covered by the MSHCP, additional mitigation may be necessary. Any impacts to wetlands or non-wetland waters of the United States or waters of the state are cumulatively considerable. Compliance with federal and state regulations (implementation of mitigation measures identified in the Biological Resources Section 4.4 of the DEIR) is expected to reduce these impacts to a level below significance or less than cumulatively considerable. Impacts to non-covered sensitive species or resources resulting from the Land Use Alternatives are not expected to be cumulatively considerable. If proposed development within the regional would cause a sensitive species population to reduce to a less than self-sustaining level, it would have been included in the MSHCP as a covered species.

Response to Comment F-7A-65. The commenter indicates that the mitigation of cumulative project impacts is inadequate and that the DEIR offers no mitigation for diesel particulate matter (PM) emissions. This is incorrect. The project has adopted all feasible mitigation measures as summarized

in Response to Comment E-3-8. The commenter suggested mitigation measures, as discussed below.

Suggested Mitigation Measure	Response
1. Installation of Minimum Efficiency Reporting Value (MERV) filters rated at 13 or above at all residential units where incremental cancer risks exceed one in one hundred thousand	**Not Incorporated**. Refer to Master Response-5.
2. Plant tiered vegetation along the project site boundaries	**Partially Included**. The project would include extensive landscape treatments consistent with the Municipal Code including trees and berms. The effectiveness of vegetative barrier in reducing pollutant levels is dependent on a number of factors including vegetative variety, maturity, height, spacing, leaf density, and wind speed. Vegetative barriers may have some benefit; however, at present there are no established methodologies to quantify their effectiveness in reducing pollutant levels.
3. Notification to nearby residents	**Not Incorporated.** Notifications of substantial local impacts are required under SCAQMD Rule 1401 and the Air Resources Board (ARB) AB 2588 Air Toxics Hot Spots Act. However, neither of these regulatory programs applies to the project (with the exception of the emergency standby generators) since the vast majority of project impacts are derived from mobile sources and the Rule 1401 and AB 2588 programs are directed to permitted stationary sources. In addition, the CEQA and permitting process serves as notice of the environmental impacts to all residents throughout the City and beyond.

Response to Comment F-7A-66. This comment is mainly excerpts from CEQA and the CEQA Guidelines, as well as several court cases related to alternatives. The commenter explains the process of selecting a feasible alternative, however, the commenter fails to mention an additional part of the analysis of alternatives, that being the determination as to what degree a particular alternative meets the project objectives (refer to Response to Comment F-7A-67 for more information on Alternative 1).

Response to Comment F-7A-67. The commenter claims the DEIR improperly dismisses Alternative 1 which would develop approximately 29 million square feet of logistics warehousing or approximately 30% less than under the proposed project. First, it should be noted that the proposed project has been slightly modified and has 100 fewer acres and 1 million fewer square feet of logistics warehousing than under the project evaluated in the DEIR (see Section 6.3.6 of the DEIR for details). The commenter says this alternative is superior to the proposed project but is dismissed for inappropriate reasons. However, the City maintains this alternative was rejected because it did not reduce one or more of the significant impacts of the project to less than significant levels, and it did not achieve the project objectives to nearly the same degree as the proposed project. The reduced density alternative does reduce the impacts which can be expected from the construction and operation of the project but does not reduce them to insignificance, as shown in Table 6.L and the discussion beginning on DEIR page 6-27. However, as set forth in Table 6.M, the reduced density alternative would not attain the project objectives to as great a degree as the project and, in particular, would not provide the same number of jobs nor improve the City's job/housing ratio to the same extent. See the discussion in DEIR Section 4.13.1. The City Council will weigh the environmental benefits of the reduced density alternative against the economic benefits which the project will provide and decide which best serves the public welfare.

Response to Comment F-7A-68. The commenter is concerned that the DEIR dismisses all of the potential alternative sites for the proposed project. The purpose of the alternative sites analysis is to see if there is an appropriate site elsewhere within the lead agency's jurisdiction, or in another jurisdiction, upon which the proposed project could be located, and generate fewer environmental impacts just by placing it on a different site. The commenter suggests finding a smaller site, or several disconnected smaller sites, that could support a reduced version of the project. However, the proposed project (as revised) encompasses 2,610 acres with 40.6 million square feet of warehousing. Table 6.R in Section 6 of the DEIR demonstrates that there are no sites, either in Moreno Valley, or in any of the nearby cities, which are anywhere close to being large enough to support a 40,600,000 sq. ft. logistics project. The proposed project is a regional logistics warehousing center, and that primary project objective would not be achieved by breaking the project up into several smaller non-contiguous properties. There is no requirement under CEQA to substantially change or reduce the scope of the proposed project so it will "fit" onto one or more alternative sites. Due to its size and type of uses, most of the significant impacts of the proposed project would occur regardless of where the site was located. The only potential for a measureable reduction in project impacts would be if the site were adjacent to freeways that were less congested, or possibly if the project could be served by existing rail lines on some other site. However, the alternative sites analysis indicates there are no sites of suitable size and that have rail service already available to them. Further, even if a suitable alternative site could be located, the project applicant would not own the site and there is no way of knowing whether the applicant could acquire it. Accordingly, the DEIR properly concluded that there were no feasible alternative sites. Therefore, alternative sites were correctly rejected.

Please see the response to Comment F-7A-67 with respect to the assertion that the DEIR should have selected the reduced alternative density.

Response to Comment F-7A-69. Although the commenter is not a public agency, the City will send all commenters the Responses to Comments at least 10 days before action on the project to allow time to review the responses. The City Council will consider all comments on the WLC project before taking any action on the proposed project.

Letter F-7B: Lozeau Drury LLP (April 5, 2013) and Appendices 1-3 (on Flash Drive)

Letter F-7B

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March 25, 2013

Richard Drury
Lozeau | Drury LLP
410 12th Street, Suite 250
Oakland, CA 94607

Subject: **Comments on the Draft Environmental Impact Report for the World Logistics Center, Riverside County, California**

Dear Mr. Drury:

We have reviewed the February 2013 Draft Environmental Impact Report (DEIR) and associated documents for the World Logistics Center Project (Project). The Project proposes to build a 41.6 million square foot warehouse on 2,710 acres of a 3,198 acre parcel in the City of Moreno Valley in Riverside County. The site is currently used for wheat farming. Seven residences currently exist on Project site. San Diego Gas & Electric operates a natural gas compressor plant on 19 acres of the Project site and Southern California Gas Company operates a metering and pipe cleaning facility on 1.5 acres on the south central portion of the site. 1

We reviewed the DEIR for issues associated with hazards and hazardous materials, hydrology and water quality, and air quality. Project construction and operation may result in potentially significant impacts to workers, nearby residents, and surrounding hydrological features that are not adequately evaluated by the DEIR. A revised DEIR should be prepared to fully analyze and disclose impacts and provide appropriate mitigation to ensure that the Project will not result in significant impacts.

HAZARDS AND HAZARDOUS MATERIALS

Eighteen Phase I Environmental Site Assessments ("Phase I ESAs") were completed for the site from May 2003 to January 2013 and are included as Appendix I to the DEIR. The January 2013 Phase I ESA, which includes a summary of the findings of the previous Phase I ESAs, states that past uses of the site included a chicken ranch, three dairies, and agriculture (2013 Phase I ESA, p. 1). 2

The 2013 Phase I ESA states that there are no recognized environmental conditions (RECs)[1] associated with the Project site (2013 Phase I ESA, p. 35). Our review shows that the Phase I ESA and the DEIR do not thoroughly evaluate current soil conditions at the site. Failure to adequately disclose baseline conditions at the Project site that may result in significant impacts to construction workers and nearby residents. 2

Inadequate sampling of pesticides in Project site soils from past uses

Currently, the Project site is used for dry farming and wheat is typically grown on the Project site (DEIR, p. 4.2-2). The DEIR states that dry farming does not typically use pesticides (DEIR, p. 4.8-4) but our review of data for the Project site from the California Department of Pesticide Regulation (CDPR) shows that pesticides such as 2,4-D, 2-ethylhexyl ester were used on the site for wheat cultivation (see Attachment A).

The 2013 Phase I ESA, however, does not mention recent pesticide usage. The 2013 Phase I does include sampling results for organochlorine pesticides (OCPs). The ESA notes that OCP sampling results were below regulatory levels (2013 Phase I ESA, p. 2). However, only 52 samples were collected from the Project site in previous investigations.

The "Interim Guidance for Sampling Agricultural Properties" prepared by the Department of Toxic Substances Control (DTSC) recommends that, when testing for OCPs, samples for sites over 50 acres should be collected at over 60 locations.[2] The Project site, at 2,710 acres, is well over 50 acres. Therefore, the 52 samples collected over the last ten years[3] are likely insufficient to provide an accurate assessment of the Project site's soil conditions and collecting such a limited number of samples may not reliably disclose current environmental concerns associated with Project site soils. In addition, because these samples were collected a minimum of eight years ago, sampling results are outdated and cannot be used to baseline conditions. 3

The Project site has been used for agricultural purposes since at least 1948 (2013 Phase I ESA, p. 15). OCPs such as DDT and DDE were used starting in 1940s.[4] Although their use was banned in the 1970s, these compounds can persist in soil for hundreds of years.[5]

The limited number of samples collected on the Project site may not fully show the total extent of OCP concentrations throughout the Project site. The Applicant should disclose how many acres of the 2,710-acre site were historically and currently used for agricultural activities and

[1] A REC is defined as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. *See* http://www.astm.org/Standards/E1527.htm

[2] Department of Toxic Substances Control, Interim Guidance for Sampling Agricultural Properties (Third Revision). http://www.dtsc.ca.gov/Schools/upload/Ag-Guidance-Rev-3-August-7-2008-2.pdf, p. 8

[3] 42 samples were collected in 2003, 9 samples were collected in 2004, and one sample was collected in 2005.

[4] U.S. EPA, DDT – A Brief History and Status. http://www.epa.gov/pesticides/factsheets/chemicals/ddt-brief-history-status.htm

[5] *Ibid.*, p. 3

should collect 60 soil samples per 50-acre portion. For example, if 100 acres of the Project site was used for agriculture, 60 samples on each 50-acre portion should be collected for a total of 120 samples.

The Project site is currently used for wheat cultivation but no samples were collected in association with the 2013 Phase I ESA. Because the Project site is still used for agricultural purposes, relying on sampling results from eight years ago will not reflect pesticide residuals that may exist in site soils from agricultural use of the site from 2005 to present-day. Additional pesticide sampling, to include 2, 4-D, 2-ethylhexyl ester and any other pesticides that may have been used for wheat farming, should be conducted.

Project construction will require grading, excavation, vegetation removal, and trenching. Construction workers can be exposed, via inhalation and dermal contact, to pesticides in soil that can become airborne during these ground-disturbing activities. Exposure to these pesticides can pose significant health risks. Oral exposure to 2, 4-D, 2-ethylhexyl ester can result in vomiting, diarrhea, headache, confusion, and bizarre behavior. Dermal exposure can result in irritation and inhalation exposure can lead to coughing and burning sensations in the upper respiratory tract and chest.[6] Exposure to DDT can result in headaches, nausea, and convulsions[7] as well as damage the liver, nervous, and reproductive system.[8] 3

There are seven residences located onsite (DEIR, p. 4.5-12) and residences are also located directly adjacent to the Project site along the western boundary of the Project site (DEIR, Figure 3.8). These residents may also be adversely affected from exposure to pesticide-containing soil during Project construction. Inhalation of pesticide-contaminated soil has been linked to asthma in recent research.[9] A report prepared by the California Department of Health identifies pesticides as an asthma trigger.[10]

Limited soil sampling was conducted on the Project site eight years ago. Sampling did not target pesticides used for wheat cultivation, such as 2, 4-D, 2-ethylhexyl ester. Project soils should be tested for all pesticides that may have been used on the site. All sampling results should be compared to appropriate human health regulatory levels[11] as well as construction worker thresholds[12] to determine if the Project may pose significant health risks. A revised DEIR should

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[6] National Pesticide Information Center. 2, 4-D Technical Fact Sheet. http://npic.orst.edu/factsheets/2,4-DTech.pdf, p. 2.
[7] U.S. EPA, DDE. http://www.epa.gov/ttnatw01/hlthef/dde.html
[8] U.S. EPA, DDT. http://www.epa.gov/pbt/pubs/ddt.htm
[9] U.S. National Library of Medicine, Pesticides and Asthma. http://www.ncbi.nlm.nih.gov/pubmed/21368619
[10] California Department of Public Health, Strategic Plan for Asthma in California, 2008-2012. http://www.cdph.ca.gov/programs/caphi/Documents/AsthmaStrategicPlan.5-5-08.pdf, p. 22.
[11] *See* California Human Health Screening Levels: http://www.calepa.ca.gov/brownfields/documents/2005/CHHSLsGuide.pdf
[12] *See* Table K-2 of the February 2013 San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels: http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/ESL/Lookup_Tables_Feb_2013.pdf

be prepared to disclose sampling results and any mitigation, if necessary, to ensure that the Project will not result in significant public health impacts. 3

Entire Project site has not been evaluated

Our review of the areas evaluated in the 18 Phase I ESAs shows that an approximately 50-acre portion of the Project site located south of Alessandro Blvd., east of Merwin St., and north of Brodiaea Ave has not been surveyed (*see* Attachment B). The land use map in the DEIR shows that this area will be used for logistics development (DEIR, Figure 3.8).

Project construction will occur in areas that have not been surveyed by the Phase I ESA. Therefore, conclusions in the DEIR about the absence of environmental concerns on the Project site are not completely substantiated. If environmental hazards exist on this portion of the site, Project construction may pose significant risks to workers and other site personnel. 4

A new Phase I ESA should be prepared to survey, identify and disclose baseline conditions of the entire Project site, to be included with a revised DEIR. If hazardous conditions are found, all appropriate mitigation measures should be identified to prevent the exposure of workers to conditions that would present health risks during construction and operation of the Project.

HYDROLOGY AND WATER QUALITY

Project construction will require extensive grading, vegetation removal, and excavation. Approximately 42 million cubic yards of cut-and-fill will be required to grade the entire site (DEIR, p. 3-61). Project construction may lead to erosion of site soils. The DEIR states that pollutants associated with the Project include sediments, nutrients, bacteria, toxic organic compounds, and pesticides (DEIR, p. 4.9-34). During periods of rainfall, water that washes over eroded soil can entrain these contaminants and discharge into adjacent waterways.

The DEIR states that Project runoff from the western portion flows into the Perris Valley storm drain while runoff from the eastern portion flows into Mystic Lake and the San Jacinto River (DEIR, p. 4.9-22) which is located ten miles south of the Project site. From the San Jacinto River, flow ultimately reaches Lake Elsinore (DEIR, p. 4.9-2). The DEIR identifies that Lake Elsinore is listed under the California Regional Water Quality Control Board's 303(d) List of Impaired Water Bodies for nutrients, low dissolved oxygen, and PCBs (DEIR, p. 4.9-5). The DEIR, however, does not disclose that Lake Elsinore is also impaired for sedimentation and sediment toxicity.[13] If rainfall washes over disturbed soil stockpiled on site during Project construction, contaminated sediment and runoff can eventually drain to Lake Elsinore, further degrading water quality. 5

The DEIR states that during operational activities, stormwater runoff can carry trace metals such as zinc, copper, lead, cadmium, and iron and that treatment controls will be based on these pollutants (DEIR, pp. 4.9-33-4.9-34). However, the DEIR does not consider the possibility that ground-disturbing activities

[13] *Search for* Elsinore, Lake at http://www.waterboards.ca.gov/water_issues/programs/tmdl/2010state_ir_reports/category5_report.shtml

during Project construction can also lead to erosion and transport of these contaminants deposition to adjacent waterways.

The DEIR states that a SWPPP will be prepared and identifies measures that will be implemented to reduce impacts from soil erosion (DEIR, p. 4.6-13). Mitigation measure 4.9.6.3A lists best management practices (BMPs) that will be implemented to reduce water quality impacts (DEIR, p. 4.9-37). However, no measures or BMPs are provided that specifically identify that OCPs and other pesticides, which may exist from previous uses of the site, can flow into the adjacent waterways. To ensure that Project construction will not result in significant impacts to hydrological resources, the SWPPP should be prepared prior to Project construction to include BMPs such as erosion control and treatment measures specifically designed to address OCPs and other pesticides. 5

AIR QUALITY

Additional mitigation for particulate matter should be incorporated

Particulate matter (PM10) emissions from Project construction will exceed the South Coast Air Quality Management District (SCAQMD) thresholds throughout the construction period (DEIR, p. 4.3-55). The DEIR discusses SCAQMD Rule 403, established to reduce fugitive dust emissions, and provides the following four measures from Rule 403 as mitigation for the Project's significant emissions of PM10:

- all clearing, grading, earthmoving, or excavation activities shall cease when winds exceed 25 miles per hour per SCAQMD guidelines in order to limit fugitive dust emissions;
- the contractor shall ensure that all disturbed unpaved roads and disturbed areas within the project are watered at least three times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day;
- cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 0.6 meter (2 feet) of freeboard (vertical space between the top of the load and top of the trailer) in accordance with the requirements of California Vehicular Code Section 23114; and 6
- the contractor shall ensure that traffic speeds on unpaved roads and project site areas are 15 miles per hour or less to reduce fugitive dust haul road emissions (DEIR, p. 4.3-55).

Mitigation measures 4.3.6.2A through 4.3.6.2D also address PM10 emissions. However, the Project's PM10 emissions will be significant even after mitigation (DEIR, 4.3-57). Additional mitigation measures to reduce fugitive dust emissions are identified in Rule 403 but not in the DEIR. These measures should be identified in a revised DEIR to ensure that all applicable and feasible measures will be implemented to reduce Project emissions, to include:

- limiting fugitive dust emissions from any active operation, open storage pile, or disturbed surface area if the dust emission exceeds 20 percent opacity;

- prohibiting track-out to extend 25 feet or more in cumulative length from the point of origin from an active operation. Notwithstanding the preceding, all track-out from an active operation shall be removed at the conclusion of each workday or evening shift; and
- not disturbing an area of five or more acres, or with a daily import or export of 100 cubic yards or more of material, without utilizing at least one of the following measures at each vehicle driveway from the site to a paved public road:
    - installation of gravel pads;
    - pave any surface extending at least 100 feet and at least 20 feet wide;
    - utilize a wheel shaker and wheel washer to remove dirt and mud from tires and vehicles before they exit the site.[14]

Rule 403 also states that active operations cannot be conducted unless all applicable best available control measures included in Table 1 are included.[15] Table 1 provides mitigation measures for trenching, cut-and-fill, truck loading, road maintenance, and earth-disturbing activities.[16] Project construction will require these types of activities. Review of the DEIR shows that not all measures listed in Table 1 are included as mitigation. A revised DEIR should be prepared that includes all applicable measures in Table 1. The Project, defined as a large operation[17] under Rule 403, should also follow all the applicable dust control measures listed in Table 2.[18] 6

Air dispersion modeling shows that localized concentrations of PM10 emissions also exceed SCAQMD thresholds (DEIR, p. 4.3-66). Significant localized PM10 emissions will pose adverse health risks to nearby residents and construction workers. The DEIR, however, only states that air quality impacts remain "significant and unavoidable" in the absence of feasible mitigation (DEIR, p. 4.3-66).

We have identified additional feasible mitigation measures that can further reduce PM10 emissions and mitigate these impacts to the extent feasible. For example, a recent ruling by the California Attorney General for construction of an industrial project in Jurupa Valley, a city located 17 miles west of the Project site, required the following measures:

- installation of air filtration systems in home of adjacent residents;
- air quality monitoring in surrounding area; and
- a "green" project site, including a 100kW capacity solar photovoltaic system, LEED Silver certified project buildings, and electric vehicle charging stations.[19]

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[14] South Coast Air Quality Management District, Rule 403. Fugitive Dust. http://www.aqmd.gov/rules/reg/reg04/r403.pdf, pp. 403-6 – 403-7.
[15] *Ibid.*, p. 403-6.
[16] *Ibid.*, p. 403-13.
[17] *Ibid.*, p. 403-3.
[18] *Ibid.*, p. 403-19.
[19] State of California Department of Justice, Office of the Attorney General. Attorney General Kamala D. Harris Announces Settlement to Protect Public Health in Jurupa Valley. http://oag.ca.gov/news/press-releases/attorney-general-kamala-d-harris-announces-settlement-protect-public-health

The press release accompanying the settlement[20] notes that Riverside County is home to numerous warehouse projects whose associated truck trips are negatively impacting resident health. Because the above-referenced mitigation measures were required for a similar project in a nearby city, it seems reasonable that these measures are feasible and should be implemented by the Applicant to protect resident health and local air quality.

Other mitigation, such as use of newer technology, should also be implemented to ensure that all feasible mitigation measures are being used to reduce emissions. Tier 4 technology, which applies to diesel engines used for off-road equipment,[21] uses new higher pressure fuel injection systems and electronic engine controls[22] and can reduce PM10 emissions by 90% as compared to older technology.[23] The DEIR discusses this technology but states that it will not be required until 2013 (DEIR, p. 4.3-57) and allow for the use of older Tier 3 technology in mitigation measure 4.3.6.2A (DEIR, p. 4.3-56). However, review of 40 CFR Part 1039, which establishes regulation about emissions standards, shows that Tier 4 technology will be phased in starting in 2011.[24] The U.S. EPA has recommended the use of Tier 4 technology on other projects under CEQA review.[25] Because Project emissions are still significant even after mitigation, equipment used for the Project should meet Tier 4 standards to achieve maximum reduction in emissions. 6

The Project is located in the South Coast Air Basin, which is designated non-attainment for PM10. Because the air basin suffers from poor air quality from PM10, significant emissions of PM10 can worsen regional air quality. Because the Project will result in significant PM10 emissions, all feasible mitigation measures should be implemented to reduce emissions to the maximum extent feasible to ensure that Project construction will not contribute to a degradation of air quality. A revised DEIR should be prepared to implement all recommended mitigation measures, to include air filtration systems in residents' homes, equipment with Tier 4 technology, and all applicable Rule 403 measures.

Cumulative air impacts are inadequately mitigated

The DEIR predicts cumulative impacts to human health from the Project and other nearby projects to exceed risk thresholds set by the SCAQMD. The DEIR (p. 4.3-88) includes modeling results that estimate health impacts as follow: 7

[20] *Ibid.*

[21] Clean Diesel Technology for Off-Road Engines and Equipment: Tier 4 and More. http://www.aem.org/AllDocuments/AEM/SRT/SRTTopics/DTF_Tier4WP_FIN.pdf, p. 2.

[22] *Ibid.*, p. 3.

[23] U.S. EPA, Nonroad Engines, Equipment, and Vehicles. Nonroad Diesel Engines. http://www.epa.gov/otaq/nonroad-diesel.htm

[24] *See* http://www.epa.gov/otaq/standards/nonroad/nonroadci.htm; and http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&SID=0a57ac29b59ade8455648e60e739a181&rgn=div5&view=text&node=40:34.0.1.1.5&idno=40#40:34.0.1.1.5.1.1.2

[25] U.S. EPA Detailed Comments on the Draft Environmental Impact Statement for the Proposed Alta East Wind Project, Kern County, California, September 27, 2012. http://www.epa.gov/region9/nepa/letters/blm/ca/alta-east-wind-project-kern-county-deis.pdf, p. 2.

Table 4.3.AC: Comparison of Cancer Risk Values

Receptor Location	Cancer Risk (risk per million)		
	Project Increment	Cumulative	MATES-III
Maximum affected receptor located outside of the boundaries of the WLC Specific Plan	45[1]	193[1]	1,029[2]
Maximum affected sensitive receptor located within of the boundaries of the WLC Specific Plan	76.8	121.1	496
Existing residences located across Redlands Boulevard	20.9	45.9	496

The table shows that the incremental impacts from the Project range from 20.9 to 76.8 cancer risks which greatly exceed the SCAQMD threshold of 10 additional cancer risks in a population of one million.[26] The table also shows that a sensitive receptor who already faces a risk level well in excess of the SCQAQMD threshold (496 in a million) will have that risk increased by an increment of 121 in a population of a million (or 12 in a population of 100,000), a 24% increase, from cumulative project construction. Existing residences across Redlands Blvd. will see cumulative risk levels increase 9% (existing cancer risk of 45.9/MATES III risk of 496 = 9.3%).

Cancer risks that residents currently face in the area of the Project are primarily driven by diesel particulate matter (DEIR, 4.3-87). The California Air Resources Board has classified diesel particulate matter as a toxic air contaminant for both its cancer and non-cancer health effects.[27] In addition the California Office of Environmental Health Hazard Assessment found that exposure to diesel particulate resulted in an increased risk of cancer and an increase in chronic non-cancer health effects including a greater incidence of cough, labored breathing, chest tightness, wheezing, bronchitis, and asthma.[28] 7

Emissions of diesel particulate matter from cumulative project emissions will increase, driven by an increase in truck traffic from the Project and from other cumulative projects in the area. The DEIR offers no mitigation for diesel particulate matter emissions. Because current cancer risks greatly exceed thresholds, and will get significantly worse from cumulative impacts, all feasible mitigation should be considered for nearby residents, especially sensitive receptors. The mitigation should target reductions in diesel particulates, the most significant contributor to health risks.

Other projects, where risks from diesel particulates are as high as those estimated in the DEIR, have instituted mitigation that is considered to be Best Available Control Technologies for Toxics and which are capable of reducing potential cancer and non-cancer risks to an acceptable level. These Best Available Control Technologies and other mitigation measures include:

- Installation of Minimum Efficiency Reporting Value (MERV) filters rated at 13 or better at all residential units where incremental cancer risk exceeds one in one hundred thousand[29];

[26] http://www.aqmd.gov/cega/handbook/signthres.pdf
[27] http://www.oehha.ca.gov/public_info/facts/dieselfacts.html
[28] Ibid.
[29] http://cityplanning.lacity.org/EIR/CornfieldArroyo/RDEIR/RP-DEIR_Volume%20I.pdf, http://www.ci.berkeley.ca.us/uploadedFiles/Planning_and_Development/Level_3_-_Redevelopment_Agency/West%20Berkeley%20MMP.pdf

- Plant tiered vegetation along the project site boundaries -- laboratory studies show that cedar trees can remove some of the fine particulate matter emitted from traffic under low wind speeds[30];
- Providing notification to nearby residents in areas of estimated cumulative risk that exceeds one in one hundred thousand population that operation of the project may have detrimental health impacts as noted by California Air Resources Board and the South Coast Air Quality Management District. — 7

A revised DEIR should be prepared to identify additional mitigation to reduce cancer risks from diesel particulates from cumulative project construction. The DEIR should include all feasible mitigation and should include modeling estimates to show risk reduction to levels less than the SCAQMD threshold of one in a million cancer risk.

GREENHOUSE GAS EMISSIONS REQUIRE ADDITIONAL MITIGATION

Operational emissions

The DEIR estimates project operational emissions to be 752,000 mt CO2e/year, more than 75 times the SCAQMD's significance threshold of 10,000 mt CO2e per year. The DEIR correctly concludes that emissions are significant (p. 4.7-30) and provides mitigation. Even after mitigation, operational GHG emissions are nearly 70 times greater than the thresholds (Table 4.7.I). As high as these emissions remain, even after mitigation, the estimate of post-mitigation GHG emissions is based on incorrect assumptions. If correct estimates of long-haul truck trips were used, estimates of GHG emissions would even be higher. Because emissions are so high, a revised DEIR should be prepared to identify additional mitigation measure to attempt to reduce GHG impacts.

Underestimating the GHG emissions in the DEIR stems largely from incorrectly estimating long haul truck trip distances which make up more than half of all Project operational emissions (DEIR, p. 4.7-30). The DEIR states that long-haul trucks travel an average of 50 miles per trip (p. 4.7-30). No basis for making this estimate of long-haul travel distances is provided in the DEIR. — 8

The DEIR states the project would be haul cargo containers from the Port of Los Angeles or the Port of Long Beach (p. 4.7-43). Google maps shows routes to the Project average about 80 miles from the Ports of Los Angeles Long Beach, a distance 60% greater than the 50 mile distance estimated in the DEIR (Attachment C). Long-haul trips, even as underestimated in the DEIR, constitute the biggest component of operational emissions, by far, from Project operation (DEIR, p. 4.7-30).

The Project operational emissions are so significant, they constitute significant majority of the entire City of Moreno Valley's GHG emissions estimates for the year 2020. The DEIR states that the City of Moreno Valley's mitigated GHG emissions in 2020 will be 798,000 mt CO2e/year (DEIR, p.4.7-9). In 2020, Project's emissions, after mitigation, are estimated to be 612,000 mt CO2e/year (DEIR, p, 4.7-35), or 77% of the entire business as usual estimate for the City of Moreno Valley.

[30] http://www.ci.berkeley.ca.us/uploadedFiles/Planning_and_Development/Level_3_-_Redevelopment_Agency/West%20Berkeley%20MMP.pdf, p. 3

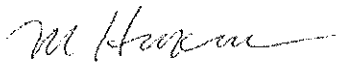
Because emissions vastly exceed thresholds, additional mitigation, in the form of offsets, should be included in a revised DEIR. The Project applicant should obtain emission reduction credits, or carbon offsets, to reduce the Project's emissions to a less than significant level. Offsets should be chosen in a revised DEIR to show that offsets are verifiable and efficient. The DEIR should not be certified until the Applicant discloses that the Project's GHG emissions are significant during the construction period and mitigates emissions through the purchase of carbon offsets. 8

Construction emissions

Construction GHG emissions from 2013 to 2021 are estimated to total 434,126 mt CO2e. The DEIR uses an amortization technique for a 30 year period to estimate emissions of 14,000 mt CO2e (p. 4.7-30). The emissions are significant in that they exceed the threshold of South Coast AQMD threshold of 10,000 mt CO2e.[31] 9

The DEIR does not identify any mitigation measures for construction GHGs in excess of thresholds. Many mitigation measures for construction GHGs are commonly recommended by the South Coast AQMD in their review of DEIRs.[32] A revised DEIR should be prepared to include all mitigation measures that would be feasible in reducing GHG emissions. If these measures are not sufficient, carbon offsets should be purchased to reduce emissions to reduce GHG emissions to below the threshold.

Sincerely,



Matt Hagemann, P.G., C.Hg., QSD, QSP

[31] http://www.aqmd.gov/ceqa/handbook/signthres.pdf
[32] http://www.aqmd.gov/ceqa/igr/2012/December/DEIRglenarm.pdf, p. 3

RESPONSES TO LETTER F-7B

Lozeau Drury LLP

Response to Comment F-7B-1. The commenter refers to project information that has now changed, the revised project will develop 40.6 million square feet of logistics warehousing rather than 41.6 million, and the developable area of the World Logistics Center (WLC) Specific Plan is now 2,610 acres rather than 2,710 acres. The commenter also indicated that the analysis of impacts related to hazardous materials, hydrology, water quality, and air quality were inadequate and the EIR should be revised. The analysis in the original Draft Environmental Impact Report (DEIR), plus the additional and revised analyses of these issues in the Final Environmental Impact Report (FEIR), provide sufficient information upon which to make an informed decision, and that the additional information and mitigation, provided mainly in response to the many comments on the DEIR, do not rise to the level of significant new information, and do not identify any new or substantially increased environmental impacts of the project.

Response to Comment F-7B-2. The commenter says the DEIR does not adequately assess soil conditions on the project site. The many Phase 1 assessments do demonstrate that the WLC site does not contain significant soil contamination from agricultural chemicals, as explained in the Responses to Comments F-7A-18 and F-7A-21. However, to err on the site of caution, Mitigation Measure (MM) 4.8.6.1A has been modified to include soil sampling for agricultural chemicals when the 7 rural residences are developed.

Response to Comment F-7B-3. The commenter suggests the site has inadequate soil sampling and refers to a California) Department of Toxic Substance Control (DTSC) publication for guidance (suggests organo-chloro-phosphate (OCPs) like dichlorodiphenyltrichloroethane (DDT) or dichlorodiphenyldichloroethylene (DDE) may be present). As outlined in Response to Comment F-7A-18, there is no reason to believe or evidence to demonstrate that the site is actually contaminated by OCPs such as DDT or DDE. The references cited by the commenter are general for those chemicals and are not specific to the WLC project site, and do not demonstrate that these chemicals were specifically used on the WLC site. The many Phase 1 assessments do demonstrate that the WLC site does not contain significant soil contamination from agricultural chemicals, as explained in the previous Response F-7A-18.

Response to Comment F-7B-4. The commenter expresses concern about soil contamination in the southwest portion of the project site. First, it should be noted that 100 acres in the southwest portion of the project were eliminated from the project, which covers most of the specific area referred to by the commenter. Again, the DEIR does adequately characterize baseline conditions on the WLC site in terms of soil contamination from agricultural activities. These issues are addressed in detail in Responses to Comments F-7A-18 and F-7A-21.

Response to Comment F-7B-5. Sediment toxicity was added to the 2010 303(d) list of impaired water bodies for Lake Elsinore and Table 4.9.A in the DEIR has been updated (FEIR Volume 2 Section 4.9 Table 4.9D). As required by MM 4.9.6.2B, a project-specific SWPPP will be prepared during the final design phase of the project. "*The Storm Water Pollution Prevention Plan (SWPPP) shall include a surface water control plan and erosion control plan citing specific measures to control on-site and off-site erosion during the entire grading and construction period. In addition, the SWPPP shall emphasize structural and nonstructural best management practices (BMPs) to control sediment and nonvisible discharges from the site*." (Page 4.9-31). The SWPPP will be prepared meeting all requirements of the 2009-0009-DWQ Construction General Permit effective July 1, 2010 (California Environmental Protection Agency, State Water Resources Control Board). Table 4.9.H lists possible construction site Best Management Practices (BMPs) for runoff control, sediment control, erosion control, and housekeeping that may be used during the construction phases of the proposed WLC

project. The implementation of an approved SWPPP with appropriate construction site BMPs will control erosion and sediment transport such that contaminated sediment and runoff will not significantly affect the water quality at all downstream water bodies, including Mystic Lake, Lake Elsinore, and San Jacinto River.

There are no anticipated legacy pollutants as a result of past uses. A Phase I Environmental Site Assessment (ESA) for the World Logistics Center Specific Plan has revealed no evidence of recognized environmental conditions (RECs) indicative of releases or threatened releases of hazardous substances on, at, in, or to the subject site. However, construction-related impacts from any pollutants that may be present based on current and historical uses of the project site, including organo-chloro-phosphate (OCPs) and other pesticides, or trace metals, will be mitigated by implementing appropriate construction BMPs to control erosion and sediment transport. Controlling erosion and sediment transport will also eliminate the transport of pollutants that attach to the sediments.

The SWPPP will identify specific construction site BMPs that will be required for the project. During construction, a registered Qualified SWPPP Practitioner (QSP) will be required to verify that a SWPPP is on site and check that construction BMPs are being implemented properly. Preparation of a SWPPP at the Specific Plan phase is not appropriate because no specific details of construction or grading are available at the specific plan level. The SWPPP will be prepared prior to issuance of any grading permit for development in the WLCSP area.

Changes to DEIR

Consistent with the comments provided by Letter F-7B (Lozeau Drury LLP), the text in DEIR Table 4.9.A, Page 4.9-5 is amended to include sediment toxicity for Lake Elsinore on the 303(d) list. The change to the DEIR does not result in a significant impact and has no material effect on the findings of the EIR. The revisions to the text of the DEIR are as follows:

Table 4.9.D: Receiving Waters from the Project Site

Receiving Water	303(d) List Impairments	Designated Beneficial Use	Proximity to RARE Use* Designation
San Jacinto River Reach 3 (Hydrologic Units 802.11, 802.14 and 802.21)	None	Intermittent: MUN, AGR, GWR, REC1, REC2, WARM, WILD	Approximately 2 miles to RARE designated San Jacinto Wildlife Area
Canyon Lake (Railroad Canyon Reservoir), San Jacinto River Reach 2 (Hydrologic Unit 802.11)	Nutrients, Pathogens	MUN, AGR, GWR, REC1, REC2, WARM, WILD	Not Rare
San Jacinto River Reach 1 (Hydrologic Units 802.32 and 802.31)	None	Intermittent: MUN, AGR, GWR, REC1, REC2, WARM, WILD	Not Rare
Lake Elsinore (Hydrologic Unit 802.31)	Nutrients, Organic Enrichment/Dissolved Oxygen, PCBs (polychlorinated biphenyls), Sediment Toxicity, Unknown Toxicity	MUN, REC1, REC2, WARM, WILD	Not Rare

* Rare, Threatened or Endangered Species (RARE) waters support habitats necessary for the survival and successful maintenance of plant or animal species designated under State or Federal law as rare, threatened, or endangered.

Source: *Preliminary Project Specific Water Quality Management Plan for World Logistics Center Specific Plan*, CH2M HILL, ~~November 2012~~ September 2014.

Response to Comment F-7B-6. See Responses to Comments F-7A-47 and F-7A-48.

Response to Comment F-7B-7. See Response to Comment F-7A-65.

Response to Comment F-7B-8. See Response to Comment F-7A-57.

Response to Comment F-7B-9. See Response to Comment F-7A-58.

Letter F-7C: Lozeau Drury LLP (April 5, 2013) and Appendices 1-11 (on Flash Drive)

April 4, 2013

Ms. Cathy D. Lee
Lozeau-Drury, LLP
410 12th Street, Suite 250
Oakland, CA 94607

Subject: Comments on the Draft Environmental Impact Report prepared for the World Logistics Center Project

Dear Ms. Lee:

This letter contains my comments on the Draft Environmental Impact Report ("DEIR") prepared for the World Logistics Center Project ("Project"). Highland Fairview Operating Company ("Applicant") is proposing the World Logistics Center Specific Plan for 3,918 acres in the Rancho Belago area of the City of Moreno Valley. The Project entails a General Plan Amendment, which would redesignate approximately 71 percent of the area (2,710 acres) for logistics warehousing and the remaining 29 percent (1,104 acres) for permanent open space and public facilities.

I am an environmental biologist with 20 years of professional experience in wildlife ecology, forestry, and natural resource management. I have served as a biological resources expert for over 50 development projects. My experience in this regard includes testifying before the California Energy Commission and California Public Utilities Commission, and assisting various clients with evaluations of biological resource issues. My educational background includes a B.S. in Resource Management from the University of California at Berkeley, and a M.S. in Wildlife and Fisheries Science from the Pennsylvania State University. 1

I am on Riverside County's list of Authorized Biological Consultants. I have gained particular knowledge of the biological resource issues associated with the Project through studies I have conducted in Riverside County, and through my work on other projects in the Project region. The subsequent comments are based on my review of the environmental documents prepared for the Project, a review of scientific literature pertaining to biological resources known to occur in the Project area, consultations with biological resource experts, and the knowledge and experience I have acquired during more than 20 years of working in the field of natural resources management.

THE DEIR'S FAILURE TO ESTABLISH EXISTING CONDITIONS PRECLUDES A THOROUGH ASSESSMENT OF PROJECT IMPACTS TO SENSITIVE BIOLOGICAL RESOURCES

The DEIR Fails to Accurately Disclose the Value of the Project Site to Raptors

The DEIR identifies the Project site as providing "marginal foraging habitat for some raptors species."[1] This statement is not substantiated by survey data. Indeed, two different studies that were conducted in the Project area demonstrate (or strongly suggest) that the Project site provides very important habitat for raptors.

McCrary et al. (1985) conducted a 2-year fall and winter study of raptors in the San Jacinto Valley to provide baseline data on populations in southern California and to quantify the importance of the valley as a wintering area for raptors.[2] The study area was predominately agricultural lands (alfalfa and grain crops) and dairy farms, and it included the southern half of the Project site.[3] The investigators detected 14 raptor species during their study, and raptor densities were 5 to 17 times higher than those reported for other regions. This led the authors to conclude that "*the San Jacinto Valley and similar surrounding areas are of major importance to wintering birds of prey*."[4] 2

Beckman et al. (2011) replicated the raptor surveys between 2005 and 2009 and derived a comparable conclusion regarding the importance of the region to raptor species.[5] Furthermore, both studies indicate the San Jacinto Valley provides important wintering grounds for the white-tailed kite, northern harrier, ferruginous hawk, golden eagle, and prairie falcon—all of which are special-status species. The State of California indicates 22 overwintering raptor species are known to utilize the San Jacinto Valley, and that the San Jacinto Valley consistently ranks in the top one to two percent in species diversity for the North American Christmas Bird Counts.[6]

Burrowing Owl Surveys Were Incomplete and Did Not Adhere to Survey Protocols

The Western Riverside County Multiple Species Habitat Conservation Plan ("MSHCP") identifies the Project site as being within an area requiring focused surveys for burrowing owls. The Applicant did not conduct surveys throughout all portions of the Project site that provide suitable habitat for burrowing owls, nor did it conduct surveys according to 3

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[1] DEIR, p. 4.4-28.
[2] McCrary MD, RL McKernan, WD Wagner, RE Landry. 1986. Roadside raptor census in the San Jacinto Valley of southern California. Western Birds 17:123-130. (Attachment A).
[3] *Ibid,* p. 123 and Figure 1.
[4] *Ibid.* [emphasis added].
[5] Beckman A, S Hoffman, R Zembal, and others. 2011. Roadside Raptor Surveys of the Santa Ana River Watershed in Riverside and San Bernardino Counties, California, 2005-2009 [Abstract]. 2011 Annual Conference of the Western Section of the Wildlife Society, Riverside, California. (Attachment B).
[6] State of California. 2008. San Jacinto Wildlife Area, Expansion 31, Riverside County [internet]. Available at: http://bondaccountability.resources.ca.gov/NewsArticle.aspx?pid=4&id=133

the protocol established by the MSHCP.[7]

Burrowing owls occur in open habitat types (e.g., grassland, shrub steppe, desert, agriculture, and ruderal, among others) if the vegetation structure is suitable and there are useable burrows and foraging habitat in proximity.[8] As the DEIR acknowledges, almost all of the Project site and surrounding buffer area provide potentially suitable habitat for burrowing owls.[9] The DEIR suggests protocol surveys for the burrowing owl were conducted throughout the entire Project site, and that much of the Project site has been subject to several years of protocol-level surveys. To the contrary, the survey reports that accompany the DEIR suggest the burrowing owl surveys were cursory, and that some portions of the Project site providing suitable burrowing owl habitat were never surveyed.

2005 Surveys

In 2005, the Applicant's consultants used aerial photographs to categorize the potential (i.e., low, moderate, and high potential) for burrowing owls to occur in various portions of the 1,778-acre Bel Lago Property (a subset of the Project site). The consultants then conducted four surveys "on foot and by vehicle within suitable habitat on the Project site and within a 100-foot buffer around the suitable habitat."[10] In my opinion, those surveys were insufficient for documenting habitat suitability; and the presence, abundance, and distribution of burrowing owls in the survey area. 3

First, the presence and abundance of suitable burrows is an essential element of burrowing owl habitat, and thus, the suitability of the habitat as a whole. It would have been impossible for the Applicant's consultants to use aerial photographs to map the presence of burrows. This issue is confounded because the conclusions in the survey report pertaining to habitat suitability are internally inconsistent and/or are not supported by scientific literature. For example, the report first states habitat within the "low potential" area had little to no vegetation, but it subsequently states "low potential" habitat typically contained 100% vegetation coverage that provided poor habitat for burrowing owls due to limited visibility of ground dwelling species.[11]

Second, the surveys did not adhere to the methods described in the California Department of Fish and Wildlife's ("CDFW") Staff Report on Burrowing Owl Mitigation, as required by the MSHCP. CDFW's 2005 Staff Report states: "[s]urveys should be conducted by *walking* suitable habitat on the entire project site and (where possible) in areas within 150 meters (approx. *500 ft.*) of the project impact zone."[12] Indeed, administrators of the

[7] Regional Conservation Authority. 2006. Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area. Available at: http://www.wrc-rca.org/library.asp#id164.
[8] CDFG. 2012. Staff Report on Burrowing Owl Mitigation. Available at: www.dfg.ca.gov/wildlife/nongame/docs/BUOWStaffReport.pdf.
[9] DEIR, p. 4.4-29.
[10] *Ibid*, Appendix E. Michael Brandman Associates. 2005 Sep 12. DRAFT Focused Burrowing Owl Survey Report for the 1,778-acre Bel Lago Property, p. 6.
[11] *Ibid*, pp. 6 and 10.
[12] California Department of Fish and Game. 1995. Staff Report on Burrowing Owl Mitigation. [emphasis added].

MSHCP have established that burrowing owl surveys that are conducted while driving are unacceptable.[13] Although the surveyors detected a breeding pair of burrowing owls on the Project site they did not conduct additional surveys to identify the location of the nest site.[14] 3

2007 Surveys

The Applicant's consultant conducted additional surveys for burrowing owls in 2007. However, the surveys were limited to the site for the 158.4-acre Highland Fairview Corporate Park and the surrounding 500-foot buffer zone.[15] The surveys did not encompass the location where burrowing owls were detected in 2005, and thus they were incapable of determining continued use of the site by the breeding pair.[16] 4

2010 Surveys

In 2010, the Applicant's consultant conducted surveys within the 4,321-acres Highlands Specific Plan area. According to the survey report, a single biologist conducted the burrow survey (Part A of the protocol) and first focused burrowing owl survey (Part B of the protocol) between 0630 and 0730 hours on June 9, 2010.[17] Only areas identified in the initial survey as having potential burrows and adjacent foraging habitat for owls were surveyed during the remaining three surveys.[18] As a result, the survey effort was limited to four drainages within the entire Project site and surrounding buffer zone.[19] Such an effort would have been insufficient for documenting the presence, abundance, and distribution of burrowing owls within the Project site. 5

First, it would have been impossible for a single biologist to identify the presence of potentially suitable burrows across several thousand acres of potentially suitable habitat within one hour. Furthermore, the "Sensitive Plant Focused Survey" report indicates the biologist was conducting sensitive plant surveys within four drainages at the exact same time and date. Consequently, he could not have been conducting the burrow and burrowing owl survey across the entire Project site and buffer—as the report indicates.

Second, each of the remaining three focused surveys was limited to two biologists conducting surveys for one hour per day.[20] At the same time, one of the two biologists

[13] Regional Conservation Authority. 2006. Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area. Available at: http://www.wrc-rca.org/library.asp#id164.
[14] DEIR, Appendix E. Michael Brandman Associates. 2005 Sep 12. DRAFT Focused Burrowing Owl Survey Report for the 1,778-acre Bel Lago Property, p. 6.
[15] *Ibid*. Michael Brandman Associates. 2008 Feb 5. Burrowing Owl Focused Survey: Highland Fairview Corporate Park.
[16] *Ibid,* Exhibit 4. *See also* DEIR, Appendix E. Michael Brandman Associates. 2005 Sep 12. DRAFT Focused Burrowing Owl Survey Report for the 1,778-acre Bel Lago Property, Exhibit 4.
[17] DEIR, Appendix E. Michael Brandman Associates. 2010 Dec 13. Burrowing Owl Focused Survey: Highlands Specific Plan, p. 18.
[18] *Ibid,* p. 13.
[19] *Ibid,* Exhibit 4.
[20] *Ibid,* Table 2.

was reported to have been conducting surveys for sensitive plant species.[21] It would have been impossible for the biologists to reliably survey the four drainages for burrowing owls and sensitive plants during such a short period of time, especially given that there were numerous burrows throughout the survey area.[22]

The survey report indicates: "[t]here is no additional suitable habitat within 500 feet surrounding the project site. Therefore, although evaluated, protocol burrowing owl surveys were not conducted within the 500-foot buffer area."[23] This statement is misleading and undermines the information presented in the DEIR. First, it is clear the Applicant's consultant did not walk through (evaluate) the entire Project site and 500-foot buffer zone to determine the presence of potentially suitable burrows for burrowing owls. Second, the survey area appears to have been dictated by habitat suitability for sensitive plant species, which does not necessarily coincide with that for burrowing owls.[24] Third, the consultant's statement conflicts with information presented in its 2005 survey report, which identifies most of the Project site as having "moderate potential habitat" for burrowing owls.[25] Fourth, the consultant's statement conflicts with: (a) its map of vegetation communities; (b) imagery available through Google Earth (Figures 1 and 2); and (c) information provided in the DEIR.[26] These sources suggest there is considerably more suitable habitat for burrowing owls than suggested in the consultant's 2010 survey report. 5

2007 and 2012 Surveys

The DEIR indicates focused burrow and burrowing owls surveys also were conducted in 2006 (750 acres) and 2012 (3,300 acres).[27] However, the DEIR does not provide survey reports or any other information that describes and documents the survey efforts. As a result, I am unable to evaluate the value of those survey efforts in providing information pertaining to the burrowing owl.

A single burrowing owl was observed within the temporary detention basin located south of the Highland Fairview Corporate Park during a March 2012 site visit associated with the Jurisdictional Delineation.[28] Although this observation was important given the scarcity of owls in the MSHCP plan area, the Applicant's consultant apparently made no attempt to determine the breeding status of the owl.

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[21] DEIR, Appendix E. Michael Brandman Associates. 2010 Dec 13. Sensitive Plant Focused Survey: Highlands Specific Plan, Table 3.
[22] *Ibid*. Michael Brandman Associates. 2010 Dec 13. Burrowing Owl Focused Survey: Highlands Specific Plan, p. 18.
[23] *Ibid.*
[24] *Ibid*, Exhibit 4. *See also* DEIR, Appendix E. Michael Brandman Associates. 2010 Dec 13. Sensitive Plant Focused Survey: Highlands Specific Plan, p. 10 and Exhibit 5.
[25] DEIR, Appendix E. Michael Brandman Associates. 2005 Sep 12. DRAFT Focused Burrowing Owl Survey Report for the 1,778-acre Bel Lago Property, Exhibit 4.
[26] *Ibid*, p. 4.4-29.
[27] *Ibid.*
[28] *Ibid*, Appendix E, p. 46.

The Applicant's consultant has concluded the burrowing owl "is not considered a permanent resident within the entire study area." [29] The consultant has no basis for its conclusion because it did not conduct any surveys to evaluate winter residency. Moreover, it appears that at least one burrowing owl was detected south of the Highland Fairview Corporate Park (Skecher's Logistic Center) each time the area was surveyed.[30] This information, and the knowledge that burrowing owls have high site fidelity, strongly suggests that the burrowing owl is a breeding season resident on the Project site.

Figure 1. Potentially suitable burrowing owl habitat at proposed debris basin site east of Gilman Springs Road.

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[29] *Ibid.*
[30] *Ibid.*

Figure 2. Potentially suitable burrowing owl habitat at proposed debris basin site east of Gilman Springs Road.

5

The DEIR Fails to Establish Existing Conditions Pertaining to Special-Status Plant Species That May Be Impacted by the Project

<u>Protocol-Level Plant Surveys Were Not Conducted</u>

Failure to survey the entire Project area and buffer-

6

The Applicant's consultant conducted rare plant surveys in June 2010. These surveys, however, were based on the footprint for the Highlands Specific Plan, and they were limited to four drainages within the Project site.[31] The Applicant's consultant did not survey any other portions of the Project area, including the Riversidean Sage Scrub communities, which the DEIR identifies as having the potential to support rare plant species that are not covered by the MSHCP.[32]

CDFW survey guidelines indicate focused botanical surveys should be conducted *whenever natural or naturalized vegetation occurs on a project site* and the project has

[31] DEIR, Appendix E. Michael Brandman Associates. 2010 Dec 13. Sensitive Plant Focused Survey: Highlands Specific Plan, p. 2. and Exhibit 5.
[32] *Ibid*, pp. 4.4-26 and -27.

the potential for direct or indirect effects on vegetation.[33] Natural and naturalized vegetation occur on and adjacent to the Project site, and the Project will have direct and indirect impacts on that vegetation.[34] Therefore, to establish existing conditions and comply with CDFW guidelines, the Applicant needs to conduct appropriately timed botanical surveys throughout all portions of the Project area and buffer zone containing natural or naturalized vegetation. Data from those surveys are required to fully assess existing conditions, analyze Project impacts, and formulate appropriate mitigation for impacts to sensitive botanical resources.

Inappropriate methodology-

The methods used to survey special-status plants on the Project site had numerous flaws that have resulted in unreliable information on baseline conditions and Project impacts.

The Applicant's consultant concluded that three sensitive plant species have a "moderate" potential to occur on the Project site. The sensitive plant surveys were limited to a search for those three species.[35] The "list approach" implemented by the Applicant's consultant is not an accepted technique for disclosing and analyzing the impacts of a project. Indeed, the CDFW specifically advises against the "list approach" for botanical inventories. Its survey guidance states: 6

> This list [of special-status plants with potential to occur within a particular region] can serve as a tool for the investigators and facilitate the use of reference sites; however, special status plants on site might not be limited to those on the list. Field surveys and subsequent reporting should be comprehensive and floristic in nature and *not restricted to or focused only on this list*…"Focused surveys" that are limited to habitats known to support special status species or are restricted to lists of likely potential species are not considered floristic in nature and **are not adequate** to identify all plant taxa on site to the level necessary to determine rarity and listing status.[36]

As the survey report acknowledges, "[t]he focused plant survey…is not considered a comprehensive botanical survey to record all observed species within the survey areas."[37]

According to the survey report, the 2010 surveys were conducted within the known flowering period of the special-status species potentially occurring within the Project footprint.[38] However, the phenology of plants can vary considerably within the known

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[33] CDFG. 2009. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. Available at: http://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html#Plants.
[34] DEIR, Figure 4.4-1.
[35] *Ibid*, Appendix E. Michael Brandman Associates. 2010 Dec 13. Sensitive Plant Focused Survey: Highlands Specific Plan, p. 1.
[36] CDFG. 2009. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. Available at: http://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html#Plants. [emphasis added].
[37] DEIR, Appendix E. Michael Brandman Associates. 2010 Dec 13. Sensitive Plant Focused Survey: Highlands Specific Plan, p. 9.
[38] *Ibid.*

flowering period depending on environmental conditions. Contrary to guidance issued by the CDFW, the Applicant's biologist did not visit reference sites to determine the phenology of the target species and to confirm they were identifiable at the time of the surveys.[39]

The sensitive plant surveys were limited to seven man-hours, during which time the biologist was also searching for burrowing owls.[40] In my opinion, it would have been impossible for the biologist to reliably survey the four drainages for burrowing owls and sensitive plants during such a short period of time. 6

Due to the issues described above, the DEIR lacks reliable information on existing conditions, and it is not possible for the City of Moreno Valley ("City") to conclude special-status plant species are absent from the Project site.

The DEIR Fails to Establish Existing Conditions Pertaining to the Los Angeles Pocket Mouse

The Los Angeles pocket mouse is a state listed Species of Special Concern and a MSHCP Group 3 species. The Los Angeles pocket mouse is associated with fine, sandy soils in intermittent drainages, non-native grassland, Riversidean sage scrub, Riversidean alluvial fan sage scrub, chaparral and redshank chaparral habitats.[41] The DEIR relays the opinion of the Applicant's consultant that the species is absent from the Project area.[42] That conclusion is unjustified for two reasons. 7

First, focused surveys for the Los Angeles pocket mouse were not conducted throughout all potentially suitable habitats. In 2005, trapping surveys were limited to nine acres of suitable habitat within "Drainage Feature 9."[43] In 2010, surveys were limited to trapping along approximately 1,000 feet of Drainage Feature 9, and within two ephemeral drainages (each also approximately 1,000 feet) dominated by mule fat but within an agricultural field.[44] Trapping surveys were never conducted in other portions of the Project area that contain potentially suitable habitat for the Los Angeles pocket mouse. These include: (a) the northern portion of "Drainage Feature 7" where it is associated with native vegetation; (b) the drainages and native vegetation communities east of Gilman Springs Road and north of Highway 60; (c) the grassland community within the Project area; and (d) the remaining scrub communities in the Project area.

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[39] CDFG. 2009. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. Available at: http://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html#Plants.
[40] DEIR, Appendix E. Michael Brandman Associates. 2010 Dec 13. Sensitive Plant Focused Survey: Highlands Specific Plan, Table 3. *See also* DEIR, Appendix E. Michael Brandman Associates. 2010 Dec 13. Burrowing Owl Focused Survey: Highlands Specific Plan, Table 2.
[41] MSHCP, Vol II-B, Species Accounts: Mammals. Available at: http://www.wrc-rca.org/library.asp
[42] DEIR, p. 4.4-30.
[43] *Ibid*, Appendix E. Michael Brandman Associates. 2005 Sep 26. DRAFT Focused Los Angeles Pocket Mouse Survey Report for the 1,778-Acre Bel Lago Property, p. 7.
[44] *Ibid*, p. 10.

Second, it is well established in the field of wildlife science that it is nearly impossible to prove absence. This is especially true for the Los Angeles pocket mouse, which appears to occur at low densities and is difficult to trap.[45]

Potentially significant Project impacts to the Los Angeles pocket mouse cannot be properly disclosed, analyzed, and mitigated until trapping surveys have been completed throughout all potentially suitable habitats in the Project area and buffer zone. 7

The DEIR Fails to Disclose Impacts to All Special-Status Species

Northwestern San Diego Pocket Mouse

The Northwestern San Diego pocket mouse is a state listed Species of Special Concern. According to the DEIR, the Northwestern San Diego pocket mouse has a low potential of occurring in the Project area.[46] This conclusion is incorrect. The Applicant's consultant captured seven Northwestern San Diego pocket mice during its 2010 trapping surveys on the Project site.[47] Development of the Project will have an adverse effect on the Northwestern San Diego pocket mouse. The City must disclose, analyze, and provide mitigation for this potentially significant impact. 8

San Diego Desert Woodrat

The San Diego Desert woodrat is a state listed Species of Special Concern. The Applicant's consultant captured eight San Diego desert woodrats during its trapping surveys on the Project site.[48] The DEIR does not disclose the presence of San Diego desert woodrats on the Project site, nor does it analyze potentially significant impacts to the (sub)species. 9

American Badger

The American badger is a state listed Species of Special Concern that is not covered under the MSHCP. The DEIR incorrectly states that the Project area does not contain habitat for the American badger.[49] The American badger occurs in herbaceous, shrub, and open stages of most habitats with dry, friable soils.[50] American badgers have the potential to occur on the Project site, especially in the patches of habitat that have not been subject to periodic discing. As a result, the City must disclose, analyze, and provide mitigation for potentially significant Project impacts to the American badger. 10

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[45] MSHCP, Vol II-B, Species Accounts: Mammals, p. M-92. Available at: http://www.wrc-rca.org/library.asp
[46] DEIR, Table 4.4.D.
[47] *Ibid*, Appendix E. Michael Brandman Associates. 2010 Dec 13. Focused Los Angeles Pocket Mouse Survey Report: Highlands Specific Plan, Table 2.
[48] *Ibid*. Michael Brandman Associates. 2005 Sep 26. Focused Los Angeles Pocket Mouse Survey Report for the 1,778-acre Bel Lago Property, Table 1.
[49] *Ibid*, p. 4.4-27.
[50] California Department of Fish and Game. California Interagency Wildlife Task Group. 2005. California Wildlife Habitat Relationships version 8.1 personal computer program. Sacramento, California.

Western Yellow Bat

The western yellow bat is a state listed Species of Special Concern that is not covered under the MSHCP. The DEIR states there is no suitable habitat for the species in the Project area even though (a) no bat surveys were conducted for the Project; and (b) the species has been documented occurring in the Project region.[51]

The western yellow bat is a "tree-roosting" species commonly found roosting in the skirt of dead fronds in both native and non-native palm trees.[52] It is believed to form small maternity groups in trees and palms, including in ornamental plantings in residential areas and orchards.[53] One of the primary threats to the species in the U.S. is the cosmetic trimming of palm fronds.[54] Palms occur in the Project area and presumably may be impacted by the Project.[55] 11

Bats are very vulnerable to disturbance.[56] Construction activities associated with the Project have the potential to cause bats to abandon roosts and maternity colonies. The DEIR does not disclose, assess, or provide mitigation for this potentially significant impact.

Bell's Sage Sparrow

The Bell's sage sparrow is a U.S. Fish and Wildlife Service ("USFWS") Bird of Conservation Concern, a CDFW Watch List species, and a MSHCP Group 2 species. The DEIR states there is no suitable habitat for the Bell's sage sparrow within the Project area.[57] The DEIR fails to acknowledge that the subspecies was detected during small mammal trapping surveys on the Project site.[58] As a result, the City must disclose and analyze potentially significant Project impacts to the Bell's sage sparrow. 12

[51] California Natural Diversity Database, Biogeograhic Data Branch, Department of Fish and Game. 2012 Feb 7 (Version 3.1.0). *See also* DEIR, p. 4.4-27.
[52] Western Bat Working Group. 2005 [updated]. Species accounts. Available at: http://www.wbwg.org/species_accounts.
[53] California Wildlife Habitat Relationships System. 2005. California Department of Fish and Game. California Interagency Wildlife Task Group. CWHR version 8.1 personal computer program. Sacramento (CA). *See also* Western Bat Working Group. 2005 [updated]. Species accounts. Available at: http://www.wbwg.org/species_accounts.
[54] Western Bat Working Group. 2005 [updated]. Species accounts. Available at: http://www.wbwg.org/species_accounts.
[55] DEIR, Appendix E.
[56] Western Bat Working Group. 2005 [updated]. Species accounts. Available at: http://www.wbwg.org/species_accounts.
[57] DEIR, p. 4.4-27.
[58] *Ibid*, Appendix E. Michael Brandman Associates. 2005 Sep 26. Focused Los Angeles Pocket Mouse Survey Report for the 1,778-acre Bel Lago Property, Appendix A: Floral and Faunal Compendia.

Grasshopper Sparrow

The grasshopper sparrow is a state listed Species of Special Concern. The species is not covered by the MSHCP because the species-specific conservation objectives defined in the MSHCP have not yet been met.[59] The grasshopper sparrow was detected on the Project site.[60] However, the DEIR does not disclose, analyze, or provide mitigation for potentially significant Project impacts to the species. 13

White-tailed Kite

The DEIR concludes "[n]o suitable nesting habitat for white-tailed kite or American peregrine falcon occurs within the area due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native low-quality vegetation."[61] This conclusion conflicts with scientific information. White-tailed kites are known to nest in a variety of different tree species.[62] Furthermore, agricultural habitat, especially dryland field crops (e.g., wheat and barley), may play an important role as foraging habitat for nesting white-tailed kites because the fields are known to provide prey for foraging raptors. The City must disclose and analyze potentially significant Project impacts to the white-tailed kite. 14

Ferruginous Hawk and Merlin

The ferruginous hawk is a USFWS Bird of Conservation Concern and a CDFW Watch List species. The merlin is a CDFW Watch List species. The DEIR states the Project site provides suitable foraging habitat for these two species, but no suitable nesting habitat.[63] Both the ferruginous hawk and merlin are known to occur in the Project region.[64]

It is well established that ferruginous hawks and merlins do not nest in California, and that the special-status designations for these two species apply to birds on their *wintering* grounds. Therefore, the lack of nesting habitat on the Project site is irrelevant to the potential for Project impacts under CEQA. As a result, the City must disclose and analyze Project impacts to the ferruginous hawk and merlin, and it must identify how potentially significant impacts to the two species would be mitigated. 15

[59] MSHCP, Vol II-B, Species Accounts: Birds. *See also* MSHCP 2011 Annual Report, Table 25. Available at: http://www.wrc-rca.org/library.asp
[60] DEIR, Table 4.4.D.
[61] *Ibid*, p. 4.4-26.
[62] Niemela CA. 2007. Landscape characteristics surrounding white-tailed kite nest sites in Southwestern California. MS Thesis, Humboldt State University, Arcata, California.
[63] DEIR, p. 4.4-27.
[64] eBird. 2011. eBird: An online database of bird distribution and abundance [web application]. Version 2. eBird, Ithaca, New York. Available: http://www.ebird.org. (Accessed: 2013 Feb 2).

The DEIR Provides Incorrect Information on the Jurisdictional Status of Drainages in the Project Area.

The DEIR states the drainage features in the Project area are not subject to the jurisdiction of the CDFW.[65] This statement is inconsistent with information provided in the Jurisdictional Delineation report, which identifies portions of Drainages 7 and 9 as being jurisdictional under 1600 of the Fish and Game Code.[66]

The DEIR states that the Project site does not contain any features under the jurisdiction of the Regional Water Quality Control Board ("RWQCB").[67] This statement appears to be based on the false impression that features not under the jurisdiction of the U.S. Army Corps of Engineers are also not under the jurisdiction of the RWQCB.[68] 16

The jurisdictional reach of Porter-Cologne Water Quality Control Act (i.e., RWQCB) extends to all "waters of the state."[69] That term is defined as "any surface water or groundwater, including saline waters, within the boundaries of the state."[70] Because Porter-Cologne applies to any water and the federal Clean Water Act only applies to certain waters, California's jurisdictional reach is broader and more comprehensive than the federal government's.[71]

PROJECT IMPACTS

The Extent of Project Impacts to Sensitive Biological Resources Cannot Be Assessed Due to the Lack of Survey Data

For reasons previously discussed, project impacts to the burrowing owl, Los Angeles pocket mouse, and special-status plants cannot be sufficiently assessed due to the lack of comprehensive survey data. The lack of comprehensive survey data on burrowing owls is especially problematic because it is a MSHCP "Group 3" species (with additional survey needs and procedures), and because the species is known to occur on the Project site. 17

[65] DEIR, p. 4.4-51.
[66] *Ibid*, Appendix E. Michael Brandman Associates. 2012 Apr 23. Assessment of Jurisdictional Waters and Wetlands, p. 42.
[67] *Ibid*, p. 4.4-59.
[68] *For example, see*: DEIR, Appendix E. Michael Brandman Associates. 2012 Apr 23. Assessment of Jurisdictional Waters and Wetlands, p. 32.
[69] State Water Resources Control Board. 2013 Jan 28. PRELIMINARY DRAFT: WATER QUALITY CONTROL POLICY for Wetland Area Protection and Dredged or fill Permitting, p. 4. Available at: http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/wrapp/policy_draft.pdf
[70] *Ibid.*
[71] *Ibid.*

Burrowing Owl

Burrowing owls have been documented occurring on the Project site.[72] As a result, the Project is likely to have significant direct and indirect impacts on burrowing owl resources (including burrows, foraging habitat, and individual owls). However, the extent and magnitude (e.g., number of afflicted owls) cannot be fully evaluated and mitigated until surveys that comply with CDFW's 2012 survey requirements have been conducted. Moreover, it is not possible to rule out the potential for the Project to significantly impact burrowing owls until surveys that adhere to the protocol have been conducted. 18

The DEIR Fails to Provide Scientific Analysis of Project Impacts to Raptor Habitat

The City's analysis of Project impacts to raptor foraging habitat is limited to the following statements:

> The WLCSP [World Logistics Center Specific Plan] and off-site facilities contain flat, open areas with sparse vegetation, which could be considered foraging habitat for some raptor species. Due to the regular, heavy disturbance associated with the various agricultural activities in the WLCSP and off-site facilities resulting in a rather limited prey base, and the limited size of the site in relation to the expansive foraging habitat in the near vicinity including both the CDFW Conservation Buffer Area and the SJWA[San Jacinto Wildlife Area], LSSRA [Lake Perris State Recreation Area] and the extensive Badlands to the east, the foraging habitat on site is considered marginally suitable and an adverse but not significant impact to raptor foraging habitat is anticipated.[73]

These statements are not supported by actual analysis. 19

First, neither the Applicant nor the City conducted any studies to quantify the prey base for raptors. Whereas agricultural activities can reduce the prey base, certain activities (e.g., harvesting, discing, mowing, flood irrigation, and burning) increase hunting efficiency by reducing cover or otherwise increasing the exposure of prey to foraging raptors. Indeed, some raptor species (e.g., Swainson's hawk) have learned to exploit the abundance of prey made available by agricultural activities. For example, Estep (1989) reported that Swainson's hawks in the Central Valley spent 52.8% of their foraging time hunting in apparent response to harvesting, discing, mowing, or irrigation.[74]

Second, the Project site cannot be characterized as being of "limited size" in relation to the expansive foraging habitat in the vicinity. Indeed, the Applicant's consultant identified the study area as containing "extensive raptor foraging habitat."[75] The consultant also concluded that impacts to the large amount of raptor foraging habitat on

[72] DEIR, Appendix E, p. 46.
[73] *Ibid*, p. 4.4-75.
[74] Estep JA. 1989. Biology, movements, and habitat relationships of the Swainson's Hawk in the Central Valley of California, 1986-87.Calif. Dept. Fish and Game, Nongame Bird and Mammal Sec. Rep., 52 pp. Available at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentVersionID=70479
[75] DEIR, Appendix E, p. 3.

the site may be a significant impact under CEQA.[76]

Whereas I do not contest that there is a considerable amount of foraging habitat in the Project vicinity, it is overly simplistic for the City to conclude that the loss of over 2,700 acres of foraging habitat would not have a significant impact on raptors. Some raptor species are intolerant of even small amounts of urban development.[77] For example, Berry et al. (1998) concluded that even small amounts of urbanization usually rendered *whole landscapes* unacceptable to bald eagles, ferruginous hawks, rough-legged hawks, and prairie falcons.[78] In addition, raptors that are displaced from the Project site to suboptimal habitats would likely experience reduced survivorship. Thus, the City's analysis of Project impacts to raptors must consider (a) the size and configuration of remnant foraging habitat in relation to urbanization; and (b) the quality and carrying capacity of the habitat remaining in the region. 19

The DEIR Fails to Disclose, Analyze, or Provide Mitigation for Adverse Effects Associated with the Relocation of Wildlife

The DEIR indicates burrowing owls, Los Angeles pocket mice, and perhaps other sensitive species may be "relocated" to the 250-foot setback zone along the southern boundary of the Project site. Relocating sensitive wildlife to the setback zone defeats its intent, which is to provide a buffer between the Project and sensitive biological resources. Moreover, relocating wildlife outside of the construction area does not ensure impacts are mitigated.

In a comprehensive review of translocation projects involving birds and mammals, Griffith et al. (1989) concluded overall success rates were apparently dependent on a variety of ecological factors, including the quality of the habitat where animals were released.[79] When an animal is moved to an unfamiliar location, it has no knowledge of the habitat resources essential for its survival (e.g., food, water, and cover). The lack of cover in an unfamiliar setting makes a prey species (e.g., Los Angeles pocket mouse) an easy target for predators. In addition, many animals exhibit an intrinsic homing response that is energetically taxing, and that may preclude procurement of food and cover resources. Elevated stress hormone levels an organism generates when it is handled and moved may synergistically interact with increased energetic demands to further reduce possibility of survival. Even if the translocated animal is placed in an area with readily available resources, aggressive competitors may prevent the displaced animal from accessing the resources, and from mating. 20

[76] *Ibid.*
[77] Berry ME, CE Bock, SL Haire. 1998. Biodiversity of open space grasslands at a suburban/agricultural interface, Part III: Abundance of diurnal raptors on open space grasslands in an urbanized landscape. Final report to the Biological Resources Division, U.S. Geological Survey and Department of Open Space/Real Estate, City of Boulder. Contract No. 1445-CA09-96-0025. Available at: http://www.bouldercolorado.gov/ (Attachment C).
[78] *Ibid.*
[79] Griffith B, JM Scott, JW Carpenter, C Reed. 1989. Translocation as a species conservation tool: status and strategy. Science 245:477-480. (Attachment D).

Burrowing owl-

Consistent with CDFW guidelines, passive relocation is a potentially significant impact under CEQA that must be analyzed.[80] Specifically, the temporary or permanent closure of burrows may result in: (a) significant loss of burrows and habitat for reproduction and other life history requirements; (b) increased stress on burrowing owls and reduced reproductive rates; (c) increased depredation; (d) increased energetic costs; and (e) risks posed by having to find and compete for available burrows.[81] The City must thoroughly analyze the effects of passive relocation if it may be implemented at the Project site.

The need for full analysis of potential impacts from passive relocation is further supported by research that indicates most translocation projects have resulted in fewer breeding pairs of burrowing owls at the mitigation site than at the original site, and that translocation projects generally have failed to produce self-sustaining populations.[82] Investigators attribute the limited success of translocation to: (a) strong site tenacity exhibited by burrowing owls, and (b) potential risks associated with forcing owls to move into unfamiliar and perhaps less preferable habitats.[83] 20

Each of these issues exemplifies the need for the Applicant to prepare a detailed translocation plan that is approved by the resource agencies before translocation occurs. At a minimum, the plan should contain:

1. an assessment of potential release sites, with special attention dedicated to estimating the size of the receiving population.
2. an assessment of threats at the release site (e.g., predators, pesticide use, land management activities), and a discussion of how these threats have been (or will be) mitigated.
3. a detailed description of the monitoring and adaptive management measures that will be implemented after animals are released.

The DEIR Fails to Assess Cumulative Impacts

The DEIR provides virtually no analysis of the Project's contribution to cumulative impacts to sensitive biological resources. It simply concludes: "the regional (cumulative) implications of the project can be addressed through the fee payment program of the MSHCP because it provides a regional and comprehensive approach to conservation planning," and that "no significant cumulative effect on biological resources would result from the development of the proposed uses with implementation of the identified program mitigation measures."[84] 21

[80] CDFG. 2012. Staff Report on Burrowing Owl Mitigation, p. 10.
[81] *Ibid.*
[82] Smith BW, JR Belthoff. 2001. Burrowing owls and development: short-distance nest burrow relocation to minimize construction impacts. J. Raptor Research 35:385-391. (Attachment E).
[83] *Ibid.*
[84] DEIR, p. 4.4-81.

The City's justification fails to consider the Project's contribution to potentially significant impacts to species not covered by the MSHCP. Indeed, the Final EIR/EIS for the MSHCP states: "implementation of the MSHCP will result in cumulatively significant impacts on the Non-Covered Species because the issuance of incidental take permits will remove an impediment to development outside of the MSHCP Conservation Area. Non-Covered Species would receive little or no protection outside the reserves under existing ordinances and regulations."[85] In my opinion, the Project may contribute to cumulatively considerable impacts to Non-Covered Species, and those impacts would not be mitigated by the measures proposed by the City.

Many assumptions were incorporated into the MSHCP. The assumptions pertain to biological conditions (and relationships), development within the plan area, and actual implementation of the MSHCP. Some of the assumptions that were incorporated into the MSHCP have proven to be incorrect. For example, the MSHCP has been unsuccessful in the conservation of burrowing owls within the plan area.[86] This example highlights the flaws with the City's conclusion that the MSHCP will eliminate any potential for cumulative impacts. 21

Ultimately, the Project's contribution to cumulative impacts cannot be analyzed because the City has not identified the other projects within the cumulative effects analysis area. At a minimum, the City must identify the other projects may contribute to cumulatively considerable impacts to raptors, jurisdictional waters, the Northwestern San Diego pocket mouse, and other sensitive biological resources in the Project region.

MITIGATION MEASURES

The DEIR Fails to Establish Adequate Buffers to Mitigate Potentially Significant Impacts of Air Pollution on Wildlife

According to the DEIR, "[t]he most significant potential environmental impact on local wildlife (i.e., within the SJWA and Badlands) may be exposure to vehicular exhaust and especially diesel particulates and toxic air contaminants from truck exhaust as the WLCSP project builds out. New development will produce *significant amounts* of diesel-related air pollutants that will be released into the atmosphere, including gases and particles of various sizes."[87] Nevertheless, the City has concluded "[t]he 250-foot setback identified in Mitigation Measure 4.4.6.1A, and the presence of the CDFW Conservation Buffer Area, will effectively mitigate potential indirect impacts of air pollutants, including diesel particulate matter, on wildlife within the SJWA."[88] 22

The DEIR fails to establish a monitoring and reporting program to ensure the proposed

[85] MSHCP, p. 5.1-7. [emphasis added].
[86] *Ibid*, Burrowing Owl Survey Report 2011. Available at: http://www.wrc-rca.org/library.asp *See also* Wilkerson RL and RB Siegel. 2010. Assessing changes in the distribution and abundance of burrowing owls in California, 1993-2007. Bird Populations 10: 1-36. (Attachment F).
[87] DEIR, Appendix E, p. 128. [emphasis added].
[88] *Ibid*, p. 4.4-72.

buffer mitigates the effects of air pollution on wildlife, vegetation, and aquatic resources. Moreover, information provided in the DEIR does not support the City's conclusion that a 400-foot buffer is sufficient to mitigate Project impacts to a less-than-significant level. Specifically, the DEIR cites research by the California Air Resources Board ("CARB") that indicates 80 percent of the particulates generally settle out of the atmosphere within 1,000 feet of the emission source.[89] Analyses by both the CARB and the South Coast Air Quality Management District indicate that providing a buffer of 1,000 feet would substantially reduce diesel PM concentrations and public exposure downwind of a distribution center.[90] Because wildlife may be more susceptible to air pollutant impacts than humans, one can infer that a buffer of at least 1,000 feet is needed to protect wildlife from air pollutants.[91] 22

The DEIR Lacks Adequate Mitigation for Project Impacts to Special-Status Plant Species

Mitigation proposed by the City for Project impacts to special-status plant species includes:

> Prior to the approval of any Plot Plans for development within the project area, the applicant shall submit a biological assessment of the proposed development site prepared by a qualified biologist to identify if any of the following sensitive plants (i.e., Coulter's goldfields, smooth tarplant, or thread-leaved brodiaea) are present on the proposed development site. If plants are found in the proposed development area, they may be relocated to the 250-foot clear setback area outlined in the Specific Plan and discussed in Mitigation Measure 4.4.6.1A. Alternatively, an appropriate impact fee may be paid to the Western Riverside County Regional Conservation Authority (RCA) or other appropriate conservation organizations to offset for the loss of these species on the WLC project site.[92] 23

The proposed measures do not ensure Project impacts to special-status plant species are mitigated to a less-than-significant level.

First, Coulter's goldfields, smooth tarplant, and thread-leaved brodiaea are MSHCP Group 3 species. As a result, if any of these species occur within a proposed development area, the City must require the project proponent to conform to the procedures listed in Section 6.3.2 in the MSHCP. Section 6.3.2 states: "[f]or locations with positive survey results, 90% of those portions of the property that provide for long-term conservation value for the identified species shall be avoided until it is demonstrated that conservation goals for the particular species are met."[93]

Second, the special-status plant species with the potential to occur in the Project area are

[89] *Ibid*, p. 4.4-70.
[90] California Air Resources Board (CARB) and California Environmental Protection Agency (CEPA). 2005. Air Quality and Land Use Handbook: A Community Health Perspective. Available at: http://www.arb.ca.gov/ch/landuse.htm
[91] DEIR, Appendix E, p. 129.
[92] *Ibid*, pp. 4.4-74 and -75.
[93] MSHCP, Vol I, Section 6.3.2. Available at: http://www.wrc-rca.org/library.asp

not limited to the three species identified in the mitigation measure.[94] In accordance with CDFW guidelines, the City must require surveys that are floristic in nature, meaning that every plant taxon that occurs on site is identified to the taxonomic level necessary to determine rarity and listing status.[95]

Third, the DEIR suggests mitigation may be limited to relocating plants to the buffer area. Although salvage and relocation have some merits as a last resort, it is generally not an effective means of mitigating impacts. Fiedler (1991) conducted a thorough review of mitigation-related transplantation, relocation and reintroduction attempts involving special-status plants in California.[96] The author reported only 8 of the 53 (15%) attempts reviewed in her study should be considered fully successful.[97] Although Fiedler reported several causes for the failed attempts, the common result was that the plants died. Unless the City can provide evidence that potentially impacted plants can be transplanted and/or propagated successfully, it must require fee payment to the Regional Conservation Authority. 23

Fourth, the City must identify the specific mitigation measure (or suite of potential measures) that will be required if a sensitive plant or animal species that is not covered under the MSHCP is detected within a proposed development area.

The DEIR Lacks Adequate Mitigation for Project Impacts to the Burrowing Owl

The conservation goals established in the MSHCP have not yet been met for the burrowing owl, and thus sites with burrowing owls appear to be subject to the provisions listed in Section 6.3.2 in the MSHCP.[98] Because the burrowing owl was recently (2012) detected on the Project site, the City needs to clarify whether the Project is subject to the provisions of MSHCP Section 6.3.2. If the Project is subject to those provisions, the City must identify how the Project will be capable of avoiding 90% of those portions of the site that provide for the long-term conservation value for the burrowing owl. 24

Burrowing owls have the potential to occupy the Project site prior to development.[99] The DEIR indicates "[t]his is a potentially significant impact requiring mitigation."[100] However, it fails to define the impact(s) or provide any mitigation to offset the impact(s). Instead, it simply requires a pre-construction survey, establishment of buffer zones around active burrows, and the exclusion of owls from their burrows during the non-breeding season (which in itself is a potentially significant impact).

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[94] *Ibid*, Table 4.4.D.
[95] CDFG. 2009. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. Available at: http://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html#Plants.
[96] Fiedler PL. 1991. Mitigation-related transplantation, relocation and reintroduction projects involving endangered and threatened, and rare plant species in California. Final Report. Available at: nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=3173.
[97] *Ibid.*
[98] MSHCP 2011 Annual Report, Table 25. Available at: http://www.wrc-rca.org/library.asp
[99] DEIR, p. 4.4-77.
[100] *Ibid.*

Pre-construction Survey

The DEIR requires a pre-construction survey for burrowing owls no more than 30 days prior to initiation of ground-disturbing activities.[101] This condition is not consistent with CDFW guidelines, which recommend an initial preconstruction survey within the 14 days prior to ground disturbance, followed by a subsequent survey within 24 hours prior to ground disturbance.[102] As the CDFW's 2012 Staff Report acknowledges, "burrowing owls may re-colonize a site after only a few days."[103] As a result, a single pre-construction survey up to 30 days in advance of construction is insufficient to avoid and minimize take of burrowing owls.

The City must clarify that "take avoidance" (i.e., pre-construction) surveys for the burrowing owl are not a substitute for the four surveys required to assess Project impacts and formulate appropriate mitigation. The City must require the Applicant to conduct the protocol surveys described by CDFW, and the results of those surveys need to be released in a revised DEIR.[104]

23

Buffers

The DEIR provides inconsistent information on the buffer distance required around active burrows (i.e., 250 feet or 500 feet).[105] Furthermore, the CDFW no longer uses the default standard of 250-foot buffers during the breeding season and 160-foot buffers during the non-breeding season. Instead, CDFW indicates that indirect impacts and appropriate mitigation should be determined through site-specific analyses that incorporate the wide variation in natal area, home range, foraging area, and other factors influencing burrowing owls and burrowing owl population persistence in a particular area.[106] CDFW guidelines indicate buffers may need to be up to 500 meters, depending on the level of disturbance.[107]

Burrow Exclusion

In accordance with CDFW guidelines, burrowing owls should not be excluded from burrows unless or until the Applicant:

1. develops a Burrowing Owl Exclusion Plan that is approved by the CDFW;
2. secures off-site compensation habitat and constructs artificial burrows in close proximity (< 100 m) to the eviction sites;

[101] *Ibid.*
[102] CDFG. 2012. Staff Report on Burrowing Owl Mitigation. Available at: <www.dfg.ca.gov/wildlife/nongame/docs/BUOWStaffReport.pdf>, pp. 29-30.
[103] *Ibid*, p. 30.
[104] *Ibid*, Appendix D.
[105] DEIR, p. 4.4-79.
[106] CDFG. 2012 Mar 7. Staff Report on Burrowing Owl Mitigation. Available at: www.dfg.ca.gov/wildlife/nongame/docs/BUOWStaffReport.pdf. p. 12.
[107] *Ibid*, p. 9.

3. mitigates the impacts of temporary exclusion according to the methods outlined by CDFW;
4. conducts site monitoring prior to, during, and after exclusion of burrowing owls from their burrows; and,
5. documents excluded burrowing owls using artificial or natural burrows on an adjoining mitigation site.[108]

23

Sincerely,

Scott Cashen, M.S.
Senior Biologist

[108] *Ibid,* pp. 10 and 11.

RESPONSES TO LETTER F-7C

Lozeau Drury LLP

Response to Comment F-7C-1. The commenter refers to project information that has now changed, the revised project will develop 40.6 million square feet of logistics warehousing rather than 41.6 million, the developable area of the World Logistics Center (WLC) Specific Plan (SP) is now 2,610 acres rather than 2,710 acres, and the total area of the project is now 3,818 acres rather than 3,918 acres. The commenter also provided information on his qualifications to submit comments on the Environmental Impact Report (EIR) regarding biological resources. The commenter should note that the biological studies for the WLC project have been revised in part in response to the many comments on the Draft Environmental Impact Report (DEIR) (specifically Responses to Comments in Letter A-6, B-3, F-1, F-4, F-5, F-7A, F-8, F-9B, F-10, F-11 and F-13). The revised biological reports are located in Appendix E Volume 2 of the Final Environmental Impact Report (FEIR).

Response to Comment F-7C-2. In response to comments regarding raptor foraging habitat refer to Response to Comment F-7A-52.

Response to Comment F-7C-3. In response to comments on the Draft Environmental Impact Report (DEIR) an updated (Western Riverside County) Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis (FCS-MBA 2013 - FEIR Volume 2, Appendix E-1), was prepared including an updated 2013 burrowing owl survey (FEIR Volume 2, Appendix E-5). The previous burrowing owls surveys (2005, 2007, 2010, and 2012), were included in the DEIR as additional information to provide background information regarding burrowing owl. The 2013 burrowing owl protocol survey followed the approved protocol established by the MSHCP and began with a complete survey of the entire WLCSP area, including off-site improvement areas. All surveys were conducted on foot and no portion of the WLCSP was surveyed by vehicle. All potential burrow sites were identified and mapped. All suitable habitat areas, which included these burrow locations, were surveyed on four separate occasions, approximately one week apart during the appropriate time of year. For additional information, refer to Response to Comment F-7A-26.

Response to Comment F-7C-4. The 2007 burrowing owl survey report was included in the DEIR as additional information to provide background information regarding burrowing owl. This survey was never considered applicable for the entire WLCSP. Surveys were limited to a specific development footprint, and did not incorporate the entire WLCSP. The updated 2013 protocol survey was consistent with the MSHCP survey requirements and was conducted on the entire WLCSP as well as off-site facilities. For additional information regarding this response, please see Response to Comment F-7C-3 above.

Response to Comment F-7C-5. The 2010 burrowing owl surveys started with a burrow survey in areas that were previously determined to have suitable burrows. The entire 4,321-acres, which include the WLCSP, California Department of Fish and Wildlife (CDFW) Conservation Buffer Area, and additional off-site areas, were not completely surveyed on foot. The areas that were surveyed were relatively undisturbed areas that contained appropriate burrows. These survey areas are linear in shape and surveys consisted of walking up one side of the suitable habitat and down the other. While surveying for burrowing owls, one of the biologists was also surveying and making notations regarding sensitive plants. It is not unreasonable that both burrowing owl and sensitive plant surveys were conducted at the same time. Both types of surveys contain search patterns that occur along the ground. Surveys for burrowing owl and sensitive plants were both conducted in areas that were not actively disked as part of the on-going agricultural activities.

The 2010 surveys were not conducted based on the MSHCP requirements, but were limited to areas that were previously determined to be suitable habitat based on the 2005 and 2007 surveys.

The burrowing owl observed in 2012 within the temporary detention basin located south of the Skechers facility was determined to be an isolated individual, most likely a male looking for a breeding territory. This was an incidental observation and was not observed during a burrowing owl survey. The detention basin was revisited during the burrowing owl surveys and the owl was no longer using the detention basin. This individual was not observed breeding within the detention facility and appeared to have left the area at the time of the focused burrowing owl surveys that began in June 2012.

During the 2013 protocol survey, all portions of the WLCSP and off-site facility areas were surveyed. A team of six biologists covered the entire WLCSP in 3 days as part of the initial burrow survey. All areas containing suitable habitat and suitable burrows were surveyed on four separate occasions at least a week apart. The 2013 protocol survey met the MSHCP requirements (MSHCP Appendix E) and was sufficient for documenting the presence, abundance, and distribution of burrowing owls within the project site.

Response to Comment F-7C-6. The sensitive plant survey conducted in 2010 was not limited to the three species that the project biologist determined had a moderate potential to occur within the project site. While the focus of the survey was on those three species, all sensitive plant species that were determined to have some potential to occur within the project site were included in the protocol survey. All areas that contain suitable habitat were inventoried to determine if any sensitive plant species occur within the WLCSP.

The use of a list of potentially occurring species, although not recommended by CDFW, allows the biologists to limit their search to those species that would likely occur within the project site. Many of the plant species that occur on the California Natural Diversity Database (CNDD) list of sensitive plant species that were recorded to occur within the vicinity of the project site are associated with aquatic habitats such as wetlands, vernal pools, or lake margins. The project site does not contain any of these types of habitats, so it would not be unreasonable to remove these species from a list of potentially occurring species, since the constituent habitat elements necessary for these species to occur within the WLCSP do not occur.

The 2010 focused plant survey acknowledges that the plant survey is not a comprehensive botanical survey to record all observed plant species within the survey area. The intent of the focused plant survey was to identify sensitive plant species that occur within the WLCSP. It is not necessary to identify every ornamental landscape species or weedy non-native species within the WLCSP to verify that those species are not sensitive plants. The Michael Brandman and Associates (MBA) 2012 sensitive plant surveys meet the requirements as a complete protocol survey. However, additional focused plant surveys will be required on a project-by-project basis as each project is proposed.

It should be noted that the focused plant surveys were conducted in areas that were determined to be the only suitable habitat for sensitive plants within the WLCSP based on 5 years of surveys that were conducted within the WLCSP between 2005 and 2010. The biologists conducting the surveys were extremely familiar with the project site and the plants that occur within the project. If this was a project site that was surveyed for the first time, then survey days and duration of surveys would have been extended for project sites that are unfamiliar in an attempt to understand the project and associated habitat. However, the biologists conducting the plant surveys were familiar with the suitable habitat within the WLCSP and the blooming periods of sensitive plant species that commonly bloom in June.

Due to the disturbed nature of the WLCSP, the likelihood of sensitive plant species to occur is extremely low. However, the potential for sensitive plants to occur within the project site cannot be completely ruled out. Focused surveys were not feasible during the 2012 and 2013 survey season due to a lack of sufficient rainfall. Since the proposed project build-out will be over 15 years, updated sensitive plant surveys will be required during the same year the project-level California

Environmental Quality Act (CEQA) document is prepared as described in Mitigation Measure (MM) 4.4.6.1B.

Project related impacts to sensitive plants, if observed within the WLCSP may be considered an adverse impact. The type of mitigation requirements depend on the sensitive plants that may occur within the project site. For instance, impacts associated with thread-leaved brodiaea, smooth tarplant, Coulter's goldfields, Parry's spineflower, and slender-horned spine flower are covered under the MSHCP. Payment of the MSHCP fee will fully mitigate project related impacts to these species. Project related impacts to Plummer's mariposa lily, Robinson's peppergrass, and San Bernardino aster will require a separate analysis under CEQA guidelines. These species do not have any legal federal or state protection under the Endangered Species Act.

Response to Comment F-7C-7. Protocol surveys were conducted within all suitable habitat areas within the WLCSP, including off-site improvement areas during the 2013 survey season. Protocol surveys were also conducted in 2010 and 2012. Suitable habitat areas were refined based on previous surveys and known suitable habitat for this species. No LAPM were observed during any of the surveys. Based on Resource Conservation Authority (RCA) data, no recorded occurrences of LAPM occur within the vicinity of the WLCSP. This species is considered absent from the WLCSP. For additional information, refer to Response to Comment F-7A-27.

Response to Comment F-7C-8. Seven Northwestern San Diego pocket mouse were captured during the 2010 surveys and seventeen Northwestern San Diego Pocket mouse were captured in 2013. Development of selected portions of the WLCSP will have an adverse effect on Northwestern San Diego pocket mouse. The only place within the WLCSP that contains suitable habitat and is considered occupied for Northwestern San Diego pocket mouse is within Drainage 9 south of Alessandro Boulevard and north of the existing gas pipeline. Northwestern San Diego pocket mouse is a covered species under the MSHCP, therefore mitigation for adverse effects on Northwestern San Diego pocket mouse will be satisfied by payment of the MSHCP fee. It should also be noted that Drainage 9 will remain as an open drainage feature with several erosion control modifications, such as drop structures or other similar device, and will be regraded along the northern portion of the drainage to provide a more gradual transition at the Alessandro Boulevard crossing. For additional information, refer to Response to Comment F-7A-29.

Response to Comment F-7C-9. Eight San Diego desert woodrat were captured during the 2010 surveys and a single San Diego desert woodrat was caught during the 2013 surveys. Development of selected portions of the WLCSP will have an adverse effect on San Diego desert woodrat. The only place within the WLCSP that contains suitable habitat and is considered occupied for San Diego desert woodrat is within Drainage 9 south of Alessandro Boulevard and north of the existing gas pipeline and within the northern portion of Drainage 8, just north of Gilman Springs Road. San Diego desert woodrat is a covered species under the MSHCP, therefore mitigation for adverse effects on San Diego desert woodrat will be satisfied by payment of the MSHCP fee. It should also be noted that Drainage 9 will remain as an open drainage feature with several erosion control modifications, such as drop structures or other similar device, and will be regraded along the northern portion of the drainage to provide a more gradual transition at the Alessandro Boulevard crossing as a project design feature.

Response to Comment F-7C-10. In response to comments regarding American badger refer to Response to Comment F-7A-31.

Response to Comment F-7C-11. In response to comments regarding western yellow bat refer to Response to Comment F-7A-32.

Response to Comment F-7C-12. In response to comments regarding Bell's sage sparrow refer to Response to Comment F-7A-33.

Response to Comment F-7C-13. In response to comments regarding grasshopper sparrow refer to Response to Comment F-7A-34.

Response to Comment F-7C-14. In response to comments regarding white-tailed kite refer to Response to Comment F-7A-35.

Response to Comment F-7C-15. In response to comments regarding ferruginous hawk and merlin refer to Response to Comment F-7A-36.

Response to Comment F-7C-16. The DEIR states that none of the drainage features are subject to CDFW Jurisdiction. An updated wetland delineation report was prepared to address concerns regarding regulatory agency jurisdiction over the drainage features within the WLCSP. The previous jurisdictional delineation assumed CDFW jurisdiction over a select portion of drainage features 7 and 9. It also assumed that since the drainage features were all isolated and not likely under United States Army Corps of Engineers (USACE) jurisdiction that the drainage features were also not under (Regional Water Quality Control Board (RWQCB) jurisdiction.

All identifiable and potentially jurisdictional drainages on the site were mapped and included in the DEIR and the draft wetland delineation (FCS-MBA 2013 - FEIR Volume 2, Appendix E-13). Currently regulatory jurisdiction of the features is based on the existing regulatory guidance including the 1987 Regional Supplement to the USACE Wetland Delineation manual: Arid West Region and Rapanos guidance. Prior to any future development, specific project proposals will have to undergo separate environmental review under CEQA and will be required to secure a formal jurisdictional determination from the USACE as well as jurisdictional determinations from the RWQCB and CDFW.

The applicant shall secure a jurisdictional determination with the USACE and confirm with the RWQCB and CDFW if drainage features mapped on the property are subject to jurisdictional authority and protection. If the features are subject to regulatory protection, the applicant will secure permit approvals with the appropriate agencies prior to initiation of construction. Jurisdictional features will be avoided and unavoidable impacts will mitigated through the construction of compensatory wetland construction. Compensatory wetland mitigation will be provided at a minimum of 1:1 replacement ratio to ensure no net loss of wetlands or aquatic resources. Wetland mitigation will be provided concurrent to or prior to impacts. A Compensatory Mitigation Plan will be prepared for all unavoidable impacts and will be consistent with the USACE/United States Environmental Protection Agency (USEPA)'s “Compensatory Mitigation for Losses of Aquatic Resources; Final Rule and the USACE's Standard Operating Procedure for Determination of Mitigation Ratios.”

The updated jurisdictional delineation report assumes CDFW jurisdiction over the entire length of Drainages 7, 8, 9, 12, and 15. In additional these areas are also under the jurisdiction of the RWQCB. It is estimated that no more than 5.0 acres of streambed are under CDFW and RWQCB jurisdiction. It should also be noted that Drainages 12 and 15 are both hydrologically connected to downstream waters of the United States and are therefore under the USACE jurisdiction as well. Exact mitigation requirements will be negotiated at the time of permit acquisition.

Response to Comment F-7C-17. In support of the DEIR, FCS-MBA biologists conducted biological resource field surveys for the WLCSP and additional areas to provide information on potential indirect impacts. Biological surveys were conducted between 2005 and 2013, which is more than sufficient to provide base-line information within the WLCSP. The main focus was on sensitive habitats and any areas with the potential to support sensitive flora or fauna species. In addition, FCS-MBA biologists conducted focused surveys for burrowing owl, Los Angeles pocket mouse (LAPM), and a comprehensive sensitive plant survey. A delineation of jurisdictional waters and wetlands was also conducted. Table F-7C.A below summarizes the survey dates, the type of survey, and FCS-MBA lead

staff. Information on where the surveys were performed as the project evolved through time is presented in Exhibit 5 of the MSHCP Consistency Analysis (FCS 2013, FEIR Volume 2, Appendix E-1). In addition, FCS-MBA contacted Resource Conservation Authority (RCA) staff to obtain recorded occurrence data for sensitive plant and wildlife species observed within and adjacent to the San Jacinto Wildlife Area (SJWA).

Table F-7C.A: Summary of Survey Types, Dates, Locations, and Staff

Report Year	Field Survey Date(s)	Survey	Parcel Name	Staff
2005	May 10, 20, 23 Aug 29	Biological Resource Assessment Survey	Bel Lago	S. Crawford
2005	May 10	MSHCP Habitat Assessment	Bel Lago	S. Crawford
2005	May 10, 20, 23 Aug 29	Burrowing Owl Focused Surveys	Bel Lago	S. Crawford
2005	May 10, Aug 29	Jurisdictional Delineation Riparian/Riverine and Vernal Pool Habitat	Bel Lago	S. Crawford
2005	August 21 through 26	Los Angeles Pocket Mouse Focused Surveys	Bel Lago	K. Rios
2006	August 16, 26	MSHCP Habitat Assessment	Tentative Tract Map 34848 (Bel Lago South)	M. Romich J. Hickman S. Hongola
2006	August 16, 17, 19, 22	Burrowing Owl Focused Surveys	Tentative Tract Map 34848 (Bel Lago South)	M. Romich J. Hickman S. Hongola
2007	May 1, 2, 3, 4	Burrowing Owl Focused Surveys	Highland Fairview Corporate Park Property	S. Crawford K. Workman S. Hongola K. Osmundson
2007	May 10	Jurisdictional Delineation Riparian/Riverine and Vernal Pool Habitat	Highland Fairview Corporate Park Property - Logistics Building Area	K. Osmundson
2007	September 18	Jurisdictional Delineation Riparian/Riverine and Vernal Pool Habitat	Highland Fairview Corporate Park Property	T. Mullen
2007	May 15 July 19	MSHCP Habitat Assessment	Highland Fairview Corporate Park Properties	K. Lord
2007	May 15-18, 22-24, 30-31, June 1, 5-7, 12-14, 19-20, 26, July 3, 6, 11, 12	Burrowing Owl Focused Surveys	Highland Fairview Properties	S. Crawford
2007	September 27 2006	MSHCP Habitat Assessment	398-Acre Anderson Property	K. Workman S. Hongola
2007	August 15, 16, 22, 23 2006	Burrowing Owl Focused Survey	398-Acre Anderson Property	K. Workman K. Osmundson
2008	January 10	MSHCP Habitat Assessment	Highland Fairview Properties	K. Lord

Table F-7C.A: Summary of Survey Types, Dates, Locations, and Staff

Report Year	Field Survey Date(s)	Survey	Parcel Name	Staff
2010	June 9, 10, 11, 16, 22, 23, 24	Sensitive Plant Surveys	Highland Specific Plan	S. Crawford
2010	June 9 through 24	Burrowing Owl Focused Surveys	Highland Specific Plan	S. Crawford
2010	June 27, 28, 29, 30, Jul 1, 2	Los Angeles Pocket Mouse Focused Surveys	Highland Specific Plan	K. Rios
2011	October 24	MSHCP Habitat Assessment	Highland Specific Plan	S. Crawford D. Hameister
2012	March 16	Delineation of Jurisdictional Waters and Wetlands	WLCSP	S. Crawford
2012	June 28, July 5, 6 and 9	Burrowing Owl Focused Surveys	WLCSP	T. Molioo D. Lloyd D. Hameister
2012	July 1-6	Los Angeles Pocket Mouse Focused Surveys	WLCSP	K. Rios
2013	June 13, 20, 21, 27, July 3, 7, and 9	Burrowing Owl Focused Surveys	WLCSP	D. Hameister T. Molioo S. Crawford Z. Ziade L. Westmoreland C. Lytle
2013	July 8-11	Los Angeles Pocket Mouse Focused Surveys	WLCSP	K. Rios S. Crawford

Response to Comment F-7C-18. In response to comments, new protocol surveys for burrowing owl were conducted in 2013. A single breeding pair of burrowing owls was observed during the survey. Since a breeding pair of burrowing owl is known to occur within a non-criteria cell area of the MSHCP, conservation of this pair is not required under MSHCP requirements. To minimize impacts to this species, passive relocation will be required if owls are observed on-site during a 30-day preconstruction survey. Project related impacts could cause an adverse impact. MM 4.4.6.4B may be required if owls are determined to be present within a project specific area 30-days prior to project construction.

Passive relocation will be consistent with the CDFW guidelines. One-way trap doors will be installed at the burrow entrance and left in place for several days. Once the burrows are unoccupied, they can be collapsed to reduce the number of available burrows owls may use for relocation. Since no evidence of burrowing owl was observed within the northern portion of the SJWA, relocation of owls to the southern portion of the WLCSP will not cause an overcrowding of this species. Artificial burrows will be created in the 250-foot buffer area to provide suitable nesting burrows.

There is more than enough area to relocate a single pair of burrowing owl within the 250-foot buffer area. Based on CDFW background information, threats to burrowing owl will include large raptors from the SJWA, feral dogs, coyote, and active disking for the agricultural fields. Many of these threats

such as feral dogs and active disking will be eliminated following project build-out, thus reducing the potential threats to this species.

Response to Comment F-7C-19. The DEIR generally discusses raptor foraging habitat, but does not provide a detailed discussion of the raptor foraging habitat and does not provided a sufficient analysis to assess whether the loss of raptor foraging habitat within the WLCSP is considered significant. Although a raptor foraging study was not conducted within the WLCSP area, it should be noted that general biological resource usage of the WLCSP area is based on the 8 years of surveys within the WLCSP area. See Response to Comment F-7C-2 for additional information regarding this response.

Response to Comment F-7C-20. In response to comments regarding focused protocol surveys for sensitive plants, LAPM, and burrowing owl refer to Response to Comment F-7A-53.

Response to Comment F-7C-21. In response to comments regarding focused cumulative impacts refer to Response to Comment F-7A-64.

Response to Comment F-7C-22. The commenter believes a 1,000-foot wide buffer of non-industrial land uses is needed for the west side of the project, and then it is consistent with Policy 2.5.2. The City's Municipal Code Section -9.05.040B (9) requires only a 250-foot setback between residential and industrial uses. Therefore, there is no need for a 1,000-foot wide buffer of non-industrial land uses to be consistent with Policy 2.5.2. In addition, a buffer analysis indicates that a 1,000-foot buffer does not substantially reduce the impact (please refer to Master Response 4).

Response to Comment F-7C-23. The mitigation proposed for the WLCSP does not ensure that special-status plant species are mitigated to a less than significant level. Based on the MSHCP requirements, no portions of the WLCSP require sensitive plant surveys based on the required survey areas for both Narrow-Endemic Plants Species as well as Cell Criteria Species. Therefore, focused plant surveys are only required within suitable habitat for those sensitive plant species that are not covered under or are conditionally covered under the MSHCP. Any future plant surveys will not limit the search to four plants listed below, but will be in accordance to CDFW guidelines as described in MM 4.4.6.1B.

Project related impacts to thread-leaved brodiaea, smooth tarplant, Coulter's goldfields, and slender-horned spine flower are covered under the MSHCP under Group d, which indicates that surveys may be required for these species within Criteria Areas as described in Section 6.3.2 of the MSHCP. Payment of the MSHCP fee will fully mitigated project related impacts to these species.

Under MSHCP guidelines impacts to Plummer's mariposa lily and Parry's spineflower, are conditionally covered and require 90 percent conservation of suitable habitat, if observed within the project site, until the conservation goal for these species is met. Based on previous surveys, these plants are not present within the project site. Since the development of the WLCSP will be spread out over 15 years, updated focused surveys for sensitive plants will be required on a project-by-project basis and is included as MM 4.4.6.1B.

Protocol level sensitive plant surveys will not be limited to Coulter's goldfields, smooth tarplant, and thread-leaved brodiaea, but will include all sensitive species with a moderate to high potential to occur within the project site, which also includes slender-horned spine flower, Plummer's mariposa lily, Parry's spineflower, Robinson's peppergrass, and San Bernardino aster.

Due to the disturbed nature of the project site, impacts to Robinson's peppergrass and San Bernardino aster will not be considered a significant impact unless the WLCSP will impact a large enough population of either of these plants that the loss would reduce the regional population to a less than self-sustaining level. Project-related impacts to a few sensitive plant individuals is an adverse, but less than significant level. Relocation of a few plant species, although not a

recommended means of mitigation, will be used as a last resort to salvage and relocate Robinson's peppergrass and San Bernardino aster to the 250-foot buffer area, if present within the WLCSP. No other mitigation measures are necessary because there are no sensitive plant species within the WLCSP that would result in a significant impact.

Response to Comment F-7C-24. In response to comments regarding burrowing owl, refer to Response to Comment F-7A-56.

Response to Comment Appendix 1. The appendix was directly referenced in the comment letter. It is assumed that the appendix is intended to provide personal qualifications and references for Scott Cashen, the commenter. Based on a review of the resume, Mr. Cashen is an experienced biologist in northern California with a focus on renewable energy projects. He also provides litigation and expert witness support to his clients. Mr. Cashen does not have experience with the Western Riverside County MSHCP. The information was considered in preparing the response to comments.

Response to Comment Appendix 2. This appendix was directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information with regard to raptor usage in the area. The raptor study was conducted by vehicle over several months. The project biologist does not refute the information that is contained within the document and it provides some general information with regard to the number of raptors that are known to occur in the area. It does not account for multiple observations of the same bird over a period of time. This information is useful for species diversity, but does not go into detail with regard to the total number of individuals that utilize the area. The information was considered in preparing the response to comments.

Response to Appendix 3 (Roadside Raptor Surveys of SAR Watershed. This appendix was directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information with regard to raptor usage in the region. The raptor study was conducted by vehicle over several years within a portion of the Santa Ana River Watershed in both Riverside and San Bernardino Counties. It appears to be an executive summary and does not contain a detailed description of methods or survey locations. Similar to the information mentioned above, the document provides general information with regard to the number of raptors that are known to occur in the Santa Ana River Watershed. It does not account for multiple observations of the same bird over a period of time. This information is useful for species diversity, but does not go into detail with regard to the total number of individuals that utilize the area. The information was considered in preparing the response to comments.

Response to Appendix 4 (The Biodiversity of Open Space Grasslands at a Suburban/Agricultural Interface by Mark E. Beny, Carl E. Bock, and Sandra L). This appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to Urban/Wildlands Interface. The information was considered in preparing the response to comments.

Response to Appendix 5 (The Translocation as a species Conservation Tool: Status and Strategy by Brad Griffith, Michael Scott, James Carpenter and Christine Reed). This appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to relocating sensitive species as a conservation tool. The information was considered in preparing the response to comments.

Response to Appendix 6 (The Burrowing Owls and Development: Short-Distance Nest Burrow Relocation to Minimize Construction Impacts). This appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to relocation of burrowing owls. The information was considered in preparing the response to comments.

Response to Appendix 7 (Assessing Changes in the Distribution and Abundance of Burrowing Owls in California, 1993-2007). This appendix was directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to the changes in burrowing owl populations and recommend conservation measures to improve burrowing owl populations. This letter does not take into consideration conservation that has been implemented through the MSHCP. This information was considered in preparing the response to comments.

Response to Appendix 8 (**Review of the Agricultural Elements of the World Logistics Center Project).** The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to potential agricultural resource impacts from the WLC.

Response to Appendix 9 (**Qualifications of Gregory A. House).** The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide the qualifications and references of Gregory A. House, agricultural consultant.

Response to Appendix 10 (**Moreno Valley Economic Development Summary).** The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to the economic development summary for Moreno Valley from March 2013.

Response to Appendix 11. The commenter provided "Addressing Climate Change at the Project Level, California Attorney General's Office." See Response to Comment F-1-66 which identifies the feasibility for each of the suggested greenhouse gas measures listed by the Attorney General.

Letter F-8: Shute, Mihaly & Weinberger LLP (April 8, 2013)

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April 8, 2013

Via E-mail

John Terell, Planning Official
City of Moreno Valley
Community and Economic Development
Department, Planning Division
14177 Frederick Street
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Re: World Logistics Center Project Draft Environmental Impact Report (SCH #2012021045)

Dear Mr. Terell:

This firm represents the Friends of the Northern San Jacinto Valley with respect to the proposed World Logistics Center Project ("WLC" or "Project"). We respectfully submit this letter to present comments on the Draft Environmental Impact Report ("DEIR") circulated by the City of Moreno Valley for the proposed Project pursuant to the California Environmental Quality Act ("CEQA"), Public Resources Code § 21000 *et seq.*

The Project as proposed and described in the DEIR is enormous. Highland Fairview, the applicant, proposes to build more than 41 million square feet of warehouse and associated uses on over 2,700 acres of land. The new users of the site would overwhelm the area's roadways, in violation of the City's General Plan, and the Project itself would require extensive on- and off-site infrastructure and utilities. Through this approval, Highland Fairview seeks specific vested rights to build this particular project at this specific density. 1

Yet, due to the City's decision to prepare a programmatic EIR for the Project, critical details of the Project and its related infrastructure remain entirely

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undefined. In many instances, the DEIR improperly defers both analysis and mitigation of the Project's impacts to some future, post-approval date. For example, the DEIR fails to provide crucial information relating to the extensive network of storm water infrastructure that would be needed to adequately handle increased storm water flows. This deferral is particularly problematic given the nature of the Project site, which has a history of poor drainage and localized flooding. The DEIR also asserts that the Project can be designed to avoid impacts to scenic viewsheds from State Route 60, but defers determining how the 41 million square feet of high-cube buildings can actually be arranged to accommodate these views. 2 3

The overly simplified nature of this programmatic EIR and its deficient impact analyses and mitigation measures undermine the very purpose of CEQA. As the Supreme Court has explained, the EIR is "the heart of CEQA." *Laurel Heights Improvement Ass'n v. Regents of Univ. of Cal.* (1988) 47 Cal.3d 376, 392 ("*Laurel Heights I*") (citations omitted). 4

> [It] is an environmental "alarm bell" whose purpose is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return. The EIR is also intended "to demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action." Because the EIR must be certified or rejected by public officials, it is a document of accountability.

Id. (citations omitted).

Where the environmental document fails to fully inform decision makers and the public of the environmental consequences of the proposed actions, it does not satisfy the basic goals of CEQA. "The purpose of an environmental impact report is to provide public agencies and the public in general with detailed information about the effect which a proposed project is likely to have on the environment; to list ways in which the significant effects of such a project might be minimized; and to indicate alternatives to such a project." Pub. Res. Code § 21061. The DEIR here fails to fulfill this purpose. 5

For all the reasons set forth below, it is our opinion that the DEIR does not comply with the requirements of CEQA. The City must revise and recirculate the DEIR to provide the public an accurate assessment of the environmental issues at stake, and a mitigation strategy—developed *before* project approval—that fully addresses the 6

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Project's significant impacts. The City must also take a serious look at alternatives that can avoid or lessen the Project's significant impacts, rather than designing straw-man alternatives to make this particular Project seem like the only possible choice. 6

Finally, the Project demonstrates a disturbing disregard for the City of Moreno Valley General Plan's provisions developed to protect the environment and human health and well-being. Although the applicant proposes to amend to the General Plan, these amendments would likely only serve to undermine the integrity of the City's planning efforts. Thus, because the Project conflicts with fundamental General Plan provisions so as to result in significant environmental impacts, and because the City has failed to adequately identify these conflicts in the EIR, approval of the Project would violate not just CEQA, but also the California Planning and Zoning Law, Gov't Code § 65000 *et seq.*, and the Subdivision Map Act, Gov't Code §§ 66473.5, 66474. 7

I. THE PROJECT VIOLATES THE CALIFORNIA ENVIRONMENTAL QUALITY ACT.

A. The City's Reliance on a Programmatic EIR Is Unlawful Because the Project Includes Vested Rights to Develop.

From the outset, the DEIR establishes that it will offer a "programmatic" review of the WLC. DEIR at 1-1 ("It is important to note that, even though this project has a Specific Plan, it does not have a site plan showing actual building locations, so the EIR will be programmatic rather than project level."); DEIR at 2-3. For that reason, the DEIR repeatedly defers analysis of environmental impacts and the development of mitigation and alternatives to a later time. The City avers this analysis will occur once the development plans are more specific. This approach violates the core tenant of CEQA: environmental impacts of a project are to be studied and disclosed at the earliest possible time. 8

"The most common type of EIR" is the "project EIR," which "examines the environmental impacts of a specific development project." CEQA Guidelines § 15161.[1] By contrast, programmatic EIRs are "designed for analyzing program-wide effects, broad policy alternatives and mitigation measures, cumulative impacts and basic policy considerations, as opposed to specific projects within the program." *Friends of* 9

[1] The CEQA Guidelines, Cal. Code Regs., tit. 14 § 15000 *et seq.*, are referred to herein as "CEQA Guidelines." The courts generally accord the Guidelines "great weight." *Laurel Heights I*, 47 Cal.3d at 391, fn. 2.

Mammoth v. Town of Mammoth Lakes Redevelopment Agency (2000) 82 Cal.App.4th 511, 533-34; CEQA Guidelines § 15168(c). Programmatic EIRs frequently serve as "first-tier" documents, whereby review for future specific projects relies in part on the analysis contained in the programmatic EIR. The City asserts that it will use the programmatic EIR as a first-tier EIR in this instance. DEIR at 3-27 ("This programmatic EIR provides a streamlined environmental review process for future development projects in the WLC Specific Plan area, including site-specific subdivisions and development entitlements that are consistent with the overall plan."); *id.* at 3-75.

CEQA, however, permits the use of programmatic environmental review documents only in certain limited circumstances. In particular, programmatic EIRs—and later tiering—are permitted only when a lead agency considers a wide-ranging set of policies or an over-arching land use plan. *See, e.g.*, *Al Larson Boat Shop, Inc. v. Board of Harbor Comrs.* (1993) 18 Cal.App.4th 729, 740 (noting the appropriateness of using a first-tier EIR for the adoption of a general plan "which is by its nature tentative and subject to change"); Pub. Res. Code § 21068.5 (tiering is available from a first-level document that reviews a "policy, plan, program or ordinance"); CEQA Guidelines §§ 15152(c), 15168. Programmatic EIRs have been upheld for such programs as a statewide water management plan (*In re Bay Delta Programmatic Environmental Impact Report Consolidated Proceedings* (2008) 43 Cal.4th 1143) and a major port expansion project (*Al Larson Boat Shop*, 18 Cal.App.4th at 740). This use of a programmatic EIR makes practical sense: it allows a lead agency to weigh the pros and cons of a general policy choice before proceeding to make site-specific decisions. 9

The CEQA Guidelines, however, caution that "[t]iering does not excuse the lead agency from adequately analyzing reasonably foreseeable significant environmental effects of the project and does not justify deferring such analysis to a later tier EIR or negative declaration." CEQA Guidelines § 15152(b). Consequently, when an agency commits to a course of action by issuing binding approvals for a specific project, the use of a programmatic EIR and its generalized and deferred analysis are unlawful. *Id.* § 15152(c) (prohibiting the use of tiering to "prevent adequate identification of significant effects of the planning approval at hand"); *In re Bay Delta Programmatic Environmental Impact Report Consolidated Proceedings*, 43 Cal.4th at 1171 (distinguishing a statewide water management program, an appropriate subject of a programmatic EIR, from projects involving "proposed commercial land developments . . . on identified sites"). 10

In *Stanislaus Natural Heritage Project v. County of Stanislaus* (1996) 48 Cal.App.4th 182, the California Court of Appeal struck down the use of a first-tier EIR for a project analogous to the one under review by the City. In that case, Stanislaus County approved a private developer's proposal to build a "destination resort and 11

residential community" that featured golf courses, sports facilities, and 5,000 residential units. *Id.* at 186. For its approval, the county prepared a "first-tier EIR" that, like this DEIR, explicitly deferred important aspects of environmental review to a later document. *Id.* at 197-98.

The Court of Appeal firmly rejected this approach: "[T]iering is not a device for deferring the identification of significant environmental impacts that the adoption of a specific plan can be expected to cause." *Id.* at 199. Instead, because the county "adopted a specific plan calling for construction of [specific] facilities and of other particularly described facets of the [proposed resort]" (*id.* at 203), it had to prepare a project-level EIR. The court took particular issue with the project's commitment to (1) "the specific sites for future development," (2) "the timing of construction" and (3) "what structures the future development will consist of." *Id.* at 204. 11

All three factors counsel in favor of a project EIR in this instance. The City is proposing to approve not only General Plan amendments, which alone might warrant a programmatic EIR, but also a Specific Plan, a Tentative Parcel Map, and a Development Agreement. DEIR at 3-25; 3-65, 3-74. The public has yet to be informed regarding the contents of the Development Agreement or the location or size of the parcels to be subdivided, but these activities will vest certain specific rights and entitlements with the developer, should the City approve the Project as proposed. Given the importance of these documents, the City must release this information to the public and provide additional time for review and comment. Pub. Res. Code § 21092(b)(1). 12

Regardless of the specifics, once a development agreement is approved, a public agency "shall not prevent development of the land for the uses and to the density or intensity of development set forth in the agreement," even if the project requires further discretionary approvals. Gov. Code § 65865.2; *see also Citizens for Responsible Government v. City of Albany* (1997) 56 Cal.App.4th 1199, 1214-15 (development agreement creates vested rights in the form of an "entitlement for use"); DEIR at 3-74 (noting that the development agreement will "provide certainty for the future development of the project for those parcels owned by Highland Fairview"). If the agency breaches a development agreement, it may be subject to damages. *See Mammoth Lakes Land Acquisition, LLC v. Town of Mammoth Lakes* (2010) 191 Cal.App.4th 435, 443-47, 476 (developer awarded $30 million for town's anticipatory breach of development agreement). 13

Moreover, a city cannot later impose new standards or conditions on an approved vesting tentative map that were not in place at the time the application was deemed complete. *Bright Development Co. v. City of Tracy* (1993) 20 Cal.App.4th 783, 14

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788. The DEIR's efforts to characterize the tentative parcel map as a mere technicality are ill-founded. DEIR at 3-25 ("A Tentative Parcel Map is being processed to subdivide 1,539 acres of the project for financing purposes only. . . . Approval of the map will confer no development rights to the property."). The Subdivision Map Act provides no mechanism for dividing land for a limited purpose such as financing. Instead, all resulting parcels can be sold, financed, or developed separately. A subdivision map is, by definition, a land use entitlement, not a financing mechanism. *See* Gov't Code § 66424 (defining "subdivision" as "the division, by any subdivider, of any unit or units of improved or unimproved land, or any portion thereof . . ."). We have located no law suggesting that a subdivision, even if created for the purpose of financing, is not a land use entitlement that could lead to development. The revised DEIR must clarify the legal import of this subdivision map. 14

Given these specific land use entitlements, the City's use of a programmatic EIR for the Project is entirely inappropriate. The City must instead employ a project EIR in order to meet CEQA's core mandate: to conduct a full environmental analysis at the time of a project's earliest approval. *See, e.g.*, *Save Tara v. City of West Hollywood* (2008) 45 Cal.4th 116, 134. 15

The City's programmatic approach creates errors throughout the document. Some examples include:

- The DEIR's failure to produce visual renderings of the Project. DEIR at 1-9 (Mitigation Measure 4.1.6.1B). 16
- The DEIR's failure to conduct a glare analysis for solar panels, despite the Specific Plan's requirement for a "maximize[d] [] use" of roof-mounted solar systems. DEIR at 1-9 (Mitigation Measure 4.1.6.4B); *id.*, App. H at 10. 17
- The DEIR's failure to conduct surveys or analysis for sensitive plant species, the L.A. Pocket Mouse, and other biological resources. *E.g.*, DEIR at 1-14 (Mitigation Measure 4.4.6.2A), *id.* at 1-15 (Mitigation Measure 4.4.6.4E). 18
- The DEIR's failure to conduct a jurisdictional delineation of wetlands. DEIR at 1-14 (Mitigation Measure 4.4.6.3A). 19
- The DEIR's failure to conduct a geotechnical fault study. DEIR at 1-19 (Mitigation Measure 4.6.6.1A, B). 20
- The DEIR's failure to conduct grading and drainage studies. DEIR at 1-38 (Mitigation Measure 4.16.1.6.2A). 21

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- The DEIR's failure to develop air pollution control measures. DEIR at 1-11 to 12 (Mitigation Measure 4.3.6.2A). 21

These errors are only compounded by others detailed elsewhere in this letter.

The very real problem created by the use of a programmatic EIR in this instance will become evident only after this phase of the development is approved. Highland Fairview is seeking specific vested rights through the Development Agreement and Tentative Parcel Map. Once these approvals are granted, it is impossible to undo them. *See, e.g.*, *Citizens for Responsible Government*, 56 Cal.App.4th at 1223 ("[T]he purpose of a development agreement is to provide developers with assurance that they can complete the project. After entering into the development agreement . . . the City is not free to consider the wisdom of the project in light of environmental effects."). Yet the DEIR is proposing to defer analysis of significant environmental effects and the development of necessary mitigation measures off into the future. Granting these approvals for a specific project at a guaranteed density now, before adequate CEQA analysis has been completed, contravenes CEQA's primary goal: to study the environmental impacts of an action *before* making a binding decision. *Laurel Heights I*, 47 Cal.3d at 392. 22

The DEIR must be revised as a project EIR, a document that will thoroughly analyze the impacts of the entitlements granted the developer, and identify appropriate mitigation measures and alternatives. Without a properly detailed level of analysis, the City cannot include the Specific Plan, Development Agreement, or Tentative Parcel Map as part of its approvals. 23

B. The DEIR's Project Description is Inadequate.

Even though the City proposes to grant specific vested rights to the applicant via this approval, the DEIR's project description fails to provide a complete picture of the entire Project. In order for an EIR to adequately evaluate the environmental ramifications of a project, it must first provide a comprehensive description of the project itself. "'An accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR.'" *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 730 (quoting *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 193). As a result, courts have found that even if an EIR is adequate in all other respects, the use of a "truncated project concept" violates CEQA and mandates the conclusion that the lead agency did not proceed in the manner required by law. *San Joaquin Raptor/Wildlife Rescue Center*, 27 Cal.App.4th at 729-30. Further, "[a]n accurate project description is necessary for an 24

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intelligent evaluation of the potential environmental effects of a proposed activity." *Id.* at 730 (citation omitted). Thus, an inaccurate or incomplete project description renders the analysis of significant environmental impacts inherently unreliable. Here, the DEIR for the WLC Project does not come close to meeting this established legal standard. 24

In practical terms, the WLC is a plan to erect more than 41 million square feet of warehouses and warehousing-related uses in the middle of what are now mostly agricultural lands in the City of Moreno Valley. Because of the scale and the timing of the Project—it is slated to be developed over a period of 10 years—the DEIR has a lot of ground to cover. There may be further discretionary approvals down the road, but this EIR and the approvals it informs are the only opportunity for decision makers and the public to understand and weigh in on the "big-picture" questions that will determine what kind of Project will be created in their midst, or whether this massive Project should be created at all. 25

1. Construction Phasing and Infrastructure Improvements Are Undefined.

Despite proposing to provide Highland Fairview with certain vested rights, the DEIR fails to contain fundamental information relating to the phasing and timing of the Project's development and infrastructure. The document states that the Project will be built over the next ten years, absorbing approximately four million square feet of development each year, depending on market conditions. DEIR at 3-65. The DEIR does not, however, provide any evidence that this phasing timeline is realistic. Other than estimating that construction is estimated to take ten years, the DEIR lacks any substantive description of how or when this massive Project would actually be implemented. Details of construction are critical to understanding the impacts of the Project and to designing appropriate mitigation, yet the DEIR lacks the necessary description of this critical Project component. The revised DEIR must describe the overall plan for construction of this Project. 26

Fundamental details pertaining to the infrastructure and public services necessary to serve the Project are also deferred until later, remaining unplanned and therefore unresolved. In a development of this size and duration, public and private improvements must be developed in a logical and viable sequence; infrastructure needs to be in place prior to demand for new development. Because the DEIR contains no documentation, let alone evidence, that development would be efficiently linked to necessary infrastructure, it violates CEQA. Courts have made it abundantly clear that infrastructure improvements that are integral to a project must be analyzed in an EIR.

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San Joaquin Raptor/Wildlife Rescue Center, 27 Cal.App.4th 713; *Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 830. 26

What little detail exists in the DEIR regarding infrastructure components such as water and wastewater service, flood control, and drainage and electrical service is given such cursory treatment that the public and decision-makers are left in the dark as to how the development would actually function. Although the DEIR contains diagrams of the water, wastewater, and drainage systems (Figures 3.13, 3.14, 3.15), these graphics simply depict the location and tentative size of utility lines. The description of the storm water drainage system, for example, amounts to nothing more than self-evident ruminations that a drainage system will be constructed. *See* DEIR at 1-54 (stating "[p]rior to issuance of any development permit within the Specific Plan area, the developer shall place detention basin(s) and spreading area(s) as appropriate within each proposed watershed). 27

In addition, as the report from Tom Brohard & Associates explains, the Project would result in a substantial increase in traffic congestion, yet the DEIR provides no assurance that the many needed improvements to local and regional roadways would keep pace with development.[2] In fact, the DEIR concedes that area roadways will operate under gridlock conditions during every phase of development and upon buildout. *Id.* at 1-32 to 1-35 (finding traffic impacts to be significant and unavoidable). 28

The Project would also require construction of a number of off-site infrastructure improvements, including debris basins and water reservoirs, covering more than 100 acres of land adjacent to the Project site. *Id.* at 3-19. Yet, the DEIR omits critical details associated with these improvements, such as their specific location or design. For example, while the DEIR states the Project will require the construction of three new off-site reservoirs (*id.* at 3-45, 61, 4.16-14), the details pertaining to these reservoirs are never identified. Nor is there any indication that the DEIR has analyzed the environmental effects associated with the construction of these facilities. 29

As described above, given that the City intends to use this EIR to support subdivision maps and a Development Agreement, the DEIR cannot put off analysis of necessary infrastructure planning. The public and decision makers must know now whether it is possible to develop infrastructure that is able to accommodate the density 30

[2] This report is submitted under separate cover.

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that the City intends to guarantee to the applicant. The revised EIR must contain a description and analysis of these integral aspects of the Project. 30

2. The DEIR Does Not Identify General Plan Amendments Needed to Implement the Proposed Project.

The vagueness of the DEIR's description of the Project creates all sorts of analytical problems, including making it impossible to determine the Project's consistency with the City of Moreno Valley General Plan or to analyze the Project's land use impacts. The Project requires amendments to the General Plan's Goals and Objectives, as well as to several General Plan elements, including to the Community Development; Circulation; Parks, Recreation and Open Space; Safety; and Conservation elements. *Id.* at 3-25, 4.10-1. Amazingly, however, the DEIR fails to identify the *content* of these amendments or explain how they would relate to the existing General Plan. The scant explanation that is provided is entirely vague (e.g., "revise land use map," and "revise discussion on flood hazards" (*id.* at 3-71 and 3-72)). With respect to the transportation and circulation improvements, for example, the DEIR asserts that a revised General Plan Circulation Element will provide for the movement of vehicles in and around the WLC area. *Id.* at 3-33. Yet, the DEIR does not include the text of this "revised Circulation Element" or even bother to describe it in general terms. 31

As discussed below, the Project would be inconsistent with numerous provisions of the General Plan. Yet, because the DEIR does not identify the specific amendments to the General Plan, the public and decision makers have no idea whether it is even possible to rectify all of the General Plan inconsistencies, while ensuring the integrity of the Plan. Some of the amendments may result in environmental impacts, while other amendments may result in internal inconsistencies within Plan. The environmental impacts and planning inconsistencies arising from these amendments are indirect impacts of the Project. Under CEQA, they must be identified, analyzed, and mitigated now; they cannot wait until after approval of the Project. 32

C. The DEIR's Analysis of and Mitigation for the Impacts of the Proposed Project Are Inadequate.

The discussion of a proposed project's environmental impacts is at the core of an EIR. *See* CEQA Guidelines § 15126.2(a) ("[a]n EIR shall identify and focus on the significant environmental effects of the proposed project"). An EIR must effectuate the fundamental purpose of CEQA: to "inform the public and responsible officials of the environmental consequences of their decisions before they are made." *Laurel Heights Improvement Assn. v. Regents of the University of California* (1993) 6 Cal.4th 1112, 1123 33

("*Laurel Heights II*"). To do so, an EIR must contain facts and analysis, not just an agency's bare conclusions. *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 568. 33

An EIR must also identify feasible mitigation measures to minimize significant environmental impacts. CEQA Guidelines § 15126.4. Under CEQA, "public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects . . . ." Pub. Res. Code § 21002. California courts have made clear that an EIR is inadequate if it fails to suggest feasible mitigation measures, or if the proposed mitigation measures are so undefined that it is impossible to evaluate their effectiveness. *San Franciscans for Reasonable Growth v. City and County of San Francisco* (1984) 151 Cal.App.3d 61, 79. 34

As explained below, the EIR's environmental impacts analysis is deficient under CEQA because it fails to provide the necessary facts and analysis to allow the City and the public to make informed decisions about the WLC Project and its environmental impacts. The DEIR also impermissibly defers analysis and the development of mitigation until after Project approval—clear violations of CEQA. Finally, the conclusions drawn in the DEIR regarding the significance of Project impacts and the adequacy and efficacy of mitigation are not supported by evidence. For all of these reasons, the DEIR is inadequate under CEQA. 35

1. The DEIR Fails to Adequately Analyze and Mitigate the Project's Hydrological Impacts.

Insufficient drainage on and around the Project site currently causes localized flooding. The proposed Project would result in a substantial increase in the amount of impervious surfaces. Consequently, the post-development flow volumes that will be generated on site are anticipated to be substantially higher than the pre-development flows. DEIR at 4.9-28, 29. At the same time, the Project would substantially alter the existing drainage pattern of the site and area. This additional runoff volume and velocity, reduced infiltration, and increased flow frequency and duration have the potential to exceed the capacity of existing or planned storm water drainage systems. Notwithstanding these facts, the DEIR fails to accurately describe the existing drainage and flooding problems, fails to adequately analyze the Project's potential to exacerbate these problems, and fails to identify enforceable mitigation for these impacts. 36

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(a) The DEIR Fails to Describe the Project's Hydrological Setting.

CEQA requires that an initial study contain "an identification of the environmental setting." CEQA Guidelines § 15063(d)(2). "Without accurate and complete information pertaining to the setting of the project and surrounding uses, it cannot be found that [a CEQA document] adequately investigated and discussed the environmental impacts" of the Project. *San Joaquin Raptor/Wildlife Rescue Center*, 27 Cal.App.4th at 729. 37

The DEIR generally concedes that the Project site and vicinity suffer from poor drainage and localized flooding. Members of the public have also expressed concerns regarding the Project's effects on local drainage, especially in locations that currently experience historic localized flooding. DEIR at 4.9-8. Drainage from east of Gilman Springs Road has been an on-going problem as it flows southwest and south out of the Badlands and under Gilman Springs Road through corrugated steel pipe culverts. These culverts are relatively small, and during times of high flow, runoff often causes repeated localized flooding along the roadway. *Id.* at 3-51. Despite recognizing this problem, the DEIR fails to describe these flooding incidents. Where does this flooding occur, and how often? How extensive is the flooding? What properties, if any, have been affected? What measures, if any, have been taken to control the drainage and flooding? 38

Nor does the DEIR include fundamental information regarding the site's hydrologic characteristics. It does not disclose, for example, the amount of existing impervious surfaces on the site, or the site's existing storm flow velocities or volumes. Without this information, it is not possible to determine if post-development velocities or volumes would exceed pre-development conditions, as the DEIR claims. *Id.* at 4.9-30. 39

In addition, the DEIR's hydrological chapter never discloses that the site contains numerous natural drainage channels and blue-line (waters of the state of California) streams. It is not until the biological resources chapter that the reader learns there are a total of 14 primary drainages and a number of sub-drainages or tributaries on the Project site. *Id.* at 4.4-59. Yet, the biological resources chapter discusses these drainages only in the context of riparian and wetland resources. Consequently, there is no discussion of the hydrological value of these creeks. Moreover, because the DEIR's hydrological analysis does not disclose the location—or even the existence—of these natural drainage features, it does not analyze whether the Project would result in a substantial alteration of the existing drainage pattern of the site consistent with the DEIR's thresholds of significance. *See id.* at 4.9-17 ("[A] project would have a 40

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significant impact on surface hydrology if it would result in a substantial alteration of the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river.”). 40

As discussed below, the DEIR’s analysis focuses exclusively on whether post-development storm water flows would be greater than pre-development storm water flows. While this is an issue that requires analysis, the DEIR cannot simply omit evaluation of the Project’s impact on natural storm drainages. In particular, the DEIR must actually analyze the hydrological effect to downstream resources (e.g., San Jacinto Wildlife Area, Mystic Lake, and San Jacinto River). The EIR must be revised to include this analysis. 41

(b) The DEIR Fails to Adequately Analyze the Project’s Hydrological Impacts.

There are numerous deficiencies in the DEIR’s analysis of drainage and flooding impacts. First, as discussed above, the DEIR fails entirely to analyze the Project’s impacts to natural drainages and streams. The only mention of a potential impact to a natural drainage feature occurs in the context of biological resources. Here, the DEIR admits that the proposed Project may impact Drainage Feature 12, located on the San Jacinto Wildlife Area (“SJWA”), but then defers any analysis. Instead, the DEIR asserts that if any impacts are to occur, regulatory permitting may be required. *Id.* at 4.4-59. As California courts make clear, merely requiring compliance with agency regulations does not conclusively indicate that a proposed project will have no significant impacts. In *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 716, for example, the court found that the fact that the EPA and the local air pollution control district had issued air emission permits for a coal-fired cogeneration plant did not nullify CEQA’s requirement that the lead agency analyze the significant air quality impacts of the entire project. The revised EIR must analyze the Project’s potential impacts to all natural drainage features. If these impacts are significant, the EIR must identify mitigation and/or alternatives capable of minimizing or eliminating altogether these impacts. 42

Second, the DEIR fails to use the correct baseline for analyzing the Project’s storm water impacts under CEQA because it assumes the implementation of storm water infrastructure improvements. In analyzing the Project’s effects, the DEIR must evaluate the Project’s impacts against a baseline of existing conditions, not a hypothetical future environment where planned infrastructure will be built. In *Sunnyvale West Neighborhood Assn. v. City of Sunnyvale*, the City of Sunnyvale certified an EIR that measured the project’s impacts against a baseline of traffic conditions in the year 43

2020; these conditions assumed a future scenario where: (1) development had occurred according to the city's general plan, and (2) "numerous roadway improvements in the project area [were] in place by the year 2020 . . . ." (2010) 190 Cal.App.4th 1351, 1361. In a lengthy analysis, the court held that this approach violated CEQA as a matter of law:

> The statute requires the impact of any proposed project to be evaluated against a baseline of existing environmental conditions (*see* §§ 21060.5, 21100, subd. (d); *see also* CEQA Guidelines § 15125, subd. (a)), which is the only way to identify the environmental effects specific to the project alone.

Id. at 1380.

Here, the DEIR authors make the exact same error. The analysis simply assumes that storm water runoff will be stored in on-site basins or somehow infiltrated in the ground. DEIR at 4.9-29, Table 4.9.G, Footnote 1. Yet, as discussed below, there is no indication that this storm drain infrastructure will be constructed. Because the DEIR assumes the implementation of this as-of-yet unplanned storm water infrastructure, it concludes that post-development storm water flows would not exceed pre-development storm water flows. *Id.* at 4.9-29. An adequate environmental analysis would include the following four steps: 43

(1) identify existing hydrologic conditions;
(2) identify the Project's impact (assessment of the increase in storm flows attributable to proposed Project and the site's ability to accommodate these flows);
(3) identify proposed storm water control features; and,
(4) evaluate whether the storm water features are sufficient to ensure that post-development flows do not exceed pre-development flows.

The DEIR skips steps 1 through 3 and simply concludes, absent factual analysis, that post-development flows will exceed pre-development flows. DEIR at 4.9-29.

(c) The DEIR Proposes Insufficient Mitigation for the Project's Hydrological Impacts.

Notwithstanding this flawed impact analysis, the DEIR concludes that the Project would result in a significant hydrological impact. *Id.* at 4.9-29. The DEIR's approach to mitigation is insufficient, however, because it lacks the evidentiary support to 44

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conclude the impacts would be reduced to insignificant levels. When a lead agency relies on mitigation measures to find that project impacts will be reduced to a level of insignificance, there must be substantial evidence in the record demonstrating that the measures are feasible and will be effective. *Sacramento Old City Assn. v. City Council of Sacramento* (1991) 229 Cal.App.3d 1011, 1027; *Kings County Farm Bureau*, 221 Cal.App.3d 692, 726-29. To this end, the DEIR must set forth either specific mitigation measures or specific performance standards guaranteeing that mitigation will be successful. *See* CEQA Guidelines § 15126.4; *see also Sacramento Old City Ass'n*, 229 Cal.App.3d at 1034. Here, the DEIR lacks the evidence necessary to show that the Project will not contribute to on-going drainage and flooding problems. 44

The DEIR identifies exactly one mitigation measure for the Project's significant drainage and flooding impacts. This measure (4.9.6.1A) would route the on-site storm water flows through a series of detention and infiltration basins, so that storm water flows are reduced to equal or below pre-development conditions. DEIR at 4.9-30. Specifically, the DEIR calls for the developer to place detention basin(s) and spreading area(s) *as appropriate* within each proposed watershed, to "mitigate the impacts of increased peak flow rate, velocity, flow volume and reduce the time of concentration by storing increased runoff for a limited period of a time and release the outflow at a rate that does not exceed the pre-development conditions." *Id.* (emphasis added). Unfortunately, there are numerous flaws with this proposed measure. 45

First, by using phrases such as "as appropriate," the DEIR provides no assurance or commitment that the storm water facilities will ever be implemented. *San Franciscans for Reasonable* Growth, 151 Cal.App.3d at 79. The CEQA Guidelines state that "mitigation measures must be fully enforceable through permit conditions, agreements, or other legally-binding instruments." CEQA Guidelines § 15126.4(a)(2). 46

Second, although the DEIR asserts the "project hydrology plan" provides the details regarding the storm water facilities relating to peak flow rate, velocity, flow volume and the timing of releasing flows (at 3-46), the hydrology plan contained in Appendix J to the DEIR does no such thing. The hydrological appendix explicitly *excludes* the necessary details relating both to the design for controlling increased peak flow rate, velocity, and flow volume and to the methodology that would be used to release the outflow at a rate that does not exceed the pre-development conditions. Instead, the appendix improperly asserts that the approximate sizes of the basins will determined in the final design stage. DEIR, App. J at 9. 47

Moreover, even if these important details were included in the DEIR's hydrological appendix, the DEIR's approach is unlawful. CEQA requires that the 48

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analysis be presented in the EIR. *See Santa Clarita Organization for Planning the Environment v. County of L.A.* (2003) 106 Cal.App.4th 715, 722 (agency's analysis must be contained in the EIR, not "scattered here and there in EIR appendices"). "Decisionmakers and the general public should not be forced to sift through obscure minutiae or appendices in order to ferret out the fundamental assumptions that are being used for purposes of the environmental analysis." *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 659; *see also Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 442 ("The data in an EIR must not only be sufficient in quantity, it must be presented in a manner calculated to adequately inform the public and decision makers, who may not be previously familiar with the details of the project."). 48

Third, although the Project will be constructed in phases, neither the DEIR nor the hydrological appendix provides any explanation as to whether or how the drainage improvements would keep pace with anticipated development. The DEIR does not set forth specific, measurable performance standards for the Project's drainage system that could justify later formulation of mitigation methods targeted to meet those standards. The closest the hydrology appendix comes is the vague statement that "proposed drainage systems which are connecting to the existing downstream facilities shall be designed so the proposed discharge does not exceed the existing discharge to the downstream facilities." DEIR, App. J at 7. The Specific Plan also lacks any performance standards for the drainage improvements. Instead, it simply states that "at each stage of development, the peak flows at downstream discharge points at the southerly project boundary will not exceed the peak flows for the existing conditions." DEIR, App. H at 42. Because the DEIR lacks any specific performance standards, this vague statement of intent is meaningless. 49

Fourth, the DEIR promises that post-development flows will not exceed the pre-development condition. DEIR at 4.9-30. Yet, as discussed above, the Project site and surrounding area currently experience flooding. By the DEIR's own admission, the post-development flow volumes that will be generated on-site are anticipated to be substantially higher than the pre-development flows. *Id.* at 4.9-29. Simply designing drainage facilities to meet pre-development drainage conditions provides no assurance that flooding will not continue to occur on and adjacent to the Project site. In fact, as the DEIR recognizes, flood control systems are not always constructed to the ultimate condition envisioned. *See id.* at 4.9-26. Moreover, without appropriate monitoring and maintenance, over time storm drainage systems may no longer provide sufficient capacity for storm water flows. 50

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Indeed, the DEIR provides no mechanism for on-going maintenance of drainage facilities. As the hydrology appendix makes clear, proper maintenance is necessary to adequately convey flows. DEIR, App. J at 18. Sediment, for example, can be transported downstream, filling the downstream channel, leading to a decrease in channel capacity and an increase in flooding and overbank deposition. *Id.* at 16. In fact, the DEIR identifies sediment as the principal component in most storm water by volume. DEIR at 4.9-31. Rather than ensure regular monitoring and maintenance as Project mitigation, the DEIR specifically states that sediment basins will *not* be constructed as part of the Project. *Id.* Instead, it calls for operations, maintenance and funding details to be included in a Project specific water quality management plan ("WQMP"), to be prepared at a later date. *Id.* at 4.9-35. Such deferral of mitigation violates CEQA. 51

Fifth, the DEIR explains that projects that are identified as "Priority Development Projects" are required to prepare a Project-Specific WQMP. DEIR at 4.9-12. The City's Municipal Separate Storm Sewer System ("MS4") Permit System mandates a Low Impact Development ("LID") approach to storm water treatment and management of runoff discharges. *Id.* at 3-59. According to the DEIR, the Project site should be designed to minimize imperviousness, detain runoff, and infiltrate, reuse, or evapotranspirate runoff where feasible. DEIR at 4.9-13. The DEIR goes on to explain that LID Best Management Practices ("BMPs") should be used to infiltrate, evapotranspirate, harvest and use, or treat runoff from impervious surfaces, in accordance with the Design Handbook for Low Impact Development Practices. *Id.* We can find no indication that the Project or the mitigation measures include any design features to minimize imperviousness or reuse or evapotranspirate runoff. 52

2. The DEIR's Analysis and Conclusions Regarding Aesthetic Impacts to State Route 60, a City-Designated Scenic Road, Are Unsupported.

The Project site is directly adjacent to State Route 60, designated a local scenic road under the City's General Plan. Existing agricultural fields currently allow expansive views across the site. Consequently, motorists driving along State Route 60 in the vicinity of the Project site, particularly those driving east, have excellent views of Mystic Lake and the San Jacinto Valley. 53

The DEIR's analysis of impacts to these views errs in two crucial ways. First, the DEIR's primary methodology for understanding Project impacts on scenic vistas and viewsheds fails to provide necessary information about the Project's impacts to views from State Route 60. The DEIR purports to identify specific key vantage points. DEIR at 4.1-17. Photographs of existing conditions at these key vantage points are 54

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provided (*id.* at 4.1-11, 13); next, digital models of the Project are projected onto each key vantage point to approximate the Project's impacts (*id.* at 4.11-43 to 59). The flaw is that while the DEIR recognizes that impacts to the motoring public along State Route 60 have the potential to be significant (*id.* at 4.1-7), the DEIR offers only *one* vantage point from this location. *Id.* at 4.1-9. Moreover, the direction and scope of the photograph work to *cut off* the significant views from this scenic road. *Id.* at 4.1-13 (Photograph 12). The DEIR must be revised to disclose the true extent of these visual impacts. 54

Second, the DEIR erroneously concludes that the Project's visual changes "while substantial, are generally consistent" with the City's General Plan. *Id.* at 4.1-65, 69. The City's General Plan "require[s] development along scenic roadways [including State Route 60] . . . to allow for scenic views of the surrounding mountains and Mystic Lake." Moreno Valley General Plan Policy 7.7.5. The DEIR's simulation of views from State Route 60, however, indicates that the Project will completely block all views from the road out toward the San Jacinto Wildlife Area and Mystic Lake. DEIR at 4.1-55, 57. 55

To the extent the City relies on the "programmatic" nature of the EIR to justify its failure to simulate important views from State Route 60 (DEIR at 4.1-62 to 63), the tactic must fail. The DEIR's statement provides another example of the improper deferral encouraged by the City's inappropriate use of a programmatic EIR. *See* Part I(A).

The DEIR offers a number of excuses for this apparent contradiction. While the General Plan focuses on impacts to views of both the surrounding mountains and Mystic Lake, the DEIR focuses only on impacts to views of the "scenic uplands." DEIR at 4.1-7. Because the tips of the mountains may be visible over structures reaching 60 feet or higher, the City implies that the Project can still comply with the General Plan. This argument strains credulity. The General Plan refers to "scenic views" of the surrounding mountains and Mystic Lake. Because the Project will largely block these natural features, the views will not be "scenic." In addition, the DEIR must be clarified that the Specific Plan allows this 60 foot height limitation to be raised under certain circumstances. *E.g.*, DEIR at 4.1-61 (stating that "the project will allow a maximum of 60-foot tall warehouse buildings along the west, north, and south perimeters of the site"); DEIR, App. H at 113 (Specific Plan allows height exceptions up to an additional ten feet). 56

The DEIR also relies on an erroneous baseline: the Moreno Highlands Specific Plan. The DEIR states that the Project's change in views "while substantial, is anticipated in the City's General Plan, which allows development within the Project area," and therefore concludes that the Project is compliant with the General Plan. *Id.* at 57

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4-1.65. It is black letter CEQA law, however, that a lead agency must consider a project's impact on the existing environment, not on the underlying land use designations. *Environmental Planning & Information Council v. County of El Dorado* (1982) 131 Cal.App.3d 350, 354 (CEQA is not concerned with a project's impacts on a plan, but "with the impacts of the project on the environment, defined as the existing physical conditions in the affected area."). Relying on the Moreno Highland Specific Plan in this instance is particularly inappropriate, as the development agreement for that project has since expired and the City acknowledged in an update to its Housing Element in 2011 that that project will not be built. DEIR at 4.13-5. 57

In addition, the DEIR's conclusion regarding compliance with the General Plan's protections for scenic roads is based on a faulty assumption regarding the City's ability to mitigate for Project impacts. The DEIR states that the Project "can preserve significant visual features, significant views, and vistas if the size and location of building developed under the [specific plan] can be controlled so as not to substantially block views of Mount Russell, the Badlands, and Mystic Lake." DEIR at 4.1-65; *accord id.* at 4.1-69. Yet the DEIR includes no requirement to actually control the size and location of buildings; the only mitigation measures outlined in the DEIR relate to setbacks and visual screening. *Id.* at 4.1-65. While the DEIR states that the Specific Plan includes such restrictions (*id.* at 4.1-69), the DEIR is wrong. In fact, the Specific Plan's only provisions for protecting views and vistas call for localized screening and setbacks, which would have no impact on long-range views. *See, e.g.*, DEIR, App. H at 104, 106-07. The Specific Plan fails even to mention the important viewsheds toward Mystic Lake and San Jacinto Valley. 58

In any event, given the sheer size of the Project, it is unlikely that such mitigation is feasible at all. *See* Pub. Res. Code § 21081.6 (mitigation under CEQA must be both feasible and enforceable); *Lincoln Place Tenants Ass'n*, 155 Cal.App.4th at 445 (same). Over 950 acres of the of the 2710-acre Project site will be covered in buildings, and much of the remainder will be used for parking facilities and other improvements. DEIR at 3-19. 59

The City's unsupported conclusion regarding the Project's compliance with the General Plan leads to two legal outcomes. First, the City cannot approve a project that fails to comply with a General Plan policy, where, like Policy 7.7.5, the requirement is "fundamental, mandatory, and clear." *Endangered Habitats League, Inc. v. County of Orange* (2005) 131 Cal.App.4th 777, 782. Second, inconsistency with a General Plan is a potentially significant impact under CEQA, which must be analyzed just like any other potentially significant impact. *Pocket Protectors v. City Of Sacramento* (2004) 124 Cal.App.4th 903, 930-34. Here, given the Project's clear inconsistency with a 60

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fundamental General Plan policy intended to protect the environmental setting, the impact is significant. The DEIR must be revised to address the Project's inconsistency with a fundamental General Plan policy and to address the inconsistency as a significant impact under CEQA. 60

3. The DEIR Does Not Properly Analyze the Project's Land Use Impacts.

The DEIR also suffers from other land use related errors. CEQA requires that environmental impact reports analyze the consistency of a project with applicable local plans, including general plans. *See Napa Citizens for Honest Govt. v. Napa County Board of Supervisors* (2001 91 Cal.App.4th 342, 386-87; CEQA Guidelines, App. G, § IX (b). Inconsistencies with a general plan or other local plan goals and policies that were enacted in order to protect the environment are significant impacts in themselves and can also be evidence of other significant impacts. *See id.*; *Pocket Protectors*, 124 Cal.App.4th at 929. 61

The DEIR's analysis of the Project's consistency with the City's General Plan is seriously flawed. First, because the proposed general plan amendments are not provided, it is not even possible to determine the Project's consistency with the General Plan. Second, what information that is provided in the DEIR makes clear that the Project would conflict with numerous General Plan provisions.

(a) Deficiencies in the Project Description Make It Impossible to Determine the Project's Consistency With the General Plan.

As discussed above, the DEIR fails to adequately describe key components of the Project. The DEIR does not include, for example, fundamental information pertaining to the utilities, infrastructure and public services that will be needed to serve the Project. The General Plan, however, contains provisions about the importance of ensuring that utilities, infrastructure and public services keep pace with development. Because the DEIR does not provide that assurance—for example, there is no assurance that storm drainage infrastructure will be constructed in advance of each phase of development—it is simply not possible to determine whether the Project is consistent with the General Plan. 62

Nor does the DEIR disclose the content of the proposed general plan amendments. Consequently, the public and decision makers are left in the dark as to whether the amendments would be consistent with the remaining elements of the General Plan or whether they would result in a General Plan that is internally inconsistent. Perhaps the most troubling omission pertains to the DEIR's treatment of the Project's 63

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transportation circulation system. Here, the DEIR states that "the revised General Plan Circulation Element (as amended by the proposed project) and the Specific Plan's Circulation Plan (Specific Plan Section 3.1) provides for the movement of vehicles in and around the World Logistics Center area." DEIR at 3-33. Yet, we can find no indication that this "revised General Plan Circulation Element" has even been prepared. If this Circulation Element is a part of the proposed Project, as the DEIR implies, it must be described in the DEIR. 63

The implications of this omission are very important. The circulation element of a general plan serves as an "infrastructure" plan and must "correlate" with the other elements of the plan, including planned land uses called for in the land use element. *Concerned Citizens of Calaveras County v. Calaveras County* (1985) 166 Cal.App.3d 90, 99-104. The City must ensure that its discretionary land use projects do not result in a general plan land use element that is inconsistent with its circulation element. Here, the WLC Project calls for an enormous level of development that will result in significant and unavoidable traffic impacts. DEIR at 1-32 through 1-35. The DEIR does not analyze the Project's consistency with the General Plan Circulation Element, or whether approval of the Project would result in an internally inconsistent General Plan. 64

(b) The Project Is Inconsistent With Numerous General Plan Objectives, Goals and Policies.

The General Plan embodies values and principles that recognize the importance of protecting the safety, healthy, and desirability of the City. *See* General Plan at 1-1, 9-1. These goals and policies are inextricably linked to preserving the environment through protection of visual resources, avoidance of noise-intensive uses and air emissions near sensitive receptors, and minimizing traffic impacts. 65

Notwithstanding the massive nature of the Project and the General Plan's emphasis on environmental protection, the DEIR concludes that the Project is consistent with the Plan's goals, policies, and objectives. To reach this contrived conclusion, the EIR carefully cherry-picks a sampling of isolated Plan policies. DEIR Table 4.10.E. Because the EIR ignores a myriad of other relevant policies—with which the Project flatly conflicts—the document misinforms decision makers and the public about the Project's consistency with the General Plan. 66

Set forth below are examples of the Project's General Plan inconsistencies. The DEIR provides either inaccurate analysis, or no analysis, of these conflicts. 67

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Objective, Goal and Policy	Definition	Consistency of Proposed WLC Project
Policy 2.5.2	Locate manufacturing and industrial uses to avoid adverse impacts on surrounding land uses. General Plan at 9-7.	*Inconsistent*: As the DEIR explains, the Project would result in increased noise, lighting, air pollutant, and health risk impacts. There is no effective mitigation available to protect or separate existing residences in the area from the Project's warehousing buildings and operations. The DEIR concludes this impact is significant and unavoidable. DEIR at 4.10-34.
Policy 2.5.3	Screen manufacturing and industrial uses where necessary to reduce glare, noise, dust, vibrations and unsightly views. General Plan at 9-7.	*Inconsistent*: As the DEIR explains, the Project would result in increased noise, lighting, air pollutant, and health risk impacts. There is no effective mitigation available to protect or separate existing residences in the area from the Project's warehousing buildings and operations. The DEIR concludes this impact is significant and unavoidable. DEIR at 4.10-34.

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Objective, Goal and Policy	Definition	Consistency of Proposed WLC Project
Policy 2.10.11	Screen and buffer nonresidential projects from adjacent residential property and other sensitive land uses when necessary to mitigate noise, glare and other adverse effects on adjacent uses. General Plan at 9-9.	*Inconsistent*: As the DEIR explains, the Project would result in increased noise, lighting, air pollutant and health risk impacts. There is no effective mitigation available to protect or separate existing residences in the area from the Project's warehousing buildings and operations. The DEIR concludes this impact is significant and unavoidable. DEIR at 4.10-34.
Objective 2.13	Coordinate development activity with the provision of public infrastructure and services to eliminate possible gaps in service provision. General Plan at 9-10.	*Inconsistent*: During each phase of development, and at build out, the Project will generate significant amounts of traffic onto roadways, intersections, and freeways. The DEIR identifies these impacts as significant and unavoidable. DEIR at 1-32 to 35. The DEIR provides no evidence that storm drain infrastructure will be installed concurrent with development.

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Objective, Goal and Policy	Definition	Consistency of Proposed WLC Project
Objective 5.3	Maintain Level of Service (LOS) "C" on roadway links, wherever possible, and LOS "D" in the vicinity of SR 60 and high employment centers. Figure 9-2 depicts the LOS standards that are applicable to all segments of the General Plan Circulation Element Map. General Plan at 9-18, 19.	*Inconsistent*: During each phase of development, and at build out, the Project will generate significant amounts of traffic onto roadways, intersections and freeways. The DEIR identifies these impacts as significant and unavoidable. DEIR at 1-32 to 35.
Policy 5.3.6	Where new developments would increase traffic flows beyond the LOS C (or LOS D, where applicable), require appropriate and feasible mitigation measures as a condition of approval. Such measures may include extra right-of-way and improvements to accommodate left-turn and right-turn lanes at intersections, or other improvements. General Plan at 9-19.	*Inconsistent*: During each phase of development, and at build out, the Project will generate significant amounts of traffic onto roadways, intersections and freeways. The DEIR identifies these impacts as significant and unavoidable. DEIR at 1-32 to 35.

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Objective, Goal and Policy	Definition	Consistency of Proposed WLC Project
Policy 5-6	Conduct studies of specified arterial segments to determine if any additional improvements will be needed to maintain an acceptable LOS at General Plan build-out. Generally, these segments will be studied as new developments are proposed in their vicinity. Measures will be identified that are consistent with the Circulation Element designation of these roadway segments, such as additional turn lanes at intersections, signal optimization by coordination and enhanced phasing, and travel demand management measures. The study of specified arterial segments will be required to identify measures to maintain an acceptable LOS at General Plan build-out for at least one of the reasons discussed below: (a) Segments will need improvement, but their ultimate volumes slightly exceed design capabilities. (b) Segments will need improvements but require inter-jurisdictional coordination. (c) Segments would require significant encroachment on existing adjacent development if built-out to their Circulation Element designations. General Plan at 9-23, 24.	*Potentially inconsistent*: The Project includes a "Revised Circulation Element" yet it is not included in the DEIR. The DEIR concludes that roadway segments would exceed applicable level of service thresholds and that these impacts are significant and unavoidable. DEIR at 1-32 to 35. — 69

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Objective, Goal and Policy	Definition	Consistency of Proposed WLC Project	
Policy 6.2.3	Maximize pervious areas in order to reduce increases in downstream runoff resulting from new development. General Plan at 9-30.	*Inconsistent*: Although the DEIR does not identify the increase in impervious surfaces, the 41 million square foot development would result in an enormous increase in impervious surfaces in a location that already experiences drainage deficiencies and flooding. The DEIR provides no indication as to whether the applicant has taken any action to maximize pervious areas.	70
Policy 6.2.4	Design, construct and maintain street and storm drain flood control systems to accommodate 10-year and 100-year storm flows respectively. General Plan at 9-30.	*Potentially Inconsistent*: As discussed above, the DEIR provides no evidence that sufficient storm drain flood control systems will be implemented.	71
Policy 6.3.1	The following uses shall require mitigation to reduce noise exposure where current or future exterior noise levels exceed 20 CNEL above the desired interior noise level: Single and multiple family residential buildings shall achieve an interior noise level of 45 CNEL or less. Such buildings shall include sound-insulating windows, walls, roofs and ventilation systems. Sound barriers shall also be installed (e.g. masonry walls or walls with berms) between single-family residences and major roadways. General Plan at 9-31.	*Inconsistent*: The Project will result in significant and unavoidable construction- and operational- noise impacts. DEIR at 1-27, 28.	72

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Objective, Goal and Policy	Definition	Consistency of Proposed WLC Project	
Objective 6.5	Minimize noise impacts from significant noise generators such as, but not limited to, motor vehicles, trains, aircraft, commercial, industrial, construction, and other activities. General Plan at 9-31.	*Inconsistent*: The Project will result in significant and unavoidable construction- and operational- noise impacts. DEIR at 1-27, 28.	73
Policy 7.7.5	Require development along scenic roadways to be visually attractive and to allow for scenic views of the surrounding mountains and Mystic Lake. General Plan at 9-38.	*Inconsistent*: The Project will significantly impact viewsheds in the area, including views of the Mt. Russell Range, the Badlands, and Mystic Lake. DEIR at 1-9; *see also* Part I(C)(2) of this letter.	74

The revised EIR must examine each of the General Plan policies for which the Project may be inconsistent. If inconsistencies exist, the revised EIR must identify these as significant impacts and identify feasible mitigation or Project alternatives capable of minimizing or eliminating these impacts. 75

4. The DEIR's Analysis of Hazards and Hazardous Materials Is Inadequate.

(a) The DEIR Fails to Provide Sufficient Information for Accurate Analysis and Decision-Making.

The hazards and hazardous materials section of the DEIR lacks sufficient information to enable the public and decision-makers to make an informed judgment regarding the potentially significant impacts of the Project. In particular, the section relies on conclusory statements and unstated assumptions that are specifically prohibited under CEQA. *See Berkeley Keep Jets Over the Bay Com. v. Board of Port Cmrs.* (2001) 91 Cal.App.4th 1344, 1371 (striking down an EIR "for failing to support its many conclusory statements by scientific or objective data"); *San Joaquin Raptor Rescue Center*, 149 Cal.App.4th at 659 ("[D]ecision makers and general public should not be forced to . . . ferret out the fundamental baseline assumptions that are being used for purposes of the environmental analysis."). 76

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As an example, the DEIR states that "18 separate Phase I Environmental Site Assessments (ESAs) have been conducted covering a large majority of the property." DEIR at 4.8-2. However, the DEIR fails to inform the public which areas have not been subject to Phase I ESAs and if any of these areas will be part of the 42 million cubic yards of cut and fill necessary to grade the Project site. *Id.* at 3.6-1. Without this information, the public and the relevant decision-makers cannot ascertain whether the DEIR accurately concludes that the Project will result in a less than significant impact with respect to hazardous materials. *Id.* at 4.8-17. 77

The Moreno Valley Local Hazard Mitigation Plan and the Moreno Valley General Plan also indicates the presence of hazardous materials sites on the Project site. Local Hazard Mitigation Plant at 89; Moreno Valley General Plan Final EIR, Figure 5.5-1. These sites are not disclosed or otherwise described in the Project EIR. Information about these hazardous materials sites, and the impacts of the Project on the sites, must be included in a revised draft EIR and recirculated for additional public comment. 78

Similarly, the DEIR states that certain setbacks "appear [to be] sufficient" to guard against potential risks from an existing regional natural gas compressor station located within the Project site. *Id.* at 4.8-15. The DEIR, however, contains no analysis or substantial evidence to support its conclusion that the specified setbacks are "sufficient." This type of conclusory statement does not comport with CEQA's informational purpose. 79

(b) The DEIR Fails to Adequately Mitigate for Potentially Significant Impacts.

In addition to its information disclosure requirements, CEQA mandates that lead agencies adopt all feasible mitigation measures that substantially lessen the significant environmental effects of a project. Pub. Res. Code § 21001. If a lead agency concludes that an impact is less than significant based on the presence of conditions or mitigation measures that lessen the potential impact, these conditions or mitigation measures must be adopted and enforceable. Pub. Res. Code § 21081(a) (A lead agency may not approve a project unless "changes or alterations have been *required in, or incorporated into,* the project which mitigate or avoid the significant effects on the environment." (emphasis added)). In contravention of these requirements, the hazards and hazardous materials section of the EIR frequently relies on conditions or mitigation measure that the City appears *not* to intend to adopt or enforce. 80

For example, Phase I ESAs for the Project site indicate the presence of trash and debris, including some potentially hazardous material. *E.g.*, DEIR at 4.8-2 to 4 (noting several containers of paint, waste, and hydrocarbons and dozens of tires and other 81

debris). These materials present a potentially significant impact, in that they could create a significant hazard to the public or the environment through a reasonably foreseeable upset and release. *Id.* at 4.8-11. While the DEIR indicates that "all containers of hazardous materials and waste will need to be lawfully transported off site for disposal or recycling by a licensed hazardous waste transporter" (*id.* at 4.8-4), this requirement is not listed as a condition or mitigation measure for the Project. As mitigation measures must be enforceable, the DEIR must be revised accordingly. Pub. Res. Code § 21081.6. 81

Similarly, the DEIR indicates that manufacturing or chemical processing on the Project site could result in a significant hazard to the public. DEIR at 4.8-13. The DEIR therefore states that such uses "will not be permitted under the provisions of the Specific Plan." *Id.* However, the Specific Plan contains no express prohibition on this type of activity, and thus the DEIR erroneously concludes that there is no risk associated with this type of use. The DEIR must be revised to indicate that this prohibition must be incorporated into the Specific Plan. 82

The DEIR also concludes that potential hazards from the Moreno natural gas Compressor Plant will be reduced to a "less than significant level," in part because of "sufficient setback[s] from the plant to the future warehouse uses (e.g., 1,000 feet to [*sic*] east and 1,500 feet to west)." *Id.* at 4.8-15. This setback, however, is not included as a requirement in the Specific Plan or as a enforceable mitigation measure in the DEIR. Given that the location of the buildings will not be established as part of the proposed Project, the DEIR or Specific Plan must include a specific condition regarding these proposed setbacks to ensure that the potential hazard from the natural gas compressor plant can be reduced to a less-than-significant level. 83

(c) The DEIR Repeatedly Defers Analysis and Mitigation Related to Potential Hazards.

In response to the City's Notice of Preparation, a number of members of the public raised concerns regarding the pressurized natural gas lines that currently criss-cross the Project site and the potential for construction to result in a catastrophic accident. *Id.* at 4.8-6. In response to these concerns, the DEIR states that "as development occurs in areas with buried natural gas lines, the project proponent will be required to negotiate with the involved utility provider as to whether these pipelines can be relocated or need to be protected in place." *Id.* at 4.8-16. The DEIR ultimately concludes, however, that any potential impact can be reduced to a less-than-significant level. *Id.* This response represents a deferral of analysis that is strictly prohibited under CEQA. *Communities for a Better Environment*, 184 Cal.App.4th at 92 (setting aside an EIR for deficient consideration of greenhouse gas emissions where the document "improper[ly] deferr[ed] 84

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[] environmental assessment."). As explained in Part I(A), the programmatic nature of the EIR provides no excuse for this deferral. 84

In addition, the Project includes the construction of a liquefied natural gas/compressed natural gas fueling station. DEIR at 4.8-18. This construction raises similar concerns related to a fire or catastrophic explosion. *Id.* Instead of addressing these concerns in the DEIR, however, the City defers the development of mitigation measures to a later time: after the approval, the applicant must "provide a risk assessment or safety study" that demonstrates that the location and construction of "the facility will not create any significant public health or safety impacts or risk." *Id.* at 4.8-19. But this is the exact type of deferred mitigation that is prohibited under CEQA. An EIR is inadequate if

> "[t]he success or failure of mitigation efforts . . . may largely depend upon management plans that have not yet been formulated, and have not been subject to analysis and review within the EIR." *San Joaquin Raptor Rescue Center*, 149 Cal.App.4th at 670. "A study conducted after approval of a project will inevitably have a diminished influence on decisionmaking. Even if the study is subject to administrative approval, it is analogous to the sort of *post hoc* rationalization of agency actions that has been repeatedly condemned in decisions construing CEQA." *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 307.

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Communities for a Better Environment, 184 Cal.App.4th at 92. Without the specific information that will be disclosed through a risk assessment or safety study, the public cannot be assured that mitigation related to the risk of fire or catastrophic explosion can be adequately mitigated at the Project site.

5. The DEIR Fails to Adequately Analyze and Mitigate Impacts Relating to Geology and Soils.

The DEIR's analysis of impacts relating to geology and soils is riddled with flaws. First, the document fails to adequately analyze or mitigate impacts resulting from the Project site's location within an area susceptible to fault rupture. State law prohibits the construction and placement of habitable structures over the trace of an active fault within an Alquist-Priolo Zone. DEIR at 4.6-17. Before a project can be permitted within an identified Earthquake Fault Zone, a lead agency must require a geologic investigation to demonstrate that proposed buildings will not be constructed across active faults. The primary method to avoid this hazard is to either set structures and facilities away from active faults, or avoid their construction in close proximity to an active fault. *Id.* 4. 6-16. 86

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The DEIR asserts that a detailed fault investigation was performed for the site's projected faults. Trenching conducted across the Claremont Segment of the San Jacinto Fault in the eastern area of the Project site identified the location of a portion of the fault. However, the DEIR admits that the entire length of the fault through the site was not trenched. DEIR at 4.6-17. Notwithstanding this incomplete investigation, the DEIR correctly concludes that future development permitted by the Project would locate development in an area susceptible to fault rupture and finds this impact to be potentially significant. *Id.* at 4.6-16. The DEIR proposes to mitigate this impact by requiring a study that "will likely" involve future trenching to adequately identify the location of the Claremont segment of the San Jacinto Fault Zone. *See* Mitigation Measure 4.6.61B at 4.6-17. We can find no logical explanation as to why the initial "detailed" fault investigation did not include trenching of the section of entire length of the Claremont Segment of the San Jacinto Fault through the Project site. Moreover, the DEIR's mitigation measure does not even commit to conduct future trenching. Without a thorough investigation, the DEIR has no basis to conclude that proposed buildings will not be constructed across active faults. Therefore, the document's conclusion that the Project's impacts relating to susceptibility to fault rupture would be mitigated to less than significant levels cannot be sustained. 87

Second, the DEIR fails to adequately analyze or mitigate impacts relating to ground shaking. The DEIR states that the level of potential ground motion is considered moderate to high in the City of Moreno Valley and concludes that this impact is potentially significant. DEIR at 4.6-18. The DEIR proposes to mitigate for this impact by complying with applicable standards and codes (e.g., Title 24 (California Building Standards Code), City Building Code and/or professional engineering standards). The DEIR never, however, identifies the specific grading, soils and construction techniques that could justify later formulation of mitigation methods targeted to meet the applicable standards. In the absence of this information, the DEIR lacks the evidence necessary to conclude that the Project's impacts related to ground shaking would be reduced to less than significant levels. 88

Third, the DEIR concludes that the potential exists to locate development on moderately expansive and compressible soils and deems these impacts to be significant. DEIR at 4.6-19. Here too, the DEIR defers the necessary analysis of impacts until after project approval. Mitigation Measure 4.6.6.3A calls for geotechnical investigations that "shall identify any site-specific impacts…", while Measure 4.6.6.3D calls for studies to "address if or to what degree compressible and/or expansive alluvium on or underlying individual pads is present." *Id.* at 4.6-19,20. It is wholly inappropriate 89

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to deem these measures "mitigation" and allow them to be delayed until after project approval. *Gentry v. City of Murrieta* (1995) 36 Cal. App. 4th 1359, 1396 (rejecting mitigation measures allowing project applicant to comply with report and measures regarding the Stephens' kangaroo rat developed after project approval). An analysis of the Project's potential to locate development on expansive and compressible soils must necessarily begin with a detailed investigation of the presence of such soils on the Project site. This information must be must be included in the revised DEIR. 89

Finally, the Project includes an array of off-site improvements such as reservoirs and highway projects. DEIR at 4. 6-10. The DEIR fails to analyze the extent to which these off-site improvements would be subject to potential geotechnical constraints. Instead, the DEIR simply concludes that none of the off-site improvement areas would have substantial seismic or seismically related constraints. *Id.* Contrary to this conclusion, the DEIR's geotechnical appendix shows clearly significant potential geotechnical impacts. For example, several landslides have been mapped and observed during the field review of off-site reservoir Area A. *See* Appendix G at 6, 7. The appendix goes so far as to state, "Due to the existing nearby landslides, the gross stability of the area must be determined during future studies." *Id.* Nor does the DEIR disclose that that the planned reservoir access road will traverse through a mapped landslide as well as potential unstable San Timoteo formation bedrock and that the site has potential for ground fissuring/rupture. *Id.* 90

The DEIR also fails to disclose that water reservoir and access area B also have landslides and that the access road would cut through potentially unstable bedrock. Appendix G at 8 and 9. The appendix also explains that although no faulting was observed during the review, "mass wasting and weathering of the formational materials may be masking any onsite features indicative of active faulting." *Id.* at 8. 91

We can find no plausible explanation for the DEIR's omission of this important information. As the appendix makes very clear, the potential exists for these off-site improvements to result in significant geotechnical impacts. The EIR must be revised to include a comprehensive analysis of these site constraints and identify appropriate mitigation measures. 92

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6. The DEIR Fails to Properly Analyze Impacts Relating to Population, Housing and Employment.

The DEIR lacks evidentiary support to conclude that the Project would not induce substantial population growth. According to Highland Fairview, the proposed Project will more than double the number of jobs within the City. While there were approximately 25,000 jobs in the City in 2011, the DEIR states the Project will generate about 29,500 new direct and induced jobs. DEIR at 4.13-3, 9; 5-5. 93

The DEIR asserts that the jobs generated by the proposed Project are anticipated to be filled by workers who, for the most part, already reside in the Project area; therefore, construction of the proposed WLC Project would not cause a permanent increase in population. DEIR at 4.13-8. The DEIR fails, however, to provide any factual support for this assertion. Indeed, because the DEIR omits fundamental information about the skills and/or the educational characteristics of the local labor force, it is not possible to determine whether City residents could fill the new positions. The DEIR also entirely ignores the fact that the creation of 28,000 potential jobs could cause people to move to Moreno Valley, which could generate additional housing demand in the region. 94

Finally, the DEIR lacks factual support for the conclusion that the Project would improve the jobs/housing imbalance. The DEIR asserts that since the City is already "housing rich," the Project's increase in jobs will help to improve the region's job/housing imbalance. DEIR at 4.13-13. But it is impossible to verify the accuracy of this conclusion because the DEIR provides incomplete information pertaining to existing employment. For example, the DEIR does not account for regional in- or out-commuting due to job/labor mismatches or housing affordability. Even if a community has a numerical balance between jobs and housing/employed residents, sizeable levels of in- and out-commuting are possible and even likely, especially where employment opportunities do not match the skills and/or the educational characteristics of the local labor force. An actual jobs-to-housing match occurs only when the types of jobs provided in a community "match" the skills and income needs of the employed workers within the community. The revised DEIR must describe the types of jobs that would be created by the Project and match them to local worker' skills and education. 95

7. The DEIR Fails to Adequately Analyze the Project's Cumulative Impacts.

Under the CEQA Guidelines, "a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR 96

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together with other projects causing related impacts." CEQA Guidelines § 15130(a)(1). Because "[c]umulative impacts can result from individually minor but collectively significant projects" (CEQA Guidelines § 15355(b)), an impact that appears less than significant (or mitigable to such a level) when only the project is scrutinized may turn out to contribute to a significant cumulative impact. Accordingly, the EIR must determine whether the project's contribution is "cumulatively considerable," that is, whether its "incremental effects . . . are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." CEQA Guidelines § 15065(a)(3); *see also Kings County Farm Bureau*, 221 Cal.App.3d at 729. This mandate assumes even greater importance for a program-level EIR such as this one. *See* CEQA Guidelines § 15168(b)(4) (programmatic EIR allows agency to "consider broad policy alternatives and program-wide mitigation measures" at an early stage when the agency has greater flexibility to deal with cumulative impacts). 96

To analyze the Project's potential cumulative impacts, the DEIR purports to use the growth projections set forth in the City's General Plan. DEIR at 2-22. However, the DEIR identifies only the growth that is expected to occur in the City and the County, which simply lists the amount of population, housing, employment and jobs/housing ratio (*see* Table 2.E at p. 2-23). There is no indication that the General Plan documents "described or evaluated regional conditions contributing to the cumulative impact," as required by the CEQA Guidelines section 15130(b). Indeed, after purporting to rely on the City's General Plan, the DEIR goes on to discuss the Project's cumulative impacts without once referring back to the General Plan. DEIR at 4.9-42, 43. 97

The DEIR errs further because, rather than analyzing the Project's cumulative impacts, it simply repackages, in abbreviated form, the project-specific impact analysis. In doing so, the DEIR misses the point of cumulative impacts analysis entirely. For example, the DEIR concludes that the Project would not contribute considerably to cumulative storm water impacts because the Project's drainage system will be designed to control post-development runoff—and all other development in the vicinity of the Project site will have the same requirement. *Id.* at 4.9-43. However, the DEIR's project-specific analysis did not analyze whether the buildout allowed under the City General Plan, together with development in the City, would cause significant storm water and flooding impacts. The document never identifies how the growth anticipated by the General Plan would affect the various watersheds in the area. 98

Moreover, the very purpose of cumulative impact analysis is to determine whether impacts that appear insignificant in isolation add up to significant damage when taken together with other projects' impacts. Thus, the fact that individual projects may 99

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have only less than significant impacts is no answer to the question whether, taken together, they may have a cumulative impact. *See Kings County Farm Bureau*, 221 Cal.App.3d at 720. 99

The DEIR must take a hard look at the impacts of the proposed Project together with the impacts of development with the various watersheds, and after undertaking that analysis, must determine whether the Project's contribution to such impacts are cumulatively considerable. In determining the significance of the Project's incremental contribution, the question is *not* the relative amount of the Project's contribution to the existing cumulative problem (i.e., whether this Project contributes the same, less, or more than other projects), but rather whether the addition of the Project's impact is significant in light of the serious existing or soon-to-be existing problem (i.e., whether the project's contribution to the environmental problem is cumulatively considerable). As the courts have explained, the greater the existing environmental problem is, the lower the threshold of significance is for considering a project's contribution to the cumulative impact. *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 120. 100

The DEIR's analysis of cumulative impacts relating to wastewater treatment demand is similarly deficient. The document does not identify the cumulative wastewater demand in the area or evaluate whether the Project's increase in wastewater demand, combined with the wastewater demand from cumulative development, will impact wastewater treatment facilities. Instead, the DEIR merely observes that (1) cumulative population increases and development within the area serviced by the Moreno Valley Regional Water Reclamation Facility will increase the overall regional demand for wastewater treatment service, and (2) the reclamation facility *is expected to* have adequate capacity to service the City's wastewater needs through 2030. DEIR at 4.16-28. These vague and uninformative statements are not sufficient. CEQA requires that an EIR's conclusions be supported by substantial evidence. *Laurel Heights I*, 47 Cal.3d at 409. Substantial evidence consists of "facts, a reasonable presumption predicated on fact, or expert opinion supported by fact," not "argument, speculation, unsubstantiated opinion or narrative." Pub. Res. Code § 21080(e)(1)-(2). 101

The DEIR also concludes, absent factual analysis, that the proposed Project would not have a cumulatively significant impact on wastewater infrastructure because the Project itself would not require the expansion of existing infrastructure. DEIR at 4.16-28. As explained above, this misses the point of a cumulative impact analysis. Even where a project might cause an "individually limited" or "individually minor" incremental impact that, by itself, is not significant, the project may nevertheless contribute to a cumulative impact if the contribution is "cumulatively considerable" when 102

viewed together with environmental changes anticipated from past, present, and probable future projects. CEQA Guidelines §§ 15064(h)(1), 15355(b). 102

The DEIR must be revised to conduct its cumulative impact analyses in accordance with CEQA. If any Project impact is determined to be cumulatively considerable, the DEIR must identify mitigation measures or alternatives capable of minimizing or eliminating these impacts. 103

8. The DEIR Fails to Analyze the Project's Growth-Inducing Effects.

CEQA requires an EIR to include a "detailed statement" setting forth the growth-inducing impacts of a proposed project. Pub. Res. Code § 21100(b)(5); *City of Antioch v. City Council of Pittsburg* (1986) 187 Cal.App.3d 1325, 1337. The statement must "[d]iscuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." CEQA Guidelines § 15126.2(d). It must also discuss how projects "may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively." *Id.* The CEQA Guidelines expressly recognize that growth-inducing impacts can occur through extension of infrastructure. CEQA Guidelines, App. G, § XIII(a). The EIR here does not begin to meet these requirements. 104

The DEIR concedes that the Project has the potential to induce growth by creating new employment opportunities and increasing the demand for goods and services. DEIR at 5-5. Despite this pronouncement, however, we find no indication that the EIR has, in fact identified this resultant growth or evaluated its environmental consequences. None of the EIR's environmental impact analyses (save population, employment, and housing section) even mention induced or indirect growth. For its part, the population, employment and housing section merely notes that the specific location of the induced jobs cannot be specifically determined; the analysis then goes on to assume that a "large percentage" of these jobs may be located in the proposed WLC project vicinity, i.e. the City. *Id.* at 4.13-13. The DEIR provides no factual support for this assertion.

The DEIR errs further when it boldly asserts that "it is expected that any such [induced housing] development would occur consistent with planned growth identified in the General Plan or applicable specific plans." *Id.* 4.13-8. Here too, the DEIR provides no support that the City's General Plan anticipated the WLC project or its associated indirect growth. Nor could it: the Project as proposed requires numerous amendments to the City's General Plan. 105

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Finally, the DEIR asserts that the streets, water, and sewer utilities that would be extended to serve the Project could potentially induce development because they would remove an impediment to growth. *Id.* at 5-6. Yet, the document immediately contradicts itself by stating that the Project will not necessitate extension of major infrastructure. *Id.* This statement is erroneous. Inasmuch as the Project site is currently undeveloped, it will certainly require the extension of utilities and services. Yet, because the DEIR fails to describe the necessary public utilities and services, the public is left in the dark as to whether this infrastructure would be sized only to accommodate the needs of the WLC. The revised DEIR must assess whether the extension of infrastructure to serve the Project will induce further growth and analyze the environmental consequences of this growth. 106

D. The DEIR Analyzes an Inadequate Range of Alternatives and Fails to Develop Alternatives that Reduce Impacts.

A core substantive requirement of CEQA is that "public agencies should not approve projects as proposed if there are feasible alternatives . . . which would substantially lessen the significant environmental effects of such projects." Pub. Res. Code § 21002; *see also* CEQA Guidelines §§ 15002(a)(3), 15021(a)(2), 15126(d); *Citizens for Quality Growth v. City of Mount Shasta* (1988) 198 Cal.App.3d 433, 443-45. Accordingly, a major function of the EIR "'is to ensure that all reasonable alternatives to proposed projects are thoroughly assessed by the responsible official.'" *Laurel Heights I*, 47 Cal.3d at 400 (quoting *Wildlife Alive v. Chickering* (1976) 18 Cal.3d 190, 197). To fulfill this function, an EIR must consider a "reasonable range" of alternatives "that will foster informed decisionmaking and public participation." CEQA Guidelines § 15126.6(a). "An EIR which does not produce adequate information regarding alternatives cannot achieve the dual purpose served by the EIR . . . ." *Kings County Farm Bureau*, 221 Cal.App.3d at 733. 107

By artificially constraining the Project's objectives and failing to consider alternatives that would lessen the Project's significant impacts, the DEIR for the Project fails to present a reasonable range of alternatives and thus violates CEQA.

1. The DEIR's Narrow Project Objectives Prevent Consideration of Reasonable Alternatives.

The first step in conducting an alternatives analysis under CEQA is to define the project's objectives. This step is crucial because project objectives "will help the Lead Agency develop a reasonable range of alternatives to evaluate in the EIR." CEQA Guidelines § 15124(b). The lead agency may not define project objectives so 108

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narrowly as to make the proposed development a foregone conclusion. *Kings County Farm Bureau*, 221 Cal.App.3d at 736.

Here, the DEIR's project objectives include the following very specific directives:

- "[E]stablish the 2,710-acre WLC Specific Plan land use designations and development standards that will direct the development of a world-class corporate park specifically designated to support the logistics warehouse and operational needs of large companies and corporate users"
- "[D]esignate 1,084 acres of vacant land owned by the CDFW as Open Space"
- "Create a high-quality regional logistics center"
- "Create a major logistics center in Rancho Belago"
- "Establish a master plan for the entire project area to ensure that the project is efficient and business-friendly to accommodate the next-generation of logistics buildings"

DEIR at 6.2. The Alternatives analysis also states that "[t]he purpose of the proposed project is to establish the 2,710-acre WLC Specific Plan that will result in the development of 41.6 million square feet of high-cube logistics warehouse uses." *Id.* at 6-3. 108

Because these objectives specify the precise location and size of the Project site, as well as the specific use and footprint of buildings, they constrain the DEIR's alternatives analysis in violation of CEQA. In fact, they preclude *all* alternatives except building a massive logistics facility at the applicant's proposed location in Moreno Valley. As the DEIR explains, the only feasible alternative sites are ones that "could realistically support the proposed project (i.e., a contiguous 2,635-acre site for 41 million square feet of high-cube logistics warehouse uses as envisioned by the WLC Specific Plan)." *Id.* at 6-38. The document then proceeds to reject all potential alternatives sites, even those as large as 1,700 acres. *Id.* at 6-41 to 43. 109

In addition, though the DEIR frames "alternatives sites" as a considered alternative, the DEIR ultimately rejects all possible sites and fails to consider whether any alternative site would lessen environmental impacts. DEIR at 6-38 to 43. This alternative, unless more fully developed as required under CEQA, should be classified as an alternative considered but not carried forward. *Id.* at 6-3 to 4. 110

By designing the project objectives to make the selection of the applicant's site a foregone conclusion, the City failed to proceed according to law. Under CEQA, an agency cannot "avoid an objective consideration of an alternative simply because, prior to commencing CEQA review, an applicant made substantial investments in the hope of gaining approval for a particular alternative." *Kings County Farm Bureau*, 221 Cal.App.3d at 736. Rather, the agency must analyze a range of alternatives "even if these alternatives would impede to some degree the attainment of the project objectives." CEQA Guidelines § 15126.6(b). Here, the DEIR should have posited project objectives in a way that includes the public purposes of the project—as opposed to focusing narrowly on the developer's private objectives. Such an approach would allow an adequate discussion of off-site alternatives and consideration of how to meet these purposes with "minimal environmental expense." *Citizens of Goleta Valley*, 197 Cal.App.3d at 1179. 111

In sum, because the DEIR's narrow objectives for the Project prevent decision makers from evaluating a reasonable range of alternatives, including off-site options, the City violated CEQA. CEQA Guidelines § 15126.6(a); *see National Parks & Conservation Assn. v. Bureau of Land Management* (9th Cir. 2010) 606 F.3d 1058, 1072 (striking down a narrowly drawn statement of project objectives where it "necessarily and unreasonably constrain[ed] the possible range of alternatives" and "foreordain[ed] approval of the proposed project"). Because CEQA was patterned on the National Environmental Policy Act ("NEPA"), NEPA case law is treated as "persuasive authority" in interpreting CEQA. *Citizens of Goleta Valley*, 52 Cal.3d at 565, fn. 4. 112

2. The DEIR Fails to Identify Alternatives that Would Avoid or Substantially Lessen the Project's Significant Impacts.

In order to achieve the goals of CEQA, the discussion of alternatives must focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly. CEQA Guidelines § 15126.6(b). In this case, the DEIR authors have crafted a handful of environmentally inferior alternatives that, unsurprisingly, the document dismisses as creating more significant impacts or as infeasible. This approach is untenable, as the point of the alternatives analysis is to develop alternatives that *lessen* significant environmental impacts. *Laurel Heights I*, 47 Cal.3d at 403. 113

For example, the DEIR sets up Alternative 2 as a mix of logistics warehousing, light manufacturing, retail commercial, and office space on the same footprint as the proposed Project. DEIR at 6-5. The DEIR states that Alternative 2 is 114

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intended to avoid or reduce impacts to traffic, air quality, and noise impacts. *Id.* at 6-29. However, because of the changes in use, "the volume of operational air pollution would be increased when compared to the proposed project." *Id.* at 6-30. Similarly, "this alternative would *almost triple total traffic trips*" as compared to the proposed Project, with concomitant effects on operational noise. *Id.* at 6-30 to 31 (emphasis added); *see also id.* at 6-33 ("[T]he Mixed Use Alternative A would increase employment opportunities but would substantially increase traffic, noise, and air quality impacts."). The City's good intentions mean nothing when the crafted alternative substantially worsens the very impacts it was intended to address. In fact, the only possible reason for including this mixed-use option is to set up a straw man that can be knocked down. 114

The DEIR fails to explain the significant impacts that Alternative 3 is intended to address, noting only that "this alternative would develop the project site similar to the land use plan of the Moreno Highlands Specific Plan (MSHP) but with logistics warehousing on the 603 acres proposed for business, retail, institutional and other uses under the MHSP." *Id.* at 6-34. However, the DEIR concludes that the alternative would increase traffic by 13 percent; it would also increase almost all air quality impacts and potentially expose new residents to health risks associated with diesel-related air pollution. *Id.* at 6-36 to 37. While the DEIR concludes that the alternative "would reduce a significant impact of the project (aesthetic—views) by substantially reducing the amount of warehousing on the site and replacing it with residential uses" (*id.* at 6-37), the DEIR offers no analysis to support this conclusion. As the project site would still be developed, albeit at a lower height, the impact to views from State Route 60, a designated scenic road, would still be significant. Consequently, this alternative also fails to address any of the significant impacts created by the Project. 115

The DEIR likewise sets up the reduced density alternative for failure. Under this alternative, the Project would permit only 29 million square feet of logistics warehousing (a 28 percent reduction in size), but allow the development to be spread across the same 2,635 acre footprint. DEIR at 6-6, 6-22. Because the footprint is identical, the alternative's impacts related to construction pollution and noise, storm water runoff and hydrology, agricultural land, and scenic vistas and local scenic roads, among others, remain *exactly the same* as under the proposed Project. *Id.* at 6-27. To reduce impacts, it would have been far more logical to reduce the footprint of the Project, as described further below. Such an alternative would produce far fewer significant impacts, yet offer similar employment and other public benefits. For that reason, a reduced footprint alternative, as opposed to the reduced density alternative developed in the DEIR, would meet CEQA's mandate to develop and analyze alternatives that lessen a project's significant impacts. *Laurel Heights I*, 47 Cal.3d at 403. 116

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To remedy the DEIR's faulty alternatives analysis, the City must broaden the objectives both to clarify the public purpose of the proposed Project and to permit the selection of options other than the applicant's proposal. At the same time, the City must develop alternatives that actually lessen the Project's significant impacts, particularly in the areas of air quality, noise, traffic, aesthetics, agriculture, climate change, hydrology, and biological resources. One possible alternative to address many of these concerns is to build a smaller logistics warehousing project on a reduced footprint. Such a configuration would require the development of less impervious surfaces and allow for an increased buffer between the Project and the San Jacinto Wildlife Area. This option would not only reduce the Project's impacts from storm water runoff and other edge effects,[3] but also lessen its impact to agricultural land, as portions of the site could be retained in productive agriculture. A reduced footprint alternative must also remove the San Jacinto Wildlife Area/MSHCP lands from the scope of the Project. The San Jacinto Wildlife Area is not part of this Project. A reduced footprint alternative could also be sited to avoid the Project's severe impacts to scenic vistas and designated scenic roads. Finally, the reduced footprint alternative would have the same benefits related to air quality impacts, traffic, and noise as a reduced density alternative. 117

In particular, a reduced footprint alternative should be sited to leave significant amounts of land in agriculture to provide for local agriculture, thereby also reducing greenhouse gas emissions. Finally, given the severe impacts of the Project on air quality, traffic and noise, the DEIR must also include an alternative that would reduce truck traffic. In particular, the DEIR should identify alternative sites that could be served by existing or proposed rail corridors. 118

In sum, the DEIR must be revised to consider logical, environmentally superior alternatives. Its exclusive reliance on environmentally inferior or infeasible alternatives does not meet CEQA's mandate to provide decision makers with a reasonable range of options. *Citizens for Quality Growth*, 198 Cal.App.3d at 443-45. 119

E. The DEIR Must Be Recirculated.

Under California law, the present EIR cannot properly form the basis of a final EIR. CEQA and the CEQA Guidelines describe the circumstances which require recirculation of a draft EIR. Such circumstances include: (1) the addition of significant new information to the EIR after public notice is given of the availability of the DEIR but before certification, or (2) the draft EIR is so "fundamentally and basically inadequate 120

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and conclusory in nature that meaningful public review and comment were precluded." CEQA Guidelines § 15088.5.

Here, both circumstances apply. Decision makers and the public cannot possibly assess the Project's impacts, or even its feasibility, through the present DEIR, which is riddled with errors. Among other fundamental deficiencies, the DEIR repeatedly understates the Project's significant environmental impacts and assumes that unformulated or clearly useless mitigation measures will effectively reduce these impacts. In order to resolve these issues, the City must prepare a revised EIR that would necessarily include substantial new information. 120

II. APPROVAL OF THE PROJECT WOULD VIOLATE THE STATE PLANNING AND ZONING LAW AND THE SUBDIVISION MAP ACT.

The State Planning and Zoning Law (Gov't Code § 65000 *et seq.*) requires that development decisions be consistent with the jurisdiction's general plan. As reiterated by the courts, "[u]nder state law, the propriety of virtually any local decision affecting land use and development depends upon consistency with the applicable general plan and its elements." *Resource Defense Fund v. County of Santa Cruz* (1982) 133 Cal.App.3d 800, 806. Accordingly, "[t]he consistency doctrine [is] the linchpin of California's land use and development laws; it is the principle which infuses the concept of planned growth with the force of law." *Families Unafraid to Uphold Rural El Dorado County v. Board of Supervisors* (1998) 62 Cal.App.4th 1332, 1336.

General plans establish long-term goals and policies to guide future land use decisions, thus acting as a "constitution" for future development. *Lesher Communications, Inc. v. City of Walnut Creek* (1990) 52 Cal.3d 531, 540. Specific plans and zoning then ensure implementation of the general plan. Gov't Code § 65450; *see* Gov't Code §§ 65850, 65860. The Subdivision Map Act likewise requires that subdivision maps be consistent with the general plan. Gov't Code § 66473.5, 66474. 121

To promote coordinated land use policies and practices, state law requires local governments not just to formulate theoretical general plans, but also to conform their development and land use projects and approvals to those duly certified plans. *Citizens of Goleta Valley*, 52 Cal.3d at 570; *see also* Gov't Code §§ 65860 (requiring consistency of zoning to general plan), 65454 (requiring consistency of specific plan to general plan), 66473.5 & 66474 (requiring consistency of subdivision maps to general plan), and 65867.5 (requiring consistency of development agreements to general plan). It is an abuse of discretion to approve a project that "frustrates[s] the General Plan's goals and policies." *Napa Citizens for Honest Gov't*, 91 Cal.App.4th at 379. The project need

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not present an "outright conflict" with a general plan provision to be considered inconsistent; the determining question is instead whether the project "is compatible with and will not frustrate the General Plan's goals and policies." *Id.* at 379. 121

For the reasons described in Parts I(C)(2) and I(D) above, the Project is inconsistent with the General Plan. Because of these inconsistencies, approval of this Project would violate State Planning and Zoning Law and the Subdivision Map Act.

In addition, the General Plan is legally inadequate because it contains a statement that the provisions of specific plans take precedence over provisions of the General Plan to the extent that the two documents are inconsistent. General Plan at 9-8. This General Plan provision fails to recognize that in the hierarchy of land use law, a specific plan is inferior to a general plan and therefore cannot take precedence over a general plan. Gov't Code § 65454. Specific plans must be consistent with the general plan, not the other way around. *Id.* Because this General Plan inadequacy implicates this Project, the Project cannot be lawfully approved. *Neighborhood Action Group v. County of Calaveras* (1984) 156 Cal.App.3d 1176, 1187-88. 122

III. CONCLUSION

As set forth above, the WLC DEIR suffers from numerous deficiencies, many of which would independently render it inadequate under CEQA. Taken as a whole, the deficiencies of the DEIR necessitate extensive revision of the document and recirculation for public comment. Moreover, as currently designed, the Project conflicts with the General Plan, and therefore cannot be legally approved. Accordingly, we respectfully request that the City reevaluate this Project in light of its inconsistencies with the General Plan, and take no further action on it until a legally adequate EIR is prepared and circulated. 123

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP

Rachel B. Hooper

Laurel L. Impett (RH)

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cc: Susan Nash, Friends of Friends of the Northern San Jacinto Valley

RESPONSES TO LETTER F-8

Shute, Mihaly & Weinberger LLP

Page 1-2. Introduction to the commenter and project. It should be noted the Specific Plan (SP) area has been reduced from 2,710 acres to 2,610 acres (3.7 percent reduction) due to the removal of 100 acres in the southwest corner of the Specific Plan. This results in a reduction of 1 million square feet of logistics warehousing which is now 40.6 million square feet down 2.4 percent from the original 41.6 million square feet.

Response to Comment F-8-1. The commenter is generally correct regarding the characteristics of the project, and the Draft Environmental Impact Report (DEIR) has analyzed the traffic impacts of the project on local and regional roadways, and has recommended mitigation to the extent feasible to reduce these impacts. However, even with all the mitigation proposed, impacts at a number of intersections will remain significant, including many that must be mitigated through other agencies (which results in significant impacts because the measure would not be under the control of the lead agency).

Response to Comment F-8-2. The lead agency correctly chose to prepare a programmatic EIR for the World Logistics Center (WLC) project because specific development information (i.e., exact size and locations of buildings) is not known at this time, but the EIR clearly indicates there will be subsequent California Environmental Quality Act (CEQA) documentation tiered off the programmatic EIR, as outlined in Section 15168(c) of the State CEQA Guidelines. The project's overall hydrological impacts were evaluated in detail in Section 4.9, Hydrology and Water Quality, and that section concluded the WLC project would not have significant impacts on water resources, groundwater, flooding, etc. if the project was built on the design guidelines in the World Logistics Center Specific Plan (WLCSP) and implementation of the recommended mitigation measures.

Additional information has been added to DEIR Appendix J-1 *Hydrology and Water Quality Master Plan of Drainage Report Section 3.2, Proposed Drainage Systems* to provide more specific information for the drainage systems. In addition, Figure 1, *Proposed Storm Drains and Basins* and Figure 4, *Hydrology Map for Proposed Condition* were revised and Figure 8, *Typical Detention Basin* and Figure 9, *Typical Detention Basin with Drainage Spreading Structure* were added to provide additional information. Key elements of Section 3.2 *Proposed Drainage Systems* are summarized in Responses to Comments B-3-37 and B-3-39 in Letter B-3 from the California Department of Fish and Wildlife (CDFW).

Response to Comment F-8-3. Actually, Section 4.1, Aesthetics, of the DEIR concluded that aesthetic impacts of the project, including views from SR-60, would be significant. However, Mitigation Measures (MM) 4.1.6.3A has been modified as follows to help better locate buildings to reduce the blockage of views. While these changes will reduce potential impacts, they will not to less than significant levels.

~~**4.1.6.3A**~~ ~~Prior to the issuance of any discretionary permit for development under the WLCSP, the developer shall provide a site plan, landscaping plan, and visual rendering(s) consistent with the WLCSP that demonstrate changes in views of Mount Russell, the Badlands, and/or Mystic Lake for travelers along SR-60 or Gilman Springs Road, as appropriate. The renderings shall be sufficient to demonstrate typical views based on proposed site and landscaping plans, but the location and number of view presentations shall be at the discretion of the City Planning Division. These views shall be simulated from a height of six feet from the edge of the roadway travel lane closest to the visual resource.~~

4.1.6.3A Each Plot Plan application for development shall include plans and visual rendering(s) illustrating any changes in views of Mount Russell and/or the Badlands, for travelers along SR-60, as determined necessary by the Planning Official. The plans and renderings shall illustrate typical views based on proposed project plans, with the location and number of view presentations to be determined by the Planning Official. These views shall be simulated from a height of six feet from the edge of the roadway travel lane closest to the visual resource. The renderings must demonstrate that the development will preserve at least the upper two thirds (67%) of the vertical view of Mt. Russell from SR-60.

Response to Comment F-8-4. CEQA actually encourages the assessment of potential environmental impacts of a project at the earliest possible time. Although there is not detailed information yet on the size and location of specific buildings, the EIR has been prepared to evaluate the programmatic overall impacts of the WLC project, as encouraged in Section 15168 of the State CEQA Guidelines. When specific buildings are proposed at specific locations in the future, additional analysis, consistent with tiering under CEQA, will be conducted to determine of the specific development will have new or more extensive impacts than those outlined in the WLCSP DEIR. This process is consistent with the goals and requirements of CEQA relative to programmatic and subsequently tiered project-level CEQA documents.

Response to Comment F-8-5. The WLCSP EIR does provide sufficient information for decision makers to make informed decisions on this project. As previously stated, this is a programmatic EIR and more detailed CEQA documentation will be prepared when more specific project information is available (i.e., the size and locations of specific buildings), as allowed under the tiering guidelines of CEQA.

Response to Comment F-8-6. The City evaluated the many comments received on the DEIR, including those of the commenter. This Final (F)EIR provides additional information, mainly in the form of responding to the many questions and comments received on the DEIR. However, this additional information does not rise to the level of significant new information, nor does it identify any new or substantially different significant environmental impacts from those identified in the DEIR. Therefore, the DEIR will not be recirculated. The analysis of alternatives is sufficient and meets the legal requirements of CEQA (for additional information refer to Responses to Comments F-1-87, F-3-29, F-6-1, F-8-107, -110, -112, -113, & 119, F-7A-10 & -66, F-9A-44 & -46, and F-15-101, -102, & -103. However, the City Council will consider all comments on the EIR before making a decision on the project.

Response to Comment F-8-7. the City's General Plan allows for revision and updating as needed, and the DEIR provides an analysis of General Plan consistency in each environmental topic (DEIR Sections 4.1 through 4.16). The WLC project does represent a fundamental change in the planned land uses for this area, however, the review and approval process for a Specific Plan, such as the WLCSP, always requires a review of existing General Plan policies to make sure the proposed action is consistent with the General Plan, or if a General Plan Amendment is required. Such was the case with the proposed WLC project.

Response to Comment F-8-8. The commenter is correct that the EIR is a programmatic CEQA document, but it is not correct that it defers analysis to a later date without sufficient analysis at this point. The project's potential overall impacts for each of the seventeen environmental issues identified in the EIR were examined based on the level of project information available at this time (e.g., street network, total amount of buildings, location of existing rural residences, etc.). The EIR clearly identifies the overall impacts, and also clearly indicates that more specific information and analysis will be provided at the appropriate time in the future (i.e., when specific building sizes and locations are proposed). The mitigation measures in the DEIR contain performance standards to mitigate impacts for future development which is appropriate in a programmatic EIR.

Response to Comment F-8-9. The commenter is likely correct that the most common EIR is a project-level document, which is appropriate when there is specific development information available on that project (i.e., sizes and locations of buildings). However, the commenter even acknowledges that "programmatic EIRs – and later tiering – are permitted only when a lead agency considers a wide-ranging set of policies or an over-arching land use plan." That is precisely what the WLCSP is for the Rancho Belago area, an over-arching land use plan. Therefore, a programmatic EIR is the most appropriate CEQA compliance document for the WLC project.

Response to Comment F-8-10. Most of the comment quotes the CEQA Guidelines and several court cases regarding tiering and deferral of mitigation. In this case, the WLC project did not have enough information to prepare a project-level EIR (i.e., specific sizes and locations of buildings). Therefore, a programmatic EIR was the most appropriate CEQA document for the WLC project. The EIR did not defer substantial environmental analysis, all potential issues of overall development were analyzed in the DEIR. However, the EIR did clearly indicate that future development would need additional review to determine if there were any impacts that were new or substantially different than those identified in the DEIR, as encouraged under CEQA Guidelines Section 15168(c).

Response to Comment F-8-11. The commenter cites a court case that deals with tiering and the use of a programmatic vs. a project-level EIR. In this case, the WLC project did not have enough information to prepare a project-level EIR (i.e., specific sizes and locations of buildings). Therefore, a programmatic EIR was the most appropriate CEQA document for the WLC project, one which analyzed the WLCSP's environmental impacts to the extent that a non-speculative analysis is possible (see also Response to Comment F-8-10 above).

Response to Comment F-8-12. The commenter is correct that the project pending before the City consists of a General Plan amendment, a change of zone, a specific plan, the annexation of property into the City, a development agreement and a tentative parcel map for financing purposes only. The heart of the project approvals being sought is the WLCSP which, if approved, will set forth the rules, regulations, plans and other criteria which will govern the physical development of WLC site which is one of the situations where a program EIR may profitably be used (CEQA Guidelines § 15168(a)(3). If approved, the General Plan amendment, the change of zone and the annexation of land currently in an unincorporated portion of the County will allow the adoption of the Specific Plan. If approved, the development agreement will ensure that the terms of the Specific Plan will continue to govern the physical development of the project for the term of the development agreement. If approved, the tentative parcel map will create large lots which will be available for financing purposes. None of the approvals will allow any physical development.

Further, as required by the case law interpreting CEQA, the program EIR has, to the greatest extent possible, analyzed the impacts on the environment which can be expected from the physical development of the project based on the information currently known. However, the details of the facilities to be constructed as part of the project – the number, size and location of individual buildings is currently unknown. However, because the details of physical development are not currently known, performance standards and criteria for the projects impacts on the environment have been specified where appropriate. As pointed out above, none of the actions currently pending before the City will allow any physical development; separate approvals and permits will be required before that can occur and, to the extent that those approvals and permits are discretionary, and virtually all of them will be, additional CEQA review will be required. The use of the program EIR allows the City to utilize the requirements set forth in CEQA Guidelines Section 15168(b) through the procedures set out in Sections 15168(c) and (d).

The City will determine if the proper CEQA document is being provided and the City Council will certify that the approach and all aspects of CEQA are carried out to meet the letter of the law. All

comments on the EIR and the project will be considered by the City Council as part of that determination.

Response to Comment F-8-13. The commenter is correct that a development agreement provides vested rights. However, those rights are limited to those "policies, rules and regulations" in effect at the time that the development agreement is approved (Government Code § 65866). The EIR prepared for the project has, to the greatest extent possible, analyzed the environmental impacts which are likely to result from development of the project to the extent that those impacts can be identified at the planning stage, leaving only those impacts which are specific to the development of particular parts of the project for later environmental review when the details of the development become known.

Response to Comment F-8-14. The commenter is correct that the approval of subdivision map is a form of land use approval. However, the approval of a subdivision map which allows no development cannot lead to any environmental impacts which have not already been considered in connection with the plans for the project itself. See CEQA Guidelines Section 15378(c) which states that the term "project" refers to the entirety of the action being approved and not to individual approvals of component parts.

Response to Comment F-8-15. The primary project approvals currently being sought consist of a general plan amendment, a rezoning, a specific plan, and a development agreement. There are no current of future approvals which will allow any physical development of the WLC site without the submittal of discretionary applications to be first reviewed and approved by the City. The DEIR deals with a specific geographic area, the first in a chain of required approvals, rules, regulations and plans which will govern the development of the WLC site for the life of the development agreement and a project which will be carried out under the same regulatory enactments. Thus, all of the criteria set forth in CEQA Guidelines § 15168(a) for the use of a program EIR are satisfied.

Response to Comment F-8-16. The DEIR Section 4.0 Aesthetics and specifically Figures 4.1.5A-F provide the visual renderings along the existing project boundary with Redlands Blvd., Merwin St. and Bay Ave. While the programmatic DEIR does not have building locations, these renderings depict a conceptual building envelope located at the minimum building setback, the maximum building height and white building color. This results in a worst case scenario for the view impacts as it places the potential building(s) as close to the project boundary, and as high as allowed in the project Specific Plan.

MM 4.1.6.1B requires that future plot plans provide landscape plans and visual renderings along these same project boundaries to demonstrate the same or lesser visual impacts as analyzed in the programmatic DEIR. This mitigation measure allows the City an opportunity to demonstrate consistency with the impacts evaluated in the programmatic DEIR.

Response to Comment F-8-17. A glare analysis requires knowledge of the building locations, building orientation, and the configuration of the solar system needed to support the demand. These are all factors unknown at the programmatic level, but can and will be evaluated at a future project level (plot plan) review (per MM 4.1.6.4B).

Response to Comment F-8-18. In response to comments regarding American badger. Refer to Response to Comment F-7A-55. Project biologists conducted focused surveys in 2013 for burrowing owl and Los Angeles pocket mouse (LAPM). The WLCSP contained a single pair of burrowing owl. No LAPM were identified during the 2013 survey and are therefore considered absent from the WLCSP.

Response to Comment F-8-19. All identifiable and potentially jurisdictional drainages on the site were mapped and included in the revised DEIR Section 4.4.6.3 and the draft wetland delineation

(FCS-MBA 2013 – FEIR Volume 2, Appendix E-13). Currently regulatory jurisdiction of the features is based on the existing regulatory guidance including the Regional Supplement to the United States Army Corps of Engineers (USACE) Wetland Delineation manual: Arid West Region (2008) and Rapanos guidance. Prior to any future development, specific project proposals will have to undergo separate environmental review under CEQA and will be required to secure a formal jurisdictional determination from the USACE as well as jurisdictional determinations from the Regional Water Quality Control Board (RWQCB) and CDFW. The applicant shall secure a jurisdictional determination with the USACE and confirm with the RWQCB and CDFW if drainage features mapped on the property are subject to jurisdictional authority and protection. If the features are subject to regulatory protection, the applicant will secure permit approvals with the appropriate agencies prior to initiation of construction.

Any impact to drainage features that are under regulatory agency jurisdiction or are considered riparian/riverine areas under the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) are considered potentially significant and will require compensatory mitigation at a minimum of a 1:1 mitigation ratio through onsite creation, off-site creation, or purchase of available mitigation credits through an approved mitigation bank. Compensatory mitigation will be negotiated during the permit acquisition process.

A Compensatory Mitigation Plan may be required for all unavoidable impacts and will be consistent with the USACE/ United States Environmental Protection Agency's (USEPA) Compensatory Mitigation for Losses of Aquatic Resources; Final Rule and the USACE's Standard Operating Procedure for Determination of Mitigation Ratios.

Response to Comment F-8-20. DEIR 4.6 Geology and Soils and technical studies have adequately identified and address the potential geologic/geotechnical and fault constraints associated with this project. The soils report (Leighton, 2013, FEIR Volume 2, Appendix G) clearly indicates that the site is considered suitable for the proposed development provided all identified potential constraints are mitigated or address per the recommendations included therein. It is rather typical of such EIR level studies and in the absence of design level site development plans, including building loads and locations, that additional supplemental studies/reports will be prepared to further define the extent of corrective measures needed. These measures may include determining the depth of remedial grading and structural setbacks from existing faults, as in the case of this project. However, the overall geologic/geotechnical constraints associated with the project were extensively evaluated and defined. Future design level investigations (MMs 4.6.6.1A and 4.6.6.1B) will be performed to further confirm and refine the selected mitigation measures based on actual building loads and locations.

Response to Comment F-8-21. The revised DEIR (FEIR Volume 2) contains an updated drainage study conducted by CH2M Hill that documents the existing on-site drainages and how they will be contained within the WLCSP. The DEIR contains a conceptual grading plan in Section 3.4.12, Figure 3.18. It should be remembered that the EIR is a programmatic document because the level of information about the project is programmatic as well, so there is no detailed grading or development information available at this time.

Response to Comment F-8-22. Please see Responses to Comments F-8-13 through F-8-15.

Response to Comment F-8-23. The EIR does not need to be rewritten to a project EIR because there is still not enough information available to complete a project EIR (see Response to Comment F-8-10 for details). The project approvals are not entitlements they consists only of planning designations and zoning which will allow a later determination of whether specific improvements will be allowed.

Response to Comment F-8-24. The WLC EIR does have a complete project description (78 total pages with 18 figures and 4 tables) including a detailed description of what the Specific Plan will allow (DEIR Section 3.0). The Project Description also included information on water conservation, energy conservation, examples of architectural styles that are acceptable and those that are not acceptable, landscaping and lighting guidelines for onsite and offsite improvements, enhanced buffer treatments adjacent to residential areas (e.g., walls, berms, landscaping, etc.), proposed entitlements, existing land uses, alternative fueling, the proposed fire station, the proposed circulation plan with street cross sections and planned improvements, non-vehicular circulation, offsite improvements, wet and dry utility improvements, sustainability including solar panels, phasing, implementation, etc. However, even with all this information about the project, there is still not a sufficient degree of information about specific buildings or locations to allow the use of a project EIR, again, a programmatic EIR is the most appropriate CEQA document for this project at this time. For additional information, see the Response to Comment F-8-10.

Response to Comment F-8-25. The commenter is correct, this EIR is an opportunity to evaluate the large issues of the WLC project which is why a programmatic EIR is the most appropriate CEQA compliance document for this project. The commenter is also correct that subsequent development proposals, for which there will be more specific information (i.e., building sizes and locations), will have subsequent project-level CEQA analysis tiered off of this programmatic EIR.

Response to Comment F-8-26. The DEIR evaluated the project assuming it was built out over a period of 10 years (build out in 2022). Market conditions will determine the actual development timeline, but it is unlikely that it will be built out any sooner. The updated DEIR has modified the project construction period from 10 years to 15 years. This change is the result of nearly 2 years having already passed since the issuance of the Notice of Preparation in the baseline year of 2012, placing an optimistic construction start in 2014; leaving only 8 years for project build out. Given the project delays reasonable project construction start is likely 2015 and a 15 year construction period would place the project build out in 2030. The updated DEIR evaluated two project time periods for phasing; Phase 1 at the mid-point of anticipated project construction (2022); and Phase 2 at project buildout (2030).

Phase 1 is assumed to occur on the western half of the project and Phase 2 on the eastern half. Most of the existing utilities and infrastructure are on the west side of the project, so a progression from west to east is logical. The DEIR evaluated the project impacts based upon this phasing assumption.

The programmatic DEIR has identified the backbone utility and infrastructure improvements and evaluated their environmental impacts integral for project buildout; therefore the full environmental impacts have been evaluated. Subsequent project level (plot plan) submittals will provide project level environmental review and provide subsequent mitigation measures and conditions of approval, identifying the utilities and infrastructure required to support each plot plan. This subsequent review will ensure the project level impacts are consistent with those evaluated in the programmatic DEIR and will dictate a logical and viable sequence of infrastructure improvements.

The burden is on the developer to ensure the infrastructure is either in place prior to or concurrent with the project development. The mitigation measures and project level conditions of approval will dictate the improvements needed to support the pace of development and in most cases these measures require installation by the developer.

The programmatic EIR establishes the parameters and framework that subsequent project level submittals will adhere to in the design of each individual building and planning area. For example the DEIR establishes the use of detention basins to mitigate runoff to levels equal or below those of the existing conditions to mitigate the increase in impervious area and runoff. Subsequent project level submittals, with precise building size and location, will dictate the size, design and location of the drainage improvements to mitigate to the criteria established in the DEIR.

Response to Comment F-8-27. For information about the phasing of infrastructure by phase, refer to Response to Comment F-8-26 above. As noted in the comment the location and sizes of utility lines for the water, wastewater, flood control, drainage, and electrical have been shown. This is consistent with what should be included in a programmatic EIR. Detailed construction plans will be prepared as each parcel is developed. The design will be consistent with the concepts shown in the Specific Plan and EIR. As noted in the Response to Comment F-5-23 additional detail on the storm drain sizes of the detention and infiltration basins has been added. In addition, MM 4.9.6.1A has been revised to provide more detail and performance requirements and MM 4.9.6.1B has been added to provide additional detail and requirements for maintenance. These mitigation measures are described in detail in Response B-3-37 and B-3-39 in Letter B-3 from the California Department of Fish and Wildlife related to their comments on flooding and water quality.

Response to Comment F-8-28. The commenter questions why the DEIR identifies significant impacts, while providing no assurance that the many needed improvements to local and regional roadways would keep pace with development.

MM 4.15.7.4A in the FEIR (and MM Trans-1 in the Traffic Impact Analysis (TIA)) sets forth a requirement for the preparation of subsequent traffic studies for each plot plan application for the purposes of determining what traffic improvements identified in the EIR (and TIA) are required to be completed prior to the issuance of a certificate of occupancy for each building. The scope and depth of the subsequent traffic studies described in MM 4.15.7.4A (and MM Trans-1 in the TIA) will be as specified in the City of Moreno Valley *Traffic Analysis Guidelines.* These studies will be required as part of the project approval process. Both of these elements are part of MM 4.15.7.4A (and MM Trans-1 in the TIA) which has been re-written as follows (added text shown in double underline; deleted text shown in strikeout) to clarify this:

~~**4.15.7.4A** When processing future individual development permits under the World Logistics Center Specific Plan, as part of the City's discretionary approval process, the City shall require each project to perform a project specific traffic impact study to ensure that the assumptions set forth in the TIA prepared for the programmatic level entitlement remain valid. These traffic impact analyses shall conform to the traffic impact analysis guidelines prepared by the City of Moreno Valley and the California Department of Transportation and shall be used to impose project-specific mitigation on the individually-proposed projects. These traffic analyses shall be completed prior to the issuance of grading permits for the requested development. It should be noted that the City will require that the applicant to fully fund or to pay a fair share of some of the improvements identified in Tables 4.15.AX through 4.15.BC. These improvements will be required by the City as a Condition of Approval.~~

4.15.7.4A A traffic impact analysis ("TIA") conforming to the guidelines for traffic impact analysis adopted by the City shall be submitted in conjunction with each Plot Plan application within the World Logistics Center Specific Plan. Prior to the approval of the Plot Plan, the City shall review the traffic impact analysis to determine if any of the traffic improvements listed in Final EIR Volume 2 Tables 4.15.AV through 4.15.BA (TIA Tables 74 through 79) of the traffic impact analysis prepared for the Program Environmental Impact Report are required to be completed prior to the issuance of a certificate of occupancy for each building. If the City determines that any of the improvements within Moreno Valley are required to be constructed in order to ensure that the traffic impacts which will result from the construction and operation of the building will be mitigated into insignificance, then the completion of construction of the improvements prior to the issuance of a Certificate of Occupancy for the building shall be made a Condition of Approval of the Plot Plan. Construction of improvements

> within the City shall be subject to credit/reimbursement agreement for those DIF and/or TUMF eligible costs. If the City determines that any of the improvements outside Moreno Valley are required to be constructed in order to ensure that the traffic impacts which will result from the construction and operation of the building will be mitigated to a less than significant level, then the payment of any necessary fair share contribution as prescribed in Mitigation Measure 4.15.7.4G prior to the issuance of a Certificate of Occupancy for the building shall be made a Condition of Approval of the Plot Plan. If the City determines that the traffic impacts which will result from the construction or operation of a building will be significantly more adverse than those shown in the Program Environmental Impact Report, further environmental review shall be conducted prior to the approval of the Plot Plan pursuant to Public Resources Code § 21166 and CEQA Guidelines § 15162 to determine what additional mitigation measures, if any, will be required in order to maintain the appropriate levels of service.

Response to Comment F-8-29. The commenter points out the DEIR does not analyze the impacts of various offsite improvements, mainly 3 reservoirs. First, it must be remembered the DEIR is a programmatic document and specific details of development, including specific details of the reservoirs and other offsite improvements, cannot be provided at this time since they have not yet been designed. However, several sections of the DEIR do indicate there may be impacts from the various offsite improvements and recommend specific mitigation measures to address design of such facilities in the future.

The following sections and mitigation measures in the DEIR address offsite improvements:

- 4.4 Biological Resources — MM 4.4.6.3B, C, and D (offsite bio surveys)
- 4.5 Cultural Resources — MM 4.5.6.1B (offsite surveys)
- 4.6 Geology & Soils — MM 4.6.6.1C (offsite surveys)
- 4.12 Noise — MMs 4.12.6.1I and 4.12.6.2A - 4.12.6.2D (offsite noise assessments)
- 4.15 Transportation — MMs 4.15.7.4A and 4.15.74E (offsite impacts)

Implementation of these measures (as modified in the FEIR) as future development is proposed will help protect environmental resources and minimize potential environmental impacts of constructing the various offsite improvements.

Response to Comment F-8-30. The DEIR does identify the infrastructure needed to support overall development of the site, so that subsequent more specific development proposals will fit within the overall identified improvement networks. The project description does describe the general improvement levels needed to support the WLC project (DEIR, Section 3.4.6.3, Utilities and Improvements).

Response to Comment F-8-31. The commenter states the DEIR does not provide enough information about the proposed General Plan Amendment. With a Specific Plan, the anticipated changes to the General Plan are easier to see as the Specific Plan itself provides much detail relative to the various General Plan Elements. For example, the General Plan Land Use Element (i.e., City land use plan) would be amended to include the land uses outlined in the Specific Plan. Similarly, the Circulation Element would be amended to reflect the Circulation Plan outlined in the Specific Plan. The City's Park and Open Space Plan would be amended, per the land use plan of the Specific Plan, to include the new 74.3 acres of open space in the southwest corner of the WLCSP property, and the CDFW Conservation Area just south of the WLCSP would be redesignated as open space rather than as currently shown as mixed residential development under the Moreno Highlands Specific Plan. These changes in open space would also be reflected in the General Plan Land Use Element.

Response to Comment F-8-32. The DEIR does address the potential changes to the General Plan under appropriate specific environmental issues discussed in Sections 4.1 through 4.16 of the DEIR. For example, land use impacts, including changes to the Land Use Element, are addressed in detail in DEIR Section 4.10, Land Use and Planning – Table 4.10.E which compares the project to various General Plan land use policies. The WLC project is compared to appropriate General Plan policies in the other sections of the DEIR by environmental topic (e.g., noise, cultural, etc.).

Response to Comment F-8-33. The comment references sections of the CEQA Statute and Guidelines and a court case that deal with mitigating significant impacts. However, the EIR does provide extensive mitigation for identified impacts for many of the environmental issues addressed in the EIR. These measures are tailored to a programmatic document and subsequent development proposals will be tiered off this programmatic document. See the Response to Comment F-8-10 above for more details in this regard.

Response to Comment F-8-34. See Responses to Comments F-8-10 and F-8-33 above for more information about mitigation measures.

Response to Comment F-8-35. The EIR mitigation measures are programmatic due to the entire EIR being programmatic, but they are sufficient to address the impacts identified in the EIR. Future development proposals will have subsequent CEQA analysis tiered off this EIR as appropriate, once more specific development information is available, as allowed under Section 15168(c) of the CEQA Guidelines.

Response to Comment F-8-36. DEIR Appendix J-1 *Hydrology and Water Quality Master Plan of Drainage Report* has been updated to provide additional information on the existing drainage and local flooding, and additional information on the runoff and infiltration volumes pre and post project. In addition changes to the mitigation measures were made. Please see Response to Comment F-5-23 for changes to the mitigation measures. In addition, the planned changes to the hydrology study and Section 4.9, Hydrology and Water Quality, of the DEIR are also discussed in Responses B-3-37 and B-3-39 in Letter B-3 from the California Department of Fish and Wildlife.

Key findings of the existing conditions and runoff and infiltration volumes are summarized below.

Existing Drainage Conditions

The storm water runoff from the project generally flows in a southerly direction to the San Jacinto River. A topographic divide located west of Theodore Street separates storm water flows to the San Jacinto River in two directions. Runoff east of the divide flows through the San Jacinto Valley at a gradient ranging from 1 to 2 percent to the San Jacinto Wildlife Area and ultimately drains toward the Gilman Hot Springs hydro-subarea. Runoff west of the divide flows to the Perris Valley Storm Drain at a gradient ranging from 1 to 2 percent and ultimately drains toward the Perris Valley hydro-subarea. Both hydro-subareas eventually flow to the San Jacinto River, approximately 10 miles south of the project site.

Offsite flows tributary to the project site originate from the upstream Badlands and open space, specifically from north of SR-60 and Gilman Springs Road. For the hydrologic analysis and modeling purposes, the project onsite area along with the offsite tributary areas are divided into six (6) sub watersheds, named Watershed "A", Watershed "B", Watershed "C", Watershed "D", Watershed "E", and Watershed "F", shown on Figure 3.

Watershed "A"

Watershed "A" is located within Riverside County Flood Control and Water Conservation District (RCFCWCD) Moreno Master Drainage Plan (MMDP) area. RCFCWCD is currently preparing a revised MMDP. The MMDP indicates that storm flows north of SR-60 will be routed to the proposed Sinclair Basin and Redlands Basin. Flows released from the proposed basins will pass under SR-60

and be conveyed to MMDP Line "F" as shown on Figure 2. Because it is unknown when these basins will be constructed, this study is prepared with the assumption that the basins are not in place prior to this project, and the offsite flows will be conveyed to MMDP Line "F" directly.

Downstream of SR-60 MMDP Line "F" is a 12-foot wide by 8-foot high reinforced concrete box (RCB) that conveys runoff from the existing culverts under SR-60: one triple 4-foot × 2-foot RCB, two double 48-inch corrugated metal pipe (CMP), one double 72-inch CMP, and one 42-inch RCP (with a 36-inch Riser), as shown on Figure 6. The capacity of the existing culverts are summarized in Table 2.1. Runoff north of SR-60, in excess of the capacities of the existing culverts, ponds north of SR-60 and flows towards the intersection of SR-60 and Redlands Blvd. An existing 42-inch RCP conveys the runoff into the existing ditch along Redlands Blvd. Since the 42-inch RCP does not have enough capacity to convey all of the offsite flows, the flows then sheet flow to the south. As a result, the interchange of SR-60 and Redlands Blvd may be flooded in a significant storm event. Ultimately the flows upstream of SR-60 will be less once RCFC&WCD constructs the master plan detention basins located north of SR-60.

Table 2.1 SR-60 Culverts

Culvert	*Size/Material*	*Node*	*Culvert Capacity* (cfs)*	*Tributary 100-year Flow (cfs)*	*Adequate to Convey 100-year flow*
1	*Triple 4' by 2' RCB*	*91*	*265*	*213*	*Yes*
2	*Double 48" CMP*	*76*	*250*	*715*	*No*
3	*Double 48" CMP*	*81*	*300*	*285*	*Yes*
4	*Double 72" CMP*	*81*	*805*	*557*	*Yes*
5	*42" RCP (36" Riser)*		*177*	****	
Total			*1797*	*1770*	*Yes*

** Hydrology calculations based on a 100-year Water Surface Elevation of 1768.7 for all 5 culverts.*
*** Excess flows from Culvert 2 will pond at culvert 2.*

The outflow from Line "F" south of Eucalyptus Avenue sheet flows via a spreading area into the agricultural land downstream. Flows then sheet flow across the agricultural land to the southwest corner of the project at Alessandro Boulevard and Merwin Street. The agricultural fields have been configured to direct runoff away from homes to the southwest. Flows leave the project boundary via a culvert under Alessandro Boulevard which outlets to an existing ditch, as shown on Figure 3.

The capacity of the existing ditch south of Alessandro Blvd was evaluated and varies from 75 cubic feet per second (cfs) to 390 cfs. Just south of the culvert at Alessandro Blvd, the existing ditch is trapezoidal with a depth of approximately 4 feet and capacity of 390 cfs. The capacity of the ditch is 75 cfs about 70 feet south of the Alessandro culvert where the ditch is 2 feet deep. The ditch capacity remains at 75 cfs with a depth of 2 feet until after it crosses Cactus Avenue. About 160 feet downstream of the culvert, the ditch transitions to a v-ditch 3 feet deep with a capacity of 165 cfs. The v-ditch extends southwest for approximately 100 feet and cross the Redland Blvd. Flows unable to be contained in the ditch will overtop the ditch into the agricultural area on the east and along Merwin Street on the west. Water in Merwin Street will turn west and flow into the residential streets and could cause flooding in a significant storm event. Further downstream, the runoff flows to the Greenbelt Channel located south of Cactus Avenue. The Greenbelt channel ultimately drains to the Perris Valley Storm Drain.

Watershed "B"

Watershed "B" drains a total of 1,361 acres, of which 92 acres is offsite flow from north of State Route (SR) 60 and 104 acres is offsite flow at the southerly end of the project. The total onsite area is 1,165

acres, of which approximately 90 percent is pervious and 10 percent is impervious. The drainage area is divided into two sub areas by Theodore Street. Flows to the west of Theodore Street, consisting of 398 acres of onsite area and 104 acres of offsite area, drain to the ditch on the west side of Theodore Street. The 92 acres of offsite area flows to the ditch along the east side of Theodore Street. Onsite flows on the east side of Theodore Street sheet flow in a southerly direction through the project area. The ditches are vegetated with bottom widths varying from 1 to 2 feet and depths varying from 1 to 3 feet. The existing capacity of the ditch at the project boundary is 55 cfs. Flows greater than 55 cfs will sheet flow through the project area and leave the project boundary in a sheet flow condition.

Watershed "C"

Watershed "C" drains a total of 1,061 acres, of which 658 acres is offsite flow from north of State Route (SR) 60. The total onsite area is 403 acres, of which approximately 90 percent is pervious and 10 percent is impervious. The drainage area is divided into two watershed areas. The majority of the watershed, 944 acres, drains to a watercourse which exits the project area. A small portion of onsite flow, 117 acres, sheet flows offsite. The natural drainage course in Watershed "C" is vegetated, with an average bottom width of approximately 3 feet and a depth of approximately 2 feet. The existing capacity of the drainage course is 165 cfs. Flows greater than 165 cfs will sheet flow across the area. The drainage course drains southerly through the project boundary.

Watershed "D"

Watershed "D" drains a total of 965 acres, of which 627 acres is offsite flow from north of Gilman Springs Road. The total onsite area is 338 acres, of which approximately 90 percent is pervious and 10 percent is impervious. The drainage area is divided into two sub watersheds. The majority of the watershed, 754 acres, drains to a watercourse which exits the project area at Node 53. A portion of onsite flow, 211 acres, sheet flows offsite at Node 61. The natural drainage course in Watershed "D" is also vegetated. Its bottom width varies from approximately 1 to 3 feet, and its depth varies from approximately 1 to 2 feet. The existing capacity of the drainage course is 65 cfs. Flows greater than 65 cfs will sheet flow across the area. The drainage course ends east of the existing gas facility. It is estimated that when significant storm events occur, the runoff ponds locally and eventually drains southwest.

Watershed "E"

Watershed "E" drains a total of 2,510 acres, of which 2,430 acres is offsite flow from north of Gilman Springs Road. The total onsite area is 80 acres, of which approximately 90 percent is pervious and 10 percent is impervious. The natural drainage course in Watershed "E" has a bottom width varying from approximately 20 to 30 feet and depths varying from approximately 10 to 15 feet. The majority of this channel is vegetated, with a few locations of erosion. Approximately 1,500 feet north of the southerly project boundary, another natural drainage course confluences with the earthen channel forming a "V" shape junction. The junction is moderately eroded.

Watershed "F"

Watershed "F" drains a total of 445 acres, of which 288 acres is offsite flow from north of Gilman Springs Road. The total onsite area is 157 acres, of which approximately 90 percent is pervious and 10 percent is impervious. The drainage area is divided into four sub areas. The first sub area, 99 acres consists entirely of onsite flow which sheet flows off site. The second sub area drains 121 acres, of which 72 acres is offsite area. The third subarea drains 151 acres, including 146 acres of offsite area. The last sub area drains 74 acres, of which 70 is offsite area. The flow from these sub areas will ultimately drain to San Jacinto Wildlife Area. The main natural drainage course in Watershed "F" is located approximately 500 feet west of Gilman Springs Rd. The drainage course is vegetated, with bottom widths varying from approximately 5 to 10 feet, and depths varying from

approximately 1 to 3 feet. The capacity of the existing water course is 70 cfs. The remaining flow sheet flows offsite.

These natural drainage courses in Watersheds "B" through "F" drain into the San Jacinto Wildlife Area downstream. The majority of the project site sheet flows through the project's southerly boundary.

Existing Culverts along Gilman Springs Road

Within the project vicinity, there are ten (10) existing cross culverts located in Gilman Springs Road, as shown on Figure 7. Field visits by CH2M HILL staff found that most of the existing culverts were partially or completely blocked by sediment and debris allowing little flow from the culverts to enter the project site.

In order to confirm if the existing culverts are sized appropriately to convey the offsite flow, the existing culvert capacities were analyzed using the inlet control capacity analysis chart. The results of the analysis are included in Appendix D, and summarized in Table 2.4. The analysis indicated that many of these culverts are undersized to convey the tributary 100-year flows even with proper maintenance, exclusive of culverts No. 2 and No. 7. Storm water unable to be conveyed by the culverts currently flows to the existing ditches along the road, overtop the road and flow into the downstream natural drainage courses. The detailed flow patterns at these culverts were analyzed and summarized in Table 2.5 and shown on Figure 7.

At Culvert No. 1, there is no existing ditch on either side of road. A total of 60 cfs offsite flow is tributary to the culvert, 20 cfs of the flow is conveyed through the 24-inch CMP, and 40 cfs overtops the road and flows to the natural drainage channel downstream. The impact to the downstream ditch is negligible due to the small amount of flow.

At culvert No. 3, a total of 370 cfs flow is generated from offsite, 40 cfs is conveyed through the 36-inch CMP, and 330 cfs is conveyed along the existing ditch on the north side of road, eventually flowing to Culvert No. 4. At Culvert No. 4, a total of 170 cfs of flow comes from the offsite tributary area. One hundred (100) cfs is conveyed through the 48-inch CMP. The remaining 70 cfs combines with the 330 cfs of flow from Culvert No. 3 and overtops the road, draining to the natural channel downstream. The natural channel has a capacity of 365 cfs; therefore the flow will be spread beyond the top of bank.

At Culvert No. 5, a total of 1,370 cfs is generated from offsite, 370 cfs is conveyed through the 7-foot × 6-foot RCB, 95 cfs flow along the existing ditch towards Culvert No. 6, and 900 cfs overtop the road draining to the natural channel downstream. The natural channel has a capacity of 330 cfs, the additional flow will overtop the channel and Alessandro Blvd, and then sheet flow to the south. At Culvert No. 6, with a total of 650 cfs offsite flow, 130 cfs is conveyed through the 4-foot x 4-foot RCB, 24 cfs is conveyed along the existing ditch along the road, and 540 cfs overtop the road flowing to the downstream channel. Due to the large amount of offsite flow and small capacity of the existing channel, the flow will overtop the existing Alessandro Blvd.

At Culvert No. 8, with a total of 55 cfs offsite flow, 45 cfs is conveyed through the 24-inch CMP, and 10 cfs overtop the road draining to the downstream natural channel. The downstream channel has a capacity of 75 cfs; therefore the excess flow will be contained within the natural channel. At Culvert No. 9, with a total of 140 cfs offsite flow, 20 cfs flow is conveyed through the 24-inch CMP, 112 cfs is conveyed along the existing ditch north side of street, and 8 cfs overtop the road and drain to the existing natural channel downstream. The channel has a capacity of 1,600 cfs; therefore the impact of 8 cfs is considered negligible. At Culvert No. 10, with a total of 70 cfs offsite flow, 20 cfs are conveyed through the 24-inch CMP, the remaining 50 cfs combine with 112 cfs flow from the upstream ditch overtop the road, 6 cfs drains to the existing ditch south side of the road, and the remaining flows to the natural drainage channel downstream, which has a capacity of 1,000 cfs.

When larger storm events, such as a 5- or 10-year storm, occur; Gilman Springs Road may be flooded. Even with proper maintenance to remove the existing sediment and debris to operate at full capacities, there will be excessive offsite flow overtopping the road and entering the project site in a 100-year storm.

Table 2.4 Gilman Springs Road Culvert Capacity Analysis

Culvert	Size/Material	Node	Tributary 100-yr Flow (cfs)	Culvert Capacity * (cfs)	Adequate to Convey 100-year flow
1	24" CMP	341	60	20	No
2	36" CMP	351	15	50	Yes
3	36" CMP	51	370	40	No
4	48" CMP	52	170	100	No
5	7'×6' RCB	71	1,360	370	No
6	4'×4' RCB	721	650	130	No
7	36" CMP	921	20	70	Yes
8	36" CMP	91	55	45	No
9	24" CMP	101	140	20	No
10	24" CMP	111	70	20	No

Note: see Figure 1 for the locations of existing culverts.
** Assuming culverts cleared of sediment and debris.*

Table 2.5 Gilman Springs Road Flow Analysis

Culvert	Size/ Material	Tributary 100-yr Flow (cfs)	Culvert Capacity* (cfs)	Delta flow (cfs)	Flow @ N Side of Road (cfs)	Flow @ S Side of Road (cfs)	Flow over Road (cfs)
1	24" CMP	60	20	40	-	-	40
2	36" CMP	15	50	-	-	-	-
3	36" CMP	370	40	330	330	-	-
4	48" CMP	170	100	70	-	-	400
5	7'×6' RCB	1360	370	990	44	65	900
6	4'×4' RCB	650	130	520	24	-	540
7	36" CMP	20	70	-	24	-	-
8	36" CMP	55	45	10	-	-	10
9	24" CMP	140	20	120	112	-	10
10	24" CMP	70	20	50	-	6	160

** Assuming culverts cleared of sediment and debris.*

Runoff and infiltration Volumes Comparisons

An analysis of the runoff and infiltration volumes for the pre and post project conditions was performed as outlined in Appendix H of the Master Plan of Drainage Report and discussed in Response to Comment F-8-2.

The Main differences between Pre and Post Project conditions, presented in Figures 3 and 4 of the World Logistics Center Specific Plan Infiltration Analysis document (CH2M HILL, 2013), are the shift between runoff and direct infiltration, and the reduction in evapotranspiration. Under Pre Project

conditions, approximately 82 percent of the precipitation, which was on average 2010 acre-feet per year (af/yr) for the 1990 through 2012 period, becomes infiltration. The Post Project Conditions will reduce the direct infiltration to approximately 13 percent of the precipitation. The reduction in direct infiltration will be compensated by reduction in evapotranspiration and the implementation of Bioretention areas and Detention Basins.

The reduction in evapotranspiration to approximately 2 percent of the total precipitation from the original 15 percent will be the result of the project and drought-tolerant landscaping implementation. With less water consumed by vegetation, more will be available for infiltration. The implementation of bioretention and detention basin areas will together make it possible that 92 percent to 97 percent of the precipitation will be infiltrated, a range that is consistent with the historical infiltration at the site. The remaining direct infiltration, reduction of evapotranspiration, and implementation of bioretention and detention basins can potentially not only offset the direct loss in infiltration when compared to baseline, but also increase the infiltration at the proposed project site.

Response to Comment F-8-37. It is not clear why the commenter is referring to the Initial Study, however Section 4.8, *Hydrology and Water Quality*, of the revised DEIR (FEIR Volume 2) adequately describe the hydrological regime of the project area.

Response to Comment F-8-38. Additional information on potential flooding at Gilman Springs Road and Merwin Street and Alessandro Boulevard was added to the report. See Response to Comment F-8-36 and also FEIR Volume 2, Appendix J-1.

Response to Comment F-8-39. Additional information on the amount of existing impervious surfaces was added to DEIR Appendix J-1 *Hydrology and Water Quality Master Plan of Drainage Report Section 2.2*. See Response to Comment F-8-36 that describes information from this section of the report including the information on existing impervious surfaces. The runoff and infiltration analysis was added to discuss the storm flow volumes. See Response to Comment F-8-36 for this information. A section on flow velocities at the project boundary was added to Section 4 of the Report (FEIR Volume 2, Appendix J-1) See response to Comment F-8-2 for this information. Post development velocities do not exceed pre development velocities as shown in Table 4.4 *Comparison of Existing and Proposed Flow Velocities at Project Boundary*. See Response to Comment F-8-2 for Table 4-4.

Response to Comment F-8-40. Additional information was added to DEIR Appendix J-1 *Hydrology and Water Quality Master Plan of Drainage Report Section 2, Existing Conditions* (FEIR Volume 2, Appendix J-1) discuss the existing natural drainage courses. See Response to Comment F-8-36 for the description of these natural drainage courses. The creeks provide minimal hydrologic value in terms of ground water recharge relative to the water cycle. In general, the creeks are relatively small and convey flows from routine storms. Because the slope of the land is one to two percent the flows do not pond. Line “E’ is the only drainage system large enough to provide hydrological value relative to recharge. However, this drainage course is also steep and does not provide for ponding of the flows. The drainage at the project boundary is designed to mimic pre-project conditions. See Response to Comment F-8-2 for this information.

Response to Comment F-8-41. The mitigation of impacts of the facilities are discussed in the DEIR Appendix J-1 *Hydrology and Water Quality Master Plan of Drainage Report Section 4, Mitigation of Impacts of Proposed Development.* The runoff leaving the project site will mimic existing conditions and will, thus, have no effect on downstream resources. See Response to Comment F-5-23 for this information.

Response to Comment F-8-42. The commenter is correct that much of the analysis of potential impacts to onsite drainages was found in the section on biological resources (DEIR Section 4.4.6.3, pages 4.4-59 – 4.4-60) due to the widespread concern of conservation organizations regarding potential biological resources of the drainages. However, Section 4.9, *Hydrology and Water Quality*, of the EIR clearly indicated most of the onsite drainages have little or no hydrological or biological habitat value, and all onsite runoff can be accommodated onsite with the planned series of detention basins. The EIR also evaluated development along Drainage 12, however, the WLCSP shows

development will be set back from that drainage. In addition, the revised biological studies (FEIR Volume 2, Appendix E) and the revised DEIR (FEIR Volume 2, Section 4.4) indicate Drainage 12 will be preserved to allow for wildlife movement between the Badlands and the SJWA and Mystic Lake.

Response to Comment F-8-43. The baseline used for hydrological impacts was existing conditions at the time the Notice of Preparation was issued. The baseline condition is the existing condition. Mitigation of impacts is proposed by the construction of drainage facilities including storm drains, bioretention areas, detention/infiltration basins and spreading areas. Storm water runoff will be stored in onsite basins as required by MMs 4.9.6.1A and 4.9.6.1B which state that basins must be constructed and maintained to mitigate impacts. See Response to Comment F-5-23 for a description of these mitigation measures.

The Master Plan of Drainage analysis followed the steps outlined below:

1. Identify existing hydrologic Conditions (*Section 2 Existing Condition of the Master Plan of Drainage Report*)
2. Identify the Project's Impact (*Section 3 Proposed Condition of the Master Plan of Drainage Report*)
3. Identification of Proposed Storm Water Facilities (*Section 3 Proposed Condition of the Master Plan of Drainage Report*)
4. Evaluation of Proposed Storm Water Facilities to ensure that post development flows do not exceed pre-development flows (*Section 4 Mitigation of Impacts of Proposed Development of the Master Plan of Drainage Report*)

The DEIR did not skip steps 1 through 3. Hydrologic and hydraulic analysis was performed to identify the existing conditions, proposed conditions and mitigation of impacts. Additional details have been added to the report. See Response to Comment F-8-2 for this information.

Response to Comment F-8-44. MM 4.9.6.1A has been revised to provide more detail and specific performance requirements and MM 4.9.6.1B has been added to provide additional detail and requirements for maintenance as discussed in Response to Comment F-5-23.

Response to Comment F-8-45. Please refer to response to Comment F-8-2 for additional information added to DEIR Appendix J *Hydrology and Water Quality Master Plan of Drainage Report.* MM 4.9.6.1A was revised and MM 4.9.6.1B was added. See Response to Comment F-5-23 for a description of these measures.

Response to Comment F-8-46. Please refer to Response to Comment F-5-23 for the revised MM 4.9.6.1A and the new MM 4.9.6.1B. The words "as appropriate" were deleted. The mitigation is fully enforceable as the first statement of MM 4.9.6.1A says "Prior to issuance of any development permit within the Specific Plan area…" The development permit cannot be implemented until the mitigation is approved to the satisfaction of the City Engineer.

Response to Comment F-8-47. Please refer to Response to Comment F-5-23 for additional information added to DEIR Appendix J *Hydrology and Water Quality Master Plan of Drainage Report.*

Response to Comment F-8-48. Sections 4.9.1.1 *Drainage* and 4.9.6.1 *Drainage Pattern and Capacity Related Impacts* of the DEIR have been updated to include additional information on the existing and proposed conditions and mitigation of impacts. See Response to Comment F-5-23 and F-8-36 for details of this information.

Response to Comment F-8-49. Performance standards have been added to MM 4.9.6.1A and 4.9.6.1B. See Response to Comment F-5-23 for a description of the measures.

Response to Comment F-8-50. Additional information has been provided on runoff volume and infiltration for the existing and post project conditions. Flooding at Gilman Springs Road upstream of the project area will continue to occur as the project has no impact on upstream conditions. Flows leaving the project project's southerly boundary at the San Jacinto Wildlife Area will continue to sheet flow across the boundary. Flows at Alessandro and Merwin Street will be contained in drainage facilities designed to handle the 100-year storm. See Response to Comment F-8-23 for this information. The detention basins have been revised to include infiltration. MM 4.9.6.1B was added to provide requirements on maintenance and monitoring. See Response to Comment F-5-23 for a description of the measure.

Response to Comment F-8-51. MM 4.9.6.1B was added to provide requirements on maintenance and monitoring. See Response to Comment F-5-23 for a description of the measure.

Response to Comment F-8-52. MM 4.9.6.3A states "*Prior to issuance of any grading or building permits a site-specific Water Quality Management Plan (WQMP) shall be submitted to the City Land Development Division for review and approval." The WQMP shall specifically identify site design, source control, and treatment control BMPs that shall be used on site to control pollutant runoff and to reduce impacts to water quality to the maximum extent practicable. The WQMP shall be consistent with the Water Quality Management Plan approved for the overall WLCSP project. At a minimum, the site developer shall implement the following site design, source control, and treatment control BMPs as appropriate:*

Site Design BMPs

i. Minimize urban runoff.
ii. Maximize the permeable area.
iii. Incorporate landscaped buffer areas between sidewalks and streets.
iv. Maximize canopy interception and water conservation by planting native or drought-tolerant trees and large shrubs.
v. Use natural drainage systems.
vi. Where soil conditions are suitable, use perforated pipe or gravel filtration pits for low flow infiltration.
vii. Construct on-site ponding areas or retention facilities to increase opportunities for infiltration consistent with vector control objectives.
viii. Minimize impervious footprint.
ix. Maximize the permeable area.
x. Construct streets, sidewalks and parking lot aisles to the minimum widths necessary, provided that public safety and a walkable environment for pedestrians are not compromised.
xi. Reduce widths of street where off-street parking is available.
xii. Minimize the use of impervious surfaces such as decorative concrete, in the landscape design.
xiii. Conserve natural areas.
xiv. Maximize canopy interception and water conservation by planting native or drought tolerant trees and large shrubs.
xv. Use natural drainage systems.
xvi. Minimize Directly Connected Impervious Areas (DCIAs).
xvii. Runoff from impervious areas will sheet flow or be directed to treatment control BMPs.
xviii Streets, sidewalks, and parking lots will sheet flow to landscaping/ bioretention areas."

The preliminary Project Specific Water Quality Management Plan (WQMP) (DEIR Appendix J) states that flows from the project will be treated by low impact development (LID) BMPs that promote infiltration and evapotranspiration will be incorporated in specific projects throughout the project site. Infiltration BMPs will be preferred, but may not be feasible on sites with low infiltration rates, or located on compacted engineered fill. In situations where infiltration BMPs are not appropriate, bioretention and/or biotreatment BMPs that provide opportunity for evapotranspiration and incidental

infiltration will be implemented. The locations of these facilities will be shown in each final project-specific WQMP.

Response to Comment F-8-53. The commenter is correct, drivers along SR-60 have excellent views of the Mt. Russell hills and existing agricultural fields on the WLC site although the existing Sketcher's building does block views south for both eastbound and westbound travelers on SR-60.

Response to Comment F-8-54. It is not clear what point the commenter is trying to make, the DEIR does identify impacts to views along SR-60 as significant, and the DEIR describes these impacts in detail (DEIR Sections 4.1.6.1 and 4.1.6.2), even though only one visual vantage point was shown in the renderings. The goal of the renderings was to illustrate representative views from different locations around the WLC site. With a site the size of the proposed project, many different locations could have been chosen to show views, but the views selected, while not exhaustive, are representative of general views in the project area, including along SR-60. The renderings in the DEIR will be corrected in FEIR Volume 2 Section 4.1. Refer to Responses to Comments F-8-55 and 56 for clarification and amendment of MM 4.1.6.3A.

Response to Comment F-8-55. It is not possible to definitively conclude visual impacts from the SR-60 will be significant without knowing the exact sizes and locations of buildings along the south side of the SR-60 and even some further on the interior of the project site, depending on the combination of views from particular locations along the freeway. This is a natural result of the programmatic nature of the EIR, which is the most appropriate CEQA document at this time given the level of information about project development (e.g., total square footage, allowable Floor Area Ratio (FAR), street/lot locations, etc.). The DEIR clearly indicates the final determination of a particular view impact along the SR-60 will necessarily depend on more specific project info in the future, but the EIR does conclude that view impacts along SR-60 will be significant, given the nature of the proposed project, which is still the correct conclusion in this regard, and does not represent inappropriate deferral of impact assessment. MM 4.1.6.3A has been amended as follows to provide clarification on the blocking of views of Mt Russell from SR-60.

~~**4.1.6.3A**~~ ~~Prior to the issuance of any discretionary permit for development under the WLCSP, the developer shall provide a site plan, landscaping plan, and visual rendering(s) consistent with the WLCSP that demonstrate changes in views of Mount Russell, the Badlands, and/or Mystic Lake for travelers along SR-60 or Gilman Springs Road, as appropriate. The renderings shall be sufficient to demonstrate typical views based on proposed site and landscaping plans, but the location and number of view presentations shall be at the discretion of the City Planning Division. These views shall be simulated from a height of six feet from the edge of the roadway travel lane closest to the visual resource.~~

4.1.6.3A Each Plot Plan application for development shall include plans and visual rendering(s) illustrating any changes in views of Mount Russell and/or the Badlands, for travelers along SR-60, as determined necessary by the Planning Official. The plans and renderings shall illustrate typical views based on proposed project plans, with the location and number of view presentations to be determined by the Planning Official. These views shall be simulated from a height of six feet from the edge of the roadway travel lane closest to the visual resource. The renderings must demonstrate that the development will preserve at least the upper two thirds (67%) of the vertical view of Mt. Russell from SR-60.

Response to Comment F-8-56. The commenter indicates that use of a programmatic EIR was inappropriate given the analysis of views from SR-60 which emphasized Mt. Russell and ignored Mystic Lake. Original page 4.1-7 of the DEIR clearly states *"…Mount Russell, the Badlands, the SJWA, and Mystic Lake represent significant visual resources, and SR-60 and Gilman Springs Road*

are considered scenic routes because they have relatively unobstructed views of these resources" so it is unclear what statement the commenter is referring to in the EIR that seems to focus only on Mt. Russell. In addition, Section 4.1.6.1 begins with the following statement. "*The proposed project could have a substantial adverse effect on one or more scenic vistas, notably views of the Badlands, Mount Russell and the Mount Russell Range, and Mystic Lake/San Jacinto Wildlife Area*." The same section describes visual impacts from SR-60 as follows…

"Views from SR-60. *The existing Skechers building can be used as a visual reference relative to future views involving the WLCSP. The average floor elevation of the Skechers facility is 1,740 feet amsl. Assuming an average building height of 55 feet, the Skechers building is at an elevation of 1,795 feet amsl compared to the elevation of SR-60 at 1,760 feet amsl adjacent to the Skechers building. This means a person driving on SR-60 cannot see much of the WLCSP property, or Mystic Lake while adjacent to the Skechers building, although the top of Mount Russell is visible from most locations.*

Travelers in both directions on SR-60 will have views of the project site until the northernmost portion of the site is developed. As the site develops, the buildings would replace existing flat agricultural fields with industrial buildings, which may block foreground and midground views of travelers in both directions, depending on their locations. There are no site plans at present to show exact building locations or heights, so the determination of impacts must be based on the characteristics of buildings allowed under the Specific Plan. Buildings adjacent to the freeway would be approximately 60 feet in height, while buildings away from the northern perimeter (i.e., the south side of SR-60) could be up to 80 feet tall. If all of the future buildings along the south side of SR-60 block views to the same degree as the Skechers building, this would be a significant visual impact as it would reduce views of Mount Russell, and the Badlands south of SR-60 along Gilman Springs Road.

The height and location of buildings along this portion of the project will have to be designed to allow background views between and over them (i.e., so the mountains and Mystic Lake are not fully or largely obscured by buildings in the future). The conceptual landscape plans for the proposed project show trees will be planted along the south side of SR-60 to soften views of future buildings, but these will not fully obscure views of the buildings or parking areas, as the buildings may be taller than the trees will grow, and the buildings will extend farther into the midground and background views for many travelers. Even with the landscaping proposed by the WLC Specific Plan, development of this area will eventually replace the existing flat agricultural fields with tall industrial warehouse buildings that may completely or partially block views of the lower slopes of Mount Russell and the Badlands ~~and Mystic Lake~~. If future buildings were to block views of these major scenic resources substantially (per GP Figure 7-2), the WLC project would result in significant visual impacts along SR-60. The simulated view from SR-60 is shown in Figure 4.1.5J and K (Views 8 and 9).

Therefore, it is unclear in what way the commenter believes the EIR does not address views to Mystic Lake. Regarding building heights, the Specific Plan indicates that corners or entryways of the project buildings may be slightly raised for architectural purposes, but that the overall average or roof heights of the buildings along the north, west, and south perimeter must be 60 feet but can be up to 80 feet in the interior of the project and along the eastern perimeter (WLC Specific Plan, Section 5.3.3 page 5-21).

In conclusion, Section 4.1 of the DEIR clearly concludes that all aesthetic impacts of the WLC project will be significant, and that when more details of specific development is known in the future, additional visual analysis will be provided (MM 4.1.6.3A as amended in Response to Comment F-8-55).

Response to Comment F-8-57. The commenter states the EIR uses the Moreno Highlands Specific Plan (MHSP) as a baseline for aesthetics– that is incorrect. The DEIR uses existing conditions as the baseline, as required by CEQA. However, the current General Plan and zoning classifications for the

WLC property are based on the approved MHSP so that land use plan is provided for comparison only, and not as a baseline against which to determine the significance of impacts. As previously stated, Section 4.1 of the DEIR clearly concludes that all aesthetic impacts of the WLC project will be significant. Also, refer to Responses to Comments F-8-54 through F-8-56.

Response to Comment F-8-58. The commenter states the Specific Plan does not mention views of Mt. Russell or Mystic Lake, and does not limit the size and locations of buildings - this is correct. However, the EIR does address viewshed impacts in the future. MM 4.1.6.3A requires renderings be provided of specific future buildings so that viewsheds of Mount Russell for travelers along SR-60 can be protected per the General Plan. Also review to Response to Comment F-8-56.

Response to Comment F-8-59. The commenter states that considering the size of the proposed project it is unlikely that mitigation to reduce impacts to visual impacts would be feasible at all. Actually, the Specific Plan allows for only a maximum Floor Area Ratio or FAR of 0.5 which is 50% site. Therefore, the recommended mitigation is indeed feasible.

Response to Comment F-8-60 & 61. The commenter contends the project is not consistent/compliant with the City's General Plan and this is a significant impact under CEQA and must be analyzed. As outlined in Responses to Comments F-8-56 through F-8-59 above, the WLC project will not be inconsistent with the General Plan since specific development in the future will be evaluated against the indicated General Plan policy using visual renderings that will be prepared once the specifics of the future development are known (e.g., building size, location, height, etc.) which is entirely appropriate when using a programmatic EIR such as with the WLCSP.

The evaluation of potential land use impacts of the WLC project were appropriately analyzed in Section 4.10 of the DEIR. The specifics of the General Plan Amendment and zone change are the WLCSP as outlined in Section 3 of the DEIR, Project Description. Page 3-25 of the DEIR lists the elements of the General Plan which will be amended.

> ***"General Plan Amendment:*** *…The General Plan Amendment (GPA) will replace the current Moreno Highland Specific Plan/General Plan Designations with the following land use designations: (a) ~~2,606~~ 2,383.8 acres for high cube logistics development; (b) 1,084 acres of Open Space; and (c) 20 acres for Public Facilities.*
>
> ***Zone Change:*** *The project includes a Zone Change covering ~~3,814~~ 3,714 acres, which will designate 1,084 acres of land for Open Space (CDFW and San Diego Gas and Electric (SDG&E) properties), 20 acres for Public Facilities(SDG&E and Southern California Gas Company (SCGC) properties), and ~~2,710~~ 2,610 acres for the World Logistics Center Specific Plan."*

In addition, Section 3.4.6 of the DEIR states…

> *"The proposed project includes a Specific Plan to implement the new General Plan Amendment and to set forth comprehensive land use regulations governing the proposed project. The Specific Plan is a master plan for the future development of up to ~~41.6~~ 40.6 million square feet of building area on ~~2,710~~ 2,610 acres, providing for mainly high-cube logistics and distribution facilities. This programmatic EIR be provides a streamlined environmental review process for future development projects in the WLC Specific Plan area, including site-specific subdivisions and development entitlements that are consistent with the overall plan. Subsequent projects that the City determines to be within the scope of the EIR may be approved pursuant to the procedures set forth in CEQA Guidelines Sections 15162 and 15177."*

The following uses are proposed within the WLC Specific Plan (Table 3.C in this document) and are directly related to the WLC project general plan and zoning entitlements:

• Logistics Development (LD)	2,383.8 acres	40.4 million square feet
• Light Logistics (LL)	37.1 acres	200,000 square feet
• Open Space (OS)	74.3 acres	
• Right-of-Way (ROW)	115.8 acres	
	2,610.0 acres (WLCSP)	
• State and Utility Land	1,104.0 acres (rezone to open space and utilities)	
• Offsite Improvement Areas	104.0 acres (to support WLCSP development)	
	1,208.0 acres (non-Specific Plan areas)	

Response to Comment F-8-62. The commenter expresses concern that the project description does not describe key components of the project such as fundamental information pertaining to utilities, infrastructure and public services that will be required to serve the project. The project description (DEIR Section 3.0) contains a description of the project as well as the WLCSP (Section 3.0, *Infrastructure Plan*). DEIR Sections 3.4.6.3 and 3.4.6.4 describe aspects of the proposed project relative to utilities, infrastructure, and public services.

The WLCSP does not include specific information on backbone infrastructure phasing but does identify a number of alternative funding mechanisms that future developers can take advantage of to pay for certain improvements (WLCSP Section 10.0, *Financing of Improvements*. It must be remembered this is a programmatic document and so it only evaluates the level of information about the project provided at the time of project application. Future development applications will require backbone infrastructure that will be identified in their particular traffic and utility studies, and will be responsible for installing or paying a fair share towards the installation of necessary infrastructure. The City's development review process will assure that infrastructure needed by a particular development is in place or will be in place prior to occupancy of that development.

The commenter expresses concern that storm drainage improvements will not be made as development occurs in the future. To address this concern, MM 4.9.6.1A has been revised to specifically include "storm drain pipes and other conveyances" as shown below (added text underlined).

4.9.6.1A Prior to issuance of ~~any development~~ <u>any</u> <u>building</u> permit within the Specific Plan area, the developer shall ~~place~~ <u>construct storm drain pipes and conveyances, as well as, combined</u> detention <u>and infiltration</u> basin(s), <u>bioretention areas,</u> and spreading area(s)~~ as appropriate~~ within each proposed watershed, as outlined in the project hydrology plan, to mitigate the impacts of increased peak flow rate, velocity, flow volume and reduce the time of concentration by storing ~~increased runoff for a limited period of a time and release the outflow at a rate that does not exceed the pre-development condition~~ <u>and infiltrating increased runoff for a limited period of time and release the outflow at a rate that does not exceed the pre-development peak flows and velocities for the 2, 5, 10, 25, and 100-year storms and volumes as assessed in the water balance model for historical conditions. For the purpose of this mitigation measure, the term "construct" shall mean to substantially complete construction so as to function for its intended purpose during construction with complete construction prior to occupancy. Field investigations will be conducted to determine the infiltration rate of soils underlying the proposed locations of bioretention areas and detention basins. The infiltration rate of the underlying soils will be used to properly size the bioretention areas and detention basins/infiltration basins to ensure that adequate volumes of runoff, in cumulative total for all bioretention areas and detention basins are captured and infiltrated. The water balance model will be updated and rerun for the site-specific conditions encountered to confirm the water balance.</u> This measure shall be implemented to the satisfaction of the City Engineer. Energy dissipaters shall be used as the spillways of basins to

> reduce the runoff velocity and dissipate the flow energy. Drainage weir structures shall be constructed at the downstream end of the watersheds flowing to the San Jacinto Wildlife Area to control the runoff and spread the flow ~~in~~ such ~~a way~~ that the flows exiting the project boundary will return to the sheet flow pattern similar to the existing condition. Detention basins and spreading areas shall be designed to account for the amount of the sediment transported through the project boundary so that the existing sediment carrying capacity is maintained.

However, it should be noted that the WLCSP EIR is a programmatic document, and there will be subsequent CEQA analysis of overall utility impacts of the WLC project when specific development is proposed (i.e., consistent with the WLCSP) in the future. The City's development review process would determine if future development proposals are consistent with the overall development parameters outlined in the WLCSP EIR. The hydrology study for the WLC project (DEIR Appendix J-1) demonstrates that the WLCSP area can be developed such that future runoff does not exceed current levels, and therefore offsite and downstream properties would not be significantly impacted by development of the WLC property.

Response to Comment F-8-63. The commenter says the Circulation Element portion of the General Plan Amendment is not described in the EIR. A proposed Circulation Element amendment has been submitted to the City, and the revised Circulation Element map would include the Circulation Plan presented in the WLCSP (Exhibit 3-1) and shown in the Project Description of the DEIR (Figures 3-10 through 3-12). In fact, Section 3.4.6.2, Circulation Element, in the DEIR Project Description says…

> "*The revised General Plan Circulation Element (as amended by the proposed project) and the Specific Plan's Circulation Plan (Specific Plan Section 3.1) provides for the movement of vehicles in and around the World Logistics Center area. It provides the details of the road/street designations, right-of-way design, and road improvement thresholds. This section addresses the interface of the planning area with existing roadways as defined in the City General Plan."*

Response to Comment F-8-64. The FEIR Volume 2 Section 4.15 concludes that the WLC project is consistent with the City's General Plan policies regarding traffic, however, the reason the DEIR concludes many of the traffic impacts of the WLC project are significant is that many of the mitigation measures that could reduce potential impacts cannot be made physically (e.g., restricted right-of-way, existing buildings, etc.) or the improvements are within another jurisdiction and are not under the control of the lead agency (i.e., implementation cannot be guaranteed). The DEIR and project TIA clearly demonstrate that onsite impacts of traffic from the WLC project can be accommodated within the WLC site and within City level of service (LOS) standard, based on the proposed circulation plan outlined in the WLCSP (refer to FEIR Volume 2 Appendix L-1).

Response to Comment F-8-65. The commenter states the EIR should examine the WLC project's consistency with all applicable General Plan policies including protection of visual resources, avoidance of noise intensive uses and air emissions near sensitive receptors and minimizing traffic impacts. The commenter is correct, and the potential impacts of the project relative to these various policies are examined in the appropriate sections of the DEIR (4.1 through 4.16) for each environmental topic area (see Response to Comment F-8-67).

Response to Comment F-8-66. The commenter states Section 4.10 of the EIR should examine the WLC project's consistency with all applicable General Plan policies. Section 4.10 of the DEIR does examine the WLC project's consistency or inconsistency with applicable land use General Plan policies, as outlined in the specific CEQA threshold used in this analysis, which states…" *Conflict with any applicable land use plan, policy, or regulation…"* The commenter has neglected to acknowledge the other analysis sections of the DEIR (4.1 through 4.16) examine the potential impacts of the WLC project against the General Plan policies, objectives, etc. that are particular to that environmental

issue (e.g., noise, traffic, etc.). Table 4.10.E of the EIR only examines the WLC project's impact on land use policies, while the commenter refers to many other non-land use policies in this comment. For example, Objective 5.3 and Policies 5.3.6 and 5-6 are related to traffic, so they are evaluated in Section 4.15, *Traffic and Circulation*, of the DEIR, Policies 6.2.3 and 6.2.4 are addressed in Section 4.10, *Hydrology and Water Quality*, of the DEIR, and so on (see Response to Comment F-8-67).

Response to Comment F-8-67. The commenter states the DEIR does not evaluate the WLC project relative to several specific General Plan policies and objectives. Response to Comment F-5-66 above explains that Table 4.10.E does not address every General Plan policy applicable to the WLC project, only the land use policies, because Section 4.10 of the DEIR addresses land use impacts. The other DEIR impact analysis sections (4.1 through 4.16) address other environmental topics/issues (e.g., noise, traffic), and the General Plan policies applicable to that issue are addressed in that section.

City General Plan policies, objectives, etc. are addressed in the following sections according to the particular environmental issue they address:

- 4.1 Aesthetics — DEIR Section 4.1.2.1
- 4.2 Agriculture — DEIR Section 4.2.5
- 4.3 Air Quality — DEIR Section 4.3.2.4
- 4.4 Biological Resources — DEIR Section 4.4.2.4 and Table 4.4.E
- 4.5 Cultural Resources — DEIR Section 4.5.2.3
- 4.6 Geology & Soils — DEIR Section 4.6.2.2
- 4.7 Greenhouse Gases — DEIR Section 4.7.2.5
- 4.8 Hazards — DEIR Section 4.8.2.4
- 4.9 Hydrology & Water Quality — DEIR Section 4.9.2.4
- 4.10 Land Use — DEIR Section 4.10.2 and Table 4.10.E
- 4.11 Minerals — DEIR Section 4.11.2.2 (none)
- 4.12 Noise — DEIR Section 4.12.2.2
- 4.13 Pop &Housing — DEIR Section 4.13.2.3
- 4.14 Public Services — DEIR Section Table 4.14.A
- 4.15 Transportation — DEIR Section 4.15.2
- 4.16 Utilities — DEIR Section 4.16.1.2

Response to Comment F-8-68. The commenter claims the project is inconsistent with General Plan in that some impacts are identified as significant and unavoidable and so the target LOS cannot be maintained.

The mitigation measures identified in the TIA would enable the City to achieve the target LOS. To the extent these measures are feasible and within the authority of the City of Moreno Valley, the City will see to it that the measures are implemented. However, the City is not in a position to guarantee the implementation of measures that are either infeasible or outside of its control. See Chapter 11, Sections E and F of the TIA (FEIR Volume 2, Appendix L-1).

Response to Comment F-8-69. The commenter states the project includes a Revised Circulation Element but that it was not included in the DEIR. The commenter repeats his earlier claim the project is inconsistent with General Plan in that some mitigation measures are identified as significant and unavoidable and so the target LOS cannot be maintained.

The TIA, which comprised part of the DEIR, included Figure 21 (now Figure 24 in the FEIR Volume 2, Appendix L-1) showing the revised circulation plan. Please also see the Response to Comment F-8-68.

Response to Comment F-8-70. As stated in DEIR Appendix J-1 *Hydrology and Water Quality* Appendix J-1 *Preliminary Project Specific Water Quality Management Plan,* page 12 a "*significant portion of the project will remain pervious for the purposes of landscaping, water quality treatment, and flood detention. The use of impervious surfaces for decorative purposes will be minimized where possible. Street, sidewalk, and parking design will incorporate or keep minimum street widths that still meet City requirements and emergency access requirements*."

Response to Comment F-8-71. MM 4.9.6.1A has been revised and MM 4.9.6.1B has been added to ensure that sufficient storm drain flood controls systems will be implemented to accommodate the 10 and 100 year storm flows. See Response to Comment F-5-23 for a description of the measures.

Response to Comment F-8-72. Policy 6.3.1 of the General Plan is being misinterpreted by the commentator. The policy is intended to insure that new residential construction meet certain noise standards. Specifically if a new residence is constructed it will be required to meet a 45 CNEL noise standard. Additionally, soundwalls would be required between single-family residences and major roadways. It is not intended to limit impacts generated by projects. The significance criteria that addresses transportation noise impacts on residential uses is detailed on page 26 of the technical noise appendix (DEIR Appendix K Noise). A 65 CNEL threshold is a key part of the significance criteria.

Response to Comment F-8-73. The proposed project is consistent with Objective 6.5. Traffic noise is being mitigated when a significant impact is identified and it is feasible. Operational noise from the logistics facilities will meet the City's noise ordinance standards, and construction noise is being mitigated to the extent feasible. Therefore, the project is seeking to "*minimize noise impacts from significant noise generators…*"

Response to Comment F-8-74. The commenter believes the WLC project is not consistent with General Plan Policy 7.7.4. Policy 7.7.4 states… "*Require development along scenic roadways to be visually attractive and to allow for scenic views of the surrounding mountains and Mystic Lake*." The visual analysis in the DEIR does indicate future development under the Specific Plan will be visually attractive relative to industrial warehouse buildings. The programmatic EIR determined that future development would have significant visual impacts, but the maintenance of views to Mt. Russell must wait for an evaluation of specific development in the future, as outlined in the EIR (refer to Response to Comment F-8-56. Future development will be evaluated under CEQA (i.e., tiered off the WLCSP EIR) for compliance with this policy when more specifics about building size and location are known, consistent with the tiering requirements of CEQA. In addition MM 4.1.6.3A has been modified and addresses this comment (see Response to Comment G-95-18).

Response to Comment F-8-75. The commenter restates the position the DEIR does not evaluate General Plan policies applicable to the WLC project. The DEIR examines the WLC project's potential impact on relevant General Plan policies in the appropriate sections of the DEIR (4.1 through 4.16) depending on the specific environmental topic (e.g., noise, traffic, etc.). Those sections identify inconsistencies and indicate if mitigation is necessary, as required by CEQA.

Response to Comment F-8-76. The commenter says the DEIR does not contain sufficient baseline information on hazards or hazardous materials. Section 4.11, *Hazards and Hazardous Materials*, does provide extensive detailed information about the existing baseline conditions and impact assumptions of the site relative to these topics, including the results of 22 Phase 1 hazmat studies, one of which was completed in January 10, 2013 for the entire site (DEIR Appendix I). These issues are addressed in detail in Responses to Comments F-7A-18 through F-7A-21 and F-7B-2 and F-7B-3 and demonstrate why the EIR does provide an adequate description of baseline conditions relative to the onsite hazmat studies.

Response to Comment F-8-77. Comments in general were made about the DEIR's analysis of hazards and hazardous materials inadequacy. Comments were also made about the DEIR failure to provide sufficient information for accurate analysis and decision-making. An example is the 18 previous Phase I ESA reports conducted for portions the site (DEIR Section 4.8) as not providing the information as to what areas were included and what areas were omitted. DEIR Section 4.8 explains that the Phase I ESA, dated January, 2013, covered the project area. The previous 18 Phase I ESAs, which were conducted on portions of the project area over several years, were used as references in that comprehensive Phase I ESA report for the project area. The Moreno Valley Local Hazard Mitigation Plan and the Moreno Valley General Plan also indicates the presence of hazardous materials sites on the project site. Local Hazard Mitigation Plant at 89; Moreno Valley General Plan FEIR, Figure 5.5-1. These sites are not disclosed or otherwise described in the project EIR.

Response to Comment F-8-78. The Phase I ESA conducted for the project area, dated January 2013, adequately addresses these two sites and all other hazardous waste sites on or around the project area, within a one mile radius. The Phase I ESA concluded they would not adversely impact the project development. Also refer to Response of Comment F-8-79.

Response to Comment F-8-79. According to DEIR, Section 4.8.5.3, the Moreno Gas Compressor Plant currently occupies a 19-acre site, surrounded by 174 acres of SDG&E-owned open space. There is additional open space around the plant, consisting of land owned by the CDFW as part of the SJWA. There are no plans to expand or otherwise modify the plant and/or its open space zone, which is considered adequate at this time to protect public health and safety, including users of the SJWA and new employees and users of the new warehouses associated with the WLCSP. The WLCSP Land Use Plan shows new warehouse uses east and west of the plant will have setbacks of 1,000 feet to the east and 1,500 feet to the west, those to the north will have an additional 104 foot additional setback, from the construction of Street G. While these setbacks appear to be sufficient, the following measure will be added to the EIR to assure setbacks are in fact sufficient to protect the safety of future workers within Planning Areas 9 through 12 (i.e., those around the compressor plant):

4.8.6.1C Prior to grading for any discretionary permits for development in Planning Areas 9-12 adjacent to the natural gas compressor plant, the applicant shall prepare a risk assessment report analyzing safety conditions relative to the existing compressor plant and planned development. The report must be based on appropriate industry standards and identify the potential hazards from the compressor plant (e.g., fire, explosion) and determine that the distance from the plant to the closest planned buildings in Planning Areas 9-12 is sufficient to protect the safety of workers from accidents that could occur (see Final EIR Volume 2 Figure 4.1.6B) at the compressor plant. This measure shall be implemented to the satisfaction of the City Building and Safety Division and the Fire Prevention Bureau.

Response to Comment F-8-80. The commenter expresses concern the hazmat mitigation will not be implemented. The DEIR contains two hazmat-related mitigation measures (MMs 4.8.6.1A) addresses lead-based paint or asbestos-containing materials in the rural residences, and safety related to the alternative fueling facility). There is no reason to believe these measures will not or cannot be successfully implemented by the City during subsequent discretionary approvals and the City's development review process.

Response to Comment F-8-81. The commenter wants mitigation added to address the cleanup of waste materials on the site. In response to this comment, the following measure will be added to Section 4.8.6.1 of the revised DEIR:

4.8.6.1D Prior to the issuance of any grading permit, the developer shall inform the City of any existing solid waste materials within the development area. In conjunction with grading activities, all solid waste matter within the development area shall be

removed by a licensed contractor and disposed of in an approved landfill. A record of the removal and disposal of any waste materials, in compliance with applicable laws and regulations, shall be submitted to the City prior to the issuance of any building permits.

Response to Comment F-8-82. The commenter states the Specific Plan does not preclude manufacturing or chemical uses. Manufacturing and chemical processing are not permitted uses within the WLCSP. The Specific Plan allows only logistics and logistics-related uses within the WLC project, which allow only limited assembly and do not allow manufacturing or chemical processes by their very definition, in much the same way heavy industrial uses would not be allowed in areas designated for light industrial uses. Future discretionary review by the City will restrict future uses within the WLC to those uses outlined in the Specific Plan (see WLCSP Section 2.2.2, Permitted Uses).

Response to Comment F-8-83. The commenter expresses concern that the setbacks identified in the DEIR for the natural gas compressor station are not codified in the Specific Plan. The "setback" is visible by an inspection of the project conceptual land use plan and existing aerial photographs in that the existing compressor station buildings are at least 1,000 feet from any warehouse building that could be built in Planning Area 12 to the east and approximately 1,500 feet from any buildings that could be built in Planning Area 10 to the west due to proposed road placement and developable areas. In response to this concern, MM 4.8.6.1C (see below) was added to protect future worker safety, as outlined in Response to Comment F-8-82 above.

4.8.6.1C Prior to grading for any discretionary permits for development in Planning Areas 9-12 adjacent to the natural gas compressor plant, the applicant shall prepare a risk assessment report analyzing safety conditions relative to the existing compressor plant and planned development. The report must be based on appropriate industry standards and identify the potential hazards from the compressor plant (e.g., fire, explosion) and determine that the distance from the plant to the closest planned buildings in Planning Areas 9-12 is sufficient to protect the safety of workers from accidents that could occur (see Final EIR Volume 2 Figure 4.1.6B) at the compressor plant. This measure shall be implemented to the satisfaction of the City Building and Safety Division and the Fire Prevention Bureau.

In addition, Section 4.12.6.4 Long-Term Utility Noise Impacts in the DEIR addressed the issue of the noise impacts of the natural gas compressor plant and imposed MM 4.12.6.4A requiring prior to issuance of building permits, projects within 500 feet of the SCGC and SDG&E facilities will have sound attenuation devices providing at least 40 dB reduction, be in place for planned blow-down events. The Specific Plan contains a setback requirement from the natural gas compressor in response to the concerns regarding potential noise impacts to future users of the WLC.

Response to Comment F-8-84. The commenter expresses concern that identification of safety impacts from relocation of gas pipelines has been deferred contrary to the requirements of CEQA. The programmatic DEIR has correctly identified a potential significant impact, but has further concluded this impact can be reduced to less than significant levels as part of discretionary approvals in the future when the size and location of future buildings is known in more details. The relocation of existing natural gas lines requires coordination with local utility companies, the City, and developer, and can only be done effectively when specific development information is known. At that time, existing lines can be relocated with appropriate safety setbacks from planned buildings. This process is consistent with the tiering requirements of CEQA and is not a deferral of impact identification or development of appropriate mitigation. The commenter has failed to acknowledge the additional CEQA review that future development will have, as outlined in DEIR Section 3.4.6 as follows…

"*The proposed project includes a Specific Plan to implement the new General Plan Amendment and to set forth comprehensive land use regulations governing the proposed project. The Specific Plan is a master plan for the future development of up to 41.6 million square feet of building area on 2,710 acres, providing for mainly high-cube logistics and distribution facilities. This programmatic EIR provides a streamlined environmental review process for future development projects in the WLC Specific Plan area, including site-specific subdivisions and development entitlements that are consistent with the overall plan. Subsequent projects that the City determines to be within the scope of the EIR may be approved pursuant to the procedures set forth in CEQA Guidelines Sections 15162 and 15177.*"

Response to Comment F-8-85. The commenter states the EIR defers analysis and mitigation for potential impacts of the proposed alternative fueling station. Again, the commenter has misinterpreted the CEQA requirements for a programmatic EIR vs. a project level EIR, where sufficient information is not yet known about certain physical aspects of the project. In this case, the size, location, and other physical attributes of the fueling station are unknown, so the DEIR correctly concludes there could be a significant impact, and recommends a safety study be conducted to determine specific safety setbacks for the station from surrounding development once those physical factors are known. Since the station is planned to be built relatively soon in Phase 1, it will not be long before this information is known. Setbacks to the neighboring industrial warehouse uses would need to be established once the specific physical characteristics of the fueling station are known. Construction of this station will require subsequent discretionary review, including CEQA compliance, through the City. Refer to MM 4.8.6.1B as follows:

4.8.6.1B Prior to the issuance of any discretionary permits associated with the ~~natural gas~~ proposed fueling facility ("~~L~~logistic ~~S~~support" site in the LD zone), ~~the applicant shall provide~~ a risk assessment or safety study that identifies the potential public health and safety risks from accidents at the facility (e.g., fire, tank rupture, boiling liquid, or expanding vapor explosion) shall be submitted to the City for review and approval This study shall be prepared to industry standards and demonstrate that the facility will not create any significant public health or safety impacts or risks, to the satisfaction of the City ~~Community Development Director and the City Building Official~~ Building and Safety Division and the Fire Prevention Bureau.

Response to Comment F-8-86 & 87. DEIR Section 4.6.6.1, based on published geologic maps and subsurface fault evaluation completed for this project (Leighton, 2013, DEIR Appendix G), the Claremont Segment of the San Jacinto Fault Zone has been identified and located within the eastern portions of the project (within mapped Alquist Priolo (AP) Zone). At the time of Leighton's fault trenching, legal access to all parts of the property was neither possible nor required for this initial level of fault investigation. As such, a central portion of the Fault Zone was not specifically explored. However, the fault strands are expected to continue through that un-explored portion within the AP Zone and future trenching would be required to confirm the trend (connect the dots) of the mapped fault and provide setback requirements for any proposed habitable buildings in this area. As such, no structures for human occupancy will be located over active faults or within the State AP Zone unless structural setbacks are established based on sufficient fault trenching in accordance with State and County guidelines. Therefore, the DEIR's conclusion that the project's impacts relating to susceptibility to fault rupture would be mitigated to less than significant is valid.

Response to Comment F-8-88. As states in DEIR Section 4.6.6.3A, the site, like the rest of Southern California, is located within a seismically active region. The principal source of seismic activity is movement along the northwest-trending regional fault systems such as the San Andreas, San Jacinto, and Elsinore Fault Zones. Mitigation measures for such seismic shaking were adequately addressed in the Soils Report (DEIR Appendix G) that included recommendations for structural design and ground improvements. These mitigation measures

generally follow standard of care in this area and considered adequate to mitigate impacts relating to ground shaking. All buildings constructed on this site will be structurally designed to the pertinent sections of the current or future adopted California Building Code and seismic design coefficients provided by the project Geotechnical Engineer. General remedial grading requirements (ground improvement mitigation) included in the Soils Report are also expected to further reduce the effects of ground shaking on proposed structures. The actual extent of remedial grading is expected to vary based on building location and foundation loads and will be verified based on development of final site plans. However, the general parameters for the prescribed corrective measures included in the Soils Report remain the same.

Response to Comment F-8-89. The project Soils Report (DEIR Appendix G) is a detailed investigation that provides an extensive evaluation of the expansive and compressible soils potential on this site. The report presents over one-hundred test pits and test borings including extensive laboratory testing to qualify and quantify the extent of such geologic hazard. Even if dozens of additional borings are performed for this approximately 4,000-acre site, the recommendations of the DEIR will generally remain the same as to the need for future verification and evaluation of compressible and expansive soils in specific areas of the site. The interbedded and highly variable nature of alluvial deposits on this site require that when final development plans are developed the remedial earthwork removal depth or potential presence of expansive soils are verified and mitigated based on those plans. This is typical of EIR level investigation for such large projects and mitigation measures are rather straightforward and easily implemented during later phases of development by means of ground improvements (remedial earthwork grading) or structural design (i.e. stiffened slab design) based on specific building foundation plans and location.

Response to Comment F-8-90. The commenter is concerned the DEIR has not identified geotechnical impacts to offsite improvements. DEIR Section 4.6, *Geology and Soils*, examines potential geotechnical and soils impacts of the various offsite improvements in general, given the programmatic nature of the EIR, which also means there is no specific information at this time on the size, exact location, etc. for the various offsite improvements, although Figure 3-7 in the DEIR does show the general location of the improvements. MM 4.6.6.1C addresses how future offsite improvement sites will be evaluated for geotechnical and soils constraints, and requires all improvements to be designed to withstand expected geological and soils conditions, as shown below…

> "*Prior to the approval of project grading permits, or permits for construction of off-site improvements, whichever comes first, the City shall review and approve plans confirming that the project has been designed to withstand anticipated ground shaking and other geotechnical and soil constraints (e.g., settlement). The project proponent shall submit improvement plans to the City or County as appropriate for review and approval prior to construction of any offsite improvements related to the project. This measure shall be implemented to the satisfaction of the City Engineer*."

Response to Comment F-8-90 & 91. The commenter expresses concern about geotechnical constraints on the proposed water reservoir site. Offsite improvements can be subject to a variety of geologic/geotechnical constraints such as faults, landslides, unstable soils, etc. However, these constraints are typical of this area and specific mitigation methods will be determined during later phases of planning or once improvement plans become available. Mitigation methods may include previously prescribed measures such as remedial earthwork ground improvements or avoidance of difficult areas (i.e. mass wasting, landslides and faults). However, all off-site improvements are considered feasible from a geotechnical viewpoint and the appropriate site specific mitigation must be determined during later stages of planning to derive the most cost-effective mitigation methods.

As outlined in Response to Comment F-8-90 above, additional geotechnical testing will be done when a specific site and a specific reservoir is proposed, and the facilities will be have to be constructed to withstand expected constraints/conditions, as outlined in MM 4.6.6.1C outlined above, or they will have to be located on some other site.

Response to Comment F-8-92. The commenter states more detailed information on geotechnical constraints on offsite improvement sites must be included in the DEIR. The location of offsite improvements is not fully known at this time, and has only been estimated for the purposes of a programmatic CEQA-level analysis. It is possible that improvements would actually have to be placed at other locations than those estimated for the project at this time. Therefore, it is inappropriate to conduct more detailed assessments at this time. More detailed assessments will be prepared when specific offsite improvements are identified, as outlined in MM 4.6.6.1C.

Response to Comment F-8-93. The commenter asserts that the WLC project would induce substantial population growth in the City by adding so many jobs. First, the City currently has a high unemployment rate, so it is likely that many of the first jobs produced by the WLC project would go to unemployed City residents as well as unemployed workers in other nearby communities (e.g., Redlands, Riverside, Perris, etc.). Second, the City's Housing Element indicates future (anticipated) growth of 6,169 houses over the next 8 years, which would absorb many of the new jobs generated by the WLC project. For example, the WLC project would be developed in lieu of the approved Moreno Highlands Specific Plan (MHSP), which could have introduced 7,736 dwelling units and 17,019 new residents into the City over the next 20 years or so. Development of the WLCSP would supplant that planned growth, so it is not likely the WLC project would induce substantial new residential growth over that anticipated by the MHSP. Finally, it is possible the project would generate some need for additional housing at some point in the future, but it is overly speculative to estimate specifically how much because of the many variables involved in future residential development (e.g., actual phasing of WLC development and local housing development, the availability of vacant land for housing, future development costs, etc.). Therefore, the DEIR concluded that population and housing impacts of the WLC project would be less than significant (in fact would substantially help the City's jobs/housing ratio), and Section 5 of the DEIR concluded the project would not induce substantial new growth of population or housing into the City.

Response to Comment F-8-94 and 95. The commenter states that the DEIR claims that WLC jobs will be filled by "workers, who, for the most part, already reside in the project area," and that WLC workers will not cause an increase in the City's population. The DEIR has been modified regarding this claim. While it is likely that some of the jobs may be filled by City residents who possess the skills and/or education required, it is expected that many project employees will be commuting to the Project from other locations in the Inland Empire and may eventually move to the City to live closer to work, thereby increasing the population and ultimately the demand for homes within the City over a period of time.

While it is true that some WLC workers will commute to the project from other parts of the Inland Empire, the impact of the Project on the jobs/housing balance in both the City and throughout the Inland Empire will be improved by the potential 20,000 jobs to be generated by the WLC. Both the City and the Inland Empire have a surplus of homes versus jobs, which causes residents to drive to LA and Orange County for work, leading to traffic congestion, less family time and an overall lower quality of life. As noted in Section 4(III) of the DEIR, the City's Jobs-Housing Balance is currently 0.47, which is one of the lowest of any City in the Inland Empire. Riverside County as a whole only has a Jobs-Housing Balance of 0.74. As the norm throughout Southern California ranges between 1.0 and 1.29 jobs per household according to Southern California Association of Governments (SCAG's) landmark 2001 study "The New Economy and the Jobs/Housing Balance in Southern California," both the City and the County are badly in need of jobs. According to this SCAG study, the average commute distance for a Riverside County resident of 21.6 miles was higher than any other County in Southern California.

Response to Comment F-8-96. The commenter stated the DEIR needs to examine cumulative impacts of the project. Each DEIR environmental analysis sections (4.1 through 4.16) examined potential cumulative impacts of the WLC project. DEIR Section 5.1 summarized that the project would make a significant contribution to cumulatively considerable impacts in the areas of aesthetics, agriculture, air quality, noise, and transportation. It is unclear how the commenter concludes the DEIR did not examine these potential impacts when it is clear the DEIR concluded the project would have a number of cumulative impacts. Section 1.6 of the DEIR explains why the "summary of growth projections" methodology was used for the assessment of most cumulative impacts, although the project's traffic impact assessment was able to develop a comprehensive list of development projects for the general project area to identify roadway and intersection impacts for each of the two phases of project development. It is permissible to use different cumulative baselines or areas of influence as long as the EIR explains why it is reasonable to do so for a particular environmental issue. For most issues, the EIR used the growth projections of the City General Plan and the Regional Transportation Plan (RTP) of the SCAG as these represent the best long-term estimates of population, housing, and employment conditions for the Southern California region that could be affected by development of the WLC project.

Response to Comment F-8-97. The commenter states the General Plan projections are not mentioned in the cumulative analysis sections of the EIR and uses hydrology as an example. Section 4.9.7, *Hydrology and Water Quality – Cumulative Impacts*, says that "*Increased impervious surfaces are likely to alter existing hydrology and increase potential pollutant loads. However, all future development in the City and throughout the Santa Ana RWQCB will be required to comply with the requirements of the National Pollutant Discharge Elimination System (NPDES) permit program. Continued growth is anticipated to occur in the City and surrounding areas and all new development and significant redevelopment will be required to minimize its individual impacts to water quality and pollutant transport through implementation of BMPs*." The term "in the City" refers to projected growth in the City as it occurs in the future, the commenter apparently wants any reference to growth within the City to refer to the General Plan projections. That is not necessary or clarifies the cumulative analysis to any great degree, and appears merely to be argumentative on the wording of the section rather than the analysis or conclusions reached. The WLC site is relatively isolated hydrologically due to the presence of SR-60 and Gilman Springs Road immediately upstream of the site. Therefore no regional development will substantially affect drainage onto the WLC site in the future. In addition the project hydrology report demonstrates the WLC project will not have significant drainage impacts on downstream properties in the future.

Response to Comment F-8-98. The commenter states the EIR cumulative analysis for hydrology restates the project impact analysis. It must first be remembered this is a programmatic document, and future specific development will have its own project-level CEQA analysis. However, it is instructive to note the "project-level" analysis referred to by the commenter, and outlined in Section 4.9 of the EIR, concludes the WLC project may have significant impacts but provides mitigation, based on accepted regulatory programs and best management practices, to eliminate those impacts. The EIR then assumes that other (cumulative) development projects will be required to mitigate their own project-level impacts to less than significant levels by similar methods. Looking at development across the entire region, it is also reasonable to assume if each future development must mitigate its own impacts to less than significant, and this is monitored by federal and state regulatory agencies, the cumulative impacts to hydrology and water quality will similarly be less than significant. Therefore there is no need for addition cumulative analysis on a project that will not contribute to any cumulative impacts.

Response to Comment F-8-99. The commenter explains that a project's individual impacts do not affect its cumulative impacts. The DEIR did examine potential regional impacts of development of the WLC site in light of planned or future development in the surrounding region. The commenter

provides no empirical evidence that the project will actually have a cumulatively considerable impact on area hydrology or water quality.

Response to Comment F-8-100. The commenter explains how cumulative impacts should be determined. Section 4.9.7 of the EIR did evaluate potential cumulative impacts of the WLC project, and Responses to Comments F-8-96 through F-8-99 above attempt to clarify this analysis and the DEIR conclusions.

Response to Comment F-8-101. The commenter expresses concern about the EIR's analysis of cumulative wastewater impacts similar to Responses to Comments F-8-96 through F-8-99 regarding water resources. The commenter also asks whether the City's projections for the Moreno Valley Regional Water Reclamation Facility will have sufficient wastewater treatment capacity for future development. The City has reviewed the land uses proposed in the WLC project and the potential wastewater generation will be considerably less than anticipated under existing land use and zoning designations (i.e. Moreno Highlands Specific Plan) which were included in the City's plans for long-range wastewater service within its service boundaries so the lower wastewater generation rates of logistics and warehousing uses under the WLCSP can easily be accommodated with anticipated increases in wastewater treatment planned by the City. The City's capital improvement program typically includes these types of specific improvements only 5 years in the future and additional improvements are scheduled as needed for at least 5 years in the future.

Response to Comment F-8-102. The commenter warns the WLC project alone may not trigger wastewater expansion or significant impacts regarding wastewater treatment, but the WLC project, in conjunction with other development, could have cumulative impacts. As pointed out in Response to Comment F-8-101, the City has anticipated growth within its service area and has planned improvements to its treatment facilities to accommodate planned growth. Since the WLC project would generate substantially less wastewater than uses under the current General Plan (i.e., Moreno Highlands Specific Plan), which formed the basis for determining needed wastewater treatment facilities the WLC project would not make a significant contribution to cumulatively considerable impacts to regional wastewater services.

Response to Comment F-8-103. The DEIR does evaluate the cumulative impacts of the proposed project in Sections 4.1-4.16 for each environmental topic that was analyzed. Refer to Responses to Comments F-8-96 through F-8-98, F-8-101, and F-8-102.

Response to Comment F-8-104. The commenter states the EIR has not identified any specific growth-inducing impacts of the project. In fact, Section 5.3 describes the growth-inducing effects of the WLC project, while Section 4.13, *Population, Housing, and Employment*, provide project-specific projections as to the fiscal and employment benefits of the project, while indicating why housing or population impacts of the project would be less than significant. Since the DEIR demonstrates there are no significant adverse population or housing impacts from the WLC project, it would be overly speculative to try to evaluate potential indirect and incremental environmental impacts of this potential growth on the City or surrounding communities.

Response to Comment F-8-105. The commenter contests the EIR's assertion that any additional housing needed to support the WLC project would be consistent with planned growth. In one way the commenter is correct, the proposed WLC project would not be consistent with current housing or population growth predictions because it would substitute industrial warehousing for planned residential and mixed use development, and would substantially reduce the amount of land available for future housing within the City. DEIR Section 4.13, *Population, Housing, and Employment*, indicates why this change would be beneficial to the City (i.e., large shift in the jobs/housing ratio of the City). There may be some indirect induced growth over a long period of time as the WLC project builds out, however, it would be overly speculative to try to estimate that growth.

First, the City currently has a high unemployment rate, so it is likely that many of the first jobs produced by the WLC project would go to unemployed City residents as well as unemployed workers in other nearby communities (e.g., Redlands, Riverside, Perris, etc.). Second, the City's General Plan indicates future (anticipated) growth of 6,169 houses over the next 8 years, which would absorb many of the new jobs generated by the WLC project. For example, the WLC project would be developed in lieu of the approved Moreno Highlands Specific Plan (MHSP), which could have introduced 7,736 dwelling units and 17,019 new residents into the City over the next 20 years or so. Development of the WLCSP would supplant that planned growth, so it is not likely the WLC project would induce substantial new residential growth over that anticipated by the MHSP. Finally, it is possible the project would generate some need for additional housing at some point in the future, but it is overly speculative to estimate specifically how much because of the many variables involved in future residential development (e.g., actual phasing of WLC development and local housing development, the availability of vacant land for housing, future development costs, etc.). Therefore, the DEIR concluded that population and housing impacts of the WLC project would be less than significant (in fact would substantially help the City's jobs/housing ratio), and Section 5 concluded the project would not induce substantial new growth of population or housing into the City.

Response to Comment F-8-106. The commenter says the EIR contradicts itself by saying the project does not require major extensions of existing infrastructure, but would result in the installation of considerable infrastructure. The commenter has interpreted the statements incorrectly. The DEIR correctly indicates that there is considerable existing infrastructure available adjacent to the WLC site, mainly due to the presence of existing development west of Redlands Boulevard and northeast of Eucalyptus and Redlands (i.e., Skechers). Due to the size of the project site, an extensive network of roads, pipelines, electrical lines, etc. must be constructed onsite to serve the new uses. However, in most cases, adequate infrastructure is available adjacent to the site to provide service capability (i.e., water supply, wastewater conveyance and treatment, electrical lines, etc.). So both statements are correct, but it will take careful coordination between future development, the City, and the various utility and service providers to make sure adequate services can continue to be provided as the area east of Redlands Boulevard is developed. The commenter must remember that this is a programmatic document, and cannot by its nature detail how specific utility connections and service provisions will be made until specific development proposals are brought forward in the future, with subsequent CEQA analysis tiered off this programmatic EIR.

Response to Comment F-8-107. The commenter believes the alternatives studied in the EIR are not a reasonable range and the objectives are drawn too tightly to comply with CEQA. The alternatives analysis in the EIR does in fact represent a reasonable range of alternatives, including several with reduced impacts. However, those alternatives must be evaluated in light of project objectives, which in this case are to create a regional logistics campus, improving the City's jobs/housing balance and providing financial benefits to the City. A plan of this scope and scale must by its very nature have broad and large objectives, some of which could not be met by much smaller or very different projects. Indeed, it would be very difficult for just about any project of this size (i.e., 2,600 acres) to substantially reduce the significant impacts identified for the proposed project except possibly for air quality (i.e., health risks from diesel particulate matter and toxic air contaminants from diesel exhaust). All of the other project alternatives propose land uses that would not produce as many truck-related air emissions (e.g., No project - Moreno Highlands Specific Plan, Less Intense Alternative, and Mixed Use Alternatives A and B) would also not fulfill the City's objectives. However, some would produce substantially more vehicular traffic and would not introduce nearly as much employment as the proposed project which helps improve the City's jobs/housing balance.

In addition, satisfying the market demand for warehousing, maximizing employment opportunities, and improving the jobs/housing imbalance, all in the context of supporting the City's Economic Development Action Plan, are important, indeed fundamental objectives. See FEIR Volume 1 Response to Comments Section 1.5.1 for 2011 and 2013 Economic Development Action Plan

objectives related to the WLC. The comparison of the environmentally superior alternative, the reduced density alternative, as shown in Table 6.T of the DEIR demonstrates the objectives are not as fully met by the reduced density alternative. However it will be up to the City Council to determine if the benefits of the proposed project outweigh its detriments.

Response to Comment F-8-108. The commenter has quoted only a portion of the project's objectives and has omitted those which set forth the City's desired economic objectives, particularly those which seek to increase the number of jobs within the City and to improve the City's jobs/housing balance. See the full set of objectives at DEIR page 3-73 and the discussion of the City's housing and employment situation in DEIR Section 4.13.1. Also see Responses to Comments F-7A-68., F-8-107, and F-8-111.

Response to Comment F-8-109. Any site location not in the City would not allow the City to derive project benefits as outlined in the project objectives. See Responses to Comments F-8-108 and F-8-111.

Response to Comment F-8-110. The commenter suggested alternative sites be studied in more detail or be classified as alternatives considered but rejected. The various alternative sites were evaluated to the degree necessary to determine if any would reduce or eliminate one or more significant impacts of the proposed project, which are their purpose. Whether they remained within the body of the alternatives analysis or were moved to the section mentioned by the commenter, the conclusion would still be the same, there are no feasible alternative sites in the general project area that could support the WLC project as proposed, or that would substantially reduce or eliminate one or more significant impacts of the proposed project due to a different location. As discussed previously, this is due mainly to the size and nature of the proposed project with its need for freeway access. See Responses to Comments F-8-108 and F-8-68.

Response to Comment F-8-111. The commenter believes the project objectives are only those of the developer. In fact, the twelve objectives are a combination of private and public interests, as follows:

- "Create substantial employment opportunities for the citizens of Moreno Valley and surrounding communities" (Objective #1);
- "Provide the land use designation and infrastructure plan necessary to meet current market demands and to support the City's Economic Development Action Plan" (Objective #2);
- "Establish design standards and development guidelines to ensure a consistent and attractive appearance throughout the entire project" (Objective #4);
- "Create a project that will provide a balanced approach to the City's responsibilities of fiscal viability, economic expansion, and environmental integrity" (Objective #7); and
- "Significantly improve the City's jobs/housing balance and help reduce unemployment within the City" (Objective #10).

These clearly show the objectives embody both public and private goals for the WLC project. See FEIR Volume 1 Response to Comments Section 1.5.1 for all 2011 and 2013 Economic Development Action Plan objectives related to the WLC. The EIR used the ability of an alternative site to accommodate the proposed project, and the significant impacts of the proposed project, as the two main factors to evaluate alternative sites.

Response to Comment F-8-112. Response F-8-111 above has demonstrated the project objectives are not narrowly drawn but include a wide range of both public and private goals for the project. The

EIR has provided an evaluation of alternatives and alternative sites consistent with the intent and requirements of CEQA.

Response to Comment F-8-113. The alternatives analysis did identify several alternatives to the project that would lessen some of the significant environmental impacts of the WLC project. However, it must be remembered that any development project of this size would create significant environmental impacts, including air quality, traffic, noise, etc. For example, under the current South Coast Air Quality Management District thresholds, only an alternative that was substantially smaller (i.e., less than 2.5 percent or 1 million square feet) of warehousing would have less than significant air quality impacts. This drawback of the project size was discussed in the introduction to the alternatives section. As shown in Table 6.S, Alternative 1 (Less Intense Development) and Alternative 3 (Mixed Use B) both reduce air quality, greenhouse gas, and noise impacts of the proposed project, but not to less than significant levels mainly due to the size of the alternative land use plans. Any substantial development project on the WLC property that produces a large amount of new employment (e.g., office, commercial, light industrial) would result in a number of significant impacts such as traffic, air quality, noise, etc., many of which would be similar to those of the proposed WLC project, including truck exhaust pollution issues which would also be generated by light industrial and commercial uses.

Response to Comment F-8-114. The commenter states that Alternative 2 (Mixed Use A) is a "straw man" alternative that was developed just to be rejected as having more impacts. In fact, it is difficult to craft a reasonable alternative for such a large project site that generates large amounts of employment without generating many significant impacts as well. For example, the result of trying to reduce truck-related impacts (i.e., health risks from diesel air pollutants) is that other types of non-residential land uses generate employment but also generate large amounts of vehicular traffic, especially during peak hours (e.g., commercial, office, light industrial). From any kind of development on a site of this size, there would be potentially significant impacts associated with hydrology and water quality, utilities, public services, traffic, air quality, noise, etc. Even allowing all low intensity residential uses on the site would create significant traffic and air quality impacts, as indicated in Section 6.2.1, *Alternatives Considered But Not Carried Forward For Detailed Analysis - All Residential Uses.*

Response to Comment F-8-115. The commenter objects to Alternative 3, which is similar to the Moreno Highlands Specific Plan (MHSP) but replaces 603 acres of commercial uses with logistics warehousing. This alternative was an attempt to develop an alternative that substantially reduced the amount of logistics warehousing (603 acres instead of 2,610 acres or less than a quarter of the WLC project) to generate employment while trying to reduce truck-related impacts of traffic and air quality (health risks). However, the residential uses of the MHSP end up generating a large amount of vehicular (car) traffic, so the significant impacts are not eliminated except for truck-related emissions. As explained in Response to Comment F-8-114 above, it is difficult for any development alternative on a site the size of the WLC property not to generate a number of significant impacts. However, it is reasonable to assume that an alternative with mainly residential uses (1- and 2-story houses) with over 75 percent less warehouses would have substantially less visual impacts than the proposed WLC project. Lower and fewer buildings would very likely reduce potential visual impacts along SR-60 to less than significant levels, but obviously that would depend on the location of the warehouse buildings.

Response to Comment F-8-116. The commenter states the Reduced Density Alternative 1 must be on a smaller footprint of land to reduce significant impacts. A reduced density alternative, unless it was reduced less than 2.5 percent the size of the proposed WLC project, would not reduce the significant air quality impacts, although it would reduce most of the other impacts of the project to less than significant levels. A project that small would only occupy 65 acres or less, so the question would still remain what development would occur on the remaining 2,545 acres, and what impacts that development would have. Certainly a reduced footprint would help reduce some of the indirect

impacts identified in the EIR related to the San Jacinto Wildlife Area (SJWA), but those were not determined to be significant impacts, so they are not addressed in the development of alternatives. The EIR has also determined that continued agriculture is not a viable long-term land use for the project site, so creating a large buffer of agricultural land around the site, or even just on the southern end, would still result in development of some type of land use on the buffer land unless the state or some other entity were to purchase the vacant "buffer" land to add to the SJWA.

Response to Comment F-8-117. The commenter has misunderstood the project's application to the San Jacinto Wildlife Area. The only project actions which affect the CDFW Conservation Buffer Area, the northern most portion of the San Jacinto Wildlife Area, are the General Plan Amendment and rezoning which change the designation of the CDFW Conservation Buffer Area from residential to open space. Also, please see the Responses to Comments F-7A-67 and F-8-108.

Response to Comment F-8-118. The commenter summarizes several issues about the alternatives. A reduced footprint alternative would reduce greenhouse gas emissions, but the drawbacks of a reduced footprint alternative also discussed in Response to Comment F-8-116.

The DEIR Section 6.0 Alternatives does evaluate a Reduced Density Alternative, *Section 6.3.6 Alternative 1: Reduced Density*. This alternative assumes a 28 percent reduction in building square footage, 41.6 million square feet vs 29 million square feet. The analysis concludes with this reduction many of the impacts remain significant and unavoidable. Further reduction in density would not achieve the fundamental project objectives of maximizing employment opportunities, improving the jobs/housing imbalance, and supporting the City's Economic Development Action Plan. See FEIR Volume 1 Response to Comments Section 1.5.1 for 2011 and 2013 Economic Development Action Plan objectives related to the WLC. Agriculture is not a viable land use because of housing affordability in the region, rising cost of land, competition from other regions, and volatile water allocations. The agricultural quality of the WLC site is quite low. It has been planned and zoned for development for over 20 years. See the discussion in the DEIR at pages 4.2-13 and -19. Section 5.F of the revised TIA (FEIR Volume 2, Appendix L-1) discusses the possibility of having rail service serve the project and concludes that it is infeasible. Also, please see the Responses to Comments F-7A-67 and F-7A-68.

The DEIR did include several alternatives that substantially reduced truck traffic to and from the project site (Mixed Use A and B = Alternatives 2 and 3), and Responses to Comments F-8-114 and F-8-115 in this letter address drawbacks of Alternatives 2 and 3.

The revised DEIR and TIA (FEIR Volume 2, Appendix L-1) includes a study on the use of rail to reduce truck traffic. The conclusion is rail is not a viable option for several reasons, primarily due to physical constraints of rail access to the project (grade, impacts to existing developed areas) and rail is not economically viable until transports exceed 500 miles. The majority of the demand for goods and products occur within the southern California region, well under the 500 mile threshold. In addition, Response to Comment F-3-5 from Letter F-3 explains why rail service is infeasible to the WLC project site, and would result in additional environmental impacts were it to be extended to the site.

Response to Comment F-8-119. The commenter states the EIR must develop an environmentally superior alternatives. The EIR did identify the Reduced Density Alternative as environmentally superior to the proposed project. However, it was rejected as it did not meet the project objectives to nearly the degree as the proposed project. The discussion in Responses to Comments F-8-107 through F-8-119 above in this letter explain why it is difficult to develop an alternative on a site the size of the WLC property that generates substantial employment but does not generate many significant environmental impacts as well.

Response to Comment F-8-120. The commenter states the EIR must be recirculated. The commenter's CEQA citations are correct, but the conclusion drawn is incorrect. While a lot of additional information has been generated subsequent to circulation of the DEIR, mainly in response to the many comments on the EIR, none of the additional analysis or responses has indicated the project will have any substantially different or new significant impacts than those identified in the DEIR. Therefore, a FEIR has been prepared with extensive response to comments, and the public and City Council will be provided adequate time to review the responses before a decision is made on the project. Also, please see the Response to Comment F-7A-11.

Response to Comment F-8-121. The commenter states that State Planning and Zoning Law requires that development decisions be consistent with the jurisdiction's general plan and goes on to cite court cases to that effect. Because to the reasons stated by the commenter her opinion is the project is not consistent with the City's current General Plan and approval of the project would violate State law. The analysis in the EIR actually indicates the project is generally consistent with the General Plan current goals, policies and objectives, but the proposed project includes a General Plan Amendment that will assure the WLC project and General Plan are consistent with each other. DEIR Section 3.5, *General Plan Amendment*, in the project Description outlines changes to various elements of the General Plan. If the project is to be approved, the General Plan Amendment will also need to be approved so the two plans are consistent with each other.

Response to Comment F-8-122. The commenter states the City's General Plan is legally inadequate because if contains a statement that the provisions of specific plans take precedence over provisions of the General Plan to the extent the two documents are inconsistent. Because of this general Plan inadequacy implicates this project cannot be lawfully approved. However, the City Council, which is responsible for approving the City's General Plan, can determine that the Specific Plan is generally consistent with the General Plan in that it complies with the overall intent of the General Plan, yet contains details or aspects that are not fully consistent with the current General Plan and must therefore process a General Plan Amendment to make the two planning documents consistent with each other. If this is done, the Specific Plan would be consistent with the state planning laws cited by the commenter. It will be the purview to the City Council to approve or deny the proposed project and they will have to make findings as to the proposed project consistency with the City's General Plan.

Response to Comment F-8-123. It is the commenter's opinion the EIR is deficient, does not comply with the General Plan, and must be recirculated. The EIR is consistent with the goals and requirements of CEQA, has provided the decision-makers with sufficient objective information upon which to make an informed decision, and the WLCSP will be consistent with the City's General Plan if the proposed General Plan Amendment is approved as part of the project entitlements. After careful review of all the additional information provided in response to comments on the DEIR, none of the additional analysis or responses has indicated the project will have any substantially different or new significant impacts than those identified in the DEIR. Therefore, a FEIR has been prepared with extensive response to comments, and the public and City Council will be provided adequate time to review the responses before a decision is made on the project.

Letter F-9A: Sierra Club, Sierra Club, Center for Community Action and Environmental Justice, and Natural Resources Defense Council (April 8, 2013) and Appendix 1 (on Flash Drive)

Letter F-9A

April 8, 2013

Mark Gross
Senior Planner
14177 Frederick Street
Moreno Valley, CA 92553
planning@moval.org

Re: World Logistics Center Project Draft Environmental Impact Report (SCH #2012021045)

Dear Mr. Gross:

On behalf of the Sierra Club, Center for Community Action & Environmental Justice, and the Natural Resources Defense Council, we provide comments on the World Logistics Center Project Draft Environmental Impact Report ("EIR"). We appreciate the opportunity to provide comments on the EIR for the World Logistics Center Project ("WLC" or "Project"). Given the inevitable regional and acute local impacts of the proposed Project, it is especially important that the EIR contain the necessary analysis to enable both the decision makers and the public to understand the significant environmental repercussions of this Project. Additionally, it is also critical that the EIR compare the proposed Project to other possible alternatives. Instead, the EIR effectively disguises the true impacts of the Project by omitting crucial information, underestimating many environmental impacts and ignoring others altogether. 1

Overall, this project, which is planned to be the largest master planned warehousing development in the world, will exact a large toll on the environment and public health even under the favorable assumptions used in the EIR. For example, the EIR concedes the Project will interfere with the Air Quality Management Plan, which is the region's roadmap for clean air. As we fight to meet air quality standards, these types of projects, which emit thousands upon thousands of pounds of pollution a day must not be approved, until and unless they comply with clean air plans and adopt **ALL** feasible mitigation measures. And, as articulated below, the full extent of the impacts is not even articulated in the EIR. 2

By way of example, the EIR dramatically underestimates by 50% to 100% the number of trucks that will serve this Project. Since the number of trucks serves as the lynchpin to several analyses in the EIR (i.e. air quality, traffic, noise, etc), this flaw demands that the analysis be revised. Underestimating the level of truck traffic expected for this Project does a disservice to the public and decision-makers. 3

It effectively masks the extent and challenges this Project will exact on the region and local communities. . 3

As a result of the EIR's inadequacies, there can be no meaningful public review of the Project. CEQA accordingly requires the City to prepare and circulate a revised EIR to permit a complete understanding of the environmental issues at stake, if its wishes to pursue this project. 4

I. The Proposed Project will have an Indelible Impact on Adjacent Communities and the Region in General.

The health impacts and regional air quality impacts from freight activities are well documented. Of all listed Toxic Air Contaminants identified by the California Air Resources Board ("CARB"), diesel particulate matter ("DPM") is known to present the greatest health risks to Californians.[1] Dozens of studies have shown adverse impacts from DPM and Oxides of Nitrogen ("NO_x") including respiratory disease, cardiovascular mortality, cancer, and reproductive effects as well as an increase in regional smog and water contamination. CARB has determined that diesel exhaust is responsible for over 70% of the risk from breathing our air statewide and in the South Coast Air Basin ("SCAB").[2] Further, the South Coast Air Quality Management District ("SCAQMD") in the Multiple Air Toxics Exposure Study III ("MATES III") "indicate[ed] that diesel exhaust is the major contributor to air toxics risk, accounting on average for about 84% of the total" risk from breathing air toxics."[3]

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Residents in Inland Empire communities will undoubtedly face additional impacts due to the increased pollution from this Project. For sensitive populations, such as children and the elderly, and for those who live and work in close proximity to these major sources of diesel exhaust, the risk will be even higher.

In recent years, environmental health researchers have firmly established the linkage between air pollution exposure and a range of negative health outcomes, including slowed lung growth rates in children (Gauderman et al Cohort C, Cohort D papers), exacerbation of existing respiratory disease (McConnell et al EHP bronchitis/asthmatic paper), increased absences from school due to respiratory illness (Gilliland et al CHS absences paper), and increased mortality. The following charts display the troubling findings of the impacts of air pollution on

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[1] CARB, *Emissions Reduction Plan for Ports and Goods Movement in California*, 7 (2006)(hereinafter "ERP").
[2] ERP, at 7.
[3] SCAQMD, Multiple Air Toxics Exposure Study for the South Coast Air Basin-III, at ES-3 (September, 2008) *available at http://www.aqmd.gov/prdas/matesIII/Final/Document/ab-MATESIIIExecutiveSummary-Final92008.pdf* (hereinafter "MATES III").

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health of residents in the Inland Empire, including our most vulnerable populations, children.

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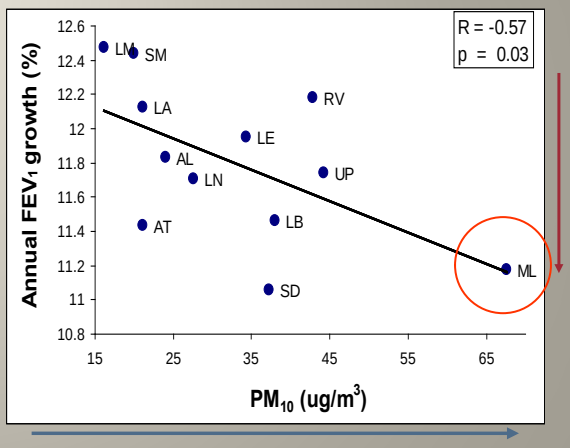
USC Children's Health Study

- University of Southern California (USC), Children's Health Study found children in the Mira Loma area to have the **slowest lung growth** and **weakest lung capacity**.[2]



2"Association Between Air Pollution and Lung Function Growth in Southern California Children", American Journal of Respiratory and Critical Care Medicine; Gauderman, W. James; McConnell Rob; et al, Department of Preventive Medicine, University of Southern California School of Medicine, Los Angeles.

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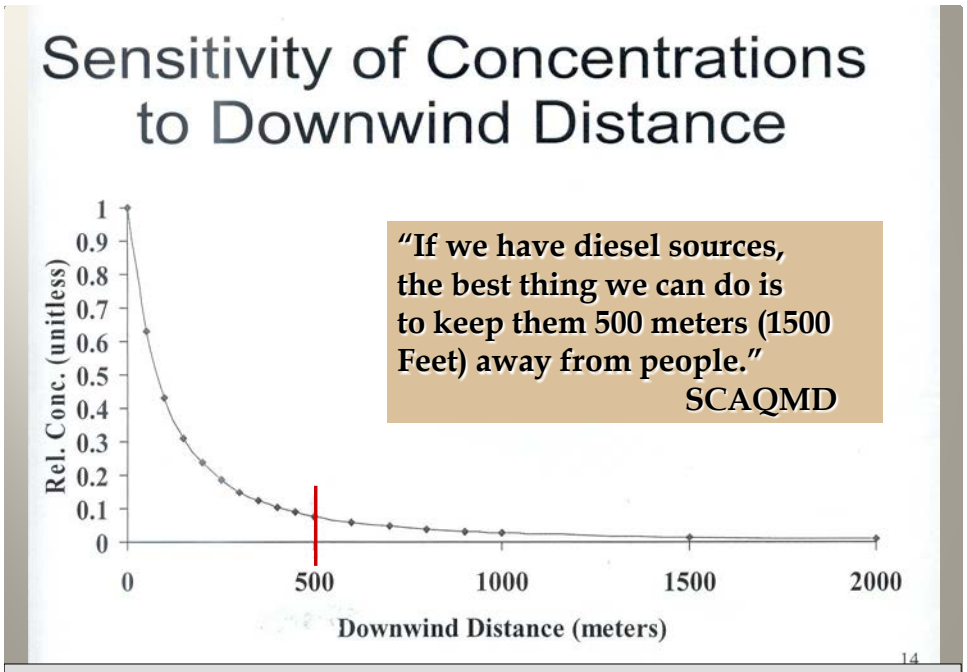

SCAQMD "Mira Loma Specific Air Management Project", 2002. Presentation by Mike Nazemi before the Mira Loma Community Committee. August 29, 2002.

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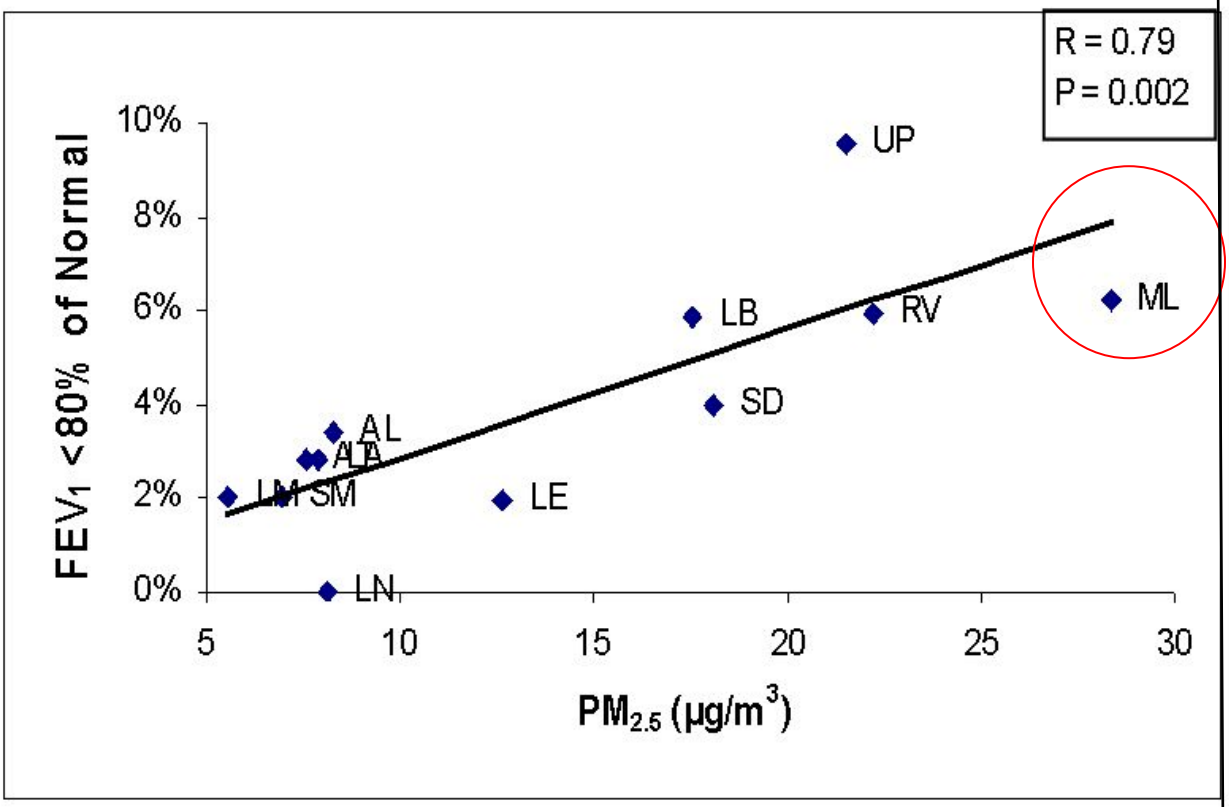

South Coast Air Quality Management District, "Multiple Air Toxics Exposure Study in the South Coast Air Basin" (MATES II Study), March 2000.

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In addition to the large impacts on residents and workers closest to the sources of emissions, distribution center operations pose a particularly acute threat to regional air quality. The area where the proposed project is located, consistently ranks near the top of the list for the nation's most polluted air.[4] Freight transport, including the operations culminating in the Inland Empire, greatly contributes to the persistent failure of the South Coast Air Basin ("SCAB") to meet federal and state clean air standards established by the Environmental Protection Agency. Without all feasible mitigation, the SCAB could fail to achieve the federal annual PM2.5 standard by 2014, the 8-hour ozone standard by 2024, and other air quality standards. This project proposes to add additional pollution that would not have occurred if the project was not built. Against this backdrop, there are several deficiencies in the EIR that must be addressed. 6

II. The EIR Provides Inadequate Analysis of and Mitigation For the Project's Traffic Impacts.

There are a number of important flaws in the transportation and traffic section of the EIR. As such, further study must be undertaken to properly identify, analyze, and mitigate the traffic impacts of the proposed Project. 7

CEQA requires that all adverse and significant traffic impacts be properly disclosed, analyzed and, where feasible, mitigated. Until these various issues and concerns are addressed, there is substantial evidence that the proposed Project may have adverse traffic impacts, and these impacts have not been properly disclosed, analyzed, or mitigated. According, the Draft EIR for the WLC must be revised and recirculated.

Most of these concerns are discussed at length in the Review of the EIR for the World Logistics Center prepared by Mr. Tom Brohard for NRDC ("Brohard Letter"). Mr. Brohard is a Professional Civil Engineer in both California and Hawaii and a Professional Traffic Engineer in California. He has over 40 years of engineering experience. His report is attached to this Letter as Exhibit A and incorporated herein by reference. The EIR and its technical studies should be revised to address the flaws identified by Mr. Brohard. Below are some particularly salient points from the Brohard Letter. 8

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[4] *See* AMERICAN LUNG ASSOCIATION, STATE OF THE AIR 2012 12-17 (2012), *available at* http://www.stateoftheair.org/2012/assets/state-of-the-air2012.pdf. San Bernardino and Riverside Counties rank first and second, respectively, as the most ozone-polluted counties nationwide. *Id.* at 17. San Bernardino and Riverside are also among the most polluted counties by year-round particle pollution (annual PM2.5), ranking ninth and fourth respectively nationwide. *Id.* at 16.

a. The EIR Uses an Improper Baseline.

As outlined in Exhibit A, the traffic analysis uses a faulty baseline. In particular, the EIR and its TIA analysis contain three critical flaws in this regard. First, the EIR fails to adjust upward for 2011 traffic counts.[5] Second, the EIR and TIA fail to adjust for seasonal fluctuations.[6] Finally, the EIR does not indicate if there were adjustments made to convert trucks to passenger car equivalents.[7] 9

b. Direct and Cumulative Impacts are Incorrectly Identified.

The Brohard Letter identifies more than three pages of examples where direct traffic impacts are not disclosed in the EIR.[8] With more than 50 additional direct project traffic impacts not revealed in the EIR, this precludes a proper analysis of the major traffic impacts from this Project. Also, by failing to disclose these impacts properly, the EIR forecloses analysis of proper mitigation for these intersections where traffic will be degraded. 10

c. The EIR Dramatically Underestimates Truck Traffic.

As articulated in the Brohard Letter, truck trips are underestimated for this Project.[9] Of particular importance, even using the favorable assumptions from the NAIOP study, this estimate of daily passenger car equivalents is underestimated by 14,281.[10] Thus, the EIR fails to disclose the true extent to the major traffic impacts imposed by this Project. 11

d. The EIR Ignores Several Feasible Measures That Would Mitigate the Project's Traffic Impacts.

There are many problems with the mitigation measures for this Project. The Brohard letter has identified several mitigation measures that should be implemented to reduce the impacts of this Project.[11] Also, the EIR proposes no mitigation measures for 2017 or 2022.[12] Since there are significant project impacts in this timeframe, CEQA requires the adoption of all feasible mitigation measures to reduce significant impacts like traffic impacts or if there is substantial evidence 12

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[5] Brohard Letter, at 2-3.
[6] Brohard Letter, at 2-3.
[7] Brohard Letter, at 3.
[8] Brohard Letter, at 6-10.
[9] Brohard Letter, at 5.
[10] Brohard Letter, at 6.
[11] Brohard Letter, at 11-12.
[12] Brohard Letter, at 11.

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as to why the mitigation measures are infeasible.[13] And even the mitigation offered is flawed. For example, the Brohard Letter identifies flaws with the mitigation measures on pages 13-14. Most importantly, the Brohard Letter identifies that many of the mitigation measures will not be implemented in a timely fashion. 12

III. The DEIR Provides Inadequate Analysis of and Mitigation For the Air Quality Impacts.

The air quality analysis suffers many flaws that render it incapable of informing public decisions on the merits of this Project. In particular, the EIR underestimates emissions from this Project. Three assumptions create this underestimation, including a) underestimating trip generation numbers, b) underestimating the percentage of trucks associated with the Project, and c) underestimating trip lengths for both autos and trucks. 13

a. The EIR Uses Faulty Trip Generation Numbers.

Trip generation assumptions are of paramount importance in accurately disclosing the environmental impacts of a project. The trip generation numbers are artificially deflated for this Project, which underestimates the air quality impacts from this project. In particular, the EIR's Air Quality Analysis uses a trip generation number based not on ITE Trip Generation Manual, but rather discounted based on the NAIOP study.[14] The EIR also relies on guidance from SCAQMD, which is reproduced in Exhibit B to this comment letter.[15] The guidance relied upon in pertinent part, states – 14

> In order to avoid underestimating the number of trips associated with large warehouse / distribution center operations without rail service, AQMD staff recommends that lead agencies utilize a rate of 2.59 trips per TSF for large warehouse air quality analyses on a project specific basis. The value of 2.59 from the nationwide dataset is preferable instead of the SCAB rate of 3.68 due to the greater reliability of data based on the larger sample size. For warehouses with rail service, a rate of 1.63 trips per TSF may be used. These values provide reasonable worst case default rates for individual new warehouses in the absence of more project-specific data. 15
>
> In the case that air quality is evaluated for multiple warehouses (>10), such as in an analysis for a general plan, the average rate of 1.44 trips per TSF from the ITE 8th Edition Trip Generation manual is acceptable. This lower value may be more appropriate as on

[13] Pub. Res. Code § 21081(a)(3).
[14] EIR, at 4.15-30.
[15] EIR, Appendix D, at 110.

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> average, a small portion of warehouses can be expected to operate at varying levels of service, including some warehouses experiencing temporary partial or complete vacancy.[16]

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The basis for using a lower trip generation than the rate of 2.59 recommended in SCAQMD's guidance is laid out in the case where 1) there is rail access or 2) "a small portion of warehouses can be expected to operate at varying levels of service, including some warehouses experiencing temporary partial or complete vacancy." Here, since there is no rail access, the project proponents presumably rely on the latter assumption related to more than 10 warehouses. However, the EIR does not contain sufficient analysis to demonstrate this trip generation number is appropriate. For example, the EIR and its studies fail to articulate the amount of temporary partial or complete vacancy that is expected at this complex. In fact, in Appendix O, which articulates the economic benefits of the operation of this facility, there does not anticipate "temporary partial or complete vacancy." To the extent the EIR anticipates that portions of this warehouse complex are presumed to lay vacant, these assumptions should be articulated in all relevant sections of the EIR (e.g. purpose and need section, economic analysis). Absent this justification, the Project should assume the higher trip generation from the ITE Trip Generation Manual for individual warehouse developments.

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b. The EIR uses Faulty Assumptions About Truck Trips as a Percentage of Total Trips.

Even if the trip generation numbers are based in reality, the EIR dramatically underestimates the percentage of trips that are by trucks.[17] As outlined in the Brohard Letter, the assumption that only 20% based on a 2003 Fontana Study of warehouse trips attributed to trucks is not supported by the record. In particular, three sources cut against use of this artificially low threshold.

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First, the SCAQMD recommends using a much higher truck assumption. In pertinent part, SCAQMD recommends –

> [i]n order to avoid underestimating the number of trucks visiting warehouse facilities, AQMD staff recommends that lead agencies conservatively assume that an average of 40% of total trips are truck trips [(0.48*10 + 0.2*4)/(10+4)=0.4)]. Without more project-specific data (such as detailed trip rates based on a known tenant schedule), this average rate of 40%

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[16] South Coast Air Quality Management District, CalEEMod, Appendix E, Technical Source Documentation, *available at* https://www.aqmd.gov/caleemod/doc/AppendixE.pdf (Exhibit B), at 15.
[17] EIR, at 4.15-32 (Table 4.15M).

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> provides a reasonably conservative value based on currently available data.[18]

The 40% recommendation is 100% higher than the 20% estimate used for this EIR. Despite claims by the EIR that the air quality analysis is conservative, this assumption renders the analysis completely indefensible because it undercuts the extent of emissions from this project. 17

Second, Appendix S to the TIA includes the December 20, 2011 NAIOP Truck Trip Generation Study of 31 high-cube warehouses larger than 500,000 square feet in size in the Inland Empire prepared by Kunzman Associates ("NAIOP Study").[19] This study indicates that 69.70 percent of the high-cube warehouse trips were made by cars and 30.21 percent of the high cube warehouse trips were made by trucks.[20] Even this study, which was relied upon in the EIR to provide justification for a much lower trip generation number than that in the ITE Trip Generation Manual, demonstrates that 20% of trips are attributed to trucks is an inappropriate estimate for high cube warehouses. If the EIR wishes to deviate from using this analysis, it must explain why it deviates from "[t]he 2011 NAIOP [study, which] provides the more accurate trip generation for the proposed project as the NAIOP study is the most comprehensive trip study performed for high-cube logistics warehouses."[21] 18

Third, the Peer Review of the NAIOP Study in Appendix T to the TIA Report states that "[b]ased on the study's small overall sample size and the fact that only one warehouse over 500,000 square feet was included in the analysis, the 2003 Fontana Study is not an appropriate source for vehicle/truck trip generation rates for modern high-cube warehouses uses larger than 500,000 square feet."[22] Thus, the record also includes evidence that the study in which the 20% truck share number is established is deeply flawed. 19

The dramatic underestimation of trucks is important because as the EIR concedes, "heavy-duty trucks have greater NOX, PM10, and PM2.5 emissions compared with automobiles."[23] This means that under a conservative assumption endorsed by the SCAQMD, the trucks are underestimated by 100% in the EIR. Even using the less conservative assumptions of the NAOIP study, trips from trucks in the EIR are underestimated by 50%. A particular flaw is the underrepresentation of heavy-heavy duty trucks, which under the 2003 are presumed to be only 12 percent of total trips, but the NAIOP study indicates heavy-heavy duty truck trips 20

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[18] Exhibit B, at 16.
[19] Brohard Letter, at 5.
[20] Brohard Letter, at 5; *see also* Appendix L, Appendix S, at 11.
[21] EIR, at 4.15-31.
[22] Brohard Letter, at 5; *see also* Appendix L, Appendix T, at 5-6.
[23] EIR, at 4.3-50.

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should be much greater than what this outdated study articulates. This underestimation renders the EIR incapable of informed decision-making because it underestimates the number of trucks by thousands. As a result of this analysis, the total emissions from the project are incorrect, in addition to the health risk assessment, which underreported health risk due to the failure to include 20

c. The Proposed Trip Lengths are Not Support in the EIR.

Also, of great concern, the EIR underestimates trip length for trucks using the proposed warehousing facilities. NRDC retained Dr. Alex Karner to look at the trip length assumptions in the EIR and associated technical studies. This memo summarizing his findings is located at Exhibit C to the attached comments. We incorporate this analysis by reference and ask that the EIR address the comments contained therein. As noted by Dr. Karner, small changes in assumptions can dramatically impact emissions. For example, a 55 average trip length, would increase the emissions compared to the current 50 mile trip length assumed in the EIR. 21

Dr. Karner's analysis indicates that the EIR fails include sufficient data to justify the 50 mile assumed trip length.[24] In particular, using the EIR assumptions, only 881 of the 14,683 truck trips associated with this project in 2022 would be from the Ports. This is less than 10% of the total number of port-related trips projected for the San Bernardino Valley in 2022, which is likely to be approximately 9,100.[25] This low level of port-related trips is curious, given the stated goal of this warehousing project to accommodate traffic to and from the Ports of Los Angeles and Long Beach. Given this likely underestimation of trip lengths, the emissions from the project will be understated as well. 22

d. The Construction Mitigation Measures Must be Improved.

The mitigation measures for construction are vague. We recommend that the construction mitigation comply with the following requirements: 23

The mitigation measures provided for construction activity are inadequate because they fail to fully address the diesel engines used by construction equipment, which are the largest construction related emission source. Construction related emissions from this project are estimated to exceed several important health and air quality thresholds including SCAQMD regional thresholds of significance for VOC, NOx, CO, PM10 and PM2.5; local thresholds for NO2, PM10 and PM2.5; and cancer risk.

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[24] EIR, Appendix D, at 120.
[25] Exhibit C, at 4.

While the plan calls for construction equipment to meet EPA Tier 4 emission standards in 2017 and thereafter, it continues to allow for interim tier 4 equipment that meets a particulate standard ten times less protective,[26] and allows for more polluting tier 3 equipment if the cleaner equipment is not easily available through a rental company.[27] This opens the door to widespread use of more polluting construction equipment despite the fact that tier 4 compliant construction equipment is already available and will be widely available beginning in 2014, the final U.S. EPA deadline for which it is required across the board.[28] 24

Of most concern is that prior to 2017, construction equipment is only required to meet U.S. EPA Tier 3 standards, which are similar to 1994 vintage truck standards and at least ten times more polluting than modern standards for both NOx and PM.[29] The WLC should adhere to the clean construction policies adopted by the Port of Los Angeles and by the Los Angeles County Metropolitan Transportation Authority ("LA METRO").[30] Both of these policies require construction equipment to meet Tier 4 standards no later than 2015 and require use of diesel particulate filters on all construction equipment that does not meet Tier 4 standards starting in 2011. Further, the policies also require all on-road trucks associated with construction to meet U.S. EPA 2007 emission standards by January 2014, all trucks carrying material such as debris or fill be fully covered; and that in any case where grid power is inaccessible and generators are utilized, they must meet 0.01 gram per brake-horsepower hour standard for PM or be equipped with best available control technology for PM, such as diesel particulate filters. All three of these important elements must be applied to this project. 25

We recommend a strict no idling policy on the construction site, applied to all vehicles – on- and off-road when they are not actively engaged in work on the 26

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[26] See diesel standards explained by dieselnet: http://www.dieselnet.com/standards/us/nonroad.php

[27] "Written verification of the Tier IV equipment search of three or more rental companies shall be provided by the project applicant to the City verifying the results of the search."

[28] Again, see dieselnet for more information on the phase in of interim and tier IV standards. Note that tier IV equipment phases in through 2015 only for the very largest engines, exceeding 750 horsepower and more typically used for mining, not construction. See Cummins for another helpful description of tier IV equipment and note a modest fuel savings in addition to major emission reductions associated with final tier IV equipment: http://cumminsengines.com/tier-4-final

[29] Compare standards at dieselnet.com.

[30] Port of Los Angeles Green Construction program, see page 160, http://www.portoflosangeles.org/CAAP/_2010_CAAP_UPDATE_FINAL.pdf
LA Metro Green Construction Policy, http://www.metro.net/projects_studies/sustainability/images/Green_Construction_Policy.pdf

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site. Additionally we recommend the use of electric and alternative fueled equipment where feasible. We support the remaining construction mitigation measures and best practices, including most notably that on site electrical hook ups for equipment will be provided, where feasible. We note that establishing access to grid power is an essential priority. 26

Finally, it is important for all nearby residents and sensitive sites such as schools, daycares and senior centers to be actively notified in advance of and during construction activities. 27

e. The Operational Mitigation Must Be Strengthened.

Mitigation for diesel trucks in the plan is grossly inadequate, especially considering that these trucks are by far the greatest source of pollution from the project with or without the mitigation package.[31] In fact emissions from diesel trucks in the mitigated scenario appear to be much less that the "worst case scenario" because credit is taken for a "project design feature" calling for 2010 and later model year trucks to serve the facility.[32] However, this specification is not included as mitigation nor is it made clear how it will be enforced or upheld. Diesel truck emission remain high even when the 2010 and later truck design feature is accounted for, comprising almost 3,000 pounds per day of NOx emissions or more than 90 percent of the project total; and over 120 pounds per day of PM2.5 emissions or 80 percent of the project total.[33] Not only should 2010 and newer diesel trucks be required as a minimum specific mitigation measure, the plan must go further to address this major source of pollution by adding the following mitigation measures: 28

- Require at least half of the trucks serving the facilities to be alternative fuel including, but not limited to electric and hydrogen fuel cell or hybrid vehicles. 29
- Require at least one quarter of trucks serving the facility to be zero-tailpipe emission vehicles; or that one quarter of goods delivered to the facility be conveyed by zero-tailpipe emission technology; and that the proportion of zero-tailpipe emission conveyance increase to fifty percent by 2020. 30

Although the plan fails to adequately address pollution from the largest source, diesel trucks, there are many other mitigation measures that we support. Several mitigations are helpful, pertaining to providing ample signage to keep 31

[31] See for example, tables 52 and 57 of Air Quality, Greenhouse Gas and Health Risk Assessment Report.
[32] See discussion on page 180, of Air Quality, Greenhouse Gas and Health Risk Assessment Report
[33] According to table 57 of the Air Quality, Greenhouse Gas and Health Risk Assessment Report.

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trucks on truck routes and off residential streets and curtailing unnecessary idling (MM AQ-6, a, b, and c). Similarly, MM AQ-6 i providing trucking services is helpful. Other measures in MM AQ-6 seem of little consequence as they encourage compliance with existing laws. For example, it is not clear what MM AQ-6 f and g encouraging SmartWay certified trucks add to the existing California regulations requiring SmartWay type efficiency measures for trucks. We support the commitment in MM AQ-6 h to provide onsite alternative fueling infrastructure in accordance with the Regional Transportation Plan zero/near-zero emissions truck corridor along State Route 60. However, this commitment does not go far enough, as the project itself should require utilization of zero and near-zero emission trucks, discussed above. 31

Many mitigation measures are focused on reducing passenger vehicle emissions, including bikeways, bike lockers and showers, pedestrian access and others; these are helpful measures, yet they do not provide significant reductions in pollution from the project (MM AQ-7). The last element of MM AQ-7 covering buffer zones addresses near project exposures, however, is of paramount importance. We strongly support the inclusion of buffer zones, but the measure as stated must be strengthened. The South Coast Air Quality Management District noted in its May 1, 2012 letter commenting on the Draft Specific Plan for the Project, that the setbacks described in the plan are inadequate to protect public health. We share the Air District's concern that certain areas with heavy duty diesel trucking activity (e.g. roadways and loading docks) may not have adequate setback distances from residential areas and seem to focus mainly on the buildings instead of the high traffic roadways and loading areas. The Air District also notes California Air Resources Board (CARB) guidance calling for a 1,000 foot setback between sensitive sites including housing and distribution centers receiving more than 100 truck trips per day or 40 trucks with refrigeration units. According to Exhibit 21, showing the project's incremental cancer risk with mitigation accounted for, an additional cancer risk of 10 per million appears to impact the residential area far beyond 1,000 feet of the project perimeter. Thus, a minimum setback of 1,000 feet as CARB recommends is essential. 32

Mitigation of pollution from transport refrigeration units (TRUs) and yard equipment such as hostlers and forklifts is entirely missing from the Plan. This type of equipment is universally associated with warehousing and therefore must be accounted for here and mitigated. We recommend the following additional mitigations: 33

- Forklifts, yard tractors, and other equipment at warehouses run steadily and never leave the site, which means their emissions accumulate nearby. All equipment should use electric battery or fuel cell engines. Where this is not possible, any remaining diesel equipment must employ the best available control technology to reduce emissions of PM and NOx, such as diesel particulate filters, cleaner fuels, and more efficient engines.

- Warehouse operators have the ability to minimize truckers' use of transport refrigeration units that rely on secondary diesel engines. WLC must provide electric hookups for refrigeration at each loading dock, minimizing the use of any diesel refrigeration units and ensuring that those that do remain in use meet the cleanest emissions standards (U.S. EPA Tier 4). Further, indoor warehouse space must provide ample storage for refrigerated goods passing through the facility to ensure that no refrigerated goods are stored in trailers or externally, requiring use of TRUs. 34

The **mitigation for greenhouse gas (GHG) emissions from this project** is also grossly inadequate. It seems that it is entirely focused on solid waste and recycling (MM AQ-8), despite the many other opportunities for GHG reduction measures. 35

We strongly support the addition of a mitigation measure requiring rooftop solar generation, as the Air District suggests in their above mentioned comment letter (5/1/12). However, this mitigation measure must be enforceable and clearly articulated in the EIR. The high cube warehouses will have ample roof space for photovoltaic panels or any other type of solar power generation, not only to meet the electrical needs of the facility itself but also to provide additional renewable power to California to help mitigate the transportation GHG impacts of the project. The Plan erroneously states that the project is not part of California's power generation grid and thus cannot contribute to the 33 percent Renewable Portfolio Standard. This is false because the project will utilize power from the California grid and could instead become a power generator contributing to the state's efforts to increase renewables and mitigating the project impacts. 36

All warehousing buildings on the site should be built to meet the standards of the Leadership in Energy and Environmental Design (LEED) Green Building Rating System.™ They should include energy efficient lighting, heating, and cooling measures as well as stormwater management, vegetative cover, and the use of locally sourced materials where possible.[34] Simply stating that the project will comply with California energy codes and other existing requirements does not constitute a mitigation measure. WLC can go far beyond what is required by law, significantly cutting GHG emissions by meeting LEED platinum standards for all the structures that are built. 37

f. The Project Proponent Should Provide Funding to Provide Clinics and Other Sensitive Site Mitigation to Reduce the Impacts from Warehouse Pollution. 38

[34] For information on LEED standards, see the U.S. Green Building Council: http://www.usgbc.org/DisplayPage.aspx?CategoryID=19.

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To avoid injury to public health, the project must mitigate its impacts through the reduction of emissions to as near zero as possible, and this comment letter offers numerous measures that should be used in pursuing that goal. Given that increases in pollution are likely even after these measures are implemented and given the lasting effects of pollution from the WLC, further mitigation is needed to address the extraordinary impact of this project on the respiratory health of communities near the proposed project and along the goods movement corridors that go to the proposed project. A mitigation fund controlled by the neighboring community should also be made available to help address some of the unmitigated impacts of this project, supporting the implementation of such measures as vegetation and other barriers, filtration devices and window upgrades for nearby buildings, and on-site air quality monitoring. The fund should be of ample size so as to cover indoor air filtration expenses for all nearby residents who request such filtration, buffer vegetation and landscaping, and a community air monitor if so desired, as well as sufficient funds to administer these programs. 38

Many residents of goods movement communities and workers at the ports have already suffered irreparable long term damage to their lungs – as noted earlier, diminished lung function in children generates lifelong health effects. The project proponent should fund the establishment of one or several medical facilities close to the project and along the route to the project dedicated to the respiratory and general health of the people most affected by these emissions. 39

Many of the goods movement adjacent neighborhoods in this region are heavily populated with low and moderate income families unable to afford health insurance. Similarly, while some workers in the warehousing industry earn relatively high wages with good benefits, thousands of others earn low wages with few or no benefits. 40

Thus, funding for clinics should be sufficient not only to construct appropriate facilities, but also include adequate support for operations so that two classes of patients – residents of the identified goods movement adjacent communities and warehouse workers can access the facility without out of pocket cost regardless of insurance status. 41

Finally, the project proponent needs to explore installation of air filtration system to protect residents from harmful levels of air pollution. The Port of Los Angeles agreed through the TraPac MOU to fund filtration systems in school in the vicinity of that project, and this Project should also include this type of mitigation. In addition, the Port of Long Beach through the Middle Harbor Redevelopment Project agreed to fund air filtration systems for schools and other sensitive sites. This mitigation must be part of the WLC project. 42

IV. The Analysis of Agricultural Impacts is Deeply Flawed.

The proposed project will have a large impact on loss of agricultural lands. In particular, the EIR provides absolutely no mitigation for the impacts of loss of agricultural land. In examining the potential of a fee to help offset the loss of agricultural land, the EIR summarily dismisses this potential because the fee was rejected during larger general plan discussions. Thus, the EIR does not engage in a project specific analysis of the feasibility of this type of measure. In particular, given the economic promises being made by the Project proponents in Appendix O, it is unclear why such a fee is infeasible. — 43

V. The DEIR/S Does Not Adequately Discuss Alternatives to the Proposed Project.

The analysis of alternatives to the proposed project lies at "[t]he core of an EIR."[35] In this analysis, the EIR must consider a reasonable range of alternatives that would avoid or substantially lessen this impact while feasibly attaining most of the Project's basic objectives.[36] If the EIR refuses to consider a reasonable range of alternatives or fails to support its analysis with substantial evidence, the purposes of CEQA are subverted and the EIR is legally inadequate.[37] If a feasible alternative exists that will meet the project's objectives while reducing or avoiding its significant environmental impacts, the project may not be approved.[38] — 44

The analysis of the alternatives throughout the document fails in this respect. In particular, the EIR has failed to examine an alternative with better access to rail and closer to the Ports.[39] As the SCAQMD has articulated, "[r]ail lines are expected to lower the truck trip rate by diverting the transportation of goods from trucks to trains that directly service the facility."[40] The EIR summarily notes that there are no alternative sites in surrounding areas.[41] By determining that the only feasible alternative site would include "a contiguous 2,635-acre site for 41 million square feet,"[42] the EIR fails to examine existing warehouse space and future land zoned industrial. For example, a recent SCAG report entitled *Industrial Space in Southern California* attached as Exhibit D demonstrates that there are other

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[35] *Citizens of Goleta Valley II*, 52 Cal. 3d at 564; *see also* Pub. Res. Code § 21002.1(a) ("The purpose of an environmental impact report is . . . . to identify alternatives to the project . . . .").
[36] *See* § 21100(b)(4); CEQA Guidelines § 15126.6(a).
[37] *San Joaquin Raptor*, 27 Cal. App. 4th at 735-38; *Kings County Farm Bureau*, 221 Cal. App. 3d at 736-37.
[38] Pub. Res. Code § 21002.
[39] Brohard Letter, at 15.
[40] Exhibit C, at 15.
[41] EIR, at 6-38.
[42] EIR, at 6-38.

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potential sites that could have been explored. For example, the report identifies 143 million ft^2 of available warehouse space.[43] In addition, it also identifies 186 million ft^2 of warehouse development potential in the region.[44] Surely, the cursory, unlawful analysis in the EIR would have benefited from a reasonable analysis of locations with better rail service and closer to regional centers to reduce truck trip length. The failure to consider a reasonable range of alternatives renders the EIR invalid. 46

VI. A Revised Draft EIR Must Be Prepared and Recirculated.

Because of the inadequacies discussed above, the draft EIR cannot form the basis of a final EIR. CEQA requires preparation and recirculation of a supplemental draft "[w]hen significant new information is added to an environmental impact report" after public review and comment on the earlier draft EIR.[45] The opportunity for meaningful public review of significant new information is essential "to test, assess, and evaluate the data and make an informed judgment as to the validity of the conclusions to be drawn therefrom."[46] An agency cannot simply release a draft report "that hedges on important environmental issues while deferring a more detailed analysis to the final [EIR] that is insulated from public review."[47] 47

In order to cure the panoply of EIR defects identified in this letter, the City must obtain substantial new information to adequately assess the proposed Project's environmental impacts, and to identify effective mitigation and alternatives capable of alleviating the Project's significant impacts. This new information will clearly necessitate recirculation. CEQA requires that the public have a meaningful opportunity to review and comment upon this significant new information in the form of a recirculated draft supplemental EIR.

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[43] Exhibit D, at 2-5.
[44] Exhibit D, at 2-11.
[45] Pub. Resources Code § 21092.1.
[46] *Sutter Sensible Planning, Inc. v. Sutter County Board of Supervisors*, 122 Cal. App. 3d 813, 822 (1981); *City of San Jose v. Great Oaks Water Co.*, 192 Cal. App. 3d 1005, 1017 (1987).
[47] *Mountain Lion Coalition v. California Fish and Game Comm'n*, 214 Cal.App.3d 1043, 1052 (1989).

We appreciate your consideration of our comments. While these comments solely focus on air quality, traffic and loss of agricultural space, we remain concerned about many other impacts articulated in comments from other organizations. Please feel free to contact us if you have any questions. 48

Sincerely,

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RESPONSES TO LETTER F-9A

Sierra Club, Center for Community Action and Environmental Justice, and Natural Resources Defense Council

Response to Comment F-9A-1. The commenter believes the Draft Environmental Impact Report (DEIR) does not contain sufficient information. The City disagrees and the DEIR does present accurate and adequate in the analysis in the original DEIR, plus the additional and revised analyses of these issues in the Final Environmental Impact Report (FEIR), and thus provides sufficient information upon which to make an informed decision.

Response to Comment F-9A-2. The commenter believes the EIR does not recommend all feasible mitigation for air quality and health risk impacts. The commenter is encouraged to review the project air quality study, which was extensively revised mainly in responding to the many comments on the DEIR (FEIR Volume 2, Appendix D). Section 1.6 of this FEIR (Volume 1) outlines the many changes that were made to the air study to provide more detailed information on health risks both on and off the World Logistics Center (WLC) property. The air study also contains revised mitigation measures to help further address these impacts.

Response to Comment F-9A-3. The commenter's statement is incorrect. Please see Responses to Comments F-9A-3, F-9A-17, 18, 19 and 20 and in Responses to Comments F-9B-13, 14, 15, 16, and 17. Please see the responses to those comments for a detailed discussion of why Comment F-9A-3 is incorrect.

Response to Comment F-9A-4. The commenter believes the EIR is inadequate, however, the EIR does present accurate and adequate analysis of the proposed project, plus the additional and revised analyses of these issues in the FEIR and revised technical studies as a result of responses to comments on the DEIR. Refer to Response to Comment F-7A-11 for a discussion on recirculation of the DEIR.

Response to Comment F-9A-5. The commenter discusses the potential health impacts related to exposures to diesel PM, including references to the University of Southern California (USC) Children's Health Study.

The health impacts from exposures to diesel particulate matter (PM) are discussed in the Master Response-2: Health Effects of Diesel Particulate Matter and in both the DEIR and the revised analysis and in Response to Comment E-3-7 on childhood risk

Response to Comment F-9A-6. The commenter indicates that regional air quality is poor in the Basin, freight transport contributes to the failure of the Basin to meet clean air standards, without mitigation, the Basin could fail to achieve the federal annual $PM_{2.5}$ standard by 2014, the 8-hour ozone standard by 2024, and other air quality standards.

As discussed in Master Response - 1, Changes to Air Quality, Greenhouse Gas, and Health Risk Assessment, and Response to Comments G-40-2 and G-49-3, air pollution levels in the South Coast Air Basin, and in particular the Inland Empire, have decreased in the past decade. One of the reasons for this decrease is principally the regulation of motor vehicle emissions. As shown in Master Response-3, heavy duty diesel NOx and PM emission standards have decreased over the past decade. Mitigation Measure (MM) 4.3.6.3B requires model year 2010 and later diesel trucks, which as shown in the figure below, would substantially reduce emissions of NOx and PM. The project is implementing feasible mitigation to reduce impacts including the use of Tier 4 off-road construction equipment, the cleanest diesel equipment required under current regulations. Please see the FEIR Mitigation Monitoring Reporting Program for a list of the project's mitigation measures.

Response to Comment F-9A-7. The comment makes reference to "various issues" that must be resolved before the project can be approved. The revised Traffic Impact Analysis (TIA) (FEIR Volume 2, Appendix L-1) does not show any new or increased impacts, therefore recirculation is not needed. See Response to Comment F-7A-11.

Response to Comment F-9A-8. The commenter wants their comments and those of Mr. Brohard's addressed. All of the comments submitted by the commenter, plus those of Mr. Brohard, have been addressed in this FEIR document.

Response to Comment F-9A-9. The commenter claims the TIA's baseline was improper in that it failed to adjust upward for 2011 traffic counts, failed to adjust for seasonal fluctuations, and that the EIR does not indicate if adjustments were made to convert trucks to passenger car equivalents.

Traffic counts were taken within a year of the Notice of Preparation and so no adjustment was necessary. Most of the counts were done in late 2011 while the Notice of Preparation came out in February 2012.

The TIA followed standard engineering practice which is to base the analysis on a "typical workday" which is defined as a Tuesday, Wednesday, or Thursday in a week when schools are open and no special weather or event affects normal traffic patterns.

An analysis was performed to determine if seasonality of traffic flows may be a significant factor that needs to be accounted for in the analysis. The monthly fluctuations in traffic flow on SR-60 in Moreno Valley were reviewed to determine if this was the case. The average daily traffic on SR-60 from 2011 was collected from Caltrans at the SR-60 Perris, Heacock, and Day interchanges and summarized by month (see in the TIA, FEIR, Volume 2, Appendix L-1). The average daily traffic for each individual month was calculated and compared to the annual average. The data showed that the monthly fluctuations in traffic were not consistent between interchanges; in months where the traffic volumes at one interchange were above the annual average while the adjacent interchange count location was below the annual average. For example, the lowest month of the year for the Perris interchange, January, was the highest month for the two nearby interchanges. In 10 out of 12 months the two count sites closest to the project (Perris Blvd. and Heacock Ave.) deviated in opposite directions from the annual average.

If this area were subject to seasonal peaking then the three interchange count locations would show similar peaking characteristics during any given month. The count data showed no such consistency; therefore, seasonal peaking of ambient traffic is not considered a significant factor for traffic analysis for the WLC (as illustrated in Table F-9A.A below).

A further analysis was performed to determine whether there may be significant seasonal peaking of truck traffic from the WLC that needs to be factored into the analysis. There are several reasons to believe that this will not occur:

- When it is fully operational the WLC is expected to have 15-to-25 different tenants from a variety of economic sectors; for example the National Association of Industrial and Office Properties (NAIOP) survey found tenants in the consumer goods, pharmaceuticals, automotive products, tools, office supply, home furnishings, and building materials sectors (study available online at: http://www.naiop.org/~/media/Research/Research/Research%20Reports/Logistics%20Trends%20and%20Specific%20Industries/LogisticsTrendsandIndustries.ashx). To the extent that these sectors have season peaks they occur at different times of the year and would tend to offset each other (i.e. a high period for one tenant may be a low period for the tenant next door). This is one reason why traffic on SR-60 itself does not display seasonal peaking.

- Furthermore, the commenter's belief that seasonal variation in truck traffic may pose significant impacts was premised on the commenter's erroneous over-estimate of the amount of truck traffic that will be generated by the WLC. To the extent that truck volumes will be smaller, the impact of any variations in truck traffic will also be smaller.

For these reasons, there is no basis for a presumption that seasonal peaking of truck traffic will create any significant impacts that have not already been identified using the trip generation rates from the Institute of Transportation Engineers (ITE) Trip Generation Manual.

Chapter 2, Section A the TIA includes a sub-section entitled Passenger Car Equivalents (PCEs) that explains in detail how PCEs were used in this study.

Table F-9A.A: Average Day Traffic at Three Interchanges Near the WLC

PeMS Detector	Location	Month												Annual Average
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
							Eastbound							
810316	Perris Interchange	24,384	25,778	26,924	27,960	29,080	29,893	30,759	31,544	31,587	31,522	31,468	31,477	
801407	Heacock Interchange	41,458	41,506	41,499	41,470	41,378	41,396	41,483	41,465	41,459	41,377	41,314	41,265	
801394	Day Interchange	57309	57222	57222	57180	57061	57628	58590	59254	59736	59130	58898	58894	
							Westbound							
801410	Perris Interchange	28,055	28,451	28,937	29,432	30,019	30,612	31,059	31,647	31,631	31,548	31,487	31,432	
801404	Heacock Interchange	39,994	39,791	39,653	39,532	39,301	39,216	39,207	39,138	39,038	38,914	38,800	38,590	
808945	Day Interchange	46370	45897	45400	44938	44296	43814	43524	43359	43236	43284	43141	43073	
							Both Directions							
801410	Perris Interchange	52,439	54,229	55,861	57,392	59,099	60,505	61,818	63,191	63,218	63,070	62,955	62,909	**59,724**
	Diff from Ave	***-7,285***	***-5,495***	***-3,863***	***-2,332***	***-625***	***781***	***2,094***	***3,467***	***3,494***	***3,346***	***3,231***	***3,185***	
	% Diff from Ave	***-12%***	***-9%***	***-6%***	***-4%***	***-1%***	***1%***	***4%***	***6%***	***6%***	***6%***	***5%***	***5%***	
801404	Heacock Interchange	81,452	81,297	81,152	81,002	80,679	80,612	80,690	80,603	80,497	80,291	80,114	79,855	**80,687**
	Diff from Ave	***765***	***610***	***465***	***315***	***-8***	***-75***	***3***	***-84***	***-190***	***-396***	***-573***	***-832***	
	% Diff from Ave	***0.9%***	***0.8%***	***0.6%***	***0.4%***	***0.0%***	***-0.1%***	***0.0%***	***-0.1%***	***-0.2%***	***-0.5%***	***-0.7%***	***-1.0%***	
801394	Day Interchange	103,679	103,119	102,622	102,118	101,357	101,442	102,114	102,613	102,972	102,414	102,039	101,967	**102,371**
	Diff from Ave	***1,308***	***748***	***251***	***-253***	***-1,014***	***-929***	***-257***	***242***	***601***	***43***	***-332***	***-404***	
	% Diff from Ave	***1.3%***	***0.7%***	***0.2%***	***-0.2%***	***-1.0%***	***-0.9%***	***-0.3%***	***0.2%***	***0.6%***	***0.0%***	***-0.3%***	***-0.4%***	

The lowest month of the year for the Perris IC was the highest month for the two nearest interchanges.

In 10 out of 12 months the two count sites deviated in opposite directions from the annual average; i.e. one was higher than the annual average and the other lower.

Response to Comment F-9A-10. The commenter appears to refer to the 52 impacts listed in Comment F-9B-20. Forty-seven, or 90%, of the 52 instances cited by the commenter occur in future-year scenarios where the addition of traffic from other development projects contributes to the level of congestion on the facility. Project impacts under these conditions were properly identified as "cumulative."

Of the remaining five, two (Intersections 123 and 132) were identified as direct project impacts in Table 77 of the TIA (renumbered as Table 73 in the revised TIA) entitled "Direct Impacts on Intersections and Mitigations Measures." The remaining three instances, freeway mainline section F-6 and weaving sections 25 east bound (EB) and 25 west bound (WB), were identified as a direct impacts in Table 78 of the TIA (renumbered as Table 74 in the revised TIA) entitled "Direct Impacts on Freeways and Mitigations."

Response to Comment F-9A-11. The commenter cites the attachment to their letter to advance a claim that trip generation rate used is too low and results in underreporting the air quality impact and health risk impacts. Please see the Responses to Comments F-9A-13 and F-9A-17.

Response to Comment F-9A-12. The commenter claims no mitigation measures were identified for 2017 or 2022, and refers to the attachment for details of other problems, such as the issue of timeliness of mitigation measures.

The claim that mitigation measures were not identified for 2017 and 2022 is not correct. The TIA (DEIR Appendix L) included:

- Table 39 describing the mitigation measures for the 2017 Plus project scenario for project road segments. The revised TIA (FEIR Volume 2, Appendix L-1) addresses Phase 1 in Year 2022, so all year 2017 analyses have been removed from the revised TIA.
- Table 41 describing the mitigation measures for the 2017 Plus project scenario for project intersections. The revised TIA (FEIR Volume 2, Appendix L-1) addresses Phase 1 in Year 2022, so all year 2017 analyses have been removed from the revised TIA.
- Table 43 describing the mitigation measures for the 2017 Plus project scenario for project freeway mainline segments. The revised TIA (FEIR Volume 2, Appendix L-1) addresses Phase 1 in Year 2022, so all year 2017 analyses have been removed from the revised TIA.
- Table 45 describing the mitigation measures for the 2017 Plus project scenario for project freeway weaving sections. The revised TIA (FEIR Volume 2, Appendix L-1) addresses Phase 1 in Year 2022, so all year 2017 analyses have been removed from the revised TIA.
- Table 47 describing the mitigation measures for the 2017 Plus project scenario for project freeway ramps. The revised TIA (FEIR Volume 2, Appendix L-1) addresses Phase 1 in Year 2022, so all year 2017 analyses have been removed from the revised TIA.
- Table 53 describing the mitigation measures for the 2022 Plus project scenario for project road segments. This table is now number 49 in the revised TIA (FEIR Volume 2, Appendix L-1).
- Table 55 describing the mitigation measures for the 2022 Plus project scenario for project intersections. This table is now number 51 in the revised TIA (FEIR Volume 2, Appendix L-1).
- Table 57 describing the mitigation measures for the 2022 Plus project scenario for project freeway mainline segments. This table is now number 53 in the revised TIA (FEIR Volume 2, Appendix L-1).
- Table 59 describing the mitigation measures for the 2022 Plus project scenario for project freeway weaving sections. This table is now number 55 in the revised TIA (FEIR Volume 2, Appendix L-1).
- Table 61 describing the mitigation measures for the 2022 Plus project scenario for project freeway ramps. This table is now number 57 in the revised TIA (FEIR Volume 2, Appendix L-1).

The fact that the attachment to the commenter's letter cites some of these tables shows that the information was made available for public review.

The commenter's references to issues raised in the attachment to the comment letter are responded to for those specific comments. Please see the Response to Comment F-9B-2 for the issue of timeliness of mitigation measures.

Response to Comment F-9A-13. The commenter claims three assumptions in the EIR would lead to an underestimate of emissions, namely: 1) underestimating trip generation numbers, 2) underestimating the percentage of trucks associated with the project, and 3) underestimating the trip lengths for auto and trucks. The commenter claims the air quality analysis used a trip generation rate from the NAIOP study rather than from ITE. The commenter also cites a passage from South Coast Air Quality Management District (SCAQMD) guidance, claiming that it shows that the trip generation rate used in the analysis is too low.

The commenter cites the SCAQMD guidance interpreting the guidance as recommending that a rate of 2.59 vehicular trips per thousand square feet per day (VT/KSF/day) should be used. The commenter quotes the guidance at length, including this passage,

> *"In the case that air quality is evaluated for multiple warehouses (>10), such as for a general plan, the average rate of 1.44 trips per thousand square feet from the ITE 8th Edition Trip Generation manual is acceptable. This lower value may be more appropriate as on average, a small portion of warehouses can be expected to operate at varying levels of service, including some warehouses experiencing temporary partial or complete vacancy."*

As stated in Section 2.1 of the Specific Plan, it is anticipated that the WLC will have 15-to-30 logistics warehouses. The TIA complies with this SCAQMD guidance for multiple warehouses projects. In fact, the TIA more than complies with the guidance since the trip generation rate used in the TIA, 1.68 vehicle trips per KSF per day, is higher than the 1.44 rate in the SCAQMD guidance (the WLC used the 9th edition of the Trip Generation Manual, which has a higher rate than the 8th edition). In addition, the SCAQMD is currently in the process of revising its recommended trip generation rate for warehouse buildings (www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/high-cube-warehouse).

The portion of the air quality analysis covering mobile sources used data from the traffic analysis and so it incorporates the ITE trip generation rates used in the TIA, not the NAIOP rate.

The 50 mile figure for average truck distance is a default value suggested by the SCAQMD for use when modeling data is not available for large warehouses. An additional section (Chapter 12, Section F) has been included in the TIA (FEIR Volume 2, Appendix L-1) that describes in detail how trips to the Los Angeles ports (ports) were estimated. The analysis found that only a small percentage of WLC truck traffic would be to and from the ports. Tests with the Riverside County Traffic Analysis Model (RivTAM) model suggest that the actual average truck trip length for the WLC would be 30 to 40 miles, so the 50-mile figure, which was used in the DEIR, is a conservative estimate since it over-states rather than under-states project impacts. The air quality analysis has been updated in the FEIR (Volume 2, Appendix D) to use the trip distribution pattern from the RivTAM model since it more realistic and better reflects the anticipated change in travel patterns over time.

Response to Comment F-9A-14. See Response to Comment F-9A-13 above.

Response to Comment F-9A-15. See Response to Comment F-9A-13 above.

Response to Comment F-9A-16. See Response to Comment F-9A-13 above.
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Response to Comment F-9A-17. The commenter claims that the percentage of truck traffic used in the analysis was too low and resulting in under-estimation of air quality impacts.

The Fontana study, which is mandated by the City of Moreno Valley *Traffic impact Analysis Preparation Guide* as the source for vehicle mix percentages (City of Moreno Valley, "Traffic Impact Analysis Preparation Guide", page 10), found 12.3% of trips entering or leaving high-cube warehouses to be heavy trucks, while some other sources have a higher percentage of heavy trucks (the NAIOP study, for example, had 20.8% heavy trucks; City of Moreno Valley 2013 survey data[29] yields 13.4% trucks calculated on a weighted average. The commenter uses a figure of 30.21 percent trucks for the NAIOP study, but that figure includes light and medium trucks. The comment seems to indicate the interpretation that this meant that the WLC was forecasting fewer trucks than the best field data indicated was appropriate. In fact, because the WLC analysis assumes a very high overall

[29] *Vehicle Mix Assumption for High-Cube Warehouse*, Memo from Michael Lloyd to Eric Lewis, September 27, 2013.

trip generation rate, the 0.207 number of truck trips per day per 1,000 square feet of floor assumed was slightly higher than the 0.206 in the NAIOP survey, slightly less than the 0.218 in the Moreno Valley survey, and more than double the Skechers 0.086 data indicates is appropriate (see below). The numbers used in this TIA analysis can therefore be considered a reasonable estimate of truck traffic and a very high estimate of car traffic compared to conditions actually found at the most comparable sites.

Table F-9A.B: Comparison of Trip Generation Rates from WLC TIA and Other Sources

Source	Total Vehicle Trips/KSF/Day	% Trucks	Heavy Duty Truck Trips/KSF/Day	Other Vehicle Trips/KSF/Day
WLC	1.68	12.3	0.207	1.473
NAIOP	0.99	20.8	0.206	0.784
Skechers	0.57	15.2	0.086	0.481
Moreno Valley 2013[1]	1.624	13.4[2]	0.218	1.406

[1] *Vehicle Mix Assumption for High-Cube Warehouse*, Memo from Michael Lloyd to Eric Lewis, September 27, 2013.
[2] Although the un-weighted average reported in the Memo is 17.6%, when calculated based on a weighted average, the rate drops to 13.4%.

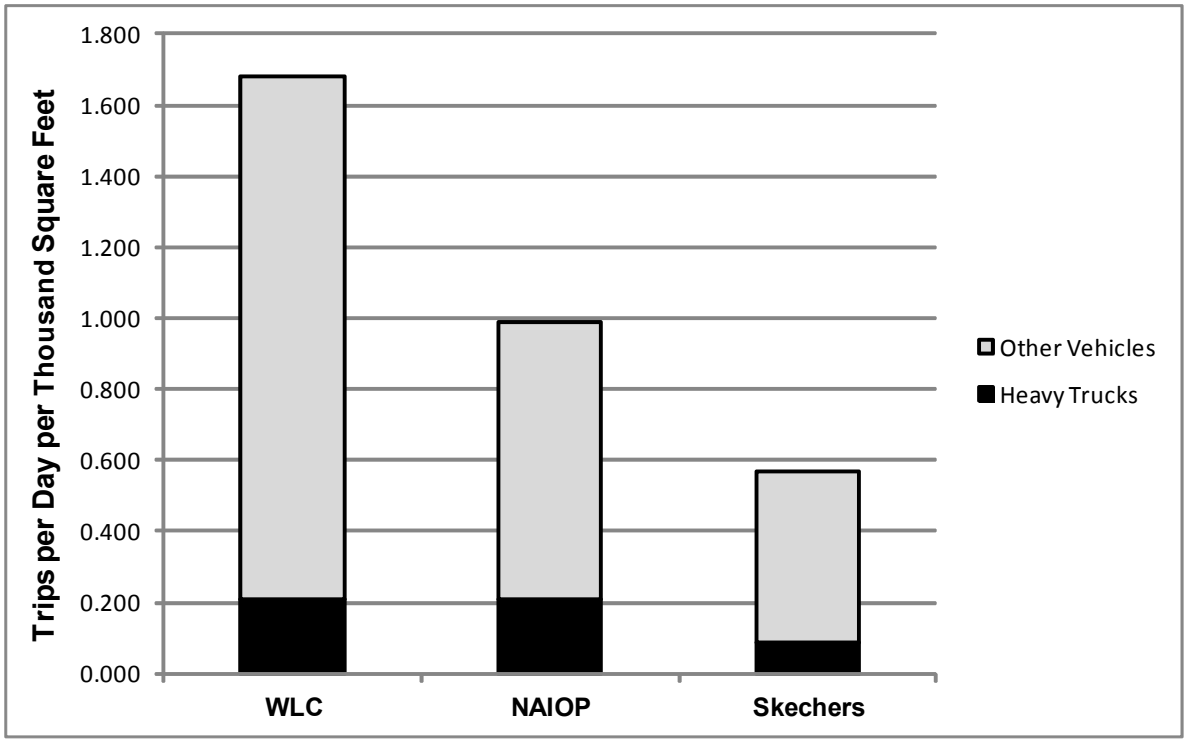


Exhibit F-9A-1: Comparison of Truck Trip Generation from southern California Sources

The commenter has suggested that this analysis should use a combination of a very high overall trip generation rate with a high heavy truck percentage to estimate the number of project truck trips. The problem with this approach is that the City has used it before in previous analyses and found that it produced results that were unreasonable when compared to actual field conditions. For example, this approach was used in EIR for the Skechers high-cube warehouse building and resulted in forecasts that were three times the actual operational trip generation for car trips and nearly eight times the

actual trip generation for trucks[30]. This approach provides misleading information to decision makers and the public creates an undue burden on development, and could ultimately create doubt about the City's project review process in the eyes of the public and potential developers. For these reasons the formula in the City's Traffic Impact Guidelines was used instead in the analysis. Also, as discussed before, the SCAQMD approved the use of the ITE trip generation rate for this TIA study prior to the analysis being performed.

Response to Comment F-9A-18. See Response to Comment F-9A-17 above.

Response to Comment F-9A-19. See Response to Comment F-9A-17 above.

Response to Comment F-9A-20. See Response to Comment F-9A-17 above.

Response to Comment F-9A-21. The commenter notes that the truck trip lengths are underestimated, leading to an underestimation of project emissions.

The truck trip length used in the DEIR was assumed to be 50 miles, based on SCAQMD CEQA comment letters published by the SCAQMD on various warehouse type projects. The SCAQMD has in the past recommended an average truck trip length of 40 miles for warehouse-type projects that do not have identified occupants. Information developed by Parsons Brinkerhoff in its analysis of project traffic impacts concluded that a reasonable average truck trip length for trips throughout the South Coast Air Basin was 36 miles. The Parsons Brinkerhoff conclusion was derived from the actual results of the RivTAM model that was used in the TIA. That model is based on information on trip destinations internal to Riverside County, external to Riverside County and port-related intermodal trip information from the Southern California Association of Governments (SCAG) in its 2012 Regional Transportation Plan. This information was discussed on Table 20 of the Air Quality, Greenhouse Gas, Health Risk Assessment report contained as Appendix D of the DEIR. To provide a conservative estimate of the project's mobile source emissions, an average truck trip length of 50 miles was assumed in the DEIR, which was greater than either the recommended truck trip length from the SCAQMD or as estimated from the traffic impact analysis.

Note that in the revised analysis, the issue of truck and local trip lengths is moot because in the revised analysis, the estimates of the project's regional emissions were based directly on the traffic volume information developed as part of the regional transportation modeling performed in the TIA. The regional transportation modeling provided daily and peak-hour traffic volumes for nearly 500 individual roadway segments by vehicle class from which the daily and peak-hour vehicle miles travels were determined (by multiplying the vehicle volumes for each roadway segment by the length of the roadway segment). The emissions along each roadway segment were then determined by multiplying the vehicle miles traveled for each vehicle class and roadway segment by an emission factor for each vehicle class derived from the Air Resources Board (ARB) Emissions Factor model 2014 (EMFAC2014) mobile source emission model. This information is provided in Section 4.5.1 Motor Vehicle Emissions, of the revised Air Quality, Greenhouse Gas, and Health Risk Assessment.

Response to Comment F-9A-22. The commenter claims the EIR underestimates the trip length for trucks using the proposed warehouses. It quotes a figure of 50 miles as the EIR's estimate for average trip length. It also describes the low figure for forecasted truck trips to the port as "curious."

The 50 mile figure for average truck distance is a default value suggested by the SCAQMD for use when modeling data is not available. Tests with the RivTAM model suggest that the actual average

[30] These figures are based on traffic counts taken at the Skechers building after it had been fully operational for over a year. See Technical Memorandum *Traffic Generated by the Skechers Warehouse*, Parsons Brinckerhoff to the City of Moreno Valley, November 14, 2012.

truck trip length for the WLC would be 30-to-40 miles, so the 50-mile figure is conservative because it over-states rather than under-states project impacts. Additionally, the 50-mile default value is no longer being used with the analysis in the FEIR based entirely on the results of the traffic modeling, not default trip lengths.

An additional section (Chapter 12, Section F) has been included in the TIA (FEIR Volume 2, Appendix L-1) that analyzes project impacts on freeways to the ports. The analysis, which is based on and supported by research done by SCAG and by the Port of Long Beach, found that only a small percentage of WLC truck traffic would be to and from the ports. See Table 86 in the revised TIA (FEIR Volume 2 Appendix L-1), repeated below.

Table 86: Percentage of WLC Trucks to or from the Port

Year	% of Warehouse Space Used for Port-Related Cargo	% of Truck Trips Going to and from the Ports
2012	5.00%	2.07%
2022	9.30%	3.86%
2035	16.30%	6.76%

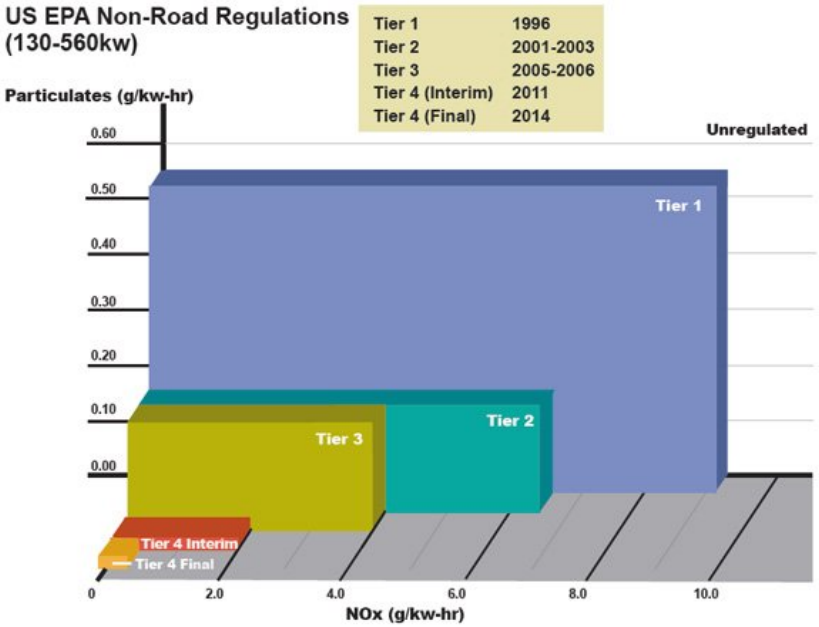
Response to Comment F-9A-22. See Response to Comment F-9A-23.

Response to Comment F-9A-23 and F-9A-24. The commenter claims the mitigation measures for construction are vague. However, the commenter does not indicate why the measures are vague; however, the measures are specific and require meeting future performance standards.

The commenter indicates that the construction mitigation measures are inadequate because they fail to address the diesel engines used by construction equipment. This is not the case. MM 4.3.6.2A has been refined and requires that off-road diesel powered construction equipment greater than 50 horsepower meet Tier 4 standards, the most stringent standard for off-road equipment.

Response to Comment F-9A-25. The commenter incorrectly states that Tier 3 standards are similar to the 1994 vintage truck standards and at least ten times more polluting than modern NOx and PM standards. This statement is not in the reference provided by the commenter. Instead, the reference indicates the following, "Tier 3 standards for NOx+HC are similar in stringency to the 2004 standards for highway engines; however Tier 3 standards for PM were never adopted."[31] This is shown in the figure below.[32] The figure shows that although Tier 2 and Tier 3 have the same particulates (PM) standard, Tier 3 engines have lower NOx emissions than both Tier 1 and Tier 2 engines.

[31] http://www.dieselnet.com/standards/us/nonroad.php#tier3
[32] Diesel Technology: Tier 4 & More. From *Clean Diesel Technology for Off-Road Engines and Equipment: Tier 4 and More.* Website: http://gb.baumpub.com/news/1415/diesel-technology-tier-4-amp-more



The commenter also suggests additional mitigation measures, as follows:

Suggested Mitigation Measure	Response
Require construction equipment to meet Tier 4 standards no later than 2015 and require use of diesel particulate filters on all construction equipment that does not meet Tier 4 standards starting in 2011.	**Included.** See Response to Comment F-9A-24.
All on-road trucks associated with construction shall meet U.S. EPA 2007 emission standards by January 2014.	**Incorporated.** This measure is incorporated into MM 4.3.6.2A.
All trucks carrying material such as debris or fill be fully covered.	**Already Included as part of SCAQMD Rule 403.** The project is considered a large operation under the rule; therefore, it is required to comply with Control Measure (1E or 2E), "cover all haul vehicles or comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads."
In any case where grid power is inaccessible and generators are utilized, they must meet 0.01 gram per brake-horsepower hour standard for PM or be equipped with best available control technology for PM, such as diesel particulate filters.	**Partially Included.** As shown in the above graphic, Tier 4 equipment have PM emissions standards at 0.015 g/kw-hr, the most stringent regulation currently adopted. MM 4.3.6.2A requires Tier 4 equipment.

Response to Comment F-9A-26. The commenter requests additional construction mitigation, as follows:

Mitigation Measure	Response
A strict no idling policy on the construction site, applied to all vehicles on- and off-road when they are not actively engaged in work on the site.	**Incorporated.** MM 4.3.6.2A requires that all diesel powered construction equipment, vehicles, and delivery trucks be turned off when not in use or limit onsite idling to 3 minutes or less in any one hour. This is consistent with ARB's regulation

Mitigation Measure	Response
	for In-Use Off-Road Diesel Vehicles (www.arb.ca.gov/msprog/ordiesel/guidance/idling.pdf).
Use of electric and alternative fueled equipment where feasible.	**Incorporated.** MM 4.3.6.2A requires that where feasible electric tools are required.

Response to Comment F-9A-27. See Response to Comment F-7A-65.

Response to Comment F-9A-28. The commenter is not clear how project design features will be enforced or upheld. The project design features are included in the WLCSP. Since this is Programmatic EIR, any future projects would need to undergo subsequent review, including plot plan review. The City would ensure that during that review, any subsequent project met the requirements of the WLCSP and complied with the mitigation measures contained in this EIR.

Regardless, what was a project design feature in the DEIR requiring model year 2010 trucks and later to the project site is now included as part of MM 4.3.6.3B. The air quality analysis has been refined and the air pollutant emissions from construction and operation are now lower than estimated in the DEIR (see Master Response-1).

Response to Comment F-9A-29 and F-9A-30. The commenter suggests additional mitigation measures, as follows:

Mitigation Measure	Response
Require at least half of the trucks serving the facilities to be alternative fuel including, but not limited to electric and hydrogen fuel cell or hybrid vehicles.	**Not Included.** As discussed in Master Response - 3, Zero Emission and Hybrid Electric Trucks, Vehicles, and Equipment, this is not feasible. In addition, the use of alternative fueled vehicles must be market driven and based on the availability of such vehicles and convenient fueling locations, while CARB already has detailed implementation schedules for various tiers of truck engines to reduce pollution over time, and the project would be consistent with those requirements.
Require at least one quarter of trucks serving the facility to be zero-tailpipe emission vehicles; or that one quarter of goods delivered to the facility be conveyed by zero-tailpipe emission technology; and that the proportion of zero-tailpipe emission conveyance increase to fifty percent by 2020.	**Not Included.** As discussed in Master Response - 3, Zero Emission and Hybrid Electric Trucks, Vehicles, and Equipment, this is not feasible.

Response to Comment F-9A-31. The commenter is not clear whether MM 4.3.6.3B encouraging SmartWay trucks add to the existing California regulations requiring SmartWay type efficiency measures.

ARB's Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation[33] would apply to the trucks accessing the project site. Background information regarding this regulation has been added to the revised analysis (FCS/MBA 2015). However, the mitigation measures are retained because they do not conflict with the regulation.

[33] California Air Resources Board. Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation. Website: www.arb.ca.gov/cc/hdghg/documents_hdghg.htm

The commenter indicates that the project should require utilization of zero and near-zero emission trucks. Refer to Master Response-3, Zero Emission and Hybrid Electric Trucks, Vehicles, and Equipment, for why this is not feasible for the WLC project.

Response to Comment F-9A-32. The commenter indicates that MM 4.3.6.4A(k) regarding buffer zones be strengthened. Note that this mitigation measure was a duplicate of MM 4.1.6.1A (aesthetics), therefore, the air quality mitigation measure has been removed for clarity. The specific setback is still used in the air quality analysis, and the commenter incorrectly claims that the SCAQMD said that the setbacks described in the project's Specific Plan are inadequate. The SCAQMD in its comment letter states the following:

> "According to the California Air Resources Board guidance, without more project-specific information, sensitive land uses such as homes should maintain a buffer zone of up to 1,000 feet from distribution centers with more than 100 trucks per day or 40 trucks per day with operating diesel transportation refrigeration units. AQMD staff recommends that an air quality Health Risk Assessment (HRA) be prepared that analyzes the cumulative impact of all approved and proposed warehouses in the vicinity before determining the appropriate buffer zone distances. Further, setback distances should be specified between areas of diesel trucking activity and sensitive land uses."

The project has prepared a Health Risk Assessment that analyzes the cumulative impact of all the warehouses within the project. The assessment was refined for the FEIR, which incorporates more detailed construction and operational assumptions. As discussed in Master Response-2, new technology diesel exhaust does not contribute to cancer and so no buffer is required. Nonetheless, an analysis of the buffer using methodologies for traditional diesel exhaust. The analysis found no impact outside the project boundaries, so no buffer would be needed. Please also refer to Master Response-1, Changes to Air Quality, Greenhouse Gas, and Health Risk Assessment. Please refer to Master Response-4 regarding buffer zones.

Response to Comment F-9A-33. The commenter recommends the following mitigation:

Suggested Mitigation Measure	Response
Forklifts, yard tractors, and other equipment at warehouses run steadily and never leave the site, which means their emissions accumulate nearby. All equipment should use electric battery or fuel cell engines. Where this is not possible, any remaining diesel equipment must employ the best available control technology to reduce emissions of PM and NOx, such as diesel particulate filters, cleaner fuels, and more efficient engines.	**Partially Incorporated.** The Specific Plan (Section 12.3) and the DEIR (page 3-33) indicates that the forklifts, yard tractors, and other onsite equipment used during operation would be powered by non-diesel fuel. However, the mitigation measure does not specify the type of fuel (electric battery or fuel cell) that the equipment should use to allow for flexibility for the project tenants.

Response to Comment F-9A-34. The commenter recommends the following mitigation:

Suggested Mitigation Measure	Response
Warehouse operators have the ability to minimize truckers' use of transport refrigeration units that rely on secondary diesel engines. WLC must provide electric hookups for refrigeration at each loading dock, minimizing the use of any diesel refrigeration units and ensuring that those that do remain in use meet the cleanest emissions standards (U.S. EPA	**Partially Incorporated.** MM 4.3.6.3E states: "Refrigerated warehouse space is prohibited unless it can be demonstrated that the environmental impacts resulting from the inclusion of refrigerated space and its associated facilities, including, but not limited to, refrigeration units in vehicles serving the logistics warehouse, do not exceed any environmental impact for the entire World Logistics Center identified in the program Environmental Impact Report. Such environmental analysis shall be provided with any warehouse plot plan application

Suggested Mitigation Measure	Response
Tier 4). Further, indoor warehouse space must provide ample storage for refrigerated goods passing through the facility to ensure that no refrigerated goods are stored in trailers or externally, requiring use of TRUs.	proposing refrigerated space. Any such proposal shall include electrical hookups at dock doors to provide power for vehicles equipped with Transportation Refrigeration Units (TRUs). Therefore, refrigeration hookups and amenities for refrigerated warehouses are required by MM 4.3.6.3E.

Response to Comment F-9A-35. The commenter claims that the mitigation for greenhouse gas emissions is inadequate and focuses on waste and recycling. Although only one waste-related mitigation is required to reduce greenhouse gas emissions to less than significant, many other mitigation measures and project design features would reduce greenhouse gas emissions, as shown in the DEIR (Table 4.7.H in the DEIR and pages 4.7-31 – 4.7-34) and in the revised analysis (FCS/MBA 2015, FEIR Volume 2 Appendix D).

Response to Comment F-9A-36. The commenter recommends rooftop solar. This has been incorporated into MM 4.16.4.6.1C.

Response to Comment F-9A-37. The commenter recommends that the project be built to meet LEED standards. This has been incorporated into MM 4.16.4.6.1C.

Response to Comment F-9A-38. See Responses to Comments F-9A-40 and F-9A-41 below.

Response to Comment F-9A-39. The commenter is asking as a mitigation measure the project proponent should fund the establishment of one or several medical facilities close to the project and along the route of the project dedicated to respiratory and general health of the people most affected by air emissions from the project. The proposed mitigation by the commenter is not feasible. In order for a mitigation to be feasible, it must be reasonably capable of being accomplished in a successful manner. Because there are multiple sources of air pollution, it is impossible to determine what population should be served through such a program. Additionally, even if a target population could be identified it is not possible to determine whether that population would make use of such services or whether such services would be effective in reducing the impact of the proposed project.

Nonetheless, in an effort to reduce impacts of the proposed project, all feasible mitigation has been incorporated. As an example, the WLC has committed to using the cleanest available technology to reduce impacts. In a first for a project of this scale, the WLC will require that all trucks serving the proposed project meet United States Environmental Protection Agency (USEPA) 2010 emissions standards. These standards are the most stringent emissions standards ever promulgated by USEPA, reducing emissions of nitrogen oxides and particulate matter by over 90% from the previous generation of diesel trucks. Additionally, the proposed project has committed to using the cleanest construction equipment and project design elements such as preventing truck trips on Cactus and Alessandro and green building design will further reduce project impacts.

Response to Comment F-9A-40 and 41. The commenter includes a discussion suggesting that WLC should provide medical clinics for low and moderate income families working at their project, with no out-of-pocket expense to those families regardless of their insurance status. As is the case with all legitimate businesses operating within the City of Moreno Valley, WLC employers will be required to fully comply with all existing state and federal regulations as they relate to employer responsibilities to provide for the health and welfare of employees. A more detailed response to this question is included under the Response to Comment F-11-21. Also, please reference the Master Response-3 in Letter C-3. The City Council will consider the comment prior to deciding whether to approve the project.

The commenter has also recommended the establishment of various types of mitigation funding to provide off-site improvements related to air quality, such as air filters or landscaping. However, such mitigation does not mitigate specific, project-related impacts. While the concepts proposed for funding are recognized to provide benefits such as improving indoor air quality, the benefits are not tied to reducing impacts from the proposed project. There is no nexus between the generalized benefits of a proposed existing community benefits fund and specific project impacts. As a result, such a fund cannot be reasonably expected to avoid or minimize air quality impacts of the project as is required for mitigation. Please also refer to Master Response-5.

Response to Comment F-9A-42. The commenter encouraged the project proponent to explore installation of air filtration system to protect residents from harmful levels of air pollution. The Port of Los Angeles agreed through the TraPac MOU to fund filtration systems in schools in the vicinity of that project, and this project should also include this type of mitigation. In addition, the Port of Long Beach through the Middle Harbor Redevelopment project agreed to fund air filtration systems for schools and other sensitive sites. This mitigation must be part of the WLC project.

Though new technology diesel exhaust does not contribute to cancer as described in Master Response-2, a Health Risk Assessment (HRA) was prepared for the project (see FEIR Volume 2 Section 4.3.6.5). A standard 9-year exposure analysis was conducted for the school sites, including modifications recommended by the Moreno Valley School District (see also Response to Comment E-3-9). No significant impacts were found (the incremental cancer risk was less than 10 in a million), therefore, no additional mitigation is necessary at those locations.

The HRA also assessed impacts to the sensitive receptors within and around the project site. The recently adopted "Current OEHHA Guidance" methodology which includes a 30-year exposure duration, age sensitivity factors, and a higher breathing rate was used to estimate risk, assuming that new technology diesel exhaust causes cancer, contrary to the HEI study results. The results indicate that after mitigation there would be a significant cancer risk (risk greater than 10 in a million) at three (3) residences within the WLC project area under the Current OEHHA Guidance. However, as discussed in Master Response-2, new technology diesel exhaust does not contribute to cancer and traditional diesel engines are prohibited from the project. Air filtration systems are discussed in Master Response-5.

Response to Comment F-9A-43. The commenter states the EIR needs to include mitigation for loss of agricultural land. A new MM 4.2.6.1A has been added to the FEIR Volume 2 requiring the acquisition of a conservation easement be recorded over land of comparable productive value to preserve offsite farmland or equal or more agricultural productivity compared to the unique farmland. The commenter is encouraged to review the revised and new agricultural assessments (FEIR Volume 2 Appendices C-2 and C-4, respectively). It should be noted that the revised agricultural assessments determined the loss of farmland of local importance was in fact not significant under CEQA based on the results of the revised (California) Land Evaluation and Site Assessments (LESA) model (see FEIR Volume Sections 1.5 and 1.6 and Response to Comment F-7A-39 for more information).

Response to Comment F-9A-44. The commenter states the EIR did not examine a reasonable range of alternatives. The EIR does evaluate a reasonable range of alternatives, based on the potential significant environmental impacts of the project identified in the DEIR and the project objectives. The EIR examined several mixed use alternatives, a lesser intensity alternative, and the existing General Plan designations for the site. The commenter has failed to state why the alternatives selected for analysis in the DEIR are not reasonable.

Response to Comment F-9A-45. The commenter states the EIR fails to address project alternatives such as rail and other potential project locations that would be closer to the ports. The commenter cites a Southern California Association of Governments (SCAG) report entitled *Industrial Space in*

Southern California to support its claim that there are other sites that could have been developed instead.

An additional section (Chapter 4, Section F) has been included in the TIA (FEIR Volume 2, Appendix L-1) that analyzes the potential for serving project trips by rail. The analysis showed that rail service to this site was not viable due to a variety of factors, including high fixed costs, secondary impacts on the community, terrain, and capacity constraints in the rail system. See Responses to Comments G-53-4 and G-70-5.

The report cited by the commenter, *Industrial Space in Southern California*, reached the opposite conclusion from that presented by the commenter. Its Executive Summary at page ES-1 states that:

- *"According to assumed growth rates, the region will run out of suitably zoned vacant land in about the year 2028. At that time, forecasts show that the demand for warehousing space will be approximately 1,023 million square feet.*

- *During the year 2035, there will be a projected shortfall of space of about 228 million square feet, unless other land not currently zoned for warehousing becomes available."*

In other words there is an easily foreseeable shortage of sites suitable for warehouse development even if one assumes, as the SCAG study does, that all vacant land currently zoned for industrial use were to be developed into warehouse space. The study demonstrates the need to zone additional land for warehouse space, which is what the WLC proposes to do. In addition, an alternative closer to the port would be in a jurisdiction other than the City of Moreno Valley, so the City would not derive any benefits from the project as outlined in the project objectives.

Response to Comment F-9A-46. The commenter states the alternative sites analysis in the alternatives section is inadequate. Section 6.3.9 of the DEIR that provides a detailed analysis of 16 potential alternative sites in 11 different jurisdictions up to 22 miles from the WLC project site. The DEIR concluded that there were no adequate sites available for various reasons, including size, freeway accessibility, etc. CEQA requires an evaluation of alternative sites that could house the proposed project which in this case is the 2,610-acre WLCSP property proposed for development. In addition, locating the WLCSP outside the City would mean the City could not obtain the substantial project benefits such as increased jobs. There is no requirement to look at separate or smaller sites to accommodate a smaller project; so many sites were rejected because they could not support the WLC project as proposed, consistent with the CEQA Guidelines.

Response to Comment F-9A-47. The commenter believes the EIR must be recirculated. The City evaluated the many comments received on the Draft EIR, including those of this commenter. The revised technical studies and DEIR provide additional information, mainly in the form of responding to the many questions and comments received on the DEIR. In that regard, several of the project technical studies were revised both to address comments on the DEIR and changes to the WLC project (e.g., loss of 100 acres and 1 million square feet of building area) and this resulted in a number of existing mitigation measures being modified. However, this additional information and the revised studies do not rise to the level of significant new information, nor does this information identify any new or substantially different significant environmental impacts from those identified in the DEIR. Therefore, the DEIR will not be recirculated.

Response to Comment F-9A-48. The commenter expresses concern over the impacts of the project. All of the comments provided by the commenter, plus many similar comments provided by others, have been responded to in this FEIR document (Volume 1). All of the comments and responses will be reviewed by the City Council prior to making a decision on this project.

Letter F-9B: Tom Brohard & Associates (March 29, 2013) and Appendices 1-3 (on Flash Drive)

Letter F-9B

Tom Brohard and Associates

March 29, 2013

Mr. Adriano Martinez, Staff Attorney
Natural Resources Defense Council
1314 Second St.
Santa Monica, CA 90401

SUBJECT: World Logistics Center Project Draft Environmental Impact Report – Traffic and Transportation – Findings and Comments

Dear Mr. Martinez:

At the request of the Sierra Club, I have reviewed the traffic and transportation portions of the February 4, 2013 World Logistics Center Project Draft Environmental Impact Report (Draft EIR) prepared by LSA for the City of Moreno Valley. In preparing these findings and comments, the following sections and appendices related to traffic and transportation in the Draft EIR for the World Logistics Center Project have been reviewed:

- Chapter 1.0 – Executive Summary
- Chapter 2.0 – Introduction and Purpose
- Chapter 3.0 – Project Description
- Chapter 4.15 – Traffic and Circulation
- Draft EIR Appendix L – January 2013 Traffic Impact Analysis Report (TIA Report) prepared by Parsons Brinckerhoff
- TIA Report Appendices A through T prepared by Parsons Brinckerhoff (TIA Appendices)

In my review of these documents, I have concluded that the Draft EIR and the TIA Report for the proposed World Logistics Center Project are seriously flawed as an adequate assessment of Project traffic impacts on freeways, roadways and intersections has not been provided. Further study of the findings and comments identified in this letter is required as part of a Recirculated Draft EIR for the World Logistics Center Project. 1

As explained in detail throughout this letter, the Draft EIR and the TIA Report fail to establish a proper baseline for analysis. Direct Project traffic impacts are repeatedly confused with cumulative Project traffic impacts, leading to defective mitigation measures. Mitigation measures are not developed for Project conditions forecast in either Year 2017 or in Year 2022, and funding is not shown to be available to construct mitigation measures in a timely manner as the significant Project traffic impacts occur in Years 2012, 2017, 2022, and 2035. The documents also omit important information and contain numerous errors, making it difficult at best for the public to review and understand. 2

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Education and Experience

Since receiving a Bachelor of Science in Engineering from Duke University in Durham, North Carolina in 1969, I have gained over 40 years of professional engineering experience. I am licensed as a Professional Civil Engineer both in California and Hawaii, and as a Professional Traffic Engineer in California. I formed Tom Brohard and Associates in 2000 and now serve as the City Traffic Engineer for the City of Indio and as Consulting Transportation Engineer for the Cities of Big Bear Lake, San Fernando, and Tustin. I have extensive experience in traffic engineering and transportation planning. During my career in both the public and private sectors, I have reviewed many environmental documents and traffic studies, with only a few of these shown on the enclosed resume. 3

Traffic and Transportation Issues/Concerns – Findings and Comments

Based on the information provided in the February 4, 2013 Draft EIR and the January 2013 TIA Report for the World Logistics Center Project, my review disclosed numerous issues and concerns relating to traffic and transportation. Each of the following findings and comments must be addressed through further study and necessary modifications to the Draft EIR, together with recirculation for public review and comment: 4

1) Traffic Counts Were Not Adjusted to Create a Proper Baseline – Traffic counts at study intersections were made over 20 months between March 2011 and October 2012. All counts were assumed to have been made in 2012 but Appendix A to the TIA Report shows that traffic counts at 78 of the intersections were actually conducted in Year 2011. No adjustments were made to account for annual ambient traffic growth to bring the Year 2011 counts forward to Year 2012 whereas a two percent per year increase was assumed to grow the Year 2012 counts to Year 2017. Furthermore, no adjustments were made to remove potentially significant seasonal traffic volume fluctuations among the months of February, March, October, November, and December when the counts were taken.

   According to Page 46 of the TIA Report, 24-hour traffic counts were collected on the study road segments. Copies of these traffic counts were not provided in Appendix A. Similar deficiencies in establishing a proper baseline for the 24-hour counts including annual ambient growth and seasonal adjustments may also exist. In addition, no evidence is presented to indicate how or if adjustments were made to convert trucks to passenger car equivalents. 5

   Additionally, traffic volume counts on the freeway mainline and weaving segments may have been taken from annual Caltrans Traffic Volume publications but the TIA Report does not identify the source of this data. The most recent data available from Caltrans reflects freeway traffic volumes

counted in Year 2011 or earlier. Similar deficiencies in establishing a proper baseline for these counts including annual ambient growth may also exist.

Traffic counts made during Year 2011 or before should be brought forward at two percent per year to reflect proper baseline traffic volumes in Year 2012. By failing to do this, the Draft EIR is internally inconsistent as the TIA Report did expand traffic volumes by two percent per year to establish baseline conditions in Year 2017. Furthermore, traffic volume fluctuations during different seasons should have been adjusted to a common seasonal baseline to properly reflect the higher volumes recorded during the peak month. If the counts are not adjusted, then the TIA Report and the Draft EIR must present evidence through validation and comparison of traffic counts that annual and seasonal adjustments are not required. 5

2) Traffic Volumes for Approved Projects Are Not Supported by Evidence - Figure 3 on Page 6 of the TIA Report followed by Table 1 beginning on Page 7 provide a map and a list of approved development projects that have been assumed to be complete by Year 2017. The TIA Report fails to include the trip generation and trip distribution for each of these projects as well as a summary of peak hour trips from these projects that are forecast to travel through study intersections as well as on roadway and freeway segments. In addition, no evidence is presented to indicate how or if adjustments were made to adjust truck volumes to passenger car equivalents generated by these projects. Without this data and information, the baseline traffic volumes used in the Year 2017 analyses cannot be supported. 6

In addition, the Year 2017 traffic volume baseline does not appear to include trips to and from various nearby development projects on the enclosed listing provided by Riverside County. General Plan Amendments are associated with each of these projects and some of these projects have already been entitled. As a result, each of these projects must be considered to be reasonably foreseeable and trips to and from each of them must be added to the Year 2017 baseline for a proper traffic analysis of the World Logistics Center.

3) Year 2035 Baseline Traffic Volumes Are Lower than Earlier Years – Several freeway segment volumes in the Year 2035 scenario are less than the same freeway segment volumes in the scenarios of earlier years. The Draft EIR and TIA Report indicate that the Project will reverse the significant existing jobs to housing imbalance with 25,000 new jobs for City of Moreno Valley residents. It is unreasonable to conclude that the 25,000 new jobs will solely be taken by City residents and that the current directional peak hour congestion will be eliminated, especially with World Logistics Center Project trucks replacing a number of the commuter worker trips in the current peak direction. 7

In the traffic analysis, associated segment volumes in the current peak directions are forecast to drop. In turn, the Level of Service (LOS) for freeway segments in the current peak direction is then forecast to improve from LOS "F" to LOS "D" with the negative Project trips are added (subtracted). The conclusion that building 41,600,000 square feet of high cube warehouses will lower traffic volumes on the freeway system and then improve peak hour operating conditions is not reasonable or logical. **7**

4) World Logistics Center Project Traffic Volumes Not Adequately Disclosed – Table 24 on Page 78 of the TIA Report as well as Table 4.15M on Page 4.15-32 of the Draft EIR provide peak hour and daily trip forecast volumes for truck and auto traffic forecast for the World Logistics Center Project. It appears that the "Phase 2" subheading in both of these tables represent the total number of trips that will be generated at completion of the entire World Logistics Center Project, not merely by completion of Phase 2 of the Project. This requires clarification. **8**

Page 80 of the TIA Report provides graphic representations of the forecast changes in freeway "car" traffic volumes in the AM peak hour in Figure 26 and in the PM peak hour in Figure 27 by comparing 2012 without project volumes to with project traffic volumes. Volumes in the current primary travel direction (westbound in the AM peak hour and eastbound in the PM peak hour) show reductions of over 500 car trips and corresponding increases of over 500 car trips in the current secondary travel pattern. As indicated above, the reductions and additions are based upon the faulty assumption that the 25,000 new jobs will be taken by City of Moreno Valley residents. **9**

Figures 26 and 27 are also misleading if they include only "car" trips. The World Logistics Center will generate a significant number of truck trips in the current secondary travel directions. When these are converted to passenger car equivalents to properly disclose the overall changes, the reductions will likely be lower and the additions will likely be higher than shown in Figures 26 and 27. **10**

The Draft EIR and the TIA Report do not clearly identify the numbers of auto and truck trips associated with World Logistics Center on freeway segments, roadway segments, and at intersections. Instead, the documents provide figures of baseline and baseline plus project trips. The two different figures require comparison with each other to identify project traffic. **11**

Traffic study guidelines such as the "Guide for the Preparation of Traffic Impact Studies" published by the California Department of Transportation in December 2002 require that figures be provided to clearly disclose project generated trips. By omitting these figures with actual numbers, the TIA Report and Draft EIR do not properly disclose the negative trip generation that is **12**

forecast to occur. By omitting these figures for project generated trips only, it is not clear if the analyses properly included passenger car equivalents for the trucks or just traffic volumes for the World Logistics Center Project without the necessary passenger car equivalent adjustments. 12

5) World Logistics Center Project Daily Truck Trips Are Underestimated – Table 4.15.M on Page 4.15-32 of the Draft EIR and Table 24 on Page 78 of the TIA Report provide forecasts for the number of autos, light trucks, medium trucks, and heavy trucks that are forecast to be generated by the World Logistics Center Project. Footnotes to these tables indicate the numbers of auto and truck trips shown are based on the Truck Trip Generation Study (Fontana Study) prepared in August 2003 for the City of Fontana. Using the Fontana Study, the text immediately below each table indicates that 80 percent of the vehicles forecast for the World Logistics Center are autos and the remaining 20 percent of the vehicles are trucks. 13

Appendix S to the TIA Report provides the December 20, 2011 NAIOP Truck Trip Generation Study of 31 high-cube warehouses larger than 500,000 square feet in size in the Inland Empire area prepared by Kunzman Associates (NAIOP Study) and Appendix T to the TIA Report provides the February 1, 2012 Peer Review conducted by Urban Crossroads of the NAIOP Study. Data contained in Appendix D to the NAIOP Study indicates that 69.79 percent of the high-cube warehouse trips were made by cars and 30.21 percent of the high-cube warehouse trips were made by trucks, not 80 percent cars and 20 percent trucks from the 2003 Fontana Study. Other entities suggest using an even greater truck trip percentage for this type of warehouse development (i.e., SCAQMD's recommendation to use a 40 percent truck assumption for a conservative analysis). Based on this, the Draft EIR and TIA Report must revise the percentage of trucks up from 20 percent to at least 30 percent. 14

Regarding the 2003 Fontana Study, Page 7 of the Peer Review in Appendix T to the TIA Report states "Based on the study's small overall sample size and the fact that only one warehouse over 500,000 square feet was included in the analysis, the 2003 Fontana Study is not an appropriate source for vehicle/truck trip generation rates for modern high-cube warehouse uses larger than 500,000 square feet. In addition, the 2003 Fontana Study surveyed buildings that were likely constructed prior to the shift to larger, highly automated buildings that many global retailers and logistics companies are utilizing in the modern economy." 15

Both Appendix S and Appendix T to the TIA Report clearly demonstrate that the 2003 Fontana Study should not be used to forecast truck trip generation for the World Logistics Center Project. By doing this, the Draft EIR and TIA 16

Report have significantly underestimated the number of truck trips that the World Logistics Center will generate. 16

For example, application of the data shown in the NAIOP Study to the 71,085 daily trips forecast for the completion of the entire World Logistics Center Project (currently identified as Phase 2 in the tables) changes the number of passenger car equivalents that must be used to properly identify, disclose, analyze, and mitigate the additional number of significant environmental impacts that will be created by the World Logistics Center Project. Using data from the outdated 2003 Fontana Study, the Draft EIR and TIA Report indicate 93,414 daily passenger car equivalent trips will be generated. Using the current data contained in Appendix D to the NAIOP Study including 70 percent autos, three percent 2-axle trucks, four percent 3-axle trucks, and 23 percent 4+-axle trucks indicates 107,695 daily passenger car equivalent trips will be generated. Therefore, the Draft EIR has underestimated 14,281 daily passenger car equivalent trips in its analyses of environmental impacts. 17

6) Direct and Cumulative Impacts Are Incorrectly Identified – Page 4.15-85 of the Draft EIR properly defines direct and cumulative traffic impacts as follows:

- Direct Traffic Impacts – "A significant project-specific impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp." 18

- Cumulative Traffic Impacts – "A significant cumulative traffic impact would occur if the project contributes toward those facilities operating at unsatisfactory LOS in the pre-project condition." 19

The Draft EIR and the TIA Report incorrectly identify many cumulative traffic impacts when they are in fact direct traffic impacts from the definitions above. Further, other direct impacts are not disclosed in the text even though the direct impacts are clearly shown in the various tables when the LOS degrades from an acceptable to an unacceptable level with the addition of only Project traffic. Additional direct traffic impacts which have not been identified in the Draft EIR include the following: 20

Existing (2012) plus Project – Intersections – (PM Peak Table 4.15.AD-2)

- #123 – Gilman Springs/Bridge Street – Degrades from LOS C with 20.8 seconds of delay to LOS D with 26.1 seconds of delay with Project traffic added.
- #132 – San Timoteo/Alessandro - Degrades from LOS C with 23.9 seconds of delay to LOS F with 103.4 seconds of delay with Project traffic.

Existing (2012) plus Project – Mainline – (AM Peak Hour Table 4.15.AF)

- F-6 – EB SR-60 – Euclid/Grove – Degrades from LOS D with density of 34.7 to LOS E with density of 38.5 with Project traffic added.

Existing (2012) plus Project – Weaving – (PM Peak Hour Table 4.15.AG)

- W-25 – EB SR-60 – Central/Fair Isle – Degrades from LOS D with density of 32.4 to LOS E with density of 35.5 with Project traffic added.
- W-25 – WB SR-60 – Central/Fair Isle – Degrades from LOS D with density of 29.3 to LOS E with density of 35.3 with Project traffic added.

Year 2017 plus Project – Intersections – (AM Peak Table 4.15.AI-1)

- #74 – Elsworth/Cactus – Degrades from LOS D with 54.4 seconds of delay to LOS E with 56.1 seconds of delay with Project traffic added.

Year 2017 plus Project – Mainline – (AM Peak Hour Table 4.15.AK-1)

- F-7 – EB SR-60 – Grove/Vineyard – Degrades from LOS D with density of 34.9 to LOS E with density of 37.2 with Project traffic added.
- F-8 – EB SR-60 – Vineyard/Archibald – Degrades from LOS D with density of 34.1 to LOS E with density of 36.1 with Project traffic added.
- F-19 – EB SR-60 – Market/Main – Degrades from LOS D with density of 31.8 to LOS E with density of 35.3 with Project traffic added. — 20
- F-49 – EB SR-91 – Central/14th – Degrades from LOS D with density of 34.6 to LOS E with density of 35.1 with Project traffic added.

Year 2017 plus Project – Mainline – (PM Peak Hour Table 4.15.AK-2)

- F-17 – WB SR-60 – Valley/Rubidoux – Degrades from LOS D with density of 34.1 to LOS E with density of 36.5 with Project traffic added.
- F-24 – WB SR-60 – MLK/Central – Degrades from LOS D with density of 33.9 to LOS E with density of 40.3 with Project traffic added.
- F-29 – WB SR-60 – Pigeon Pass/Heacock – Degrades from LOS D with density of 32.7 to LOS E with density of 39.3 with Project traffic added.

Year 2017 plus Project – Weaving – (PM Peak Hour Table 4.15.AL-2)

- W-28 – WB SR-60 – Day/Pigeon Pass – Degrades from LOS D with density of 32.5 to LOS E with density of 35.6 with Project traffic added.

Year 2017 plus Project – Ramps – (PM Peak Hour Table 4.15.AM)

- R-19 – WB SR-60 – MLK Off/MLK Off – Degrades from LOS C with density of 23.0 to LOS E with density of 36.0 with Project traffic added.

Year 2022 plus Project – Intersections – (AM Peak Table 4.15.AN)

- #27 – Redlands/Cactus – Degrades from LOS B with 13.4 seconds of delay to LOS F with >50 seconds of delay with Project traffic added.
- #38 – Perris/JFK – Degrades from LOS D with 50.8 seconds of delay to LOS E with 58.3 seconds of delay with Project traffic added.

- #39 – Iris/Perris – Degrades from LOS D with 54.0 seconds of delay to LOS E with 57.8 seconds of delay with Project traffic added.
- #46 – Kitching/Krameria – Degrades from LOS C with 29.2 seconds of delay to LOS E with 61.4 seconds of delay with Project traffic added.
- #123 – Gilman Springs/Bridge – Degrades from LOS C with 22.3 seconds of delay to LOS E with 38.3 seconds of delay with Project traffic added.
- #135 – Crescent/Alessandro – Degrades from LOS D with 27.7 seconds of delay to LOS E with 47.8 seconds of delay with Project traffic added.

Year 2022 plus Project – Intersections – (PM Peak Table 4.15.AN)

- #12 – Theodore/Ironwood – Degrades from LOS C with 17.8 seconds of delay to LOS F with 50.5 seconds of delay with Project traffic added.
- #27 – Redlands/Cactus – Degrades from LOS A with 9.5 seconds of delay to LOS F with >50 seconds of delay with Project traffic added.
- #28 – Moreno Beach/JFK – Degrades from LOS B with 18.9 seconds of delay to LOS E with 57.8 seconds of delay with Project traffic added.
- #36 – Moreno Beach/Ironwood – Degrades from LOS D with 51.0 seconds of delay to LOS E with 56.7 seconds of delay with Project traffic added.
- #38 – Perris/JFK – Degrades from LOS D with 53.5 seconds of delay to LOS E with 56.7 seconds of delay with Project traffic added.
- #40 – Kitching/Iris – Degrades from LOS C with 23.9 seconds of delay to LOS E with 71.5 seconds of delay with Project traffic added. 20
- #46 – Kitching/Krameria – Degrades from LOS D with 40.0 seconds of delay to LOS E with 55.7 seconds of delay with Project traffic added.
- #58 – Heacock/Alessandro – Degrades from LOS D with 48.9 seconds of delay to LOS E with 65.3 seconds of delay with Project traffic added.
- #70 – Day/Alessandro – Degrades from LOS D with 43.0 seconds of delay to LOS F with 98.5 seconds of delay with Project traffic added.

Year 2022 plus Project – Mainline – (AM Peak Hour Table 4.15.AP-1)

- F-4 – EB SR-60 – Central/Mountain – Degrades from LOS D with density of 33.0 to LOS E with density of 35.5 with Project traffic added.
- F-5 – EB SR-60 – Mountain/Euclid – Degrades from LOS D with density of 32.5 to LOS E with density of 35.1 with Project traffic added.
- F-9 – EB SR-60 – Archibald/Haven – Degrades from LOS D with density of 32.8 to LOS E with density of 36.0 with Project traffic added.
- F-29 – EB SR-60 – Pigeon Pass/Heacock – Degrades from LOS D with density of 29.2 to LOS E with density of 39.6 with Project traffic added.
- F-30 – EB SR-60 – Heacock/Perris – Degrades from LOS C with density of 25.0 to LOS E with density of 39.2 with Project traffic added.
- F-49 – EB SR-91 – Central/14th – Degrades from LOS D with density of 34.9 to LOS E with density of 35.5 with Project traffic added.

Year 2022 plus Project – Mainline – (PM Peak Hour Table 4.15.AP-2)

- F-18 – WB SR-60 – Rubidoux/Market – Degrades from LOS D with density of 32.5 to LOS E with density of 37.1 with Project traffic added.
- F-29 – WB SR-60 – Pigeon Pass/Heacock – Degrades from LOS D with density of 34.0 to LOS F with density of 46.9 with Project traffic added.
- F-30 – WB SR-60 – Heacock/Perris – Degrades from LOS D with density of 27.5 to LOS E with density of 39.1 with Project traffic added.

Year 2022 plus Project – Weaving – (AM Peak Hour Table 4.15.AQ)

- W-23 – EB SR-60 – University/MLK – Degrades from LOS D with density of 30.5 to LOS E with density of 35.3 with Project traffic added.
- W-25 – EB SR-60 – Central/Fair Isle – Degrades from LOS C with density of 27.4 to LOS E with density of 35.3 with Project traffic added.

Year 2022 plus Project – Ramps – (AM Peak Hour Table 4.15.AR)

- R-2 – EB SR-60 – On from Central – Degrades from LOS D with density of 28.8 to LOS F with density of 33.2 with Project traffic added.

Year 2035 plus Project – Intersections – (AM Peak Table 4.15.AS-1)

- #11 – Theodore/Ironwood – Degrades from LOS C with 22.9 seconds of delay to LOS E with 44.3 seconds of delay with Project traffic added. — 20
- #86 – Central/Chicago – Degrades from LOS D with 49.5 seconds of delay to LOS E with 61.3 seconds of delay with Project traffic added.
- #98 – Alessandro/Canyon Crest – Degrades from LOS D with 54.4 seconds of delay to LOS E with 55.9 seconds of delay with Project traffic added.
- #131 – Reche Canyon/Reche Vista – Degrades from LOS C with 35.0 seconds of delay to LOS D with 40.4 seconds of delay with Project traffic.

Year 2035 plus Project – Intersections – (PM Peak Table 4.15.AS-2)

- #53 – Lasselle/Cactus – Degrades from LOS C with 34.8 seconds of delay to LOS D with 38.2 seconds of delay with Project traffic added.

Year 2035 plus Project – Mainline – (PM Peak Hour Table 4.15.AU-2)

- F-2 – WB SR-60 – Reservoir/Ramona – Degrades from LOS D with density of 34.6 to LOS E with density of 35.8 with Project traffic added.
- F-34 – WB SR-60 – Redlands/Theodore – Degrades from LOS D with density of 29.7 to LOS E with density of 35.0 with Project traffic added.

Year 2035 plus Project – Weaving – (AM Peak Hour Table 4.15.AV-1)

- W-20 – EB SR-60 – Main/SR91 – Degrades from LOS D with density of 34.2 to LOS E with density of 35.9 with Project traffic added.

Year 2035 plus Project – Weaving – (PM Peak Hour Table 4.15.AV-2)

- W-28 – WB SR-60 – Day/Pigeon Pass – Degrades from LOS D with density of 32.3 to LOS E with density of 36.1 with Project traffic added.

Year 2035 plus Project – Ramps – (AM Peak Hour Table 4.15.AW)

- R-8 – EB SR-60 – On from Theodore – Degrades to LOS F with density of 43.6 with Project traffic added. While this new ramp is to be constructed by the Project, LOS F conditions result when Project traffic is added. The Project must therefore build a ramp with more initial capacity rather than one that immediately fails to carry traffic generated by the Project. **20**

As identified above, there are over 50 additional direct project traffic impacts beyond those identified in the Draft EIR where the World Logistics Center Project traffic causes an intersection or segment to fall below the acceptable LOS. In each of the various sections in the different analysis scenarios, the text in the Draft EIR conflicts with the entries in the various tables throughout the discussion of traffic impacts. Instead, these locations are either incorrectly shown as cumulative impacts or they are omitted altogether from the listings. **21**

The Project must be required to fully mitigate its direct impacts created when the LOS falls from a satisfactory level to an unsatisfactory level when project traffic is added. **22**

7) Other LOS Calculation Errors Must Be Corrected – Several locations are shown with better operations when Project traffic is added to baseline volumes but no physical improvements are installed. As one example, Page 4.15-116 identifies Redlands/Alessandro as being directly impacted although this intersection is shown to improve dramatically with the addition of Project traffic and without any improvements specified. It is not possible for intersection operations to improve unless additional traffic lanes are added or other improvements are made. The following are additional examples of calculations of improved LOS and reduced delay when project traffic is added that are clearly erroneous and must be corrected: **23**

Existing (2012) plus Project – Intersections – (AM Peak Table 4.15.AD-1)

- #11 – Redlands/Ironwood – Improves from LOS D with 40.9 seconds of delay to LOS C with 34.4 seconds of delay with Project traffic added.
- #112 – Placentia/Perris - Improves from LOS C with 30.1 seconds of delay to LOS C with 29.6 seconds of delay with Project traffic added.

Existing (2012) plus Project – Intersections – (PM Peak Table 4.15.AD-2)

- #11 – Redlands/Ironwood – Improves from LOS D with 37.3 seconds of delay to LOS C with 34.8 seconds of delay with Project traffic added.
- #107 – Evans/Rider - Improves from LOS C with 28.3 seconds of delay to LOS C with 27.6 seconds of delay with Project traffic added.

Year 2017 plus Project – Intersections – (AM Peak Table 4.15.AI-1)

- #23 – Redlands/Alessandro – Improves from LOS E with 39.2 seconds of delay to LOS C with 17.1 seconds of delay with Project traffic added.

Year 2017 plus Project – Intersections – (PM Peak Table 4.15.AI-2)

- #23 – Redlands/Alessandro – Improves from LOS C with 20.1 seconds of delay to LOS C with 16.2 seconds of delay with Project traffic added. — 23

Numerous duplications in the listings in the Draft EIR must also be eliminated (i.e., see Page 4.15-106 which repeats the last two intersections of San Timoteo-Live Oak and Redlands-San Timoteo at the end of the list of intersections identified as being cumulatively impacted).

8) No Mitigation Measures Proposed for Year 2017 or Year 2022 Analyses – The Draft EIR and TIA Report provide mitigation measures based on the analyses of Existing as well as Year 2035 Buildout with Project traffic added. While many significant direct and cumulative impacts are identified in the TIA Report in the analysis of Year 2017 conditions with fifty percent of Project traffic added as well as in the analysis of Year 2022 conditions with all Project traffic added, no mitigation measures are proposed for the Year 2017 and for the Year 2022 significant impacts. — 24

The Draft EIR must also identify the mitigation measures that are shown in the TIA Report and that are concurrently required in Year 2017 and in Year 2022. This is the major flaw in the Draft EIR since significant impacts must be mitigated in a timely manner and mitigation of these significant traffic impacts when they are forecast to occur has been omitted.

9) "Significant and Unavoidable" Impacts Require Further Evaluation – In regard to Alternative Transportation Policies, Plans, and Programs, Page 1-31 of the Draft EIR states "The Proposed Project will create a complete roadway circulation network, install a loop trail system, have Class II bikeways and sidewalks on all internal streets, and streets can accommodate bus turnouts when needed by the local transit agency." As mitigation, Page 1-31 of the Draft EIR states "Carpooling is required under Air Quality Mitigation Measure 4.3.6.4A. No additional mitigation is required." — 25

Mitigation Measure 4.3.6.4A on Page 1-12 of the Draft EIR states "Future development in the WLCSP will implement a number of activities to help reduce long-term air pollutant emissions, including participation in the County's Rideshare Program, on-site bicycle lanes, sidewalks and pedestrian paths, etc." The traffic analysis then proceeds to identify numerous significant traffic impacts and classifies many of them including all those on the freeway system as "significant and unavoidable." — 26

While the Draft EIR identifies a number of "significant and unavoidable" traffic impacts, it does not evaluate or propose all feasible Transportation Demand Management (TDM) measures that would address these impacts. TDM measures reduce traffic impacts by lowering the number of vehicle trips by encouraging, requiring, and/or subsidizing alternative transportation. Impacts are also reduced by measures that avoid travel during congested peak hours. **27**

From their website, the Riverside County Transportation Commission's Core Rideshare Program offers ride matching for carpools and vanpools, free incentives for employees to try ridesharing, and a guaranteed ride home program for employers with more than 250 employees. In addition to participation in the County's Rideshare Program, the all reasonable TDM measures must be considered including: **28**

Shuttles to Connect to Existing Transit Service – At this time, transit service is not provided in the World Logistics Center Project area. Until this occurs, shuttle service connecting with existing transit would encourage use of alternative transportation by many employees. **29**

Construction of Bus Turnouts - Construction of bus turnouts throughout the Project, initially to be used by shuttles, must be required as street improvements are constructed rather than being deferred until needed by the local transit agency. **30**

Flex Time, Staggered Work Hours, and Compressed Work Hours - A number of the Project's peak hour trips would likely be generated by employee commuting. Use of flex time, staggered work hours, and/or compressed work hours to avoid peak commute hours is an effective method to reduce travel at these congested periods. **31**

Differential Parking Treatments - Preferential parking for those employees that commute together is a simple measure that can encourage alternative transportation. **32**

On-Site Child Care - Provision of child care facilities on-site can encourage use of alternative transportation because employees will not need the flexibility of passenger vehicles to arrange drop-offs and pick-ups and because they will be able to respond to emergencies without leaving the site. **33**

Other TDM Measures – The following TDM measures would further reduce the number of employee commute trips to and from the Project:

- Designated Contact – Administers all aspects of TDM Program; provides employee orientation packets identifying transportation options; periodic special promotions as well as trip planning with routes and maps. **34**

➢ Secured Bicycle Parking; Motorcycle Parking; Showers/Clothes Lockers — 34

To achieve and maintain employee trip reduction goals, the individual TDM plans for employers in the World Logistics Center must be developed and then monitored on a regular basis. Further, these plans must also contain penalties for non-compliance. The Draft EIR must include the preparation and monitoring of TDM plans as an enforceable condition of approval for each project in the World Logistics Center. — 35

10) Proposed Mitigation Measures Are Defective – Several of the Mitigation Measures that are identified in the Draft EIR and in the TIA Report are defective as follows:

a) Trans 1 requires that each development within the World Logistics Center must conduct a traffic study. The depth and scope of these required traffic studies must be defined in the Draft EIR in addition to including this requirement as an enforceable condition of approval for each and every project within the World Logistics Center. — 36

b) Trans 5 requires a study with Caltrans and the other cities to determine how the many required improvements will be funded and implemented. Such an effort has not begun and it will take many years to complete. By then, a number of developments in the World Logistics Center will likely have paid their DIF and TUMF fees. Payment of the additional fee determined by the multi-jurisdictional study must be included as an enforceable condition of approval for each and every project within the World Logistics Center. Additionally, since the measure only identifies Caltrans and the cities, it appears the County has been omitted from this study effort and they must be added. — 37

c) Trans 6 suggests aligning the TUMF Program so that improvements needed to mitigate traffic impacts created by the World Logistics Center are funded earlier. Many improvements are needed throughout the County and there is no guarantee that the realignment of project priorities to benefit the World Logistics Center will occur in a timely manner. — 38

d) In the mitigation of impacts, the use of TUMF or DIF fees are proposed to implement the necessary improvements, even though the World Logistics Center Project creates a direct impact. The World Logistics Center Project must be required to mitigate all of the direct traffic impacts that it creates. — 39

e) The Draft EIR and the TIA Report do not identify which, if any, of the improvements required by the Mitigation Measures are covered by fees now being collected under the TUMF and DIF Programs. The Draft EIR — 40

must provide supporting evidence as to which TUMF and DIF improvements are currently programmed, and which are not. — 40

f) In several cases, particularly in the 2035 analysis, potential mitigation measures are quickly dismissed because of cost (such as adding a mixed flow lane to a freeway segment). It is my understanding that high cost cannot be used to conclude that the particular mitigation is not feasible. For other freeway sections such as SR-91 south of SR-60, Caltrans is currently widening the mainline whereas the Draft EIR indicates adding lanes to this portion of the freeway is not feasible because of the need for retaining walls which are currently being built. — 41

g) There are a number of errors that were cut and pasted from the TIA Report directly into the Draft EIR. Many of these appear in the 2035 analysis for the freeway segments (see Page 379 of the TIA Report and following) where the words in the second line "period this intersection" appear again and again. This gets worse (see Page 386 of the TIA Report and following) where the freeway segments involve I-10 but the references are to SR91. These errors must be eliminated to properly define the mitigation measures and the responsibility for their implementation. — 42

11) <u>Proposed Mitigation Measures Are Not Shown To Be Timely</u> – Payments of either traffic impact fees or fair shares toward improvements do not ensure that the improvements will be constructed in a timely manner. CEQA requires that mitigation measures be effective, enforceable, and timely. Merely requiring the applicant to make fair share payments does not ensure the significant improvements will be constructed in a timely manner. Therefore, the mitigation measures included in the Draft EIR are not feasible as they cannot be constructed without adequate funding. As discussed further below, the Draft EIR must be modified to require that significant additional mitigation measures be funded and constructed by the World Logistics Center Project. — 43

To provide timely implementation of improvements required for cumulative impact mitigation, execution of a reimbursement agreement with the City must be considered. Under this agreement, the Project constructs all improvements necessary to mitigate cumulative impacts, and is subsequently reimbursed by the City for costs in excess of the Project's fair share as other development occurs. To avoid gridlock LOS F conditions in the Project area, the City of Moreno Valley should utilize this tool to accelerate the required improvements so they are available in a timely manner, and should make this mitigation arrangement an enforceable condition prior to approving this Project.

12) <u>Traffic Queuing Has Not Been Studied, Evaluated, or Mitigated</u> - Traffic study guidelines such as the "Guide for the Preparation of Traffic Impact Studies" published by the California Department of Transportation in December 2002 — 44

require that facility geometry including the storage lengths be evaluated for baseline and for baseline with Project traffic added. The TIA Report did not evaluate queuing or determine if adequate storage capacity exists before turning lanes overflow or if through traffic backs up through adjacent closely spaced intersections. Facility geometry together with queuing must be analyzed, evaluated, disclosed, and mitigated. **44**

13) Draft EIR Fails to Analyze Rail Service for the World Logistics Center – The traffic analysis discloses that the World Logistics Center Project will create numerous significant environmental impacts, many of which are the direct result of the high volumes of truck traffic required to serve the site. The Draft EIR must review transportation access to the site using rail service as a mitigation measure rather than just rely on trucks to provide access. **45**

14) Mitigation Monitoring Program Is Required – The Draft EIR does not indicate that a Mitigation Monitoring and Reporting Program will be prepared as a part of the Final Draft EIR. The Mitigation Monitoring and Reporting Program should have been made a part of the Draft EIR so it would be available for public review and comment at this time, along with the rest of the documents. **46**

In sum, the Draft EIR must address the significant issues and concerns outlined in this letter. The evidence in the Draft EIR makes clear that the significant traffic impacts created by the World Logistics Center Project cannot or will not be addressed in a timely manner, especially in light of the fact that critical mitigation measures are not funded. After correction of the faulty methodology in the Draft EIR, the World Logistics Center Project will also be found to create additional significant traffic impacts in Years 2012, 2017, 2022, and 2035 that must be properly evaluated and mitigated in a Recirculated Draft EIR. **47**

Respectfully submitted,

Tom Brohard and Associates

Tom Brohard

Tom Brohard, PE
Principal

Enclosures

RESPONSES TO LETTER F-9B

Sierra Club, Center for Community Action and Environmental Justice, and Natural Resources Defense Council

Response to Comment F-9B-1. The commenter states that he, Tom Brohard and Associates, was hired by the Natural Resources Defense Council to review the World Logistics Center (WLC) Draft Environmental Impact Report (DEIR) Traffic and Transportation sections and the Traffic Impact Analysis (TIA) Report prepared by Parsons Brinkerhoff. He, Mr. Brohard, finds the DEIR and TIA seriously flawed and requests the finding and comments in his letter be addressed in a Recirculated DEIR. His comments have been addressed in this response to comment letter by the City and because there are no new significant impacts not previously discussed in the DEIR a Recirculated DEIR is not required. The City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

Response to Comment F-9B-2. The commenter states the DEIR and TIA confuse direct and cumulative impacts, do not show mitigation measures for 2017 or 2022, or demonstrate that funding is available to construct mitigation measures in a timely manner.

The commenter confusions direct and indirect impacts. The comment is addressed below in Responses to Comments F-9B-18 through F-9B-21. The claim that mitigation measures were not identified for 2017 and 2022 is incorrect. Please see Response to Comment F-9A-12, which lists where mitigation measures for 2017 and 2022 are presented in the TIA.

Funding for the identified improvements is expected to come from a variety of sources:

- The Development Impact Fee (DIF) program, which is designed to provide funds for improvements needed to mitigate the impacts of development in the City of Moreno Valley. See Mitigation Measure (MM)-Trans-3 in the TIA.
- DIF-like fee programs in other jurisdictions designed to provide funds for improvements needed to mitigate the impacts of developments with their respective jurisdictions.
- The Transportation Uniform Mitigation Fee (TUMF) program, which is designed to provide funds for improvements needed to mitigate development throughout western Riverside County. See MM-Trans-4 in the TIA.
- State and Federal sources as described in Southern California Association of Governments' (SCAG's) 2012 Regional Transportation Plan (RTP).
- Fair-share contributions from the WLC, identified in the TIA, for improvements under the jurisdiction of the City of Moreno Valley. See MM-Trans-2 in the TIA.
- Fair-share contributions from the WLC identified in the TIA, for improvements outside the jurisdiction of the City of Moreno Valley under programs to be established with neighboring jurisdictions to provide for the collection of fees from developments with impacts outside the approving jurisdiction and not already covered in the TUMF program. See MM-Trans-5 in the TIA.

The WLC's fair-share contributions to DIF, TUMF, and improvements covered by new inter-agency agreements would be conditions of approval of each of the project's individual building permits and thus, the funds would be available in a timely manner as the need for improvements emerges over time of the project's buildout (see TIA MM-Trans 1, 2, 3, 4, and 5). The City does not have direct control over the expenditure of TUMF funds but has pledged to work with WRCOG to shift funding priorities to align with the improvements identified in the TIA (see MM-Trans-6 in Chapter 11, Section G DEIR Appendix L). The City does not control the state and federal funds identified in the RTP.

The TIA correctly points out the City is unable to ensure the implementation or timeliness of improvements to facilities not under its control (TIA Chapter 11, Sections E and F, DEIR Appendix L). Moreover, under state law the project cannot be held responsible for existing deficiencies or for more than its fair share of the cost of improvements needed to accommodate growth. Through the mitigation measures identified in the TIA the City has exercised its authority to the maximum extent towards ensuring that the mitigation measures are implemented in a timely manner. The TIA also recognizes that improvements not under the control of the City may not be built in a timely fashion so that the impacts have been characterized as significant and unavoidable. Refer to TIA in Chapter 11, Sections E and F. DEIR Appendix L.

Response to Comment F-9B-3. The City acknowledges the commenters education and experience on traffic and transportation. This information along with the commenter's resume will be provided to the City's decision makers for consideration before acting on the proposed project and the EIR.

Response to Comment F-9B-4. The commenter again states he has reviewed the DEIR and TIA (Parsons Brinkerhoff, January 2013) and has comments that must be addressed and further studied. He also implies the comments would require revision and recirculation of the DEIR and recirculation should occur. The commenter's comments along with other comments letters addressing traffic (refer to Response to Comments B-2-9, C-3-17, E-2A-5, E-2A-12, E-2B-21, E-2B-22, E-3-5, E-5-2, E-5-3, F-1-43, F-9A-9, F-9A-13, F-9C-2, F-11-22, F-13-9, F-13-12, F-13-92, F-13-94, F-13-97, F-13-98, and G-57-5) have been responded to by the City and the TIA has been revised, where appropriate, and is included as Appendix L to the FEIR Volume 2. Responses to specific comments are provided below in Responses to Comments F-9B-5 through F-9B-47 below.

Response to Comment F-9B-5. The commenter states that traffic counts taken in 2011 should have been adjusted upwards by 2% for 2012 analysis, the analysis did not account for seasonal fluctuations in traffic, and that no evidence was presented to indicate how or if adjustments were made to convert trucks into passenger car equivalents.

Traffic counts were taken within a year of the Notice of Preparation (dated February 2012). Counts taken with a year of the analysis date are generally accepted as valid, therefore no adjustment was necessary. The 2% value cited by the commenter is a default value used by the City of Moreno Valley for certain simplified forecasts of future traffic and is not intended for the use in adjusting traffic counts.

Response to Comment F-9A-9 provides a detailed analysis for seasonal traffic fluctuations and why they are not an issue in this analysis.

Detailed information on the use of passenger car equivalents is provided in Chapter 2, Section A of the TIA (DEIR Appendix L-1), in the sub-section entitled "Passenger Car Equivalents."

Response to Comment F-9B-6. The commenter states the TIA fails to provide the trip generation and distribution for each of the other development projects cited in the report, and does not show peak hour traffic for them through study intersections, roadway, and freeway segments. It also claims the 2017 scenario does not appear to include trips to and from various projects in Riverside County.

The traffic analysis included an exceptionally strong effort to incorporate a comprehensive list of other known projects, with over <u>one hundred</u> projects included on the list. As stated in the TIA (Chapter 2, Section B, DEIR Appendix L-1), these projects were input into the Riverside County Traffic Analysis Model (RivTAM) model, which computed the trips generated by these projects and distributed them to logical paths as is done for all land uses. The traffic impact of these projects is therefore fully accounted for in the TIA analysis.

Manually computing and assigning the traffic from each of these projects, which is what the commenter seems to be suggesting, represents an obsolete methodology from the days prior to the use of travel demand models in traffic analyses. Among other problems, such a procedure would not represent that ways that the individually-examined projects interact with each other. For example, it would not show how trips originating in one project might have another new project as a destination, or how the traffic from one project might cause the traffic from another project to divert to a different route. The City approved the use of RivTAM because it performs the trip generation and distribution functions much better than the procedure suggested by the commenter. RivTAM is a version of the SCAG's latest six-county model with additional detail (traffic analysis zones and local roads) added within Riverside County. It was developed for TIAs in Riverside County as a replacement for several older models that covered different portions of the county. RivTAM has both the geographic scope needed to capture all likely impacts and conformity with regional planning assumptions. There is a memorandum of understanding[34] among the jurisdictions of Riverside County that encourages the use of the RivTAM model for TIAs. The MOU reads, in part (from page 4 of the MOU),

> *"RivTAM was designed to address most city and county level modeling needs in Riverside County. The model inputs and zone system were designed with sufficient detail to support most city/county planning applications. The modeling methodology can support evaluation of a range of highway, HOV, and transit scenarios. The Agencies encourage the use of RivTAM by Cities, other governmental jurisdictions, and private entities for their own transportation planning purposes. Universal use of RivTAM by the Agencies, Cities, other governmental jurisdictions, and private entities, and their consultants will ensure that planning decisions in Riverside County are made on accurate and consistent travel forecasts."*

By using RivTAM for trip generation and assignment the TIA follows the approved methodology for traffic impact studies in Riverside County.

Response to Comment F-9B-7. The commenter states that several freeway segments volumes in 2035 are lower than in earlier years. He says that it is unreasonable to assume that the 25,000 new jobs will solely be taken by city residents. He further states that it is illogical for the level of service (LOS) to improve when the 41.6 million square feet of warehouse is constructed.

The commenter does not identify either the study segments or the study years so it is very difficult to provide a specific and detailed response to the comment. Overall, there are a number of reasons why freeway volumes may be lower in future years than in earlier years or why LOS may improve as follows:

- Improvements on alternate routes could divert traffic away from some segments, especially if the segments are congested. For example, when the WLC extends Eucalyptus Avenue from Redlands Blvd. to Gilman Springs Road will create an alternate route for some trips currently using Alessandro Blvd., SR-60, and Ironwood Avenue.

- Improvements to the road may result in a better LOS. An example would be the widening of Gilman Springs Rd. that is planned as part of the WLC.

- The commenter may have been comparing the 2012 Plus project scenario with the 2017 Plus project scenario and found that volumes are lower in some places in the latter scenario. This is due to the fact that the 2012 scenario includes full build-out of the WLC while the 2017 assumed only partial build-out. Please refer to Response to Comment B-2-8.

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[34] *MOU for RIVTAM Model Maintenance, Update, and Usage*. Not dated, but signed by various parties between June and September, 2010. The signatories were Riverside County Transportation Department, Riverside County Transportation Commission, Western Riverside Council of Governments, Coachella Valley Association of Governments, Southern California Association of Governments, and Caltrans.

- The long-term effect of SCAG's 2012 RTP/ Sustainable Communities Strategy (SCS) is to improve the jobs/housing balance and reduce the amount of long-distance commuting. This would reduce future traffic demand and could produce lower volumes in absolute terms at some locations.

- Upstream congestion may limit the amount of traffic reaching some segments, thus creating spot reductions in traffic volumes even though overall demand increases.

Any of these reasons could account for the occurrence cited by the commenter.

The TIA makes no claim that all WLC jobs would be taken by city residents.

Response to Comment F-9B-8. The commenter states Table 24 of the TIA provides inadequate detail on the trip generation of Phases I and II. TIA Table 24 (FEIR Volume 2 Appendix L-1) has been revised to clarify the trip generation by phase as requested.

Response to Comment F-9B-10. The commenter states Figure 26 and 27 in the TIA are misleading if they show only car traffic. They should also show truck traffic.

The TIA distinguishes between car traffic and truck traffic when it discusses trip generation and distribution. This is appropriate given that the two types of traffic use different routes (trucks are restricted to truck routes), have different air quality impacts, different time-of-day characteristics, etc. Figure 26 and 27 in the TIA (now numbered Figures 32 and 33 in the FEIR Volume 2, Appendix L-1), reproduced below, describe two key characteristics of WLC car traffic, namely:

- *Workers coming from Orange or Los Angeles County would, in most cases, be travelling on freeways in the off-peak direction; i.e. commuters traveling to the WLC from Los Angeles or Orange Counties would be headed eastbound in the morning and westbound in the evening. This would enable them to take advantage of the existing unused off-peak capacity of freeways, since the freeways were sized for flows in the peak direction.*

- *Assuming, as RivTAM does, that WLC employees would work elsewhere if the WLC project were not implemented, then the availability of jobs at the east end of Moreno Valley would reduce the number of workers driving long commutes to distant jobsites to the west and southwest. Exhibit F-9B-1: (Exhibit F-9B-1 below) of the TIA shows that although the project would increase freeway auto traffic eastbound in the morning, it would also decrease the traffic in the more congested westbound direction. In the evening the pattern would reverse, with the project relieving traffic in the congested eastbound direction (see Exhibit F-9B-2 in the TIA or Exhibit F-9B-2 below). Therefore, the WLC project would have a net beneficial impact on the regional freeway auto traffic. This is the desired effect sought in the policies of SCAG, WRCOG, and other regional governments and agencies that encourage better jobs/housing balances as a way to reduce peak directional flows on the regional freeway system.*

Since these are characteristics of car traffic only, not trucks, it is appropriate that the figures be based on car traffic only. Please note that there is a separate figure (Figure 36 in the revised TIA, FEIR Volume 2 Appendix L) showing the distribution of truck traffic.

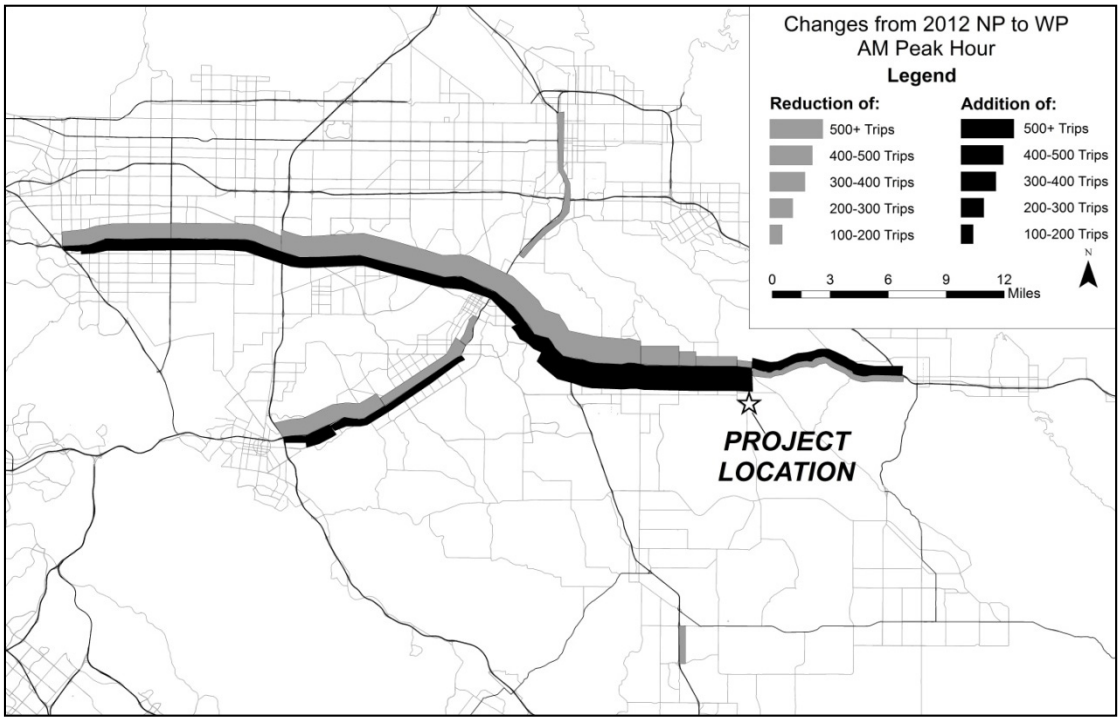


Exhibit F-9B-1: Effect of WLC on Freeway Car Traffic, AM Peak Hour 2012

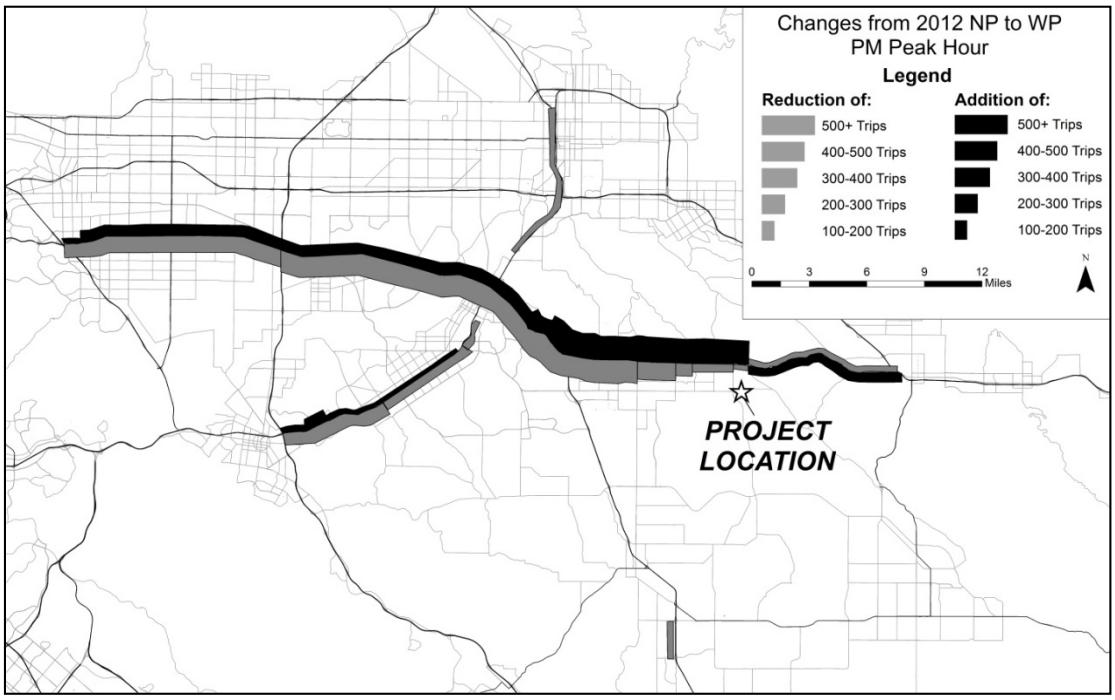


Exhibit F-9B-2: Effect of WLC on Freeway Car Traffic, PM Peak Hour 2012

Response to Comment F-9B-11. The commenter claims the TIA does not clearly identify project trips on freeway segments, roadway segments, and intersections. Instead, with- and without-project figures are given which require comparison.

As the commenter notes, the TIA provides a comparison of with- and without-project conditions. The commenter failed to mention that these volumes are provided side-by-side in the same tables to facilitate the comparison. For example, Table 38 in the revised TIA (Table 28 in the TIA contained in the DEIR) shows the with- and without-project traffic volumes on the freeways in the same row of a single table.

The project's traffic is reported separately in situations where this is appropriate, for example in the air quality analysis where the introduction of clean-fuel trucks servicing the project is being tracked over time. The traffic analysis is different in that the level of service is crucially dependent on the combined effects of project and non-project traffic for the purposes of assessing LOS. LOS cannot be assessed by separating project traffic and other traffic. The TIA therefore properly followed established practice in showing the total volume of traffic using a facility and comparing the with- and without-project LOS.

Response to Comment F-9B-12. The commenter claims the TIA does not follow Caltrans' *Guide for the Preparation of Traffic Impact Studies* in that it does not clearly disclose project generated trips. The commenter also repeats its earlier claim that the use of passenger car equivalents is not clear.

Caltrans' *Guide for the Preparation of Traffic Impact Studies* requirements in this regard are found in Appendix A, Section IV. Points C and D which read (regarding items to be included in a TIA report),

> *"C. project trip generation including references (table)*
>
> *D. Project generated trip distribution and assignment (figure)"*

The requirement to disclose project trip generation is fulfilled by TIA Chapter 2, Section A, sub-sections entitled Trip Generation Assumptions for High-Cube Warehouses, and Trip Generation Assumptions for Other WLC Land Uses, along with TIA Chapter 4, Section C (project Trip Generation), DEIR Appendix L. Please note that in Comment F-9B-8 the commenter cites the trip generation information in the TIA (DEIR Appendix L), the very information that this comment claims was not provided.

The requirement to provide a figure showing project trip distribution was fulfilled in TIA Figure 25 (DEIR Appendix L) (now numbered 28 FEIR Volume 2, Appendix L-1) showing the distribution of project car traffic and by Figure 29 (DEIR Appendix L) (now renumbered 33, FEIR Volume 2, Appendix L-1) showing the distribution of project truck traffic.

Also note that Caltrans reviewed and commented on the TIA and did not find any deficiency regarding the presentation of trip generation and distribution information. See Response Letter B-2.

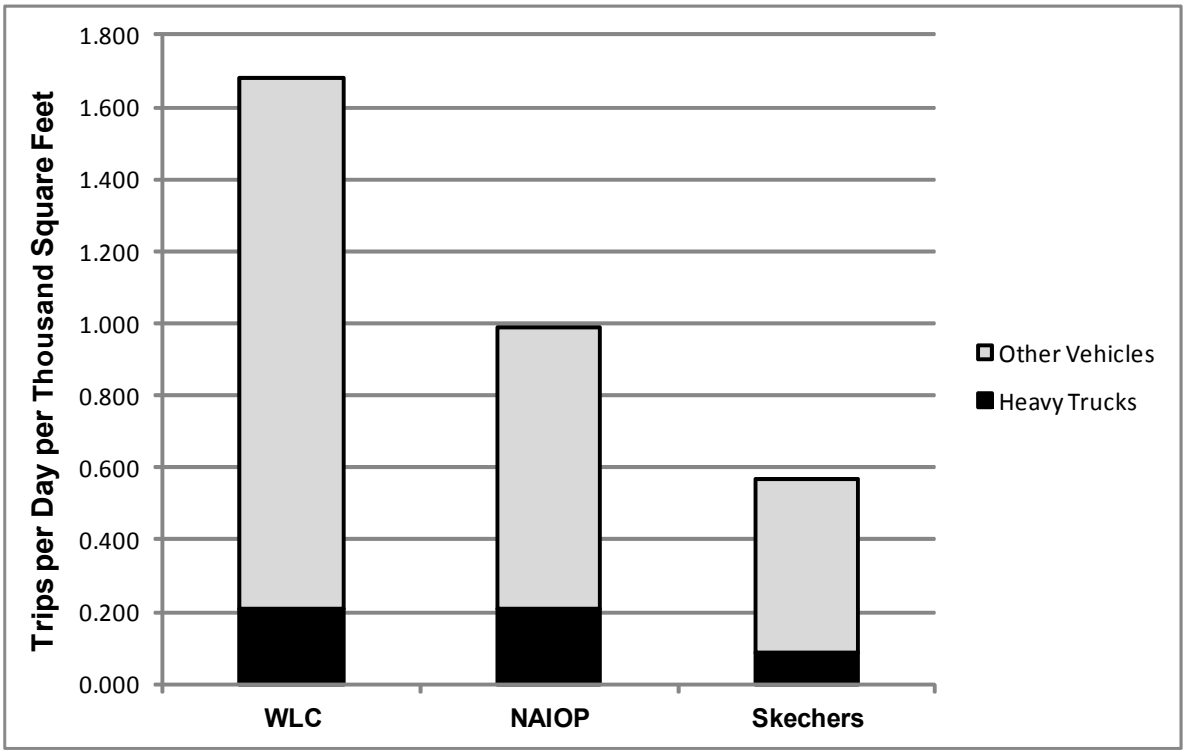
Detailed information on the use of passenger car equivalents is provided in Chapter 2, Section A of the TIA, in the sub-section entitled "Passenger Car Equivalents (PCEs)" (DEIR Appendix L).

Response to Comment F-9B-13, 14, 15, 16, 17. The commenter claims that the percentage of truck traffic used in the analysis was too low and results in under-estimation of air quality impacts. The commenter states the percentage of trucks from the NAIOP study should have been used.

Please see Responses to Comments F-9A-17 through F-9A-20. The commenter's suggests the truck percentages from the NAIOP study should be used would be appropriate if the overall trip generation rate from the NAIOP study was also used. Instead, the commenter suggests cherry-picking where the high truck percentage from one source (NAIOP) is selected and then combined

with the high overall trip generation rate selected from a different source Institute of Transportation Engineers (ITE) to produce a very high estimate of project truck traffic. The problem with this approach is the City has used it before in previous analyses and found that it produced results that were unreasonable when compared to actual field conditions. For example, this approach was used in EIR for the Skechers high-cube warehouse building and resulted in forecasts that were three times the actual operational trip generation for car trips and nearly eight times the actual trip generation for trucks[35]. This approach is misleading to decision makers, creates an undue burden on development, and could ultimately discredit the City's project review process in the eyes of potential developers and members of the public. For these reasons it was not used in the current analysis and the formula in the City's Traffic Impact Guidelines was used instead. A comparison of the trip generation rates used in the WLC TIA and from the NAIOP, Moreno Valley 2013, and Skechers studies is shown in Exhibits F-9B-3 and F-9B-4 below.

Exhibit F-9B-3: Comparison of Trip Generation from Southern California Sources



[35] These figures are based on traffic counts taken at the Skechers building after it had been fully operational for over a year. See Technical Memorandum *Traffic Generated by the Skechers Warehouse*, Parsons Brinckerhoff to the City of Moreno Valley, November 14, 2012.

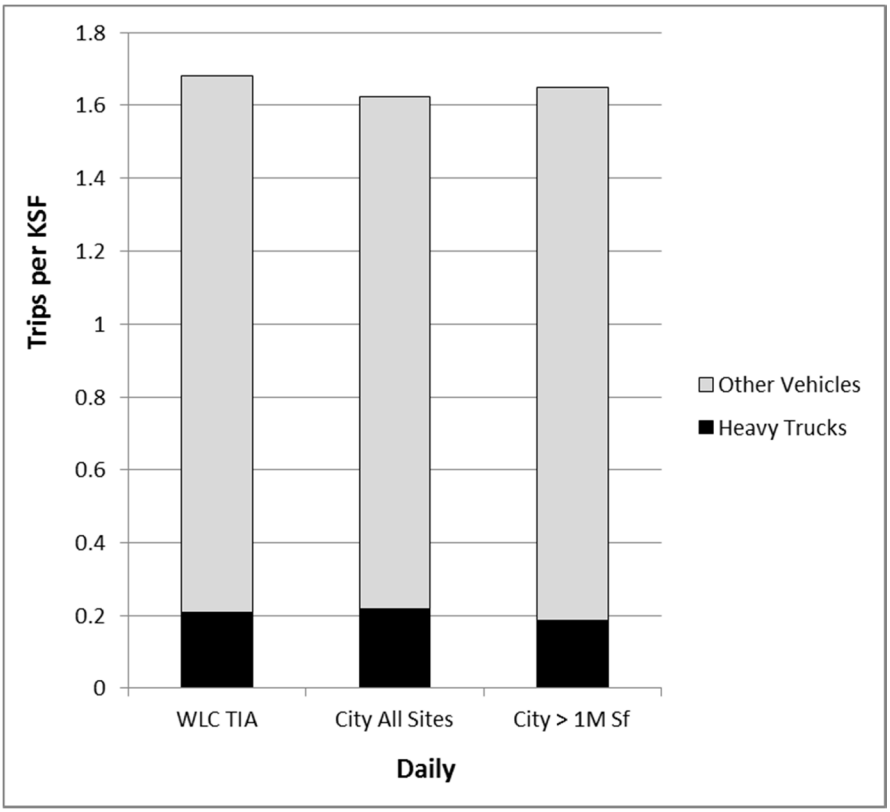


Exhibit F-9B-4: Comparison of Trip Generation from WLC TIA and City (2013) Warehouse Survey

Response to Comment F-9B-18, 19, 20, 21 The commenter claims the TIA incorrectly identifies many impacts as being cumulative when they are in fact direct impacts. The comment provides a list of 52 instances to support this contention.

Forty-seven, or 90%, of the 52 instances cited by the commenter occur in future-year scenarios where the addition of traffic from other development projects contributes to the level of congestion on the facility. Project impacts under these conditions were properly identified as "cumulative."

Of the remaining five, two (Intersections 123 and 132) were identified as direct project impacts in Table 77 of the TIA (Table 73 in the revised TIA, FEIR Volume 2 Appendix L) entitled "Direct Impacts on Intersections and Mitigations Measures" (DEIR Appendix L). The remaining three instances, freeway mainline section F-6 and weaving sections 25 EB and 25 WB, were identified as a direct impacts in Table 78 of the TIA (Table 73 in the revised TIA, FEIR Volume 2 Appendix L) entitled "Direct Impacts on Freeways and Mitigations" (DEIR Appendix L).

Response to Comment F-9B-23. The commenter states there are several locations where the Plus-Project LOS is better than the No-Project LOS even though no physical improvements are installed. The commenter cites the Redlands/Alessandro intersection as a case where average traffic delay improves dramatically without any improvements specified. The commenter claims, "*it is not possible for intersection operations to improve unless additional traffic lanes are added or other improvements are made.*" The commenter also cites the Redlands/Ironwood, Placentia/Perris, and Evans/Rider intersections as places where this occurs.

Contrary to these claims, it is possible for traffic conditions to improve at a certain location even without physical improvements there. Specifically:

- The LOS of the Redlands Blvd./Alessandro Blvd intersection would improve with the WLC because the project would sever Alessandro Blvd east of Merwin Street, thus cutting off the main flow of traffic to the Redlands/Alessandro intersection (see Figure 16 in the TIA, copied below as Exhibit F-9B 5). The City is doing this to prevent project traffic from routing through an existing Old Moreno neighborhood along Alessandro Blvd. This would certainly have the effect of reducing congestion and traffic delay at Redlands/Alessandro.

- The project would extend Eucalyptus Avenue from Redlands Blvd. to Gilman Springs Road. This would divert some traffic away from Redlands Blvd. and reduce traffic delay at the Redlands Ave./Ironwood intersection.

- The reductions in delay at the two other locations cited in the comment are half-a-second or less. Minor changes like this can be accounted for by the general re-distribution of traffic that is to be expected with all major developments.

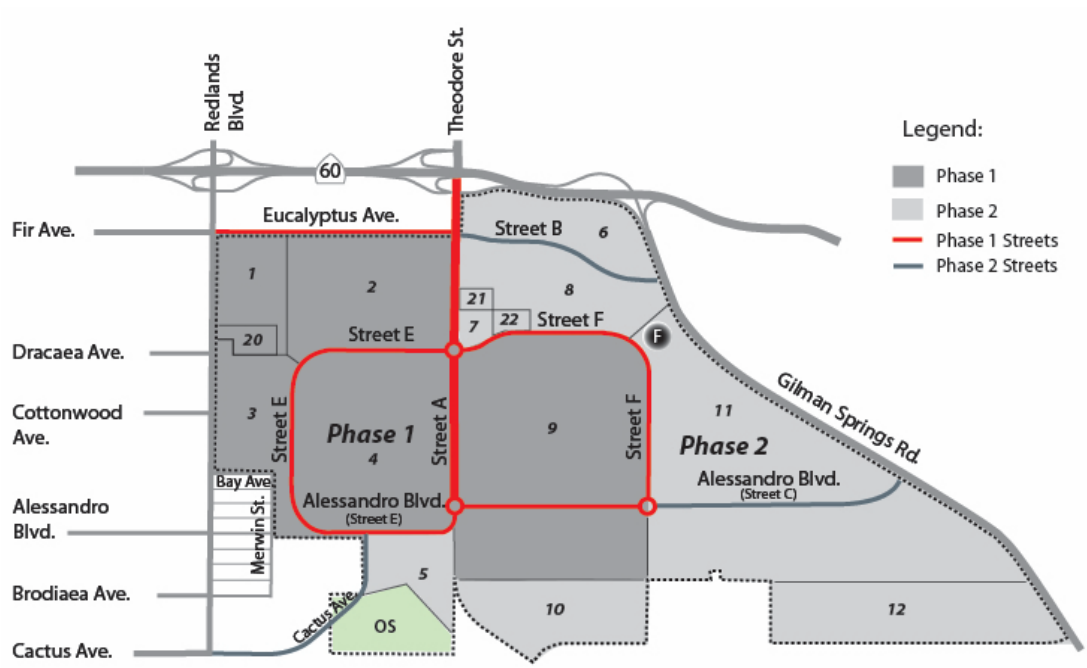


Exhibit F-9B 5: Proposed Roadways and Phasing

Response to Comment F-9B-24. The commenter claims that no mitigation measures were identified for 2017 or 2022. The claim that no mitigation measures were identified for 2017 and 2022 is incorrect. Response to Comment F-9A-12 includes a list of tables where mitigations for each year were provided in the TIA.

Response to Comment F-9B-25 through 35. The commenter contends that the DEIR does not evaluate or propose all feasible Transportation Demand Management (TDM) measures that would address project impacts. However, the proposed project includes a number of mitigation measures to reduce project-related traffic impacts, including nearly all those recommended by the commenter. A requirement already contained within the DEIR is MM 4.3.6.4A mandates that tenants participate in

Riverside County's rideshare program, which has an established program to distribute information and coordinate carpooling and public transportation. Consistent with those goals, all tenants will also need to comply with the requirements of SCAQMD Rule 2202, which accomplishes the same goals as requested by the commenter. All of the methods identified above are means to comply with SCAQMD Rule 2202. In addition, Section 3.4.6.2 of the DEIR describes the various ways that the project would incorporate strategies to reduce congestion. Specifically, the DEIR states "*The Specific Plan states that project site development will support alternative transportation options for employees through implementation of onsite bicycle storage, preferred parking for low-emitting and fuel-efficient cars, carpool high-occupancy vehicles, and access to public transit*." These requirements would be fully enforceable elements of the Specific Plan and the Mitigation Monitoring and Reporting Plan.

As stated in the WLCSP and Section 12.D of the TIA (DEIR Appendix L), the WLC would be designed to accommodate bus access on all project streets. Bus turn-outs and shelters would be provided at all active bus stops. However, there is no purpose in constructing bus turnouts prior to their need by the local transit agency. Bus stops/turnouts serve no purpose without the local transit agency utilizing them.

Due to the programmatic nature of this project, it is unknown at this time the nature of tenants that may choose to operate at the WLC. As a result, it is not known whether strategies like flex time would be compatible with a company's operations. A number of factors go into determination of work schedules, including operational needs, employee acceptance, labor negotiations and established work rules, coordination with offsite customers/vendors, coordination with other shifts to identify a few. As a result, it would be speculative as to whether such an effort would be feasible or successful.

The proposed project site is an industrial site. As such, it is not recommended that child care centers be located within the boundaries of the WLC. In addition, there are no suitable locations for offsite child care facilities within walking distance for several reasons. First, the WLC project is itself very large, covering approximately four square miles, and any location that would be walkable from a specific portion of the WLC project site would not be walkable from other portions of the site. More importantly, the project site is bounded on the north by State Route 60, on the east by the Badlands, on the south by San Jacinto Wildlife Area Conservation Buffer, and on the west by a residential buffer beyond which there are single family homes. As a result, no suitable location for a day care facility within walking distance of the WLC project site could be identified. However, there are a number of child care facilities nearby within the residential and commercial areas of Moreno Valley that could effectively serve employees working at the WLC.

Response to Comment F-9B-36. The commenter states that the mitigation measures in the TIA are defective in that the depth and scope of the traffic studies required under MM Trans-1 must be defined in the EIR in addition to including this requirement as a condition of approval for every project in the WLC.

MM Trans-1 contained in the TIA (and identified as MM 4.15.7.4A in the EIR) sets forth a requirement for the preparation of subsequent traffic studies for each plot plan application for the purposes of determining what traffic improvements identified in the TIA (and EIR) are required to be completed prior to the issuance of a certificate of occupancy for each building. The scope and depth of the traffic studies described in MM-Trans-1 will be as specified in the City of Moreno Valley *Traffic Analysis Guidelines.* These studies will be required as part of the project approval process. Both of these elements are part of MM Trans-1 (and MM 4.15.7.4A in the EIR). MM Trans-1 (and MM 4.15.7.4A in the EIR) has been re-written as follows (added text shown in double underline; deleted text shown in strikeout) to clarify this:

~~**4.15.7.4A** When processing future individual development permits under the World Logistics Center Specific Plan, as part of the City's discretionary approval process, the City shall require each project to perform a project specific traffic impact study to ensure~~

~~that the assumptions set forth in the TIA prepared for the programmatic level entitlement remain valid. These traffic impact analyses shall conform to the traffic impact analysis guidelines prepared by the City of Moreno Valley and the California Department of Transportation and shall be used to impose project-specific mitigation on the individually-proposed projects. These traffic analyses shall be completed prior to the issuance of grading permits for the requested development. It should be noted that the City will require that the applicant to fully fund or to pay a fair share of some of the improvements identified in Tables 4.15.AX through 4.15.BC. These improvements will be required by the City as a Condition of Approval.~~

4.15.7.4A A traffic impact analysis ("TIA") conforming to the guidelines for traffic impact analysis adopted by the City shall be submitted in conjunction with each Plot Plan application within the World Logistics Center Specific Plan. Prior to the approval of the Plot Plan, the City shall review the traffic impact analysis to determine if any of the traffic improvements listed in Final EIR Volume 2 Tables 4.15.AV through 4.15.BA (TIA Tables 74 through 79) of the traffic impact analysis prepared for the Program Environmental Impact Report are required to be completed prior to the issuance of a certificate of occupancy for each building. If the City determines that any of the improvements within Moreno Valley are required to be constructed in order to ensure that the traffic impacts which will result from the construction and operation of the building will be mitigated into insignificance, then the completion of construction of the improvements prior to the issuance of a Certificate of Occupancy for the building shall be made a Condition of Approval of the Plot Plan. Construction of improvements within the City shall be subject to credit/reimbursement agreement for those DIF and/or TUMF eligible costs. If the City determines that any of the improvements outside Moreno Valley are required to be constructed in order to ensure that the traffic impacts which will result from the construction and operation of the building will be mitigated to a less than significant level, then the payment of any necessary fair share contribution as prescribed in Mitigation Measure 4.15.7.4G prior to the issuance of a Certificate of Occupancy for the building shall be made a Condition of Approval of the Plot Plan. If the City determines that the traffic impacts which will result from the construction or operation of a building will be significantly more adverse than those shown in the Program Environmental Impact Report, further environmental review shall be conducted prior to the approval of the Plot Plan pursuant to Public Resources Code § 21166 and CEQA Guidelines § 15162 to determine what additional mitigation measures, if any, will be required in order to maintain the appropriate levels of service.

Response to Comment F-9B-37. The commenter states the mitigation measures in the TIA are defective in that MM-Trans-5 requires a study that could take a long time. Payment into the fee must be an enforceable condition of approval. MM-Trans-5 should include the County, not just Caltrans and the cities.

Payment into the multi-jurisdictional program is already an enforceable condition of approval under MM-Trans-5. The time required to do the study depends on other agencies' actions and so is not under the control of the City of Moreno Valley. In response to the comment the County of Riverside has been included as one of the agencies that the City will endeavor to work with to establish the inter-jurisdictional funding mechanism.

Response to Comment F-9B-38. The commenter states the mitigation measures in the TIA are defective in that MM-Trans-6 states that the City will try to align TUMF priorities with the project but there is no guarantee that this will happen given that many improvements are needed throughout the county.

MM-Trans-6 correctly states that the City will request the change in priority and work with Western Riverside Council of Governments (WRCOG) regularly on this issue. However, the City does not have direct control over TUMF priorities and therefore any change requires working cooperatively with all other partner agencies. Because there is no guarantee that TUMF funded improvements will be in place when needed, impacts mitigated by TUMF funded improvements are characterized as significant and unavoidable. See TIA in Chapter 11, Sections E and F, FEIR Appendix L.

Response to Comment F-9B-39 and 40. The commenter states the DEIR and TIA propose to use payment of TUMF and DIF as mitigation for direct project impacts. The commenter also states that the DEIR and TIA must provide supporting evidence of which TUMF projects are programmed and which are not.

The FEIR and TIA (FEIR, Appendix L) has been clarified to state that fair share payments for direct project impacts will be made in addition to TUMF and DIF payments. The rationale behind this mitigation approach is that most of the direct impacts (see FEIR Tables 4.15.AT through 4.15.AV or TIA Tables 72, 73, and 74) are to facilities that already have existing deficiencies. Under these circumstances, the project should only pay its fair share of the cost of the improvements needed to achieve the adopted LOS target in accordance with key federal court rulings (i.e., Dolan v. City of Tigard 1994) and California law.

Furthermore, the FEIR and TIA contain a mitigation measure (FEIR MM 4.15.7.4A and TIA MM Trans-1) requiring preparation of subsequent TIAs in conjunction with each Plot Plan application within the WLCSP for the purposes of determining which of the traffic improvements listed in FEIR Tables 4.15.AT through 4.15.AY (or Tables 72 through 77 of the TIA prepared for the Program EIR) are required to be completed prior to the issuance of a certificate of occupancy for each building. In this manner, each increment of development will be required to install/construct certain transportation improvements identified in FEIR Tables 4.15.AT through 4.15.AY as dictated by the subsequent TIAs.

The comment regarding TUMF programming puts the cart before the horse in terms of how prioritization, programming, and allocation of funds work in the TUMF program. The premise of the comment is that the list of programmed projects is fixed and so the list of programmed projects accurately reflects which projects will be funded in the future. In fact the list is not fixed; it is updated as situations change. Some of the projects that would support the WLC are not on the list because the WLC has not yet been approved; if the City approves the WLC then the project list will be adjusted to reflect this major economic development. It is already the policy of Riverside County Transportation Commission (RCTC) to prioritize improvements that support economic development projects such as WLC. To quote from RCTC's *Commission Policy Goals and Objectives* statement:

> ***"Encourage Economic Development***
>
> *Transportation decisions will consider the economic benefits derived from any improvement, and, where feasible and practical, will pursue transportation alternatives that enhance or complement economic development.*
>
> - *Commit to seek opportunities related to transportation projects that will create jobs and improve the economic base in the County.*
> - *Support local agencies in the design and construction of interchanges that are in proximity to regional economic centers and developments.*
> - *Support local projects, consistent with countywide transportation goals, which enhance business development, local employment, and area tourism."*

Response to Comment F-9B-41. The commenter states that in several cases the TIA dismisses potential mitigation measures due to high cost, which is not allowed.

The TIA noted, as information for the use of policy makers, the cost of some improvements would be high. While the CEQA definition specifically takes into account economic factors, this was not a criterion used to determine feasibility for these traffic-related impacts. In the TIA, improvements were deemed to be infeasible if they would (1) require the acquisition of existing homes or businesses; (2) result in excessive air, noise, or vibration impacts on existing homes, businesses, or sensitive natural environments, or (3) create safety impacts that could be considered less acceptable than an improved traffic LOS. In cases where feasibility is uncertain the recommended improvement was treated as feasible in order to produce a conservative estimate of project responsibilities so the project's responsibilities would not be under-estimated. Discussions of the cost of improvements have been removed from the TIA to avoid confusion (FEIR, Volume 2, Appendix L-1).

Response to Comment F-9B-42. The commenter states that there are numerous cases of cut-and-paste errors in the text. The TIA has been reviewed and such errors have been eliminated as they were found (FEIR, Volume 2, Appendix L-1).

Response to Comment F-9B-43. The commenter states the mitigation measures are not shown to be timely. The commenter recommends that the City require the project to construct all mitigation measures needed for cumulative impacts and be later reimbursed for the excess portion beyond the project's fair share.

As stated in the Response to Comment F-9B-2, the City's ability to determine the schedule for implementing mitigation measures is limited. The City has committed to use the reimbursement approach in cases where the project can be shown to have a major impact and where improvements are needed in the short term; for example for Gilman Springs Road. However, neither the developer nor the City has the authority to upgrade facilities in other jurisdictions as suggested by the commenter. Moreover, requiring the project to pay in advance the full the cost of improvements for which it has only a small share of responsibility, which is the case of most of the mitigations identified in the report that are outside of the City, would be contrary to the "rough proportionality" requirement of the Mitigation Fee Act. MM 4.15.7.4F requires the establishment of fair share contribution mechanisms in the affected jurisdictions, which gives all jurisdictions affected by WLC traffic the ability to establish a mechanism to obtain fair share funds from the WLC project as development occurs in the future.

In addition, the approach suggested by the commenter would usurp other agencies' discretion over the orderly development of their facilities. For example, the WLC is responsible for less than 1 percent (0.8%) of the cumulative need to widen I-215 between SR-74 and Ellis Avenue (see TIA Table 77). This widening would have no benefit, in fact could cause traffic operations problems, unless it is done in conjunction with the construction of the proposed new interchange at Ellis Avenue, which is scheduled for completion in 2030 and which has no relationship with the WLC (see RTP project # 3M0731).

Response to Comment F-9B-44. The commenter states their opinion that traffic queuing should have been analyzed in the TIA.

The City does not require queue length analysis for studies intended to provide planning-level assessments of potential improvements that may be needed decades into the future. The City will require queue length analysis where appropriate for plot-level traffic studies as portions of the project build out and more design details are developed, including about building footprints, driveway locations, etc.

Response to Comment F-9B-45. The commenter states the TIA should address using rail as a mitigation measure.

An additional section (Chapter 4, Section F) has been included in the TIA (FEIR Volume 2, Appendix L-1) that analyzes the potential for serving project trips by rail. The analysis showed that rail service to this site was not viable due to a variety of factors, including high fixed costs, secondary impacts on the community, and capacity constraints in the rail system.

Response to Comment F-9B-46. A Mitigation Monitoring and Reporting Program (MMRP) is provided in the FEIR, Volume I. It contains all the mitigation measures in the DEIR and FEIR. CEQA Guidelines Section 15097(a) states "*when a public agency has made the findings required under paragraph (1) of subdivision (a) of Section 15091 relative to an EIR or adopted a mitigated negative declaration in conjunction with approving a project. In order to ensure that the mitigation measures and project revisions identified in the EIR or negative declaration are implemented, the public agency shall adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects.*"

Response to Comment F-9B-47. The commenter is summarizing his previous comments related to the adequacy of the WLC to implement measures to reduce traffic impacts for measures that are not funded and that the project after additional corrections to the "faulty methodology" in relation to traffic is corrected, the project will be found to have additional significant impacts in Years 2012, 2017, 2022, and 2035 which must be fully evaluated and mitigated in a Recirculated DEIR. Revisions to the TIA were conducted and are provided in FEIR Volume 2 Appendix L-1 of this FEIR. The revised TIA did not find additional significant traffic impacts of the proposed project.

Response to Appendix 1 (Résumé for Tom Brohard). The referenced appendix was cited in the comment letter in the section under Education and Experience. We have reviewed the resume in the appendix and although we appreciate the inclusion of professional resumes as parts of comments, we review and consider all technical comments equally.

Response to Appendix 2 (General Plan Amendments Summary for Riverside County). The appendix was cited in the comment letter in reference to the comment that the "Year 2017 traffic volume baseline does not appear to include trips to and from various nearby development projects…" The appendix was reviewed and is included in the analysis in the revised TIA and Section 4.15 of the FEIR Volume 2.

Response to Appendix 3 (California Emissions Estimator Model – Appendix E Technical Source Documentation). The appendix is intended to provide additional information related to the truck trip generation estimations. The appendix was reviewed and is included in the analysis in the revised TIA and Section 4.15 of the FEIR Volume 2.

Letter F-9C: Sustainable Systems Research, LLC; (April 8, 2013) and Appendices 1 And 2 (On Flash Drive)

Letter F-9C

Sustainable Systems Research, LLC
27276 Meadowbrook Dr.
Davis, CA 95618
April 8, 2013

To: Adriano Martinez
From: Alex Karner, PhD
Subject: World Logistics Center Truck Distance Estimates

I was retained by the Natural Resources Defense Council to assess the truck trip distance estimates contained in the Draft Environmental Impact Report for the proposed World Logistics Center (WLC). My curriculum vitae is attached to this memorandum. 1

The WLC is a proposed warehouse distribution and logistics center that would create a maximum of 41.4 million square feet of warehousing space over an area of approximately 4,000 acres in the San Bernardino Valley in the city of Moreno Valley, California [1, p. 3-19]. This memo assesses the derivation of an important variable used in the Draft Environmental Impact Report for the WLC (DEIR) – the average distance that trucks travel to access the site. This distance is used throughout the DEIR to determine the air quality, greenhouse gas, and traffic impacts of the project (see, e.g., DEIR Appendix D, pp. 119-121). Small variations in this value are likely to affect the magnitude of calculated environmental impacts because they will affect all truck trips. Problematically, the DEIR's estimated distance for all future years is based on 2008 *regional* truck movements with an arbitrary adjustment upward to account for the types of trips expected to be generated by the WLC. However, the expected distribution of truck trips coming to/from the WLC is not specified and is not likely to reflect future increases in truck traffic associated with the San Pedro Bay Ports, as illustrated further below. 2

In reviewing the derivation of this value, I consult the air quality, greenhouse gas, and health risk assessment appendix to the DEIR (Appendix D) and the traffic impact report appendix to the DEIR (Appendix L).[1] 3

DEIR Approach to estimating truck trip distance

Assumptions about truck trip distance – the average length trucks travel to and from the WLC – critically affect the magnitude of the WLC's estimated environmental impacts. Deriving an appropriate trip length is complicated by the variation in truck origins and destinations. To address this challenge, Appendix D follows an approach based in part on a recommendation made by the South Coast Air Quality Management District (SCAQMD) in their comments on the Bandini Industrial Center Project.[2]

In brief, the method used in Appendix D proceeds as follows. Consider truck traffic originating from or destined for six mutually exclusive geographies: internal to the SCAG region, external to the SCAG region in four possible directions, and the San Pedro Bay Ports. This disaggregation follows from the approach taken in the Southern California Association of Governments (SCAG) 2012 regional transportation plan goods movement appendix [2, pp. 13-14]. That appendix classifies all regional truck trips for 2008 into five categories (percentages of total regional truck trips are shown in parentheses): internal to SCAG (87.3%), external to SCAG (7%), and three San Pedro Bay Port-related categories (5.7%). The total number of truck vehicle 4

[1] Note that this is a partial review of all documents associated with the project. Review of additional documents may reveal factors that were not considered as part of this review that would change the conclusions it contains.
[2] MacMillan, I. April 27, 2012. Email to Nancy Fong Re: Draft Mitigated Negative Declaration (Draft MND) for the Proposed Bandini Industrial Center. http://www.aqmd.gov/CEQA/igr/2012/April/MNDbandini.pdf

miles traveled (VMT) is then taken from elsewhere in the RTP and associated with each category of travel [3, p. 52]. Dividing truck VMT by the total number of truck trips results in an average per trip length for each trip category. Using the RTP values, the DEIR takes the share of trips in each category multiplied by its average distance and sums over all categories to arrive at a representative trip length. Results are shown for both the SCAG region as a whole and Riverside County alone because they have somewhat different distributions of trip categories. Both result in the same average trip distance of 36 miles.

This figure is subsequently adjusted upwards: 4

> [B]ased on various comments from the SCAQMD regarding trip lengths for trucks going to warehouse and distribution center projects as contained in their published CEQA review correspondence, the trip length used for this analysis is increased to 50 miles to provide a worst case scenario. (Appendix D, p. 120).

The "published CEQA review correspondence" cited in the quotation above was not available, so the extent to which the trip distribution was adjusted to achieve that result is unclear. We return to the issue of the disparity between the 36 and 50 mile average trip distance estimates below.

Flawed DEIR approach

The categorization of truck trips used in the RTP is justified in Appendix L which states "truck traffic associated with the WLC and other logistics centers is expected to follow this general pattern" (Appendix L, p. 61). However, the transfer of the regional and county-specific distribution of truck trips is not likely to reflect the distribution of actual truck trips at the WLC for several reasons. Most importantly the WLC is being constructed precisely to accommodate expected growth in port-related truck traffic. An article from the Press-Enterprise on the WLC describes SCAG Executive Director Hasan Ikhrata as stating that the "growing volume of cargo from the ports creates a demand for warehouse space on the scale sought by Benzeevi [the WLC's developer]."[3] Additionally, SCAG's 2012 RTP states that while current port-related truck traffic stays largely in the vicinity of the San Pedro Bay Ports, that pattern is expected to change "in the future with an increase in the number of daily trucks traveling to warehouses in the San Gabriel Valley and the Inland Empire" [2, p. 14]. Specifically, the RTP states that by 2035, 8.8% and 7% of all port-related truck trips will be associated with eastern and western San Bernardino Valley, respectively (ibid.).[4] In other words, 15.8% of all truck traffic related to the San Pedro Bay Ports will have an origin or destination within the San Bernardino Valley, where the WLC is located. This amounts to a total of 120,000 * 0.158 = 18,960 port-related truck trips per day entering or exiting the Valley in 2035.[5] As a result, SR-60, the main facility serving the WLC, is projected to see the highest growth among all east-west corridors in the region (ibid.). Future distributions of truck traffic expected in the vicinity of the WLC are therefore likely to shift to port-related trip purposes. 5

[3] Danelski, D. March 12, 2012. "Moreno Valley: Huge Warehouse Development Sought." *The Press-Enterprise.* http://www.pe.com/local-news/riverside-county/moreno-valley/moreno-valley-headlines-index/20120310-moreno-valley-huge-warehouse-development-sought.ece

[4] These percentages represent an increase from 0.5% and 2.3% for the eastern and western San Bernardino Valley in 2008, respectively.

[5] According to SCAG's 2012 RTP, port-related truck trips numbered 1,400 in 2008.

Sensitivity of the estimated distance to input assumptions

The DEIR analysis for the WLC errs because it assumes that the distribution of truck traffic that serves the facility will remain unchanged in the future and will reflect the 2008 *regional* or county-wide distribution of all truck trips as stated in the 2012 SCAG RTP. In other words, the truck trip distribution is not adjusted to reflect the types of trips expected to enter or exit the WLC site; instead the truck distribution entering and leaving the WLC for all analysis years is assumed to mimic the region's truck trip distribution in 2008.

The 2008 distribution of trips based on the 2012 SCAG RTP is asserted in the DEIR even though the trip distance is adjusted upwards from 36 to 50 miles. However, this increase actually depends upon a shift to longer trip types, based on a recognition that the warehouse facility will generate trips differently than the region-wide 2008 average would suggest. External-north, external-south, and port-related trips are all 50 miles in length or greater, so in order to increase from 36 to 50 miles, greater shares of these trips would have to be realized. Table 1 illustrates one possible truck trip distribution that would generate an average trip distance of 50 miles and compares that to the distribution for Riverside County cited in the DEIR (Appendix D, p. 120; Appendix L, p. 61). The adjusted distribution was generated by growing the percentage of all trips 50 miles or greater at an equivalent rate, and shrinking the percentage of all trips less than 50 miles at an equivalent rate. Each of the percentage values for trips 50 miles or greater was multiplied by 3.35 and each of the percentage values for trips less than 50 miles was multiplied by 0.773. These values were determined by trial-and-error. 6

Table 1. Truck trip distributions for the DEIR and a hypothetical adjusted example. Trip lengths represent average one-way travel between an origin or a destination and the WLC. The DEIR Riverside County share of truck trips is based on 2008 values in the region and is used in the DEIR to estimate the distribution of WLC trips for all analysis years. The adjusted Riverside County share of truck trips is a hypothetical example showing one possibility for realizing the adjusted 50 mile average trip length used in the DEIR.

Trip type	Direction	Trip length (mi)	DEIR Riverside County share of truck trips (%)	Adjusted Riverside County Share of truck trips
Internal		30	87.9	67.9
External	North	140	4.0	13.4
	Northeast/ Southeast	47	2.2	1.7
	East	23	1.1	0.85
	South	50	3.0	10.1
Port-related		79	1.8	6.0
Weighted average trip length (mi)			36	49.9

The hypothetical adjusted distribution shown in Table 1 illustrates that the internal proportion of truck trips must drop substantially to result in an average distance of 50 miles.[6] Proportions of long external and port-related trips increase accordingly. These percentages can be converted into numbers of total truck trips per day using values presented in the DEIR. Appendix D shows

[6] This will be the case in any scenario with an average trip length of 50 miles. Even if all trip types with distances less than 50 miles had a 0% share and external-north (the longest trip type) increased accordingly, average trip distance would only be 40 miles.

total daily trips at full project buildout in 2022 (Appendix D, Table 17, p. 112). The total number of estimated truck trips per day accessing the WLC in 2022 is 14,683. This total, and the share shown in Table 1 of 6%, implies that the total number of port-related truck trips entering and leaving the WLC under the hypothetical adjusted distribution would be 0.06 * 14,683 = 881 at project buildout in 2022. The total number of port-related trips associated with the San Bernardino Valley in 2022 is likely to be approximately 9,100.[7] In 2035, at the end of the project's planning horizon, port-related truck trips entering and leaving the San Bernardino Valley will number 18,960 trips per day. According to a SCAG-sponsored study, the total regional share of warehousing space devoted to port-related uses will grow from 19% in 2022 to 25% in 2035 [4, Table 3.2]. Other data from that study show the proportion of warehousing space in Western Riverside County (where the WLC will be located) devoted to port-related uses increasing from 7.1% in 2008 to 14.4% in 2022 and 2035 [4, Table 5.9]. In light of these figures, the proportion of port-related truck trips attributed to the WLC in the DEIR appears unreasonably low. 6

Values for the total number of port-related trips drawn to the San Bernardino Valley in 2022 and 2035 shown above are both much higher than the number of port-related trips expected to be drawn to the WLC according to the DEIR analysis, yet the facility will be the largest warehouse constructed in the United States when it begins operation.[8] Additionally, the WLC's proposed 41.2 million square feet of warehousing space exceeds total available in Riverside County as of 2009 [4, Table 2.3]. The size of the WLC, combined with the stated logic of its construction – to serve growth in port-related cargo volumes – indicate that the proportion of port-related trips expected to be traveling to and from the WLC deserves closer scrutiny. The DEIR should explicitly state the new distribution of truck trips it uses to get from 36 to 50 miles and compare the project's expected share of port-related trips to the total expected in the San Bernardino Valley in 2022 and 2035 to ensure that the calculated values are within reason. If the DEIR finds that the projected share of port-related traffic is too low in future years, it is likely that the average trip distance will need to be increased to reflect the true environmental impacts of the WLC. 7

REFERENCES

1. LSA Associates, *Draft Environmental Impact Report World Logistics Center Project*. 2013, City of Moreno Valley: Riverside, CA.
2. SCAG, *Regional Transportation Plan/Sustainable Communities Strategy 2012-2035: Goods Movement Appendix*. 2012, Southern California Association of Governments: Los Angeles, CA.
3. SCAG, *Regional Transportation Plan/Sustainable Communities Strategy 2012-2035: Highways and Arterials Appendix*. 2012, Southern California Association of Governments: Los Angeles, CA.
4. SCAG, *Industrial Space in Southern California: Future Supply and Demand for Warehousing and Intermodal Facilities (Task 5 Report)*. 2010, Southern California Association of Governments: Los Angeles, CA.

[7] Using the previously cited RTP estimates (1,400 truck trips in 2008, 18,960 truck trips in 2035) and assuming a linear increase in truck volumes from 2008 to 2035, approximate truck volume in 2022 = (18960 – 1400)*0.519 = 9,114. Note that 0.519 represents the year 2022 as a proportion of time between 2008 and 2035.

[8] Danelski, D. March 12, 2012. "Moreno Valley: Huge Warehouse Development Sought." *The Press-Enterprise.*

RESPONSES TO LETTER F-9C

Sierra Club, Center for Community Action and Environmental Justice, and Natural Resources Defense Council

Response to Comment F-9C-1. The commenter states Sustainable Systems Research, LLC was hired by the Natural Resources Defense Council to review the World Logistics Center (WLC) Draft Environmental Impact Report (DEIR) Traffic and Transportation sections and the Traffic Impact Analysis (TIA) Report (January 2013) prepared by Parsons Brinkerhoff. The commenter's, Alex Karner, PhD, professional resume is attached to the comment letter. The commenter's letter and his resume will be provided to the City decision makers for their review prior to action on the proposed project and EIR.

Response to Comment F-9C-2. The commenter claims that the average truck trip distance of 50 miles was used to determine the air quality, greenhouse gas, and traffic impacts of the project. He believes that the number is incorrect and specifically states that the distribution of trips to the port should have increased over time.

The 50 mile figure for average truck distance is a default value suggested by the South Coast Air Quality Management District (SCAQMD) for use when modeling data is not available. The traffic analysis did not use this figure but instead used the Riverside County Traffic Analysis Model (RivTAM) model to determine the distribution of origins and destinations for project-related trips. This is in accordance with City guidance and with best industry practice. The air quality analysis originally used the 50 mile figure but the analysis has been revised since to using the trip distribution pattern from the RivTAM model since it more realistic and better reflects the anticipated change in travel patterns over time (Final Environmental Impact Report (FEIR) Volume 2, Appendix L-1.

In response to this and other similar comments, an additional section (Section F) was included in Chapter 12 of the TIA (FEIR Volume 2, Appendix L) to provide more details regarding the forecasts of truck trips to the port. The analysis was also revised to include a share of port-related truck traffic that increases over time. This is shown in a Table F-9C.A (see below, showing the expected increase in project trips to the ports over time.

Table F-9C.A: WLC Truck Trips to and from the Port by Analysis Period[36]

Scenario	AM Peak Hour		PM Peak Hour		Daily	
	In	Out	In	Out	In	Out
2012 Plus Build-out	18	10	14	17	121	121
2022 Plus Phase 1	19	11	15	18	127	127
2035 Plus Build-out	57	33	46	53	393	393

This forecast of trips to the port is supported by survey data and demand forecasts from Southern California Association of Governments (SCAG) and the Port of Long Beach, as cited in the TIA.

Response to Comment F-9C-3. The commenter indicates what documents were used to develop the Comment F-9C-2.

Response to Comments F-9C-4, -5 ,-6 and -7. The commenter provides calculations that attempt to reconcile the trip distribution in the TIA with the 50 mile average distance; states that a higher share

[36] The 2022 Plus Phase 1 scenario has only half as much warehouse space as the 2012 Plus Full Build-Out scenario but, because a the percent of space devoted to port uses nearly doubles in the 2012-to-2022 period, the truck trips to the port (once rounded to whole numbers) are nearly the same.

of trips to the port would be needed for the average trip length to be 50 miles; and request that the TIA explicitly state the estimated number of truck trips to the port and show that those are within reason. The revised TIA does provide an expanded discussion on trip generation and trip length to address this and other similar comments.

The commenter's calculation is based on the incorrect premise that the 50-mile figure was the result of the trip length distribution used in the analysis. In fact, the 50 mile average truck trip distance was a conservative default value suggested by SCAQMD. This default value is unrelated to the truck trip length distribution modeled by RivTAM and which is likely to occur when the project is built. The RivTAM's trip length distribution is used in the TIA analyses. The commenter is referred to the low percentage of trips going to and from the port in the SCAG projections, and should also see Table E-2A.A in Response to Comment E-2A-7 for additional information in this regard.

As stated in Response to Comment F-9C-2, the TIA analysis includes an assumption that truck trips to the ports will increase over time. An additional section (Section F) was included in Chapter 12 of the TIA to provide more details regarding the forecasts of truck trips to the port. The analysis was also revised to include a share of port-related truck traffic that increases over time. This is shown in a Table 87 (see Response to Comments F-9C-4, -5, -6 and -7, showing the expected increase in project trips to the ports over time. This forecast of trips to the port is supported by survey data and demand forecasts from SCAG and the Port of Long Beach, as cited in the TIA (FEIR Volume 2, Appendix L-1).

Response to Comment F-9C-5. The commenter elaborates on his earlier statement that the distribution of trips to the port should have increased over time. The TIA analysis includes an assumption that truck trips to the ports will increase over time. Please see Response to Comment F-9C-2.

Response to Comment F-9C-6. The commenter elaborates on his earlier calculation that attempts to reconcile the trip distribution in the TIA with the 50 mile average distance, and reaches a conclusion that a higher share of trips to the port would be needed for the average trip length to be 50 miles. The commenter suggests adjusting the number of trips to the port accordingly.

As stated in our Response to Comment F-9C-2, the 50 mile average truck trip distance was a conservative default value suggested by SCAQMD and is unrelated to the truck trip length distribution that is found in RivTAM and is likely to occur when the project is built. The TIA's forecast of trips to the port is supported by survey data and does not need adjustment.

Response to Comment F-9C-7. The commenter elaborates on his calculation cited in the previous comment to conclude that the TIA may have under-estimated truck trips to the port. He requests that the TIA explicitly state the estimated number of truck trips to the port and show that they are within reason.

The commenter's conclusion is based on his misunderstanding of the 50-mile average truck length figure, its derivation, and the function it served in the traffic analysis (none). A detailed analysis has been added to the TIA to clarify the assumptions regarding trips to the port and to demonstrate that they are supported by field evidence. See TIA Chapter 12, Section F (FEIR Volume 2, Appendix L-1).

Response to Appendix 1 (Resume for Alex Karner). The referenced appendix was cited in the comment letter. We have reviewed the resume in the appendix and although we appreciate the inclusion of professional resumes as parts of comments, we review and consider all technical comments equally.

Response to Appendix 2 (SCAG, Industrial Space in Southern California: Future Supply and Demand for Warehousing and Intermodal Facilities (Task 5 Report) (Jul. 2010)).The referenced appendix was cited in the comment letter in reference to the approach used to estimate truck trip distance. The appendix was reviewed and is included in the analysis in the revised TIA and Section 4.15 of the FEIR Volume 2.

Letter F-10: Tri-County Conservation League (April 8, 2013)

Letter F-10

8 April 2013

Mark Gross
City of Moreno Valley
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cc John Terell (JohnT@moval.org)

Re: DEIR for the proposed World Logistics Center, State Clearinghouse No. 2012021045

Please accept the following comments pertaining to the project referenced above on behalf of the Tri-County Conservation League (TCCL). TCCL is a public interest organization primarily concerned with the Santa Ana River and its watershed. The proposed project lies wholly within the Santa Ana River Watershed and, by virtue of its size and nature, has great potential for adversely affecting the river, its tributaries, and their associated natural communities both directly and indirectly. Please include these comments in the public records pertaining to CEQA review of the above referenced project. 1

The proposed World Logistics Center project (hereafter WLC Project) must be viewed in the context of pre-existing conditions, the overall needs and welfare of residents, and likely prospects that it would enhance the community. Although growth boosters abound (sometimes verging on irrational exuberance), real opportunities for the city to achieve fiscal security while enhancing, or at least not sacrificing its residential "Quality of Life" are limited. One must question whether the proposed benefits of the WLC project to the community are realistic and whether they would outweigh likely detriments. 2

The nature of the problem

The City of Moreno Valley aspires to be a place "where dreams soar", yet its aspirations for economic growth and community vitality are ultimately constrained by physical and economic realities. Most of the urban landscape is devoted to residential use, which (partly due to Prop 13 tax constraints) lacks the tax base to support and improve urban services in the long-term. This is a persistent structural problem. 3

One might ascribe Moreno Valley's fiscal problems to poor urban planning, which has followed a path of growth divergent from traditional communities. While population centers traditionally arise around sources of economic opportunity, based on proximity and/or convenient access to basic industrial resources and transportation corridors, the City of Moreno Valley has reversed the process by first establishing itself as a bedroom community to distant job centers. Secondarily, the City seeks to lure job-producing industries which might increase its tax base and employ its residents. This reverse sequence has been enabled by an automobile-dependent culture fueled by relatively cheap fuel, a factor now changing rapidly. When the City of Moreno Valley incorporated, the price of gasoline was about one quarter of the current price. Cheap fuel was an incentive for long-distance commuting, as was the 4

relatively cheap housing in Moreno Valley (compared to housing near coastal job centers). The population of Moreno Valley grew rapidly, accompanied by imbalance in the tax base and associated sociological problems, such as proliferation of latch-key kids, juvenile delinquency, drug use, street crime, etc. 4

The jobs/housing imbalance in Moreno Valley is destined to continue as long as the coastal communities continue to offer higher wage jobs and higher cost housing. For every Moreno Valley commuter who chooses to give up a long commute for a local job, another worker is likely to take his/her place in the commuter queue.

Because most of the land in Moreno Valley is devoted to residential homes and retail businesses, options for locating major new job-producing industries are largely constrained to the city's undeveloped eastern outskirts. Although this land was long devoted to agricultural and pastoral activities, it was more recently zoned for residential housing, but the WLC proposal would convert much of it to industrial warehouses, thereby foreclosing other opportunities for housing and/or other industrial uses. This area lies farthest from access to the only major north-south transportation corridor (I-215) serving Moreno Valley. The only major east-west corridor (SR-60), although nearer the proposed WLC project site, is already at or near capacity and traffic is regularly backed up where the SR-60 and I-215 merge near the west end of Moreno Valley. Considering that the WLC project is projected to add several thousand daily truck trips to local traffic corridors, getting into or out of Moreno Valley and nearby communities could get much worse – a commuter's nightmare. Even without the WLC project, the traffic burden on these traffic routes is projected to increase. Whether truck traffic to/from the eastern portion of Moreno Valley moves on SR-60 or on surface streets, it must ultimately contribute to traffic congestion on one or both routes and to worsen the bottlenecks at the SR-60/I-215 and SR-60/SR-91 (in Riverside) interchanges. Trucks emanating from the WLC site and traveling east on SR-60 have a steep grade to surmount and will surely impede other vehicular traffic using that route. All-in-all, it seems illogical to place a major warehouse project in the area now proposed. 5

The WLC Project (if built out as planned) would be a major consumer of transportation capacity on most, if not all, roads leading into and out of Moreno Valley. The added traffic would compete directly with existing commercial and private commuter traffic, thereby substantially reducing the rate of traffic flow for current and future residents of Moreno Valley, as well as neighboring communities. The slower traffic will likely add measurably more pollutants to the already impaired air quality than would the same volume of traffic were the traffic flow rate to remain as it is currently. It is bad enough that the major portion of added traffic associated with the proposed WLC Project would consist of diesel trucks, a major source of health-debilitating exhaust components, but the amount of pollution they produce is greatly increased as they alternately brake and accelerate in stop-and-go traffic. 6

The diminished "quality of life", due to increased air pollution, related health issues, and traffic congestion expected to accompany the WLC project, may never come to pass because the warehouse complex may never meet economic expectations. Such warehouses would have to compete with existing facilities in the Ontario – San Bernardino area, which are better situated with respect to access to rail and highway transportation corridors. These facilities currently are reported to have around a 7

20% vacancy rate, and competition for warehouse occupants will only become greater when the expanded Panama Canal is completed in the near future (2015 projected) and around 30% of the shipping volume currently off-loaded at West Coast ports is anticipated to sail on to East Coast ports. What then would be the use of over 40,000,000 sq-ft of under-utilized (maybe empty) warehouse space? If those facilities could not then be converted to viable economic uses, they will simply become a proverbial white elephant, although albatross might be a more appropriate metaphor. 7

If the WLC Project is approved, in spite of the numerous associated environmental impacts, it is hoped that effective mitigation measures will be incorporated to reduce or eliminate those impacts. Considering that regional air quality is already impaired, all feasible measures should be taken to ensure that air quality will not be further degraded as a result of the WLC project. Several measures could mitigate traffic-related impacts. For example: 1) mandate construction of additional road capacity (sufficient to accommodate all project-related vehicle traffic), perhaps in the form of new traffic lanes dedicated to trucks, be added to SR-60 and I-215, including the SR-60/215 and SR-60/91 interchanges; 2) mandate that diesel trucks use only low-sulfur fuel, as an interim measure, and be expeditiously replaced with zero-emission vehicles; 3) mandate that on-site warehouse vehicles be all-electric. To the extent that environmental impacts cannot be fully eliminated, the project should be required to purchase local carbon emission credits and/or adopt other measures to offset regional air quality impacts. 8

Other comments:

1) The WLC Project appears to claim over 1000 acres of public lands (owned in fee title by the State) at the northern limits of the San Jacinto Wildlife Area (SJWA) as a “conservation buffer”. This is an egregious error, as the land in question belongs to the People of California and cannot be part of a private project. Nor can it be considered a “conservation buffer”, as it is already conserved habitat, just the same as all other portions of the SJWA. Rather than serving as a buffer, this land is conserved habitat which needs to be buffered from incompatible adjoining land uses. And, to the extent that environmental values in the lands bordering the WLC project become degraded, appropriate mitigation(s) must be proposed. The concept of an open space buffer at the southern limits of the WLC Project is a good idea and would certainly help to reduce the impacts arising from proposed adjoining industrial uses; but such a buffer cannot be comprised of existing conserved habitat owned by the State of California. To claim the use of public lands as mitigation for an adjoining private project makes a farce of public acquisition of lands for parks, wildlife habitat, and other open space purposes; this would have state-wide repercussions and surely invite legal challenge. 9

2) The WLC Project needs to be redefined/designed to eliminate inclusion of public lands as any form of mitigation; the redefined project should include discussion of likely adverse impacts to the adjacent SJWA and specify appropriate mitigations. Additionally, the WLC project would displace much foraging habitat for raptors and other birds which inhabit and/or regularly overwinter in the Northern San Jacinto Valley. The EIR needs to identify these impacts and specify appropriate mitigation measures. 10

3) This project has serious socio-economic implications for the City of Moreno Valley and the entire region. It deserves detailed analysis of likely environmental degradation for the region in general and specifically for the adjacent SJWA. The ecological functions, habitat values, and constituent natural communities (including several sensitive plant and animal species) of the SJWA are major assets of Riverside County's Multi-Species Habitat Conservation Plan (MSHCP). Degradation of these assets could risk the loss of permits (under auspices of the MSHCP) which allow for "take" of federally protected species elsewhere in western Riverside County, including the WLC project site. Additionally, the EIR needs to present an independent (of project proponents) assessment of project-related economic, mobility, and health issues. In its current form the DEIR does not provide sufficient and accurate information for public consideration and assessment of all likely environmental impacts and proposed mitigations. 10 11

Sincerely,
Greg Ballmer, TCCL President

Tri-County Conservation League, Inc
P O Box 51127
Riverside, CA 92517

RESPONSES TO LETTER F-10

Tri-County Conservation League

Master Response (Economics). Skepticism included within the commenter's letter regarding the future need for logistics development in the Inland Empire, in particular due to the current expansion of the Panama Canal, does not have a factual basis. Existing industrial vacancy rates are only 4.9% in the Inland Empire (Exhibit L – Casden Forecast page 54) and the demand for more space appears to be increasing rapidly. Output in the Inland Empire logistics industry has risen from $4.1 billion in 2001 to over $5.5 billion in 2011, an increase of 34%, despite the advent of the Great Recession. The Inland Empire as a whole, with its competitive land pricing, sizeable vacant parcels, large workforce without post-secondary education and centralized location represents an ideal setting for logistics facilities.

While the current expansion of the Panama Canal will increase the Canal's ability to handle cargo, and in particular, larger ships, the increased level of demand for logistics facilities nationally should generate greater need for port facilities on both the East and the West Coasts. NAIOP projections indicate a need nationally for about 700 million square feet of warehouse and distribution space over the next decade, on top of 300 million square feet of normal replacement of existing facilities (Page 7 of Exhibit I). The Port of Long Beach's Master Plan calls for the acquisition of 450 acres of landfill to house additional cargo handling facilities due to increased demand (Page 16 of Exhibit J). Currently, the Panama Canal only receives 20% of Asian imports and exports because it takes three days longer to deliver goods to the east coast than it does by ship and train from the West Coast (Exhibit K). This more lengthy delivery time will also continue to impact the Panama Canal's ability to take over West Coast import export business, even after its expansion. Finally, the rapid growth of web-based sales with deliveries to consumers coming straight from the warehouse, rather than through traditional brick and mortar retail stores, will further increase the demand for warehouse space throughout the West, including in the Inland Empire.

Response to Comment F-10-1. The commenter would like their comments included in the record. The City acknowledges the role of the commenter in the California Environmental Quality Act (CEQA) process, and has responded to their comments in this Final Environmental Impact Report (FEIR) document. They will be kept informed as to the progress of the CEQA processing of this project. The commenter's comments will be included in the public record on the document and are contained in FEIR Volume 1.

Response to Comment F-10-2. The commenter wonders if the benefits of the project outweigh its environmental impacts. All of the comments provided by the commenter, plus many similar comments provided by others, have been responded to in this FEIR document (Volume 1). The revised fiscal assessment for the project (DTA 2014, FEIR Volume 2, Appendix O) also addresses the projected benefits of the project over time. The Draft Environmental Impact Report (DEIR) and FEIR provide extensive analysis regarding potential impacts of the project, some that remain significant even after implementation of recommended mitigation. All of the comments and responses will be reviewed by the City Council prior to making a decision on this project.

Response to Comment F-10-3. The commenter states the City's tax base is insufficient to support itself. The revised fiscal assessment for the project (DTA 2014, FEIR Volume 2, Appendix O-1) addresses the projected costs and benefits of the project over time, and its influence on the City in terms of additional revenues and employment and concludes the WLC project will generate 5.7 million in surplus revenues (i.e., revenues minus costs)(DTA 2014, FEIR Volume 2, Appendix O-1).

Response to Comment F-10-4. The commenter outlines a view of the City's history regarding housing, job growth, and commuting on freeways, but does not make any specific comments on the

EIR or the WLC project. This comment sets the stage for later conclusions regarding housing and employment.

Response to Comment F-10-5. This comment states the project would convert land to industrial warehouses, thereby foreclosing other opportunities for housing and/or industrial uses. The commenter states the World Logistics Center (WLC) is far from Moreno Valley's only north-south corridor (I-215) and that the SR-60 is congested and will be worse with the project. The commenter opines that "*it seems illogical to place a major warehouse project in the area now proposed.*"

The previous paragraphs of the same comment letter (Responses to Comments F-10-3 and F-10-4) discuss the jobs/housing imbalance in Moreno Valley and the problems associated with long-distance commuting. Additional housing development would further exacerbate the jobs/housing imbalance in the City, but it is unclear what point the commenter is trying to make about one proposed industrial use eliminating opportunities for some other possible industrial use. In any case, the Moreno Highlands Specific Plan, which included housing and business park uses for the WLC site, was approved for development more than 20 years ago but no one built any houses or buildings based on that plan. This implies that other things, such as market viability, are what actually prevented development or other land use opportunities, not the WLC.

Regarding the project's access to the freeway system, the project is directly adjacent to SR-60 which is a major east-west corridor for freight movement. There is no need for a warehouse to be sited adjacent to more than one freeway so long as they have connections to other freeways (including I-215). The map of existing occupied warehouse, taken from SCAG's study entitled *Industrial Space in Southern California: Future Supply and Demand for Warehousing and Intermodal Facilities,* shows that the vast majority of warehouses are located near a single freeway, if for no other reason than that there are not sufficient locations near two freeways to meet the demand, especially since such sites are desirable for retail uses.

Furthermore, Figures 30 and 31 of the project TIA show that the WLC project will encourage reverse commuting and so reduce peak-direction auto demand on SR-60. Congestion on SR-60 stems from the problem of long commutes caused by jobs being located in urban cores while housing spreads out to suburbs and exurbs. Moreno Valley, which has one of the lowest jobs-to-housing ratios in the six-county SCAG region, is an extreme example of this problem. A large majority (70%) of Moreno Valley workers commute to jobs outside the city, and many commute long distances far outside the city. According to the U.S. Census Bureau, 20.2% of Moreno Valley workers commute more than 50 miles one way to work, and another 22.2% drive 25 to 50 miles one way (U.S. Census Bureau. 2013. OnTheMap Application. Longitudinal-Employer Household Dynamics Program. http://onthemap.ces.census.gov/). It is reasonable to expect that if 20,000 jobs, closely matching the skill set of the Moreno Valley labor force, were to become available in Moreno Valley that many residents of the city would take up those jobs in lieu of working at more distant locations, thus reducing the amount of long-distance commuting.

The topic areas covered in the comment have been addressed in the TIA. The jobs/housing topic is further discussed in Chapter 4, Section D and Response to Comment F-3-12. The traffic impacts of the project are fully addressed in the TIA, including the study area thresholds used to determine the freeway segments requiring further evaluation.

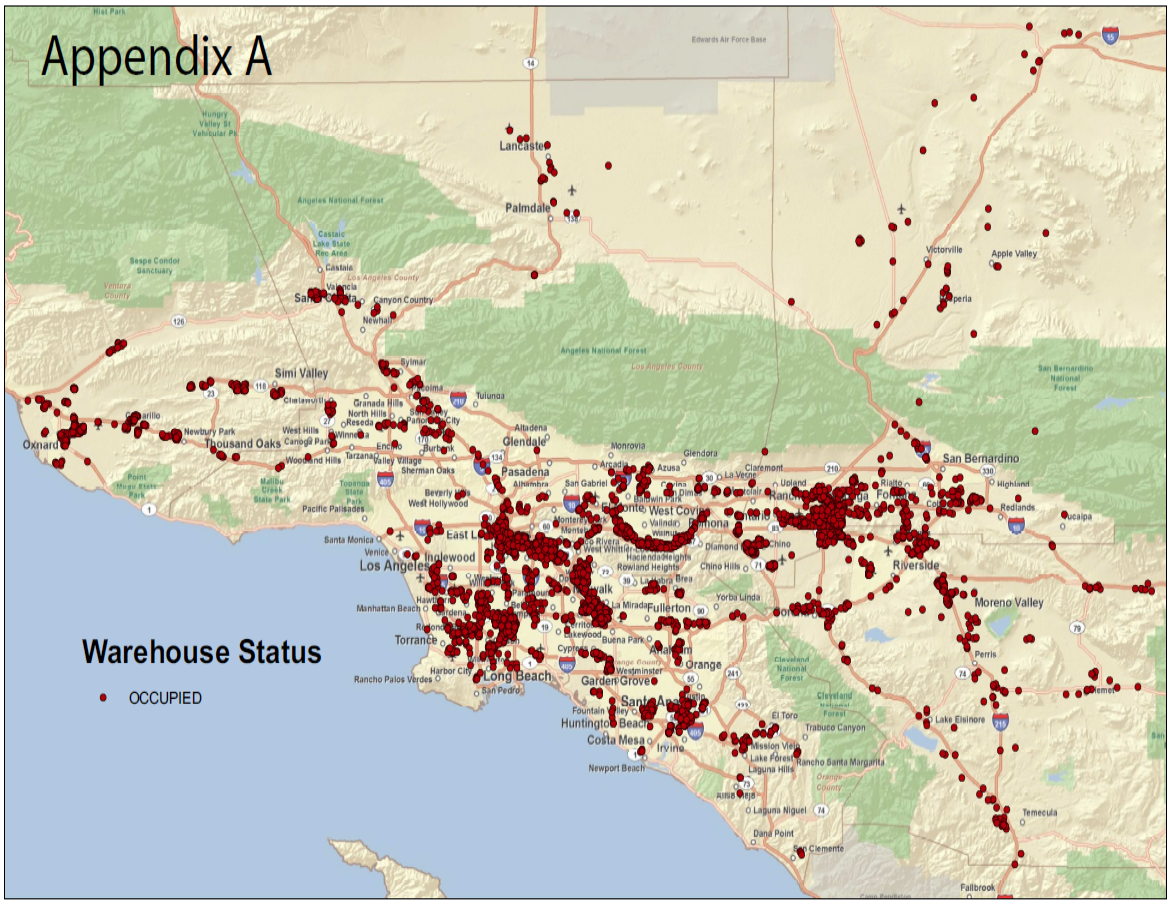

Exhibit F-10-1: Existing Occupied Warehouses in the SCAG Region

Response to Comment F-10-6. The commenter states the WLC project would cause congestion on all area roadways and produce substantial air pollutants including diesel exhaust. The project TIA identifies those area roadways which will be most affected by project traffic, however, it must be remembered truck traffic from the project must use established truck routes within the City, although passenger vehicles from project employees will utilize many City streets (which are outlined in the project TIA and DEIR Section 4.15, Traffic and Circulation. The project TIA and air quality studies were revised from those used to prepare the DEIR, mainly in response to the comments on the DEIR (refer to FEIR Volume 2, Appendices L (traffic) and Appendix D (air quality). The commenter is encouraged to read those revised reports and the revised traffic and air quality sections plus modified mitigation measures in FEIR Volume 2.

Response to Comment F-10-7. The commenter questioned whether there will be sufficient demand for the 41 million square feet of logistics facilities to be constructed in the proposed project. According to commenter:

> "Such warehouses would have to compete with existing facilities in the Ontario – San Bernardino area, which are better situated with respect to access to rail and highway transportation corridors. These facilities currently are reported to have around a 20% vacancy rate, and competition for warehouse occupants will only become greater when the expanded Panama Canal is completed in the near future (2015 projected) and around 30% of the shipping volume currently off-loaded at West Coast ports is anticipated to sail on to East Coast ports. What then would be the use of over

> 40,600,000 square feet of under-utilized (maybe empty) warehouse space? If those facilities could not then be converted to viable economic uses, they will simply become a proverbial white elephant, although albatross might be a more appropriate metaphor."

While the future of the California economy is certain to have its peaks and valleys, with the 2008-2012 period representing an extreme example of the latter, both the short-term and long-term prognostications regarding logistics uses both throughout the United States and in the Inland Empire are very positive, as reflected below.

1. Commenter's claim that warehouse facilities in the Ontario-San Bernardino area are experiencing a 20% vacancy rate is factually incorrect.

While the commenter unfortunately does not provide any source documents within which their alleged 20% vacancy rate is stated, the latest Casden Industrial & Office Forecast Report, released by the University of Southern California at the end of 2012 (Exhibit L), directly contradicts this figure. The report, which analyses the vacancy rates for five sub-markets within the Inland Empire (Riverside, San Bernardino, Ontario Airport, West County, and South County), states that “for the third year in a row, the Inland Empire industrial market showed significant improvement in demand. From Quarter (Q)3 2011 to Q3 2012, the area logged 9.4 million square feet of positive net absorption, bringing the total net absorption since Q1 2009 to nearly 40 million square feet. The vacancy rate subsequently fell another 1.7 percentage points to 4.9 percent.” With a clear demand for industrial space, the project will answer a growing need within the County. Higher demand has dovetailed into higher revenues. The report further states “area-wide average asking rents rose for the second year in a row, climbing 6.1 percent to $0.35 per square foot. These rents are largely driven by changes in demand for warehouse space, which accounts for 86 percent of the industrial stock.”

2. Commenter's claim that 30% of the shipping volume currently off-loaded at West Coast ports is anticipated to sail on to East Coast ports as a result of the expansion of the Panama Canal is purely conjecture at this point, and minimizes the impacts of the many other growing sources of demand for warehouse facilities in the Inland Empire.

First, with the overall need for logistics facilities in the United States expanding rapidly, it is more than likely that both East Coast and West Coast ports will find themselves impacted by increasing demand. According to a 2010 study prepared by National Association of Industrial and Office Properties (NAIOP) entitled "Logistics Trends and Specific Industries that Will Drive Warehouse and Distribution Growth and Demand for Space," the overall shipment of goods in the United States grew by 30% in value and 13% in tonnage between 1997 and 2007 (Exhibit B). NAIOP goes on to say that:

> "Forecasts for employment in the logistics sector indicate a need for about 700 million square feet of warehouse and distribution space during the next decade on top of new construction for normal replacement, which averaged 300 million square feet per year from 1990-2003. If that trend continues, then a total of approximately 3.5 – 4 billion square feet of new construction will be needed during the next decade." (page 7, Exhibit B)

The Inland Empire as a whole, with its competitive land pricing, sizeable vacant parcels, large workforce without post-secondary education and centralized location, represents an ideal setting for logistics facilities. The attractiveness of the Inland Empire for these purposes can be confirmed by looking at the growth which it has experienced in recent years. Output in the Inland Empire logistics industry has risen from $4.1 billion in 2001 to over $5.5 billion in 2011, an increase of 34%, despite the advent of the Great Recession. Logistics has also accounted for an increasing share of the Inland Empire's economy. In 2001, transportation and warehousing was responsible for only 4.9% of the

Inland Empire's total output. By 2011, the contribution of the industry grew to 6.1% of total output. New national truck-driver restrictions are expected to increase the rate of growth, as since July 1, 2013, all truck drivers throughout the United States have been restricted to 11 hours of driving per day and a total weekly limit of 60 or 70 hours rather than the previous limit of 82 hours. As a result, goods being shipped to California customers will need to be stored closer to these customers, with the Inland Empire serving as a prime location.

Second, the uses for logistics facilities are expanding rapidly with the advent of E-Commerce. The need for brick and mortar retail buildings is decreasing, as Internet retailers such as Amazon and mainstream retailers such as Nordstrom's and Macy's now ship goods directly from warehouses, completely bypassing the traditional stores and shopping centers which until recently dominated the retail markets. The advent of fulfillment centers throughout the Inland Empire and Central Valley in recent years is a perfect example of this trend. U.S. retail e-commerce sales grew by 700% between 2000 and 2011, and at its current growth rate will double its 2011 sales by 2016. A 2012 Study prepared by Deloitte Research projects that within five years, the current percentage of sales made at brick and mortar stores versus online and mail order shopping will drop from 91 percent to 76 percent, clearly adding to the need for more logistics facilities. While it is always difficult to pinpoint future trends, the current outlook for logistics development in the Inland Empire is as strong, if not stronger, than any other segment of the economy.

Third, should legislation currently being considered by Congress eventually become law, sales taxes will be charged on all future Internet sales. To the extent that the point of sale is considered to be the warehouse to which the orders flow and at which the inventory is located prior to delivery to the customer, the City of Moreno Valley could become the beneficiary of an annual windfall in sales taxes that are currently paid to the coastal communities in which brick and mortar stores are presently located.

Fourth, it must be recognized that the Panama Canal is currently operating at full capacity, limited by its system of artificial lakes, channels, and locks that were initially constructed in 1914. The Canal Expansion was proposed and fast-tracked because a sizeable portion of today's containerships are simply too large for the canal and because the fact that it's currently operating at capacity means that delays and bottlenecks occur frequently and are very costly. Some of the anticipated expansion will come from customers who currently don't use Southern California ports but will access the Panama Canal once its capacity has been increased.

Fifth, it is really uncertain how much business the Ports of Los Angeles and Long Beach will lose to the Panama Canal. The U.S. Army Corps of Engineers ("USACE") notes in its white paper entitled "The Implications of Panama Canal Expansion to U.S. Ports and Coastal Navigation Economic Analysis (December 2008) (Exhibit M)," that:

> "Despite all the congestion, the Ports of Los Angeles/Long Beach (LA/LB) have always managed to accommodate ever more volumes of cargo through productivity improvements, optimizing terminal space, daytime surcharges, medallions, and acquiring new landfills. According to the Port of Long Beach's Master Plan, if year 2020 trade volumes reach the high end of their forecast, the Port of Long Beach will acquire 450 acres of landfills which will support additional cargo handling facilities. LA/LB processed a combined 15 million (twenty-foot equivalent unit TEUs) in 2007, accounting for 40% of all freight entering the US, including 80% of imports from Asia." (page 16, Exhibit M)

Finally, Asian importers and exporters utilizing the Panama Canal will find that it will take longer to get their goods to market. The United States Department of Agriculture (USDA), in its "Impact of Panama Canal Expansion on the U.S. Intermodal System" (January 2010) (Exhibit N), states that the fastest way to get cargo from China to the U.S. East Coast will <u>still</u> be a combination of <u>ship and rail</u>, both of

which will play a role in all of this. According to the USDA, it takes 12.3 days for a ship to go from China to the U.S. West Coast and 6 days for rail transport from the West Coast to the East Coast – a total of 18.3 days. For this reason, 75% of Asian imports go this way. Only 20% go through the Panama Canal because it takes nearly 20% longer, at 21.6 days. The rest goes through the Suez Canal directly to the U.S. East Coast, which takes 21 days.

Moreover, as further expanded upon in *The Implications of Panama Canal Expansion to U.S. Ports and Coastal Navigation Economic Analysis*, most US East ports will not have the capacity or the depths to accommodate the amount of [post-expansion] vessels (Exhibit M).

3. **Comments regarding the likelihood of 40,000,000 square feet of under-utilized (maybe empty) warehouse space constituting a "white elephant" or "albatross" within the City reflect a lack of understanding of the economics of warehouse development, particularly after the recent Great Recession.**

While economies ebb and flow, and the demand for logistics space can be anticipated to follow that same pattern, the proposed logistics buildings themselves will not be constructed until a point in time at which there is sufficient demand for their space. Warehouse buildings will not be built "on spec" and then sit vacant for years. They will either be built and owned by the ultimate users of the buildings, or built by investors in situations where the buildings themselves are either pre-leased or in a market where demand levels are high enough that the buildings are very likely to be leased upon completion. Investors and lenders have had sufficient experience over the past few years to not move forward with the construction of logistics buildings that will sit empty upon completion. The idea that 40.4 million square feet of logistics space will be constructed prior to the existence of sufficient demand is completely unrealistic.

Response to Comment F-10-8. See Response to Comment D-2-3.

Response to Comment F-10-9. The commenter completely misstates the DEIR's description of the 910 acres of the project at the southerly edge of the project. DEIR Section 3.4.1 "Project Description" clearly defines this area as owned by the State of California as part of the San Jacinto Wildlife Area (SJWA). The area is included in the project in order to amend the City's General Plan and zoning to correctly designate it for "open space" uses. The project does not propose to use the property for mitigation of any sort. It is defined in Section 3.1 of the DEIR as the "CDFW Conservation Buffer Area" for identification purposes.

The property remains within the boundary of the City of Moreno Valley and is included in its General Plan and zoning ordinance. The land is presently designated for mixed use development under the existing Moreno Highlands Specific Plan. This project proposes to change that designation to "open space," consistent with the current and proposed use of the property.

The State acquired this acreage in 2001. The minutes from the May 18, 2001 meeting of the Wildlife Conservation Board state in part, "*The acquisition of the subject properties are important to the wildlife area as they will serve as a buffer from development north of the WLA…*" At the time of the purchase, the development of the adjacent property for urban uses was permitted by the City's General Plan and zoning and was protected by a Development Agreement. The future development of the immediately adjacent property was understood at the time the State acquired the property and the acquisition was intended to, among other things, serve as a buffer to that future development.

Response to Comment F-10-10. The WLC Specific Plan (SP) does not include any public lands, including any portion of the SJWA, as a form of mitigation. The DEIR has analyzed the impact of the development that will take place as part of the WLC project in the California Department of Fish and Wildlife (CDFW) Conservation Buffer Area. The 910–acre portion of the project area owned by the

State is being rezoned to "open space." It is CDFW land acquired as a buffer (and for other reasons as well), between the high quality SJWA habitat and any proposed development to the north. Calling it the CDFW buffer is not inaccurate or misleading.

The General Plan Amendment provides for the designation of the CDFW and portions of the San Diego Gas and Electric (SDG&E) lands as permanent open space. Leaving the General Plan as currently stated would allow for development of residences across all of the WLCSP as well as the CDFW and SDG&E lands. This would have a greater potential impact on species of the region. The WLC project does not "take credit" for re-zoning this area as open space. The current zoning for the property is a mix of residential, public, and open space designations that need to be removed since those uses are no longer planned and will never be developed.

The CDFW land has been incorporated into the SJWA following a sale the subject lands to the State in 2001. The May 18, 2001 Wildlife Conservation Board Agenda (page 43) recommended that 5 separate parcels totaling approximately 1,000 acres (910 acres of which were part of the Moreno Highland Specific Plan) be purchased as expansions of the California Department of Fish and Game's San Jacinto Wildlife Area. "*Acquisitions of the proposed expansions will allow for the protection of a portion of Mystic Lake and its associated upland habitat which is important to a number of sensitive plant and animal species*." There will be no direct impacts to any portion of the SJWA as part of the WLCSP and no mitigation measures are required.

The loss of low-quality raptor foraging habitat is not considered a significant impact. The limited prey-based and disturbed nature of the habitat provides low-quality raptor foraging habitat for a few common raptor species such as red-tailed hawk, American kestrel, and white-tailed kite. Since white-tailed kite is a fully protected species, any impact to this species is considered a significant impact. This species is covered under the MSHCP and payment of the MSHCP development fee will be used to purchase off-site lands that would provide high-quality foraging habitat and provide for the long-term conservation of this species. The payment of the MSHCP development fee will reduce the impacts to white-tailed kite to a less than significant level.

The WLCSP is a significant development within the eastern portion of the City of Moreno Valley. Development was anticipated and is included in the General Plan and zoned as residential development. The loss of 2,610 acres of disked agricultural lands will not have a significant impact on any sensitive plant and/or wildlife species. The loss of or impacts to any portion of a MSHCP Core Conservation Areas is a potentially significant impact, which may affect the long-term conservation goals of the MSHCP. Based the proposed WLCSP October 2013, indirect impacts associated with light, noise, air quality, and water quality will require mitigation measures that are outlined in the appropriate sections of the DEIR. These measures will reduce the indirect impacts to less than significant levels.

Response to Comment F-10-11. The commenter states the EIR needs to present independent information on project mobility, economic, and health impacts. The DEIR, the revised technical studies, and the revised DEIR (FEIR Volume 2) provide sufficient objective and independent information on the potential impacts of the proposed WLC project. In addition the City hired an independent reviewer to review the EIR and technical studies and is of the opinion the EIR represents the independent judgment of the City as CEQA Lead Agency.

Letter F-11: Sierra Club, San Gorgonio Chapter (April 8, 2013) and Appendices 1-21 (On Flash Drive)

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CITY OF MORENO VALLEY
Planning Division

Letter F-11

SAN GORGONIO CHAPTER

Mark Gross
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92553

Dear Mr. Gross: April 8, 2013

Re: Draft EIR for the World Logistic Center (WLC)

The Sierra Club appreciates this opportunity to comment on the World Logistic Center's (WLC) Draft EIR. We have several concerns and questions we want addressed in the Final Environmental Impact Report (FEIR) which we believe were not fully addresses in the Draft EIR We were disappointed that we did not find the answers we were looking for in the DEIR and therefore are resubmitting much of our Notice Of Preparation (NOP) comments as part of these DEIR comments. These concerns can be read below and we expect this project to do everything possible to eliminate and mitigate these problems in our non-attainment area. 1

During attendance at the NOP meeting, the Sierra Club noticed that more needed to be done. The Skechers NOP meeting also had more than 30 in attendance, and this project is just as divisive. You had less than a dozen NOP handouts. When you were notified that significantly more were needed, they were not forthcoming. Therefore, at least 80% of those in attendance did not have what little information you provided during the meeting. Arriving early, I was able to obtain one of the few documents, and on the backside of the cover page, it reads "at this meeting, agencies, organizations, and members of the public will be provided a brief presentation on the project and will be able to review the proposed project ..." Most people were not able to review the project, and I would be surprised if all had access to a computer or even know the NOP document was available somewhere online. 2

Environmental justice requires informed "public participation." What is described above does not qualify. Moreno Valley's population is more than 54% persons of Latino/Hispanic origin, according to the 2010 census. How can you truly have public participation without all documents related to the World Logistic Center (WLC) available in both English and Spanish? The same is true for all meetings. There must be enough headsets and interpreters for everyone to know what is said at all meetings related to the WLC by everyone else. In the Kettleman City case, the California Superior Court ruled, "meaningful involvement in the CEQA process was effectively precluded by the absence of Spanish translations." 3

1st of 117 pages

The Sierra Club strongly recommends that you begin the NOP process anew because the City's failure to translate crucial documents and meetings has effectively excluded many residents from exercising their statutory right to participate in the decision-making process. The Sierra Club also expects all documents related to the WLC to avoid highly technical language and to make them comprehensible to the average Moreno Valley resident. The Draft EIR was also only in English and most people would have needed a computer to have a viable chance to read it after working all day. How could you have made it more accessible to our population? Since the Sierra Club believes the WLC's DEIR is inadequate and needs to be revised and reissued, maybe you will have a chance to do right by those who would like to comment, but have been excluded by past practices. 4

The DEIR mentions many road segments that will need noise mitigation as a result of the WLC. As mentioned later in this letter the need for six foot sound walls are recommended for some homes which are some distance away from the project site such as along Moreno Beach Drive north of Ironwood Ave. In some cases they have to tear down existing walls and replace them. All of these residents impacted by significant noise levels caused by the WLC needed to be mailed notices of the Draft EIR and told of the comment period. This points out another reason why the NOP and DEIR both need to be properly noticed and recirculated. 5

The Sierra Club also believes the NOP document provided to the public did not have enough information and was misleading. The information did not "provide sufficient information describing the project and the potential environmental effects to enable responsible agencies to make a meaningful response. At a minimum, the information shall include: (c) Probable environmental effects of the project" (CA Code of Regulation EIR Process Section 15082). The project description was also misleading and inadequate. 6

The NOP the City provided did not address potential environmental impacts or even easily understood location and number of homes that will be impacted. Your map of open space is misleading. The maps on Pages 5 and 6, as well as Page 7, give the impression that existing Department of Fish and Game (DFG) lands, as well as those of San Diego Gas & Electric, are part of the project and, therefore, the project description is not accurate for NOP commenters. Those DFG lands are part of the San Jacinto Wildlife Area (SJWA), which is a cornerstone of the Riverside County Multi-Species Plan, and the NOP failed to mention any potential environmental impacts to these significant lands for the NOP commenters. Potential impacts to our two-lane SR 60 should have been mentioned, similar to the concerns expressed by the executive director of the Southern California Association of Governments: " 'You are talking about a huge amount of warehousing, and you don't have the infrastructure to support that,' Ikhrata said." (Press-Enterprise, 3-10-2012) The FEIR needs to address these comments by Mr Ikhrata. 7

For all of the above reasons, the Sierra Club strongly believes that the WLC NOP process needs to be improved, then recirculated to all agencies and organizations, as well as to members of the public. We also believe that for such a large and regionally significant project that all interested parties need more than 30 days. Since you failed to do this, the entire process is now flawed. As stated earlier the Sierra Club believes the DEIR needs to be reissued, after resolving its 8

inadequacies, and therefore believes the project should begin from the beginning with a proper NOP. 8

The WLC is displacing – not replacing – 7,700 housing units that were part of the 20-year-old unbuilt Moreno Highlands project and are still shown on the Moreno Valley General Plan as part of our fair share of the region's housing stock. The DEIR and any General Plan amendments for the project must show the alternative placement for these houses in Moreno Valley. The DEIR must include these displaced units in the air quality and traffic analysis as well as all other impacts analyzed, or the document will be inadequate. In the DEIR you indicate that this is not true because you have revised the housing plan several years ago. You indicate the concerns raised in this paragraph "was largely addressed in the updated (2011) Housing Element". (p 4.13-5) The Final EIR must explain why it was only "largely" addressed and not "totally" addressed. That which was not addressed needs to added to the impacts caused by the WLC as mentioned above. The fact that this revision was completed prior to the end of the Moreno Highland's Development Agreement brings up the issue of predetermined outcome for the WLC. You cannot just say that you just did not think the Moreno Highlands project was going to be built. The Moreno Highland Project was not only for 7,700 homes, but also for 21,000 permanent jobs, which also included the right to build many millions of square feet of warehousing. The City bought into the vision of the WLC developer when he talked about the "Logistic Modified General Plan" well before the updated (2011) Housing Element and helped him by removing obstacles that could make it more difficult getting the development approved. 9

The DEIR must have a traffic analysis of Moreno Valley's city streets and, probably at a minimum, those of neighboring cities where there is a blockage on SR 60 at any point between the Santa Ana River and the city of Banning. The traffic analysis needs to show what happens at each off-ramp/city streets between these two points where a semi-truck caused a freeway-closing accident, or the DEIR will be inadequate. Gilman Springs Road is a two-lane death trap. What improvements will be made to this road to make it safer? Will the improvements be made all the way to highway 79 or to Bridge Street? When will those improvements be made? Redlands Blvd and the San Timoteo Canyon roads are no better. Since these dangerous roadways are the alternative routes when SR 60 is closed in the badlands, what will be done to more safely allow the many thousands of trucks the WLC will attract to use these winding two lane roads that are popular with commuters. Figure 4.15.2 (Study Intersection Locations) has those intersections, limited to those which you studied, "at which the proposed project would add 50 or more peak hour trips." Since it is only at least 50 one does not know if perhaps it is 500 or more peak hour trips. The FEIR will be inadequate if it does not explain how the roadways between all the intersections indicated with a bullet point in Figure 4.15.2 will be improved to handle the increased traffic generated by the WLC and the responsibility of the project towards those improvements. For example how will you mitigate the many intersection the WLC impacts in the City of Perris? The FEIR needs to name each of those intersections and what will be done with each and how will the WLC help with the ultimate improvements. What will be the LOS at those Perris indicated intersections before and after the improvements with the addition of the WLC as well as cumulative traffic? This needs to be done at all intersections and road segments between them indicated on Figure 4.15.2 for the FEIR to provide the level of information needed/required for both the decision makers and the public or the document will be inadequate. The Figure also indicates several intersections on the south side of the City of Redlands will be 10

impacted, but does not explain how the traffic is dispersed in the City or travels through the City to get to the indicated intersection. This must be done in the FEIR for not only the City of Redlands, but also for the Cities of Perris, Riverside, San Jacinto, Beaumont and of course the City of Moreno Valley. You cannot just say you pay your fair share of fees and be done with it. 10

Immediately below are two sections copied from the noise section of the WLC's DEIR that proves trucks are planning to use Moreno Beach to Reche Canyon Road and/or visa/versa. The section of Reche Canyon Road between Moreno Beach and Reche Vista Drive is mainly a narrow dirt road. Even the section of Reche Canyon Road between Reche Vista Drive and I-215 or I-10 is mainly several miles of narrow, winding two-lane road with many driveways and smaller roads intersecting it. The Sierra Club is concerned that the WLC is using this unimproved and inappropriate route to make it appear that SR-60 will not have to handle these trucks. While the Riverside County Transportation Commission would like to make this a major roadway as indicated on their maps, there is no proof that such will ever happen. I do not see guarantees for these improvements written anywhere. The WLC's FEIR must assume the Reche Canyon Road connection between Moreno Beach and Reche Vista Drive will never be made to handle any traffic and especially diesel trucks. Is the WLC going to make the necessary improvements to the Reche Canyon Road or just pay the normal developer transportation impact fees that can be used in many different places? The Traffic Impact Analysis in the FEIR must show the traffic projected for the Moreno Beach/Reche Canyon Road directed elsewhere or the document would be inadequate. 11

Locust Avenue between Moreno Beach Drive and Smiley Boulevard (54). Only the 2035 case results in a significant noise increase for this area. In 2035 the project will result in a 3.5 dB increase raising the noise level up to 68.9 CNEL. There are three single-family homes along this roadway and they front onto the roadway. As discussed above, homes that front onto a street cannot be effectively mitigated with a soundwall. *Therefore, this potentially significant impact feasibly cannot be mitigated.* 12

Moreno Beach Drive between Locust Avenue and Ironwood Avenue (56). Only the 2035 case results in a significant noise increase for this area. In 2035 the project will result in a 3.3 dB increase raising the noise level up to 66.6 CNEL. There are 18 single-family homes along this roadway. Some homes front onto the roadway, but most backup to the roadway. Currently there are no soundwalls along these homes. The walls would need to be 6 feet tall with respect to the rear yard. Roughly 2,000 feet of six-foot tall barrier would need to be provided for mitigation for 15 of the 18 impacted homes (Exhibit 18). With the retrofit the noise levels would drop at least 5 dB, with the resultant noise levels around 62 CNEL in rear yard areas. Approximately 3 homes would remain unmitigated, because these homes front onto Moreno Beach. 13

Pages 34-70 of Appendix K on noise analysis list more than 35 road segments that will experience significant noise impacts as a result of the WLC warehouse project's mainly truck traffic. There is discussion of mitigating the noise with six foot sound walls as is done in the above two paragraphs. There is, however, no discussion of mitigating the toxic diesel pollution that will easily make its way over any six-foot sound walls and into the yards and homes and lungs of nearby residents. The Final EIR will be inadequate unless it produces data showing all 14

the ways –physical and mental-- these residents health will be impacted by living on one of these road segments which will be carrying WLC truck traffic. The FEIR must show what will be done to mitigate this toxic diesel pollution along these road segments and produce the data to prove its effectiveness. Requiring 2010 trucks is not going to be good enough when you consider that Moreno Valley is approving so many warehouse projects that we are inviting almost 30,000 into our community. The most current and best technology must be required on all trucks used within the WLC Specific Plan. 14

The noise impacts to residents show traffic patterns and roadway usage. These roads will suffer significant damage from trucks and our City does very little to repair roads. Will the WLC Center do more than pay property taxes beyond their build out years to repair these roadways? If not then the damage done to resident's cars and repair costs need to be factored into the economic analysis. 15

The same is true for those homes that were put into the WLC's Specific Plan Area against their wishes and will suffer significant diesel, noise, vibration, light and possible drainage pollution as a result. The FEIR must show what physical and mental impact these residents will potentially suffer as a result of the build out and operation of the WLC. What will protect them form the dust, noise and vibration during the grading of the project site? The FEIR needs to fully explain how you can subject these people to significant health impacts—physical and mental-- in order to allow a developer to make money. Some of these people have lived in their home for more than 30 years and have now retired with the hope of spending their remaining years in the home in which they raised their family.. The residents of the seven homes who were forced into the Specific Plan must be given more than the knowledge that nothing can or will be done to protect them form all the health impacts of the WLC. This also includes the aesthetics of having to live near 41,600,000 sq ft of warehousing. What protection will be provided to those who live near D Street? What health and noise impacts can those who live in the old section of town called Moreno expect from the traffic of the WLC? In the attachments to this letter are several articles on the health impact of diesel and some with the recommendation that sensitive receptors must be 500 meters or 1,600 feet away form a project like the WLC or roadways with significant diesel truck activity. The FEIR needs to explain everything being done to protect these families when you are not providing a 500-meter buffer. Will the developer and/or the City buy them out at the highest residential or industrial usage of their home? Which would be higher? Will their homes decrease in value as a residential home if the WLC is approved? If this happens, who is responsible for making up the loss value? Why has the new uses available to these seven residents for there lands been restricted by the city when compared to the same zoning elsewhere in our city? Does the City consider this a takings and if not why not? 16 17

What proof is in the environmental documents to prove that these sound walls are effective for people taller than six feet like myself? The Sierra Club expects to see data in the in the FEIR that shows the six-foot sound walls will significantly lower the decibels for people who are above 6 foot 3 inches the same as those who are 5 foot 9 inches. If this cannot be done, then more needs to be done to reduce sound levels and relying on future improvements is not satisfactory. Data needs to be given for the effectiveness of any improved noise reduction solutions that will be implemented. All of these noise impacted neighborhoods need to have 18

several noise monitoring equipments installed and kept in operating conditions for the life of the project. The results need to be part of the public record and read by the City. What will the WLC or their successors in interest do if it is shown that these noises and other health related impacts are damaging the lives of those inflicted? The WLC will be the largest contributor of these impacts that impair the health of our residents. 18

"Noise generated by SCG blow down events has the potential to cause permanent hearing loss in persons in the developed area of the project" (page 16 SDG&E and SCG Mestre Greve Associates in appendices). I did not see the analysis and numbers for single event noise caused by these blow-downs. The FEIR must include this analysis. These blow downs can happen any time and last for 90 minutes. This noise would impact almost half of the Specific Plan including the support facility. The referenced impact analysis was done "to ensure worker safety" and "all mitigations measures imposed in the analysis are the responsibility of future developers and not the Gas Company." (Page 1) Since infrastructure work will probably be put in place prior to the building of warehousing, the FEIR needs to show how these infrastructure workers hearing will be protected from these unpredictable blow downs if future warehousing is going to pay for all mitigation measures. The recommended silencer system for mitigation was only paper researched. The Industrial Acoustic Company literature "determined that a silencer system installed on the blow-down equipment could reduce noise levels by 40 dB." The word is "could" and not "will". The System must be required to be installed and tested several times before any work is done within the southern half of the WLC. Noise monitoring equipment needs to be installed at several locations to make sure the equipment continues to work as intended throughout the life of the project with the City reading the data. Figure 4.12.2 shows a need to have more monitoring locations to protect existing residents and ones that will remain in place well beyond build out of the WLC with the data available to the public. Since many warehouse workers, grounds maintenance, security and truckers work outside the walls of the warehouses, how will they be protected form these unpredictable blow-down events which could damage their hearing? 19

The FEIR must have a Health Impact Report to cover all aspects of this projects negative impact on residents and workers in and around Moreno Valley. This Health Impact Report must be one the project produces specifically about the WLC and not something borrowed from other sources. Many of the pages following my signature will have articles about the health impacts of diesel. The Sierra Club will expect those article printed in the Final EIR along with this letter. The decision makers and the public have a right to read them prior to any future public hearings. 20

"Is growth of the logistics industry worth the cost? We are not able to truly answer this question, because it is possible that the increased economic output could exceed the health costs associated with the expansion. We know, though, that major reasons logistic industry growth has been welcomed to bring jobs to the eastern Inland Empire. These jobs on average pay $36,000 per year, but we find out that local health costs per year per job are likely to be at least half that value. Perhaps more to the point, it should be asked whether the logistics industry itself would be willing to pay full external costs of it actions. For example, would each facility be willing to pay a charge of $5 to $9 million per year to cover heath costs it is estimated to impose on the community? We are not in a position to say yea or nay, but economic efficiency dictates that mechanisms should be put in place so those enjoying the benefits of logistics industry growth 21

also pay the full costs – including external health costs – of their actions." (Page 16 of this link and attached

http://www.pdx.edu/sites/www.pdx.edu.econ/files/bluff_warehouses_and_trucks.pdf

Warehouses, Trucks and PM2.5: Human Health and Logistics Industry Growth in the Eastern Inland Empire)

When you revise your economic analysis of the WLC you must address the health cost issues found in the above paragraph or it will not be valid. How will the warehouse projects within the WLC pay for their fair share of the area's health costs – especially of their workers? — 21

Since the majority of warehouses have peak times during the year—such as getting ready for school opening and the holiday season—the traffic analysis as well as all others such Air Quality/ Greenhouse Gas must been done to show the worst case scenario possible. Your DEIR traffic analysis does not do justice to the peak times of most warehouses such as before the opening of school and the winter holidays. This problem must be rectified in the FEIR and also the updating of all the traffic information from that of 2011 to 2013 or it will be inadequate. — 22

Moreno Valley's proposed 41,600,000 sq ft World Logistic Center (WLC) warehouse project will have significant impacts to not only our City but also throughout the Inland Empire. Two figures point out the increase in health risks and also some of the traffic patterns. They are the "No Project Cancer Risk" and "With Project Cancer Risk". They can be found in the Draft EIR as Figures 4.3.9 and 4.3.10. They are also found below, but the numbers would be a little clearer if you read them from the documents themselves. — 23

Please put the two below figures side by side and begin comparing. For example in the first, the Moreno Valley area around Lake Perris is not impacted, but the second encompasses much of that area and the lake as well as much of the San Jacinto Wildlife Area. In the first, I-10 west of San Bernardino is not impacted but in the second it is as is highway 79. The second figure shows significant impacts caused by WLC truck pollution to areas north, south, east and west of the City of San Bernardino as well as north, south, east, and west of the City of Riverside. Increase impacts all along SR 91 to Corona can be seen and north through Riverside. Increase in cancer

pollution impacts and therefore truck increases on the I-215 from the south in Menifee to north of the I-210 can be seen as a result of the WLC build out. Impact to SR-60 shown on the second figure seem to be artificially cut off and would indicate that the impacts extend further both to the west and to the east. At the very least the impact would extend to Chino on SR-60 but should extend to at least Diamond bar if the cancer pollution analysis was not arbitrarily cut off. The impacts along SR-60/I-10 heading east to the Palm Springs area is again artificially cut off. The traffic impacts along this entire stretch of SR-60/I-10 need to be studied because the pollution from the trucks shows that the WLC is impacting all of these roadways. In fact highways 79, 111, and 62 are impacted by the WLC truck pollution and need to be added to the traffic analysis. Again the cancer pollution shading and contours are artificially cut off as you move west along the I-10 and the City of Pomona should be included which means the WLC traffic impact need to be studied along the I-10 route to the project site. The same is true for SR-91 beyond Corona. Since these cancer risk pollution figures show the far-reaching impacts of the traffic generated by the building of the WLC throughout and beyond the Inland Empire, it is imperative that the FEIR analyze these traffic impacts along all these highways that are shown to be impacted by the WLC or the FEIR will be inadequate. 23

I noticed that the following cities as well as others are now included in the second (With Project Cancer Risk) and/or have the blue area extended further into their borders as well as having the contour cancer numbers increase. This is because the highways near these cities have trucks going to or leaving the WLC. Without the WLC the residents in these cities would have a much healthier environment in which to live. What will be done during the more than 20-year build out of the WLC to protect the residents in and around these cities?

Banning

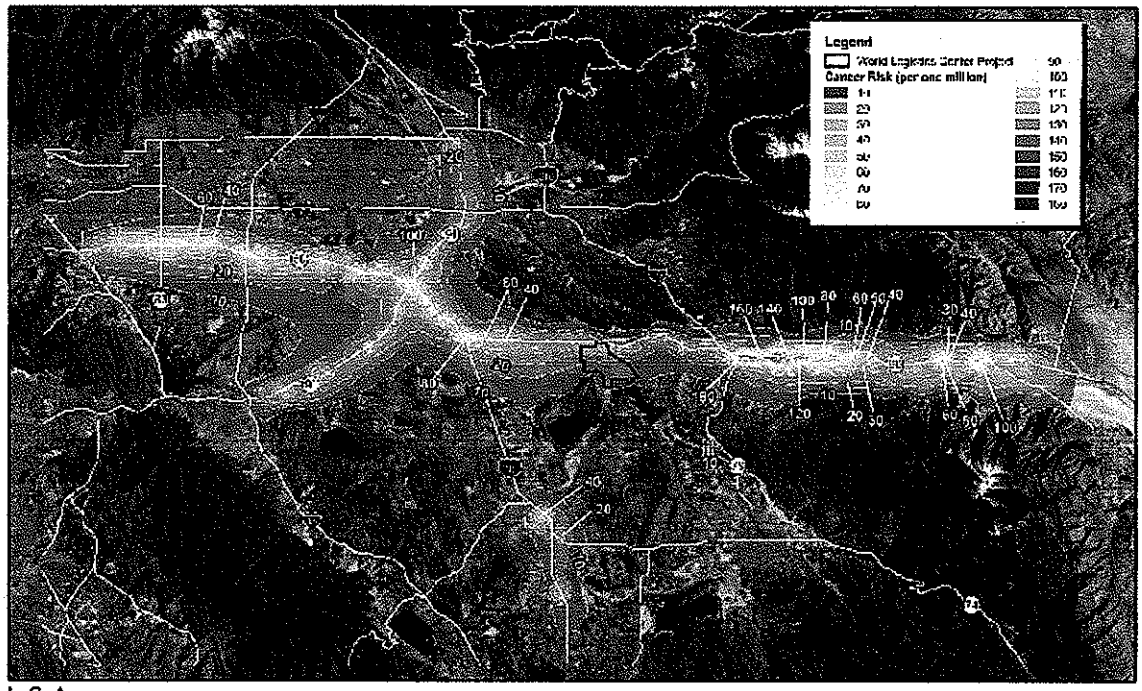
Beaumont
Loma Linda
Redlands
Moreno Valley
Riverside
Jurupa Valley
Grand Terrace
Chino
Ontario
Pomona
Montclair
Meniffe
Corona
Fontana
Rialto
San Bernardino
Perris

23

I am sure there are other cities that are impacted With the Project that I did not list or some like Sun City and Cucamonga which may just be on the edge one way or the other. All of these cities and their residents have the right to know that the World Logistic Center will impact their lives. *According to the California Air Resources Board Soot pollution causes almost 5,000 premature deaths in southern California each year and in the Inland Empire the main contributor to soot is diesel pollution.* There are many other health problems related to diesel pollution like asthma and heart problems as well as depression. While they do not have Figures for other health problems, it makes sense that if an area is in a cancer zone, then other health problems related to soot are also going to increase as a result of the WLC. While some WLC proponents may make fun of the low numbers of cancer victims, they will have difficulty

disputing the wide impact of the 41,600,000 sq ft World Logistic Center's pollution in our non-attainment area with its related health impacts. Since health impacts do not seem to concern some decision makers, maybe the prospect of *losing billions of dollars of highway funding* will when we can not meet EPA's new soot standards because of projects like the WLC and this will cause problems well beyond the borders on Moreno Valley. The FEIR must show how the WLC will help our area meet the new EPA soot standards. If the WLC is detrimental to the area meeting the new EPA standards for soot, then that needs to be shown and how bad it will impact the efforts to eventually meet the standards - in ten years and again in 20 years from the projects possible approval. 23

While the area needs jobs, please look at the cancer numbers of the two figures where the WLC will be built, and realize that maybe we should be going after healthy jobs. It is very evident from the two figures that warehouse workers breath in toxic diesel pollution throughout their workday.



LSA

FIGURE 4.3.9

0 20,000 40,000
FEET

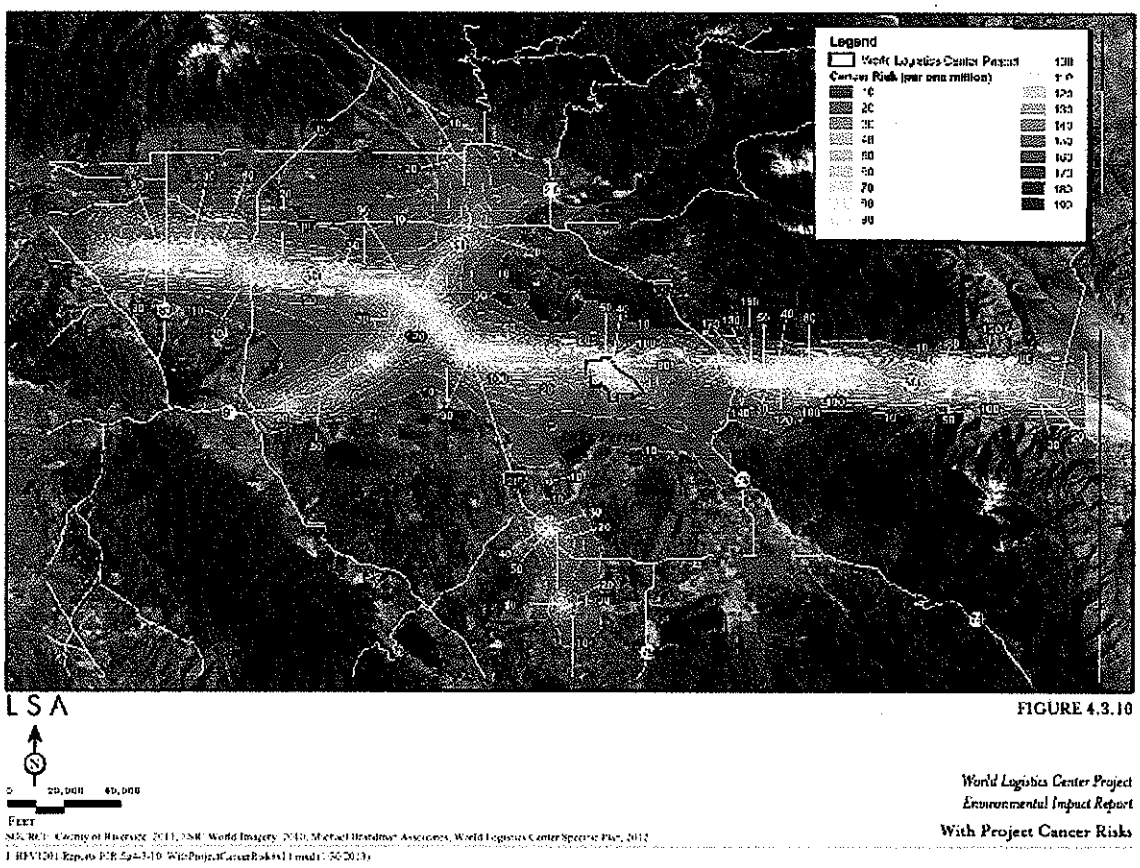
SOURCE: County of Riverside, 2011; ESRI, World Imagery, 2010; Michael Baudinet Associates, World Logistics Center Specific Plan, 2012

I:\BEV1201\Reports\EIR\Fig4-3-9_NoProjectCancerRiskMap1.mxd (1-30-2013)

World Logistics Center Project
Environmental Impact Report

No Project Cancer Risk

23



23

The DEIR must include those projects that will add to the cumulative impacts of the WLC. This must include not only the projects approved but not built, but also those that are in the pipeline but not yet approved. These projects cannot be limited to ones within Moreno Valley but must include all those in neighboring communities/lands that will impact the same roads systems and air quality that the WLC will impact, or the DEIR will be inadequate. Under my signature will be five pages of Riverside County General Plan Amendments (GPA) (October 2003 – February 2012). The area abbreviations are spelled out on the fifth page. You must include those GPA in your cumulative impacts for areas that are impacted by the WLC cancer causing pollution. Those GPA's with abbreviations that must be included in the cumulative impact analysis are MVAP, PAP, RCBAP, SCMAP, SJVAP and even TCAP because it appears you have arbitrarily cut of the cancer plume just as it reaches Corona. The Mott Lakeview Ranch project on the north side of the Ramona Expressway must be included as it is redoing its DEIR for the County. In speaking with Leon Swails of the Lewis Operating Corp. a few days ago they have a revised plan for the Villages of Lakeview that he wanted to share and which he said would be coming out later this year from the County. Both of these County projects must remain part of the cumulative impacts analysis. 24

The WLC will have significant impacts to the San Jacinto Wildlife Area (SJWA) and all of its wonderful resources. The DEIR must show what type of buffer the WLC will provide to protect the SJWA's resources. You cannot just say a setback of a certain number of feet for buildings. 25

The FEIR must show all planned uses within what you consider a buffer. Will there be streets or access roads or lights of any kind? What will be allowed in the detention basins and what uses as well as hardscape will be allowed. Will there be parking lots within the buffer? These and other uses must be described in the FEIR for all buffers next to the SJWA, open space and homes or the document will be inadequate. In fact the FEIR should have drawings depicting each buffer area and explain what is contained within each. The SJWA is a California Department of Fish and Wildlife managed area where several types of hunting are allowed as well as where protecting threatened/endangered species is very important. The rules of land use next to areas designated for hunting must be observed. How will you observe those restrictions without impacting the uses of the SJWA? There are several threatened/endangered species at the SJWA, as well as others that fall under the protection of Western Riverside County's Multi-Species Habitat Conservation Plan (MSHCP) – both plants and animals. The toxic diesel emissions will float above the SJWA and settle on the habitat, plants, animals and ponds. The FEIR will be inadequate if it does not explain the impacts of these toxic emissions on the habitat, plants, animals and water resources of the SJWA, private hunting clubs, and the Lake Perris SRA over the 20 year build out of the WLC and for at least ten years past that point. Because environmental stresses impact each species in a different way, the FEIR must explain how toxic diesel emissions and other environmental stressors such as light and noise impact each of the species covered by the MSHCP as well as the Stephens Kangaroo Rat on the SJWA, private hunting club lands, and the Lake Perris SRA over the life of the build out and at least a ten-year beyond. How will the toxic diesel emissions, run-off, lights and noise impact the public and private hunting resources? The Sierra Club needs proof to your responses to these concerns and questions. 25

The FEIR must show all county and city trails within five miles of the WLC and how the project will facilitate their interconnection as well as where it will cause a breakage in the trail system. The de Anza National Historic Trail need to be further explained and highlighted within the project. How will the WLC educate the public about the de Anza National Historic Trail? How will the project accommodate public transit and make sure the proper decision makers provide it for this area of the city? This is a major requirement to gain points under LEED certification and the WLC must make sure that the workers have easy access to this form of transportation. Bike trails also need to be totally integrated into the WLC's Specific Plan. They should be Class 1 bike paths to protect the riders from the 18-wheelers. They should also be integrated into any regional plans as well as a slowly improving City plan. 26

Since building near sensitive receptors is considered unacceptable because of the toxic diesel emissions, the FEIR must analyze the health impacts on the well-being of warehouse workers within the WLC Specific Plan – especially those working outside. 27

The FEIR needs to show how building all warehouses to each level of LEED certification (certified through Platinum) reduces both the short term and long term environmental impacts of the project. The FEIR also needs to give a definition of "modern high-cube logistics facilities" to be used throughout the Specific Plan. Since you will allow both high-cubed and regular warehousing how are you doing the analysis of the project---all areas--- when the project could have an unknown percentage of each type? 28 When you explain or show the number of acres set aside for jobs on behalf of Moreno Valley residents you must include our fair share of the March 29

Inland Port acres or your data will not be valid. Any economic analysis must include the efforts, which "are underway to establish mega-warehouse complexes off Interstate 15 in the Adelanto and Barstow areas in San Bernardino County." (Press-Enterprise 3-10-12) The cost of improving the infrastructure to at least a Level of Service D needs to be factored into the same economic analysis. "A new railroad spur might have to be built, or Highway 60 could need a new lane in each direction on the 17-mile stretch between Interstate 215 in Riverside and the I-10 in Beaumont, Ikhrata said" (Press-Enterprise 3-10-12) The viability of the WLC being built needs to analyzed in light of the Panama Canal being widened to allow the shipping of goods directly to the eastern portions of the United States. To combat this most West Coast ports have banded together with Western railroads to eliminate thousands of trucks from the local goods movement. The Jobs 1st Alliance fears that the ports of Los Angeles and Long Beach could lose as many as 100,000 jobs when the Panama Canal overhaul allows much larger ships to bypass California. "Worst case, there could be a 25% diversion from the Los Angeles-Long Beach," said Paul Bingham, the group's chief economist. "That's upwards of 3 million cargo containers. That's a lot of dockworkers who don't get work, truckers with less to haul and trains that don't run." (Los Angeles Times 12-28-2011) The economic analysis must address the above concerns and how they could easily impact the short term as well as long-term viability of this project. The Sierra Club will also expect to hear these real concerns addressed during presentations on the WLC. 29

What are your plans for the homes the WLC has decided to include within their Specific Plan. The Sierra Club believes better transitional uses than shown in the DEIR need to be near these and other nearby homes. If the your plan does not show these transitional uses, are we to assume that the City will use eminent domain to acquire lands from unwilling sellers? Will the City use eminent domain in connection with the WLC. 30

With 45-50 million square feet of warehousing in the immediate area, will there be a truck stop planned within the WLC Specific Plan? The social and environmental impacts of a potential truck stop must be analyzed in this FEIR and not later as some planned after thought. Calling it a Service Center with room to expand later to a truck stop still makes it a truck stop and needs to be analyzed as such. 31

The FEIR must show how toxic runoff from the project will be handled. The document must first identify what toxic runoff will be expected from 41,600,000 square feet of warehouses and quantify it. How will you protect the San Jacinto Wildlife Area (SJWA) and its resources from the toxic runoff? Are there presently waters entering the SJWA from the project site that the SJWA relies on for its mission? How will you maintain that water continuing to enter the SJWA? The project's lands divide the flow of water with some heading eastward and other lands within the Specific Plan heading westward. The FEIR needs to explain the problems presented by this as well as the solution. The project needs to show how it plans to deal with the significant flooding in the area and what will happen to those waters. There are places where the ground water is quite shallow and the FEIR needs to show how these large buildings will deal with this problem. The reliance of our area on ground water is becoming more and more evident. What will the project do to avoid decreasing the amount of ground water these acres within the Specific Plan area presently provide? The FEIR needs to explain the net decrease of ground water as a result of the WLC. The Sierra Club expects you to have proof that there will 32

be at least a 20-year supply of water—after build out—without impacting the San Jacinto Wildlife Area. More needs to be explained about the lift station in the FEIR. 32

Your NOP/DEIR should have mentioned that the consumption of electricity by all these warehouses "would generate air pollutant emissions." During the "Forum" the word "green" was used again and again to describe the WLC. The Sierra Club expects all buildings WLC buildings to match or exceed the Gold LEED certification recently agreed to by the Alessandro Business Center warehouse in the City of Riverside and the Skechers in Moreno Valley. Through the installation of solar panels and other LEED ideas you could avoid generating air pollutants with the electricity you consume. Why are you limiting the coverage of the warehouse roofs with solar? Why isn't the entire roof covered with solar – except the area needed for skylights? The FEIR must also explain what other aspects of the project will be "green" and if they are going to be required or just included to the "greatest extend possible," which mean very little. Agreeing to require at least 90% of your off road construction equipment meet Tier III standards and by 2015 Tier IV would also significantly help our non-attainment city and county. 33

Continuing to pave over Prime Agricultural lands as well as those of Local and State Importance must be mitigated. Having locally grown products also cuts down on the Climate Change problems mentioned above and below. 34

The elimination of locally grown products needs to be factored into your Air Quality and GHG analysis. As you know, recently a developer donated $100,000 to the Riverside Land Conservancy to help mitigate for the loss of Ag Lands. Please consider how your project will seriously mitigate its impacts to Agriculture and raptor foraging. This valley is world renowned for having more than 20 species of raptors. You should also make sure your parking provides ample reserved spaces for several form of cars using alternative fuels. Their parking lot also needs to be made of porous material to help with ground water recharge and to lessen run off. 35

Since some of Moreno Valley's designated truck routes pass by schools and their playgrounds, the Sierra Club expects the FEIR to explain what requirements will be placed on the tenants to avoid this very toxic situation as well as the truckers who will deliver/pickup products for your warehouse. How will the WLC increase the toxic level of any school within 1,500 feet of designated truck routes within our City? Explain why trucks will be allowed to leave the I-215 and head towards the WLC and visa versa on City streets instead of using SR-60. You are to use all means of reducing the projects impacts on residents. Using Cactus Ave or Alessandro Blvd or JFK instead of SR-60 to head east or west shows you are not doing so. The signals and stop signs more than offsets the pollution you might save by going a little shorter distance. The projects distance from homes needs to be easily understood as well as all the paths trucks could take to the warehouse. Using east/west surface streets significantly increases the toxic diesel pollution as well as the noise pollution and vibrations people will have to suffer. The WLC's traffic analysis needs to have the truck traffic using Moreno Valley surface streets using SR-60 to move east and west. Only then can the WLC state that it is doing more to reduce the diesel and noise pollution impacts on Moreno Valley residents. The FEIR must also show how much money the City will save on road improvements if the trucks are using SR-60 instead of the east/west surface streets. The WLC's trucks must also be restricted from using all roads that pass schools such as those on Heacock Street. How will you protect the workers from breathing toxic diesel emissions throughout their workday? What equipment will you make sure is electric instead of diesel or gasoline in order to lessen pollution and better protect the workers--this 36

includes gardening equipment? The DEIR needs to explain how noise barriers used during construction and use of the warehouse could lessen impacts identified in the Initial Study. Impacts to our local streets as well as our very crowded freeways need to be explained so the average citizen will understand. The FEIR-not just appendices- needs to show the length of trips the diesel trucks will be taking when driving to and from the warehouse as well as their routes. We need to know the maximum number of trucks that will use these warehouses each workday and not just after the first year, but when the warehouse is being used to its maximum capacity at peak times of the year. 36

The FEIR must show all off site infrastructures on single map/figure to allow the public to easily understand. These include but are not limited to sewer, debris basins, and the Theodore Interchange improvements. This includes all such needed improvements on both sides of Gilman Springs Road. The public needs to know who owns these lands needed for these off site improvements and what it will cost to build them as well as who will pay those costs. It also must include any additional interchanges and widening over crossings as well as widening of SR-60 to meet the demands of the WLC. The recent decrease of Development Impact Fees for High-cubed warehousing makes many needed improvements underfunded. What will the WLC do to compensate for this? All of these off site improvements need to be part of the economic analysis. Your economic analysis must give proof of its viability for at least 20 years after build out. It is in this time period that Proposition 13 tax increase restriction will have significant impacts on the WLC's income to the City of Moreno Valley and will probably become a drain on the well being of the City. 37

The land should not be disked for at least six months prior to doing the Burrowing Owl survey Otherwise many will believe you are just making it difficult on this special animal as well as making it more likely it will be listed as endangered. Figure 4.4.5 shows excellent Burrowing Owl habitat in the within the drainage areas of the WLC. What will happen to those animals during the life of the project and what else can be done to protect them? Will all drainage channels be soft bottom and if not why not? The Sierra Club believes the FEIR will be inadequate unless our concerns and issues found throughout this letter are thoroughly addressed within the DEIR document. The Sierra club does not accept your limited Open Space dedication as adequate and you should be ashamed of continuing to give the impression that the existing San Jacinto Wildlife (SJWA) area lands are being given as part of the WLC project. Figure 4.4.3 shows criteria cells along Gilman Springs Road. What is being proposed with those lands? 38

How will you modify power poles to protect raptors from being electrocuted as they land or spread their wings? The Sierra Club expects such modifications on all new and existing electrical poles within at least a half-mile of the WLC project. The placement of power poles near the San Jacinto Wildlife Area may prove dangerous when people are hunting. In addition they are ugly and should be placed as far away as possible from the open space of the SJWA. 39

Make sure all existing as well as proposed underground pipelines are shown on maps/figures and what is transported within them. 40 What proof do you have that your drainage plan will protect the SJWA and all its resources – especially threatened and endangered species? 41

The FEIR must explain the area proposed for annexation. When will the application for annexation be submitted and what happens when it is denied? Since this is part of the process 42

for the getting the project approved, the Sierra Club believes that everyone who requested all documents and notices of all meetings related to the WLC needs to be sent the annexation application and timely notices of those meetings. 42

Why wasn't the Development Agreement in the Draft EIR and will it be made available in the Final EIR? When future warehouses are proposed for development what must they do to get approval? Will they need to do their own EIR or will they be able to rely on the WLC's certified EIR? Will this be the case for the entire build out of the WLC? There will be many changes between now and 2035 and those changes should be dealt with in new environmental documents. 43

THE EIR MUST ADDRESS THE IMPACT GLOBAL WARMING WILL HAVE ON THE PROJECT

California's temperatures are expected to rise "dramatically" over the course of this century (Cayan 2007). These factors will impact the planned project, as well as exacerbate its own environmental impacts.

The rise in temperatures resulting from global warming will create a more conducive environment for air pollution formation (Cayan 2007). This will intensify the adverse effects the proposed project will already have on air quality in the project area and threaten residents' health (Cayan 2007).

Significantly for the state, as well as the project area, is global warming's impact on water supply. The IPCC specifically identified the American West as vulnerable, warning, "Projected warming in the western mountains by the mid-21st century is very likely to cause large decreases in snowpack, earlier snow melt, more winter rain events, increased peak winter flows and flooding, and reduced summer flows" (IPCC 2007b). Recently, researches found that an increase in atmospheric greenhouse gases has contributed to a "coming crisis in water supply for the western United States" (Barnett 2008). Using several climate models and comparing the results, the researches found that "warmer temperatures accompany" decreases in snow pack and precipitation and the timing of runoff, impacting river flow and water levels (Barnett 2008). 44

These researchers concluded with high confidence that up to 60 percent of the "climate related trends of river flow, winter air temperature and snow pack between 1950-1999" are human-induced.

(Barnett 2008). This, the researchers wrote, is "not good news for those living in the western United States" (Barnett 2008).

The California Center on Climate Change has also recognized the problem global warming presents to the state's water supply and predicts that if greenhouse gas emissions continue under the business-as-usual scenario, this snowpack could decline up to 70-90 percent, affecting winter recreation, water supply and natural ecosystems (Cayan 2007). Global warming will affect snowpack and precipitation levels, and California will face significant impacts, as its ecosystems depend upon relatively constant precipitation levels and water resources are already under strain (Cayan 2007). The decrease in snowpack in the Sierra Nevada will lead to a decrease in California's already "over-stretched" water supplies (Cayan 2007). It could also potentially reduce hydropower and lead to the loss of winter recreation (Cayan 2007). All of this means "major changes" in water management and allocation will have to be made (Cayan 2007). Thus, global warming may directly affect the City's ability to supply clean, affordable water to the residents, or force the City to change how it will utilize water, and it may also impact other activities outside the project area, such as agriculture.

Scientists indicate that climate change will also exacerbate the problem of flooding by increasing the frequency and magnitude of large storms, which in turn will cause an increase in the size and frequency of flood events (NRDC 2007). The increasing cost of flood damages and potential loss of life will put more pressure on water managers to provide greater flood protection (NRDC 2007). At the same time, changing climate conditions (decreased snowpack, earlier runoff, larger peak events, etc.) will make predicting and maximizing water supply more difficult (NRDC 2007). These changes in hazard risk and water supply availability must be considered during environmental review.

Water quality, in addition to water quantity and timing, will also be impacted. Changes in precipitation, flow, and temperature associated with climate change will likely exacerbate water quality problems (NRDC 2007). Changes in precipitation affect water quantity, flow rates, and flow timing (Gleick 2000). Shifting weather patterns are also jeopardizing water quality and quantity in many countries, where groundwater systems are overdrawn (Epstein 2005). Decreased flows can exacerbate the effect of temperature increases, raise the concentration of pollutants, increase residence time of pollutants, and heighten salinity levels in arid regions (Schindler 1997). 44

These are only examples of how global warming will impact the proposed project and intensify the environmental impacts the project will already have. It is not an exhaustive list. Thus, when assessing the impact of the Project on air quality, water supply, flood hazards, and biological resources, the EIR must take into account global warming. To ignore the impact of global warming on the Project and the resources impacted by the Project would significantly understate Project impacts.

, a universally adopted methodology is *not* necessary to

THE EIR MUST ANALYZE AND ADOPT ALL FEASIBLE MITIGATION MEASURES TO REDUCE THE PROJECT'S GREENHOUSE GAS EMISSIONS

In addition to thoroughly evaluating project alternatives, because it is clear that the project's greenhouse gas emissions will cumulatively contribute to global warming, "the EIR must propose and describe mitigation measures that will minimize the significant environmental effects that the EIR has identified." *Napa Citizens for Honest Gov't v. Napa County Bd. of Supervisors*, 91 Cal.App.4th 342, 360 (2001). CEQA requires that agencies "mitigate or avoid the significant effects on the environment of projects that it carries out or approves whenever it is feasible to do so." Pub. Res. Code § 21002.1(b). Mitigation of a project's significant impacts is one of the "most important" functions of CEQA. *Sierra Club v. Gilroy City Council*, 222 Cal.App.3d 30, 41 (1990). Therefore, it is the "policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures which will avoid or substantially lessen the significant environmental effects of such projects." Pub. Res. Code § 21002. Importantly, mitigation measures must be "fully enforceable through permit conditions, agreements, or other measures" so "that feasible mitigation measures will actually be implemented as a condition of development." *Federation of Hillside & Canyon Ass'ns v. City of Los Angeles*, 83 Cal.App.4th 1252, 1261 (2000). 45

To the extent that the project moves forward as planned, there are many mitigation measures the City can consider, as described below. This is not an exhaustive list and the EIR should explore these and all other feasible mitigation measures that will reduce the project's greenhouse gas emissions (CAPCOA 2008; California Office of the Attorney General 2008).

ii. Land Use and Energy

Using green building techniques, however, can substantially reduce buildings' influence in increasing greenhouse gas emissions. Green buildings help reduce the amount of energy used to light, heat, cool and operate buildings and substitute carbon-based energy sources with alternatives that do not result in greenhouse gas emissions (Commission for Environmental Cooperation 2008). Currently green buildings can reduce energy by 30 percent or more and carbon emissions by 35 percent. (Commission for Environmental Cooperation 2008). The technologies available for green building are already in wide-use and include "passive solar design, high-efficiency lighting and appliances, highly efficient ventilation and cooling systems, solar water heaters, insulation materials and techniques, high-reflectivity building materials and multiple glazing (IPCC 2007c). Additionally, the U.S. Green Building Council (USGBC), a private, nonprofit corporation, has established a nationwide green building rating system, called Leadership in Energy and Environmental Design ("LEED"). The LEED standard supports and certifies successful green building design, construction and operations. It is one of the most widely used and recognized systems, and to obtain LEED certification from the USGBC, project architects must verify in writing that design elements meet established LEED goals.

Specific mitigation for the greenhouse gas emissions generated by the Project's energy consumption include, but are not limited to:

- Analyzing and incorporating the U.S. Green Building Council's LEED (Leadership in Energy and Environmental Design) or comparable standards for energy efficient building during pre-design, design, construction, operations and management. All buildings within the World Logistic Center must be required to obtain a least Gold LEED certification. 45
- Designing buildings for passive heating and cooling, and natural light, including building orientation, proper orientation and placement of windows, overhangs, skylights, etc.;
- Designing buildings for maximum energy efficiency including the maximum possible insulation, use of compact florescent or other low-energy lighting, use of energy efficient appliances, etc.
- Reducing the use of pavement and impermeable surfaces;
- Requiring water re-use systems;
- Installing light emitting diodes (LEDs) for traffic, street and other outdoor lighting
- Limiting the hours of operation of outdoor lighting
- Maximizing water conservation measures in buildings and landscaping, using drought tolerant plants in lieu of turf, planting shade trees;
- Ensure that the Project is fully served by full recycling and composting services;
- Ensure that the Project's wastewater and solid waste will be treated in facilities where greenhouse gas emissions are minimized and captured.
- Installing the maximum possible photovoltaic array on the building roofs and/or on the project site to generate all of the electricity required by the Project, and utilizing wind energy to the extent necessary and feasible;
- Installing solar water heating systems to generate all of the Project's hot water requirements;
- Installing solar or wind powered electric vehicle and plug-in hybrid vehicle charging stations to reduce emissions from vehicle trips.

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iii. Mitigation Related to Project Construction

• Utilize recycled, low-carbon, and otherwise climate-friendly building materials such as salvaged and recycled-content materials for building, hard surfaces, and non-plant landscaping materials;
• Minimize, reuse, and recycle construction-related waste; 46
• Minimize grading, earth-moving, and other energy-intensive construction practices;
• Landscape to preserve natural vegetation and maintain watershed integrity;
• Utilize alternative fuels in construction equipment and require construction equipment to utilize the best available technology to reduce emissions.

iv. Transportation Mitigation Measures
• Encourage and promote ride sharing programs through such methods as a specific percentage of parking spaces for ride sharing vehicles;
• Create a car sharing program within the planned community;
• Create a light vehicle network, such as a neighborhood electric vehicle (NEV) system;
• Provide necessary facilities and infrastructure to encourage residents to use low or zero- 47
emission
vehicles, for example, by developing electric vehicle charging facilities and conveniently located alternative fueling stations;
• Provide a shuttle service to public transit within and beyond the planned community;• Incorporate bicycle lanes and routes into the planned community's street systems.

THE EIR MUST CONSIDER A REASONABLE RANGE OF ALTERNATIVES
The EIR must consider a meaningful analysis of reasonable alternatives to the Project in order to lessen or avoid the Project's significant impacts. CEQA mandates that significant environmental damage be avoided or substantially lessened where feasible. Pub. Res. Code § 21002; Guidelines §§ 15002(a)(3), 15021(a)(2), 15126(d). A rigorous analysis of reasonable alternatives to the project must be provided to comply with this strict mandate. "Without meaningful analysis of alternatives in the EIR, neither courts nor the public can fulfill their proper roles in the CEQA process." *Laurel Heights Improvement Ass'n v. Regents of University of California*, 47 Cal.3d 376, 404 (1988). Moreover, "[a] potential alternative should not be 48
excluded from consideration merely because it 'would impede to some degree the attainment of the project objectives, or would be more costly" even when that alternative includes Project development on an alternative site. *Save Round Valley Alliance v. County of Inyo*, 157 Cal. App. 4th 1437, 1456-57 (2007) (quotations omitted).

An analysis of alternatives should also quantify the estimated greenhouse gas emissions, quantified impacts to biological resources, water resources-including water quality and water availability, as well as traffic resulting from each proposed alternative. Selecting an alternative site closer to rail availability would be ideal and closer to I-10 or some other major freeway instead of our SR-60 which is only two lanes in from of the project. These places do exist.

CONCLUSION
Thank you for your attention to these comments. The Sierra Club expects all growth inducing as well as cumulative direct and indirect impact to be fully addressed in the FEIR. We look forward 49
to working with the City to assure that the EIR conforms to the requirements of CEQA to assure that all significant impacts to the environment are fully analyzed, mitigated or avoided. The

Sierra Club wishes to be placed on the mailing list for all future notices and documents regarding this project. Please mail all notices to Sierra Club, San Gorgonio Chapter, Moreno Valley Group, 26711 Ironwood Ave, Moreno Valley, CA. 92555. 49

Thank you,

George Hague

George Hague
Conservation Chair
Moreno Valley Group
San Gorgonio Chapter
Sierra Club

RESPONSES TO LETTER F-11

Sierra Club, San Gorgonio Chapter

Response to Comment F-11-1. The commenter suggests the Environmental Impact Report (EIR) is inadequate and has submitted their Notice of Preparation (NOP) comments in addition to their comments on the Draft Environmental Impact Report (DEIR). The DEIR does present accurate and adequate analysis in the DEIR, plus the additional and revised analyses of these issues have been provided in the Final Environmental Impact Report (FEIR), which together provide sufficient information upon which to make an informed decision.

Response to Comment F-11-2. The commenter points out there was not enough information at the "Skechers" public scoping session. While there were more people attending the meeting than anticipated, City staff made additional copies and distributed them during the meeting. The materials were projected on a screen during the meeting, and the written materials were made available on the City's website both before and after the scoping meeting. Despite these concerns, the public has had ample opportunity to review the project information, technical studies, and EIR documents via a 63-day public review period, plus the many months since the time the DEIR review period closed (April 8, 2013) during which the City has continued to receive emails and written correspondence on the DEIR and World Logistics Center (WLC) project. All of these comments have been included and responded to in this FEIR document regardless of when they were received by the City. In addition, public hearings at the Planning Commission and City Council will occur to review all of this material prior to any decision by the City.

R**esponse to Comment F-11-3.** The commenter asserts that there was inadequate public participation because California Environmental Quality Act (CEQA) materials were not provided in Spanish. The commenter should note that no EIR has ever been translated into Spanish for the purposes of CEQA review, including those in communities with much higher proportion of Hispanic residents. A large segment of the population of Moreno Valley is Hispanic or Latino, however, because a person is Hispanic or Latino does not automatically mean that they only speak Spanish. There is no legal requirement to translate the environmental documents or the notices into other languages. It is not the policy of the City to require project applicants to incur the added expense of having project environmental documents or public notices translated into Spanish. The City is also not required to incur the expense of providing a Spanish translator at public meetings. The commenter is free to provide a Spanish translator at its costs. In addition, neither the State CEQA Statutes nor the State CEQA Guidelines require or even suggest providing such notices in Spanish.

Response to Comment F-11-4. The commenter reiterates the issue regarding translating CEQA materials into Spanish. Response to Comment F-11-3 above outlines why the City does not provide CEQA documents and notices in Spanish. The EIR materials related to this project are adequate in terms of the level of analysis and issues addressed given the nature of the project and its location.

R**esponse to Comment F-11-5.** The commenter asserts the EIR process is inadequate because residents living along roads affected by project traffic and noise, including proposed mitigation with sound walls, were not individually noticed regarding the project. The City has made every reasonable effort to inform the public as to the potential impacts and proposed mitigation for this project, including a 63-day public review period on the DEIR which was posted in its entirety on the City's website. In addition, approximately 1,337 residents/residences near the WLC project site were sent individual notices regarding the proposed action per state law and City legal procedures. A legal notice was also placed in the local newspaper regarding circulation of the EIR. It would be cost prohibitive and unnecessary to mail individual notices to any City resident affected in some way by this project due to its size and nature, and adequate notice has been provided in this regard for this project.

R**esponse to Comment F-11-6.** The commenter believes the NOP for the project was misleading. The City disagrees, the information included in the NOP, including extensive information about the nature of the project and the relationship to the gas company and California Department of Fish and Wildlife/San Jacinto Wildlife Area (SJWA) conservation lands. A detailed Initial Study was not included in the NOP per State CEQA Guidelines Section 15060(d) because the City knew from the very beginning that an EIR was needed for this project. The NOP correctly indicated that all potential environmental issues would be evaluated in the EIR, as reflected by the analysis in DEIR Sections 4.1 through 4.16. The project information and maps in the NOP were accurate. In addition, the DEIR contained even more detailed information on the project and its potential impacts, and all of the agencies that commented on the NOP had ample opportunity to review and comment on the various technical studies and analyses in the DEIR. In these ways the City has followed the intent and requirements of CEQA regarding the NOP and EIR. Also refer to Responses to Comments B-3-40 regarding why the California Department of Fish and Wildlife (CDFW) Conservation Buffer Area and the San Diego Gas and Electric (SDG&E) lands are included in the WLC Specific Plan(SP).

Response to Comment F-11-7. The commenter raises more specific items of concern with the NOP. The NOP was an accurate representation of the project and its potential impacts, as outlined in Response to Comment F-11-6 above. The NOP specifically mentions SJWA and the state conservation land south of the Specific Plan property.

Response to Comment F-11-8. The commenter believes the NOP needed more than 30 days review. The NOP provided sufficient information for resource agencies to indicate their major areas of concern regarding environmental impacts, and all these agencies had 63 days to review and comment on the DEIR and its various technical studies. The purpose of the NOP is to provide responsible and trustee agencies with sufficient information describing the project and the potential environmental effects to enable the responsible agencies to make a "reasonable" response (CEQA Guidelines Section 15082(1)). There is no evidence that any agencies or the public were denied adequate time under CEQA to evaluate the NOP and the EIR. In fact, no agencies asked for more time to comment on the NOP.

R**esponse to Comment F-11-9.** The City and the DEIR have clearly indicated the status of the Moreno Highlands Specific Plan (MHSP) in relation to the City's Housing Element and future sites for affordable housing. Page 3-13 of the DEIR states…

> *"The City's 2006 Housing Element identified the Moreno Highlands Specific Plan as a potential source of vacant land that could accommodate possible future residential growth in the City. In 2011, the City updated its Housing Element and anticipated possible land use changes from mixed use and residential to jobs producing warehouses in the eastern part of the City. The 2011 Housing Element concluded that redesignating the entire land area east of Redlands to the eastern City border for warehouse uses would not impede the City's Housing Element Objectives. The State Department of Housing and Community Development certified the City's Housing Element as being in compliance with State law on February 22, 2011. The proposed project is consistent with the City's current Housing Element."*

This correctly explains the relationship of the MHSP project in relation to the Housing Element.

Response to Comment F-11-9. Environmental impacts were addressed in the No Project (Existing General Plan) Alternative, DEIR Section 6.3.5.

The commenter incorrectly states that the dwelling units currently planned under the existing zoning for the property (the Moreno Highlands Specific Plan for most of the project area) must be relocated within the City. The project proposes to replace existing residential land use designations with jobs-producing logistics land uses. There is no requirement to relocate planned residential units elsewhere in the City. Nor is there any requirement in CEQA to include these "displaced units" in the air quality or traffic analyses as the commenter claims. These units do not exist.

Per CEQA, the EIR for the proposed project is required to measure its impacts on existing conditions, not address planned, but not built dwelling units.

Response to Comment F-11-10. The commenter requests an analysis of city freeway ramps and local streets to determine what would happen in the event that a truck accident causes a freeway-closing accident on SR-60. He cites existing deficiencies on Gilman Springs Road, Redlands Blvd, and San Timoteo Canyon Road and asks what improvements will be made to make them safer. The commenter cites the 50-vehicle/peak-hour threshold for studying roads and says that he doesn't know if the project adds 50 or perhaps 500 trips. The commenter requests that all of the road segments between the study intersections be studied. Also, the commenter inquires about the level of service (LOS) at the intersections before and after the improvements and how improvements will be implemented over and above just paying impact fees.

In the event of an accident on SR-60, the California Highway Patrol may direct traffic onto an alternate route including local surface streets. Although the travel patterns of vehicles on SR-60 could change for the short period of time that the freeway would remain closed due to a hypothetical accident on SR-60, such conditions are temporary and not indicative of the weekday a.m. and p.m. peak hours which are customarily analyzed in a traffic impact study and which are used as the basis for determining the number of lanes needed at roadways and intersections. An analysis of freeway closure traffic impacts is not reasonable, is not included in the traffic study guidelines that guided the methodology of the traffic impact analysis included in the DEIR, and therefore is not included in the FEIR. Note that by extending Eucalyptus Avenue from Redlands Blvd. to Gilman Springs Road, the project would create a new detour route that could be used in the event of an accident on SR-60.

By state law, the project cannot be held responsible for rectifying existing deficiencies on Gilman Springs Road, Redlands Blvd, and San Timoteo Canyon Road. However, the traffic impact analysis included in the DEIR assesses the potential project direct and cumulative impact of these three roadways. Deficiencies on Gilman Springs Road are disclosed in the DEIR, improvements are identified, and mitigation measures are set forth. The City will require the project to pay Transportation Uniform Mitigation Fee (TUMF) and Development Impact Fees (DIF) and to fund its fair share of the cost of improvements for which there is a nexus to the project.

Response to Comment F-11-11. The commenter expresses concern that the TIA assumes that some project truck traffic will use Reche Canyon Road which is currently a winding 2-lane road. The commenter acknowledges that the Riverside County Transportation Commission (RCTC) has plans to widen the road but states that there is no proof that this will ever happen. The commenter requests that the TIA assume that the road will never be built.

Because of the scale of the proposed project and the time lapse that would occur between its first increment of development and buildout, this EIR is a program level EIR. For this reason, the TIA assesses project impacts against existing (i.e., baseline) and General Plan Year 2035 (cumulative) traffic conditions. The General Plan Year 2035 traffic scenario appropriately assumes certain non-project land uses will be developed and certain transportation improvements will be constructed between now and year 2035. The transportation improvements assumed to be in place for the General Plan Year 2035 traffic scenario include the transportation improvements contained in the following:

1. Federal Transportation Improvement Program (FTIP). The 2012 FTIP covers the first four years of SCAG's 2012-2035 Regional Transportation Plan (RTP). The FTIP includes transportation projects that are already funded and are either already under construction or are in an advanced stage of development.

2. RTP Financially Constrained Project List. The RTP Financially Constrained Project List covers transportation projects that are next in line to be programmed and included in the four year FTIP. These projects would occur in the 2016-2035 time frame.
3. City of Moreno Valley General Plan road network. The General Plan network includes future planned improvements that are funded through the City's Development Impact Fee (DIF), Western Riverside Council of Governments' Transportation Uniform Mitigation Fee (TUMF), and improvements made directly by developers. The expectation that these improvements will be in place is appropriate for the long-term traffic analysis contained in this Program EIR because the General Plan Year 2035 traffic scenario also assumes buildout of the City's General Plan land uses. Most of future City transportation improvements will be funded through DIF and TUMF fees on collected from future developments projects. If future developments projects do not fully buildout per the General Plan then the LOS on the study streets and intersection would likely be better than shown in the TIA.

The 2012 Federal Transportation Improvement Program (FTIP) project list, which shows the projects for which funding is currently available, includes a Project Approval and Environmental Document (PA&ED) study of the widening Reche Canyon Road from 2 to 4 lanes, including realignment, signals, and medians (see FTIP Project RIV041043). This study is to occur in the FTIP four year time frame and is therefore assured of being in place prior to buildout of the General Plan Year 2035 assumed land uses and roadway network. The FTIP includes another project (see FTIP Project 200843) to fund widening of one section of Reche Canyon Rd. from 2 to 4 lanes, and another project (FTIP project 200064) to widen another section and modify the traffic signals in the FTIP four year time frame.

SCAG's financially-constrained project list, which identifies projects for which funding is expected to become available in the medium term in the 2016-2035 time frame, includes further widening of Reche Canyon Rd. one segment at a time (see Projects 3A07105, 3A04WT065, and 3A04WT184). So, contrary to the comment, there is ample evidence that this project will go forward as planned. If this roadway were left out of the TIA analysis then the possible impacts of project trucks using this route would have been missed.

Response to Comment F-11-12. Please see Response to Comment F-11-11.

Response to Comment F-11-13. Please see Response to Comment F-11-11.

Response to Comment F-11-14. The commenter claims there is no discussion of mitigating the diesel pollution that will traverse over six-foot sound walls into the residents' homes and yards. A detailed Health Risk Assessment (HRA) was prepared in the DEIR and was refined for the FEIR, which found no significant impact in residents adjacent to the WLCSP. Sound walls can provide some relief from roadway pollution. The South Coast Air Quality Management District (SCAQMD) indicates a range of pollutant reductions on the order of 15 to 50 percent for "near" locations on the downwind side of the wall.[37] The effectiveness of sound walls varies with distance from the roadway. Other site specific characteristics such as wind direction/roadway orientation, wall height, wind speed, and distance of the wall from the roadway may significantly affect the effectiveness of walls as pollutant mitigation. In the project air quality impact analyses, no credit was taken for any potential mitigation from sound walls.

The commenter indicates that there would be 30,000 trucks into Moreno Valley. However, as shown in the DEIR (Appendix D, Table 17) there was estimated to be approximately 13,000 diesel truck trips per day, which has been reduced in the revised analysis (with the reduction in square footage) to approximately 12,000 diesel trucks per day and 2,000 non-diesel trucks per day.

[37] SCAQMD 2012. 2012 Air Quality Management Plan. Chapter 9.

The commenter states that requiring 2010 trucks is not good enough. As discussed in Master Response-3, Zero Emission and Hybrid Electric Trucks, Vehicles, and Equipment, other truck technologies such as zero and near-zero emissions trucks are not currently viable or feasible technologies. In addition, the project's diesel trucks will need to be model year 2010 or greater (pursuant to Mitigation Measure (MM) 4.3.6.3B), which substantially reduces NOx and PM emissions. Please see the FEIR Mitigation Monitoring Reporting Program for a list of the project's mitigation measures.

Response to Comment F-11-15. The commenter does not raise any issue regarding the adequacy of the DEIR and no response is required. The City will consider all comments in connection with its consideration of the proposed project.

Appendix "O" to the DEIR, the "Fiscal and Economic Impact Study," includes projections for on-going maintenance costs for public facilities and improvements (including road improvements) at approximately $1,900,000 annually. The overall WLC cost vs. revenue analysis concludes that the WLC project will generate a "Total Annual Recurring General Fund Surplus" of nearly $7,000,000 per year (Exhibit A-9 of DEIR Appendix O). The City will have ample General Fund resources to do additional road maintenance if determined necessary by the City.

Response to Comment F-11-16 and 17. The commenter indicates that the EIR should show what physical and mental impact residents might experience as a result of the operation of the project. The commenter wonders what would protect the residents from the dust, noise, and vibration during grading. The FEIR and revised analysis (FEIR Volume 2, Section 4.3 and Appendix D) provide discussions of potential impacts on health that would occur with the project. Numerous mitigation measures are included that would minimize the potential impacts including the use of the cleanest fleet of heavy duty diesel trucks (Section 3.4.6.1), non-diesel support equipment the installation of air filtration systems (Section 4.3.6), noise mitigation (Section 4.12.5) and dust mitigation measures designed to meet the requirements of SCAQMD Rule 403 for Fugitive Dust (Section 4.3.6). The FEIR recognizes that the residents of the seven homes would be significantly and unavoidably impacted by the project's development (Section 4.3.6).

As part of the FEIR the circulation of the project has been revised to reroute Cactus Ave as Street "D" into the WLC based on the Transportation Engineering Division's recommendations. Incorporating this road alignment impacts the original land plan for the southwestern portion of the Specific Plan to the point where approximately 100 acres of land in this area can no longer function as an integral part of the WLC project. Section 3.1 of the WLCSP depicts the revised circulation system. The revised health risk assessment based on the revised land plan shows that there will be no significant health risks for those residences not within the project's boundaries (Section 4.3.5, FEIR Volume 2). It should also be noted that heavy trucks are prohibited from using city streets other than truck routes (Section 4.3.6, FEIR Volume 2), that noise mitigation measures have been imposed to mitigate the impacts on the surrounding residences (Section 4.12.6, FEIR Volume 2); therefore, there is no need to increase the separation between the project or truck routes from the existing residences.

The commenter wonders if the existing residential homes will decrease in value if the project is approved. The commenter wonders if the City considers this a taking. It is not possible to determine the impact of home values if the proposed project is approved and such economic issues are beyond the scope of CEQA. The City Council will consider all comments in connection with its consideration of the project before making a decision on the project.

The commenter indicates that the EIR should show what physical and mental impact residents might experience as a result of the operation of the project. The commenter wonders what would protect the residents from the dust, noise, and vibration during grading.

Impacts related to dust are discussed in DEIR Section 4.3, *Air Quality*, while noise and vibration impacts are addressed in DEIR Section 4.12, *Noise*. Mitigation Measures were recommended under both of these environmental issues, although air and noise impacts were determined to be significant even with implementation of feasible mitigation as recommended in the DEIR. See also Response to Comment F-9A-39 and the Master Responses in Letter C-3 for additional discussion on dust impacts, and Responses to Comments E-2A-13 to E-2A-15 and Responses to Comments F-8-72 and F-8-73 for additional discussion of noise and vibration impacts.

The DEIR and revised analysis provide discussions of potential impacts on health that would accrue with the project. Numerous mitigation measures are included that would minimize the potential impacts including but not limited to the following:

- Use of the cleanest fleet of diesel trucks during operation (MM 4.3.6.3B)
- Non-diesel support equipment (MM 4.3.6.3B)
- Dust measures designed to meet the requirements of SCAQMD Rule 403 for Fugitive Dust (MM 4.3.6.2A).
- Cleanest off-road construction equipment (MM 4.3.6.2A).

The commenter wonders if the existing residential homes will decrease in value if the project is approved. The commenter wonders if the City considers this a taking. It is not possible to determine the impact of home values if the proposed project is approved and economic issues such as those indicated by the commenter are beyond the scope of CEQA.

Response to Comment F-11-18. The Federal Highway Administration (FHWA) has established that the typical ear height is 5 feet (see for example "FHWA Highway Traffic Noise Prediction Model", FHWA-RD-77-108, December 1978), and this has also been adopted by the California Department of Transportation (Caltrans), the Federal Transit Authority (FTA), and other agencies. The ear height is roughly 6 inches below the top of the head, and even a 6'3" person would have an ear height below 6 feet. The noise source height for automobiles is at the pavement level since most noise generated by automobiles is due to the interaction between the pavement and the tires. The primary noise source for medium trucks is the engine noise which the FHWA models at 3 feet above pavement. The primary source for heavy trucks is the exhaust stack which generally occurs at 10 feet above pavement, but tire and engine noise are also important. Much of the noise impact along arterial roadways for this project is not due trucks but rather to the increase in automobile traffic, since most of the truck traffic will go directly to the nearby freeway. With such a low source height, a 6-foot wall will be very effective in reducing the noise impact of the project.

Response to Comment F-11-19. Detailed numbers for single event noise caused by blow-downs is included in the appendix to the technical noise study (DEIR Appendix K, pages 24 and 25 which are identified as Exhibits 9 and 10). Southern California Gas Company (SCG) has indicated in meetings to Highland Fairview that a muffler will be put on the blow-down points if anybody is in the vicinity of the blow-down, and this should be adequate to protect infrastructure workers. SCG currently owns and uses these or similar silencers on their blow-down points and therefore, their effectiveness is proven. SCG has several blow-down points near residential areas and successfully have blown-downs without significantly impacting the residents. The responsibility for insuring that blown-down events have a reasonable noise level is SCG's, not the project applicant.

Response to Comment F-11-20. The commenter requests the FEIR have a health risk assessment to cover all aspects of the project's negative impact on residents and workers.

The DEIR and revised analysis (FEIR Volume 2, Appendix D) contain an extensive health risk assessment of the project's health risk impacts on residents and workers. The revised analysis was expanded to address potential health risk impacts to school-age children and schoolchildren. These

estimates were made using regulatory-approved models and methods to derive both emission estimates and resulting cancer risks and non-cancer hazards specific to this project. The assessments were comprehensive and the results and conclusions were presented therein.

Response to Comment F-11-21. The commenter suggests, without offering documentation, that WLC will cause $5 million to $9 million in health costs to the community. While the City acknowledges that logistics development will have both positive and negative impacts in its sphere of influence, so will other potential development, as would a lack of employment-oriented development in Moreno Valley. Notably, this letter does not concern itself with the health costs associated with the level of unemployment that would exist if the project is not built, and the significant health opportunities available to those who will receive regular paychecks from their work at WLC. A recent study prepared by Economic & Politics, Inc. titled *Policy Choices and the Inland Empire's Public Health* found that the most important causes of public health issues were socio-economic, i.e. income, education, poverty, and employment (Exhibit P). In point of fact, some of the employers at WLC will directly provide health insurance to its workers, while employees at other firms will be able to access Affordable Health Care Act benefits by making the necessary copayments only because they would be employed at WLC. Furthermore, as is the case with all legitimate businesses operating within the City of Moreno Valley, WLC employers will be required to operate in full compliance with all existing state and federal regulations as they relate to employer responsibilities to provide for the health and welfare of employees.

Response to Comment F-11-22. The commenter asserts that the majority of warehouses have peak times during the year and that the traffic and air quality analyses must be done to show the worst case scenario possible. The commenter also requests all traffic counts from 2011 to be updated to 2013.

Response to Comment F-9A-9 explains why there is no need to study seasonal peaking for this particular project. The TIA followed standard engineering practice is to base the analysis on a "typical workday" which is defined as a Tuesday, Wednesday, or Thursday in a week when schools are open and no special weather or event affects normal traffic patterns.

An analysis was performed to determine if seasonality of traffic flows may be a significant factor that needs to be accounted for in the analysis. The monthly fluctuations in traffic flow on SR-60 in Moreno Valley were reviewed to determine if this was the case. The average daily traffic on SR-60 from 2011 was collected from Caltrans at the SR-60 interchanges with Perris Boulevard, Heacock Street, and Day Street and summarized by month (see refer to FEIR, Volume 2, Section 4.15 Traffic, Table 4.15.F: Existing (2012) Roadway Segment Levels of Service). The average daily traffic for each individual month was calculated and compared to the annual average. The data showed that the monthly fluctuations in traffic were not consistent between interchanges; in months where the traffic volumes at one interchange were above the annual average while the adjacent interchange count location was below the annual average. For example, the lowest month of the year for the Perris interchange, January, was the highest month for the two nearby interchanges. In 10 out of 12 months the two count sites closest to the project (Perris Boulevard and Heacock Avenue) deviated in opposite directions from the annual average.

If this area were subject to seasonal peaking then the three interchange count locations would show similar peaking characteristics during any given month. The count data showed no such consistency, therefore, seasonal peaking of ambient traffic is not considered a significant factor for traffic analysis for the WLC (as illustrated in Table F-11.A below).

A further analysis was performed to determine whether there may be significant seasonal peaking of truck traffic from the WLC that needs to be factored into the analysis. There are several reasons to believe that this will not occur:

- When it is fully operational the WLC is expected to have 15-to-25 different tenants from a variety of economic sectors; for example the National Association of Industrial and Office Properties (NAIOP) survey found tenants in the consumer goods, pharmaceuticals, automotive products, tools, office supply, home furnishings, and building materials sectors. To the extent that these sectors have season peaks they occur at different times of the year and would tend to offset each other (i.e. a high period for one tenant may be a low period for the tenant next door). This is one reason why traffic on SR-60 itself does not display seasonal peaking.
- Furthermore, the commenter's opinion that seasonal variation in truck traffic may pose significant impacts was premised on the commenter's erroneous over-estimate of the amount of truck traffic that will be generated by the WLC. To the extent that truck volumes will be smaller, the impact of any variations in truck traffic will also be smaller.

For these reasons, there is no basis for a presumption that seasonal peaking of truck traffic will create any significant impacts that have not already been identified using the trip generation rates from the Institute of Transportation Engineers (ITE) Trip Generation Manual.

The traffic counts were taken within a year of the NOP (dated February 2012) and so no adjustment was necessary.

Table F-11.A: Average Day Traffic at Three Interchanges near the WLC

PeMS Detector	Location	Month												Annual Average
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
							Eastbound							
810316	Perris Interchange	24,384	25,778	26,924	27,960	29,080	29,893	30,759	31,544	31,587	31,522	31,468	31,477	
801407	Heacock Interchange	41,458	41,506	41,499	41,470	41,378	41,396	41,483	41,465	41,459	41,377	41,314	41,265	
801394	Day Interchange	57309	57222	57222	57180	57061	57628	58590	59254	59736	59130	58898	58894	
							Westbound							
801410	Perris Interchange	28,055	28,451	28,937	29,432	30,019	30,612	31,059	31,647	31,631	31,548	31,487	31,432	
801404	Heacock Interchange	39,994	39,791	39,653	39,532	39,301	39,216	39,207	39,138	39,038	38,914	38,800	38,590	
808945	Day Interchange	46370	45897	45400	44938	44296	43814	43524	43359	43236	43284	43141	43073	
							Both Directions							
801410	Perris Interchange	52,439	54,229	55,861	57,392	59,099	60,505	61,818	63,191	63,218	63,070	62,955	62,909	**59,724**
	Diff from Ave	***-7,285***	***-5,495***	***-3,863***	***-2,332***	***-625***	***781***	***2,094***	***3,467***	***3,494***	***3,346***	***3,231***	***3,185***	
	% Diff from Ave	***-12%***	***-9%***	***-6%***	***-4%***	***-1%***	***1%***	***4%***	***6%***	***6%***	***6%***	***5%***	***5%***	
801404	Heacock Interchange	81,452	81,297	81,152	81,002	80,679	80,612	80,690	80,603	80,497	80,291	80,114	79,855	**80,687**
	Diff from Ave	***765***	***610***	***465***	***315***	***-8***	***-75***	***3***	***-84***	***-190***	***-396***	***-573***	***-832***	
	% Diff from Ave	***0.9%***	***0.8%***	***0.6%***	***0.4%***	***0.0%***	***-0.1%***	***0.0%***	***-0.1%***	***-0.2%***	***-0.5%***	***-0.7%***	***-1.0%***	
801394	Day Interchange	103,679	103,119	102,622	102,118	101,357	101,442	102,114	102,613	102,972	102,414	102,039	101,967	**102,371**
	Diff from Ave	***1,308***	***748***	***251***	***-253***	***-1,014***	***-929***	***-257***	***242***	***601***	***43***	***-332***	***-404***	
	% Diff from Ave	***1.3%***	***0.7%***	***0.2%***	***-0.2%***	***-1.0%***	***-0.9%***	***-0.3%***	***0.2%***	***0.6%***	***0.0%***	***-0.3%***	***-0.4%***	

The lowest month of the year for the Perris IC was the highest month for the two nearest interchanges.

In 10 out of 12 months the two count sites deviated in opposite directions from the annual average; i.e. one was higher than the annual average and the other lower.

Response to Comment F-11-23. The commenter lists multiple freeways that should be included in the traffic analysis because the air quality analysis shows that pollution from trucks is impacting the air quality on those roadways.

The commenter lists multiple freeways that should be included in the traffic analysis because the air quality analysis shows that pollution from trucks is impacting the air quality on those roadways. The TIA (DEIR Appendix L) used a City of Moreno Valley-approved threshold of 100 peak-hour trips to be used to determine whether or not a freeway segment needs to be further analyzed for potential traffic impacts. As a result, the impacts from the project's vehicle traffic encompassed the region from the junction of SRs-62/111 westward to the junction of SRs-60/71. In response to various public comments received on the DEIR, the geographical extent of the analysis of freeway impacts contained in the revised analysis was extended westward from the junction of State Routes 60/71 to

Interstate 710 and southward to the ports of Los Angeles and Long Beach. Additional freeway segments were also added to the assessment including the westward extension from the junction of SR-91/Interstate 15 to Interstate 710 and the Interstate 215 from the junction with the SR-60 to south of SR-79. The entire freeway segments analyzed in the revised TIA are shown in TIA Figures 2 and 3 (FEIR Volume 2, Appendix L). As a consequence, the project's impacts are now fully described over the area that would experience the emissions from the project's vehicle traffic.

The commenter should also note that MM 4.3.6.3B requires that all diesel trucks must be meet model year 2010 truck engine standards, the cleanest diesel truck engines available today.

Response to Comment F-11-24. The commenter states the DEIR must include those projects that will add to the cumulative impacts of the WLC - include all projects, even those that are in the pipeline but not yet approved and including projects in neighboring jurisdictions. A complete listing of other past, present, and reasonably foreseeable projects in the study area included in the DEIR cumulative impact analysis is shown in Exhibit 16 and Appendix E of the Air Quality, Greenhouse Gas, and Health Risk Assessment Report, Appendix D of the DEIR.

The traffic analysis incorporates a comprehensive list of other known projects, with over <u>one hundred</u> projects included on the list (see TIA Chapter 2, Section A, the sub-section entitled Land Use Assumptions, FEIR Volume 2, Appendix L-1). This list includes all projects in nearby jurisdictions for which data was available. In addition, the future-year scenarios also included other land developments incorporated into SCAG's 2012 Sustainable Communities Strategy (SCS), the region-wide land use plan.

Response to Comment F-11-25. Current land use of the northern portion of the SJWA (called the CDFW Conservation Buffer in the DEIR) is presently in dryland agriculture like the WLCSP lands. Numerous biological surveys since 2005 have identified only a limited number of plant and wildlife species due to repeated disking, planting and harvesting of dryland crops. The northern portion of the SJWA (approximately 830-acres) is highly disturbed and does not provide suitable habitat for any threatened or endangered species and is not used for hunting of any kind.

The WLCSP requires that there will be a setback of 250 feet from the boundary of the CDFW Conservation Buffer Area. The project incorporates special edge treatments designed to separate development areas from open space areas. These areas will serve to minimize unauthorized access, domestic animal predation, and illegal trespass and dumping. MSHCP guidelines recommend a setback or a buffer between urban and wildland areas. No specific research has been done on the WLCSP-SJWA interface, but scientific and academic research can provide guidance on the appropriate width of such a buffer under these types of conditions. Typical setbacks to protect wildlife from human presence (though not warehousing) ranges from 50 to 500 feet, but 200 to 215 feet appears adequate for the most sensitive or valuable wetlands, based on recommendations from California Department of Fish and Wildlife (CDFW) and United States Fish and Wildlife Service (USFWS). The City of Moreno Valley has setbacks related to residential development in its General Plan of 250 feet. The Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) and adopted guidelines of the USFWS and CDFW include a setback of 300 to 500 from nesting birds during construction activities. For example, typical burrowing owl mitigation says, "*To adequately avoid active nests, no grading or heavy equipment activity shall take place within at least 250 feet of an active nest during the breeding season (February 1 through August 31) and 160 feet during the non-breeding season*."

According to available research, a 250-foot "clear" setback (i.e., no human activity or improvements) appears to be adequate for a WLCSP-SJWA buffer (McElfish 2008). This buffer shall be enhanced by an additional setback of buildings, and by the presence of the CDFW Conservation Buffer Area, which was originally purchased to provide a buffer between Mystic Lake and development in Moreno

Valley. A minimum 250-foot setback is supported by a compilation of available academic and scientific literature and studies on wildlife impacts from diesel emissions, and the distance established in nesting bird surveys for setbacks from human activity. An additional 150-foot building setback will help provide an additional buffer from building lighting and noise.

Planned uses within the 250-foot buffer will include several linear detention facilities with spreading features. These detention basins will receive storm flows and nuisance flows from existing debris basins within the WLCSP that will treat the first flush flows during storm events. This treated water will then enter the detention basins with spreading features, which will provide sufficient hydrology to support native riparian habitat. The riparian habitat may be created as part of the necessary mitigation requirements for regulatory permitting. This will provide a significant patch of native riparian habitat, which will reduce off-site impacts associated with light, noise, and air quality. Other activities than may occur within the 250-foot buffer area include barrier fencing and maintenance roads to access the detention basins. In addition, a 150-foot building setback will be extended from the edge of the detention basins to the nearest building footprint. This area will contain landscape vegetation, access roads, parking facilities, and other development not including structures.

A total setback of 400 feet within the WLCSP for any permanent buildings shall be enforced on the southern and eastern boundary of the WLCSP. This setback shall provide an additional buffer from building lighting, noise, and air quality concerns. The 400-foot distance to buildings from the boundaries of the Specific Plan will effectively mitigate potential direct and indirect impacts on the SJWA and Criteria Cells to indirect noise, light and air quality impacts associated with both the construction and operation of the facilities.

With regard to toxics, the Habitat Assessment and MSHCP Consistency Analysis (FCS-MBA 2013 – FEIR Volume 2, Appendix E-1) provides the following:

> "*Development plans for the WLCSP and offsite facilities shall be designed to include Water Quality Best Management Practices (BMPs) such as vegetated earthen channels, storm drain stenciling, street sweeping, and education. Detention basins shall be designed to filter potential toxics in the storm water. These BMPs shall be implemented as part of the storm water pollution prevention measures for the project, in accordance with all appropriate National Pollutant Discharge Elimination System (NPDES) requirements.*
>
> *Development of the WLCSP and offsite facilities would most likely result in the additional use of hazardous materials in limited quantities associated with normal logistics use such as janitorial and cleaning products, solvents, herbicides, and insecticides. However, compliance with regulations, standards, and guidelines established by the Environmental Protection Agency (EPA), State, county, and local agencies relating to the storage, use, and disposal of hazardous waste shall reduce the potential risk of hazardous materials exposure to a level that is less than significant.*
>
> *A Health Risk Assessment (HRA) (MBA 2013) was completed for the project to analyze human health risks associated with airborne hazards. A HRA is a guide that helps to determine if current or future exposure to a chemical or substance could affect the health of a human population.*
>
> *Comparable data on these types of air quality exposures in wildlife is difficult to obtain, although there are a number of studies from Europe that infer that air quality emissions can cause both genetic changes and nutritional stress in birds and mice (Dudley and Stolton 1995; Gordon et al. 2012; Constantini 2006; Soloman et al. 1998). The results of these studies are not comparable to the exposures at the WLCSP and no scientifically proven statements can be made on the effects to wildlife. Therefore, because the impacts are speculative, no mitigation measures can be specified.*

Impacts to Lake Perris SRA would be well beyond any proven spread of toxics. The Lake Perris area would be protected by prevailing winds that would remove any air driven toxics from that area. In addition, the Lake Perris area would not be impacted by any waterborne toxics as the majority of the drainages flow around this area has no direct connectivity with the Lake Perris watershed.

The distances to the hunting clubs are well over 5,000 feet from the WLC boundary and the land use within the WLCSP will not affect the hunting club or the land use within the SJWA. In addition, the potential for airborne toxics to spread that distance is unlikely as 300 to 1,000 feet of dispersion is a more recognized number. Waterborne toxics would be captured by the detention basins planned at the southern end of the WLCSP. These basins by design would provide for bio-treatment of the water and still allow existing flows to continue offsite. The treated flows through the basin system would provide for better water quality than that which is currently happening across the WLCSP and the CDFW Conservation Buffer Area with continuing agriculture.

Sections 2.5 and 4.2.4 of the Specific Plan explain in detail land uses that are prohibited and permitted within setbacks as well as the overall layout of said setbacks. MM 4.4.6.1A further outline permitted uses within the minimum 250-foot clear setback along the southern property line of the WLCSP, both east and west of the SDG&E natural gas compressor plant. Permitted uses within or adjacent to this setback area include landscaping, drainage and water quality facilities, fences and walls, maintenance access drives, and similar related uses.

MM 4.4.6.1A prohibits parking lots within the 250-foot clear setback along the southern property line of the WLC Specific Plan area and the SJWA area. That measure specifies there will be no warehouse buildings within 400 feet and no truck activity areas within 250 feet of the SJWA area. It must be remembered this is a programmatic EIR and the project information is at a programmatic level (i.e., no specific information on building sizes or locations), therefore, it would be overly speculative to try to depict the specific locations of improvements or uses within the buffer areas at this time.

The proposed project is not required by state regulations to setback any given distance from the SJWA. State law requires that it is unlawful for any person, other than the owner, person in possession of the premises, or a person having the express permission of the owner or person in possession of the premises, to hunt or to discharge while hunting, any firearm or other deadly weapon within 150 yards (450 feet) of any occupied dwelling house, residence, or other building or any barn or other outbuilding used in connection therewith. (California Fish and Game Code Section 3004.) Additionally, it is illegal to fire a weapon from or over a public road or way open to the public. (California Fish and Game Code Section 3004.) In addition, California Fish and Game Code Section 3000, limits hunting hours. These restrictions relate to the hunter's actions, not allowed land uses. Thus, no "buffer" is required by state law between areas in which hunting is permitted and adjacent areas.

Section 4.4.6.1 of the DEIR examined the potential direct and indirect impacts of air pollution, noise, and light pollution on plants and animals within the SJWA in detail, and determined that the project design and recommended mitigation measures would help assure that potential impacts to these resources would be less than significant. There has been no empirical evidence submitted by the commenter or others that would demonstrate otherwise.

Response to Comment F-11-26. The commenter requests that all County and City trails within five miles of the project site be shown. The WLC should also show how they will educate the public about the de Anza National Historic Trail. The commenter questions how the project will accommodate public transit and how it will bring transit to the area. In addition, the commenter requests bike trails (Class I facilities) be integrated into the WLCSP.

Chapter 4, Section B of the TIA discusses the proposed bikeways and multi-use trails in the vicinity of the project site. The commenter requests that trails within five miles of the project site be identified to determine if the project "will cause a breakage in the trail system." A breakage in the existing trail system would be caused by disrupting an existing trail at the project site. The revised Figure 28 of the revised TIA, copied below as Exhibit F-11-1, shows existing trails within the project site and identifies proposed trails that will connect to the existing trail network. Note that the project would add to the trail system and not break any trails.

The De Anza National Historic Trail traverses the WLC site and much of the southwestern United States (see map below from the National Park Service). In some places there are commemorative trails or markers but in most there are not. The established recreational trail of the Juan Bautista de Anza National Historic Trail in Moreno Valley is not located within the project site (see Exhibits F-11-2A and F-11-2B) and the trail is not identified on the City of Moreno Valley Master Plan of Trails (see Exhibit F-11-3 below). The project will provide an east-west trail connection between Cactus Avenue and the SJWA that would provide a better approximation of the De Anza Trail than currently exists.

The project would include transit-supportive features (see Chapter 12, Section D of the TIA, FEIR Volume 2 Appendix L-1) and it is expected that transit service will be provided once the project reaches a transit-supportable level of operations.

Figure 27 of the TIA shows the proposed bike lanes (Class II) at the project site, which are consistent with the City's General Plan Policy 5.10.2 to "…maintain Class II and III bikeways as part of the City's street system." The on-street facilities will link to bikeways to the west to provide paths between residential areas outside WLC and employment centers within the WLC site (consistent with General Plan Policy 5.10.1).

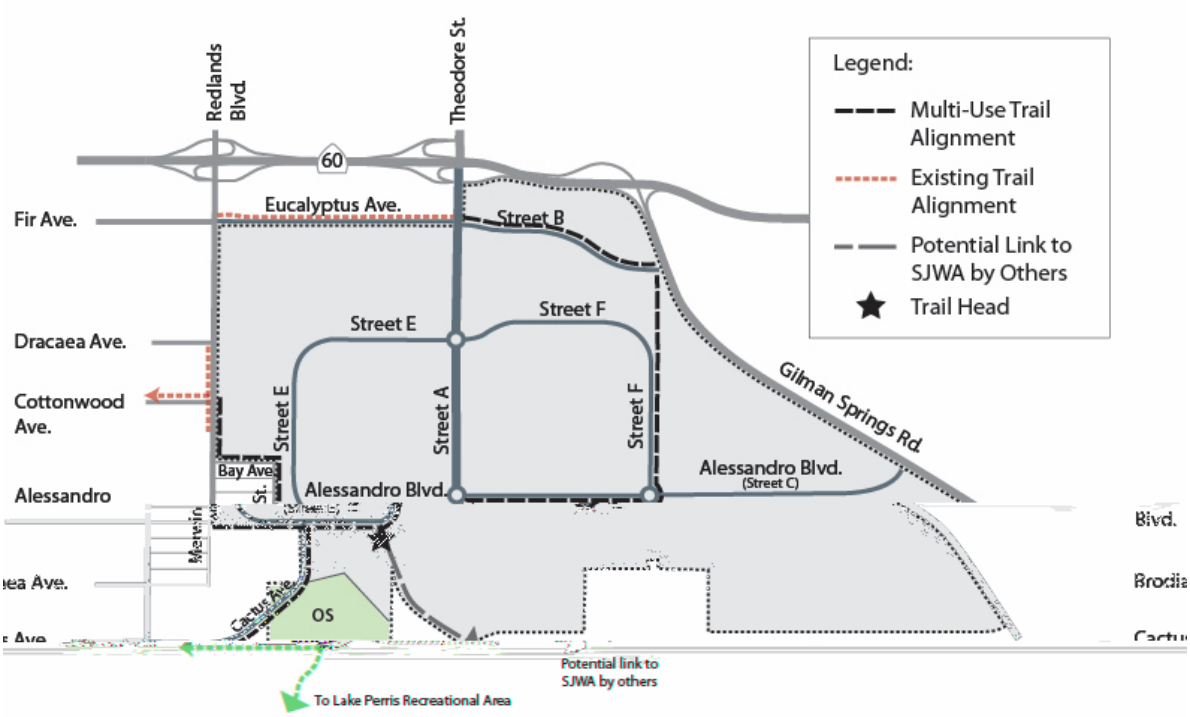


Exhibit F-11-1: Proposed Multi-Use Trails

Exhibit F-11-2A: Juan Bautista de Anza National Historical Trail
(Source: http://www.nps.gov/juba/planyourvisit/anza-trail-county-maps.htm)

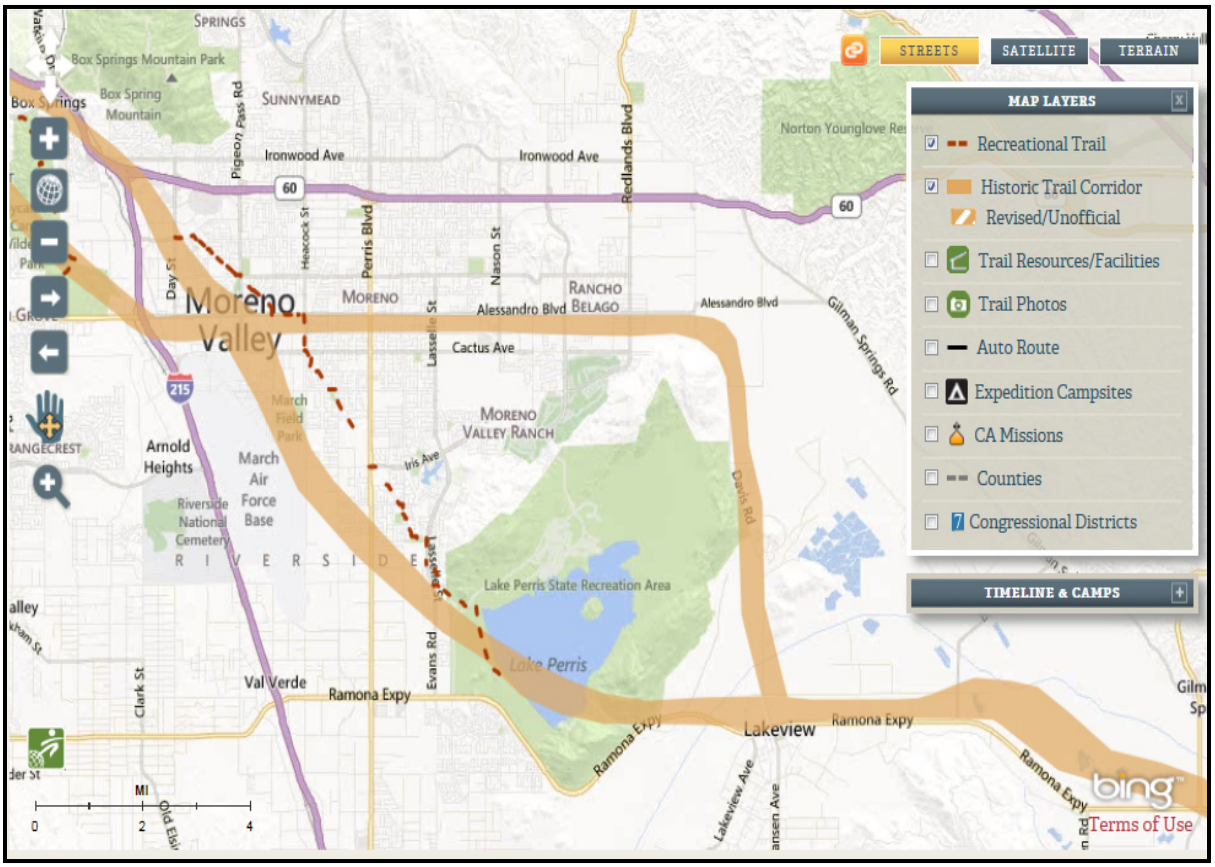


Exhibit F-11-2B: Juan Bautista de Anza National Historical Trail in Moreno Valley
(source: http://www.anzahistorictrail.org/visit/explorer

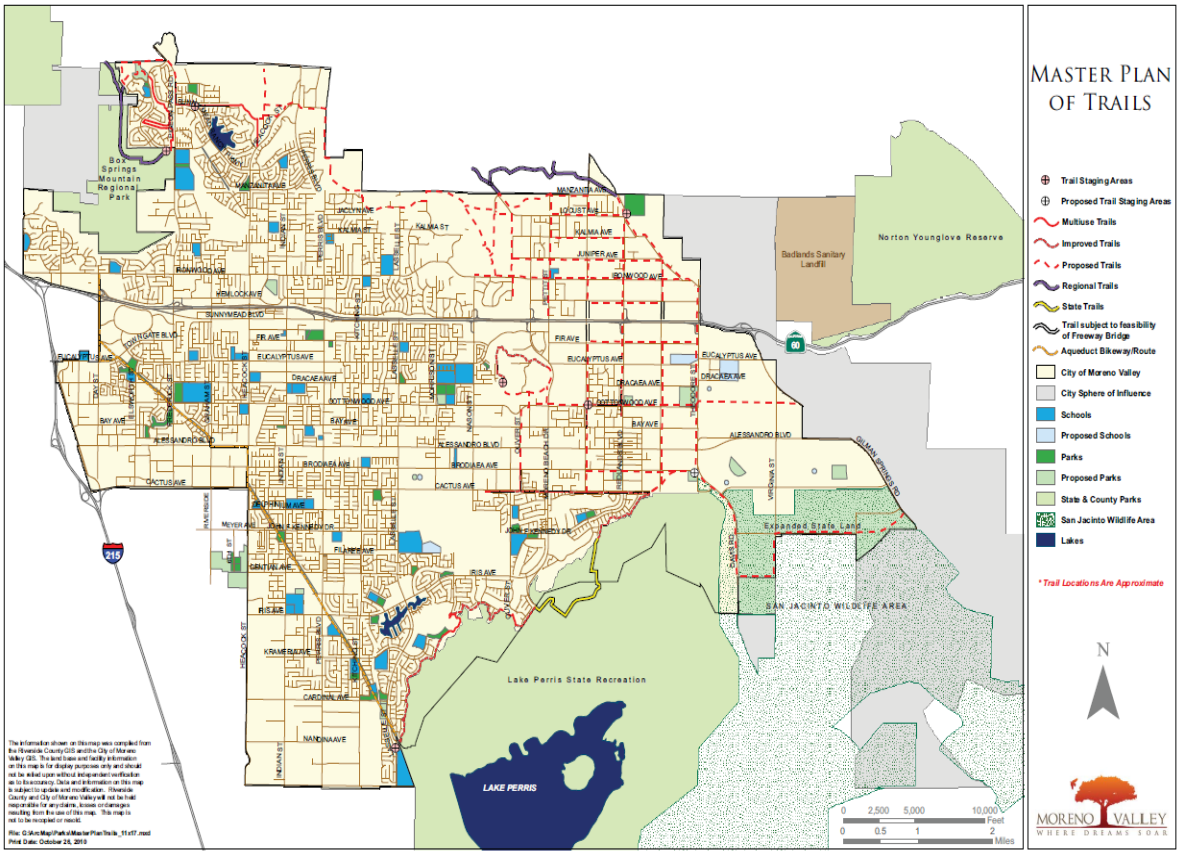


Exhibit F-11-3: City of Moreno Valley Master Plan of Trails

Response to Comment F-11-27. The commenter indicates that the FEIR must analyze the health impacts on the well-being of warehouse workers within the WLCSP, especially those working outside. The FEIR examined both onsite and offsite worker risk pursuant to the Current OEHHA Guidance and found no significant impact. See Section 4.3 of the FEIR for more information.

In addition, there are a variety of state and national programs that protect workers from safety hazards, including high air pollutant concentrations (California Division of Occupational Safety and Health; Centers for Disease Control and Prevention 2012).

Response to Comment F-11-28. MM 4.16.4.6.1C would require LEED certification for the project buildings. LEED buildings would reduce energy and water used by the project. The definition of high-cube logistics warehouse can be found in Section 3.4.6.1 of the DEIR.

Response to Comment F-11-29. As part of the Conditions of Approval assigned by the City to entitle the construction of WLC, the applicant will be required (at its own expense) to construct mandatory infrastructure improvements stipulated by the City to meet the infrastructure demands of the project. These Conditions of Approval will ensure that the Level of Service ("LOS") available for all local infrastructure impacted by the project will cover a LOS of D for intersections adjacent to freeways or employment centers and a LOS of C for all other services during and after buildout of the project. Further details regarding transportation improvements are included in Section 4.F of the TIA, included in the DEIR.

Please see Response to Comment A-4-4 regarding LEED certification. High-Cube warehouses are defined in the WLCSP on page 13-2 and further defined in the *ITE Trip Generation Manual Land Use 152 (9th edition, 2012)*. The main advantage associated with building such a structure is that it is appropriate for a variety of logistics-related uses and can easily be converted from one industry to another, or from one commodity to another, and is also suitable for light manufacturing. These types of facilities are also appropriate for a single user or for multiple tenants. The commenter is concerned about the mix of modern high-cubed and more standard warehousing in the Project, but while it is impossible at this time to project the actual mix that will be constructed, it is intended that this mix will meet the specific future demands of the logistics marketplace during the buildout process. The intent of the DEIR is to reflect a mix of high-cube logistics facilities with other types of distribution facilities to generate employee per square foot and employee wage data that were provided by a variety of government sources and NAIOP publications as documented throughout the DEIR and in the attached responses to other commenters' questions (see Response to Comment G-49-22). To assume a specific percentage of each type of logistics development within the WLC that differs from these overall averages would be purely speculative.

Importantly, the Development Agreement addresses a Local Hiring Program (LHP) for new employment opportunities within the WLCSP.

Regarding March Inland Port, it is to the benefit of Moreno Valley residents with appropriate experience and skills (as well as similar residents throughout the Inland Empire) that they will have access to two large logistics-based projects within the City at which they may be able to find employment opportunities. As explained previously in responses to other commenters (see Response to Comment G-90-6) the need for additional jobs in the City and the overall Inland Empire is paramount, as the overabundance of residents versus the number of jobs has had a deleterious impact on the quality of life in these areas. The TIA prepared as part of the revised DEIR, addressed the infeasibility of rail (see FEIR Volume 2, Section 4.F of the traffic impact analysis) and the impacts of the WLC on the City's existing infrastructure. Additional information can be found there related to the mitigation of such impacts and the adequacy of the infrastructure once these mitigation measures have been put in place.

The City has addressed the commenter's concerns related to the impact that the Panama Canal expansion will bring to the Inland Empire's warehousing logistics industry in the Response to Comment F-10-7.

Response to Comment F-11-30. Development of the private property within the WLCSP would not occur without the express permission and approval of the property owners (i.e., no other entity could propose or process any development proposals on the owner property without owner's express consent). Please see Response to Comment F-13-9 for information on proposed mitigation measure related to onsite rural residential uses.

Response to Comment F-11-31. A truck stop is not part of the WLC project. The permitted uses for the Logistic Support land use is included outlined in Section 2.2.5 of the WLCSP, a truck stop is not a listed as a permitted use.

Response to Comment F-11-32. The *Water Quality Management Plan* prepared for the project identifies the potential pollutants of concern from the project and identifies bioretention low impact development (LID) BMPs to be constructed to mitigate the impacts of these pollutants. The project will comply with the *Water Quality Management Plan for the Santa Ana Region of Riverside County*, which requires the use of LID BMPs that maximize infiltration, harvest and use, evapotranspiration and/or bio-treatment. Flows from the project will be treated first by LID BMPs where the flow will be infiltrated, evapotranspired, or treated. As required by MM 4.9.6.1A, the treated flows will then be reduced to below or equal to pre-development conditions by routing the on-site storm water flows through a series of on-site detention and infiltration basins before flows are released off site. These

basins will provide incidental infiltration and secondary treatment downstream of the LID BMPs. All runoff from the site will be treated by LID BMPs and then routed through the detention and infiltration basins before it leaves the project area and into Mystic Lake and the San Jacinto Wildlife Area.

The *Water Quality Management Plan for the Santa Ana Region of Riverside County* (approved by the Santa Ana Regional Water Quality Control Board October 22, 2012) discusses water quality impacts and the use of LID BMPs:

> "*LID BMPs have been shown in studies throughout the country to be effective and reliable at treating a wide range of Pollutants that can be found in urban runoff, including those listed above, and those subject to adopted Total Maximum Daily Loads (TMDLs) in the Santa Ana Region of Riverside County (Bacteria and Nutrients). As such, the LID BMPs required in this WQMP are expected to treat discharges of urban-sourced 303(d) listed Pollutants from subject projects to an impaired waterbody on the 303(d) list such that the discharge from the project would not cause or contribute to an exceedance of Receiving Water Quality Objectiv*es." (p. 19)

The *Master Plan of Drainage Report* discusses the existing hydrologic conditions of the site and how flows currently reach the SJWA. In the current condition the storm water runoff from the project generally flows in a southerly direction to the San Jacinto River. A topographic divide located west of Theodore Street separates storm water flows to the San Jacinto River in two directions. Runoff east of the divide flows through the San Jacinto Valley at a gradient ranging from 1 to 2 percent to the San Jacinto Wildlife Area and ultimately drains toward the Gilman Hot Springs hydro-subarea. Runoff west of the divide flows to the Perris Valley Storm Drain at a gradient ranging from 1 to 2 percent and ultimately drains toward the Perris Valley hydro-subarea. Both hydro-subareas eventually flow to the San Jacinto River, approximately 10 miles south of the project site. This topographic divide has been maintained in the project condition. As outlined in the report, Watershed "A" flows to the west to the Perris Valley Storm Drain. Watersheds "B" through "F" drain to the San Jacinto Valley Wildlife Area. The drainage basins and flows leaving the project site have been designed to mimic the pre project condition.

A series of detention/infiltration basins will be constructed to mitigate potential impacts from increased runoff. These basins will be designed to infiltrate increased runoff and release flows through a weir structure that mimics pre-project conditions and provides for flows to reach the SJWA similar to existing conditions.

As outlined in *the* DEIR Appendix J-1 *Hydrology and Water Quality Master Plan of Drainage Report Section 4.5 Runoff and Infiltration Volumes*, a water balance model was developed based on historical rainfall data to determine the amount of water infiltrated into the ground under existing conditions. The infiltration portion of the detention basins are sized to infiltrate the increased flows similar in quantity to what the existing conditions infiltrate. There will be no net loss of groundwater recharge.

DEIR Appendix G *Geotechnical Preliminary Geotechnical Evaluation for the World Logistics Center Specific Plan* determined the depth to groundwater. As stated in Section 5.0 Conclusions "*Groundwater was not encountered up to the maximum explored depth of 81 feet during our site investigations. Shallow groundwater is not expected to be a factor during site grading.*" The building foundations will be designed based on recommendations from the Final Geotechnical report prepared prior to final design.

DEIR Section 4.16.*1 Water Supply* discusses the water supply available for the project through the year 2035. This section determined that there is adequate water supply to serve the project with mitigation. Pertinent details from this section are presented below:

> *The project's water consumption represents substantially less than 1 percent of the consumption yearly capacity and because the Eastern Municipal Water District (EMWD) indicates that water to service the project's proposed industrial uses is available, no*

significant water supply impacts would occur with implementation of the industrial use, and no mitigation would be necessary.

Metropolitan is currently engaged in planning processes that will identify solutions that, when combined with the rest of its supply portfolio, will ensure a reliable long-term water supply for its member agencies, the EMWD has determined that it will be able to provide adequate water supply to meet the potable water demand for the project in addition to existing and future users. However, until these supplies are secured, potential impacts of the proposed project on regional water supplies may be significant, and mitigation is required.

Specific Plan Design Features. *Section 6.0 of the Specific Plan requires the careful use of xeriscape or drought-tolerant vegetation with minimal mechanical irrigation to minimize water use for landscaping. Sections 4.2 and 5.3 require implementation of water-conserving landscaping and Section 5.1.3 provides architectural design guidelines that will help minimize the consumption of water for landscape irrigation.*

Mitigation Measures. *The following measures are recommended to help ensure that the proposed WLC project will have less than significant impacts on long-term regional water supplies.*

4.16.1.6.1A Prior to ~~issuancerecordation of a Final Map~~ approval of a precise grading permit for each plot plan for development within the World Logistics Center Specific Plan (WLCSP), the developer shall submit landscape plans that demonstrate compliance with the World Logistics Center Specific Plan, the State of California Model Water Efficient Landscape Ordinance (AB 1881), and Conservation in Landscaping Act (AB 325). ~~Landscape plans shall be approved prior to issuance of building permits and~~ This measure shall be implemented to the satisfaction of the Planning Division. Said landscape plans shall incorporate the following:

- Use of xeriscape, drought-tolerant, and water-conserving landscape plant materials wherever feasible and as outlined in Section 6.0 of the World Logistics Center Specific Plan;
- Use of vacuums, sweepers, and other “dry” cleaning equipment to reduce the use of water for wash down of exterior areas;
- Weather-based automatic irrigation controllers for outdoor irrigation (i.e., use moisture sensors);
- Use of irrigation systems primarily at night or early morning, when evaporation rates are lowest;
- Use of recirculation systems in any outdoor water features, fountains, etc.;
- Use of low-flow sprinkler heads in irrigation system;
- Provide information to the public in conspicuous places regarding outdoor water conservation; and
- Use of reclaimed water for irrigation if it becomes available.

4.16.1.6.1B ~~Prior to issuance of any building permit for development within the WLCSP, the developer~~ All buildings shall ~~submit building plans that demonstrate the project~~ ~~has~~ include water-efficient design features outlined in Section 4.0 of the ~~WLCSP~~ ~~including~~ World Logistics Center Specific Plan. This measure shall be implemented to the satisfaction of the Land Development Division/Public Works. These design features shall include, but not be limited to the following:

- Instantaneous (flash) or solar water heaters;
- Automatic on and off water facets;
- Water-efficient appliances;
- Low-flow fittings, fixtures and equipment;
- Use of high efficiency toilets (1.28 gallons per flush [gpf] or less);
- Use of waterless or very low water use urinals (0.0 gpf to 0.25 gpf);
- Use of self-closing valves for drinking fountains;
- Infrared sensors on drinking fountains, sinks, toilets and urinals;
- Low-flow showerheads;
- Water-efficient ice machines, dishwashers, clothes washers, and other water-using appliances;
- Cooling tower recirculating system where applicable;
- Provide information to the public in conspicuous places regarding indoor water conservation; and
- Use of reclaimed water for wash down if it becomes available.

4.16.1.6.1C Prior to ~~issuance of any~~ approval of a precise grading permit for ~~development within~~ each plot plan, irrigation plans shall be submitted to and approved by the~~WLCSP, the developer shall submit irrigation plans that~~ ~~demonstrate~~ City demonstrating that the development will have separate irrigation lines for recycled water. ~~The irrigation plans shall be approved prior to issuance of a building permit.~~ All irrigation systems shall be designed so that they will function properly with recycled water if it becomes available. This measure shall be implemented to the satisfaction of the City Planning Division and Land Development Division/Public Works.

Level of Impact After Mitigation. *With implementation of the recommended mitigation measures, expected impacts to water supply over the long term will be reduced to less than significant levels.*

A sewer lift station is proposed as identified in DEIR Appendix N-4 *Utilities Technical Memorandum World Logistics Center Specific Plan Sanitary Sewer Analysis*, Exhibit 4. This lift station will service buildings located east of Street A. The pump station is rated at approximately 970 gallons per minute and 85 feet of total dynamic head. The force main is sized at 12 inches.

Response to Comment F-11-33. See Response to Comment F-11-28 addressing comments relative to LEED. See Response to Comment F-3-20 relative to placing additional solar panels on the entire roof top. The WLC project has committed to the use of Tier 4 construction equipment where reasonably available. This is reinforced by mitigation measure MM 4.3.6.2A.

The commenter indicates that the NOP should have mentioned that the consumption of electricity would generate air pollutant emissions. There is no requirement that the NOP contain this information. The DEIR quantifies the greenhouse gas emission contribution from electricity (DEIR Section 4.7, pages 4.7-30 through 4.7-35). This estimation has been slightly updated in the revised analysis due to the project reducing its electricity usage and updated emission factors.

The commenter recommends the following mitigation:

Suggested Mitigation Measure	Response
Buildings should be LEED Gold.	**Partially Incorporated.** MM 4.16.4.6.1C requires that buildings be LEED certified. Gold certification is not needed as discussed in Response to Comment A-4-4.
The project should incorporate solar.	**Incorporated.** MM 4.16.4.6.1C requires solar.
Off-road construction equipment should meet Tier III standards and by 2015 meet Tier IV standards.	**Incorporated.** MM 4.3.6.2A requires Tier 4 equipment.

Response to Comment F-11-34. The commenter states the project should provide mitigation for loss of agriculture. It should be noted MM 4.2.6.1A has been added to the EIR which will require acquisition of such a conservation easement to preserve offsite farmland or equal or more agricultural productivity compared to the unique farmland (refer to Response to Comment F-7A-39 in Letter F-7A for further information). The commenter also states the air quality analysis should account for loss of the existing agriculture in terms of greenhouse gases (GHG) and air pollution. The GHG analysis does quantify the loss of existing agriculture in the category “land use change” shown in Section 4.7 of the FEIR. The air quality and GHG studies were done using worst case conditions which assume zero onsite air pollutant and GHG emissions so that the project emissions would not in any way be masked or reduced by any existing onsite emissions.

Response to Comment F-11-35. The commenter mentions several issues. Mitigation for loss of agriculture is addressed in Responses to Comments F-11-34 and F-7A-39. The loss of raptor foraging is addressed in Response to Comment F-1-33.

DEIR Appendix J *Hydrology and Water Quality* has been modified to include infiltration areas that will be constructed to provide for mitigation of increased runoff (refer to FEIR Volume 2, Appendix J). A water balance model was developed based on historical rainfall data to determine the amount of water infiltrated into the ground under existing conditions. The infiltration portion of the detention basins are sized to infiltrate the increased flows similar in quantity to what the existing conditions infiltrate. There will be no net loss of groundwater recharge with construction of this mitigation. See also response to Response to Comment F-11-41. Parking lot design will be addressed with future plot plan specific application.

Response to Comment F-11-36. The commenter expresses concern about project truck traffic near schools. The commenter asks why trucks will be allowed to leave the I-215 and head towards WLC on city streets (Alessandro Blvd. or Cactus Ave.) instead of SR-60. He states that the TIA needs to have project trucks going east-west on SR-60 instead of city streets. The FEIR, not just the appendices, needs to show truck routes. The commenter also inquires about the maximum number of trucks that will use the warehouses not just in the first year but when the warehouses are used to their maximum capacity.

As explained in the TIA (Chapter 4, Section B, FEIR Volume 2, Appendix L-1), Alessandro Blvd. will be severed at Merwin Street to prevent use by any project traffic, and the Cactus Avenue Extension will be closed to truck traffic. Trucks from the project going west towards I-215 will route along SR-60 as requested by the commenter. See Exhibit F-11-5 below.

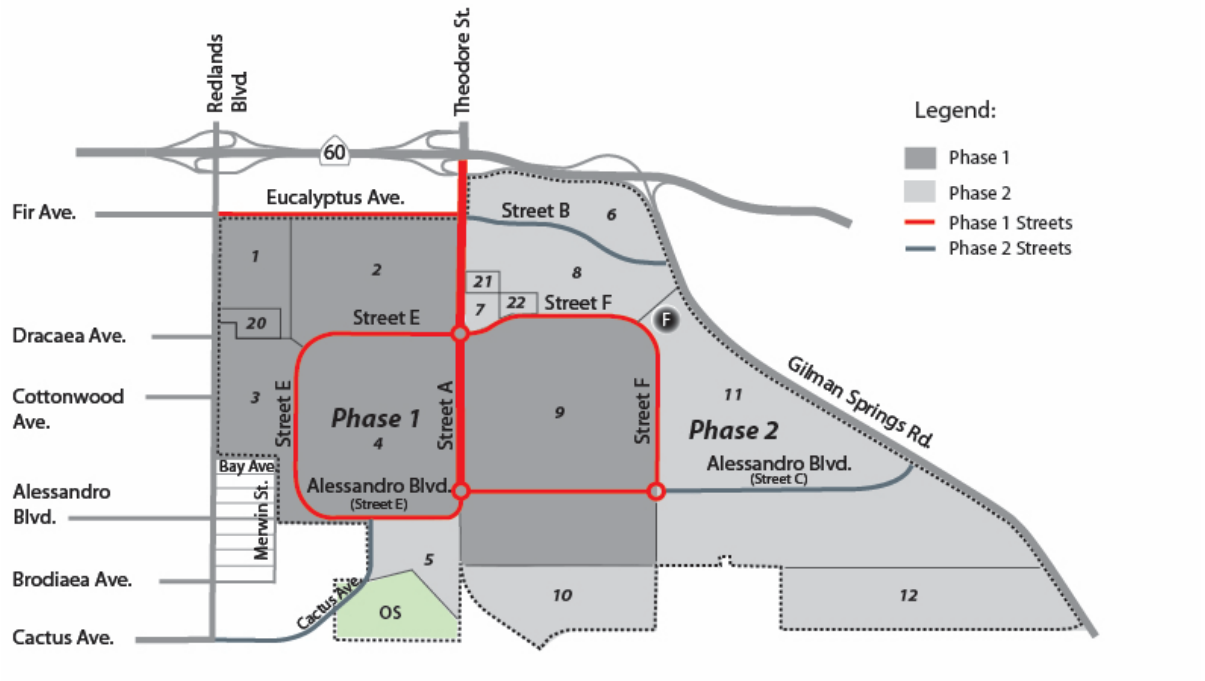
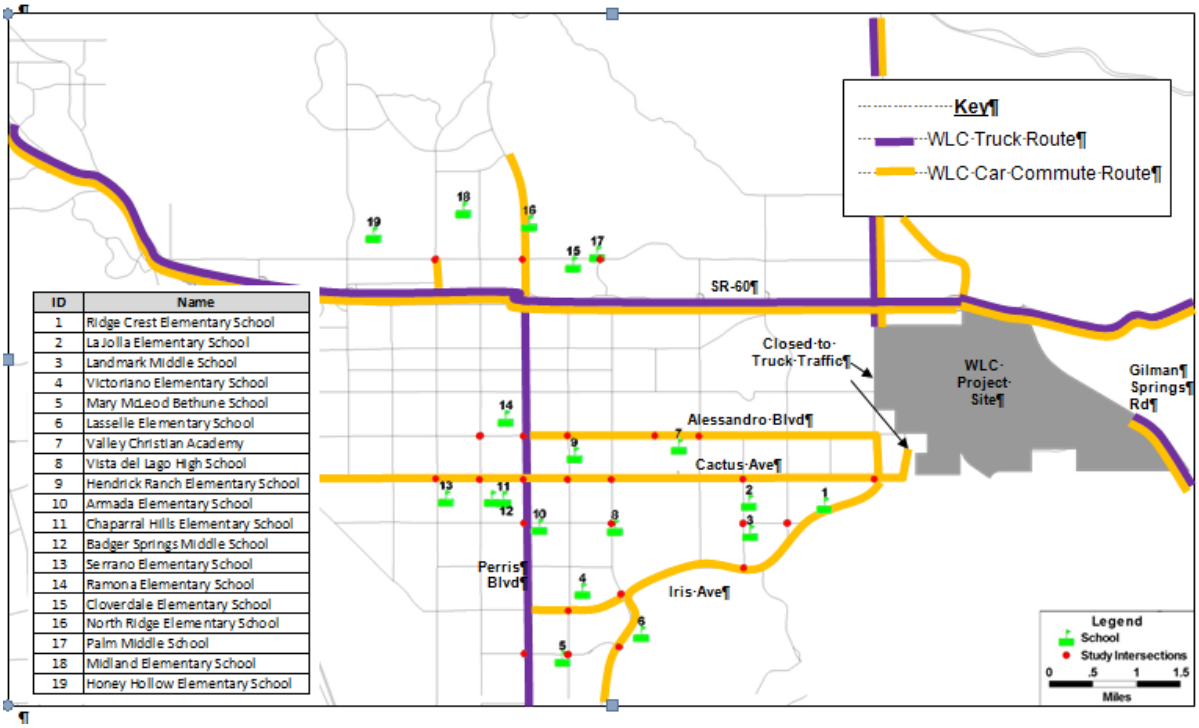


Exhibit F-11-5: Proposed Roadways and Phasing

Also an additional figure (Figure 8) has been included showing the designated truck routes in and around Moreno Valley.

A figure (Figure 47) has been added to the TIA (see Exhibit F-11-6 below) to clarify the relationship between truck routes and school location. The figure is part of a new section (Chapter 12.B) added to clarify that the project will not have safety impacts to nearby schools. In addition, a new memorandum dated July 2014 has been added to show the potential impacts to the proposed high school #5 located north of the SR-60. The memorandum determined that with the previously identified mitigation measures in the WLC DEIR no significant impacts would occur if the proposed school was developed.



ID	Name
1	Ridge Crest Elementary School
2	La Jolla Elementary School
3	Landmark Middle School
4	Victoriano Elementary School
5	Mary McLeod Bethune School
6	Lasselle Elementary School
7	Valley Christian Academy
8	Vista del Lago High School
9	Hendrick Ranch Elementary School
10	Armada Elementary School
11	Chaparral Hills Elementary School
12	Badger Springs Middle School
13	Serrano Elementary School
14	Ramona Elementary School
15	Cloverdale Elementary School
16	North Ridge Elementary School
17	Palm Middle School
18	Midland Elementary School
19	Honey Hollow Elementary School

Exhibit F-11-6: Routes Taken by WLC Trips in Relation to Schools

The truck trip generation shown in the TIA (Chapter 4, Section C, FEIR Volume 2, Appendix L-1) is based on surveys of warehouses in full operation as requested by the commenter.

Response to Comment F-11-37. The commenter includes an additional discussion regarding off-site infrastructure needs and their associated costs, as well as requesting proof of the WLC's viability over a 20 year period. As previously stated, the Conditions of Approval mandated by the City in approving the project's entitlements requires the applicant (at its own expense) to construct the mandatory infrastructure improvements as stipulated by City staff. That being said, there is no way to document or guarantee that the project will definitely be viable over a 20-year period, due to the fact that the real estate market is cyclical in nature and changes are inevitable and difficult to predict. While it is inevitable that there will be a greater demand for the project's logistics facilities in some years than in other years, it is important to note that the applicant has sufficient confidence in the overall longevity and success of WLC that it has been and continues to be investing millions of dollars to entitle the project and build the necessary upfront infrastructure. The direct project infrastructure impacts and mitigation measures are identified in Section 11E of the project TIA (FEIR Volume 2, Appendix L-1) and the cumulative impacts and mitigation measures are identified in Section 11F of the project TIA (FEIR Volume 2, Appendix L-1).

Response to Comment F-11-38. Burrowing owl surveys were conducted on the WLCSP study area in 2005, 2006, 2007, 2010, 2012, and 2013. Owls were found during formal surveys only in 2005 and 2013. No more than a single pair has ever been recorded in a single year of surveys. The statement regarding leaving the land undisked for at least 6 months is not necessary as the land owner has the right to conduct business on the land for agricultural as that is the current land use. There is no requirement for leaving land fallow prior to surveys under any regulations or guidelines.

With regard to Figure 4.4.5 of the DEIR, the project biologist agrees that there are suitable burrows within the banks of Drainage features 4, 7, 8, and 9. However, burrowing owl has only been observed in Drainage feature 4 during the 2005 survey season. Owls have not been observed within any of the

Drainage features since the 2005 surveys. The owls found in 2013 were found in a road berm on the extreme southern end of the WLCSP (FCS-MBA 2013 – FEIR Volume 2, Appendix E-5). The drainages, with the exception of Drainage 9 (the easternmost drainage in Figure 4.4.5) would be removed. Habitat for burrowing owl may be present in the proposed detention basins, but due to the limited number of owls present, it is unlikely for owls to inhabit the area in sufficient numbers to be considered a significant impact under MSHCP guidelines (more than 3 pairs). If burrowing owls are found during any focused survey or during pre-construction surveys, MM 4.4.6.4D would be implemented and the breeding burrowing owls relocated to CDFW approved burrows created in the 250-foot buffer area along the southern edge of the WLCSP.

The comment regarding criteria cells along Gilman Springs Road is valid. There are portions of Criteria Cells 1204 and 1297 that would be within the WLCSP. While exact development strategies have not yet been proposed, the DEIR assumed that the cells would be impacted by construction. Section 5.1.1 of the MSHCP Consistency Analysis document addresses the issue of these criteria cells. The document states the following:

> ***Cell Group X: Criteria Cells 1204 and 1297***
>
> *Conservation within Cell Group X will contribute to assembly of Proposed Core 3. Conservation within this Cell Group will focus on chaparral, coastal sage scrub, and grassland habitat. Areas conserved within Cell Group X will be connected to habitat proposed for conservation in Cell Groups C to the east, V to the northeast, and to chaparral and grassland habitat proposed for conservation in Cell Group E to the south. Conservation within Cell Group X will range from 65 percent to 75 percent of the Cell Group focusing in the northeastern portion of the Cell Group.*
>
> *Within the southwestern portion of Cell Group X, and specifically within Criteria Cells 1204 and 1297, the WLCSP development and one potential debris basin encroaches on 114.2 acres of the cells. Under the MSHCP, conservation for Cell Group X is proposed for the northeastern portions of the Cell Group. The WLCSP development is not within the targeted conservation areas and, therefore, will not adversely affect the City/County's ability to achieve the goals of the MSHCP.*

All created drainage features will be created with soft-bottom channels. Drainage features that will remain in place include Drainage 9, 12, and 15. All other drainages will be impacted and riparian habitat will be created in the proposed detention basins with spreading features.

Response to Comment F-11-39. New power poles will be designed to eliminate electrocution risk of raptors that perch on power poles. The WLCSP would have no say over the types of power poles placed outside of the boundaries of the respective developments, especially if they are not part of the proposed project development. Replacement of poles, outside of the project footprint, will not be the responsibility of the developer but would fall under the guidelines of the local electric utility.

While we agree that power poles in general greatly reduce the natural component of open spaces areas, properly designed "raptor-safe" power poles can provide perching locations for raptors, increasing their chances for capturing prey.

Response to Comment F-11-40. Figure 4.9.3 Proposed Drainage System on page 4.9-27 of the DEIR has been updated and shows the sizes of pipes carrying storm water. DEIR Appendix M-2 *Water Resources World Logistics Center Specific Plan Water Systems Analysis* Figure 4 shows the recommended water system improvement underground pipelines and their proposed sizes and the *World Logistic Center Recycled Water Systems Analysis* Exhibit 6 shows the recommended recycled water system improvement underground pipelines and their proposed sizes. DEIR Appendix N

Utilities *World Logistics Center Specific Plan Sanitary Sewer Analysis* Exhibit 2 shows the recommended sewer system improvement underground pipelines and their proposed sizes.

Response to Comment F-11-41. The DEIR Appendix J-1 *Hydrology and Water Quality Master Plan of Drainage Report* and *WQMP* provide for the construction of bioretention, detention and infiltration areas to mitigate the impacts from the quantity and quality of runoff as discussed in Responses to Comments B-3-37 and B-3-39 in Letter B-3 from the California Department of Fish and Wildlife, including recommended changes to the wording of MMs 4.9.6.1A and 4.9.6.3C (refer to Response to Comment F-5-13) and a new MM 4.9.6.1B (refer to Response to Comment F-5-23) in response to several comments regarding water quality.

Response to Comment F-11-42. The EIR clearly illustrates the 85-acre property which is the subject of the proposed annexation (see Figure 3.6 in the DEIR Section 3.0). The property is located along the easterly side of Gilman Springs Road, northerly of existing Alessandro Road.

As fully explained in DEIR Section 3.4.5, the property to be annexed has been within the City's official Sphere of Influence for nearly 30 years as a result of a formal action by Riverside County's Local Agency Formation Commission (LAFCO) in 1985. That action by the LAFCO established the intent for this property to become part of the City of Moreno Valley. That eventuality has been a part of all planning activities for the Moreno Valley since 1985. The annexation process will complete that process.

The annexation of 85 acres of the WLC project will be processed through Riverside County's LAFCO separately from the planning entitlements which are being processed through the City of Moreno Valley. Part of the LAFCO process requires compliance with CEQA and therefore, the annexation is being addressed in the EIR for the overall WLC project. The current City process will establish zoning for this property, known as "pre-zoning," in advance of LAFCO's final annexation action. Both the CEQA review and the pre-zoning activities will occur before the formal processing with LAFCO.

Response to Comment F-11-43. A Development Agreement will be part of the FEIR and will be available for public review prior to consideration by the City Council. All persons requesting information regarding the WLC project will receive all notices regarding the annexation process.

As discussed in Section 11 of the Specific Plan, each building will require the City's review and approval of a discretionary Plot Plan application which will provide the details of architecture, layout, access, landscaping, elevations, etc. Prior to the approval of any of these Plot Plan applications, a separate CEQA compliance process will be conducted by the City to verify conformance with the overall WLC EIR and to address any site-specific impacts that may not have been addressed in the programmatic document.

Response to Comment F-11-44. The commenter suggests the EIR address the climate change impacts on the project and the projects overall effects on climate change. CEQA does not require that an EIR analyze the impacts of the environment on the project. The DEIR has adequately dealt with all the effects that can be expected from climate change nonetheless consistent with the recommendations to respond to the impacts of climate change outlined in the DEIR Water Supply Assessment (WSA) contained in Appendix M the project has reduced its water supply needs by implementing water use efficiencies throughout the project. These efficiencies include the use of low water use fixtures in the buildings, drought tolerant landscaping and recycled water where available. As outlined in the WSA Section 3.2 *Project Demand* the projected water demand for the project is made up of two components, building demand and irrigation demand. As stated in the WSA, "*A majority of the estimated demand would be for landscape irrigation. The developers of this project are proposing very low water use landscaping which would reduce the projected project demand significantly*."

Climate Change is discussed in Appendix A of the Water Supply Assessment, Section 7. "*EMWD has considered the impact of climate change on water supplies as part of our long term strategic planning. Climate change has the potential to affect not only local demand and supplies, but to reduce the amount of water available for import. Potential changes that may impact water supply include:*

- *Warmer temperatures leading to higher demand for water within EMWD's service area and throughout California;*
- *Reduction in the Sierra Nevada snow pack;*
- *Increased intensity and frequency of extreme weather events; and*
- *Rising sea levels resulting in increased risk of damage from storms in the Delta, high tide event and the erosion of levees in the Delta.*

"To limit the impact of climate change, EMWD's long term planning focuses on the development of reliable local recourses and the implementation of water use efficiency. This includes the full utilization of recycled water and the recharge of local groundwater basins to increase supply reliability during periods of water shortage. EMWD is also focused on reducing demand for water supplies, especially outdoors. Increasing the use of local resource and reducing the need for imported water has the dual benefit of not only improving water quality reliability, but reducing the energy required to import water to EMWD's service area."

As discussed above, this project is consistent with these water use efficiencies and MMs 4.16.1.6.1A, 4.16.1.6.1B, and 4.16.1.6.1C will be implemented to mitigate the water supply impacts, including the impacts of climate change on the project, to less than significant.

DEIR Section 4.16.1.6.1 Adequate Water Supply

The City is amending the text in DEIR Section 4.16.1.6.1 to clarify the inclusion of impacts to the project from climate change. This change to the DEIR does not result in a significant impact and has no material effect on the findings of the EIR. The addition to the text of the DEIR is as follows (refer to FEIR Volume 2):

The Water Supply Assessment considered the impact of climate change on water supplies. Climate change has the potential to affect not only local demand and supplies, but to reduce the amount of water available for import. Potential changes that may impact water supply include:

- Warmer temperatures leading to higher demand for water within EMWD's service area and throughout California;
- Reduction in the Sierra Nevada snow pack;
- Increased intensity and frequency of extreme weather events; and
- Rising sea levels resulting in increased risk of damage from storms in the Delta, high tide event and the erosion of levees in the Delta.

One of the outcomes of climate change could be more frequent limitations on imported supplies. To limit the impact of climate change, EMWD's long term planning focuses on the development of reliable local recourses and the implementation of water use efficiency. This includes the full utilization of recycled water and the recharge of local groundwater basins to increase supply reliability during periods of water shortage. EMWD is also focused on reducing demand for water supplies, especially outdoors. Increasing the use of local resource and reducing the need for imported water has the dual benefit of not only improving water quality reliability, but reducing the energy required to import water to EMWD's service area. The project developer is committed to water use efficiency and minimizing the use of potable water for landscape irrigation by using low

water use fixtures, drought tolerant plants and recycled water where available as outlined in MMs 4.16.1.6.1A, 4.16.1.6.1B, and 4.16.1.6.1C

Climate change is taken into account as part of the rainfall characteristics and is accounted for in the hydrologic and hydraulic analysis of the drainage facilities. As stated in section 3.2 Design Guidelines of the DEIR Master Drainage Report "Drainage facilities shall be designed in accordance with the Riverside County Hydrology Manual and Design Manual Standard Drawings." The Hydrology Manual includes the most up-to-date rainfall characteristics as required by the local, state, and federal regulations. The design of the drainage facilities include a factor of safety in the form of freeboard to account for uncertainties due to climate change, rainfall patterns, friction factors and other uncertainties. One foot of freeboard was included in the detention basins and drainage facilities to account for these uncertainties. At the time of final design the amount of freeboard to account for these uncertainties will be finalized. MM 4.9.6.1.A below requires the project to mitigate its impacts, including any impacts to the project as a result of climate change.

4.9.6.1A Prior to issuance of ~~any development~~ any building permit within the Specific Plan area, the developer shall ~~place~~ construct storm drain pipes and conveyances, as well as, combined detention and infiltration basin(s), bioretention areas, and spreading area(s)~~ as appropriate~~ within each proposed watershed, as outlined in the project hydrology plan, to mitigate the impacts of increased peak flow rate, velocity, flow volume and reduce the time of concentration by storing ~~increased runoff for a limited period of a time and release the outflow at a rate that does not exceed the pre-development condition~~ and infiltrating increased runoff for a limited period of time and release the outflow at a rate that does not exceed the pre-development peak flows and velocities for the 2, 5, 10, 25, and 100-year storms and volumes as assessed in the water balance model for historical conditions. For the purpose of this mitigation measure, the term "construct" shall mean to substantially complete construction so as to function for its intended purpose during construction with complete construction prior to occupancy. Field investigations will be conducted to determine the infiltration rate of soils underlying the proposed locations of bioretention areas and detention basins. The infiltration rate of the underlying soils will be used to properly size the bioretention areas and detention basins/infiltration basins to ensure that adequate volumes of runoff, in cumulative total for all bioretention areas and detention basins are captured and infiltrated. The water balance model will be updated and rerun for the site-specific conditions encountered to confirm the water balance. This measure shall be implemented to the satisfaction of the City Engineer. Energy dissipaters shall be used as the spillways of basins to reduce the runoff velocity and dissipate the flow energy. Drainage weir structures shall be constructed at the downstream end of the watersheds flowing to the San Jacinto Wildlife Area to control the runoff and spread the flow ~~in~~ such ~~a way~~ that the flows exiting the project boundary will return to the sheet flow pattern similar to the existing condition. Detention basins and spreading areas shall be designed to account for the amount of the sediment transported through the project boundary so that the existing sediment carrying capacity is maintained.

DEIR Section 4.9.6.1 Drainage Pattern and Capacity-Related Impacts Project or Specific Plan Design Features

The City is amending the text in DEIR Section 4.9.6.1 to clarify the inclusion of impacts to the project from climate change. This change to the DEIR does not result in a significant impact and has no material effect on the findings of the EIR. The addition to the text of the DEIR is as follows (*refer to FEIR Volume 2):*

These facilities will be designed based on the most up–to-date hydrology based on the latest rainfall to runoff patterns in compliance with local, state, and federal regulations. The design of the drainage facilities include a factor of safety in the form of freeboard to account for uncertainties due to climate change, rainfall patterns, friction factors and other uncertainties. One foot of freeboard was included in the detention basins and drainage facilities to account for these uncertainties. At the time of final design the amount of freeboard to account for these uncertainties will be finalized. The facilities are being designed to provide both detention and infiltration to mitigate increases in runoff volume, velocity and peak discharge as outlined in the following mitigation measure.

The project will comply with the *Water Quality Management Plan for the Santa Ana Region of Riverside County* (approved by the Santa Ana Regional Water Quality Control Board October 22, 2012), which requires the use of Low Impact Development (LID) BMPs that maximize infiltration, harvest and use, evapotranspiration and/or bio-treatment. Flows from the project will be treated first by LID BMPs where the flow will be infiltrated, evapotranspired, or treated. As required by MM 4.9.6.1A, the treated flows will then be reduced to below or equal to pre-development conditions by routing the on-site storm water flows through a series of on-site detention and infiltration basins before flows are released off site. These basins will provide incidental infiltration and secondary treatment downstream of the LID BMPs. All runoff from the site will be treated by LID BMPs and then routed through the detention and infiltration basins before it leaves the project area and into Mystic Lake and the San Jacinto Wildlife Area. The effects of climate change on pollutant loadings and residence time will be addressed in accordance with the requirements at the time of final design. LID BMPs have been shown to maximize the benefit for improved water quality. This would include the design based on the appropriate pollutant loads for the project from all sources including climate change.

The Water Quality Management Plan Guidance Document for the Santa Ana Region of Riverside County discusses water quality impacts and the use of LID BMPs:

> "*LID BMPs have been shown in studies throughout the country to be effective and reliable at treating a wide range of Pollutants that can be found in urban runoff, including those listed above, and those subject to adopted TMDLs in the Santa Ana Region of Riverside County (Bacteria and Nutrients). As such, the LID BMPs required in this WQMP are expected to treat discharges of urban-sourced 303(d) listed Pollutants from subject projects to an impaired waterbody on the 303(d) list such that the discharge from the project would not cause or contribute to an exceedance of Receiving Water Quality Objectives.*" (p. 19)

DEIR Section 4.9.6.3 Operational Related Water Quality Impacts Treatment Control BMPS

The City is amending the text in Draft EIR Section 4.9.6.3 to clarify the inclusion of impacts to the project from climate change. This change to the Draft EIR does not result in a significant impact and has no material effect on the findings of the EIR. The addition to the text of the Draft EIR is as follows (refer to FEIR Volume 2):

> All development within the project will be required to incorporate on-site water quality features to meet or exceed the approved Master WQMP's water quality requirements identified previously. This would include the design based on the appropriate pollutant loads for the project from all sources including climate change.

The commenter discusses background information on climate change. The DEIR contains background information on climate change (DEIR Section 4.7, pages 4.7-1 through 4.7-5).

The commenter also indicates that climate change should be taken into account when addressing the impact of the project on air quality, water supply, flood hazards, and biological resources.

Regarding air quality, please refer to Response to Comment F-1-74. Water supply and flooding issues are addressed in general in Responses to Comments G-4A-1 through G-4A-7 in Letter G-4A, Response to Comment D-1-1, and Response to Comment F-5-17.

Impacts to biological resources are addressed in general in the Responses to Comments to Letter B-3 (State Department of Fish and Wildlife) and Responses to Comments F-7A-25 through F-7A-36.

Response to Comment F-11-45. The commenter suggests mitigation measures to reduce greenhouse gases, as discussed below:

Suggested Mitigation Measure	Response
Project buildings meet LEED Gold certification.	**Partially Incorporated.** MM 4.16.4.6.1C requires LEED certification for the buildings. However, Gold certification is not needed as discussed in Response to Comment A-4-4.
Design buildings for passive heating and cooling, natural light, including building orientation, proper orientation and placement of windows, overhangs, skylights, etc.	**Already Included.** Page 4.16-39 of the DEIR states, “The project will encourage passive heating and cooling opportunities into the design or modification of the high-cubed warehouse developments and ancillary land uses.” MM 4.16.4.6.1B would place skylights where it does not affect placement of solar panels and has been edited to include this measure.
Design buildings for maximum energy efficiency including the maximum possible insulation, use of compact florescent or other low-energy lighting, use of energy efficient appliances, etc.	**Incorporated.** MM 4.16.4.6.1C requires LEED certification and exceeding Title 24 energy efficiency requirements by 10 percent. MM 4.16.4.6.1B requires energy efficient lighting, appliances, and equipment.
Reduce the use of pavement and impermeable surfaces.	**Partially Incorporated.** MM 4.16.4.6.1A requires cool pavement, porous materials, or permeable or porous pavement.
Require water re-use systems.	**Incorporated.** MM 4.16.1.6.1C will provide separate irrigation lines for recycled water.
Install light emitting diodes (LEDs) for traffic, street and other outdoor lighting.	**Partially Incorporated.** As stated in Section 4.3.2 of the WLCSP, street lighting would be high pressure sodium or LED. MM 4.16.4.6.1B requires energy efficient lighting.
Maximum water conservation measures in buildings and landscaping, using drought tolerant plants in lieu of turf, planting shade trees	**Already Included.** MM 4.16.1.6.1A, 4.16.1.6.1B, and project design features would reduce water use. MM 4.9.6.3A requires tree planting. As discussed on page 4.7-42 of the DEIR, “The Specific Plan indicates that vehicle parking areas are to be landscaped to provide a shade canopy (50 percent coverage at maturity).
Ensure that the project is fully served by full recycling and composting services.	**Already Included.** MM 4.7.6.1A would confirm that all tenants have recycling procedures set in place and that recycling is available. Composting services may be provided if there is a future need.

Suggested Mitigation Measure	Response
Ensure that the project's wastewater and solid waste will be treated in facilities where greenhouse gas emissions are minimized and captured.	**Not Included.** It is not feasible for the project to require certain standards for landfills or wastewater treatment plants. Those facilities will be required to comply with applicable regulations and rules.
Installing the maximum possible photovoltaic array.	**Incorporated.** MM 4.16.4.6.1C requires solar panels for office-related uses.
Utilize wind energy to the extent necessary and feasible.	**Not Included.** Wind energy is not necessary for the project because the project would have onsite solar.
Install solar water heating systems to generate all the project's hot water requirements.	**Already Included.** Instantaneous or solar water heaters are required as part of MM 4.16.1.6.1B.
Install solar or wind powered electric vehicle and plug-in hybrid vehicle charging stations.	**Incorporated.** MM 4.16.4.6.1C requires solar panels. MM 4.3.6.4A requires electric vehicle charging stations. The electricity for the electric vehicle charging stations could be powered by onsite solar generation. Wind energy is not necessary for the project because the project is incorporating onsite solar.

Response to Comment F-11-46. The commenter recommends the following mitigation measures related to project construction:

Suggested Mitigation Measure	Response
Utilize recycled, low carbon, and otherwise climate-friendly building materials such as salvaged and recycled-content materials for building, hard surfaces, and non-plant landscaping materials.	**Partially Incorporated.** MM 4.16.4.6.1C requires LEED certification. In LEED BD+C: New Construction (version 4), points can be earned through building life-cycle impact reduction, building product optimization, building sourcing of raw materials. LEED version 2009 has points for recycled content of material, regional materials, and rapidly renewable materials.
Minimize, reuse, and recycle construction-related waste.	**Already Included.** The California Green Building Standards Code requires that a minimum of 50 percent of nonhazardous construction and demolition waste be recycled and/or salvaged (Code section 5.408.1).
Minimize grading, earth-moving, and other energy-intensive construction practices.	**Partially included.** As discussed in the Final EIR, changes to the project description result in reduced construction and grading intensity. While the same quantity of earth moving is expected, the duration over which grading and earth-moving would occur has been extended, thereby reducing daily emissions from equipment and fugitive dust
Landscape to preserve natural vegetation and maintain watershed integrity.	Partially Included. The majority of the site is used for dry land farming and is disked yearly. There is very little natural vegetation. The WLCSP has committed to use native vegetation to the maximum extent practical (Sections 5.1.8.3, 5.1.8.6, 5.1.8.8, and 5.2.3 in the WLCSP).
Utilize alternative fuels in construction equipment and require construction equipment to utilize the best available technology to reduce emissions.	**Partially Incorporated.** The best available technology is used for the construction equipment. MM 4.3.6.2A requires Tier 4 construction off-road equipment. Alternative fuels

Suggested Mitigation Measure	Response
	such as natural gas are generally not available; therefore, it is not feasible to require that the equipment utilize alternative fuels.

Response to Comment F-11-47. The commenter recommends the following mitigation measures related to transportation:

Suggested Mitigation Measure	Response
Encourage and promote ride sharing programs through such methods as a specific percentage of parking spaces for ride sharing vehicles.	**Already Included.** MM 4.3.6.4A requires that the tenants participate in Riverside County's Rideshare Program. In addition, the measure also requires preferential parking for fuel efficient and carpool/vanpools. In addition, employers operating at WLC will be required to comply with SCAQMD Rule 2202, which achieves the goals requested by the commenter.
Create a car sharing program within the planned community.	**Not Incorporated.** The proposed project is not a planned community. In addition, this is not incorporated because Riverside County already has a car sharing program, which the project will participate in pursuant to MM 4.3.6.4A.
Create a light vehicle network, such as a neighborhood electric vehicle (NEV) system.	**Not Incorporated.** There is not expected to be any relationship between tenants at the WLC. As result, there is no need to for individuals to travel between buildings on a routine basis. As such, there is no need for a neighborhood electric vehicle system.
Provide necessary facilities and infrastructure to encourage residents to use low or zero-emission vehicles, for example, by developing electric vehicle charging facilities and conveniently located alternative fueling stations.	**Already Included.** MM 4.3.6.4A requires electric vehicle charging stations. MM 4.3.6.3C requires an alternative fueling station.
Provide a shuttle service to public transit within and beyond the planned community.	**Incorporated.** Public transit would be incorporated into the design of the WLC. See Section 3.4.6.2 of the FEIR.
Incorporate bicycle lanes and routes into the planned community's street systems.	**Already Included.** MM 4.3.6.4A requires Class II bicycle lanes on all project streets.

Response to Comment F-11-48. Please see the Responses to Comments F-7A-67 and F-7A-68 and F-8-118.

Response to Comment F-11-49. The commenter encourages the FEIR to examine all project and cumulative impacts of the project. The DEIR, plus the revised technical studies and revised discussion in the DEIR (FEIR Volume 2), and this FEIR document (Volume 1) provide sufficient information to the decision makers regarding the direct, indirect, and cumulative impacts of the proposed WLC project.

Response to Appendix 1 (General Plan Amendments Summary for Riverside County). The appendix was cited in the comment letter in reference to the comment that the Riverside County General Plan Amendments be included in the cumulative impacts for the project. The appendix was reviewed but the cumulative analysis methodology outlined in Section 2.10, Cumulative Impacts, uses the growth projections method rather than the list of projects method and so the detailed list of development projects in the county provided by the commenter is appreciated but unnecessary.

Response to Appendix 2 (Center for Community Action and Environmental Justice - Truth and Consequences). This appendix provides a collection of information that discusses a range of health effects related to particulate matter and, specifically, diesel particulate matter (PM). The City acknowledges this information and have provided an extensive discussion in the DEIR, the revised analysis, and Master Response-2: Health Effects of Diesel Particulate Matter, which describes the health effects of diesel PM and the potential impacts from the project.

Response to Appendix 3 (Global Trade, Good Movement and the Resulting Health Crisis in the Inland Valleys). This appendix provides a collection of information that discusses a range of health effects related to particulate matter and specifically diesel PM as they relate to goods movement. We acknowledge this information and have provided an extensive discussion in the DEIR, the revised analysis, and Master Response-2: Health Effects of Diesel Particulate Matter, which describes the health effects of diesel PM and the potential impacts from the project.

Response to Appendix 4 (The Press-Enterprise Region: Inland air quality remains almost worst in nation). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to air quality in the Inland Empire.

Response to Appendix 5 (L.A./ Long Beach and Riverside Most Polluted in USA Says Lung Association). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to air quality in Southern California.

Response to Appendix 6 (Smog May Cause Lifelong Lung Deficits). This appendix provides a description and summary of a long-term health study conducted by the USC called the Children's Health Study.

Information from this study has been added to the revised analysis as discussed in the Master Response-2: Health Effects of Diesel Particulate Matter.

One figure of interest in this appendix is shown on Comment Letter F-11, Appendix 6, page 47, which relates annual lung function growth to ambient PM_{10} measurements from the USC Children's Health Study. The correlation coefficient—which measures the strength and the direction of a linear relationship between two variables—shows a value of -0.57, which indicates a negative relationship between lung function growth and PM_{10} concentrations. The square of the correlation coefficient, called the coefficient of determination, is useful because it gives the proportion of the variance (fluctuation) of one variable that is predictable from the other variable. It is a measure that allows us to determine how certain one can be in making predictions from a certain model/graph. For this exhibit, the correlation of determination is 0.32 (square of -0.57). Based on the linear relationship shown in this figure, this value means that only 32 percent of the total variability in the annual function growth can be explained by the linear relationship with PM_{10} measurements. The remaining 68 percent of the total variation in annual lung function growth remains unexplained. While this figure is of great interest, the relationship between lung function growth and PM_{10} is not a simple one as depicted in the figure. Factors such as the constituents of the PM_{10}, some of which are fugitive windblown dust, and socioeconomic factors combine to make the relationship much more complicated than the figure depicts.

Response to Appendix 7 (The Effect of Air Pollution on Lung Development from 10 to 18 years of Age). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to air pollution effects on youth.

Response to Appendix 8 (Ultrafine particles in air pollution may heighten allergic inflammation in asthma). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to air pollution correlation with asthma.

Response to Appendix 9 (The Effect of Air Pollution on Lung Development from 10 to 18 years of Age). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to air pollution effects on youth.

Response to Appendix 10 (USC Study Finds Air Pollution Exposure at Schools Linked to Childhood Asthma Development). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to air pollution correlation with asthma.

Response to Appendix 11 (Untitled by ClickGreen staff. Published Sun 18 2011 10:47). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to air pollution.

Response to Appendix 12 (California Watch - Southern Californians at risk of death from air pollution, EPA says). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to air quality in Southern California.

Response to Appendix 13 (Hearts and air pollution: Five deadly air pollutants on five continents). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to air pollution correlation with heart attacks.

Response to Appendix 14 (Big Air Pollution Impacts on Local Communities: Traffic Corridors Major Contributors to Illness from Childhood Asthma). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to air pollution correlation with asthma.

Response to Appendix 15 (Latino Communities Hardest Hit by Air Pollution). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to air quality impacts on Latino communities.

Response to Appendix 16 (Pollution During Pregnancy Linked to Lower IQ). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to air quality impacts on pregnant mothers.

Response to Appendix 17 (Pregnant mothers at risk from air pollution). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to air quality impacts on pregnant mothers.

Response to Appendix 18 (Determination of Elemental Carbon and Organic Carbon Concentrations During the Southern California Children's Health Study, 1999-2001). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to air pollution effects on youth.

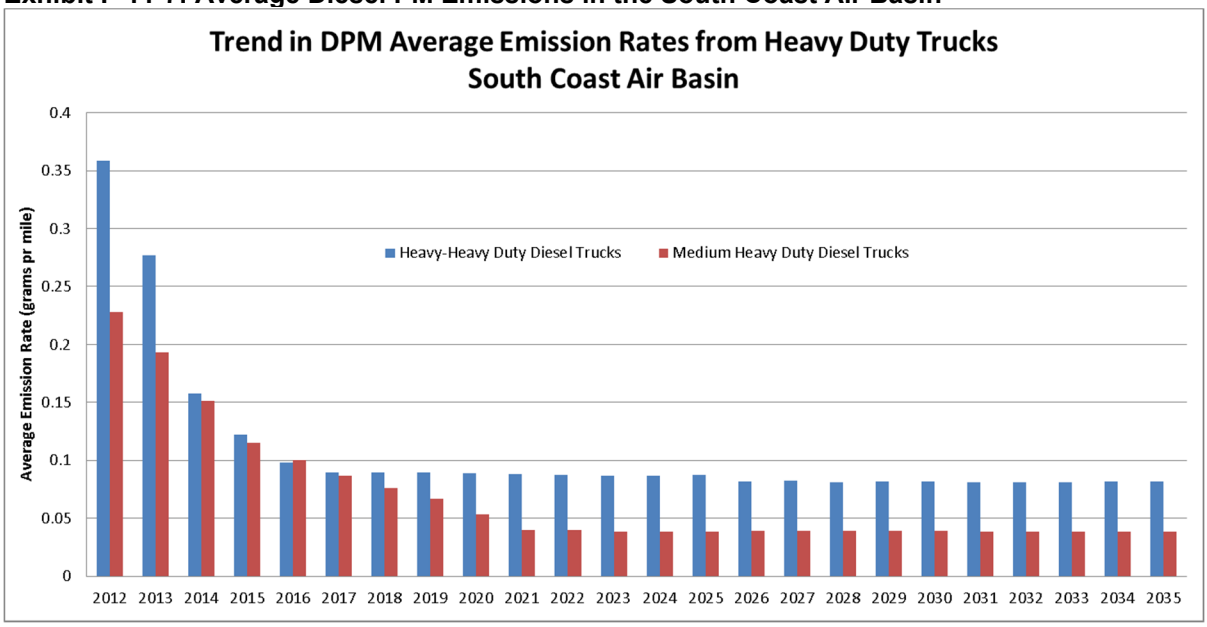
Response to Appendix 19 (Inland air hard to swallow for youth). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to air pollution effects on youth.

Response to Appendix 20 (Region's smog stunts young lungs). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to air pollution effects on youth.

Response to Appendix 21. This appendix examines the relationships between the growth in logistics industry in the Inland Empire and associated societal cost due to increased pollution-caused health effects.

While providing an interesting discussion of the relationships between the growth of the logistics industry and societal costs, the analysis does not take into account that emission controls on diesel trucks already mandated by the ARB, which have resulted in substantial decreases in emissions of $PM_{2.5}$ in the past 5 years and will continue to do so in the next 10 years. This is shown clearly in Exhibit 16 of the revised analysis (Exhibit F-11-7 below), which shows the trends in large truck vehicle emission rates for diesel PM in the South Coast Air Basin.

Exhibit F-11-7: Average Diesel PM Emissions in the South Coast Air Basin



In addition, Exhibit 2 of the revised analysis (Exhibit F-11-8) below shows the historical trends from 2001 to 2012 for $PM_{2.5}$ in the Inland Empire. $PM_{2.5}$ is often used as a surrogate for diesel PM. The exhibit shows definite downward trends in $PM_{2.5}$ at all locations despite the large increase of the logistics industry in the Inland Empire as identified in this appendix. This then calls into question some of the conclusions reached in this appendix regarding future $PM_{2.5}$ levels and associated societal costs.

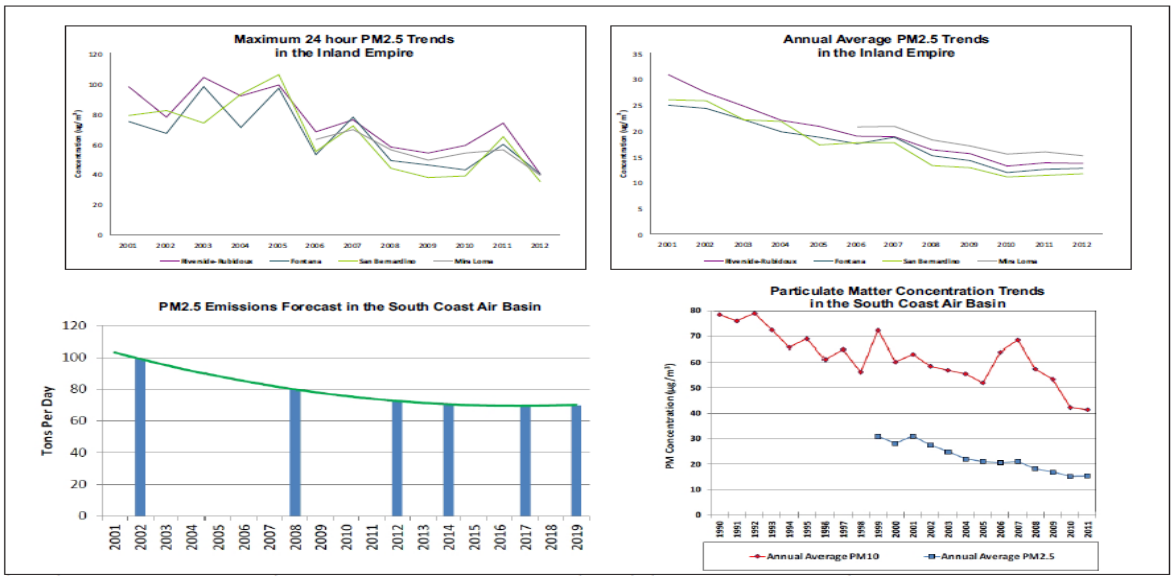


Exhibit F-11-8: Downward Trends in PM2.5

Letter F-12: George Hague e-mail (April 8, 2013)

From: George Hague [mailto:gbhague@gmail.com]
Sent: Monday, April 08, 2013 5:26 PM
To: Mark Gross
Cc: John Terell
Subject: World Logistic Center(WLC) Draft EIR comments

Letter F-12

http://www.pe.com/local-news/riverside-county/moreno-valley/moreno-valley-headlines-index/20130407-moreno-valley-community-forum-addresses-draft-charter-process.ece

Good evening Mr Gross,

An additional comment on the World Logistic Center's DEIR. The article on this page is about the City Council of Moreno Valley rushing to produce a Charter for the City. Will such a Charter allow the WLC to have the land proposed for the project zoned for warehousing or to allow for no zoning? How could such a City Charter help the WLC developer realize his dream of 41,600,000 sq ft of warehousing? Please keep me informed of all meeting notices and future documents related to the World Logistic Center (WLC). I assume you received my hard copy delivered to the City earlier today. 1

Thank you,

George Hague
Sierra Club
Moreno Valley Group
Conservation Chair

MORENO VALLEY: Community forum addresses draft charter process

Lora Hines/STAFF PHOTO
From left, Moreno Valley resident Aja Smith, blogger Gordon Tucker, activist Craig Givens, Councilman Richard Stewart, activist Curtis Gardner and resident Tyrone Harris lead a community forum about the city's effort to draft a Moreno Valley charter.
5 1 2

A Text Size

BY LORA HINES
April 07, 2013; 05:48 PM
Comments (2)

Moreno Valley residents who attended a Sunday, April 7, community forum asked why the City Council appears to be rushing to put a proposed city charter on the November ballot.

About two dozen residents listened as Councilman Richard Stewart explained how a City Council subcommittee made up of him, Mayor Tom Owings and special advisor and attorney Michael Geller are drafting what could become Moreno Valley's constitution. The committee, which has met twice, wants to have a draft prepared by June, Owings said last week.

A charter would be similar to a city constitution. Charter cities have "home rule" over municipal affairs, which trumps state rules governing the same topics.

The subcommittee, which will meet at 1:30 p.m. Wednesday, April 10, at City Hall, has said that Moreno Valley's charter will be modeled after those of other cities, including Riverside.

"A charter by itself is not a threat to anyone," Stewart said. "It's what's in the charter."

Residents Craig Givens and Curtis Gardner, members of a group called Concerned Citizens of Moreno Valley, questioned why city officials want to push a document that could define roles, including those of the mayor, city council and city manager, set terms limits and regulate campaign financing. They urged residents to sign their petition asking voters whether Moreno Valley should become a charter city. If so, Givens and Gardner's group thinks voters should determine whether a 15-member residents' commission drafts a charter, instead of the City Council.

"They are rushing through this process," Givens said. "This method of trying to do this in two months, there's something fishy about that."

He said the subcommittee must complete the draft by June in order to hold two mandated public hearings in time for it to be submitted by an August deadline for the November ballot.

"That's why they're in a rush," Givens said. "The train has left the station. They are in a rush to ram this down our throats."

Residents agreed, describing the move as a power grab, and repeatedly asked Stewart for an explanation. They also said they believe a draft charter already exists.

Stewart denied that a draft charter already is complete. He also said he didn't know until last week that the draft charter was to be completed by June. Stewart said he believes Owings and the other council members are eager to move and don't want to waste time.

Stewart said he supports the City Council's subcommittee effort to draft a charter because large groups like the one Givens and Gardner are proposing can be difficult to manage. He said public participation also is hard to garner.

Givens disagreed.

"A charter could be great thing if done by residents," he said. "If a charter is done the right way, no developer can help a few people get elected and then run the city. The citizens would have the power to limit the administration and politicians from running your city."

Resident Scott Heveran said he thinks the city's charter should allow for residents to determine the city's vision.

"We have a city manager whose vision is for warehouses," he said. "It's like warehouses or nothing. We need a charter so we can vote for a person who has our vision for the city."

Heveran and other residents said they want similar charter forums to be held throughout the city. They also encouraged each other to read drafts that have been posted to the city's website and email Stewart and Owings.

Follow Lora Hines on Twitter: @LoraHines and online at http://blog.pe.com/moreno-valley/

RESPONSES TO LETTER F-12

George Hague

Response to Comment F-12-1. The commenter has provided an article he obtained from the *Press Enterprise* newspaper which provides an account of a Moreno Valley Community Forum held on April 7, 2013 addressing a proposed draft City Charter. The letter or the article does not mention the WLC project by name therefore, the comment does not apply to the WLC project.

The City will keep the commenter informed of any future meeting notices and future documents as they become available for public review. The hard copy of your comment letter F-11 was received by the City and responded to in this FEIR (refer to Volume 1).

Letter F-13: Johnson & Sedlack on Behalf of Sierra Club, Moreno Valley Group & Residents for a Livable Moreno Valley (April 8, 2013) and Appendix 1–5 (On Flash Drive)

Letter F-13

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April 8, 2013

VIA EMAIL

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Senior Planner
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Moreno Valley, CA 92553
(951) 413-3206

RE: World Logistics Center Project, Comments on Draft EIR (SCH#2012021045)

Greetings:

On behalf of the Sierra Club, Moreno Valley Group, and Residents for a Livable Moreno Valley, I hereby submit these comments on the World Logistics Center Project Draft EIR opposing that Project.

GENERAL COMMENTS

The California Environmental Quality Act (CEQA) was adopted as a disclosure and transparency document. The theory is that by providing a document that adequately describes the environmental consequences of a project to decision makers and the public, the decision makers will make a rational decision based upon the true environmental consequences of the project and if they do not, the electorate can hold them accountable for their decisions. The core of this statutory structure is the adequacy of the document as an informational document. 1

Unfortunately, the Draft EIR for this Project fails as an informational document. The EIR misleads decision makers and the public as to the extent and severity of the Project's environmental impacts. On top of these inadequacies, the Draft EIR is almost constantly conclusory, and does not provide the analysis or examination required by CEQA to inform the public and decision makers of the analytical pathway taken from facts to conclusions. The findings are also not supported by substantial evidence in the record, but rather only by the

baseless conclusions cited in the EIR.

PROJECT DESCRIPTION AND SUMMARY

The proposed Project would result in the construction and operation of approximately 41.6 million square feet of distribution warehouse uses on 2,710 acres, plus an additional 1,104 acres for open space and public facilities, for a total Project footprint of 3,918 acres. It must be noted that 1,085 acres of the open space area are apparently owned by the California Department of Fish and Wildlife and SDG&E, and would be designated as Open Space anyways in the City's General Plan. The only real change to the 1,085 acres would be their change to "Specific Plan" designation. Hence the Project *really* proposes 2,710 acres of warehousing and 19 acres of *additional* open space *and*/or public facilities compared to what would exist without the Project. 2

USE OF PROGRAMMATIC EIR

The Draft EIR is prepared as a "programmatic EIR." A "program EIR" is one which may be prepared on a series of actions that can be characterized as one large project and are related in specified ways, such as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways. Cal. Code Regs., tit. 14, § 15168, subd. (a)(4). A program EIR is designed to (1) Provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action, (2) Ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis, (3) Avoid duplicative reconsideration of basic policy considerations, (4) Allow the lead agency to consider broad policy alternatives and program wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts, and (5) Allow reduction in paperwork. Cal. Code Regs., tit. 14, § 15168, subd. (b). A prior EIR may then be relied upon where effects were examined at a sufficient level of detail in a prior EIR to allow effects to be mitigated or avoided by site specific revisions. (Pub. Res. C. § 21094(a)) 3

The programmatic EIR in this instance fails to accomplish these goals. Instead, the programmatic EIR here appears to have been chosen to contemporarily avoid specificity in the document and certain mitigation and then, later, rely on the lack of evaluation and mitigation to make subsequent CEQA approvals. If portion of the Project is later determined to be consistent with this EIR, then much of the future review set forth in the mitigation measures will not be required. For example, if a building approval is deemed not discretionary but instead a ministerial or design review issue, then MM 4.15.7.4A requiring a further traffic study could be avoided. This misuse of the environmental review process must not be condoned. 4

The use of a Program level EIR renders it impossible to fully comprehend the effects of this Project.

DEVELOPMENT AGREEMENT AND PROJECT DESCRIPTION 5

The EIR fails to disclose, discuss, or evaluate the Development Agreement or any Project plans. Without such disclosure and discussion, it is impossible to evaluate the Project's potential

effects. The EIR must be amended to incorporate and evaluate these documents and then re-circulated. 5

MITIGATION

The EIR fails to incorporate program-wide mitigation measures which commit the City to actually reduce the effects of this Project. CEQA requires that where feasible mitigation exists which can substantially lessen the environmental impacts of a project, **all feasible mitigation** must be adopted. In this way CEQA goes beyond its informational role to require that projects substantively lessen their negative effects on the environment. It is critical to proper drafting of an EIR that all feasible mitigation measures be required of a project. This has not been done with this Project. For example, the only mitigation adopted for the loss of 2,610 acres of significant agricultural land is a 5 acre dedication for "heritage farming." Additional feasible mitigation is available even at this "programmatic" level, as set forth herein. 6

CEQA also requires that all mitigation measures in an EIR be fully enforceable, certain to occur, and not deferred. (Public Resources Code § 21081.6; Cal. Code of Regulations, Tit. 14 §§ 15074.1, 15097.) Deferral of mitigation is only permissible when mitigation is known to be feasible but, for practical reasons, it is not feasible to prescribe specific mitigation measures in the EIR. (*Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 94) For those impacts not susceptible to precise mitigation measures at a more general planning stage, an agency may commit to making project advancement contingent on meeting *specific performance criteria set forth for future mitigation measures.* (*Id., Rio Vista Farm Bureau Center v. County of Solano* (1992) 5 Cal.App.4th 351, 376-377.) This Project fails to ensure that all feasible mitigation will occur with this Project and instead provides vague, uncertain, and unenforceable mitigation measures. For example, mitigation measure 4.4.6.1B defers the preparation of biological assessments for non-covered MSHCP listed or sensitive species without reason, and without incorporating enforceable performance criteria. 7

Many mitigation measures set forth in the World Logistic Center EIR require nothing more than the preparation of a future study or rendering with *no specific performance criteria for future mitigation measures.* For example, Mitigation Measure 4.1.6.1B requires no actual mitigation, but only that visual renderings be provided. There is no requirement that these visual renderings demonstrate the application of specific design criteria or performance criteria, or in fact *reduce aesthetic impacts at all.* MM 4.1.6.3A, 4.1.6.4A, and 4.1.6.4B are similarly useless in *mitigating* aesthetic impacts versus merely *documenting* potential effects. 8

These are just a few examples of the lack of commitment to mitigate the impacts expected with to result from this Project.

PROPERTIES WITHIN THE PROJECT

The Project site would encompass seven existing residential properties and associated ranch/farm buildings.. The impacts to the holdings is seldom touched upon, let alone evaluated, in the EIR. For instance, noise, health risks, traffic, and other impacts to the residences are not considered and would be significantly greater than those impacts experiences at nearby residences. 9

CUMULATIVE EFFECTS

One of the biggest deficiencies in the EIR relates to cumulative effects of the Project for each and every impact considered. An effect is cumulatively considerable if the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and the effects of probable future projects. (Guidelines § 15064 (h)(1)) The EIR gives short shrift to the consideration of cumulative impacts. The EIR fails to discuss the Project's impacts in conjunction with other proposed, past, or current Projects. The EIR also often finds impacts not cumulatively considerable on the basis that such impacts were found not individually significant. This completely disregards the purpose of CEQA requiring that an EIR consider whether impacts may be cumulatively considerable, even if they are not individually significant. The EIR fails as an informational document by failing to sufficiently evaluate the cumulative impacts of this Project. 10

REGIONAL EFFECTS

The EIR does not adequately evaluate this Project's impact to the region. As commented by SCAQMD, this Project represents 25% of *all* planned warehouse space in the region. However, the EIR looks only limitedly to impacts such as traffic and air quality, failing to evaluate Project regional effect to highways such as SR-60, to the Port of Long Beach, and persons among the predicted routes this Project will use, among others. The EIR also understates the impact regionally to growth inducement. Given the scale of this Project, mitigation measures which may not be available to a smaller Project may be feasible for this Project. For example, this Project may employ alternative fuels by providing the infrastructure for so doing. Likewise, this Project would support the development of a reclaimed and recycled water line from EMWD, particularly where on exists near the Project. Connection to a recycled water supply must be required of this Project. 11

PROJECT CONSTRUCTION

Project construction is predicted to occur for ten years and may occur 24 hrs/ day, 7 days a week. Any evaluation of construction as a "temporary" impact does not give adequate consideration to this impact on sensitive receptors or biological resources. Moreover, any construction Phasing is *not* required, so that at any one time far greater construction effects could be felt. Furthermore, the estimated equipment amount is not the set maximum, and additional equipment may be used to construct faster. Actual impacts of construction should be considered permanent for 10 years and overlap of "phases" and equipment use must be considered in determining predicted effects. The EIR fails as an informational document by relying on, but not requiring, phasing. 12

For these reasons and the specific reasons outlined below, the EIR complete fails to provide the public and decision-makers with needed information about this Project's significant environmental effects. The EIR also fails to adopt certain mitigation all feasible mitigation to 13

reduce the Project's significant effects. To the extent these deficiencies may be remedied, the EIR must be substantially amended and recirculated. 13

Aesthetics

With regards to the figures provided in the Aesthetics portion of the EIR, it is difficult if not impossible to evaluate this Project's aesthetic impacts without additional and more detailed renderings and elevations. Given that the Project is one cohesive Project it is not clear why the EIR was prepared now rather than when such site plans are available (other than to misuse the program level EIR, as described above). Site plans should be included and aesthetic impacts thereon evaluated. 14

Vegetation at installation should be more visually appealing and mature, given the 15 years to plant maturity. The EIR does not cite any reason why it was decided that trees will only be planted to soften, but not block, views of future buildings. Taller trees may be required to fully obscure building views. 15

The EIR finds the Project consistent with General Plan policies and objectives despite the fact that development will obscure and decimate many visual features. The EIR also finds the Project consistent with General Plan policies without considering that two of those policies relate to scenic roadways, which will be significantly impacted. The finding of consistency with the General Plan policies is unsupported. 16

Furthermore, re: scenic vistas, while the City's General Plan allows development in the Project area, such development would be less than half the height of this development and would likely occur over a much longer period of time. The claim that this "change in views…is anticipated in the City's General Plan" (p. 4.1-65) is not supported. 17

The conclusion that the WLCSP is consistent with the Communitiy Development Element of the General Plan (p. 4.1-71) is likewise unsupported. The Project does not "promote a mix of industrial uses which provide a sound and diversified economic base" but **one** use across 2,600 acres of land. Additionally, the EIR does not consider the seven homes within the Project in determining its consistency with locating manufacturing and industrial to avoid adverse effects. 18

The EIR does not adequately address or mitigate for impacts to sky glow and the Palomar Mountain observatory. Compliance with City standards *would not* reduce lighting impacts below a level of significance due to the scope of this project and existing lack of lighting. 19

Cumulative impacts: The EIR does not consider cumulative lighting effects from all Project in the vicinity which would impact night lighting. The cumulative impact evaluation is unclear as to what other projects are considered. 20

Mitigation Measures for aesthetic effects, including 4.1.6.1B, 4.1.6.3A, and 4.1.6.4A, are uncertain, vague, and will not ensure that aesthetic impacts are mitigated or reduced. Instead, these measures merely require the documentation of impacts or measures. These measures should be rewritten in a manner that not only discloses impacts but then requires that steps be 21

taken to reduce impacts. For example, after preparing renderings pursuant to 4.1.6.1B, the proposed project must be developed in compliance with the prepared renderings. 21

Agricultural Resources

The Project will convert 25 acres of Unique Farmland and 2,610 acres of Farmland of Local importance to urban uses. This farmland also has a LESA score of 63.51, indicating a significant impact. The only mitigation delineated to reduce this impact to 2,635 acres is the dedication of *5 acres* for "heritage farming" (Mitigation Measure 4.2.6.1A.) This alleged "mitigation" obviously does not reduce project impacts. Moreover, the EIR states that mitigation measure "4.2.6.1B" will reduce these impacts to agricultural resources—this measure does not appear to exist. (*See, Executive Summary p. 1-10)* Agricultural mitigation is utterly deficient.

The EIR relies on the fact that the General Plan EIR found certain mitigation to be infeasible at that level of planning. The fact that the General Plan EIR found mitigation to be infeasible on a citywide scale does not mean that mitigation is infeasible at this programmatic specific plan scale or at a Project level scale. The conclusion that mitigation is infeasible here is unsupported. 22

The EIR downplays the effect of development and operation of industrial uses in increasing development pressure on adjacent agricultural properties. The EIR does not disclose the predicted impacts on properties adjacent to the project site or along the truck routes used to access the project site, as well as city wide impacts. Additionally, the area to be designated "open space" with this project includes area that is being actively farmed. The EIR does not adequately evaluate impacts to this farming activity from development of 41.6 million square feet of logistics building.

Mitigation measures identified by the CDC to reduce agricultural impacts include:

- The purchase of agricultural conservation easements;
- Transfer of development rights;
- Acquisition of farmland by the city or county;
- mitigation banking;
- the establishment of "urban limits," greenbelts, and buffers;
- the payment of in-lieu fees sufficient to a purchase and maintain farmland conservation easements;
- and planning tools such as clustering development, use of density bonuses, and limiting "leapfrog" development.

23

While the measures regarding planning have been determined to be infeasible by the City, ***the EIR does not provide evidence to support the finding of infeasibility with regard to the purchase or transfer of development rights, conservation easements, or donation of funds to assist in the preservation of agricultural lands.*** 24

Air Quality 25

The Project's air quality impact is incredible, yet understated in the EIR *repeatedly*. For

instance, despite accepted health risk assessment protocols, the EIR posits that such assessments overestimate the risk of cancer associated with PM exposure. The fact is that SCAQMD and CARB have required certain methodological protocols when studying the health risk imposed by diesel PM, and such protocols should be given substantial credence. 25

As another example, the EIR alleges that a trip generation rate of 1.44 trips should have been used because, as with a general plan EIR, "on average a small portion of warehouses can be expected to operate at varying levels of service." (p. 4.3-38). The fact is that this is not a general plan EIR but *one >10 warehouse project*, and at least 1.68 trips per thousand square feet is correctly applied. It should be noted that the EIR does not disclose how many warehouses *are* proposed with this project. 26

The EIR provides graphs of the frequency of unhealthful ozone days from the 1970's to 2000. Yet, in the explanation, it is noted that 2010 showed a "slight uptick" in the number of unhealthy air for ozone and particulate pollution. (EIR p. 4.3-17) This change in trend is troubling. 27

The project will result in significant and unavoidable impacts to air quality during construction and operation.

Construction is proposed to occur for 10 years, yet the EIR evaluates construction impacts as "short term." This evaluation is not supported.

Construction air quality impacts evaluate the use of equipment for only 10 hours a day, despite the fact that construction may occur 24/7 with no limit on how much equipment is onsite. Impacts are understated given this 24/7 construction schedule. 28

The EIR fails to consider the overlap of construction phases. Construction impacts and emissions may be much higher if construction phases are permitted to overlap. A mitigation measure should be incorporated requiring longer construction phasing to reduce daily pollutant emissions, or at least to solidify Project phasing as set forth in the EIR.

At table 4.3.U (p.4.3-67), the EIR provides that at buildout the project will emit 14,863 lbs/day of NOX. This blows away the 55 lbs/ day significance threshold. Likewise, the 9,862 lbs/day of CO emissions is far and above the 550 lb threshold. These are just two examples.

The Project will dramatically and drastically surpass the significance thresholds for VOC, NOX, CO, PM10, and PM 2.5, not even including any dust emissions or accounting for overlap of construction phases, or construction phase plus partial Project operation. This Projects' impact to regional and local air quality is simply unheard of and substantially unmitigated. 29

The EIR provides an apples to oranges comparison of operational emissions mitigated versus unmitigated. Table 4.3.U and Table 4.3.X look at different year worst case scenarios, yet seem to be the same to any observer. Table 4.3.X lacks operational emissions from 2013-2022 for yearly comparison to Table 4.3.V, yet comparing 2022 emissions shows similar operational effects despite mitigation. A comparison of Table 4.3.W and 4.3.Y likewise shows little impact from mitigation, though construction mitigation plays a greater role. (Note: Table 4.3.Y contains 30

a typographical error listing year 1,147) 30

There is no evaluation of operational emissions past 2022 when emissions will no longer include construction, Effects from growth will also presumably need to be taken into account in determining 2023 + emissions. 31

The EIR fails to disclose all Moreno Valley General Plan Policies relevant to air pollutant emissions. Such omitted policies and objectives include: 32

- Ultimate Goal VII: achieve a community which "Emphasizes public health and safety…"
- Goal 6.1: "To achieve acceptable levels of protection from natural and man-made hazards to life, health, and property."
- Objective 7.5 "Encourage efficient use of energy resources."
- Policies 7.5.1; 7.5.2; 7.5.5 regarding energy efficiency.

The EIR wrongly fails to evaluate air pollutant emissions across the routes that will be used by Project trucks. The trucks will be accessing the Port of Long Beach, yet impacts along SR-60 to the port, impacts at the port, etc. are not evaluated in the EIR. Where the Project will create significant on-road emissions, impacts to these areas absolutely must be evaluated in the EIR. 33

Mitigation

Several of the construction air quality impact "mitigation measures" are required by law, and therefore do not qualify as "mitigation," such as Mitigation Measure 4.3.6.2A

Mitigation measure 4.3.6.2A(c) is deceiving and deficient. While a piece of construction equipment may be limited to 10 hours of operation per day during construction, there is no limit to the hours of construction, which may apparently occur 24/7, or to the amount or type of construction equipment onsite at any time. It is feasible to require that all construction be limited to 10 hours per day. 34

At mitigation measure 4.3.6.2C (d), the language "whenever possible" must be removed to make the measure certain to occur and legally enforceable. 35

MM 4.3.6.3A is uncertain to reduce air quality impacts as the only requirement is that vehicles can access the buildings on paved roads, not that they *must* access the building using paved roads. Access via any unpaved roads must be barred and prevented. 36

MM 4.3.6.3B is insufficient. At subsections (f) and (g), it is feasible to require that tenants be required by contract to become a SmartWay Partner and to require that all trucks be SmartWay 1.0 or greater carriers. 37

MM 4.3.6.4A: storage lockers should be provided for a greater portion of full-time employees to encourage the use of alternative transportation and carpooling. Additional electric charging stations must be required, preferably across 10% of the vehicle parking spaces for autos and light-duty trucks. Bicycle storage should also be increased. 38

Additional mitigation must be incorporated into any Project of this scope. The Project's significant air quality and health impacts also well justify Project denial. 39

It is feasible to require the following, and such mitigation must be incorporated into the Project:

Mitigation to Reduce Construction Impacts

Additional mitigation measures are also feasible to further reduce construction air quality emissions including the following which must be applied to future development:

1. Gravel pads must be installed at all access points to prevent tracking of mud onto public roads.
2. Install and maintain trackout control devices in effective condition at all access points where paved and unpaved access or travel routes intersect (eg. Install wheel shakers, wheel washers, and limit site access.)
3. All roadways, driveways, sidewalks, etc., should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
4. Pave all construction roads.
5. Pave all construction access roads at least 100 feet on to the site from the main road.
6. Limit fugitive dust sources to 20 percent opacity. 40
7. Require a dust control plan for earthmoving operations.
8. When materials are transported off-site, all material shall be covered, effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.
9. All streets shall be swept at least once a day using SCAQMD Rule 1186 certified street sweepers utilizing reclaimed water trucks if visible soil materials are carried to adjacent streets.
10. The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite.
11. Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 24 hours.
12. Extend grading period sufficiently to reduce air quality impacts below a level of significance.
13. The simultaneous disturbance of the site shall be limited to five acres per day.
14. Any vegetative cover to be utilized onsite shall be planted as soon as possible to reduce the disturbed area subject to wind erosion. Irrigation systems required for these plants shall be installed as soon as possible to maintain good ground cover and to minimize wind erosion of the soil.
15. Any on-site stockpiles of debris, dirt or other dusty material shall be covered or watered three times daily.
16. Any site access points within 30 minutes of any visible dirt deposition on any public roadway shall be swept or washed.
17. A high wind response plan shall be formulated for enhanced dust control if winds are forecast to exceed 25 mph in any upcoming 24-hour period.

18. Implement activity management techniques including a) development of a comprehensive construction management plan designed to minimize the number of large construction equipment operating during any given time period; b) scheduling of construction truck trips during non-peak hours to reduce peak hour emissions; c) limitation of the length of construction work-day period; and d) phasing of construction activities.*
19. Develop a trip reduction plan to achieve a 1.5 AVR for construction employees
20. Require high pressure injectors on diesel construction equipment.*
21. Restrict truck operation to "clean" trucks, such as a 2007 or newer model year or 2010 compliant vehicles.*
22. Require the use of CARB certified particulate traps that meet level 3 requirements on all construction equipment.*
23. Utilize only CARB certified equipment for construction activities.*
24. The developer shall require all contractors to turn off all construction equipment and delivery vehicles when not in use and/or idling in excess of 3 minutes.*
25. Restrict engine size of construction equipment to the minimum practical size.*
26. Use electric construction equipment where technically feasible.*
27. Substitute gasoline-powered for diesel-powered construction equipment.*
28. Require use of alternatively fueled construction equipment, using, e.g., compressed natural gas, liquefied natural gas, propane, or biodiesel.* — 40
29. Use methanol-fueled pile drivers.*
30. Install catalytic converters on gasoline-powered equipment.*
31. Require the use of Alternative Diesel Fuels on diesel equipment used. Alternative diesel fuels exist that achieve PM10 and NOx reductions. PuriNOx is an alternative diesel formulation that was verified by CARB on January 31, 2001 as achieving a 14% reduction in NOx and a 63% reduction in PM10 compared to CARB diesel. It can be used in any direct-injection, heavy-duty compression ignition engine and is compatible with existing engines and existing storage, distribution, and vehicle fueling facilities. Operational experience indicates little or no difference in performance and startup time, no discernable operational differences, no increased engine noise, and significantly reduced visible smoke.
32. Electrical powered equipment shall be utilized in-lieu of gasoline-powered engines where technically feasible.*
33. All forklifts shall be electric or natural gas powered.*
34. Suspend use of all construction equipment operations during second stage smog alerts.*
35. Provide temporary traffic controls such as a flag person, during all phases of construction to maintain smooth traffic flow.*
36. Provide dedicated turn lanes for movement of construction trucks and equipment on- and off-site.*
37. Reroute construction trucks away from congested streets and sensitive receptor areas.*
38. Configure construction parking to minimize traffic interference.*
39. Prior to the issuance of a grading and building permit, the applicant shall submit verification that a ridesharing program for the construction crew has been encouraged and will be supported by the contractor via incentives or other inducements.*
40. Minimize construction worker trips by requiring carpooling and providing for lunch onsite. *

41. Provide shuttle service to food service establishments/commercial areas for the construction crew.* 40
42. Provide shuttle service to transit stations/multimodal centers for the construction crew.*

Mitigation to Reduce Operational Emissions

1. All trucks accessing the Project site must meet 2010 standards or better at opening, improving to advance to higher standards by 2022. Results, including backup data shall be reported to the Planning Department semi-annually.*
2. If the above mitigation is not feasible, the tenant shall phase-in trucks beginning with 30% 2010 standards or better at opening and continually improving, to introduce newer trucks faster than regulatory standards. (Alternatively, see 8-10 below)
3. The Project shall not only provide infrastructure for alternative fuels (for example, electric or natural gas) but require that its usage be phased in as soon as such technology is technologically feasible. Such infrastructure must be adequate to provide alternative fuels for the entire project or, if deemed infeasible, at least 25 million square feet of logistics warehousing and its associated truck trips.
4. The tenants shall implementing advanced technology demonstration and implementation programs
5. Tenants shall be required by contract to apply for funding to retrofit and replace older, dirtier trucks prior to purchase or lease of any portion of the site.
6. Incorporate another method of accelerated penetration of partial zero-emision and zero-emission vehicles and trucks through funding assistance. 41
7. Accelerate retirement of older light-, medium-, and heavy- duty vehicles, through funding incentives or contract specification.
8. The operator of any Project facilities shall become SmartWay Partner.*
9. All Project facilities shall meet SmartWay 1.25 ratings.*
10. All Project facilities shall use only freight companies that meet SmartWay 1.25 ratings.*
11. (ALTERNATIVELY from 2,3 above) The operator of the primary facilities shall incorporate requirements or incentives sufficient to achieve at least 20% per year (as a percentage of previous percentage, not total trips) increase in percentage of long haul trips carried by SmartWay carriers until it reaches a minimum of 90% of all long haul trips carried by SmartWay 1.0 or greater carriers. Results, including backup data shall be reported to the Planning Department semi-annually.*
12. The operator of the primary facilities shall incorporate requirements or incentives sufficient to achieve a 15% per year (as a percentage of previous percentage, not total trips) increase in percentage of consolidator trips carried by SmartWay carriers until it reaches a minimum of 85% of all consolidator trips carried by SmartWay 1.0 or greater carriers. Results, including backup data shall be reported to the Planning Department semi-annually.*
13. All spaces utilizing refrigerated storage, including restaurants and food or beverage stores, shall provide an electrical hookup for refrigeration units on delivery trucks. Trucks incapable of utilizing the electrical hookup for powering refrigeration units shall be prohibited from accessing the site. All leasing documents shall include these requirements and provide that violation of those provisions will constitute a material

breach of the lease that will result in the termination of the lease. Because of the fact that these terms of the lease are designed to benefit the public, the public shall be considered to be a third party beneficiary with standing to enforce the requirements of the lease.*

14. Install catalytic converters on gasoline-powered equipment.*
15. Where diesel powered vehicles are necessary, require the use of alternative diesel fuels. Alternative diesel fuels exist that achieve PM10 and NOx reductions. PuriNOx is an alternative diesel formulation that was verified by CARB on January 31, 2001 as achieving a 14% reduction in NOx and a 63% reduction in PM10 compared to CARB diesel. It can be used in any direct-injection, heavy-duty compression ignition engine and is compatible with existing engines and existing storage, distribution, and vehicle fueling facilities. Operational experience indicates little or no difference in performance and startup time, no discernable operational differences, no increased engine noise, and significantly reduced visible smoke.
16. Electrical powered equipment should be utilized in-lieu of gasoline-powered engines where technically feasible.*
17. Utilize only electrical equipment for landscape maintenance.*
18. All forklifts shall be electric or natural gas powered.*
19. Utilize only electric yard trucks.*
20. Prohibit idling of trucks for periods exceeding three minutes.*
21. Provide electrical vehicle ("EV") and compressed natural gas ("CNG") vehicles in vehicle fleets.* 41
22. Charge reduced or no parking fee for EVs and CNG vehicles.*
23. Install EV charging facilities for a minimum of 10% of all parking spaces.*
24. Install a CNG fueling facility.*
25. Provide preferential parking locations for EVs and CNG vehicles.*
26. Implement parking fee for single-occupancy vehicle commuters.*
27. Plant shade trees in parking lots to provide minimum 50% cover to reduce evaporative emissions from parked vehicles.*
28. Plant at least 50 percent low-ozone forming potential (Low-OFP) trees and shrubs, preferably native, drought-resistant species, to meet city/county landscaping requirements.*
29. Plant Low-OFP, native, drought-resistant, tree and shrub species, 20% in excess of that already required by city or county ordinance. Consider roadside, sidewalk, and driveway shading.*
30. Orient 75 percent or more of buildings to face either north or south (within 30 degrees of N/S) and plant trees and shrubs that shed their leaves in winter nearer to these structures to maximize shade to the building during the summer and allow sunlight to strike the building during the winter months.*
31. Provide grass paving, tree shading, or reflective surface for unshaded parking lot areas, driveways, or fire lanes that reduce standard black asphalt paving by 10% or more.*
32. Electrical outlets shall be installed on the exterior walls of all residential and commercial buildings (and perhaps parking lots) to promote the use of electric landscape maintenance equipment.*
33. Prohibit gas powered landscape maintenance equipment within residential, commercial, and mixed-use developments. Require landscape maintenance companies to use battery powered or electric equipment **or** contract only with commercial landscapers who operate

with equipment that complies with the most recent California Air Resources Board certification standards, or standards adopted no more than three years prior to date of use or any combination of these two themes.*

34. Implement parking cash-out program for non-driving employees.*
35. Require each user to establish a carpool/vanpool program.*
36. Create a light vehicle network, such as a neighborhood electric vehicle (NEV) system.*
37. Provide preferential parking for carpool/vanpool vehicles.*
38. Provide subsidies or incentives to employees who use public transit or carpooling, including preferential parking.*
39. Provide direct, safe, attractive pedestrian access from project to transit stops and adjacent development.*
40. Provide direct safe, direct bicycle access to adjacent bicycle routes.*
41. Connect bicycle lanes/paths to city-wide network.*
42. Design and locate buildings to facilitate transit access, e.g., locate building entrances near transit stops, eliminate building setbacks, etc.*
43. Construct transit facilities such as bus turnouts/bus bulbs, benches, shelters, etc.* 41
44. Provide a display case or kiosk displaying transportation information in a prominent area accessible to employees.
45. Provide shuttle service to food service establishments/commercial areas.*
46. Provide shuttle service to transit stations/multimodal centers.*
47. Provide on-site child care or contribute to off-site child care within walking distance.*
48. Implement a compressed workweek schedule.*
49. Implement home-based telecommunicating program, alternate work schedules, and satellite work centers.*
50. All buildings shall be constructed to LEED Platinum standards.*
51. Design buildings for passive heating and cooling and natural light, including building orientation, proper orientation and placement of windows, overhangs, skylights, etc.*
52. Construct photovoltaic solar or alternative renewable energy sources sufficient to provide 100% of all electrical usage for the entire Project.*
53. Install an ozone destruction catalyst on all air conditioning systems.*
54. Construct renewable energy sources sufficient to offset the equivalent of 100% of all greenhouse gas emissions from mobile sources (internal combustion engines) for the entire Project. *
55. Purchase only green/ renewable power from the electric company.*
56. Install solar water heating systems to generate all hot water requirements.*

(* Would reduce impacts to GHGs as well)

Health Risks

This Project is predicted to result in enormous health risk impacts, a Project caused increase of at least 100.7 cancers in one million, well above the 10 in one million threshold. While these impacts are likely understated, this health risk is unacceptable. 42

In addition to the risk of cancer, diesel PM is known to cause immune system effects; reproductive, developmental, and endocrine effects; nervous system effects; and lung health

problems, as recognized by the County in the General Plan. Immune system effects include increased allergic inflammatory responses and suppression of infection fighting ability. Diesel PM has also been associated with reproductive effects such as decreased sperm production, changes in fetal development, low birth weight and other impacts. Diesel PM exposure may also cause impairment to the central nervous system. (*The Health Effects of Air Pollution on Children*, Michael T. Kleinman, Ph.D, Fall 2000, <http://aqmd.gov/forstudents/health_effects_on_children.html#WhyChildren>; *See also, Diesel and Health in America: the Lingering Threat*, Clean Air Task Force, February 2005, <http://www.catf.us/resources/publications/files/Diesel_Health_in_America.pdf>)

SCAQMD has stated with regards to the health effects from diesel PM:

> "Diesel particles consist mainly of elemental carbon and other carbon-containing compounds… Diesel particles are microscopic…Due to their minute size, diesel particles can penetrate deeply into the lung. There is evidence that once in the lung, diesel particles may stay there for a long time.
>
> In addition to particles, diesel exhaust contains several gaseous compounds including carbon monoxide, nitrogen oxides, sulfur dioxide and organic vapors, for example formaldehyde and 1,3-butadiene. Formaldehyde and 1,3-butadiene have been classified as toxic and hazardous air pollutants. Both have been shown to cause tumors in animal studies and there is evidence that exposure to high levels of 1,3-butadiene can cause cancer in humans…
>
> Diesel emissions may also be a problem for asthmatics. Some studies suggest that children with asthma who live near roadways with high amounts of diesel truck traffic have more asthma attacks and use more asthma medication.
>
> Some human volunteers, exposed to diesel exhaust in carefully controlled laboratory studies, reported symptoms such as eye and throat irritation, coughing, phlegm production, difficulty breathing, headache, lightheadedness, nausea and perception of unpleasant odors. Another laboratory study, in which volunteers were exposed to relatively high levels of diesel particles for about an hour, showed that such exposures could cause lung inflammation." (*The Health Effects of Air Pollution on Children, supra*; *See also, Mira Loma Commerce Center EIR No. 450, Air Quality, Section 4.*)

42

Furthermore, infants, children, and the elderly are more susceptible to diesel PM and its associated health impacts. Given this project's close proximity to two schools, the Rancho Verde High school (1 mile east) and El Potrero Elementary School (1 mile northeast) this increased susceptibility is extremely relevant. With regards to infants and children, increased susceptibility to TACs and diesel PM exists for a variety of reasons. Children are generally more active than adults, have higher respiration rates, and inhale more pollutants deeper into the lung. Children also have more lung surface area in proportion to their body size and inhale more air pound for pound when compared to adults, taking in 20 to 50 percent more air and associated air pollutants than adults. When compared to adults, children spend more active time outdoors in polluted air environments and exert themselves harder than adults when playing outside.

Importantly, this exposure to high pollutant levels in children occurs while their lungs are still developing, and therefore has more severe impacts on this sensitive group. (*The Health Effects of Air Pollution on Children, supra*.)

This increased susceptibility to air pollutant emissions for children has resulted in the California EPA Office of Environmental Health Hazard Assessment ("OEHHA") weighting cancer risk by a factor of 10 for exposures to carcinogens from birth to two years old, and by a factor of 3 for exposures from 2 years old to 15 years old. (*Technical Support Document for Cancer Potency Factors: Methodologies for derivation, listing of available values, and adjustments to allow for early life stage exposures*, California EPA OEHHA Air Toxicology and Epidemiology Branch, April 2009, p. 3. <http://www.oehha.ca.gov/air/hot_spots/pdf/TSDCPFApril_09.pdf.>) It is unclear that these increased risks were accounted for in the EIR. Additionally, recent studies conducted by SCAQMD's Brain and Lung Tumor and Air Pollution Foundation have found a specific connection between exposure to diesel PM and brain cancer in children. (Annual Meeting of the Brain & Lung Tumor and Air Pollution Foundation, April 2, 2010, <http://www.aqmd.gov/hb/2010/April/100425a.htm>) 42

In addition to an increased risk of cancer, the effects of diesel PM on children include slowed lung function and growth, increased emergency room visits, increased incidences of asthma and bronchitis, crib death, asthma respiratory infections, allergic symptoms, and asthma hospitalizations. (*Diesel and Health in America: the Lingering Threat*, *supra*.)

This project will contribute to an already dire TAC situation in Riverside County. The Riverside County Planning Commission recently considered GPA 1096, an amendment to the General Plan to add a Healthy Communities Element which seeks to reduce hazardous air quality impacts to environmental and human health. The Healthy Communities Element of the General Plan was approved in view of the following significant health impacts resulting from already poor air quality in Riverside County:

- ***Asthma-Related Hospitalizations***: In 2005, the greatest percentage of asthma-related hospitalizations were among those under age 18 (38%) followed by those over 65 (19%). Blacks experienced the greatest rate of hospitalizations in 2005 at 225.7 per 100,000 population, versus 99.5 and 81.2 for Hispanics and whites, respectively. 43
- ***Risk of Cancer from Diesel Soot and Other Toxic Air Pollutants: Whereas the regional risk of cancer from diesel soot and other toxic air pollutants dropped by 8 percent between 1998 and 2005, the cancer risk in Riverside County increased by 2 percent.***
- Poor air quality costs Riverside and San Bernardino around ***$6.3 billion annually*** in health care expenses.
- 19% of private schools, 11% of public schools, an 21% of licensed child care centers in Riverside County are located within a quarter (1/4) mile of a major highway.
- Around 350,000 Riverside County residents live within a half (1/2) mile of a major highway, including about 40,000 children under age 5.
- Five schools in Riverside County rank in the 10th percentile for air quality, meaning that 90 percent of the schools in the country had better air. Twenty-five schools ranked in the 50th percentile or below.

The EIR fails to consider health risks along the routes intended for travel by Project trucks. Health risks must be evaluated beyond the immediate proximity of the WLC as trucks will continue beyond this area, to the Ports and other destinations. The EIR fails as an informational document by not considering impacts in getting to and from these common destinations. 43

Cumulative Air Quality Impacts

The Cumulative Impact analysis for air quality effects is completely deficient. Regarding construction impacts, the EIR fails to detail the "number of individual projects" which "may be under construction simultaneously." The EIR should list the Projects that are currently proposed, approved, or expected to be developed with the Project. Projected emissions should then be provided in the EIR. Without detailing these projected impacts, the EIR fails to provide needed information as to the extent and severity of the Project's cumulative construction impacts. The same goes for any cumulative evaluation of hot spots.

Regarding operational impacts, the EIR considers construction and operational impacts of the Project *but no other projects in the area or that will be using the same routes.* This is utterly deficient. Moreover, as previously discussed operational effects are only considered through 2022 when construction ceases, not longer-term. The EIR fails as an informational document by not considering any other Projects in it alleged "cumulative impact" analysis of operational air quality. 44

On health risks, the cumulative projects considered in the cumulative impact analysis are not listed or disclosed. Nevertheless, the Project will contribute >120 cancers in the area of the Project site where existing risk is over 400 cancers per million. The EIR fails to consider or disclose risks caused by the Project and other cumulative projects in even higher risk areas of San Bernardino, Long Beach, etc. By failing to detail actual cumulative health risk impacts, the EIR again fails to provide needed information to the public and decisionmakers.

<u>Biological Resources</u>

The area to be designated "open space" includes area that is being actively farmed. The reliance in the EIR on this area as wildlife area may be misplaced. This must be clarified in the EIR. 45

The EIR fails to provide needed studies to determine whether significant impacts to biological resources will occur and whether such impacts may be mitigated below a level of significance. Instead, the EIR lists mitigation measures deferring needed studies which would disclose potential effects to the public and decision-makers. These studies must be prepared, incorporated in the EIR, and the EIR must be recirculated. 46

The EIR states that coastal sage both is and is not onsite. This must be clarified. (See, e.g. Table 4.4.B p. 4.4-22) 47

Species not covered by the MSHCP include Stephens' Kangaroo Rat pursuant to p. 4.4-41, yet at 48

Table 4.4B this species is designated "covered." 48

Additional surveys must be required of special status species not covered by the MSHCP. 49

The EIR finds no significant riparian or biologically sensitive habitat onsite despite the existence of such plants and 14 drainages. There is no support or explanation for this conclusion. (p. 4.4-60) 50

The change in ambient noise and lighting will likely significantly impact biological resources. To the extent the EIR concludes otherwise, such conclusion is unsupported by that document. Moreover, the finding that construction will not impact wild life, apparently because "noise-related impacts would be temporary in nature," is unsupported. Construction is not required to occur in phases but is expected to last 10 years. Any reliance on either phasing or the "temporary" nature of construction is not supported. Also, vibration impacts to wildlife were also not considered in the EIR, rendering the impact analysis insufficient. 51

The conclusion that impacts to raptor foraging habitat will be less than significant is not supported by any reasoning or evidence in the EIR. Further evaluation must be made of this issue. 52

The Cumulative impact analysis of biological effects is greatly deficient. For example, the cumulative loss of raptor foraging land, impacts to the burrowing owl, impacts to species not adequately mitigated by MSHCP, noise impacts, etc. are not considered. Impacts along highways and roadways which will be used by this Project are not considered. Mere compliance with the MSHCP does not provide the detail necessary to *inform* the public and decision makers about this Project's individual and/or cumulative effects, a purpose of CEQA. By failing to adequately address cumulative biological effects, the EIR again fails as an informational document. 53

The EIR repeatedly professes the benefits of the 250-foot setback area of MM 4.4.6.1A as a fix-all for the project. This setback area is insufficient in that it includes not only landscaping by water quality facilities, fences and walls, maintenance access drives, and similar uses. It is unlikely that mitigation for impacted plants or animal species can be accomplished by moving such species to this setback area. Mitigation for biological resources in this manner fails to demonstrate that impacts to biological resources would be adequately reduced below a level of significance. 54

MM 4.4.6.1B is likewise insufficient and wrongly deferred. This measure wrongly defers the needed study of impacts to non-covered MSHCP listed and sensitive species without reason and without detailing any alternatives or performance criteria to be achieved. A biological assessment of the impacts to these species must be undertaken presently and incorporated in a re-circulated EIR which discloses such potential impacts and discussed whether mitigation is 55

feasible and, if so, incorporates such mitigation. 55

MM 4.4.6.2A wrongly defers mitigation with only vague instructions as to the preparation of a needed study for impacts to sensitive plants. There is no explanation for why this study could not be undertaken and impacts disclosed in this EIR so that such mitigation is wrongly deferred. Moreover, it is unclear what sensitive plants must be assessed. Lastly, the EIR fails to show that relocation to the 250-ft setback area or fee payment will be adequate to reduce any impacts below a level of significance. Again, this assessment must be prepared and the EIR recirculated to disclose these impacts. 56

MM 4.4.6.2B wrongly defers mitigation where the HANS and JPR process could be completed at this time. JPR should be presently completed, potential biological effects disclosed, and the EIR recirculated with RCA review available for public comment. 57

MM 4.4.6.3A should be implemented not by the City Planning Division but by a qualified biologist. This mitigation is improperly vague and uncertain without the incorporation of alternatives or performance standards to ensure that the drainage remains in a "relatively natural condition." 58

MM 4.4.6.4E defers, without reason, a protocol survey for the Los Angeles Pocket Mouse. Any mitigation is vague, requiring that, for instance, an "appropriate amount of land" be set aside to compensate for loss of habitat. Biologically equivalent or superior land should be required to be set aside at a 2:1 ratio. 59

MM 4.4.6.4F wrongly defers preparation of a Biological Resource Management Plan without performance standards or other assurances that adequate mitigation will occur. 60

Cultural Resources

The EIR finds at least 45 archaeological and historical resources sites in the project area, and thus has the likelihood to significantly impact cultural resources. Of these, nine prehistoric resources were Phase II tested. It is not clear why only nine were included in this testing. All of the known historic resources should be Phase II tested for significance in the EIR, and the EIR should be recirculated. Without further evaluation, the EIR fails to disclose impacts or show that they may be mitigated below a level of significance. 61

The EIR nevertheless finds that impacts to cultural resources would be less than significant with mitigation. Overall, the mitigation required for archaeological resources fails to reduce impacts below a level of significance through vagueness and inherent deficiencies.

MM 4.5.6.1A does not provide any option for avoidance of significant archaeological or cultural resources. 62

MM 4.5.6.1B should clarify that subsections (a) and (b), avoidance, are preferred to subsection 63

63

(c), excavation.

MM 4.5.6.1C is vague and uncertain to provide adequate mitigation. First, subsection 2 should amend 50% of the earth to ensure that monitoring not be terminated until at least half of the site to maximum depth is examined. Moreover, the portions of the site which are expected to contain cultural resources should be required to be monitored. As written, the entire site to a minimal depth could be examined uncovering no resources, or, alternatively, the portion of the site with the highest expectation for resources could be avoided. This is unacceptable. Subsection 5 should clarify that avoidance is preferred and data recovery or curation are not preferred. If curation is the only method available, then the artifacts will be curated in a museum that has agreed to take such resources. 64

MM 4.5.6.3B wrongly defers a needed paleontological assessment where such assessments could presently occur. The EIR should incorporate this paleontological assessment and map areas in which monitoring shall occur and which may require further assessment. 65

The EIR also finds cumulative impacts less than significant on the basis that individual Project effects will be reduced below a level of significance. This reasoning rejects the purpose of a cumulative impact analysis under CEQA, that an individually insignificant project may have cumulative effects when considered with other projects. Here, the EIR again fails to disclose what projects were considered in the cumulative impact analysis and what cumulative effects they may have. The cumulative impact analysis is inadequate. 66

Geology and Soils

MM 4.6.6.1A wrongly defers a needed fault study without explanation or reason. The City may presently determine whether a detailed fault study of the Casa Loma Fault Zone area is necessary or the EIR may undertake these investigations voluntarily to determine whether faulting issues exist and whether potential impacts may be mitigated. Likewise, MM 4.6.6.1B wrongly defers a San Jacinto Alquist-Priolo fault study without reason. Again, without this needed study the EIR fails to provide the public and decision-makers with essential information or demonstrate that impacts are mitigable. These studies must be prepared, incorporated in the EIR, and the EIR must be re-circulated. 67

MM4.6.6.3A wrongly defers the preparation of a geotechnical report. MM4.6.6.3A also does not ensure that geotechnical impacts will be eliminated or sufficiently mitigated, but only that a report be prepared. This measure must require that a report be prepared to address specific issues to specific performance standards, and that the Project then comply with all recommendations of the geotechnical report. 68

Similarly, MM 4.6.6.3C requires further soils and geotechnical investigations but fails to require that any recommendations of those investigations be implemented in Project development. Mere 69

preparation of a report is insufficient to mitigate for soils/geotechnical impacts. 69

GHGs

This Project's Greenhouse Gas emissions are exorbitant. Where an industrial project may have significant GHG emissions if they exceed the screening level of 10,000 mtco2e/yr, this Project will exceed 700,000 mtco2e/yr! 70

Mitigation measures for greenhouse gas emissions are utterly insufficient and fail to show that, as required by CEQA, all feasible mitigation for this Project has been adopted. The only mitigation adopted to reduce GHGs is MM 4.7.6.1A implementing minimal requirements to reduce solid waste. 71

Additional mitigation is feasible, as detailed in the Air Quality section and delineated with an asterisk. Nevertheless, this Project's enormous GHG impact will likely remain immitigable.

Also, the EIR fails to evaluate the Project's consistency with the CARB Scoping Plan, generally evaluating only whether a scoping plan reduction measure is "applicable" or "inapplicable." (Table 4.7.K) The EIR must evaluate if the Project is consistent with any applicable measures. The EIR then finds that the Project would not conflict with any plan, etc. related to the reduction of GHGs. (p. 4.7-43) This conclusion is not supported by evidence in the EIR. 72

The EIR next raises the uncertainty re: climate change and impact from international shipping. CEQA, however, recognizes the impact of GHGs and requires an attempt at disclosing and reducing that effect. Again, the EIR's attempt to play down this Project's effects must be rejected. 73

Hazards and HazMat

The EIR should consider the Project's immense truck presence to be a routinely transported hazard and evaluate impacts accordingly. Likewise, cumulative hazard impacts should be evaluated for these risks. 74

Hydrology and Water Quality

MM 4.9.6.3C does not provide any alternatives or performance standards for ensuring that runoff not impact the SJWA, or remedying any water quality exceedences. 75

Land Use and Planning

The Project site currently provides for a diverse mix of residential, commercial business park, and open space land uses. The Project would amend such uses to 2,606 acres of high cube logistics, 1,084 acres of open space, and 20 acres for public facilities. Open space includes area that is being actively farmed. This alteration to proposed land uses is a *very significant impact*. 76

A new General Plan should be prepared if this Project is to completely overhaul the existing planning and zoning. 76

Also, while this is one of the few areas of the EIR where the seven existing residences are considered, they are then completely ignored. Some mitigation for impacts to these residences must be considered.

Noise

Vibration impacts at the seven existing residences on the Project site are not, and must be, considered in the EIR. Such impacts may be significant because those residences are less than 50 feet from construction. 77

Construction may occur 24/7 anywhere on the Project site. This impact may be mitigated somewhat by limiting hours of construction to daytime. The EIR does not show that such a limitation is infeasible; hence it must be adopted. 78

Construction noise is expected to be up to 97 dBA at 50 ft, yet some residences are less than 50 ft from construction. The EIR fails to disclose the real worst case construction noise scenario. 79

Noise impacts are to be evaluated pursuant to whether they would exceed the threshold noise level, or whether they cause either substantial temporary or permanent increases in ambient noise. The EIR wrongly combines these thresholds regarding whether the Project will permanently increase ambient noise. (EIR p.4.12-47) The 5 db, 3 db, 1.5db increases applied for 60, 60-65, and 65 CNEL respectively are not the threshold of significance. In fact, a lesser increase is likely more significant at a lower level as more noticeable. Also, this threshold is only wrongly applied to only traffic noise, not stationary noise. The Project will likely permanently increase ambient noise in this undeveloped area. 80

On the other hand, whether the Project would cause exceedences of noise standards is only applied to stationary noise; mobile source/ traffic noise is not considered. The tables at 4.12-38 through 4.12-46 show countless exceedences of the City's noise standards. The finding that this impact is less than significant is not supported. 81

Cumulative noise impacts are not adequately considered. The cumulative analysis does not evaluate noise impacts from proposed or future planned projects. The Cumulative impact analysis must be re-prepared and the EIR recirculated to take into account projects which, when combined with this Project, may have a significant impact on noise. 82

MM4.12.6.1A wrongly defers the creation of a Noise Reduction Compliance Plan for construction noise and fails to provide any alternatives to be incorporated into such a plan or performance standards to ensure that noise is actually reduced. Instead, the only requirements of the plan is that it show where nighttime construction will occur in relation to dwellings. No 83

mitigation will occur from this measure. 83

MM4.12.6.1D has a typographical error, twice referencing weekends where, presumably, the first reference should be to weekdays. 84

MM4.12.6.1E permits construction at night anywhere with a temporary sound barrier. MM 4.12.6.1F would permit nighttime construction closer to residences if okayed by personnel. 85

Given the Project's expected construction noise impacts, MM4.12.6.1 E and F should not be able to be employed to permit construction any time. 86

It is feasible that, at all times, construction shall be prohibited at night within 2,800 feet of residences, and a 12-foot tall sound barrier shall be installed between all residences within 2,800 feet of active nighttime construction areas. Additionally, noise measurements shall be taken by qualified personnel and buffer distances may be enlarged based on their recommendation, but not decreased. 87

The following additional mitigation is feasible and must be required of the project: 88

1. Temporary noise barriers must be installed during project construction around the entire construction area.
2. Where technically feasible, utilize only electrical construction equipment
3. During construction, the developer shall require that all contractors turn off all construction equipment and delivery vehicles when not in use and prohibit idling in excess of 3 minutes.
4. Provide a "windows closed" condition requiring a means of mechanical ventilation (e.g. air conditioning) for all buildings within 250 feet of the Project. The Project must pay for such ventilation on all such buildings.
5. Provide upgraded windows with a minimum Sound Transmission Class (STC) rating of 34 for all buildings within 250 feet of the Project buildings, and on roadways on which the Project will contribute 100 or more trips/day, and/or require the installation of double-paned windows of those buildings.
6. Keep new transportation facilities away from vibration sensitive areas.
7. Obvious vibration causes, such as pot holes, pavement cracks, differential settlement in bridge approaches or individual pavement slabs, etc., on existing transportation facilities and roadways which will be used by the Project during construction and/or operation must be eliminated by resurfacing prior to commencement of construction and again prior to Project operation of each phase.
8. Require the use of rubberized asphalt for construction of all roadways and parking areas.
9. Maintain quality pavement conditions that are free of bumps, pot holes, pavement cracks, differential settlement in bridge approaches or individual pavement slabs, etc. during Project operation. Resolve any sub-par pavement conditions within one week of notification/awareness.
10. Require resurfacing of roads.
11. Ban heavy trucks near (i.e. within 250 feet) vibration sensitive uses.

12. Use alternate construction methods and tools to reduce construction vibrations including, as applicable, predrilling of pile holes, avoiding cracking and seating methods for resurfacing concrete pavements near vibration sensitive areas, using rubber tired as opposed to tracked vehicles, placing haul roads away from vibration sensitive areas. 88
13. Scheduling construction activities (particularly pile driving) for times when it does not interfere with vibration sensitive operations (e.g. night time).

Traffic

The WLC will generate significant direct and cumulative traffic impacts. The DEIR concludes that these impacts are significant and unavoidable. The conclusions of the DEIR are not based on substantial evidence and mitigation measures that are relied upon are uncertain, unenforceable and ineffective.

Firstly, the conclusions of the DEIR are not based on substantial evidence where, among other things, the DEIR relies heavily upon the 2003 Truck Trip Generation Study prepared for the City of Fontana. Reliance upon this study is flawed to the extent that truck traffic represents a much larger portion of the WLC's traffic than is assumed in that study. Additionally, the DEIR assumes that the WLC will employ local residents as the majority of its purportedly 25,000 employees. The DEIR thus creates the impression that vehicle trips will be shorter or fewer due to the fact that employees will have a short commute to work. The DEIR likewise assumes that nearly half of the worker trips will occur on arterial streets and not freeways. These assumptions regarding traffic influence other sections of the DEIR (*see* p. 4.15-33 "It should be noted that all technical studies based all or in part on traffic (i.e., air quality, greenhouse gases, and noise) have used these same assumptions…"). In relying upon these bare assumptions, the DEIR has understated the Project's traffic impacts, and in turn, other impacts as well. 89

For each study year (2012, 2017, 2022 and 2035) the WLC Project causes significant direct impacts to local intersections, roadway segments and freeway segments. The Project also contributes to significant cumulative conditions for each area of study. Despite causing significant direct impacts and contributing to significant cumulative impacts the Project does not mitigate its impacts as required by law. 90

The DEIR first improperly relies upon the preparation of future traffic studies for individual development projects within the WLC. This deferral of mitigation is not permitted under CEQA. Moreover, according to the mitigation plan, the future studies will only be conducted pursuant to the City's "discretionary approval process" in connection with future development applications. There is no assurance that the City considers any future applications related to the Project to be "discretionary" review processes such that there is no guarantee that any future traffic studies will be prepared. 91

Next, the mitigation plan relies heavily on the payment of TUMF and DIF fees; however, the plan fails to comply with CEQA because the reader cannot discern from the DEIR which improvements are subject to which funding programs. Additionally, there is a lack of evidence that the alleged payment of TUMF and DIF fees are tied to the actual implementation of mitigation measures. In other words, there is a lack of evidence that there are actual plans are in 92

place for the construction of the necessary traffic improvements and/or evidence that sufficient funding has already been collected under the TUMF and DIF programs for the construction of the improvements. Thus it is not clear from the DEIR that the improvements are certain to occur in the foreseeable future. In the event that mitigation measures are not covered by TUMF or DIF programs, the DEIR calls for the payment by the individual development projects of "fair share" fees. While fair share fees can be appropriate mitigation under CEQA, there is no evidence that fair share programs exist for the remaining measures not covered by TUMF or DIF programs; there is no evidence that any funding has been collected under the alleged fair share programs; and there is no evidence as to when the necessary measures might be implemented under the programs. Together this reliance on fee-based mitigation is uncertain and ineffective.

The mitigation plan also calls for the City to "request" that TUMF funds be aligned with the improvements related to the Project's significant impacts. Thus there is no guarantee that TUMF funds will be spent towards the implementation of the necessary improvements, or evidence of when such alignment would occur. With respect to improvements that are under the jurisdiction of Caltrans, the mitigation plan calls for the City to participate in a "multi-jurisdictional effort with Caltrans and adjacent cities to develop a study to identify fair-share construction funding sources …" There is no evidence that this coordinated strategy will be pursued in the future. Furthermore, while the payment of fair share fees can be adequate mitigation for cumulative impacts, many of the impacts at issue are direct impacts of the WLC project. For this reason, the applicant must be responsible for the implementation any measures relative to direct project impacts. **93**

Finally, the DEIR's mitigation plan for freeway impacts is convoluted where the DEIR acknowledges significant impacts and the existence of feasible mitigation for some freeway sections but states these measures will not be pursued because the overall "policy" of the City is to improve surface streets "that could serve as alternate routes to freeways." CEQA requires the implementation of all feasible mitigation measures for significant project impacts. In addition, some freeway mitigation measures are apparently discounted because of cost or technical concerns without substantial evidence in the record that the measures are infeasible within the meaning of CEQA. Again CEQA requires the adoption of all feasible mitigation measures. Where a measure is considered infeasible, the agency must support that finding with substantial evidence in the record. **94**

MM 4.15.7.4A requires no mitigation of traffic impacts occur but only that a project-specific traffic impact study be prepared. This is insufficient as it fails to incorporate any solution or mitigation if the assumptions of the TIA are invalid. **95**

MM4.15.7.4F is uncertain to occur and fails to commit the Project to mitigating impacts to state roads/highways. This measure requires only that the City contact Caltrans. Caltrans has not agreed to this participation and the City has no authority to require any action be taken by Caltrans. If Caltrans cooperates in a study, and if the study identifies funding sources necessary to mitigate impacts through fair-share contributions, and if the study is approved, and if the City imposes fair-share fees on the project, then the Project shall be required to pay prior to the **96**

issuance of occupancy permits (presumably if those permits are requested after all the prior actions occur). This is the definition of uncertain and unenforceable mitigation. 96

Correspondingly, while most of the project's environmental effects will be a result of its use as a distribution center and corresponding traffic and air quality impacts, not the effects of the warehouse building itself, little if any mitigation is required to reduce these impacts. Regarding traffic effects, the EIR relies heavily on TUMF, DIF and fair share programs and concludes that significant effects will be either immediately or promptly reduced by these programs. To the contrary, a significant amount of the streets impacted are not currently planned or funded for improvements, and given the underfunding of these programs are unlikely to see any improvement in the near term. The EIR accordingly understates the traffic and air quality impacts of the project and fails to require all feasible mitigation. 97

In fact, the roadways reliant on TUMF funds are not presently scheduled for improvement nor are the improvements funded. (*See, e.g., 2011 Annual Report, Transportation Uniform Mitigation Fee Program,* Western Riverside Council of Governments, "Five Year Transportation Improvement Program," <http://www.wrcog.cog.ca.us/downloads/AnnualReport_for_web.pdf>, p.39, *See, also,* <http://www.wrcog.cog.ca.us/downloads/2012CentralZoneTIP020612.pdf> [detailing funded expenditures in the Central Zone]) Furthermore, TUMF improvements can take up to 9 years to become a reality from a local jurisdiction developing a project to completion of construction. (*2011 Annual Report, Transportation Uniform Mitigation Fee Program, supra,* p.7) Project prioritization, programming, and allocation of funds may also be a barrier to improvements on the roadways impacted by this project. (*2011 Annual Report, Transportation Uniform Mitigation Fee Program, supra,* p.10) The EIR's conclusion that project transportation impacts on local roadways and intersections is less than significant after mitigation is simply not supported by evidence and the realities of these fair share programs. 98

Utilities and Service Systems

Water supply impacts are not adequately assessed or mitigated. The project will use approximately 1,991.25 AFY, from .66-.93 percent of EMWD's water supply. The EIR finds that EMWD will be able to meet its agencies demand through 2035, but this prediction does not include the Project. While the Moreno Highlands Specific Plan would require more water than the Project, development may not occur prior to 2035 but over a greater span of time. Hence, the fact that EMWD previously stated its ability to meet demand does not show that EMWD has sufficient supplies to meet the demands of this Project. 99

As discussed above, it is feasible to require the use of recycled water for this Project. The EIR finds water supply impacts to be reduced to less than significant levels, but does not state predicted mitigated demand. By failing to show reductions, the EIR fails to provide needed information. 100

MM 4.16.1.6.2A defers the preparation of grading and drainage studies. Without such studies, it is impossible to conclude that flows will be maintained similar to the existing condition. The same is true for MM 4.16.1.6.2B regarding runoff velocity, and 4.16.1.6.2C regarding sediment carrying capacity and erosion. These studies must be prepared, incorporated in the EIR, and the EIR recirculated in a manner that discloses potential impacts and thereafter evaluates whether they are mitigable. 100

Alternatives

Where there is an environmentally superior alternative that significantly decreases the significant impacts of the Project then that alternative must be approved rather than the Project if that alternative is feasible, even if the alternative would impede to some degree the attainment of the project objectives, or would be more costly. [(PRC§ 21002; *Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587, 597, State CEQA Guidelines § 15126.6(b)] 101

CEQA requires a meaningful discussion of project alternatives. Project alternatives must be designed to meet basic project objectives and be capable of lessening significant project impacts. A reasonable range of project alternatives must be explored. In addition, where a project alternative is determined to be infeasible the determination must be based on substantial evidence in the record. In this case the DEIR fails to comply with CEQA's mandates with respect to analysis of project alternatives. 102

The DEIR fails to contain a clear description of what Alternatives 1 -3 would entail in terms of a development scenario. Moreover the DEIR states that only the development of a very small portion of the project site could reduce impacts, thus meaning that no alternative could successfully reduce impacts and thus closing the door on the adoption of any reasonable alternative. This conclusion is not based on logic where the reduction of the project's overall footprint and the amount of development proposed must translate to fewer significant impacts. 103

Assuming that the Reduced Density alternative is environmentally superior, the alternative meets the "primary" objectives of the project (i.e., development of a specific plan and establishment of open space). However, the alternative has not been shown to be infeasible based on substantial evidence in the record. The DEIR merely states that the alternative does not meet certain project objectives to "the same degree" as the proposed project. This does not suffice as a finding of infeasibility. For instance, the fact that the Reduced Density alternative creates fewer jobs does not show the alternative to be infeasible. In fact, the creation of roughly 17,000 jobs meets the objective to "provide jobs" for residents. Also for instance the alternative satisfies the objective of creating a "major logistics center" in the City. The fact that the alternative involves a lesser amount of space for potential development does not render the alternative financially or otherwise infeasible within the meaning of CEQA. 104

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CONCLUSION

Thank you for your consideration of these comments and the attached and/or referenced material.

Sincerely,

Raymond W. Johnson
JOHNSON & SEDLACK

Attachments and Electronic Citations

(1) Western Riverside Council of Governments, *2011 Annual Report, Transportation Uniform Mitigation Fee Program,* <http://www.wrcog.cog.ca.us/downloads/AnnualReport_for_web.pdf>

(2) Western Riverside Council of Governments, *Funded Expenditures in the Central Zone,* <http://www.wrcog.cog.ca.us/downloads/2012CentralZoneTIP020612.pdf.>

(3) The Press Enterprise, Jack Katzanek (February 1, 2012)*"Moreno Valley: Sketchers' warehouse has caused net job loss,"* <http://www.pe.com/business/business-headlines/20120201-moreno-valley-skechers-warehouse-has-caused-net-job-loss.ece>

(4) *The Health Effects of Air Pollution on Children*, Michael T. Kleinman, Ph.D, Fall 2000, <http://aqmd.gov/forstudents/health_effects_on_children.html#WhyChildren>

(5) *Diesel and Health in America: the Lingering Threat*, Clean Air Task Force, February 2005, <http://www.catf.us/resources/publications/files/Diesel_Health_in_America.pdf>

(6) Annual Meeting of the Brain & Lung Tumor and Air Pollution Foundation, April 2, 2010, <http://www.aqmd.gov/hb/2010/April/100425a.htm>

(7) *Technical Support Document for Cancer Potency Factors: Methodologies for derivation, listing of available values, and adjustments to allow for early life stage exposures*, California EPA OEHHA Air Toxicology and Epidemiology Branch, April 2009, p. 3. <http://www.oehha.ca.gov/air/hot_spots/pdf/TSDCPFApril_09.pdf.>

(8) California Air Pollution Control Officers Association. (January 2008) *CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*.

(9) U.S. Department of Transportation, Federal Highway Administration. (August 2006) *Construction Noise Handbook, Chapters 3, 4, and 9* <http://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/index.cfm>

(10) Electronic Library of Construction Occupational Safety and Health (November/December 2002) *Construction Noise: Exposure, Effects, and the Potential for Remediation; A Review and Analysis.*

(11) U.S. Department of Housing and Urban Development. (March 1985) *The Noise Guidebook.*

(12) Suter, Dr. Alice H., Administrative Conference of the United States. (November 1991) *Noise and Its Effects*.

RESPONSE TO LETTER F-13

Johnson & Sedlack on behalf of Sierra Club, Moreno Valley Group & Residents for a Livable Moreno Valley

Response to Comment F-13-1. The commenter states the Environmental Impact Report (EIR) fails as an informational document, is conclusory, and the conclusions are not based on substantial evidence in the record. The EIR does provide decision-makers with objective factual information about the potential impacts of the project, and draws conclusions about significant impacts based on evidence presented in the EIR and supporting technical studies. The following responses will demonstrate why this is to be the case for this EIR.

Response to Comment F-13-2. The commenter questions the project description and states "the project really proposes 2,710 acres of warehousing and 19 acres of additional open space and/or public facilities compared to what would exist without the project" and indicates the California Department of Fish and Game (CDFG) conservation land is in the Specific Plan. The CDFG (now California Department of Fish and Wildlife (CDFW)) conservation land is not in the World Logistics Center Specific Plan (WLCSP) but is in the requested General Plan Amendment and Zone Change to permanently change its land use designation from a variety of developed uses under the existing Moreno Highlands Specific Plan to Open Space, consistent with its present use. The revised project actually proposes less warehouse development (40.6 million square feet vs. 41.6 million under the original plan) with 74.3 acres of open space within the WLCSP (in addition to the 1,085 acres of open space in the CDFW Conservation Buffer Area which is not in the Specific Plan. Section 1.3 of this Final Environmental Impact Report (FEIR) Volume 2 clarifies the project characteristics of the original project analyzed in the Draft Environmental Impact Report (DEIR) and the current project that was revised to remove 100 acres of land and 1 million square feet of development.

Response to Comment F-13-3. The commenter outlines the main considerations for preparing a programmatic EIR versus a project-level EIR. However, the commenter fails to acknowledge the most basic and practical reasons for using a programmatic EIR, that being when a large project is proposed to be developed over a long period of time, but detailed information is not yet available about the development. In this case, the WLC project represents one of, if not the largest logistics project in the country at this time, but the size and location of individual buildings is not known, therefore, a programmatic EIR is the most appropriate California Environmental Quality Act (CEQA) compliance document at this time. CEQA encourages compliance at the earliest possible time information is known about a proposed development.

Response to Comment F-13-4. The commenter believes a programmatic EIR is not appropriate for this project. As outlined in Response to Comment F-13-3 above, a programmatic document is the most appropriate CEQA document that can be prepared at this time, given the size and phasing of the project and the lack of specific information known at this time about future development. The example the commenter uses is not applicable, all future development proposals within the WLCSP area will have subsequent CEQA analysis, ministerial approvals will not be given for new proposed warehouse buildings, regardless of location or size (WLCSP Section 11.3.2). All future development applications will have to tier off this programmatic EIR as part of subsequent CEQA compliance review.

Response to Comment F-13-5. The commenter states more specific information is needed on the Development Agreement (DA) and project development. As explained in DEIR Section 2.0, *Introduction*, the EIR is programmatic because no specific development information is available at this time (i.e., size and location of buildings) so by its nature the EIR cannot provide more detailed information in that regard. The Development Agreement deals with fee payments and non-

infrastructure commitments between the City and Highland Fairview. Information in the DA does not change the analysis of potential impacts or recommended mitigation in the DEIR.

Response to Comment F-13-6. The commenter states additional mitigation is required for loss of agriculture. In the DEIR, the CDFW Conservation Buffer Area just south of the WLCSP was included in the agricultural assessment because it was being dry farmed similar to the southern end of the WLCSP property. With that additional property, the agricultural assessment determined loss of agriculture was a significant impact using the Land Evaluation and Site Assessment (LESA) model developed by the State Department of Conservation. Based on comments on the DEIR regarding the LESA model analysis, the agricultural assessment in the DEIR (Appendix C-2) was revised to remove the CDFW Conservation Buffer Area (FEIR Volume 2, Appendix C-2). With that revision, the LESA model results indicate the loss of Farmland of Local Importance within the WLCSP is not significant (see FEIR Volume 2 Appendix C-1 through C-4) for details). However, to err on the side of caution, the FEIR concludes that cumulative loss of agricultural land is still significant. In responding to many comments about the loss of agriculture, will be required to provide offsite mitigation to offset the loss of onsite agriculture, with the mitigation ratio to be based on the current agricultural economic productivity of the WLC property compared to the economic productivity of the offsite mitigation property. Therefore, the following Mitigation Measure (MM) 4.2.6.1A has been added to the EIR in response to comments on agricultural impacts:

4.2.6.1A Prior to the issuance of any grading permit affecting land designated as "Unique Farmland" (Figure 4.2.2 in the World Logistics Center Environmental Impact Report), an Agricultural Conservation Easement shall be recorded over land of equivalent or better agricultural economic productivity of the offsite easement property compared to the World Logistics Center property. The analysis will include a comparison of the project's "Unique Farmland" considering its relative economic potential as the best measure of productivity (i.e., net profitability per acre or potential net rental income per acre). It will include a consideration of various important physical factors including location and accessibility, soils and topography, micro and macro climatic conditions, water availability and quality, as well as local practices, good farm management and cultural (growing) costs. The form and content of this easement, as well as the estimates of agricultural productivity, shall be reviewed and approved in advance by the Planning Official.

This measure is intended to address concerns expressed by the commenter and others regarding loss of onsite agricultural land. However, even with this measure, the FEIR still concludes that loss of locally important agricultural soils is a significant impact of the WLC project.

Response to Comment F-13-7. The DEIR identifies potentially significant impacts associated with the WLCSP and provides appropriate mitigation measures to reduce the impacts to levels that are less than significant with regard to sensitive biological resources. An update Habitat Assessment and (Western Riverside County) Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis (FCS-MBA 2103 – FEIR Volume 2, Appendix E-1) was prepared to update existing conditions within the WLCSP area. The development of the WLCSP will potentially impact sensitive plants, nesting birds, six sensitive wildlife species (including burrowing owl) and jurisdictional drainage features. All feasible mitigation measures discussed in Section 4.4.6 of the DEIR will reduce project related impacts to less than significant levels. The biological mitigation measures have the following performance standards:

~~**4.4.6.1A** All development projects on lots adjacent to the CDFW property shall provide a minimum 250 foot setback between the CDFW property line and any building or vehicular circulation area (excluding emergency access drives). Permitted uses within or adjacent to this setback area include landscaping, drainage and water~~

~~quality facilities, fences and walls, maintenance access drives, and similar related uses. Prior to issuance of any discretionary permit in the WLCSP for development adjacent to the CDFW Conservation Buffer Area, development plans shall establish a minimum 250-foot clear setback along the southern property line of the WLC Specific Plan, both east and west of the SDG&E natural gas compressor plant. For the purposes of this measure, the term "clear" shall refer to all existing or future roads, industrial buildings or related improvements, walls, truck travel areas, etc. The only allowed uses within the 250-foot setback area are landscaping per the WLCSP, drainage or water quality basins, or relocation of any impacted plant or animal species from development areas within the Specific Plan. In addition, development plans shall also establish a minimum 150-foot setback from the north edge of the clear zone to the closest logistics warehouse building. This will provide a total minimum building setback of 400 feet from the northern edge of the CDFW Conservation Buffer Area to new warehouse buildings within the Specific Plan.~~

~~Development adjacent to the 250-foot open space setback shall have a minimum six-foot tall chain link fence to help separate warehouse activity from the buffer area. Any chain link fencing installed on any properties adjacent to the 250-foot buffer area shall have metal mesh installed below and above ground level to prevent animals from accessing new development areas. In addition, all truck activity areas within 750 feet of the southern boundary of the site shall be enclosed by minimum 11-foot tall solid block walls to help reduce noise and lighting impacts on the CDFW Conservation Area to the south. This measure shall be implemented to the satisfaction of the City Planning Division.~~

~~A landscape plan for the 250-foot setback area shall be submitted with any development proposal for lots adjacent to the CDFW property. The landscape plan shall be prepared by a licensed landscape architect in consultation with a qualified biologist and shall be consistent with the design standards contained in the Specific Plan. No plant species listed in Section 6.1.4 of the MSHCP shall be installed within the setback area. In conjunction with development adjacent to the CDFW Conservation Buffer Area, cottonwood trees shall be planted along the southern boundary of the 250-foot "clear" setback zone, consistent with the WLCSP landscaping plan and plant palette. This measure shall be implemented to the satisfaction of the City Planning Division in consultation with the SJWA Manager.~~

4.4.6.1A All Plot Plan applications within Planning Areas 10 and 12 (i.e. adjacent to the San Jacinto Wildlife Area as shown in Final EIR Volume 2 Figure 4.1.6B) shall provide a 250-foot setback from the southerly property line. Permitted uses within this setback area include landscaping, drainage and water quality facilities, fences and walls, utilities and utility structures, maintenance access drives, and similar related uses. No logistics buildings or truck access/parking/maneuvering facilities are permitted in this setback area.

In addition, logistics buildings within Planning Areas 10 and 12 may not be located within 400 feet of the southerly property line. All development proposals in Planning Areas 10 and 12 shall include a minimum six-foot tall chain link fence or similar barrier to separate warehouse activity from the setback area. This fence/barrier shall have metal mesh installed below and above ground level to prevent animals from moving between the development area and the setback area.

Within Planning Areas 10 and 12, all truck activity areas adjacent to the 250-foot buffer area along the southern property line shall be enclosed by minimum 11-foot tall solid walls to reduce noise and lighting impacts on the adjacent property. This measure shall be implemented to the satisfaction of the Planning Official.

A preliminary landscape plan for the 250-foot setback area shall be submitted with all Plot Plan applications for lots adjacent to the California Department of Fish and Wildlife property. Precise landscape plans shall be submitted with any grading permit for said lots and must be approved prior to the issuance of any building permit on said lots. The landscape plan shall be prepared by a licensed landscape architect in consultation with a qualified biologist and shall be consistent with the design standards contained in the World Logistics Center Specific Plan. No plant species listed in Section 6.1.4 of the Western Riverside County Multiple Species Habitat Conservation Plan shall be installed within the setback area. Cottonwood trees shall be planted within the setback area consistent with the World Logistics Center Specific Plan. This measure shall be implemented to the satisfaction of the Land Development Division Manager.

Response to Comment F-13-8. The commenter states MM 4.1.6.1B does not establish performance standards in terms of visual impacts. The commenter is correct, the following language (underlined text) will be added to the measure to shield views from existing residences:

~~**4.1.6.1B** Prior to the issuance of any discretionary permit for development under the WLCSP adjacent to Redlands Boulevard, Bay Avenue, and Merwin Street, the developer shall provide a plot plan or site plan, landscaping plan, and visual rendering(s) consistent with the WLCSP that accurately illustrate the appearance of the proposed development. The renderings shall be sufficient to demonstrate that views of the buildings and trucks will be effectively screened from view by existing residents upon maturity of planned landscaping. The location and number of view presentations shall be at the discretion of the City Planning Division.~~

4.1.6.1B Each Plot Plan application for development adjacent to Redlands Boulevard, Bay Avenue, or Merwin Street, shall include a plot plan, landscaping plan, and visual rendering(s) illustrating the appearance of the proposed development. The renderings shall demonstrate that views of proposed buildings and trucks can be reasonably screened from view from existing residents upon maturity of planned landscaping and to ensure consistency with the General Plan Objective 7.7. "Effective" screening shall mean that no more than the upper quarter (25%) of a building is visible from existing residences, which shall be achieved through a combination of landscaping, berms, fencing, etc. The location and number of view presentations shall be at the discretion of the Planning Division.

In addition, Response to Comment F-8-3 describes changes to MM 4.1.6.3A that will be made to protect future views of Mt. Russell from SR-60, a locally designated scenic highway.

Response to Comment F-13-9. The commenter states the EIR does not examine noise, health risks, and traffic impacts to onsite rural residential uses. In fact, the appropriate sections of the DEIR do address impacts to onsite rural residential uses.

DEIR Section 4.3.1.6, *Sensitive Land Uses in the project Vicinity*, specifically identifies the seven rural residences as sensitive receptors to be used in the air quality and health risk assessments, as follows…*"There are currently seven occupied single-family homes and associated ranch/farm buildings in various locations on the proposed project site. These residences are existing on-site sensitive receptors."* (DEIR page 4.3-20).

DEIR Section 4.3.6.3 *Localized Construction and Operational Air Quality Impacts*, discusses air quality and health risk impacts to these residences, as follows…"*The estimated maximum localized air quality impacts from the construction of the project in 2013 are summarized in Table 4.3.O. These*

maximum impacts were found at the locations of the existing residences within the boundaries of the Specific Plan… project construction would exceed the significance thresholds for NO_X, PM_{10}, and $PM_{2.5}$ and thus represents a significant impact without mitigation." (DEIR page 4.3-61). Due to their location within the property, feasible mitigation for air quality impacts to onsite rural residences is limited. In addition, the FEIR Volume 2 has been revised to more clearly indicate the conclusion that air quality impacts to onsite rural residences is significant (refer to FEIR Volume 2, Section 4.3).

DEIR Section 4.12.6 outlines the noise impacts on these residences and proposes mitigation (MM 4.12.6.1A, D, E, and G). DEIR Section 4.12.6.1, *Short-Term Construction Noise Impacts*, specifically identifies the seven rural residences as sensitive receptors, as follows…*"Sensitive receptors that would be potentially affected by on-site construction activities would include residences located within and adjacent to the WLCSP area…"* and further in the section states…*"the existing residences are considered to be noise-sensitive uses that would be affected by intense construction activities.* (DEIR page 4.12-32). This section goes on to conclude the following:

"*Based on these projections, anticipated worst-case construction noise levels would regularly be exceeded during daytime and nighttime hours at residences within the Specific Plan area. Based on an Leq noise level of 90 dBA at 50 feet, an observer would need to be 1,580 feet from the construction to experience a noise level of 60 dBA (Leq), or 2,800 feet for a noise level of 55 dBA (Leq). Therefore, a residence within 1,580 feet during active construction during the daytime would be affected. Similarly, a residence within 2,800 feet during the nighttime would be affected by construction noise. As set forth in Section 3.4.14 and as stated by the project applicant, construction could occur 24 hours per day, 7 days per week for these construction activities. Therefore, noise levels at the nearest residences would exceed the City's exterior noise standard of the 60 dBA 1 CNEL daytime standard and 55 dBA CNEL nighttime standard for residential uses. This is a significant impact requiring mitigation.*" (DEIR page 4.12-34).

Therefore, MMs 4.12.6.1A, D, E, and G were proposed to help reduce potential noise impacts to onsite rural residences, as shown below:

~~**4.12.6.1A** Prior to issuance of any discretionary approvals for development in the WLCSP, the project applicant shall submit a Noise Reduction Compliance Plan (NRCP) to the City of Moreno Valley for review and approval. The NRCP shall show the limits of nighttime construction in relation to any then occupied residential dwellings. Conditions shall be added to any discretionary projects requiring that the limits of nighttime grading be shown on the NRCP and all grading plans submitted to the City. The limits of construction allowed at night shall be clearly staked on site, and contractors will be provided with a copy of the plan showing the limits of nighttime construction.~~

4.12.6.1A Prior to issuance of any discretionary project approvals, a Noise Reduction Compliance Plan (NRCP) shall be submitted to and approved by the City. The Noise Reduction Compliance Plan shall show the limits of nighttime construction in relation to any then-occupied residential dwellings and shall be in conformance with City standards. Conditions shall be added to any discretionary projects requiring that the limits of nighttime grading be shown on the Noise Reduction Compliance Plan and all grading plans submitted to the City (per Noise Study MM N-2, pg. 51).

~~**4.12.6.1D** All discretionary approvals for development in the WLCSP shall include conditions of approval stating that no nighttime grading shall occur within 2,800 feet of residences south of SR-60 (between 8 p.m. and 6 a.m. on weekends and 8 p.m. and 7 a.m. on weekends or holidays). These restrictions shall be included as part of the Noise Reduction Compliance Plan. As an alternative to this requirement, a temporary construction sound barrier may be used in lieu of the construction buffer, per Mitigation Measure 4.12.6.1E.~~

4.12.6.1D No grading shall occur within 2,800 feet of residences south of State Route-60 between 8 p.m. and 6 a.m. on weekdays and between 8 p.m. and 7 a.m. on weekends. These restrictions shall be included as part of the Noise Reduction Compliance Plan per Mitigation Measure 4.12.6.1A (per Noise Study MM N-2, pg. 51).

4.12.6.1E As an alternative to Mitigation Measure 4.12.6.1D, a 12-foot tall temporary construction sound barrier may be installed for residences within 1,580 feet of active nighttime construction areas. The temporary sound barrier shall be constructed of plywood with a total thickness of 1~~ to 1.~~5 inches, or a sound blanket wall may be used. If sound blankets are used, ~~the curtains~~ they must have a Sound Transmission Class (STC) rating of 27 or greater. This shall be included as part of the Noise Reduction Compliance Plan required in Mitigation Measure 4.12.6.1A, which shall be reviewed and approved by the City prior to implementation (per Noise Study MM N-2 and N-3, pg. 51 and pg. 52).

4.12.6.1G Any discretionary approvals for development that proposes grading within 1,580 feet of occupied residential units shall require that all grading equipment be equipped with residential grade mufflers (or better). All stationary construction equipment shall be placed so that emitted noise is directed away from noise-sensitive receptors nearest the site. Additionally, stationary construction equipment shall have all standard acoustic covers in place during operation (per Noise Study MM N-4, pg. 52).

DEIR Section 4.15 describes projected onsite traffic impacts that would affect the rural residences, although it does not specifically mention the residences. The proposed Specific Plan roadway system will maintain onsite traffic conditions within City Level of Service (LOS) standards, as outlined in DEIR Table 4.15.B, therefore, there is no need for traffic or circulation mitigation specifically related to the rural residences.

Response to Comment F-13-10. The commenter states the DEIR fails to discuss the project's impacts in conjunction with other proposed, past, or current projects.

The TIA analyzes traffic operations on roadways, freeways, and at intersections in future year conditions. The TIA included future roadway assumptions based on Southern California Association of Governments' (SCAG's) approved Regional Transportation Plan project lists, which include hundreds of projects, and which were included by reference. The future roadway improvements are described in Chapter 2, Section A, the sub-section entitled "Network Assumptions." The analysis also takes into account other land development projects described in Chapter 2, Section A, the sub-section entitled "Land Use Assumptions." The analysis in the report on future year scenarios therefore does discuss impacts in conjunction with other proposed, past, and current projects.

Response to Comment F-13-11. The commenter cites a South Coast Air Quality Management District (SCAQMD) comment that the project represents 25% of *all* planned warehouse space in the region. The commenter states that the DEIR fails to evaluate the project's regional impacts on SR-60 and the Port of Long Beach, and understates the growth inducement impact on a regional level.

The comment is incorrect regarding the WLC's share of regional warehouse growth. As can be seen in the table below taken from SCAG's study entitled *Industrial Space in Southern California: Future Supply and Demand for Warehousing and Intermodal Facilities*, the demand for warehouse space in the region is expected to grow from 665 million square feet in 2013 to 1,250 million square feet by 2035 (see red boxes in table); at total growth of 585 million square feet. The WLC's 41 million square feet represents less than 7% of the foreseeable growth in demand.

Note that the port-related demand for warehouse space is expected to nearly triple by 2035 (see blue boxes) and non-port-related demand will grow by 69% (green boxes). This is due to a combination of factors including the growth of international trade, structural changes in how goods are distributed, and population and economic growth. These large increases in demand are inducing the growth in warehousing, not the other way around.

Exhibit 2.-Aggregate Port & Non-Port Demand For Warehousing Space

Year	Port Demand	Change	Non-Port Demand	Change	Total Demand	Change
2008 actual	102,082,701		591,760,159		**693,842,860**	
2009 actual	84,132,118	(17,950,583)	578,615,853	(13,144,306)	662,747,971	(31,094,889)
2010	91,233,496	7,101,378	565,763,510	(12,852,342)	656,997,006	(5,750,964)
2011	96,473,797	5,240,301	553,196,647	(12,566,863)	649,670,444	(7,326,562)
2012	102,024,858	5,551,061	540,908,922	(12,287,725)	642,933,780	(6,736,664)
2013	107,905,626	5,880,768	557,214,315	16,305,393	665,119,941	22,186,161
2014	114,136,234	6,230,608	574,011,225	16,796,910	688,147,459	23,027,518
2015	120,738,070	6,601,836	591,314,468	17,303,243	712,052,538	23,905,079
2016	126,945,612	6,207,542	609,139,307	17,824,840	736,084,919	24,032,382
2017	133,495,571	6,549,959	627,501,467	18,362,159	760,997,038	24,912,118
2018	140,407,800	6,912,229	643,520,270	16,018,803	783,928,070	22,931,032
2019	147,703,346	7,295,546	659,948,000	16,427,730	807,651,346	23,723,276
2020	155,404,521	7,701,175	676,795,096	16,847,096	832,199,617	24,548,271
2021	162,925,869	7,521,348	694,072,263	17,277,167	856,998,132	24,798,515
2022	170,839,546	7,913,677	711,790,480	17,718,217	882,630,026	25,631,894
2023	179,167,005	8,327,459	729,961,006	18,170,526	909,128,011	26,497,985
2024	187,930,909	8,763,904	745,471,649	15,510,643	933,402,558	24,274,547
2025	197,155,201	9,224,292	761,311,872	15,840,223	958,467,073	25,064,515
2026	206,033,208	8,878,007	777,488,677	16,176,805	983,521,885	25,054,812
2027	215,342,517	9,309,309	794,009,217	16,520,539	1,009,351,734	25,829,848
2028	225,104,994	9,762,477	810,880,794	16,871,578	1,035,985,788	26,634,055
2029	235,343,644	10,238,650	828,110,869	17,230,075	1,063,454,513	27,468,725
2030	246,082,670	10,739,026	845,707,059	17,596,190	1,091,789,729	28,335,216
2031	257,347,537	11,264,867	864,320,511	18,613,452	1,121,668,048	29,878,319
2032	269,165,037	11,817,500	883,343,633	19,023,122	1,152,508,670	30,840,622
2033	281,563,363	12,398,326	902,785,441	19,441,808	1,184,348,804	31,840,134
2034	294,572,183	13,008,820	922,655,151	19,869,710	1,217,227,334	32,878,530
2035	307,277,606	12,705,423	942,962,180	20,307,029	1,250,239,786	33,012,452

Exhibit F-13-1: Aggregate Demand for Port and Non-Port Warehousing Space

An additional section (Chapter 12, Section F) has been included in the Traffic Impact Analysis (TIA) (refer to FEIR Volume 2, Appendix L-1) that analyzes project impacts on freeways to the port. The analysis, which is based on and supported by research done by SCAG and by the Port of Long Beach, found that only a small percentage of WLC truck traffic would be to and from the ports. See Table 86 in the revised TIA (Table F-13.A below) (FEIR Volume 2 Appendix L-1), repeated below.

Table F-13.A: Percentage of WLC Trucks to or from the Port

Year	% of Warehouse Space Used for Port-Related Cargo	% of Truck Trips Going to and from the Ports
2012	5.00%	2.07%
2022	9.30%	3.86%
2035	16.30%	6.76%

Response to Comment F-13-12. The commenter states the EIR should require specific phasing to better identify impacts. The temporary or construction impacts estimated in the DEIR are based on "worst case" daily estimates based on the estimated project phasing, which is appropriate given the programmatic nature of the EIR. Phasing for this type of project is difficult to estimate let alone control. Regardless of what phasing is estimated for analysis in the DEIR, the actual phasing of development will depend on actual applications for development in the future which is totally driven by market conditions and cannot be controlled by a schedule constructed as part of an environmental analysis document. It should be also be noted that processing of development applications takes many months if not years for large industrial projects, so it is likely the City would be processing only one large industrial warehouse application at a time, so the estimate of construction phasing impacts is still considered to be accurate given the physical and planning constraints upon the WLC project.

In addition, the DEIR evaluated the project assuming it was built out over a period of 10 years (buildout in 2022). Market conditions will prove this out, but if you take the 41.6 million square feet of logistics warehouse this would be assuming a build-out of 2.5 million square feet a year can be built over 15 years. This assumes there is available construction equipment and workers to complete 2.5 million square feet per year. The updated EIR (FEIR Volume 2) has increased the project construction period from 10 years to 15 years. This increase is the result of nearly 2 years having already passed since the issuance of the Notice of Preparation in the baseline year of 2012, placing the most optimistic construction start in 2014 thereby leaving only 8 years for project buildout. A reasonable project construction start would be 2015 and a 15 year construction period. This would place the project buildout in 2030. The updated DEIR (FEIR Volume 2) evaluated two project time periods for phasing; Phase 1 at the mid-point of anticipated project construction (2022); and Phase 2 at project buildout (2030).

The majority of the construction activity is expected to occur during typical construction hours (7:00 am to 6:00 pm, Monday through Saturday). It is anticipated that concrete pours could occur during nighttime periods to utilize the cooler temperatures and facilitate the concrete curing process. Due to the likelihood of these nighttime concrete pours, the DEIR has evaluated a 24 hrs/day, 7 days a week construction impact. It is not reasonable or foreseeable that all construction activity would occur 24 hrs/day, 7 days a week, and it is not reasonable or foreseeable it would occur for the entire 15 year construction period. The DEIR assumed the probable availability of construction equipment and likely duration of operation to complete the project in the 15 year construction period.

Section 3.4.13 and 3.4.14 in the FEIR Volume 2 has been updated to reflect the numbers in the revised air quality report (refer to FEIR Volume 2, Appendix D).

Response to Comment F-13-13. The commenter believes the EIR needs to be recirculated to address its deficiencies. The EIR does not need to be recirculated as the EIR does provide decision-makers with objective factual information about the potential impacts of the project, and draws conclusions about significant impacts based on evidence presented in the EIR and supporting technical studies. The responses to the commenter's comments in this letter demonstrate why this is the case for this EIR. The commenter is referred to various other responses in this letter regarding all

feasible mitigation but the commenter was not specific about which mitigation measures he was referring.

Response to Comment F-13-14. The DEIR Section 4.01 *Aesthetics* provides eight (8) Computerized Photographic Renderings from sensitive viewpoints around the project boundary. While the programmatic DEIR does not have building locations, these renderings depict a building envelope located at the minimum building setback, the maximum building height and white building color. This results in a worst case scenario for the view impacts as it places the potential building(s) as close to the project boundary, and as high as allowed in the project Specific Plan. This would represent a full environmental analysis for visual impacts along these boundaries. Subsequent project level (plot plans) submittals including site specific renderings and elevations will provide project level environmental review and provide subsequent mitigation measures and conditions of approval.

Response to Comment F-13-15. The project is proposing to utilize a native/drought tolerant plant pallet to support the commitment to sustainability and minimize irrigation and water demands. Studies have found that smaller container stock at initial installation will outperform larger container stock after approximately 3 years of growth. Trees and shrubs tend to be less root bound in smaller container sizes and will adapt and mature much quicker than those installed with larger container stock.

The DEIR view simulations have provided a reasonable and foreseeable simulation of the view at installation and the subsequent growth at 15 years. It's expected the plants and trees will continue to grow and mature beyond the 15 years depicted, but the views shown provide a very reasonable and conservative depiction.

It is not the goal or objective of the project to completely obscure the buildings. The landscape will evolve as it matures, leaving gaps where a portion of a plant may die or tree branches don't extend as far as hoped. There is no certainty of complete obscurity. Studies have found that plants do perform better where there is room to grow and there is not a lot of competition. This will be particularly true as supplemental water will be at a minimum and in some cases non-existent. The project proponent has installed a test planting area, adjacent to the WLC, using the proposed project plant pallet. The test area has received no supplemental irrigation for three years and is performing exceptional well, consistent with the plants used in the visual renderings.

Response to Comment F-13-16. The commenter purports the EIR does not evaluate the project correctly relative to two of the City's General Plan policies regarding aesthetics. However, the commenter does not specify what policies. Table 4.1.C in DEIR Section 4.1.6.3 evaluates the WLC project's potential impacts relative to the City's General Plan policies regarding visual resources, and determines those impacts are significant based on project characteristics available at this time. In response to comments from this commenter and others, MM 4.1.6.1B has been modified to include a performance standard in addition to the visual renderings of future development (see Response to Comment F-13-8 above). This change should address the commenter's concerns regarding visual impacts. It is unclear why the commenter believes this conclusion is unsubstantiated when it concludes visual impacts are significant.

~~**4.1.6.1B** Prior to the issuance of any discretionary permit for development under the WLCSP adjacent to Redlands Boulevard, Bay Avenue, and Merwin Street, the developer shall provide a plot plan or site plan, landscaping plan, and visual rendering(s) consistent with the WLCSP that accurately illustrate the appearance of the proposed development. The renderings shall be sufficient to demonstrate that views of the buildings and trucks will be effectively screened from view by existing residents upon maturity of planned landscaping. The location and number of view presentations shall be at the discretion of the City Planning Division.~~

4.1.6.1B Each Plot Plan application for development adjacent to Redlands Boulevard, Bay Avenue, or Merwin Street, shall include a plot plan, landscaping plan, and visual

> rendering(s) illustrating the appearance of the proposed development. The renderings shall demonstrate that views of proposed buildings and trucks can be reasonably screened from view from existing residents upon maturity of planned landscaping and to ensure consistency with the General Plan Objective 7.7. "Effective" screening shall mean that no more than the upper quarter (25%) of a building is visible from existing residences, which shall be achieved through a combination of landscaping, berms, fencing, etc. The location and number of view presentations shall be at the discretion of the Planning Division.

Response to Comment F-13-17. The commenter states the conclusion of the "change in views" relative to future development is unsubstantiated. However, the currently approved General Plan land use and zoning designations for the WLC site are the Moreno Highlands Specific Plan (MHSP) which would allow a variety of residential and commercial uses to be developed on the site. The current condition of the site is largely vacant agricultural land, against which aesthetic impacts in the DEIR are measured, and they were determined to be significant. The DEIR also provided a comparison to the currently approved land uses, indicating that, under the MHSP, the site could be developed with a variety of residential and commercial uses which would cover essentially all of the site but with 1-2 story buildings (max. 35-40 feet) rather than the 60-80 foot tall warehousing buildings that would be built under the WLCSP.

Response to Comment F-13-18. The commenter quotes from the General Plan suggesting that the project is inconsistent with the general plan because it proposes "one use across 2,600 acres of land" instead of a mix of industrial uses. The commenter is misreading the General Plan by suggesting that it directs that each project provide this desired range of industrial uses. The range of industrial uses sought by the General Plan will occur city-wide, not within every project. The intent is to provide "a sound and diversified economic base" for the City as a whole, not on a project-by-project basis.

The commenters statement 'the EIR does not consider the seven homes within the Project area in determining its consistency…' is incorrect. Throughout the EIR document there is discussion regarding impacts to the existing residential uses within the Project. The Project includes a proposed amendment to the General Plan, including an amendment to the Land Use Plan, to change the designation of these properties to logistics land uses. If the General Plan Amendment and accompanying Zone Change are approved, the existing residential uses will become legal, non-conforming uses and be subject to Section 9.02.180 of the Municipal Code.

Response to Comment F-13-19. The commenter believes compliance with City standards would not reduce future lighting impacts under the WLC project to less than significant levels. However, the City recently adopted a lighting ordinance that was intended to deal specifically with skyglow and nightlighting in rural areas. Planning review of future development proposals within the WLC area will be required to comply with the City's lighting ordinance, as outlined under MM 6.1.6.4A in the DEIR. The commenter has not provided any empirical evidence that future development would create a significant nighttime lighting impact even if it was consistent with the City's lighting ordinance.

Response to Comment F-13-20. The commenter expresses concern that the EIR has not addressed nighttime lighting impacts from surrounding development. However, the commenter fails to acknowledge that the WLC project would result in development of much of the remaining vacant developable land in eastern Moreno Valley, and much of the land to the east (Badlands), south (Mystic Lake), and southwest (Lake Perris State Park) would not be developed and would not add additional nighttime lighting to the project area. Despite this, the proposed WLC represents the most significant source of future nighttime lighting for this area, regardless of whether it is compared to the projected General Plan growth or specific projects identified in the traffic impact assessment. With the recommended mitigation measures and compliance with the City's lighting ordinance, the project would still have cumulative lighting impacts, as already identified in Section 4.1.7 of the DEIR. The

Executive Summary has been revised to be consistent with the cumulative analysis in DEIR Section 4.1.7.

Response to Comment F-13-21. MMs 4.1.6.1B, and 4.1.6.3A do have provisions that require each respective study to demonstrate they are consistent with the WLCSP. MM 4.1.6.4A requires the lighting studies to be consistent with the City Municipal Code. The comment expresses concern over the project being developed in compliance with the prepared renderings. A mitigation measure has been added to Section 4.01 as follows:

4.1.6.1C Prior to the issuance of a certificate of occupancy for buildings adjacent to the western, southwestern, and eastern boundaries of the project (i.e., adjacent to existing residences at the time of application) the screening required in Mitigation Measure 4.1.6.1A shall be installed in substantial conformance with the approved plans to the satisfaction of the Planning Official.

Response to Comment F-13-22. The commenter believes the mitigation recommended in the DEIR for agricultural impacts is not sufficient. In responding to many comments about the loss of agriculture, the developer will be required to provide offsite mitigation to offset the loss of onsite agriculture, with the mitigation ratio to be based on the current agricultural economic productivity of the WLC property compared to the economic productivity of the offsite mitigation property. Therefore, Response F-13-6 in this letter above outlines a new mitigation measure (MM 4.2.6.1A) the developer has proposed to address these comments and the impacts to locally important agricultural soils. However, even with this measure, the FEIR still concludes that loss of locally important agricultural soils is a significant impact of the WLC project.

Response to Comment F-13-23. See Response to Comment F-13-6 above.

Response to Comment F-13-24. See Response to Comment F-13-6 above.

Response to Comment F-13-25. The health risk methodology employed in the health risk assessments contained in the DEIR and FEIR are based on the basic health risk and non-cancer risk formulations and meteorological data as recommended by OEHHA and SCAQMD and/or the ARB as discussed in the DEIR Section 4.7 and FEIR Volume 2, Section 4.7. In particular, the exposure durations for the residential and worker health risk assessment are 30 years and 25 years, respectively, as recommended by OEHHA. More importantly, the latest research demonstrates that new technology diesel exhaust does not contribute to cancer and the proposed project would prohibit traditional diesel engines. Please refer to Master Response-1 and Master Response-2 in Response to Comment C-3 for more information.

Response to Comment F-13-26. The commenter notes the DEIR talks about using a trip generation rate of 1.44 because this is a general plan EIR. This is not a general plan EIR. It should have said that the average rate was used because more than ten warehouses are under study. The commenter states that the correct rate of 1.68 was correctly applied, but criticizes the DEIR for not stating exactly how many warehouses are being proposed in the project.

The text in the EIR has been revised to clarify the discussion about a trip generation rate (FEIR Volume 2, Section 4.15.3.2 Project Trip Generation, Distribution, and Assignment). As stated in Section 2.1 of the Specific Plan, it is anticipated that the WLC will have 15-to-30 logistics warehouses. The exact number of buildings has not yet been determined though the total floor area will not exceed the amount shown in the project description. As noted by the commenter, the correct trip generation rate was used in the traffic analysis which formed the basis for the air quality analysis.

Response to Comment F-13-27. The commenter indicates that the following statement from the DEIR (page 4.3-17) is troubling: “While the 2010 State of the Air Report shows a slight uptick in the number of days of unhealthy air for ozone and annual particle pollution since the 2009 report, it is

important to note that pollution levels measured in this latter report were affected by fluctuations in weather conditions in 2010 and the addition of several new particulate monitoring stations in areas in San Bernardino known to be particularly problematic for particulate matter given local conditions."

This uptick is not a change in the trend. A trend does not refer to one year of events, but is measured over a period of many years. The DEIR Section 4.3 (page 4.3-17) further explains that the uptick is primarily due to the addition of other PM monitoring stations. In addition, the Executive Summary of the revised air quality analysis presents additional graphs and information regarding the decreasing trend in pollution in the Inland Empire (see Master Response-1 in Letter C-3).

Response to Comment F-13-28. The commenter indicates that the evaluation of short-term construction is not supported. In CEQA, construction impacts are commonly referred as "short-term" while operational impacts are referred as "long-term" - this is to distinguish between the two activities, as operation does not have an identified end date. Additionally, the revised analysis extends construction over 15 years instead of 10, thereby reducing the daily emissions of pollutants and the intensity of construction since construction is spread over a longer time interval.

The commenter also indicates that the air quality analysis evaluates the use of construction equipment for only 10 hours per day with no limit on how much equipment is onsite, so the commenter claims the impacts are understated. MM 4.3.6.2A restricts construction equipment from being in the on position for more than 10 hours per day. The equipment assumptions used in estimating the emissions are a worst-case scenario and assumed a high quantity of equipment to be operating each day. Construction activities would vary substantially from day to day depending on the specific activity being performed, i.e., grading, building construction, paving, utilities, etc. In addition, the California Emissions Estimator Model (CalEEMod) default of the number of hours per day the off-road construction equipment would be in use is 6 to 8 hours per day.[38] As a result, the project analysis is conservative. In addition, with the refinement of the construction schedule, there would be fewer equipment onsite on any one day, thereby reducing the construction related emissions.

The commenter claims that the EIR fails to consider the overlap of construction phases. However, this is not true, as both the analyses in the DEIR and the revised analysis provide an estimate of the overlap of the construction phases (i.e., building construction occurring at the same time as paving) as well as the overlap of operation and construction. For the regional analysis, in the DEIR, refer to Table 4.3.W and Table 4.3.Y. The localized analysis (DEIR Section 4.3, pages 4.3-58 - 66) and the Health Risk Assessment (HRA) (DEIR Section 4.3, pages 4.3-71 through 4.3-83) also include all sources of construction and operation as such activities would overlap.

The commenter indicates that a mitigation measure should be incorporated requiring longer construction phasing. Although this is not a mitigation measure, the project details and assumptions have been refined to extend the construction from 10 years to 15 years.

Response to Comment F-13-29. The commenter indicates that the NOx (14,800 pounds/day) and CO values in Table 4.3.U of the DEIR are high.

These refer to the "worst-case scenario" emissions, which use emission factors from the year 2012, assuming that the project is completely build out in 2012 and that there have been no emission upgrades to cars or trucks in the subsequent years as would be expected from the emission standards already adopted by the California Air Resources Board. This "worst case scenario" is an unrealistic scenario but is included to provide consistency with the analyses contained in the project traffic impact study. The DEIR also provides a more realistic scenario in which the project's emission

[38] CalEEMod Manual, Appendix E, Section 1, Construction Survey by SCAQMD. Website: www.aqmd.gov/caleemod/doc/AppendixE.pdf

impacts are assessed assuming the expected construction and occupancy schedule for the project (Table 4.3.V in the DEIR indicates approximately 3,000 pounds per day of NOx at buildout using 2022 emission factors). In addition, the revised analysis uses updated methodology and emission factors, which reflect further emission upgrades to the vehicle and truck fleet. The methodology also considers a detailed analysis of the roadways in which the project's vehicles and trucks would traverse, which provides a more realistic emissions estimation. The NOx emissions for operation at buildout in the revised analysis are estimated to be approximately 1,000 pounds per day (DEIR Section 4.3, after mitigation).

The commenter incorrectly claims that the emissions do not include dust. The regional and localized emissions in the DEIR and in the revised analysis both include dust in both operation and construction in the form of fugitive dust, brake and tire wear dust, and re-entrained road dust In addition, the dust estimates are displayed separately from the exhaust estimates in the revised analysis (see DEIR Section 4.3, Tables 4.3.Y).

Response to Comment F-13-30. The commenter claims that the DEIR provides an "apples to oranges" comparison of operational regional emissions and claims that the mitigation shows little impact. The revised analysis in the FEIR (see Section 4.3 and the revised Air Quality, Greenhouse Gas, and Health Risk Assessment, 2015) attempts to present the regional emissions more clearly for the benefit of the readers.

The commenter identifies a minor typographical error in Table 4.3.Y, which does not change any significance findings. This has been edited in the FEIR. The value was correct in Appendix D of the DEIR, Table 58.

Response to Comment F-13-31. The commenter claims that there is no evaluation of operational emissions past 2022 when emissions will no longer include construction. However, as shown in Table 4.3.J, in the DEIR year 2022 does not include construction. Therefore, the year 2022 is operation only. Additionally, after the year 2022, emissions will continue to decrease because the vehicle and truck fleet would be newer and would incorporate more advanced technology. In the revised analysis, years 2021,2027, and 2035 (buildout) were also estimated for emissions and corresponding impacts (FEIR Section 4.3). The emissions for the interim years were interpolated and are shown in Section 4.3 in the FEIR.

Response to Comment F-13-32. The commenter expressed concern that the EIR did not examine the project's consistency with several General Plan policies (Ultimate Goal VII, Goal 6.1, Objective 7.5, and Policies 7.5.1, 7.5.2, and 7.5.5) regarding air pollution. However, the commenter apparently failed to note that these goals, objectives, and policies are addressed in other sections of the DEIR that deal with specific environmental issues. For example, DEIR Section 4.16.4.2.3 4 in Utilities evaluates the project's compliance with General Plan Policies 7.5.1 and 7.5.2 which are related to energy conservation.

Ultimate Goal VII. Emphasizes public health and safety, including, but not limited to, police, fire, emergency and animal services and protection from floods and other hazards. CEQA documents in the City of Moreno Valley do not typically evaluate consistency with the ultimate goals as they are very broad and projects are typically evaluated against the most specific goals, objectives, and policies that implement the ultimate goals. However, consistency with this goal will be added to DEIR Section 4.14, *Public Services*, and DEIR Section 4.9, *Hydrology and Water Quality*, in response to this comment.

Safety Element Goal 6.1. "To achieve acceptable levels of protection from natural and man-made hazards to life, health, and property." FEIR Volume 2 Section 4.8, *Hazards and Hazardous Materials*, has been revised to include this policy.

Conservation Element Objective 7.5. "Encourage efficient use of energy resources." FEIR Volume 2 Section 4.16.4.2.3 has been revised to include this policy.

Conservation Element Policy 7.5.5. "Encourage the use of solar power and other renewable energy systems." The revised Specific Plan has a specific commitment to solar energy systems through implementation of MM 4.16.4.6.1C. FEIR Volume 2 Section 4.16.4.2.3 has been revised to include this policy.

Response to Comment F-13-33. The commenter notes the DEIR did not evaluate air pollutant emissions across the routes that will be used by project trucks, specifically those truck routes to the ports of Los Angeles and Long Beach.

In the health risk assessment contained in the DEIR, emissions and their resulting health risk impacts were estimated for individual freeway segments that extended from near Palm Springs to SR-71 near Corona, California. As a result of comments received on the DEIR, the number of freeway segments analyzed was extended from SR-71 westward along SR-60 and SR-91 to Interstate 710 to the ports of Los Angeles and Long Beach. Estimates of truck emissions along the routes were derived from the traffic volume data provided by the traffic impact model prepared by Parsons Brinkerhoff. The traffic analysis found that only a small percentage of WLC truck traffic would be to and from the ports. The inclusion of the traffic along the added freeway segments to the ports did not add any new impacts to those already included in the DEIR.

Response to Comment F-13-34. The commenter claims that several of the construction mitigation measures, such as MM 4.3.6.2A, are already required by law and therefore do not qualify as mitigation. The only measure already required by law is MM 4.3.6.2A(g), which requires compliance with SCAQMD Rule 403. Please see the FEIR Mitigation Monitoring Reporting Program for a list of the project's mitigation measures.

The commenter desires MM 4.3.6.2A(c) to be edited to place restrictions to limit the hours of construction to 10 hours per day. The commenter is mistaken. The ten hours per day assumption does not reflect the amount of time construction activities will take during the course of the day. Rather, the 10 hours represents a conservative assumption of the amount of time any given piece of equipment would be in the "on" position. As noted in the DEIR, construction during some periods could go on for 24 hours per day. However, that construction represents different equipment operating at different times for different purposes. As discussed in the DEIR, it is expected that concrete will be poured during the night and early morning hours due to the difficulty of conducting large concrete pours when the sun is shining (see page 3-65 in the DEIR). Following the evening concrete pours, other construction activity will follow during the day. During all this activity it is not reasonably expected that any one piece of construction equipment would be in the "on" position for more than ten hours. In fact, CalEEMod, the model used to estimate construction emissions, typically uses an assumption of 6 to 8 hours per day (see Response to Comment F-3-28). For all these reasons, it is infeasible to limit to construction activity to 10 hours per day. For purposes of the air quality assessments, construction equipment was conservatively assumed to be in the "on position" from 6am to 4pm and concrete pouring would occur from midnight to 6 am.

Response to Comment F-13-35. The commenter indicates that "whenever possible" in MM 4.3.6.2C(d) be removed to make the mitigation legally enforceable. MM 4.3.6.2C has been edited to remove that requirement since it did not address air quality or greenhouse gases.

Response to Comment F-13-36. The commenter indicates that MM 4.3.6.3A does not prevent vehicles from accessing buildings on unpaved roads. MM 4.3.6.3A requires that during operation, vehicles must access buildings using paved roads.

Response to Comment F-13-37. The commenter requests that MM 4.3.6.3B(f) and (g) be edited to require that all trucks be SmartWay 1.0 or greater carriers.

SmartWay features (low rolling resistance tires and aerodynamic devices) are required through California's Tractor-Trailer Greenhouse Gas Regulation. In addition, MM 4.3.6.3B encourages tenants to become SmartWay partners and maximize the number of SmartWay trucks. Tenants will be encouraged through the terms in the lease agreement, but the developer cannot require them to become SmartWay partners because their specific operational characteristics and financial arrangements are not known at this time, so it is unknown what that would mean to their business and operations.

Response to Comment F-13-38. The commenter indicates that MM 4.3.6.4A should be edited to provide storage lockers for a greater portion of full-time employees.

The commenter does not specify the quantity of storage lockers that would be acceptable to the commenter. The DEIR required a storage locker for 3 percent of the full-time equivalent employees based on a ratio of 0.50 employee per 1,000 square feet of building area. Thus, if the project is 40,600,000 square feet, there would be 20,300 employees and 609 storage lockers. The California Air Pollution Control Officers Association (CAPCOA) document does not specify an appropriate quantity of storage lockers for measure TRT-5. The California Green Building Code, as a non-residential voluntary measure, in Section A5.106.4.3, Changing Rooms, specifies one 2-tier locker for each 50 tenant-occupants. Therefore, if that ratio was used, there would be 487 storage lockers. Therefore, the project would provide more storage lockers compared with the voluntary Green Building Code.

The commenter indicates that MM 4.3.6.4A be edited to require 10 percent of vehicle parking spaces for additional electric vehicle charging. In the DEIR, the measure required two electric vehicle-charging stations at each building. The measure has been edited to also require for facilities with 100 parking spaces or more to have three percent of the total parking spaces capable of supporting electric vehicle charging. Any estimate of future demand for electric charging parking spaces is purely speculative. The State of California has had regulations requiring electric vehicles for over 20 years with no appreciable change in demand or availability of electric vehicles. Nonetheless, the project has committed to installing infrastructure based on the best available estimate of future demand, based on the building standard proposed by the California Buildings Standards Commission at Section 5.106, which calls for 3% of parking spaces being capable of supporting electric vehicle charging.

The commenter indicates that bicycle storage should be increased. However, the commenter does not provide a suggested quantity or a reference to support the increase. The CAPCOA document, Quantifying Greenhouse Gas Mitigation Measures (2010), measure SDT-6 suggests providing parking to meet "peak season maximum demand," but does not identify a quantity. In the DEIR, MM 4.3.6.4A requires that bicycle parking be provided for two percent of the parking spaces. This has been increased to five percent in the FEIR.

Response to Comment F-13-39. The commenter requests additional mitigation. Please refer to Response to Comments F-13-40 and F-13-41.

The commenter also claims that the project's significant air quality and health impacts justify project denial. The City Council will consider all comments on the project prior to making a decision on the project.

Response to Comment F-13-40. The commenter requests the mitigation measures as shown in the table below. Many of the suggested mitigation measures are covered under SCAQMD Rule 403, which the project will comply with (MM 4.3.6.2A requires that the project comply with the rule and page 4.3-55 of the DEIR discusses the rule). In addition, the project is considered a "Large Operation"

under Rule 403. Therefore, the project would comply with the additional measures as identified in the rule.

Suggested Mitigation Measure	Response
1. Gravel pads must be installed at all access points to prevent tracking of mud onto public roads.	**Already in SCAQMD Rule 403.** Section (d)(5) of Rule 403 states that at least one of the following should be at each vehicle egress from the site to a paved public road: (A) Install a pad consisting of washed gravel (minimum-size: one inch) maintained in a clean condition to a depth of at least six inches and extending at least 30 feet wide and at least 50 feet long. (B) Pave the surface extending at least 100 feet and at least 20 feet wide. (C) Utilize a wheel shaker/wheel spreading device consisting of raised dividers (rails, pipe, or grates) at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle undercarriages before vehicles exit the site. (D) Install and utilize a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the site. (E) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the actions specified in subparagraphs (d)(5)(A) through (d)(5)(D).
2. Install and maintain trackout control devices in effective condition at all access points where paved and unpaved access or travel routes intersect (e.g., install wheel shakers, wheel washers, and limit site access.)	
5. Pave all construction access roads at least 100 feet on to the site from the main road.	
3. All roadways, driveways, sidewalks, etc., should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.	**Not Included.** However, the project developer would likely choose to complete these as soon as possible. MM 4.3.6.3A requires that prior to operation the roads and parking lots must be paved. The Stormwater Pollution Prevention Plan (SWPPP) imposed by the Regional Water Quality Control Board (RWQCB) already requires Best Management Practices (BMPs) that include each one of the measures listed to prevent erosion and sediment discharges downstream. MM 4.9.6.2B addresses this issue. There is no need for additional mitigation.
4. Pave all construction roads.	**Not Included.** Travel on unpaved roads will be conducted pursuant to SCAQMD Rule 403. During grading and utility installation, construction roads can change daily, during building construction they change less often. Paving would be impractical as it would place wasteful energy and resources into something that is frequently changing.
6. Limit fugitive dust sources to 20 percent opacity.	**Already Included in SCAQMD Rule 403.** Section (d)(1)(B) states: No person shall cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area such that: (B) the dust emission exceeds 20 percent opacity (as determined by the appropriate test method included in the Rule 403 Implementation Handbook), if the dust emission is the result of movement of a motorized vehicle.
7. Require a dust control plan for earthmoving operations.	**Already Included in SCAQMD Rule 403.** The project qualifies as a Large Operation; therefore, an AQMD approved dust control plan is required (see Section (e)(2)).
8. When materials are transported off-site, all	**Already Included in SCAQMD Rule 403.** Best Available

Suggested Mitigation Measure	Response
material shall be covered, effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.	Control Measures, control measure 09-2 for importing/exporting of bulk materials states, "Maintain at least six inches of freeboard on haul vehicles."
9. All streets shall be swept at least once a day using SCAQMD Rule 1186 certified street sweepers utilizing reclaimed water trucks if visible soil materials are carried to adjacent streets.	**Already Included in SCAQMD Rule 403.** SCAQMD Rule 403 requires "No person shall allow track-out to extend 25 feet or more in cumulative length from the point of origin from an active operation. Notwithstanding the preceding, all track-out from an active operation shall be removed at the conclusion of each workday or evening shift." Section (d)(4).
10. The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite.	**Already Included in SCAQMD Rule 403.** SCAQMD Rule 403 specifies a dust control supervisor, which has the authority to employ sufficient dust mitigation measures to ensure compliance with all Rule 403 requirements (c)(17). Large operations must appoint a dust control supervisor (e)(1)(E).
11. Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 24 hours.	**Incorporated.** This has been incorporated into MM 4.3.6.2A.
12. Extend grading period sufficiently to reduce air quality impacts below a level of significance.	**Incorporated.** As discussed in the revised Air Quality, Greenhouse Gas, Health Risk Assessment analysis, the grading period has been extended. However, impacts are still over the SCAQMD significance thresholds.
13. The simultaneous disturbance of the site shall be limited to five acres per day.	**Not Incorporated.** This measure is not feasible for the project given the size of the project. The WLCSP establishes a lower limit on the size of the high-cube warehouses at 500,000 square feet, or approximately 11 acres, with buildings four times that size possible. Obviously, to construct any one building would require disturbance of more than five acres. Assuming 5-foot cuts and fills over a five-acre site, grading would require the movement of 40,000 cubic yards, which could be accomplished in 4 hours. A grading operation can move 100,000 cubic yards or more per day. Limiting to 5 acres is not practical as grading is dependent on earthwork balances of cuts and fills and room to operate the equipment. The project is incorporating all feasible dust control measures and will comply with the requirements of SCAQMD Rule 403.
14. Any vegetative cover to be utilized onsite shall be planted as soon as possible to reduce the disturbed area subject to wind erosion. Irrigation systems required for these plants shall be installed as soon as possible to maintain good ground cover and to minimize wind erosion of the soil.	**Already Included in SCAQMD Rule 403.** Best available control measures (10-1) requires that soils, materials, and slopes be stabilized. Dust control measures for large operations indicates that inactive disturbed surface areas establish ground cover within 21 days (Table 2, 3c).
15. Any onsite stockpiles of debris, dirt or other dusty material shall be covered or watered three times daily.	**Already Included in SCAQMD Rule 403.** Dust control measures for large operations requires that unpaved roads be watered 3 times per day (Table 2, 4a); open storage piles would also be watered (Table 2, 5b).
16. Any site access points within 30 minutes of any visible dirt deposition on any public roadway shall be swept or washed.	**Partially Included.** SCAQMD Rule 403 requires that large operations prepare a dust control plan, which addresses these concerns. SCAQMD Rule 403 requires

Suggested Mitigation Measure	Response
17. A high wind response plan shall be formulated for enhanced dust control if winds are forecast to exceed 25 mph in any upcoming 24-hour period.	a dust control program for any soil disturbances and has measurements based upon microns of dust leaving the site. They also require sweeping of streets within 1 hour of any visible track out onto streets.
18. Implement activity management techniques including a) development of a comprehensive construction management plan designed to minimize the number of large construction equipment operating during any given time period; b) scheduling of construction truck trips during non-peak hours to reduce peak hour emissions; c) limitation of the length of construction work-day period; and d) phasing of construction activities.*	
19. Develop a trip reduction plan to achieve a 1.5 AVR for construction employees.	**Not Incorporated.** It is assumed that the commenter is referring to average vehicle ridership. The average vehicle ridership can be calculated by dividing the number of persons traveling by the number of private vehicle trips. So, in essence, a 1.5 Average Vehicle Ridership (AVR) would require 1 in 3 construction workers (or 33 percent) to travel by non-private vehicle method. This is not feasible for the project. Much of the construction workforce comes from home directly to the job site. The project would be drawing from all areas and directions (Beaumont, Redlands, San Bernardino, Riverside, Perris, Moreno Valley, Hemet, San Jacinto and beyond). If the traffic was one-directional then the project could setup a carpool lot, but that's not the case. MM 4.3.6.2A already requires that a ridesharing program be made available to construction employees and lunch options and/or a lunch shuttle service be provided for construction employees.
20. Require high pressure injectors on diesel construction equipment.*	**Not Incorporated.** MM 4.3.6.2A requires Tier 4 construction equipment, the cleanest available construction equipment.
21. Restrict truck operation to "clean" trucks, such as a 2007 or newer model year or 2010 compliant vehicles.*	**Incorporated.** MM 4.3.6.2A has been edited to require 2007 or newer haul trucks.
22. Require the use of CARB certified particulate traps that meet level 3 requirements on all construction equipment.*	**Not Necessary.** MM 4.3.6.2A requires that Tier 4 equipment be used. Particulate traps are incorporated into the design of Tier 4 equipment.
23. Utilize only CARB certified equipment for construction activities.*	**Already Included.** MM 4.3.6.2A requires Tier 4 equipment. By law, all construction equipment must be CARB-certified for use in California.
24. The developer shall require all contractors to turn off all construction equipment and delivery vehicles when not in use and/or idling in excess of 3 minutes.*	**Included.** MM 4.3.6.2A requires that all contractors turn off diesel powered construction equipment or limit onsite idling to 3 minutes or less in any one hour.
25. Restrict engine size of construction equipment to the minimum practical size.*	**Not Included.** The construction contractor will determine what construction equipment size is appropriate for the job.
26. Use electric construction equipment where technically feasible.*	**Already Included.** MM 4.3.6.2A requires onsite electrical hookups and the use of electric tools where feasible.

Suggested Mitigation Measure	Response
27. Substitute gasoline-powered for diesel-powered construction equipment.*	**Not Included.** Non-diesel powered equipment may not be available. In addition, MM 4.3.6.2A requires Tier 4 construction equipment.
28. Require use of alternatively fueled construction equipment, using, e.g., compressed natural gas, liquefied natural gas, propane, or biodiesel.*	
29. Use methanol-fueled pile drivers.*	
30. Install catalytic converters on gasoline-powered equipment.*	**Partially Included Under Regulation.** Spark-ignition regulation applies to gasoline, propane, and compressed natural gas equipment. Compression-ignition regulation applies to diesel-powered equipment. MM 4.3.6.2A requires Tier 4 compression-ignition standards for diesel-powered equipment; see www.epa.gov/otaq/standards/nonroad/nonroadci.htm. California Air Resources Board's Large Spark-Ignition (LSI) Engine Fleet Regulation applies to equipment that uses LSI engines greater than 25 horsepower. To control LSI engines, there are automotive-style controls, such as a three-way catalytic converter, which controls hydrocarbons, NOx, and CO (ARB, Spring 2013, Course #505, LSI Engine Fleet Regulation Training, www.arb.ca.gov/msprog/offroad/orspark/presentations/lsi_fleet_regulation_tutorial_7-29-13.pdf). Forklift fleets must meet average emission level standards. The EPA's spark-ignition regulation is for gasoline powered engines. For engines at or below 19 kilowatts, the small spark-ignition standards apply (www.epa.gov/otaq/standards/nonroad/smallsi-exhaust.htm); otherwise the large spark-ignition engine standards apply (www.epa.gov/otaq/standards/nonroad/largesi.htm).
31. Require the use of Alternative Diesel Fuels on diesel equipment used. Alternative diesel fuels exist that achieve PM_{10} and NOx reductions. PuriNOx is an alternative diesel formulation that was verified by CARB on January 31, 2001 as achieving a 14 percent reduction in NOx and a 63 percent reduction in PM_{10} compared to CARB diesel. It can be used in any direct-injection, heavy-duty compression ignition engine and is compatible with existing engines and existing storage, distribution, and vehicle fueling facilities. Operational experience indicates little or no difference in performance and startup time, no discernable operational differences, no increased engine noise, and significantly reduced visible smoke.	**Not Included.** The ARB has verified Lubrizol's PuriNOx for 1988 through 2003 model year diesel engines used in on-road applications and 1996-2002 off-road (www.arb.ca.gov/diesel/verdev/vt/cvt.htm). This is consistent with the ARB's Verification Procedure, Warranty and In-Use Compliance Requirements for In-Use Strategies to Control Emissions from Diesel Engines (www.arb.ca.gov/diesel/verdev/reg/procedure_march2011.pdf). As such, it is not approved for use on the newer equipment that would be used on the WLC construction site or project.
32. Electrical powered equipment shall be utilized in-lieu of gasoline-powered engines where technically feasible.*	**Already Included.** MM 4.3.6.2A requires onsite electrical hookups and the use of electric tools where feasible.
33. All forklifts shall be electric or natural gas powered.*	**Partially Included.** Electrical hookups are provided during construction pursuant to MM 4.3.6.2A. However, the availability of construction electric or natural gas forklifts may not be available or feasible. The air quality analysis assumed use of diesel-powered forklifts during

Suggested Mitigation Measure	Response
	construction to provide a conservative emissions estimate. Nevertheless, MM 4.3.6.2A has been edited to require these if feasible during construction.
34. Suspend use of all construction equipment operations during second stage smog alerts.*	**Partially Included.** MM 4.3.6.2D requires that mass grading cease on days with an Air Quality Index greater than 150, which is when the air is unhealthy and equates to approximately 95 parts per billion of 8-hour ozone. The "smog alert" term is no longer used by the SCAQMD.
35. Provide temporary traffic controls such as a flag person, during all phases of construction to maintain smooth traffic flow.*	**Already Included.** Refer to MM 4.3.6.2B.
36. Provide dedicated turn lanes for movement of construction trucks and equipment on- and off-site.*	
37. Reroute construction trucks away from congested streets and sensitive receptor areas.*	**Incorporated.** This has been incorporated into MM 4.3.6.2B
38. Configure construction parking to minimize traffic interference.*	**Already Included.** Refer to MM 4.3.6.2B.
39. Prior to the issuance of a grading and building permit, the applicant shall submit verification that a ridesharing program for the construction crew has been encouraged and will be supported by the contractor via incentives or other inducements.*	**Incorporated.** MM 4.3.6.2A has been edited to require participation in a ridesharing program and lunch options (either onsite or a shuttle service).
40. Minimize construction worker trips by requiring carpooling and providing for lunch onsite. *	
41. Provide shuttle service to food service establishments/commercial areas for the construction crew.*	
42. Provide shuttle service to transit stations / multimodal centers for the construction crew.*	**Not Included.** If there is a demand for this service, it can be considered by the construction contractor and/or applicant.

* The commenter indicates that these measures would also reduce greenhouse gas emissions.
Source of suggested mitigation measure: Comment F-13-40

Response to Comment F-13-41. The commenter recommends the following mitigation measures:

Suggested Mitigation Measure	Response
1. All trucks accessing the Project site must meet 2010 standards or better at opening, improving to advance to higher standards by 2022. Results, including backup data shall be reported to the Planning Department semi-annually.*	**Included (1 & 2).** MM 4.3.6.3B requires that diesel trucks be model year 2010 or later. Compliance with the mitigation measure will be documented through the Mitigation Monitoring and Reporting Plan.
2. If the above mitigation is not feasible, the tenant shall phase-in trucks beginning with 30 percent 2010 standards or better at opening and continually improving, to introduce newer trucks faster than regulatory standards. (Alternatively, see 8-10 below)	

Suggested Mitigation Measure	Response
3. The Project shall not only provide infrastructure for alternative fuels (for example, electric or natural gas) but require that its usage be phased in as soon as such technology is technologically feasible. Such infrastructure must be adequate to provide alternative fuels for the entire project or, if deemed infeasible, at least 25 million square feet of logistics warehousing and its associated truck trips.	**Partially Included.** MM 4.3.6.3C requires onsite alternative fueling infrastructure. However, requiring alternative fueled technology is not feasible as discussed in Master Response- 3, Zero Emission and Hybrid Electric Trucks, Vehicles, and Equipment.
4. The tenants shall implement advanced technology demonstration and implementation Programs.	**Included.** The project would incorporate an alternative fueling station (MM 4.3.6.3C) and electric vehicle charging capabilities (MM 4.3.6.4A).
5. Tenants shall be required by contract to apply for funding to retrofit and replace older, dirtier trucks prior to purchase or lease of any portion of the site.	**Not Required.** Because all diesel trucks that access the project site be model year 2010 or newer, this measure is not required since there would not be “older, dirtier trucks” on the project site.
6. Incorporate another method of accelerated penetration of partial zero-emission and zero emission vehicles and trucks through funding assistance.	**Not Included.** See Master Response-3, Zero Emission and Hybrid Electric Trucks, Vehicles, and Equipment, which addresses the infeasibility of zero and near-zero emission trucks.
7. Accelerate retirement of older light-, medium-, and heavy- duty vehicles, through funding incentives or contract specification.	**Not Required.** All diesel trucks that access the project site be model year 2010 or newer.
8. The operator of any Project facilities shall become SmartWay Partner.*	**Partially Included (8-12).** SmartWay features (low rolling resistance tires and aerodynamic devices) are required through California’s Tractor-Trailer Greenhouse Gas Regulation. In addition, MM 4.3.6.3B encourages tenants to become SmartWay partners and maximize the number of SmartWay trucks. Tenants will be encouraged through the terms in the lease agreement but the developer cannot require them to become SmartWay partners. It is unknown what that would mean to their business and operations.
9. All Project facilities shall meet SmartWay 1.25 ratings.*	
10. All Project facilities shall use only freight companies that meet SmartWay 1.25 ratings.*	
11. (ALTERNATIVELY from 2,3 above) The operator of the primary facilities shall incorporate requirements or incentives sufficient to achieve at least 20 percent per year (as a percentage of previous percentage, not total trips) increase in percentage of long haul trips carried by SmartWay carriers until it reaches a minimum of 90 percent of all long haul trips carried by SmartWay 1.0 or greater carriers. Results, including backup data shall be reported to the Planning Department semi-annually.*	
12. The operator of the primary facilities shall incorporate requirements or incentives sufficient to achieve a 15 percent per year (as a percentage of previous percentage, not total trips) increase in percentage of consolidator trips carried by SmartWay carriers until it reaches a minimum of 85 percent of all consolidator trips carried by SmartWay 1.0 or greater carriers. Results, including backup data shall be reported to the Planning Department semi-annually.*	

Suggested Mitigation Measure	Response
13. All spaces utilizing refrigerated storage, including restaurants and food or beverage stores, shall provide an electrical hookup for refrigeration units on delivery trucks. Trucks incapable of utilizing the electrical hookup for powering refrigeration units shall be prohibited from accessing the site. All leasing documents shall include these requirements and provide that violation of those provisions will constitute a material breach of the lease that will result in the termination of the lease. Because of the fact that these terms of the lease are designed to benefit the public, the public shall be considered to be a third party beneficiary with standing to enforce the requirements of the lease.*	**Partially Included.** Mitigation Measure 4.3.6.3E says, "Refrigerated warehouse space is prohibited unless it can be demonstrated that the environmental impacts resulting from the inclusion of refrigerated space and its associated facilities, including, but not limited to, refrigeration units in vehicles serving the logistics warehouse, do not exceed any environmental impact for the entire World Logistics Center identified in the program Environmental Impact Report. Such environmental analysis shall be provided with any warehouse plot plan application proposing refrigerated space. Any such proposal shall include electrical hookups at dock doors to provide power for vehicles equipped with Transportation Refrigeration Units (TRUs)."
14. Install catalytic converters on gasoline-powered equipment.*	**Not Included.** Onsite equipment would be powered by an alternative fuel, not diesel or gasoline.
15. Where diesel powered vehicles are necessary, require the use of alternative diesel fuels. Alternative diesel fuels exist that achieve PM_{10} and NOx reductions. PuriNOx is an alternative diesel formulation that was verified by CARB on January 31, 2001 as achieving a 14 percent reduction in NOx and a 63 percent reduction in PM_{10} compared to CARB diesel. It can be used in any direct-injection, heavy-duty compression ignition engine and is compatible with existing engines and existing storage, distribution, and vehicle fueling facilities. Operational experience indicates little or no difference in performance and startup time, no discernable operational differences, no increased engine noise, and significantly reduced visible smoke.	**Not Required.** During operation, MM 4.3.6.3B and project design features require non-diesel onsite equipment, forklifts, yard trucks, and emergency generators. If the commenter intended this to be applied to on-road diesel trucks, this is not feasible because of availability constraints. WLCSP Section 12.3 prohibits the use of diesel powered on-site service vehicles.
16. Electrical powered equipment should be utilized in-lieu of gasoline-powered engines where technically feasible.*	**Partially Included.** It is typical that most support equipment in a logistics facility is zero-emission. However, since it is unknown who the future tenants will be or what equipment will be specifically required onsite, it is not feasible to limit onsite technology beyond the current prohibition on the use of diesel equipment onsite.
17. Utilize only electrical equipment for landscape maintenance.*	**Not Included.** Landscaping emissions are negligible (less than 1 metric tons of Carbon Dioxide Equivalent ($MTCO_2e$) and less than 1 pound per day of VOC, NOx, PM_{10}, and $PM_{2.5}$); therefore, this measure would not substantially reduce air pollutant or greenhouse gas emissions.
18. All forklifts shall be electric or natural gas powered.*	**Partially Included.** Project design features require non-diesel forklifts (WLCSP Section 12.3). Forklifts used inside warehouses are commonly electric.

Suggested Mitigation Measure	Response
19. Utilize only electric yard trucks.*	**Not Included.** MM 4.3.6.3B requires non-diesel yard trucks. However, it is not feasible to require an electric yard trucks because they are not commercially available and it is unknown whether they will become commercially available. See Master Response-3, Zero Emission and Hybrid Electric Trucks, Vehicles, and Equipment.
20. Prohibit idling of trucks for periods exceeding three minutes.*	**Partially Included.** MM 4.3.6.3B requires that trucks not idle for more than three minutes; the California Air Resources Board Airborne Toxic Control Measure (13 CCR, Chapter 10, Section 2485) also limits truck idling to 5 minutes at any location.
21. Provide electrical vehicle (“EV”) and compressed natural gas (“CNG”) vehicles in vehicle fleets.*	**Partially Included.** The project would encourage electrical vehicles by providing charging stations (MM 4.3.6.4A). In addition, the project would also provide an alternative fueling station (MM 4.3.6.3C).
22. Charge reduced or no parking fee for EVs and CNG vehicles.*	**Not Applicable.** There are no parking fees on the project site.
23. Install EV charging facilities for a minimum of 10 percent of all parking spaces.*	**Partially Included.** MM 4.3.6.4A requires that three percent of the parking spaces provide electrical charging facilities.
24. Install a CNG fueling facility.*	**Partially Included.** MM 4.3.6.3C requires an onsite alternative fueling station. However, the fuel is not identified to allow for flexibility for the potential for future alternative fuels.
25. Provide preferential parking locations for EVs and CNG vehicles.*	**Included.** MM 4.3.6.4A requires preferential parking for alternative fueled vehicles.
26. Implement parking fee for single-occupancy vehicle commuters.*	**Not Included.** Whether through incentives or disincentives, all tenants would be required to comply with SCAQMD Rule 2202 which seeks to discourage single-occupant commuting through multiple strategies. However, a parking fee is not going to be required as mitigation at this time.
27. Plant shade trees in parking lots to provide minimum 50 percent cover to reduce evaporative emissions from parked vehicles.*	**Already Included.** As shown in page 4.7-42 of the DEIR and in the WLCSP (Section 5.2.7.7), parking areas will be landscaped to provide a shade canopy (50 percent coverage at maturity).
28. Plant at least 50 percent low-ozone forming potential (Low-OFP) trees and shrubs, preferably native, drought-resistant species, to meet city/county landscaping requirements.*	**Partially Included (28 & 29).** The WLCSP requires a drought tolerant native plant palette (Section 5.4.2, Section 6.0, Section 5.1.8.3). There are number of attributes that the project landscaping may possess. These include drought tolerance, native, low-VOC, shading, screening, and others. All of these attributes will be considered when selecting trees, but some attributes for considered more important, such as native and drought tolerant. In addition, some attributes may be more highly valued based on the proposed location, such as shading in a parking lot or screening along the project interface. All of these attributes will be taken into consideration during the project-specific environmental review.
29. Plant Low-OFP, native, drought-resistant, tree and shrub species, 20 percent in excess of that already required by city or county ordinance. Consider roadside, sidewalk, and driveway shading.*	

Suggested Mitigation Measure	Response
30. Orient 75 percent or more of buildings to face either north or south (within 30 degrees of N/S) and plant trees and shrubs that shed their leaves in winter nearer to these structures to maximize shade to the building during the summer and allow sunlight to strike the building during the winter months.*	**Partially Included.** There are number of factors that would be considered in the determining the orientation, each having their own potential environmental consideration. For example, the proposed project site has a downslope in the north-south direction. That means in order to orient buildings in the north-south direction, significant additional grading would be needed, increasing greenhouse gas emissions. While some buildings, depending on size and location, may be able to be accommodated in the north-south direction, other buildings may not. In addition, the location of interior roads, exterior access points, location of the San Jacinto Fault, existing natural gas pipelines onsite, etc. will affect the orientation of future buildings such that they may not all be able to be oriented north-south. For reasons such as this, Leadership in Energy and Environmental Design (LEED) certification is required (WLCSP Section 12.8 and MM 4.16.4.6.1C). LEED requirements take a holistic view to incorporate the greatest number of building attributes in order to create a green building. This suggested measure may be a LEED credit and will be considered when selecting LEED credits to apply to the project, if feasible.
31. Provide grass paving, tree shading, or reflective surface for unshaded parking lot areas, driveways, or fire lanes that reduce standard black asphalt paving by 10 percent or more.*	**Already Included.** The project would provide tree canopy shade coverage for at least 50 percent of the parking lots at maturity (WLCSP Section 5.2.7.7). In addition, MM 4.16.4.6.1A requires cool pavements.
32. Electrical outlets shall be installed on the exterior walls of all residential and commercial buildings (and perhaps parking lots) to promote the use of electric landscape maintenance equipment.*	**Included.** This has been added to MM 4.3.6.4A.
33. Prohibit gas powered landscape maintenance equipment within residential, commercial, and mixed-use developments. Require landscape maintenance companies to use battery powered or electric equipment or contract only with commercial landscapers who operate with equipment that complies with the most recent California Air Resources Board certification standards, or standards adopted no more than three years prior to date of use or any combination of these two themes.*	**Not Included.** Landscaping emissions are negligible (less than 1 $MTCO_2e$ and less than 1 pound per day of VOC, NOx, PM_{10}, and $PM_{2.5}$); therefore, this measure would not substantially reduce air pollutant or greenhouse gas emissions.
34. Implement parking cash-out program for non-driving employees.*	**Partially Included.** Employers operating at WLC will be required to comply with SCAQMD Rule 2202, which achieves the goals requested by the commenter.
35. Require each user to establish a carpool/vanpool program.*	**Already Included.** MM 4.3.6.4A requires that the tenants participate in Riverside County's rideshare program, which has a carpool/vanpool program. In addition, employers operating at WLC will be required to comply with SCAQMD Rule 2202, which achieves the goals requested by the commenter.

Suggested Mitigation Measure	Response
36. Create a light vehicle network, such as a neighborhood electric vehicle (NEV) system.*	**Not Incorporated.** MM 4.3.6.4A requires the installation of electric vehicle charging systems. There is not expected to be any relationship between tenants at the WLC. As result, there is no need to for individuals to travel between buildings on a routine basis. As such, there is no need for a neighborhood electric vehicle system.
37. Provide preferential parking for carpool/vanpool vehicles.*	**Already Included.** MM 4.3.6.4A requires preferential parking for carpool/vanpools. In addition, employers operating at WLC will be required to comply with SCAQMD Rule 2202, which achieves the goals requested by the commenter.
38. Provide subsidies or incentives to employees who use public transit or carpooling, including preferential parking.*	**Already Included.** MM 4.3.6.4A requires that the tenants participate in Riverside County's rideshare program, which can provide incentives. In addition, employers operating at WLC will be required to comply with SCAQMD Rule 2202, which achieves the goals requested by the commenter.
39. Provide direct, safe, attractive pedestrian access from project to transit stops and adjacent development.*	**Already Included.** The Specific Plan and MM 4.3.6.4A requires safe pedestrian access.
40. Provide direct safe, direct bicycle access to adjacent bicycle routes.*	**Already Included (40 & 41).** MM 4.3.6.4A requires bicycle lanes.
41. Connect bicycle lanes/paths to city-wide network.*	
42. Design and locate buildings to facilitate transit access, e.g., locate building entrances near transit stops, eliminate building setbacks, etc.*	**Already Incorporated.** Public transit would be incorporated into the design of the WLC. See Section 3.4.6.2 of the FEIR.
43. Construct transit facilities such as bus turnouts/bus bulbs, benches, shelters, etc.*	**Already Incorporated.** Public transit would be incorporated into the design of the WLC. See Section 3.4.6.2 of the FEIR.
44. Provide a display case or kiosk displaying transportation information in a prominent area accessible to employees.	**Incorporated.** This has been incorporated into MM 4.3.6.4A.
45. Provide shuttle service to food service establishments/commercial areas.*	**Not Included.** MM 4.3.6.3D requires an onsite facility for the sale of food and convenience items.
46. Provide shuttle service to transit stations/multimodal centers.*	**Not Included.** Transit-oriented design would be incorporated into the design of the WLC. Transit service will be provided by the Riverside Transit Agency (RTA), which will determine what routes will best serve the WLC when service is extended to the WLC. In addition, a shuttle service may discourage the RTA from providing service to the project.
47. Provide onsite child care or contribute to off-site child care within walking distance.*	**Not Included.** The project health risk assessment did not account for children spending all day at the project site. The Specific Plan, project goals, and project objectives do not promote child care uses. Also, see Response to Comment F-9B-35 for why there is no suitable locations for offsite child care facilities.
48. Implement a compressed workweek schedule.*	**Partially Included (48 and 49).** MM 4.3.6.4A allows for some of these activities which may be appropriate for

Suggested Mitigation Measure	Response
49. Implement home-based telecommunicating program, alternate work schedules, and satellite work centers.*	some office workers, but warehouse workers must be onsite for specific shifts, even if they are during off-peak times. Future development will also comply with the City's established greenhouse gas policies.
50. All buildings shall be constructed to LEED Platinum standards.*	**Partially Included.** MM 4.16.4.6.1C requires LEED certification. Specification to Platinum is not needed for the project (see Response to Comment A-4-4).
51. Design buildings for passive heating and cooling and natural light, including building orientation, proper orientation and placement of windows, overhangs, skylights, etc.*	**Already Included.** Page 4.16-39 of the DEIR states, "The project will encourage passive heating and cooling opportunities into the design or modification of the high-cubed warehouse developments and ancillary land uses." MM 4.16.4.6.1B would place skylights where it does not affect placement of solar panels. In addition, MM 4.16.4.6.1B was also edited to include this measure.
52. Construct photovoltaic solar or alternative renewable energy sources sufficient to provide 100 percent of all electrical usage for the entire Project.*	**Partially Included.** MM 4.16.4.6.1C requires onsite solar for the office portion of the logistics warehouses.
53. Install an ozone destruction catalyst on all air conditioning systems.*	**Not Included**. Ozone destruction catalysts apply titanium dioxide coatings to air conditioning systems to, in theory, reduce ozone (O_3) to oxygen (O_2). This is unnecessary. Ozone is an unstable molecule and is not expected to survive as ozone travels through the HVAC system. In addition, research shows that titanium dioxide is likely to convert abundant ammonia to NOx, an ozone precursor. http://newsinfo.iu.edu/news/page/normal/24329.html
54. Construct renewable energy sources sufficient to offset the equivalent of 100 percent of all greenhouse gas emissions from mobile sources (internal combustion engines) for the entire Project. *	**Not Included.** The project would incorporate onsite solar (MM 4.16.4.6.1C). However, it is not feasible to offset the greenhouse gas emissions from offsite mobile sources because the utility does not have the capability to accept the excess solar power generated.
55. Purchase only green/renewable power from the electric company.*	**Not Included**. The project would have onsite solar pursuant to MM 4.16.4.6.1C. In addition, The City does not currently have an option to purchase green power only thru Moreno Valley Utilities (MVU). This was confirmed by Jeannette Olko, Electric Utility Division Manager City of Moreno Valley, December 11, 2013.
56. Install solar water heating systems to generate all hot water requirements.*	**Already Included.** Instantaneous or solar water heaters are required as part of MM 4.16.1.6.1B.

* The commenter indicates that these measures would also reduce greenhouse gas emissions.
Source of suggested mitigation measure: Comment F-13-41

Response to Comment F-13-42. The commenter discusses the non-cancer health hazards from diesel PM as well as potential health impacts to schoolchildren at nearby schools.

The non-cancer health effects of diesel PM are discussed from Master Response-2: Health Effects of Diesel Particulate Matter. The commenter mentions two schools, Rancho Verde High School and El Potrero Elementary School, and claims they are 1 mile from the project. In actuality, the Rancho Verde High School is located about 5 miles southwest of the project and the El Potrero Elementary School is located about 3.5 miles southwest of the project at their closest points. The revised analysis (FEIR, Volume 2, Appendix D) examined potential cancer risks at 36 local schools within about 7 miles of the project. In all cases, the project's cancer risks for school exposures typical of

schoolchildren were less than the SCAQMD's cancer risk significance threshold. See also Response to Comment E-3-7 and Section 5 of the revised air quality analysis (FEIR, Volume 2, Appendix D).

The commenter also indicates that the Office of Environmental Health Hazard Assessment (OEHHA) recently approved a new methodology for estimating cancer risks that emphasizes added exposure risks to children. The revised analysis referred to in the above paragraph did apply the new methodology approved by the OEHHA that implements weighting factors that reflect the increased sensitivity of school-age children to exposures to diesel PM in estimating cancer risks. In addition, the revised OEHHA methodology was applied to the entire analysis. For additional information, see Response to Comment E-3-7.

Response to Comment F-13-43. The commenter expressed concern about asthma and other health related issues regarding diesel emissions. See Response to Comment Master Response-2 in Letter C-3.

The commenter also asks about truck safety on surrounding roadways. Section 4.8.5.3 Truck Related Hazards, evaluated the potential risks related to project trucks on surround roadways as requested by the commenter.

Response to Comment F-13-44. The commenter claims that the cumulative air quality analysis is deficient. The commenter claims that the DEIR did not consider the cumulative impacts of projects that would be constructed simultaneously. Given the uncertainty in the timing of construction of any project, it is speculative to derive any conclusions as to cumulative construction impacts as such timing depends of market demand, regulatory approvals, etc. While the timing of any specific construction project with relation to the proposed construction of the WLC is speculative, it has been determined that the proposed project has a cumulatively considerable contribution to air quality impacts. DEIR states, "…cumulative impacts associated with short-term air quality impacts would be significant and unavoidable" (page 4.3-83). The DEIR also states, "Implementation of the proposed project would unavoidably contribute to significant long-term cumulative air quality impacts" (page 4.3-87). This would include additional air quality contributions from the construction of related projects.

The commenter also claims that the cumulative projects considered in the cumulative impact analysis are not listed or disclosed. This information was in Exhibit 16 of Appendix D of the DEIR and in Appendix E.2 of Appendix D in the DEIR.

The commenter also claims that cumulative hot spots were not addressed. However, this is incorrect, as stated on page 4.3-47 in the DEIR, carbon monoxide hotspots use "plus project" traffic volumes in the assessment. The 2022 cumulative scenarios in the Traffic Impact Analysis incorporate all known land development projects and all funded roadway projects (revised Traffic Impact Analysis, FEIR Volume 2 Appendix L-1, Section 7).

Cumulative Regional Analysis. As discussed in Appendix D of the DEIR (pages 177-189), the cumulative analysis relies in part upon the regional significance thresholds and compliance with the air quality management plans. Because the project's regional emissions would exceed the SCAQMD's significance thresholds, it was determined that the project would result in a cumulative impact. In addition, because it was determined that the project could conflict with the air quality management plan, the project was also determined to be cumulatively significant. A cumulative list of projects for the regional analysis would not be appropriate because ozone is regional in its nature and therefore, all the projects within the South Coast Air Basin would need to be included, which is not feasible.

Localized Analysis. The localized analysis uses background air quality concentrations from the project area, which include current cumulative air quality air concentrations. As is discussed in the Executive

Summary of the revised air quality analysis (also contained in Master Response-1), concentrations of ozone and particulate matter have been decreasing steadily in both the South Coast Air Basin and in the Inland Empire. The SCAQMD's 2012 Air Quality Management Plan also predicts that emissions are expected to decrease in the future (see Figure 5-8 and Figure 5-9, page 5-13 in the 2012 Air Quality Management Plan, also reprinted in the revised air quality analysis, Exhibit 1 and Exhibit 2). Therefore, the use of existing background concentrations is appropriate, since it is conservative. In addition, the localized analysis uses cumulative traffic volumes from the Traffic Impact Analysis, which incorporate all known land development projects and all funded roadway projects.

Health Risk Assessment. There is no cumulative SCAQMD recommended cancer risk threshold. Therefore, for purposes of this project assessment, it was determined that because project-specific cancer risk was less than significant, that there would also be a less than significant cumulative cancer risk impacts (see page 4.3-87 in the DEIR). In addition, the DEIR discusses the SCAQMD Multiple Air Toxics Exposure Study (MATES)-III, which is just one indicator of the background toxic air contaminant risk in the South Coast Air Basin (pages 4.3-87 through 4.3-88 and Figure 4.3.14 in the DEIR). The FEIR discusses MATES-IV, which is an update to MATES-III.

The commenter also claims that the DEIR fails to consider risks in other higher risk areas (San Bernardino, Long Beach, etc.). As shown in Exhibit 12 and Exhibit 15 of Appendix D of the DEIR, the receptor network for the Health Risk Assessment and the localized analysis extends from near Palm Springs to the ports of Long Beach and Los Angeles and includes many higher risk areas such as Mira Loma, Long Beach, and San Bernardino.

Response to Comment F-13-45. (The nature of large-scale logistics operations (receiving, sorting, storing, tracking, repackaging and shipping of large volumes of product) requires the coordinated efforts of a number of operations to achieve the efficiency and productivity necessitated by modern materials-handling operations. These efforts are structured to be highly responsive to market demands and are structured to function on a 24/7/365 basis. Operation and maintenance of modern material-handling systems requires concurrent 24/7/365 on-site, hands-on, high-tech expertise. This coordination of highly-automated, mechanical systems and skilled personnel is incompatible with the concepts of flexible work-schedules, home-based telecommuting, compressed workweek schedules and satellite work centers which are centered around employees working at remote locations.

Response to Comment F-13-46. In support of the DEIR, project biologists conducted updated biological resource field surveys in 2013 (refer to FEIR Volume, Appendices E-1 through E-4) including focused surveys for burrowing owl and Los Angeles pocket mouse. The updated information was used to prepare the MSHCP Consistency Analysis (FCS-MBA 2013 – FEIR Volume 2, Appendix E-1). This report identifies all potentially significant impacts associated with the development of the WLCSP as well as the off-site project related impacts.

Since the EIR for WLCSP is a program level-document, it will not have the specific level of detail required for a project-level CEQA document. Mitigation measures are generally described at a program level, which is appropriate for this CEQA document. Additional environmental documentation prepared at a project-level of detail will be prepared and used to support permitting with the CDFW.

Response to Comment F-13-47. There are three isolated patches of Riversidean sage scrub within the WLCSP area. The first area is located in the southwestern corner and is located within an open-space area of the WLCSP and will not be impacted. The habitat quality is moderate to high with an average species diversity.

The second area is located in the northern portion of the WLCSP and is located on the east side of Theodore Street in the Metropolitan Water District Land. This area has been relatively undisturbed

and contains marginal quality Riversidean sage scrub. The vegetation is sparse with little to know understory.

The third area is located within an abandoned agricultural basin along Gilman Springs Road in the eastern portion of the WLCSP, just north of Alessandro Boulevard.

Response to Comment F-13-48. The DEIR (see FEIR Volume 2) has been revised. Stephen's kangaroo rat (SKR) is a covered species under the Western Riverside County MSHCP.

Response to Comment F-13-49. See Response to Comment F-1-39.

Response to Comment F-13-50. See Response to Comment A-1-1 which includes modifications to MM 4.4.6.3A regarding riparian resources.

Response to Comment F-13-51. According to available research, a 250-foot "clear" setback (i.e., no human activity or improvements) appears to be adequate for a buffer area relative to noise and lighting impacts. This buffer shall be enhanced by an additional setback of buildings, and by the presence of the CDFW Conservation Buffer Area, which was originally purchased to provide a buffer between Mystic Lake and development in Moreno Valley. A minimum 250-foot setback is supported by a compilation of available academic and scientific literature and studies on wildlife impacts from diesel emissions, and the distance established in nesting bird surveys for setbacks from human activity. An additional 150-foot building setback will help provide an additional buffer from building lighting and noise.

A total setback of 400 feet within the WLCSP for any permanent buildings shall be enforced on the southern boundary of the WLCSP. This setback shall provide an additional buffer from building lighting, noise, and air quality concerns. The 400-foot distance to buildings from the boundaries of the Specific Plan will effectively mitigate potential direct and indirect impacts on the SJWA and Criteria Cells to indirect noise, light and air quality impacts associated with both the construction and operation of the facilities.

Response to Comment F-13-52. See Responses to Comments G-64-23, G-64-64, and F-7A-25 which includes a new MM 4.4.6.4C.

Response to Comment F-13-53. See Response to Comment F-7A-9.

Response to Comment F-13-54. The proposed 250-foot buffer area will incorporate many types of land-use options. The buffer area is approximately 70-acres; nearly half of the area will be used for detention basins with spreading structures and the creation of riparian habitat. While the buffer area will include some limited access drives, the detention basins and landscaping will separate the primary project area from the more sensitive habitat areas to the south. The vegetation and landscaping berms will help screen the adjacent habitat from lighting, attenuate noise, and assist in dropping out air-borne pollutants. Based on the most recent focused protocol level surveys, sensitive plant and Los Angeles pocket mouse (LAPM} are considered absent from the project site and will not require relocation (FCS-MBA 2013-FEIR Volume 2 Appendix E-1).

Response to Comment F-13-55. Project-related impacts resulting in quantifiable direct impacts to biological resources not currently covered under the MSHCP would be addressed subsequently through analysis at a lower tier, project-specific level of environmental review. However, conservation of lands purchased with MSHCP Development Fees for the long-term conservation of sensitive species covered under the MSHCP, will also provide similar conservation for plant and wildlife species not covered under the MSHCP. For instance, lands purchased in a Core Conservation Area that contains coastal sage scrub and/or chaparral will provide suitable habitat for Parry's spineflower, which is a covered species under the MSHCP. It will also provide habitat for Robinson's pepper

grass, which is not covered under the MSHCP. MM 4.4.6.1B, as listed in the DEIR, will reduce the project related impacts to a level less than significant. As a result, the contribution of impacts associated with project within the WLCSP, are fully mitigated and will not contribute to cumulative impacts within the region.

Response to Comment F-13-56. See Response to Comment F-13-54.

Response to Comment F-13-57. See Response to Comment A-1-1.

Response to Comment F-13-58. Jurisdictional features will be avoided and unavoidable impacts will be mitigated through the construction of compensatory wetland. Compensatory wetland mitigation will be provided at an appropriate ratio (no less than 1:1 replacement wetland to impacted wetland) to ensure no net loss of wetlands or aquatic resources. Wetland mitigation will be provided concurrent with or prior to impacts and will be provided on-site, if feasible. Significant impacts to jurisdictional drainage features may also be compensated by off-site mitigation or purchase of habitat in an authorized in-lieu fee program, if necessary. For each individual project as it is designed, a Compensatory Mitigation Plan will be prepared for all unavoidable impacts and will be consistent with the USACE/USEPA's Compensatory Mitigation for Losses of Aquatic Resources; Final Rule and the USACE's Standard Operating Procedure for Determination of Mitigation Ratios as discussed in MM 4.4.6.3A.

Response to Comment F-13-59. The commenter requested updated surveys and habitat preservation onsite. Protocol surveys for LAPM were conducted in 2005, 2010, and 2013 within suitable habitat of the WLCSP. In all the years of conducting surveys on the WLCSP, no LAPM have ever been observed within the WLCSP. This shows sufficient evidence that the WLCSP does not provide sufficient habitat to support LAPM, nor is it likely to provide suitable habitat in the foreseeable future. Since there has been no recorded occurrences of LAPM in the northern portion of the SJWA, then the relocation of any individuals to the 250-foot buffer area will not affect LAPM in the northern portion of the SJWA, and a comprehensive strategy is not necessary. A comprehensive strategy would be appropriate if several LAPM were consistently observed within the WLCSP during the previous LAPM surveys. However, based on MSHCP guidelines, each project within the WLCSP will still be required to complete protocol-level surveys for LAPM if they contain suitable habitat and based on the findings, will develop a strategy to handle LAPM issues on a project-level basis. If LAPM was observed within the project site, 90% of the suitable habitat within the WLCSP will be required for conservation until the conservation goals for this species has been met. If more than 90 percent of the suitable habitat onsite cannot be avoided, a Determination of a Biologically Equivalent or Superior Preservation (DBESP) will be required for impacts to LAPM. The DBESP will include all mitigation measures required to provide biologically equivalent or superior preservation of the species.

Response to Comment F-13-60. The commenter questions the feasibility of MM 4.4.6.4F. This mitigation measure, in concert with MMs 4.4.6.4G and 4.4.6.4H shown below, do contain a number of performance standards that will aid in their implementation and protect sensitive species within the 250-foot buffer area.

4.4.6.4F Prior to approval of any discretionary permits for development ~~along the southern border of the WLCSP~~within Planning Areas 10 and 12, a Biological Resource Management Plan (BRMP) shall be prepared to prescribe how the 250-foot ~~"safe zone"~~setback area outlined in Mitigation Measure 4.4.6.1A will be ~~managed~~developed and maintained ~~to provide a buffer and resources for wildlife of the adjacent SJWA.~~ This plan will identify frequent and infrequent vegetation management requirements (i.e., removal of invasive plants) and the planting and maintaining trees ~~along both the north and south sides of the detention basins~~ to

provide roosting and nesting opportunities for raptors and other birds. ~~The BRMP~~The Biological Resource Management Plan will also describe how relocation of listed or sensitive species will occur from other locations as outlined in Mitigation Measures 4.4.6.2A, 4.4.6.4D, and 4.4.6.4E.

~~Preparation and implementation of the BRMP~~The Biological Resource Management Plan shall be ~~to~~reviewed and approved by the ~~satisfaction of the City~~ Planning ~~Division~~Official in consultation with the ~~SJWA~~ San Jacinto Wildlife Area Manager. ~~ThBRMP~~The Biological Resource Management Plan shall cover all the land within the 250-foot setback zone ~~along the entire southern boundary of the WLCSP~~within Planning Areas 10 and 12 Implementation of the plan shall be supervised by ~~the Riverside Land Conservancy or~~ a qualified ~~conservation organization or~~biologist, to the satisfaction of the City Planning Division.

4.4.6.4G Mitigation Measure 4.4.6.1A specifies that a landscape plan shall be submitted with any development proposal for lots adjacent to the ~~CDFW~~California Department of Fish and Wildlife (CDFW) San Jacinto Wildlife Area (SJWA) property prior to issuance of a precise grading permit. The landscape plan shall be prepared by a licensed landscape architect in consultation with a qualified biologist and shall be consistent with the design standards contained in the Specific Plan. No plant species listed in Section 6.1.4 or Table 6.2 of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) shall be installed within the setback area. In conjunction with development adjacent to the ~~CDFW Conservation Buffer Area~~ San Jacinto Wildlife Area (SJWA), cottonwood trees shall be planted within ~~along the southern boundary of~~ the 250-foot ~~"clear~~" setback ~~zone~~ area, consistent with the ~~WLCSP landscaping plan and~~ World Logistics Center Specific Plan plant palette (per DBESP MM 8).

During construction, the runoff leaving construction areas will be directed to onsite detention basins and away from downstream drainage features located offsite. All projects within the WLCSP will be required to prepare a Storm Water Pollution Prevention Plan (as outlined in MM 4.9.6.2B). Regarding the 250-foot setback area, pedestrian and vehicular access to areas of riparian/riverine habitat will be prohibited except for controlled maintenance access. Finally, no grading shall be permitted within conserved riparian/riverine habitat areas except for grading necessary to established or enhance habitat areas (DBESP MM 6, 7, 9, and 10).

4.4.6.4H As outlined in Mitigation Measure 4.4.6.1A, development adjacent to the 250-foot open space setback shall have a six-foot chain link fence or similar barrier to help separate human activity and the buffer area. Any chain link fencing installed on any properties adjacent to the 250-foot buffer area shall have metal mesh installed below and above ground level to prevent animals from accessing new development areas.

Response to Comment F-13-61. The commenter suggests that nine prehistoric of 45 total cultural resources in the project site were tested for significance. It is argued that because testing by Michael Brandman and Associates (MBA) was of limited scope, the research was inadequate and therefore the EIR must be recirculated. There are actually 64 sites in and near the project area and this count will be updated in both the cultural resource assessment and the FEIR Volume 2, Appendix F. Of these, 12 cultural resource sites were evaluated for significance following CEQA Guidelines Section 15064.5 during the analysis. None of the 52 other sites named in the cultural resource assessment will be directly impacted by construction within the WLCSP or off-site infrastructure extensions and therefore no further work on testing for significance was needed or warranted.

In 2006, project archaeologists tested nine prehistoric archaeological sites for significance: CA-RIV-610, CA-RIV-860, CA-RIV-3238, CA-RIV-3343, CA-RIV-3344, CA-RIV-3345, CA-RIV-3346, CA-RIV-8006 and CA-RIV-8007 following CEQA Guidelines Section 15064.5. Each of the prehistoric sites

were placed into Open Space as part of the Specific Plan to comply with avoidance of prehistoric sites as a part of mitigation strategy. Two historic archaeological sites, CA-RIV-4201H and CA-RIV-4210H, were tested by MBA in 2012. These sites were also found to be not significant following CEQA Guidelines Section 15064.5. One decomposing historic structure, CA-RIV-5856, was examined during the 2012 survey and was similarly found not significant. In sum, all known cultural resources that will be directly impacted during construction are considered not significant; therefore, the findings in the EIR are adequate for the purposes of CEQA.

The MBA cultural resource survey that identified cultural resources in the Specific Plan was undertaken following a State Historic Preservation Office (SHPO)-recommended methodology known as the Archaeological Resource Management Report (ARMR) format. This survey was not limited nor vague. The survey fieldwork was undertaken over a period of years as project parcels were available for access. Off-site parcels and parcels in the Specific Plan that are not. Because the EIR accounts for all known cultural resources exposed to view in those parcels under direct control of the proponent, and because the mitigation measures in the EIR account for unknown cultural resources that could be impacted during earthmoving, the mitigation measures are neither vague nor inherently deficient.

Response to Comment F-13-62. The comment suggests that EIR MM 4.5.6.1A provides no option for avoiding significant archaeological or cultural resources. MM 4.5.6.1A is associated with potential impacts to cultural resources in the "Light Logistics parcels." The measure has been modified to include consultation with interested parties prior to final disposition of any newly discovered site that is considered significant. The revised mitigation measure can be found in its entirety in Response to Comment A-3-23.

Response to Comment F-13-63. The comment suggests that EIR MM 4.5.6.1B should contain the caveats of avoidance as the preferred option. MM 4.5.6.1 has been modified to state that, when construction occurs in a parcel deemed part of the "off-site improvements", the project archaeologist shall amongst other considerations:

> ."..*action shall be taken to include but not be limited to: (a) planning construction to avoid archeological sites (preferred option); (b) capping or covering archeological sites with a layer of soil before building on the affected site…*"

The original measure does take into account avoidance, but the revised measure has been modified slightly as a result of this comment to indicate the status of the preferred option. The revised mitigation measure can be found in its entirety in Response to Comment A-3-23.

Response to Comment F-13-64. The comment suggests that EIR MM 4.5.6.1C is vague and uncertain such that this particular mitigation measure is therefore inadequate. The comment also asks that EIR MM 4.5.6.1C(5) be changed such that avoidance of resources uncovered during grading is the preferred option and that excavation and curation is the not preferred option. If curation is required, the resources should be curated in a museum that has agreed to take the resources.

With regard to the comment that MM 4.5.6.1C(5) should be changed such that avoidance is preferred and that data collection/curation are not, CEQA Guidelines 15064.5(f) clearly delineates what the Lead Agency (City) must do when inadvertent archaeological finds are encountered during earthmoving. Under the Guidelines, if such resources are determined not significant by the Lead Agency through the work effort of the project Archaeologist, avoidance need not be the preferred option. If the resources are instead determined significant, the Lead Agency may determine that the resource cannot be avoided due to construction parameters, and excavation/curation would therefore be the only alternative possible. MM 4.5.6.1C(5) has been modified slightly to reflect our clarified

reasoning. The revised mitigation measure can be found in its entirety in Response to Comment A-3-23.

Response to Comment F-13-65. The commenter suggests that future paleontological assessments in off-site areas should be considered deferred mitigation and that such assessment(s) should have taken place before the mitigation measure was written.

The project research showed that there are two types of sediment/rock on the modern ground surface: Holocene Alluvium and Granite bedrock. Off-site areas were not assessed but most of them appear to contain the same soil and rock strata except northeast of the Specific Plan in the foothills of The Badlands.

Research performed for this project, and elsewhere in southern California, suggests that neither sediment/rock type has potential to bear fossils, therefore, where Holocene Alluvium and Granite bedrock exist there is “low” potential for future project-related impacts to significant fossil deposits. Pleistocene Alluvium does have potential for bearing significant fossils but, in this part of southern California, Pleistocene Alluvium occurs at varied depth (including extreme depth) and preservation of fossils within it depends on the lithology of the strata. Some of the Pleistocene sediment may be too coarse to bear fossils, whereas other sediments have good potential but upon visual inspection of cuts will appear sterile. Therefore, once project-related excavations begin, a qualified paleontologist can decide whether or not the exposed strata has a “medium” or “high” chance to bear fossils and paleontological monitoring would then proceed accordingly.

The analysis correctly examines the project area and the study allowed the development of a mitigation measure that allows the project Paleontologist to formulate an appropriate response when and if buried paleontological resources are uncovered during construction. The measure provides performance standards if and when paleontological resources are found during construction.

Response to Comment F-13-66. The comment suggests that the cumulative impacts analysis lacks comparative analysis. California Environmental Quality Act (CEQA) Guidelines Section 15130 require an analysis of cumulative impacts on the basis of either 1) past, present, and probable future projects, which are either approved or being considered for approval by the City or other municipalities (or anticipated to be submitted for consideration, including projects in the design phase or under construction); or 2) growth projections set forth in regional plans, including regional modeling plans. This statement is found in Section 2.0 page 2-22 of the WLC EIR. The growth projections method was used for the cumulative analysis.

The EIR concluded that since no known significant cultural resources will be directly impacted by construction, and all known prehistoric archaeological resources have been included in the Open Space designation within the Specific Plan, there will be no cumulative impacts to cultural resources as a result of this project.

In addition, the EIR has proposed measures that can adequately allow for proper mitigation during construction of the project. The EIR has therefore adequately analyzed the cumulative impacts following CEQA guidelines. It is acknowledged that the loss of cultural resources could have a cumulative effect by potentially reducing the scientific knowledge that can be obtained by the recordation and investigation of archaeological resources; however, since no significant resources will be impacted by the project, there are no cumulative effects.

Response to Comment F-13-67. The Soils Report references a detailed fault study completed in the area of the project where the City’s Seismic Hazard Zone for the postulated Casa Loma segment was projected into the project. Leighton’s detailed study (Leighton, 2013, FEIR Volume 2 Appendix G) concluded that active faulting did not exist in this location; however, the results of localized co-seismic deformation were observed. The Soils Report recommended appropriate mitigation measures for

such hazard, which included removal and compaction of surface soils to support proposed structures. For planning purposes, this over-excavation can be on the order of 5 to 10 feet below planned footing elevations. The actual extent of such mitigation measures will require preliminary design information such as proposed structure location, design grading plans to determine the depth of cut or fill underlying proposed structure, foundations loads as well as settlement tolerances of the structure. With those design criteria, a building specific mitigation approach can be easily provided.

Response to Comment F-13-68. The Soils Report (FEIR Volume 2 Appendix G) and DEIR clearly indicate that the site is considered suitable for the proposed development. The content of Soils Report content is typical of such EIR level studies and in the absence of design level site development plans, including building loads and locations. Preparation of additional studies or addendum reports will be required to further define and verify the extent of corrective measures needed for individual buildings. However, the overall constraints and mitigation measures have been defined in the Soils Report and a future geotechnical study will only be needed to verify the extent of remedial grading or structural setbacks from existing faults, based on those building locations and design requirements.

Response to Comment F-13-69. The recommendations of the Soils Report and any further geotechnical recommendations should be implemented during planning and construction phases of development.

Response to Comment F-13-70. The commenter indicates that the project would emit an exorbitant quantity of greenhouse gas emissions. The DEIR estimated that the project would emit approximately 721,000 $MTCO_2e$/year after buildout. The revised analysis has refined the greenhouse gas emissions estimate and now emissions have decreased by 47 percent (see Master Response-1 for details on a comparison of emissions as estimated in the DEIR and FEIR).

Response to Comment F-13-71. The commenter claims that greenhouse gas mitigation is insufficient and only requires waste mitigation measures. However, as discussed in FEIR Section 4.7, the waste mitigation measure (MM 4.7.6.1A) is the only one that is needed. Although the following mitigation measures are not required to reduce greenhouse gas impacts to less than significant levels, they would also reduce greenhouse gas emissions: MMs 4.3.6.3B, 4.3.6.3C, 4.3.6.3D, 4.3.6.4A, 4.16.1.6.1A, 4.16.1.6.1B, 4.16.1.6.1C, 4.16.4.6.1A, 4.16.4.6.1B, and 4.16.4.6.1C.

Response to Comment F-13-72. The commenter claims that the EIR fails to evaluate the project's consistency with the ARB Scoping Plan.

Page 4.7-38 of the DEIR states, "the strategies are either consistent with or not applicable to the project; therefore, the project does not conflict with the Scoping Plan." **Response to Comment F-13-73.** The commenter indicates that the uncertainty the EIR finds regarding climate change and the impact from international shipping is downplaying the project's effects.

Refer to the discussion on page 4.7-43 of the DEIR that classifies international shipping emissions as speculative.

Response to Comment F-13-74. The commenter states the many trucks onsite should be considered a project and cumulative hazard. Section 4.8 of the DEIR did examine a variety of potential hazards related to the proposed WLC project, including accidents involving trucks on the local freeways and roadways. However, truck safety, which would include fuel fires, explosions, etc. involving an individual truck are typically the purview of the California Highway Patrol (CHP) when trucks are on state routes, the county sheriff or fire department when trucks are on County roads, or the local police and fire departments when those trucks are on City streets. While each warehouse will have dozens of trucks in and around its loading areas at any given time, there is no evidence to

suggest they will be collected together in one place or in large enough numbers to constitute a significant public hazard.

However, to be thorough, the revised DEIR contains a statement in the cumulative analysis of hazardous materials (FEIR Volume 2 Section 4.8.7) that the substantial increase in trucks in and around the WLC site would incrementally increase the risks of accidents involving truck-related fuels (e.g., fire or explosion).

Response to Comment F-13-75. A Water Quality Monitoring Plan for the SJWA will be prepared, which will contain specific performance standards to ensure that runoff does not impact the SJWA.

Consistent with the comments provided by Letter F-13 (Sierra Club and Residents for a Livable Moreno Valley), the text in DEIR Section 4.9.6.3, Page 4.9-42 is amended to include more specific performance requirements to MM 4.9.6.3C. The modified mitigation measure resulting from the comment is not considerable, and is considered to be a minor refinement of the existing measure. The change to the DEIR does not result in a significant impact and has no material effect on the findings of the EIR. The revisions to the text of the DEIR are as follows:

4.9.6.3A Prior to ~~issuance of any grading or building permits~~ discretionary permit approval for individual plot plans a site-specific Water Quality Management Plan (WQMP) shall be submitted to the City Land Development Division for review and approval. The Water Quality Management Plan shall specifically identify site design, source control, and treatment control Best Management Practices that shall be used on site to control pollutant runoff and to reduce impacts to water quality to the maximum extent practicable. The Water Quality Management Plan shall be consistent with the Water Quality Management Plan approved for the overall World Logistics Center Specific Plan project. At a minimum, the site developer shall implement the following site design, source control, and treatment control Best Management Practices as appropriate:

Site Design Best Management Practices

(a) Minimize urban runoff.
(b) Maximize the permeable area.
(c) Incorporate landscaped buffer areas between sidewalks and streets.
(d) Maximize canopy interception and water conservation by planting native or drought-tolerant trees and large shrubs.
(e) Use natural drainage systems.
(f) Where soil conditions are suitable, use perforated pipe or gravel filtration pits for low flow infiltration.
(g) Construct on-site ponding areas or retention facilities to increase opportunities for infiltration consistent with vector control objectives.
(h) Minimize impervious footprint.
~~(i) Maximize the permeable area.~~
(j) Construct streets, sidewalks and parking lot aisles to the minimum widths necessary, provided that public safety and a walkable environment for pedestrians are not compromised.
(k) Reduce widths of street where off-street parking is available.
(l) Minimize the use of impervious surfaces such as decorative concrete, in the landscape design.
(m) Conserve natural areas.
~~(n) Maximize canopy interception and water conservation by planting native or drought tolerant trees and large shrubs.~~
~~(o) Use natural drainage systems.~~

(p) Minimize Directly Connected Impervious Areas (DCIAs).
(q) Runoff from impervious areas will sheet flow or be directed to treatment control Best Management Practices.
(r) Streets, sidewalks, and parking lots will sheet flow to landscaping/ areas that are planted with native or drought tolerant trees and large shrubs.

Source Control Best Management Practices

Source control Best Management Practices are implemented to eliminate the presence of pollutants through prevention. Such measures can be both non-structural and structural.

Non-structural source control Best Management Practices include:

(a) Education for property owners, operator, tenants, occupants, or employees;
(b) Activity restrictions;
(c) Irrigation system and landscape maintenance;
(d) Common area litter control;
(e) Street sweeping private streets and parking lots; and
(f) Drainage facility inspection and maintenance.

Structural source control Best Management Practices include:

(g) MS4 stenciling and signage;
(h) Landscape and irrigation system design;
(i) Protect slopes and channels; and
(j) Properly design fueling areas, trash storage areas, loading docks, and outdoor material storage areas.

Treatment Control Best Management Practices

Treatment control Best Management Practices supplement the pollution prevention and source control measures by treating the water to remove pollutants before it is released from the project site. The treatment control Best Management Practice strategy for the project is to select Low Impact Development (LID) Best Management Practices that promote infiltration and evapotranspiration, including the construction of infiltration basins, bioretention facilities, and extended detention basins. Where infiltration Best Management Practices are not appropriate, bioretention and/or biotreatment Best Management Practices (including extended detention basins, bioswales, and constructed wetlands) that provide opportunity for evapotranspiration and incidental infiltration may be utilized. Harvest and Reuse Best Management ~~Practices (i.e., storage pods) may be used as a treatment control Best Management~~ Practice will be used to store runoff for later non-potable uses.

Site-specific Water Quality Management Plans have not been prepared at this time as no site-specific development project has been submitted to the City for approval. When specific projects within the project are developed, Best Management Practices will be implemented consistent with the goals contained in the ~~m~~ Master Water Quality Management Plan. All development within the project will be required to incorporate on-site water quality features to meet or exceed the approved Master Water Quality Management Plan's water quality requirements identified previously.

Response to Comment F-13-76. The commenter states a new General Plan must be adopted if such a fundamental land use change is approved for the WLC property. The City disagrees, but acknowledges that such a large change in planned land uses should be carefully considered by the City Council prior to making a decision on the proposed WLC property. Since the City Council is the highest elected body in the City, it is appropriate for them to make the determination if the proposed project is consistent with the General Plan, and if it is not, to determine if the proposed General Plan Amendment is in keeping with the overall development principals established by the City Council in the current General Plan.

Response to Comment F-13-77. Vibration impacts due to construction are minimal except for pile driving (see "Transportation and Construction Induced Vibration Guidance Manual," Californian Department of Transportation, June 2004). No pile driving is planned for this project.

Response to Comment F-13-78. Similar to the Highland Fairview Corporate Park, construction of warehousing buildings within the Specific Plan can occur on a 24 hour-a-day, 7 day-a-week basis. However, any specific construction equipment will not be running for more than 10 hours per day, pursuant to mitigation. This is necessitated by the extensive use of poured concrete in the construction of building sites and the logistics buildings themselves. Major concrete pours are most efficiently and economically done in the cooler night and early morning hours. Additionally, the large number of concrete delivery trucks necessary for this construction has a minimal traffic impact in the nighttime hours. Additionally, some construction may be needed on a 24/7 basis to avoid delays for the construction of portions of the project. Therefore, a complete ban on 24/7 construction is infeasible. However, the following changes were made to MM 4.12.6.1D to better address construction noise impacts for onsite rural residences:

~~**4.12.6.1D** All discretionary approvals for development in the WLCSP shall include conditions of approval stating that no nighttime grading shall occur within 2,800 feet of residences south of SR-60 (between 8 p.m. and 6 a.m. on weekends and 8 p.m. and 7 a.m. on weekends or holidays). These restrictions shall be included as part of the Noise Reduction Compliance Plan. As an alternative to this requirement, a temporary construction sound barrier may be used in lieu of the construction buffer, per Mitigation Measure 4.12.6.1E.~~

4.12.6.1D No grading shall occur within 2,800 feet of residences south of State Route-60 between 8 p.m. and 6 a.m. on weekdays and between 8 p.m. and 7 a.m. on weekends. These restrictions shall be included as part of the Noise Reduction Compliance Plan per Mitigation Measure 4.12.6.1A (per Noise Study MM N-2, pg. 51)

See also Response F-13-79 below for examples of equipment noise limitations.

Response to Comment F-13-79. The City's construction noise limit is based on the Leq scale which is an averaging noise scale. The highest construction noise levels will be generated by heavy construction equipment; for example, graders, scrapers, front loaders and tractors. These equipment could operate anywhere on-site during construction. However, it is highly unlikely that a grader or some other high noise generator will be parked for an hour within 50 feet of a residence. Therefore, construction noise generation consistently within 50 feet of a residence is highly unlikely.

Response to Comment F-13-80. The commentator states that *"a lesser increase is likely more significant at a lower levels as more noticeable*." This comment is not supported by any evidence and is contrary to standards adopted by for example the Federal Transit Authority (FTA). At lower noise levels there is minimal speech interference, sleep disturbance, and other activity interference. If the noise level goes up slightly in a low noise environment these activities still are not interfered. However, if the noise level goes up in a high noise environment, then activity interference will go up substantially. Therefore, the comment is inconsistent with adopted standards and with our

understanding of noise impacts. The commenter also states that the "*threshold is only wrongly applied to only traffic noise not stationary noise*." This referenced threshold is not applied to stationary noise because the City has a noise standard that applies directly to stationary noise and is more appropriate for determining impacts.

Response to Comment F-13-81. The statement is incorrect; not all exceedances can be mitigated and therefore, the technical noise report (DEIR Appendix K, page 63) concludes that there will be significant impacts.

Response to Comment F-13-82. The traffic analysis, which the noise assessment is based, includes future planned projects. The cumulative noise impacts are presented in Section 2.3.2 of the technical noise report (Appendix K of the DEIR).

Response to Comment F-13-83. When MM 4.12.6.1A is combined with the other measures significant mitigation of construction noise will be achieved. Setbacks, temporary noise barriers, and other features are required for the control of construction noise. However, even with the mitigation measures, significant construction noise impacts may occur (DEIR Appendix K, page 63 of the technical noise report).

Response to Comment F-13-84. The commenter is correct; the first "weekends" should read "weekdays" for MM 4.12.6.1.D. The mitigation measure has been revised as follows:

~~**4.12.6.1D** All discretionary approvals for development in the WLCSP shall include conditions of approval stating that no nighttime grading shall occur within 2,800 feet of residences south of SR-60 (between 8 p.m. and 6 a.m. on weekends and 8 p.m. and 7 a.m. on weekends or holidays). These restrictions shall be included as part of the Noise Reduction Compliance Plan. As an alternative to this requirement, a temporary construction sound barrier may be used in lieu of the construction buffer, per Mitigation Measure 4.12.6.1E.~~

4.12.6.1D No grading shall occur within 2,800 feet of residences south of State Route-60 between 8 p.m. and 6 a.m. on weekdays and between 8 p.m. and 7 a.m. on weekends. These restrictions shall be included as part of the Noise Reduction Compliance Plan per Mitigation Measure 4.12.6.1A (per Noise Study MM N-2, pg. 51).

Response to Comment F-13-85. The commenter is correct; two alternatives for mitigation are provided (see pages 49 and 50 of the technical noise report DEIR Appendix K). The alternatives provide more flexibility to the developer for mitigating construction noise and could result in better mitigation for the potentially impacted residents.

Response to Comment F-13-86. The measure proposed by the commenter would mitigate construction noise even more than required by the City's Noise Ordinance and therefore, is not necessary.

Response to Comment F-13-87. Please refer to Response to Comment F-13-86.

Response to Comment F-13-88. The suggested mitigation measures contained in the comment either address issues that have been shown not to be an impact or are requiring mitigation above and beyond what is required by the Noise Ordinance. A quick comment on each of the suggested measures follows.

(1) **Temporary Noise Barriers** – these are covered by MMs 4.12.6.1E and 4.12.6.1J.

(2) **Use all electrical equipment** – this is covered by MM 4.3.6.2A in air quality.

(3) **3-minute idling** – MM 4.3.6.2A limits idling to 3 minutes under air quality which is adequate.

(4) **Provide "windows closed" conditions with mechanical ventilation** – The project noise report does not indicate residences along Merwin or other adjacent streets will have interior noise levels in excess of City standards (in addition, the Specific Plan does not allow warehouse buildings within 250 feet of existing residences).

(5) **Upgraded windows for buildings within 250 feet and along major access** roadways - the Specific Plan does not allow warehouse buildings within 250 feet of existing residences, and MM 4.12.6.2A addresses residences along major project traffic routes.

(6) **Keep roads away from "vibration sensitive areas"** – the commenter does not specify what these areas are but the project noise assessment evaluated all project-related noise impacts including vibration and recommended appropriate mitigation (MMs 4.12.6.2A – 4.12.6.2B).

(7) **Resurfacing existing roads to reduce vibration** – the commenter did not specify what roads but project roads but once the streets are constructed by the developer they become public streets and are turned over to the City and the streets will be incorporated into the City's street maintenance program.

(8) **Rubberized asphalt** – the project noise report evaluated this potential mitigation and determined it would not provide sufficient or feasible mitigation over the long-term (FEIR, Volume 2, Appendix K, page 58).

(9) **Maintain pavement quality with repairs upon notice –**Once the streets are constructed by the developer they become public streets and are turned over to the City and the streets will be incorporated into the City's street maintenance program. Pavement both on and offsite will be maintained according to City standards and schedules for public streets. Project trucks will mainly utilize Theodore and the freeways, so there is no identified need to require a higher level of maintenance on area roadways than is currently provided throughout the rest of the City.

(10) **Require resurfacing of roads** – the commenter does not say what roads but pavement both on and offsite will be maintained according to City standards and schedules for public streets. Project trucks will mainly utilize Theodore and the freeways, so there is no identified need to require a higher level of maintenance on area roadways than is currently provided throughout the rest of the City.

(11) **Ban heavy trucks near noise sensitive uses** – project trucks will be restricted to established truck routes within the City, and most project trucks will mainly utilize Theodore and the freeways, and there is no evidence that project trucks would significantly impact noise sensitive uses (unless the commenter is referring to residential uses which are fully evaluated and mitigated to the extent feasible in the DEIR).

(12) **Alternative equipment to reduce vibration** – the project noise assessment does examine noise and vibration impacts related to anticipated construction equipment and recommends appropriate mitigation. The DEIR Section 4.12.5.1 analyzed vibration and found it to be less than significant. CEQA requires mitigation to reduce impacts to less than significant levels, and the mitigation recommended in the project noise report and the DEIR section on noise does reduce construction-related noise to less than significant levels, so there is no requirement to implement "all feasible mitigation" in this regard. In any case, the construction activities mentioned by the commenter will not occur within 250 feet of any existing residence beyond the boundaries of the project site, so additional mitigation is unnecessary.

(13) **Schedule construction to not conflict with "vibration sensitive operations"** – The DEIR Section 4.9.5.1 analyzed vibration and found it to be less than significant. However mitigation recommended in the project noise report and the DEIR section on noise does reduce construction-related noise to less than significant levels during construction. Refer to MMs 4.12.6.1A - 4.12.6.1J in Section 4.12.6.1 of the DEIR.

Response to Comment F-13-89. The commenter states their opinion that that the 2003 Truck Trip Generation Study prepared for the City of Fontana is not an adequate source of truck traffic information as truck traffic represents a much larger portion of WLC's traffic than is assumed in the Fontana study. The commenter states the TIA assumed that most WLC employees will be local and that half of the worker trips will occur on arterial streets and not freeways, and that this understates impacts.

The comment appears to be confusing inputs with outputs. The 2003 City of Fontana *Truck Trip Generation Study* was a traffic count survey taken to determine the truck trip generation characteristics of warehouses. So the truck trip characteristics reported in the study are survey results (i.e. outputs), not assumptions (inputs). The City of Moreno Valley has determined that this is the best available source of truck trip percentages for warehouses and has mandated it use in the City's *Traffic Analysis Guidelines*. Use of the Fontana vehicle mix percentages in the WLC study is therefore in accordance with City policy.

Regarding the residential location of WLC workers and the routes they take to work, the comment is again confusing inputs with outputs. The TIA study team *input* the WLC's proposed land uses into the Riverside County Traffic Analysis Model (RivTAM) model, the model then matched warehouse jobs with the residential locations of potential workers and, using survey data on commute trip behavior, produced a forecast of commute trips for the project. So the predicted locations of WLC workers and their likely routes to work were *outputs* from RivTAM, not assumptions imposed by the analysts. Given that the WLC project would be located in an area with an abundant labor force of potential workers whose skill sets match the demands of the logistics industry, the forecast distribution of commute trips from the RivTAM model is considered reasonable.

Response to Comment F-13-90. The commenter claims that the DEIR improperly relies upon the preparation of future traffic studies for individual development projects within the WLC. The commenter must remember that this DEIR is a programmatic document, and that future specific development requires that a subsequent traffic study be prepared for that specific development to identify the specific timing of improvements to support that proposed development. These subsequent traffic studies must be consistent with and tier off of the "master" TIA" prepared for the overall WLC project as part of this EIR.

Response to Comment F-13-91. See Response to Comment F-13-90.

Response to Comment F-13-92. The commenter claims that the project's mitigation plan relies on Transportation Uniform Mitigation Fee (TUMF) and Development Impact Fee (DIF) but does not identify which improvements are subject to the funding programs. The comment also claims a lack of evidence that payment of the fees is tied to actual implementation of the mitigation measures. For improvements not covered by TUMF or DIF, the commenter acknowledges that fair-share payments can be appropriate mitigation, but says that there is no evidence that other fair-share programs exist (besides TUMF and DIF). The commenter further cites a lack of evidence that the multi-jurisdictional efforts called for in the TIA will be pursued, and states that while fair-share fees can be adequate mitigation for cumulative impacts the applicant must be responsible for the implementation of any measures relative to direct impacts.

The TIA does identify which improvements are subject to TUMF and DIF. For example Table 80 in the TIA (now Table 76 in the TIA, FEIR Volume 2, Appendix L-1) entitled "Cumulative Intersection Impacts and Mitigations includes columns labeled "TUMF Facility?" and "DIF Facility?" with corresponding "yes" or "no" entries identifying which improvements are in the TUMF program and which improvements are in the DIF program. This information is also provided in the text descriptions of the mitigation measures.

The claim that there is a lack of evidence that the TUMF and DIF improvements will be implemented is also incorrect. As explained in Chapter 11, Section A of the TIA, since its inception TUMF has collected more than $554 million in revenues, making it the largest multi-jurisdictional fee program in the nation. It has completed 54 projects in just nine years with several dozen more under development. The projects successfully funded by the program include a variety of road widening, intersection improvements, and freeway interchanges, including:

- Widening Pigeon Pass Road from 2 lanes to 4 lanes from Climbing Rose Dr. to Hidden Springs Dr.
- Widening the Ramona Expressway from 2 lanes to 6 lanes from I-215 to Evans Road
- Improvements to the Ironwood Ave./Moreno Beach Dr. Intersection
- Improvements to the Ironwood Ave./Nason Street intersection
- Adding a northbound lane to Lasselle Street from John F Kennedy Dr. to Alessandro Blvd.
- Widening Oleander Avenue from Perris Blvd to Indian Avenue
- The Van Buren Blvd./SR-91 Interchange project
- Widening State Street in Hemet from 2 to 4 lanes with a center turn lane
- Widening Sanderson Avenue from Menlo to Ramona Expressway

This track record of success is evidence that TUMF projects are very likely to be implemented. Between now and 2035, when the program is scheduled for completion, the TUMF Program is forecast to provide $4.2 billion in arterial road, bridge, intersection and interchange improvements in Western Riverside County. The DIF program has a similar track record of successful implementation. Examples of projects successfully completed using DIF funds include:

- Iris Avenue from Indian Street to Perris Boulevard
- Lasselle Street/Bay Avenue traffic signal
- Lasselle Street/Cottonwood Avenue traffic signal
- Cactus Avenue eastbound improvements from I-215 to Veterans Way

This track record of success is evidence that DIF projects are very likely to be implemented. The DIF program supplements the TUMF program by funding elements of the City's General Plan Circulation Element not covered by TUMF, and for some projects by providing funds for additional capacity beyond what the TUMF project will provide.

Both TUMF and DIF are updated periodically to reflect changes in priorities as development occurs in different parts of the Western Riverside County. Future updates will provide the opportunity to prioritize improvements associated with the WLC.

The commenter is correct that the City cannot guarantee that the multi-jurisdictional efforts called for in the TIA will be successful. This is because it requires actions by third parties, such as Caltrans and other cities, which are not under the City of Moreno Valley's authority. This multi-jurisdictional framework, which is fully disclosed in the TIA, is a matter of state law and cannot be changed for this project. As such, mitigation that requires action on the part of other agencies results in the project impact remaining significant and unavoidable.

The issue of payments for direct impacts is also a matter of state law. The applicant is not responsible, and the City cannot require that an applicant be responsible, for rectifying existing deficiencies such as the condition of Gilman Springs Road. The City must follow the "rough proportionality" rule in the Mitigation Fee Act in determining the project's financial responsibility for improvements.

Response to Comment F-13-93. See Response to Comment F-13-92.

Response to Comment F-13-94. The commenter describes the TIA's mitigation plan for freeways as "convoluted" in that it describes a City policy to improve surface streets that "could serve as alternate routes to freeways." He also suggests that some freeway mitigations were identified as infeasible due to cost or technical concerns without substantial evidence.

The TIA accurately describes complicated regional issues related to the expansion of freeways, which are unrelated to WLC (Chapter 11, Section E DEIR Appendix L). Unlike the surface streets, where intersection improvements are generally both feasible and desirable, the strategic issue for western Riverside County is that major freeway improvements are becoming increasingly problematic over time. A key problem is that the rights-of way are essentially built out in many locations and cannot be expanded without severely impacting existing communities (including loss of homes and businesses, visual intrusion, increased noise and air quality impacts, etc.) and incurring high costs in order to replace overcrossing structures. Moreover, there is a growing consensus that over-provision of freeway capacity facilitates long-distance commuting by car and leads to more auto-oriented residential development on the urban fringe, which in turn increases greenhouse gas emissions. This has resulted in a policy shift away from continued expansion of the freeway system, as reflected, for example, in Riverside County Transportation Commission's (RCTC) Ordinance No. 02-001 which reads in part,

> *"State Routes 91 and 60 and Interstate Routes 15 and 215 cannot cost effectively be widened enough to provide for the traffic expected as Riverside County continues to grow. In addition to the specific highway improvements listed in Section 1 above, congestion relief for these highways will require that new north–south and east-west transportation corridors will have to be developed to provide mobility within Riverside County and between Riverside County and its neighboring Orange and San Bernardino Counties."*

In other words, as a matter of policy, with the exception of spot improvements in some specific locations, the overall strategy to relieve congestion on SR-60 and SR-91 is to improve the capacity of surface streets that could serve as alternate routes to freeways. The policy to forego further widening of some sections of SR-60 and SR-91 is also noted in the Riverside County Congestion Management Program (CMP) which permits LOS "F" for some of the study freeway sections because those sections already operated at LOS "F" when the CMP was established in 1991 (Riverside County Transportation Commission, "2011 Riverside County Congestion Management Program", 2011, page 4-2). For these reasons some of the identified mitigation measures may not be pursued even if they are deemed feasible in an engineering sense.

This situation, which exists regardless of the WLC project, presents a complicated background within which freeway widening is addressed. The most straightforward traffic engineering approach is to identify locations where freeway widening would achieve an acceptable LOS, and that is the approach taken in the TIA. Nevertheless, it was felt that the TIA should disclose the fact that the designated congestion management agency for Riverside County, the RCTC, has determined that such widening may be undesirable and that the development of alternative corridors should be pursued instead. Thus the project's payments into the TUMF and DIF programs, which fund the improvements to major surface street corridors, are mitigation because they help create viable alternative routes that would substitute for freeway travel for some trips. The TIA does not rely on this

approach to mitigate freeway impacts (it uses the freeway improvements measures identified in the TIA); it merely discloses to the public the fact that further widening may not occur as a result of the regional transportation strategy.

In the TIA, improvements were deemed to be infeasible if they would (1) require the acquisition of existing homes or businesses; (2) result in excessive air, noise, or vibration impacts on existing homes, businesses, or sensitive natural environments, or (3) create safety impacts that could be considered less acceptable than a reduced traffic LOS (Chapter 11, Section C DEIR Appendix L-1). The TIA characterized the impacts which could not be feasibly mitigated as significant and unavoidable. See TIA Chapter 11, Sections E and F. In cases where feasibility is uncertain the recommended improvement was treated as feasible in order to produce a conservative estimate of project responsibilities so the project's responsibilities would not be under-estimated.

Response to Comment F-13-95. The commenter states that MM 4.15.7.4A requires no mitigation of traffic impacts but only that a project-specific traffic study be prepared. He claims that this is insufficient in that it fails to incorporate any solution if the assumptions of the TIA are invalid.

The mitigation measure cited by the commenter sets a process in motion by identifying which of the identified mitigation measures are needed at the time each building comes on line. The requirement that the subsequent TIA study follow City guidelines, is intended to ensure that the study results are valid. The subsequent mitigation measures contain the requirements to mitigate the project-level impacts.

Response to Comment F-13-96. The commenter states that MM 4.15.7.4F requires only that the City contact Caltrans. The commenter states that the City has no authority over Caltrans and that this, "is the definition of uncertain and unenforceable mitigation." MM 4.15.7.4E and F have been deleted and replaced with the following:

4.15.7.4E In order to ensure that all of the Project's traffic impacts are mitigated to the greatest extent feasible, the Applicant shall contribute its fair share of the cost of the needed traffic improvements that are not within the City as identified in the World Logistic Center Specific Plan Traffic Impact Analysis (i.e., under the jurisdiction of other cities, the County of Riverside or Caltrans, pursuant to Mitigation Measure 4.15.7.4F). As used in this mitigation measure, the Applicant's "fair share" has been determined in compliance with the requirements of the Fee Mitigation Act, Government Code § 66000 et seq., and, pursuant to § 66001(g), does not require that the Applicant be responsible for making up for any existing deficiencies.

For example, the intersection of Martin Luther King Blvd. and the I-215 northbound ramps (Intersection 85) in the City of Riverside was identified as a place where the World Logistic Center contributes to cumulatively significant impacts, and where the fair share contribution of the World Logistic Center project as a whole was computed to be 6.2%. If the City of Riverside establishes a fair share contribution program consistent with this Mitigation Measure 4.15.7.4F to improve that intersection, then when a certificate of occupancy is to be issued for a 2-million square feet high-cube warehouse in the World Logistic Center (approximately 5% of the entire World Logistic Center project) the amount of the fair share payment due from the Applicant to the City of Riverside would be computed as follows:

Amount Due	=	Total cost of Improvement	×	Total World Logistics Center fair share (6.2%) as determined by Traffic Impact	×	% attributable to the building that is subject to the certificate of occupancy (5%)

Analysis

A × B × C = D
A= % attributable to the building that is subject to the certificate of occupancy (5%) B= Total World Logistics Center fair share (6.2%) as determined by Traffic Impact Analysis C= Total cost of Improvement D= Amount Due

A similar calculation would be done for each subsequent building, with payments for each due at the time of issuance of the certificate of occupancy. As a result, while each building individually would not produce a significant impact, and therefore would not be required to pay any mitigation fees if considered by itself, the total amount of the payments for all of the buildings would be equal to the fair share payment for the entire World Logistic Center to the extent that the responsible jurisdiction has chosen to adopt a fair share contribution funding program consistent with Mitigation Measure 4.15.7.4F.

~~4.15.7.4F~~ ~~City shall participate in a multi-jurisdictional effort with Caltrans and adjacent cities to develop a study to identify fair-share contribution funding sources to supplement other regional and State funding sources necessary to implement the State facility and extra-territorial improvements identified in Tables 4.15.AZ and 4.15.BC necessary to mitigate the identified programmatic impacts to less than significant levels. The study shall include fair share contributions related to other private and public development and shall be based on the nexus requirements contained in the Mitigation Fee Act (Govt. Code Section 66000, et seq.) and 14 Cal. Code of Regs. Section 15126.4(a)(4). The Study shall also be compliant with Government Code Section 66001(g) and other applicable provisions of law. The Study shall set forth a timeline and other agreed upon relevant criteria for implementation of the improvements recommended in this EIR. Once the study is approved, the City shall impose the fair-share fees on each project that is developed under the World Logistics Center as part of the individual review of each development project. Prior to the adoption of the Study, City shall impose a fair-share payment requirements on each development project processed under the World Logistics Center Specific Plan in accordance with the requirements of the Mitigation Fee Act. Required fair share payments shall be made prior to the issuance of occupancy permits for each requested development.~~

4.15.7.4F The Applicant shall pay a portion of the fair share of the cost of traffic improvements identified in the Transportation Impact Analysis for those significantly impacted road segments and intersections for each warehouse building within the World Logistics Center if the impacted jurisdiction has established a fair share contribution program prior to the approval of a building-specific plot plan. The City shall determine whether a fair share program exists in the impacted jurisdiction and, if one does exist, require that the appropriate fees are paid by the Applicant, consistent with the requirements below, prior to the issuance of a certificate of occupancy for the building in question. If no fair share program exists or if the existing programs are not consistent with the requirements below, then no payment of fees shall be required. The impacts are to be determined on a road segment or intersection basis. Nothing in this condition requires the payment of a traffic impact fee imposed by another jurisdiction which covers improvement to facilities where the project does not have a significant impact.

> Fair-share contributions will be determined on a building-by-building basis as a share of the impact of the Project as a whole (for each segment or intersection where the World Logistics Center project as a whole has a significant impact identified in the Programmatic Environmental Impact Report) as determined by the Traffic Impact Analysis and will be due as each certificate of occupancy is issued. The fair share payments for the significantly impacted road segments and intersections identified in the Programmatic Environmental Impact Report will be required even though the impact resulting from a specific building does not, by itself, cause a significant impact.

As the commenter acknowledges, the City has no authority to compel Caltrans to implement the freeway mitigation measures identified in the TIA. By pledging to work with Caltrans to establish a funding mechanism the City is going as far as its legal authority allows. The TIA fully discloses this information and correctly identifies impacts to State freeways as "significant and unavoidable" because mitigation cannot be guaranteed by the City. See TIA Chapter 11, Sections E and F, DEIR Appendix L-1.

Response to Comment F-13-97. The commenter states that the project relies heavily on the TUMF and DIF programs to reduce impacts. He questions whether the improvements from these programs will be done promptly given that a significant amount of streets impacted are not funded.

As with the previous comment, the City cannot guarantee action by other agencies as the City has no authority over other partner agencies, and this information has fully disclosed this in the TIA. However, it is already the policy of RCTC to prioritize improvements that support economic development projects such as WLC. To quote from RCTC's *Commission Policy Goals and Objectives* statement:

> ***"Encourage Economic Development***
>
> *Transportation decisions will consider the economic benefits derived from any improvement, and, where feasible and practical, will pursue transportation alternatives that enhance or complement economic development.*
>
> - *Commit to seek opportunities related to transportation projects that will create jobs and improve the economic base in the County.*
> - *Support local agencies in the design and construction of interchanges that are in proximity to regional economic centers and developments.*
> - *Support local projects, consistent with countywide transportation goals, which enhance business development, local employment, and area tourism."*

So while the City is not in a position to guarantee that TUMF funds will be directed toward projects associated with the WLC, there is strong reason to believe that this will occur.

The City of Moreno Valley prioritizes the expenditure of DIF funds in periodic updates of its Capital Improvement Program (CIP). Projects are prioritized based on several factors, including consideration of where development is taking place. There has not been much development activity at the eastern end of Moreno Valley where the WLC site is located, so it has not been a high priority area for DIF funding. However, if the WLC is approved and development begins to take off there then projects in this area will receive a higher priority and get funded sooner.

Response to Comment F-13-98. The commenter cites passages from the 2011 Annual Report, Transportation Uniform Mitigation Fee Program in support of contention that TUMF cannot be relied on to mitigate project impacts. He states that TUMF improvements can take up to 9 years to become

reality. He adds citations about which projects are currently scheduled for funding and the fact that project prioritization, programming, and allocation of funds may present barriers to improvements.

The commenter's contention that some of the improvements are not on TUMF's current project funding list overlooks the fact that the project list is periodically updated. Projects designed to support the WLC are not on the list because the WLC has not yet been approved; if the City approves the WLC then the project list will be adjusted to reflect this major economic development (see Response to Comment F-13-97, which describes priorities used in project selection). The comment puts the cart before the horse in terms of how prioritization, programming, and allocation of funds work in the TUMF program.

The commenter's statement that project development can take "up to 9 years" seems to be derived by adding together the maximum time required for each of the six steps of project development identified by Western Riverside Council of Governments (WRCOG). Looking at the minimum time required for each step would produce a more accurate statement such as "TUMF improvements can require anywhere from less than 2 years to as long as 9 years to become reality." This timeframe is reasonable when compared to the time required to build out the WLC project.

Response to Comment F-13-99. The water supply impacts are assessed and mitigated as discussed in Section 4.16.1.6.1 *Adequate Water Supply* of the DEIR. Eastern Municipal Water District (EMWD) has sufficient supplies to meet the needs of this project. In accordance with the provision of Senate Bill 221 and Senate Bill 610, a Water Supply Assessment (WSA) was prepared by EMWD specifically for this project, the World Logistics Center. That document is included in the DEIR Appendix M Water Resources. As outlined in Section 5-4 Conclusion, page 24 of the WSA, "*Based on present information and the assurance that Metropolitan Water District (MWD) is engaged in identifying solutions that, when combined with the rest of its supply portfolio, will ensure a reliable long-term water supply for its member agencies, EMWD has determined that it will be able to provide adequate water supply to meet the potable water demand for this project as part of its existing and future demands."*

Response to Comment F-13-100. As outlined in the DEIR Appendix M *Water Resources*, the WSA Section 3.2 Project Demand indicates that the projected water demand for the project is 1,991.25 acre feet per year. The water demand is made up of two components, building demand and irrigation demand. The WSA states that, "*A majority of the estimated demand would be for landscape irrigation. The developers of this project are proposing very low water use landscaping which would reduce the projected project demand significantly*." To determine the potential reduction in demand with the low water use landscaping the difference in the project demand and building demand was determined. The building demand is 450 acre feet per year as outlined in the Technical Memorandum World Logistics Center Water Demands and Waste Water Generation for Buildings dated March 13, 2012. The maximum potential reduction in irrigation demand due to the use of drought tolerant plants is the difference between the WSA project demand of 1,991.25 acre feet per year and the building demand of 450 acre feet per year which equals 1,541,25 acre feet per year. MMs 4.16.1.6.1A, 4.16.1.6.1B, and 4.16.1.6.1C will be implemented to mitigate the water supply impacts to less than significant.

Additional information has been added to the *Hydrology and Water Quality Master Plan of Drainage Report* (FEIR Volume 2 Appendix J-1) to provide specific information for the drainage systems to include the size, capacity, design, function and maintenance requirements of the detention basins. The detention basins have been modified to combined detention and infiltration. Additional analysis has been performed to detail the infiltration capacity of the basins and indicates that runoff leaving the project site will be less than or equal to the existing condition. Infiltration after the project will be greater than the existing condition. Additional details on the spreading areas and mitigation of flow volumes and velocities at the project boundary have been added to the Master Plan of Drainage

Report and are summarized in Responses to Comments B-3-37 and B-3-39 in Letter B-3 from the California Department of Fish and Wildlife regarding water-related comments.

Response to Comment F-13-101. The commenter cites a court case regarding the analysis of alternatives. The DEIR did identify the Reduced Density Alternative as environmentally superior to the proposed project, but then rejected it as not meeting the project objectives to nearly the same degree as the proposed project. The commenter has provided no empirical evidence that any of the alternatives would substantially reduce or eliminate one or more significant impacts of the proposed project while largely meeting the objectives of the WLC project. It will be up to the City Council to weigh the benefits versus the impacts of the proposed project and all of the project alternatives before making a decision on the WLC project.

Response to Comment F-13-102. The commenter believes the alternatives analysis in the EIR is not adequate. The EIR does evaluate a reasonable range of alternatives, based on the potential significant environmental impacts of the project identified in the DEIR and the project objectives. The EIR examined impacts of the General Plan land use and Zoning designations at present (i.e., Moreno Highlands Specific Plan) with 7,736 residential units, a Reduced Density Alternative 1 with 30 percent less development than the proposed project, a Mixed Use Alternative 2 with a mix of 1,410 acres of logistics warehousing (22 million square feet), 1,000 acres of light manufacturing, assembly, or business park uses (20 million square feet), 50 acres of retail commercial uses (500,000 square feet), 100 acres of professional or medical office uses (1 million square feet), and 150 acres of open space, and Mixed Use B Alternative 3 which is the Moreno Highlands Specific Plan but with 603 acres of logistics warehousing instead of commercial uses. In addition, the DEIR identified a number of potential alternatives, including all residential uses, that were examined but rejected from further consideration. The commenter has failed to state why the alternatives selected for analysis in the DEIR are not reasonable.

Response to Comment F-13-103. The commenter states the DEIR does not explain Alternatives 1-3. The commenter is correct to some degree in that the DEIR does not provide a potential site plan for any of the proposed alternatives. However, it must be remembered that there is no site plan for the WLC project as proposed either, so it is reasonable to evaluate the potential alternatives at a programmatic level, similar to that in the DEIR for the proposed project. Section 6.3.1 of the DEIR provides a summary of development characteristics of each alternative, plus quantitative and qualitative comparisons to the other alternatives and the proposed project. None of the alternatives reduces air quality and traffic impacts to less than significant. This level of detail is appropriate given the nature of the proposed WLC project, as explained in Section 6 of the DEIR.

Response to Comment F-13-104. The commenter disagrees with the conclusions of the DEIR regarding Alternative 1 as the environmentally superior alternative. Section 6.3.6 of the DEIR did examine the potential environmental impacts of Alternative 1, and found it reduced a number of significant impacts of the project (i.e., incrementally with the reduction in square footage), but it could not reduce those impacts to less than significant levels due to the size and nature of the project and proposed land uses. In addition, Section 6.3.6 evaluated the degree to which Alternative 1 meets the goals of the proposed project, and found that it did not achieve them to nearly the same degree as the proposed project. Therefore, the DEIR correctly rejected Alternative 1 in favor of the proposed project because Alternative 1. However, it will be up to the discretion of the City Council to determine if these conclusions are correct, based on all the evidence available in the record at the time of decision on the project.

Attachments and Citations

1) Western Riverside Council of Governments, 2011 Annual Report, Transportation Uniform Mitigation Fee Program, http://www.wrcog.cog.ca.us/downloads/AnnualReport_for_web.pdf

2) Western Riverside Council of Governments, Funded Expenditures in the Central Zone, http://www.wrcog.cog.ca.us/downloads/2012CentralZoneTIP020612.pdf.

3) The Press Enterprise, Jack Katzanek (February 1, 2012)"Moreno Valley: Skechers' warehouse has caused net job loss," http://www.pe.com/business/business-headlines/20120201-moreno-valley-skecherswarehouse- has-caused-net-job-loss.ece

4) The Health Effects of Air Pollution on Children, Michael T. Kleinman, Ph.D., Fall 2000, http://aqmd.gov/forstudents/health_effects_on_children.html#WhyChildren

5) Diesel and Health in America: the Lingering Threat, Clean Air Task Force, February 2005, http://www.catf.us/resources/publications/files/Diesel_Health_in_America.pdf

6) Annual Meeting of the Brain & Lung Tumor and Air Pollution Foundation, April 2, 2010, http://www.aqmd.gov/hb/2010/April/100425a.htm

7) Technical Support Document for Cancer Potency Factors: Methodologies for derivation, listing of available values, and adjustments to allow for early life stage exposures, California EPA OEHHA Air Toxicology and Epidemiology Branch, April 2009, p. 3. http://www.oehha.ca.gov/air/hot_spots/pdf/TSDCPFApril_09.pdf.

8) California Air Pollution Control Officers Association. (January 2008) CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act.

9) U.S. Department of Transportation, Federal Highway Administration. (August 2006) Construction Noise Handbook, Chapters 3, 4, and 9 http://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/index.cfm

10) Electronic Library of Construction Occupational Safety and Health (November/December 2002) Construction Noise: Exposure, Effects, and the Potential for Remediation; A Review and Analysis.

11) U.S. Department of Housing and Urban Development. (March 1985) The Noise Guidebook.

12) Suter, Dr. Alice H., Administrative Conference of the United States. (November 1991) Noise and Its Effects.

Response to Résumé. This attachment was not directly referenced in the comment letter. It provides personal qualifications and references for Raymond W. Johnson, the commenter on behalf of the Sierra Club. No response is necessary.

Response to Attachment 1. 2011 Annual Report, Transportation Uniform Mitigation Fee Program, Western Riverside Council of Governments, "Five Year Transportation Improvement Program). In Comment F-13-98, the commenter stated that "the roadways reliant on TUMF funds are not presently scheduled for improvement nor are the improvements funded." And attached the 2011 Annual Report, Transportation Uniform Mitigation Fee Program, Western Riverside Council of Governments, "Five Year Transportation Improvement Program (TIP), as a reference to that comment. The commenter apparently believes that if a roadway indicated for mitigation under the TUMF program is not shown in the 2011 annual report, then that improvement is not guaranteed and cannot be relied on when estimating the potential success of recommended mitigation. This is a false assumption, because the WRCOG schedules its TUMFs improvements by 5 year increments on a floating schedule based on fees collected and the prioritized need for various improvements over time. The TUMF by necessity does not show a construction schedule for every planned improvement, but rather includes them in their five year TIP as they are needed based on the TUMFs priority criteria.

Additionally, the transportation improvements assumed to be in place for the General Plan Year 2035 traffic scenario include the transportation improvements contained in the Federal Transportation

Improvement Program (FTIP), the RTP Financially Constrained Project List, and the City of Moreno Valley General Plan road network. The 2012 FTIP covers the first four years of SCAG's 2012-2035 Regional Transportation Plan (RTP). The RTP Financially Constrained Project List covers transportation projects that are next in line to be programmed and included in the four year FTIP. These projects would occur in the 2016-2035 time frame. The General Plan network includes future planned improvements that are funded through the City's Development Impact Fee (DIF), WRCOG's TUMF, and improvements made directly by developers. The expectation that these improvements will be in place is appropriate for the long-term traffic analysis contained in this Program EIR because the General Plan Year 2035 traffic scenario also assumes buildout of the City's General Plan land uses. Most of the City's future transportation improvements will be funded through DIF and TUMF fees collected from future developments projects. If future developments projects do not fully buildout per the General Plan, then the LOS on the study streets and intersection would likely be better than shown in the TIA.

Response to Attachment 2. (Cited but not attached). Since the material was not attached it is unclear why the commenter included it, but it is assumed it is related to TUMF implementation, so see Response to Attachment 1 above.

Response to Attachment 3. (Cited but not attached). Since the material was not attached it is unclear why the commenter included it, but it is assumed it is related to WLC project employment projections, so see Responses to Comments G-90-1 and G-90-2.

Response to Attachment 4. (Cited but not attached). Since the material was not attached it is unclear why the commenter included it, but it is assumed it is related to air quality and health risk impacts of the WLC project, so see Response to Comment F-11-14.

Response to Attachment 5. (Cited but not attached). Since the material was not attached it is unclear why the commenter included it, but it is assumed it is related to air quality and health risk impacts of the WLC project, so see Response to Comment F-11-14.

Response to Attachment 6. (Cited but not attached). Since the material was not attached it is unclear why the commenter included it, but it is assumed it is related to air quality and health risk impacts of the WLC project, so see Response to Comment F-11-14.

Response to Attachment 7. (Cited but not attached). Since the material was not attached it is unclear why the commenter included it, but it is assumed it is related to air quality and health risk impacts of the WLC project, so see Response to Comment F-11-14.

Response to Attachment 8. Attached). This material was included to indicate State recommended procedures for Greenhouse Gas (GHG) emission calculations, and those procedures were followed in the GHG Assessment for the WLC project, as outlined in Section 4.7, Greenhouse Gas Emissions, of DEIR.

Response to Attachment 9. (Attached). This material was included to indicate Federal recommended procedures for construction noise calculations, and those procedures were followed in the Noise Assessment for the WLC project, as outlined in Section 4.12, Noise, of the DEIR, and DEIR Appendix K-1.

Response to Attachment 10. (Attached). This material was included to indicate federally recommended noise protection guidelines for construction workers. CEQA does not require assessment of noise impacts on workers that is covered by separate State and Federal laws and regulations.

Response to Attachment 11. (Attached). This dated material was apparently provided to illustrate Federal noise assessment and public safety guidelines regarding noise impacts. This material has largely been supplanted by more current references which were used in the Noise Assessment for the WLC project, as outlined in Section 4.12, Noise, of the DEIR, and DEIR Appendix K-1.

Response to Attachment 12. (Attached). This dated material was apparently provided to illustrate community noise and public safety guidelines regarding noise impacts. This material has largely been supplanted by more current references which were used in the Noise Assessment for the WLC project, as outlined in Section 4.12, Noise, of the DEIR, and DEIR Appendix K-1.

Letter F-14: Sierra Club, San Gorgonio Chapter (April 30, 2013)

Letter F-14

SAN GORGONIO CHAPTER

4079 Mission Inn Avenue, Riverside, CA 92501 (951) 684-6203
Membership/Outings (951) 684-6203 Fax (951) 684-6172

Regional Groups Serving Riverside and San Bernardino Counties: Big Bear, Los Serranos, Mojave, Moreno Valley, Mountains, Tahquitz, Santa Margarita.

Good Morning Mr. Gross,

Re: World Logistic Center (WLC) Draft EIR

The Sierra Club wishes to add another comment to our letter of April 8, 2013 concerning the World Logistic Center's DEIR. On page three of that letter we mention that the WLC is displacing not replacing many of the Moreno Highlands Housing units. As a result of the updated (2011) Housing Element as well as the City Council's approval of item E.2 on their April 23, 2013 agenda (copied below) and other General Plan Amendments since 2006, the Sierra Club believes the Moreno Valley General Plan is now internally inconsistent – especially with the addition of the WLC. The World Logistic Center's Final EIR needs to prove that Moreno Valley's last General Plan the City approved in 2006 is not and will not be internally inconsistent with the approval of the WLC or the document will be inadequate. Item E.2 (the Alessandro Blvd Corridor Implementation project) has been in planning process since at least 2010 and perhaps for at least five years and therefore must be part of the WLC's traffic analysis. 1

Thank you,

George Hague
Sierra Club
Moreno Valley Group
Conservation Chair

E.2 ALESSANDRO BOULEVARD CORRIDOR IMPLEMENTATION PROJECT, WHICH INCLUDES TWO GENERAL PLAN AMENDMENTS (PA11-0028 & PA12-0046), TWO CHANGES OF ZONES (PA11-0029 & PA12-0047), AND MUNICIPAL CODE AMENDMENT (PA11-0030). THE PROJECT INCLUDES REZONING AREAS ALONG ALESSANDRO BOULEVARD AND NEAR PERRIS BOULEVARD AND IRIS AVENUE TO R30 (RESIDENTIAL UP TO 30 UNITS PER ACRE), 10.46 ACRES TO OPEN SPACE, COMMERCIAL REZONING OF A PARCEL AT THE SOUTHWEST CORNER OF PERRIS BOULEVARD AND GENTIAN AVENUE, AND THE CREATION OF A MIXED USE DISTRICT OVERLAY. THE R30 REZONING WILL PROVIDE CONSISTENCY WITH THE CITY'S CERTIFIED HOUSING ELEMENT
(Report of: Community & Economic Development Department)

RESPONSES TO LETTER F-14

Sierra Club, San Gorgonio Chapter

Response to Comment F-14-1. The commenter believes the City's General Plan will be inconsistent if the World Logistics Center Specific Plan (WLCSP) is approved (mainly relative to the Housing Element). The Traffic Impact Analysis (TIA) prepared for the WLC project did in fact account for the Alessandro Boulevard Corridor Improvement project in its list of planned improvements for 2010. In addition, City staff has conducted an evaluation of the proposed WLC project compared to the current General Plan and has found no inconsistencies as long as the proposed General Plan Amendment (GPA) is approved.

Page 3-12 of the DEIR states…"*The City's 2006 Housing Element identified the Moreno Highlands Specific Plan as a potential source of vacant land that could accommodate possible future residential growth in the City. In 2011, the City updated its Housing Element and anticipated possible land use changes from mixed use and residential to jobs producing warehouses in the eastern part of the City. The 2011 Housing Element concluded that redesignating the entire land area east of Redlands to the eastern City border for warehouse uses would not impede the City's Housing Element Objectives. The State Department of Housing and Community Development certified the City's Housing Element as being in compliance with State law on February 22, 2011. The proposed project is consistent with the City's current Housing Element.*"

The two General Plan Amendments and zone changes cited by the commenter have been accounted for in the latest Land Use Element of the General Plan, and the staff report at that time determined those actions were consistent with other elements of the General Plan. The commenter has not provided any empirical evidence that any elements of the General Plan are inconsistent with each other in relation to the WLC.

Letter F-15: California Clean Energy Committee (June 25, 2013) and Appendices 188–204 (On Flash Drive)

Letter F-15

California Clean Energy Committee

"We're all working together to do a better job for the country."

June 25, 2013

Mr. Mark Gross, Senior Planner
City of Moreno Valley
14177 Frederick Street
Moreno Valley, California 92553

Re: Comments on Draft Program Environmental Impact Report
World Logistics Center Project
(SCH # 2012021045)

Dear Mr. Gross:

Additional documents in support of our letter are attached in a USB flash drive. Please let us know if you have any difficulty accessing them. 1

The mitigation for climate, air quality and energy impacts should require that the developer adopt covenants, conditions, and restrictions requiring all projects on the site to provide electric vehicle charging for employees using Level 2 or Level 3 charging stations that would be consistent with increasing usage needs over time. The development agreement should contain similar provisions. 2

The discussion of mitigation should consider the advantage of requiring employers to provide charging at no cost to employees as mitigation for impacts and should account for companies being able to install Smart Grid enabled charging stations to take advantage of revenues for ancillary grid services. 3

The Goods Movement Appendix to the 2012-2035 SCAG RTP illustrates how the Heavy Duty Truck model can be used to project daily truck trips based on land use designations and the impacts on congestion and air quality. The WLC project, the Heavy-Duty Truck Model should be used to analyze the impacts over time of the increased truck traffic produced by the WLC on major corridors and the EIR recirculated. 4

Also, it should be noted that that the statements in the EIR that the project will comply with Executive Order S-3-05 are unsupported. S-3-05 provides that GHG emissions will be 80 percent below 1990 levels by 2050. 5

California Clean Energy Committee | 3502 Tanager Avenue, Davis, CA 95616-7531

Voice: 530-756-6141 | Facsimile: 530-756-5930

The EIR should also consider the CPUC self-generation incentive program (SGIP) available through the Gas Company which offers incentives up to $5 million or 60 percent of eligible project costs. 6

Respectfully submitted,

Eugene S. Wilson

Enclosures

California Clean Energy Committee | 3502 Tanager Avenue, Davis, CA 95616-7531
Voice: 530-756-6141 | Facsimile: 530-756-5930

APPENDICES

Appendix 188	Honda, FCX Clarity Refueling.
Appendix 189	Hydrogenics, Hydrdogenics' Electrolysis-Based Fueling Stations.
Appendix 190	Electric Vehicle World, Latest Employee Perk in Silicon Valley: Free Electric Car Charging (Mar. 15, 2013).
Appendix 191	Coulomb Technologies, Meet Employee Demand for Electric Vehicle Charging and Energize Green Initiatives at the Workplace (Mar. 2010).
Appendix 192	U.S. DOE, Plug-in Electric Vehicle Basics (Jan. 2013).
Appendix 193	U.S. DOE, EV Everywhere Workplace Charging Challenge.
Appendix 194	U.S. DOE, Workplace Charging Challenge Pledge and Benefits.
Appendix 195	Plug-In Electric Vehicle Collaborative, A Toolkit for Community Plug-In Electric Vehicle Readiness (Aug 2012).
Appendix 196	National Renewable Energy Laboratory, Breakeven Prices for Photovoltaics on Supermarkets in the United States.
Appendix 197	Walmart, Walmart Announces New Commitments to Dramatically Increase Efficiency and Renewables.
Appendix 198	California Air Resources Board, Regulatory Guidance Document.
Appendix 199	California Public Utilities Commission, 2013 Self-Generation Incentive Program Handbook (Feb. 2013).
Appendix 200	Atlantic City Station LLC, Cool Business Districts; District Cooling System Offers Environmental and Financial Benefits.
Appendix 201	Dablanc, L. & Ross, C., Atlanta: A Mega Logistics Center in the Piedmont Atlantic Megaregion (2012).
Appendix 202	Dablanc, L., Logistics Sprawl and Urban Freight Planning Issues in a Major City (forthcoming).
Appendix 203	American Council for an Energy Efficient Economy, Energy Efficiency Potential of the U.S. Freight System: A Scoping Exercise (May 2013).
Appendix 204	Moreno Valley Utility, Quarterly Report of Power Content.

RESPONSES TO LETTER F-15

California Clean Energy Committee

Response to Comment F-15-1. The commenter wants the City to know it submitted a number of additional materials on a flash drive. The City did receive them and has responded accordingly to each item.

Response to Comment F-15-2. Mitigation Measure (MM 4.3.6.4A) has been revised to state:

~~**4.3.6.4A** Prior to the issuance of a building permit for each development within the WLCSP, the developer shall demonstrate to the satisfaction of the City that the project incorporates the following:~~

~~a) All tenants shall participate in Riverside County's Rideshare Program. The purpose of the program would be to discourage single-occupancy vehicle trips and encourage alternate modes of transportation such as carpooling, transit, walking, and biking. The program shall provide employees with assistance in using alternate modes of travel, including carpooling encouragement, ride-matching assistance, and vanpool assistance.~~

~~b) Storage lockers shall be provided in each building for a minimum of three percent of the full-time equivalent employees based on a ratio of 0.60 employee per 1,000 square feet of building area.~~

~~c) Class II bike lanes shall be incorporated into the design for Gilman Springs Road (SR-60 to Alessandro Boulevard), Theodore Street (SR-60 to project), Eucalyptus Avenue (Redlands Boulevard to Theodore Street), and the main roads in the project (Street A, Street B, Street C, Street D, Street E, and Street F).~~

~~d) The project shall incorporate pedestrian pathways between on-site uses.~~

~~e) Site design and building placement shall provide pedestrian connections between internal and external facilities.~~

~~f) The project shall provide pedestrian connections to residential uses within 0.25 mile from the project site.~~

~~g) A minimum of two electric vehicle charging stations for automobiles or light-duty trucks shall be provided at each building.~~

~~h) Each building shall provide secure bicycle storage space equivalent to five percent of the automobile parking spaces provided.~~

~~i) Each building shall provide a minimum of two shower and changing facilities within 200 yards of a building entrance.~~

~~j) Each building shall provide preferred parking for low-emitting and fuel-efficient vehicles equivalent to at least eight percent of the required number of parking spaces.~~

~~k) All discretionary approvals for development shall include a 250-foot setback along the western portion of the site adjacent to Redland Boulevard, Bay Avenue and Merwin Street, from the CDFW property, and between residentially zoned property and logistics buildings in the WLC Specific Plan along Redlands Boulevard, Bay Avenue, and Merwin Street.~~

~~l) Electrical power sources shall be provided for service equipment and docking of trucks to minimize idling emissions and emissions from transportation refrigeration units if such units are to be used. The project applicant shall include in all new lease documents the requirement that tenants shall use only trucks with transportation refrigeration units capable of utilizing electrical hook-ups.~~

4.3.6.4A The following measures shall be incorporated as conditions to any Plot Plan approval within the Specific Plan:

~~a)~~ All tenants shall be required to participate in Riverside County's Rideshare Program.

b) Storage lockers shall be provided in each building for a minimum of three percent of the full-time equivalent employees based on a ratio of 0.50 employees per 1,000 square feet of building area. Lockers shall be located in proximity to required bicycle storage facilities.

c) Class II bike lanes shall be incorporated into the design for all project streets.

d) The project shall incorporate pedestrian pathways between on-site uses.

e) Site design and building placement shall provide pedestrian connections between internal and external facilities.

f) The project shall provide pedestrian connections to residential uses within 0.25 mile from the project site.

g) A minimum of two electric vehicle-charging stations for automobiles or light-duty trucks shall be provided at each building. In addition, parking facilities with 100 parking spaces or more shall be designed and constructed so that at least three percent of the total parking spaces are capable of supporting future electric vehicle supply equipment (EVSE) charging locations. Only sufficient sizing of conduit and service capacity to install Level 2 Electric Vehicle Supply Equipment (EVSE) or greater are required to be installed at the time of construction.

h) Each building shall provide indoor and/or outdoor - bicycle storage space consistent with the City Municipal Code and the California Green Building Standards Code.-Each building shall provide a minimum of two shower and changing facilities for employees.

i) Each building shall provide preferred and designated parking for any combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles equivalent to the number identified in California Green Building Standards Code Section 5.106.5.2 or the Moreno Valley Municipal Code whichever requires the higher number of carpool/vanpool stalls.

The following information shall be provided to tenants: onsite electric vehicle charging locations and instructions, bicycle parking, shower facilities, transit availability and the schedules, telecommunicating benefits, alternative work schedule benefits, and energy efficiency.

The commenter recommends the following mitigation:

Suggested Mitigation Measure	Response
The developer should adopt covenants, conditions, and restrictions requiring all projects on the site to provide electric vehicle charging for employees using Level 2 or Level 3 charging stations that would be	**Included.** MM 4.3.6.4A requires electric vehicle charging stations. Please see the Final Environmental Impact Report (FEIR) Mitigation Monitoring Reporting Program for a list of the

Suggested Mitigation Measure	Response
consistent with increased usage needs over time.	project's mitigation measures.

Response to Comment F-15-3. In the Draft Environmental Impact Report (DEIR) the project provides a mitigation measure that will require that each building provide a minimum of two electric vehicle-charging stations for automobiles or light-duty trucks. (MM 4.3.6.4Ag). Employees' compensation includes both direct components – wages – and indirect components – benefits. The total amount of an employee's compensation is a function of the employment market. Providing free electricity to employees would be an indirect benefit which require that other portions of the employees' compensation be reduced. There is currently no reason to believe that employees would choose free electricity over other direct or indirect compensation nor that it would be particularly effective in getting employees to use rechargeable electric vehicles in lieu of vehicles using more prosaic internal combustion motors. Most employees wouldn't choose electric cars for any number of reasons, including the high initial cost of the vehicle, its short driving range, and potential problems with a relatively new technology. Imposing a requirement that operators of logistics facilities provide free electricity to employees would thus prove a disincentive to both the operator of the facility – which would make getting qualified employees more difficult – and the employees themselves – who would, in large measure not take advantage of free electricity. Providing free electricity would thus be counter-productive and make the achievement of project objectives more difficult.

The commenter recommends the following mitigation:

Suggested Mitigation Measure	Response
Consider the advantage of requiring employers to provide charging at no cost to employees as mitigation for impacts and should account for companies being able to install Smart Grid enabled charging stations to take advantage of revenues for ancillary grid services.	**Not Included.** In the DEIR, the project provides a mitigation measure that will require that each building provide a minimum of two electric vehicle-charging stations for automobiles or light-duty trucks (MM 4.3.6.4Ag). Employees' compensation includes both direct components – wages – and indirect components – benefits. The total amount of an employee's compensation is a function of the employment market. Providing free electricity to employees would be an indirect benefit which require that other portions of the employees' compensation be reduced. There is currently no reason to believe that employees would choose free electricity over other direct or indirect compensation nor that it would be particularly effective in getting employees to use rechargeable electric vehicles in lieu of vehicles using more prosaic internal combustion motors. Most employees would not choose electric cars for any number of reasons, including the high initial cost of the vehicle, its short driving range and potential problems with a relatively new technology. Imposing a requirement that operators of logistics facilities provide free electricity to employees would thus prove a disincentive to both the operator of the facility – which would make getting qualified employees more difficult – and the employees themselves – who would, in large measure not take advantage of free electricity. Providing free electricity would thus be counter-productive and make the achievement of project objectives more difficult.

Response to Comment F-15-4. The commenter requests that the project use the Heavy Duty Truck Model. Southern California Association of Governments' (SCAG) Heavy Duty Truck Model is a component of SCAG's regional traffic model, from which the Riverside County Traffic Analysis Model (RivTAM) model was derived. Therefore, when the Traffic Impact Analysis (TIA) used the RivTAM model it was also using the Heavy Duty Truck Model.

Response to Comment F-15-5. The commenter indicates that statements in the EIR that the project will comply with Executive Order S-3-05 are unsupported. Appendix D of the DEIR indicates that the project does not comply with Executive Order S-3-05; the DEIR Section 4.7 has typographical errors in this regard, which will be fixed in the FEIR.

Response to Comment F-15-6. It is understood that co-generation and self-generation facilities are widely used on large campus single owner parcels to distribute power and provide heating and cooling opportunities for all buildings. This option has been reviewed during the DEIR process and while it may also be used on similar projects outside of California, currently the state does not allow private co-generation systems such as this to cross Public right of way to serve individual property owners (California Public Utilities Code Section 218).

The California Public Utilities Commission (CPUC) self-generation incentive program is available for all future buildings in the WLC if the gas company continues to offer it. It cannot be guaranteed at this stage of development. The appropriate means of conserving natural resources such as natural gas will be determined when a project specific plot plan is processed and details of the specific building proposals are known.

Response to Appendix 170 (Industrial Space in Southern California: Future Supply and Demand for Warehousing and Intermodal Facilities). The appendix was not directly referenced in the comment letter It is assumed the appendix is intended to provide additional information supports the need for more warehousing space. The study's Executive Summary states the following:

- "According to assumed growth rates, the region will run out of suitably zoned vacant land in about the year 2028. At that time, forecasts show that the demand for warehousing space will be approximately 1,023 million square feet (Page ES-1; Exhibit O).

- During the year 2035, there will be a projected shortfall of space of about 228 million square feet, unless other land not currently zoned for warehousing becomes available" (Page ES-2; Exhibit O).

The WLC will contribute to the supply of warehouse space necessary to satisfy a portion of this demand. This SCAG Report supports other data presented in its responses to DEIR comments that there will be more than sufficient demand to support the WLC.

Response to Appendix 188 (Honda, FCX Clarity Refueling). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to alternative hydrogen fueled vehicles.

Response to Appendix 189 (Hydrogenics, Hydrogenics' Electrolysis-Based Fueling Stations). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to alternative hydrogen fueling stations.

Response to Appendix 190 (Electric Vehicle World, Latest Employee Perk in Silicon Valley: Free Electric Car Charging (Mar. 15, 2013)). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to illustrate an employee perk that could be initiated at the WLC.

Response to Appendix 191 (Coulomb Technologies, Meet Employee Demand for Electric Vehicle Charging and Energize Green Initiatives at the Workplace (Mar. 2010)). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to workplaces providing charging stations for plug in vehicles.

Response to Appendix 192 (U.S. DOE, Plug-in Electric Vehicle Basics (Jan. 2013)). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide general information related to plug in vehicles.

Response to Appendix 193 (U.S. DOE, EV Everywhere Workplace Charging Challenge). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to workplaces providing charging stations for plug in vehicles.

Response to Appendix 194 (U.S. DOE, Workplace Charging Challenge Pledge and Benefits). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to workplaces committing to installing charging stations for plug in vehicles.

Response to Appendix 195 (Plug-In Electric Vehicle Collaborative, A Toolkit for Community Plug-In Electric Vehicle Readiness (Aug 2012)). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to preparation communities can take in response to the growth of electrical vehicles in their neighborhoods.

Response to Appendix 196 (National Renewable Energy Laboratory, Breakeven Prices for Photovoltaic on Supermarkets in the United States). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to breakeven prices for solar versus electricity purchased from the grid for supermarkets in the US.

Response to Appendix 197 (Wal-Mart, Wal-Mart Announces New Commitments to Dramatically In-crease Efficiency and Renewables). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to large companies (Walmart) committing to the use of renewable energy.

Response to Appendix 198 (California Environmental Protection Agency Air Resources Board, Regulatory Guidance Document). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to the cap and trade program in California.

Response to Appendix 199. The California Clean Energy Committee's document does not directly refer to its Appendix 199, which is a manual describing how to participate in the Self Generation Incentive Program, which assists companies in the installation of new qualifying technologies to provide electrical energy to a system. To the degree that there is an economic incentive or a legal requirement to participate in such a program, the owners or tenants within the project will consider applying for such funding.

Response to Appendix 200. (Cool Business Districts - District Cooling System Offers Environmental and Financial Benefits). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to district cooling systems.

Response to Appendix 201 (Dablanc, L. & Ross, C., Atlanta: A Mega Logistics Center in the Piedmont Atlantic Megaregion (2012)). The appendix was not directly referenced in the comment

letter. It is assumed the appendix is intended to provide additional information related to the comment "the Heavy-Duty Truck Model should be used to analyze the impacts over time of the increased truck traffic produced by the WLC on major corridors…." The appendix presents analysis on characteristics of the geography of the logistics industry, specifically "logistics sprawl" and the "polarization of logistics activities."

Response to Appendix 202 (Dablanc, L., Logistics Sprawl and Urban Freight Planning Issues in a Major City (forthcoming)). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to the comment the Heavy Duty Truck Model should be used. The appendix presents a study on the "spatial patterns of freight and logistics activities and the planning and policy issues associated with them, using Los Angeles as a case study."

Response to Appendix 203 (American Council for an Energy Efficient Economy, Energy Efficiency Potential of the U.S. Freight System: A Scoping Exercise (May 2013)). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to the comment the Heavy Duty Truck Model should be used. The appendix presents a review of "*three studies on greenhouse gas reduction potential in the U.S. transportation sector…and their findings on reductions in the freight sector through energy efficiency strategies.*"

Response to Appendix 204. (Moreno Valley Utility Quarterly Report of Power Content). The appendix was not directly referenced in the comment letter. It is assumed the appendix is intended to provide additional information related to Moreno Valley Utility Power.

G. LETTERS FROM PRIVATE INDIVIDUALS

Letter G-1: Mike and Linda Cree (March 10, 2013)

Letter G-1

MAR 12 2013

March 10, 2013
Re: World Logistics Warehouse Project, proposed

Dear Sirs

We wish to express our deep concern and opposition to the over-development of warehouses proposed in Moreno Valley's east end. The proposed World Logistics Center Project is ridiculous in scope, completely altering the nature of our valley. It would deteriorate the quality of life for residents and is grossly unfair to property owners who have invested in homes here. 1

Our objections are many-fold, including fears of transportation and traffic congestion, as well as deep concerns about air quality and health risks. If built, the entire corridor along Highway 60 will have increased traffic and air pollution. The effects would not only affect our valley, but be hazardous to surrounding communities as well. 2

The visual blight created by massive warehouses would create an eyesore ridiculed by passersby and surrounding community members. Nearby communities are quoted as regretting the development of warehouses for the same reasons named above ~ traffic, noise, pollution, health risks and visual blight. I hope Moreno Valley can learn from their mistakes and not ruin our valley in the same way. 3

Why are we even considering a huge project such as this? Surely not for jobs. It has already been shown that the number and quality of jobs are minimal ~ not the "high paying" jobs quoted by the proponents. 4 Our valley is not the right location for a warehouse project of this magnitude. The natural smog pocket created by the "badlands" area will cause the pollution to pile up and poison all of us. 5

In summary, we implore our city council, of elected officials, to make the right choice in the development of our valley and to say NO TO WAREHOUSES. It is not the right nor the responsible choice for our valley. It alters our city's general plan and is a breach of trust for the citizenry. 6

Thank you for listening to our voices. Please defeat this bad idea.

Sincerely,

Mike & Linda Cree

Mike and Linda Cree, voters
28974 Gifford Ave
Moreno Valley (Rancho Belago), CA 92555

RESPONSES TO LETTER G-1

Mike and Linda Cree

Response to Comment G-1-1. The many potential environmental impacts of the proposed World Logistics Center (WLC) project are fully evaluated in the Draft Environmental Impact Report (DEIR), including substantial changes in views and land use on the site and for surrounding neighbors and neighborhoods. The City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

Response to Comment G-1-2. None of the comments apply to the Environmental Impact Report (EIR) analysis or conclusions, but are personal observations about the project and project review process. The DEIR concluded that a number of project impacts (e.g., air quality, traffic, etc.) would be significant even after implementation of mitigation, and the City Council would need to adopt a Statement of Overriding Considerations for the project that state what benefits of the project outweigh the identified significant impacts of the project. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project, if it decides to approve the project.

Response to Comment G-1-3. None of the comments apply to the EIR analysis or conclusions, but are personal observations about the project and project review process. The DEIR concluded that a number of project impacts (e.g., air quality, traffic, etc.) would be significant even after implementation of mitigation, and the City Council would need to adopt a Statement of Overriding Considerations for the project that state what benefits of the project outweigh the identified significant impacts of the project. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project, if it decides to approve the project.

Response to Comment G-1-4. None of the comments apply to the EIR analysis or conclusions, but are personal observations about the project and project review process. The DEIR concluded that a number of project impacts (e.g., air quality, traffic, etc.) would be significant even after implementation of mitigation, and the City Council would need to adopt a Statement of Overriding Considerations for the project that state what benefits of the project outweigh the identified significant impacts of the project. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project, if it decides to approve the project.

Response to Comment G-1-5. None of the comments apply to the EIR analysis or conclusions, but are personal observations about the project and project review process. The DEIR concluded that a number of project impacts (e.g., air quality, traffic, etc.) would be significant even after implementation of mitigation, and the City Council would need to adopt a Statement of Overriding Considerations for the project that state what benefits of the project outweigh the identified significant impacts of the project. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project, if it decides to approve the project.

Response to Comment G-1-6. The proposed WLC project includes a General Plan Amendment (GPA) that identifies those portions of the City's General Plan that will be revised if the WLC project is approved, and the GPA was evaluated in appropriate sections of the EIR (e.g., 4.10, *Land Use and Planning*). The City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

Letter G-2: Perry Johnson (email) (March 14, 2013)

Letter G-2

From: perryd57@roadrunner.com [mailto:perryd57@roadrunner.com]
Sent: Thursday, March 14, 2013 9:35 AM
To: Planning Email
Cc: Tom Owings
Subject: WLC Project Questions

WORLD LOGISTICS CENTER PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT (SCH #2012021045) Mark Gross, AICP, Senior Planner, Moreno Valley, California PlanningEmail@moval.org <PlanningEmail@moval.org>

Mr. Gross,

I have some general questions that I have not found an answer to yet. I listened to the city's information on the development, based on full occupancy, and I listened to the counter presentation at Valley View High School on March 9th. I felt both were one sided. I'm looking for more balanced information. I have not heard about the following:

1. How long is the life expectancy of the WLC? Are there any plans beyond the life expectancy of the WLC for the same area? 1
2. Are there any checks and balances as to what companies can locate into the WLC? 2
3. How will the widening of the Panama Canal affect the U.S. West Coast Logistics market? 3
4. Have mitigating factors been considered to segregate the WLC away from existing housing developments, i.e. green zones to the east of Redlands Blvd, south of the 60 Freeway? 4
5. Can traffic regulations/enforcement of regulations keep trucks out of thoroughfares where residences are located, i.e. Cactus from Heacock to Lasselle, and or Alessandro from Frederick to Lasselle, and or Nason Street from the 60 Freeway south, and or Moreno Beach from the 60 Freeway south, and or off Ironwood, or Redlands Blvd through to Redlands? 5
6. I understand the developer and his investors are supplying most of the capitol for the WLC development, but how much will the city have to kick in to fill the basic infrastructure for the WLC?... How much money will the city have to kick in to maintain the WLC per year? How much additional city wide road repair, enforcement costs, and other costs will be incurred annually? Where will that funding come from? As I understand there will be no sales tax generated from the warehousing... How will the city recover costs involved with the creating and maintaining the WLC? 6
7. Are there any plans/contingencies for rail access to the WLC? 7

Thank you for your time. Is there some where these questions can be posted when answered, or have these been answered already? I would be interested in reading other people's comments/questions. 8

I would prefer some other job creating enterprise other than warehousing, but I understand the limitations of government in obtaining those possibilities. Neither for or against the WLC yet… 9

Perry Johnson
11056 Aldren Court
Moreno Valley, CA 92555

cc: tomo@moval.org <tomo@moval.org>

RESPONSES TO LETTER G-2

Perry Johnson

Response to Comment G-2-1. The commenter would like to know the life expectancy of the World Logistics Center (WLC) and if there any plans beyond the life expectancy of the WLC for the same area. The proposed project does not have a specified "life expectancy." The proposed zoning and uses of the site would remain until future action by the City modifies them. For the purposes of the EIR, analyses were conducted through 2035, with additional analyses for health risk looking at 30-year horizons in line with Current OEHHA Guidance.

Response to Comment G-2-2. The commenter is asking whether there are any checks and balances as to what companies can locate into the WLC. Companies operating at the WLC will be subject to all the conditions and mitigation measures contained in the Final Environmental Impact Report (FEIR), the World Logistics Center Specific Plan (WLCSP), and subject to the conditions of the proposed Property Owners Association of the WLC. In addition to complying will these requirements, prospective tenants would need to negotiate with property owners with regard to the terms of a property agreement.

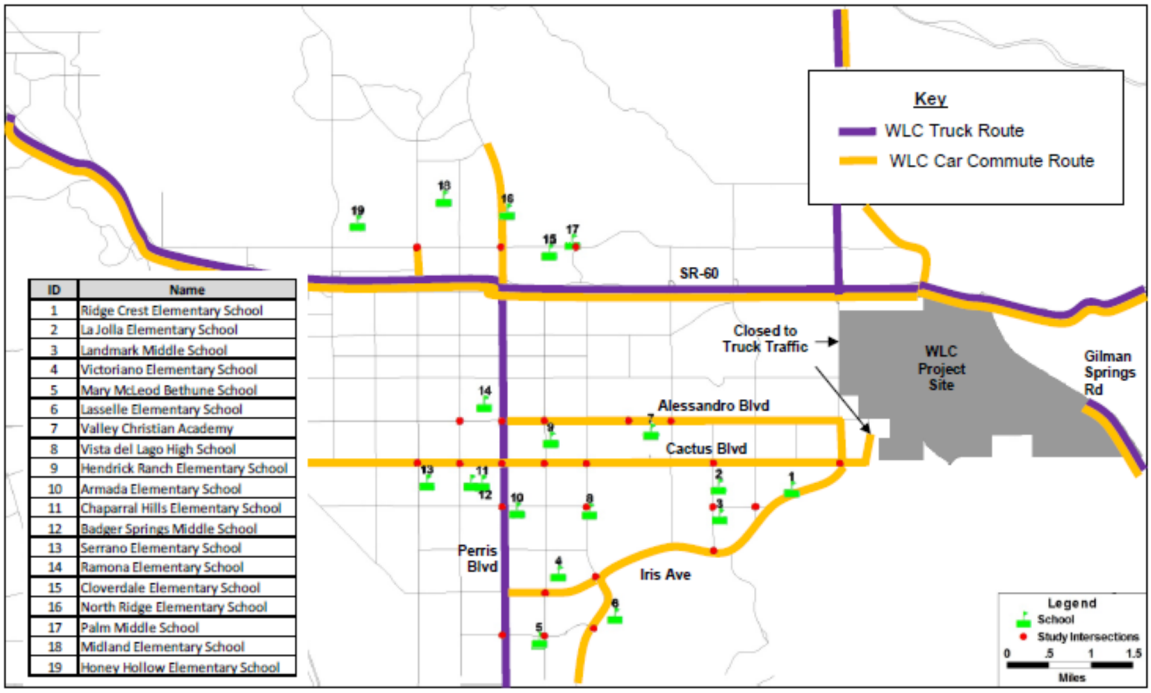
Response to Comment G-2-3. The commenter is asking how the widening of the Panama Canal will affect the U.S. West Coast Logistics market. The widening of the Panama Canal is not expected to impact the overall logistics market. Southern California Association of Governments' (SCAG) June 2010 report, *Industrial Space in Southern California*, estimates that by 2035 there will be a shortage of 228 million square feet of warehouse space in Southern California. As Southern California's population and economy continue to grow, it is expected that there will be increasing demand for goods movement and logistics services. As a result, expected growth and the best available studies indicate there will be strong demand for warehousing in Southern California well into the future (Please refer to Response to Comment G-53-5 for more information on the Panama Canal).

Response to Comment G-2-4. The commenter is asking whether mitigating factors have been considered to segregate the WLC away from existing housing developments, i.e. green zones to the east of Redlands Blvd, south of the SR-60. A number of design features have been incorporated into the design of the WLC to reduce its impacts on the surrounding communities. Those features include prohibiting truck access to Redlands Boulevard, south of Eucalyptus, and between the WLC and Cactus and Alessandro. This would eliminate truck trips through community areas. Additionally, the WLC will have a 250-foot buffer at the project boundaries and 150-foot building setback. This means that all buildings will be a minimum of 400 feet from the project boundaries. Landscaping will also create a visual screen between the WLC and adjacent communities to reduce the visibility of the proposed warehouse structures and improving aesthetics.

Response to Comment G-2-5. The commenter is asking whether traffic regulations/enforcement of regulations keep trucks out of thoroughfares where residences are located, i.e. Cactus from Heacock to Lasselle, and or Alessandro from Frederick to Lasselle, and or Nason Street from the 60 Freeway south, and or Moreno Beach from the SR-60 south, and or off Ironwood, or Redlands Blvd through to Redlands. Cities and counties in California have the authority to adopt codes that restrict the use of trucks on public roadways, though not all jurisdictions choose to do so. The figure below shows the designated truck routes in the vicinity of the WLC. The Cities of Moreno Valley and Perris have designated specific routes while the County of Riverside does not (i.e. trucks may use any County road, though truck parking restrictions may apply).

However, truck access to Cactus, Alessandro, and Redlands (south of Eucalyptus) will be prohibited as part of the project. As a result, the WLC Truck Routes will be SR-60, Redlands (north of Eucalyptus), Perris Boulevard, and Gilman Springs Road, as shown in Exhibit G-2-1 below.

Exhibit g-2-1: Routes Taken by WLC Trips in relation to Schools



ID	Name
1	Ridge Crest Elementary School
2	La Jolla Elementary School
3	Landmark Middle School
4	Victoriano Elementary School
5	Mary McLeod Bethune School
6	Lasselle Elementary School
7	Valley Christian Academy
8	Vista del Lago High School
9	Hendrick Ranch Elementary School
10	Armada Elementary School
11	Chaparral Hills Elementary School
12	Badger Springs Middle School
13	Serrano Elementary School
14	Ramona Elementary School
15	Cloverdale Elementary School
16	North Ridge Elementary School
17	Palm Middle School
18	Midland Elementary School
19	Honey Hollow Elementary School

Response to Comment G-2-6. The David Taussig & Associates report estimates that the proposed project would generate $5.7 million in additional local government revenue, including fees that would provide funding to the general fund, fire/police services, and Moreno Valley School District (Final Environmental Impact Report (FEIR) Volume Appendix O-1).

Any commitments to cost participation by the City are identified in the projects development agreement. The Fiscal and Economic Impact Study (Appendix O of the Draft Environmental Impact Report (DEIR)) analyses recurring fiscal costs to the City in Section 3 of the report with the results summarized in Table 3B. These additional costs will be offset be project tax revenues. A detailed analysis of the project tax revenues are also provided in Section 3 of the study with results being summarized in Table 3A. The overall net fiscal impact to the City of Moreno Valley showing an annual recurring surplus of 5.7 million dollars is summarized in Table 3C. Overall, the proposed project would boost the financial position of the City.

Response to Comment G-2-7. Rail was not considered a viable component of the proposed project for number of reasons. In response to this comment and other similar comments, a detailed response regarding the infeasibility of rail serving the WLC site is now included in the revised Traffic Impact Analysis (TIA) as Section 4.F. Also, refer to Responses to Comments G-53-4 and G-70-5.

Response to Comment G-2-8. All comments received and the responses to those comments are contained in this FEIR, available on the City of Moreno Valley's website.

Response to Comment G-2-9. The existing land use under the Moreno Highlands Specific Plan (MHSP) called for the development of other types of commercial uses. However, the MHSP had two serious weaknesses. The first is the Southern California Association of Governments (SCAG) region has had an over-abundance of land designated for business park uses, which means only the most attractive locations are likely to be developed. Since the MHSP was adopted, most business park development has taken place in the coastal counties rather than in the Inland Empire. Within Moreno

Valley, sites at the eastern end of the city have been less successful in attracting business park uses than sites at the western end, which are closer to March Air Reserve Base and the I-215. Therefore, despite being designated for business park development for the last 20 years, no such development actually occurred in the MHSP, and there is currently strong demand for warehousing in Southern California.

Letter G-3: Scott Thompson (email) (March 25, 2013)

Letter G-3

From: Scott Thompson [mailto:scott028@ca.rr.com]
Sent: Wednesday, February 27, 2013 10:47 PM
To: MV Econ Dev Community Forum
Subject: FW: Tonight's Forum

Dear Leader's of Our Community,

Thank you for putting on the forum in regards to the WLC.

I was taken by the motto "Moreno Valley the best place to do business". I was hoping that it would be "the best place to live". It appears that we might be going from bad to worse. Tonight made me realize that I have an uphill battle to face. I live on the corner of Dracaea and Redlands, directly adjacent from where the WLC may be built.

We were hesitant to move to Moreno Valley, because of its, well known, bad reputation. We found a nice quiet area to live on the east end of town, as I commute the Coachella Valley for my job. We would have never moved to the east end of town or perhaps this community if it was planning on building 40,000,000 sq ft of warehouses there. Most people in my neighborhood pay over $7000 a year in property tax. I don't suppose there are too many communities contributing as much as ours. Rancho Belago has some of the nicest 1

communities in Moreno Valley. Why would you want to ruin it by buy building huge warehouses here?

It was very apparent tonight that the mayor, council and staff are onboard with the plan, even after the DEIR. We live in a community where a very high percentage of our community doesn't have a higher education and or doesn't care about city politics. In the last election less than 5% of the residents voted for the open 5th district council seat. This was apparent again tonight by the low number of people and the lack of diversity in attendance. This community is relying on you to make the best decisions for them. I don't believe this city's leadership is qualified to make this big of a decision that will affect this community for years. Most Council Members and perhaps even the staff do not have the appropriate type of education or the background to comprehend the impact of such a major project.

I have only read a few hundred pages of the DEIR, but it was enough for me to realize that this project is not for this community and perhaps even the county. I realize I have a vested interest in how this turns out because of the proximity of my house to the WLC location. This was a night for the facts to be presented and instead we were given a sales pitch. We even had to be reminded by the mayor of the qualifications of the consultants and that they were a third party group. It appeared to be a justification of sorts.

I lost interest the minute I was told that the CEQA is self governed by the lead agency, our city leadership. When the leadership is on board with the WLC then what kind of results can we expect? Let's be real. There is plenty in the DEIR that should convince us that this is not the best thing for our city. Jobs are important but as was stated over and over, quality of life is what we are really after. I know the people on the east end of town will be negatively impacted, “significantly” as the DEIR states. These are the same households that pay the highest tax rates in Moreno Valley. 1

The economic impact report was a joke. I work for a large medical device manufacturer. I manage and hire warehouse people for a living. None of the warehouse personnel make $40K per year, which was the amount used in the report. Most make between $9-$12 per hour and about one half are temporary. The technicians that manufacture and repair the medical devices only make $15-$18 per hour. I challenge the reports numbers. Are they comparable to what Harbor Freight and Walgreens pay? Also, the volume of jobs is suspect. That is based upon all buildings being occupied at one time. Do you really believe all 41,000,000 sqft. will be occupied at one time and if so by when? Will some not falter and new tenants need to be found? It would be interesting to see how Mira Loma is doing compared to their plan. If this information was available, it should have been shared. It just showed that real numbers were not used. A picture was painted to produce the desired results. There was no talk of initial capital outlay that we will need to support the 50K plus jobs that it will take to build these buildings. Why wasn't this mentioned in the economic report? The report only focused on revenue and should have included potential expenditures as well. This would have provided a complete picture of what we are facing. 2

We should be comparing what 7800 homes would bring to the community verses the WLC. We should review the potential revenue that those households would spend locally. Then compare that to the cost of building sound walls and road improvements to accommodate 3

the truck traffic and mitigate the noise of trucks running through our streets.. The communities that are thriving generally operate on a slow, smart growth model. See Santa Clarita compared to us. Since quality of life is really important to you and our citizens then why not look to the communities that have it and model after them. 3

If most of the jobs were going to be filled by Moreno Valley residents, as was suggested, how will our streets be able to handle the additional traffic? Workers from other communities will also put additional traffic on Hwy 60 and our city streets. Traffic already comes out as far east as Perris Blvd on the 60 during commute times. Lights have been installed on the freeway entrances to help mitigate the traffic. According to the DEIR, we will experience additional traffic almost immediately. How much further east will the traffic go, once the project starts? If anyone has driven on freeways for any length of time, they would know that replacing car traffic with truck traffic will be a disaster. Try driving through the badlands or any area when the truck traffic is heavy. I couldn't believe a reputable consultant would make such a statement. 4

We already live in an area with severe pollution levels. The DEIR indicates it will only get worse, especially as they grade the land and then a few years later with the additional traffic. Sketchers already lights up the sky out here. I can't imagine what 40 more building like that will do. My backyard will be like a stadium all lit up. 5

There is plenty more to review and discuss as I continue to read the DEIR. I was very disappointed with the "show" tonight it was very one sided. Being told that we would have to go into litigation if we wanted to fight it only made matters worse. I felt like those of us opposing were being challenged to try and stop you. To have 60 days to read and respond to the over 10,000 page DEIR is a little much to ask. More time should be granted, especially with a decision of this magnitude. I hope you were serious about working with the community because if you are not Moreno Valley is in for a rude awakening. 6

Please feel free to contact me if you wish to discuss further.

Scott Thompson
13258 Canterbury Downs Way
Moreno Valley, CA 9255

RESPONSES TO LETTER G-3

Scott Thompson

Response to Comment G-3-1. The City Council will consider all stated opinions and comments on the project and Environmental Impact Report (EIR) prior to making any decisions regarding the proposed World Logistics Center (WLC) project.

Attached to this Final Environmental Impact Report (FEIR) as Appendix O-4 is a presentation done by Beacon Economics that reflects their independent Economic Impact Analysis of the WLC. This study was commissioned separately from the David Taussig & Associates (DTA) study was part of the EIR analysis (Appendix O-1 in support of Draft Environmental Impact Report (DEIR) Section 4.13, *Population, Housing, and Employment*) to provide a "second opinion" and separate independent analysis of the potential jobs and other economic aspects of the WLC project. Beacon is a highly respected economics firm based out of Los Angeles, led by Chris Thornberg, a nationally renowned economist. The Beacon study indicates an even higher level of benefit/impact compared to the DTA study for the City of Moreno Valley as a result of the WLC. For example, the Beacon study estimated the WLC project could produce up to 32,201 employees (slide 29, Beacon 2013), while the project economic study (DTA 2014) estimated the WLC project would generate 24,642 employees (page 4.13-9, DEIR Section 4.13, *Population, Housing, and Employment*). The Beacon study is included as Appendix O-4 in the revised DEIR (FEIR Volume 2). The large numbers of employees and other economic factors are the result of the size of the WLC project and not the accuracy or source of the analyses.

Response to Comment G-3-2. The commenter's February 27, 2013 email challenges the wage data used within the DEIR as well as other questions related to the study. The letter provides anecdotal information regarding the author's personal experience with warehouse workers. The DEIR analysis relies exclusively upon governmental sources (i.e. Bureau of Labor Statistics, Employment Development Department and the Census Bureau) for the applicable wage data within the warehousing and logistics sector. Importantly, these numbers have been compiled from data sources within the County and Metropolitan Statistical Areas pertinent to the WLC, as explained in detail in the Responses to Comment G-90-1 and G-90-2. A wide variety of firms locate within a logistics facility such as WLC, and there are a range of employees who will be working there. Some will be characterized by lower incomes as cited by the author of this letter, while others will be more skilled, or involved in trucking or some other higher paid occupation. In terms of initial capital investment, there is no question that the Applicant will be investing significant amounts of capital funding into the project, both to build private structure and to finance the public infrastructure required by the City before the construction of WLC can begin. Neither the amount of the investment nor how it will be obtained are California Environmental Quality Act (CEQA) issues.

Response to Comment G-3-3. The DEIR did examine the potential impacts of developing the approved Moreno Highlands Specific Plan (a residential master-planned community) on the site rather than the proposed project. This is equivalent to the "7,800 homes" alternative stated by the commenter. Section 6.3.5, *No Project-Existing General Plan Alternative*, of the DEIR determined impacts of this alternative compared to the proposed WLC project were as follows:

> *"… short-term construction-related air quality would be similar to the proposed project as the same amount of land would be disturbed and the same mix of equipment would be utilized. Long-term operational-related air quality impacts would be reduced from that identified for the proposed project but would remain significant and unavoidable. Under this alternative, population and housing impacts would be greater in magnitude as residential uses are proposed. Similar to the proposed project, the associated increases in employment are accounted for in the City General Plan and other applicable local and regional plans.*

The development of the No Project/Existing General Plan Alternative would have increased demands on public services and recreation facilities due to the residential component and population growth. The payment of fees and adherence to development requirements would reduce these impacts to a less than significant level. Water supply availability is expected to be available although water demand is increased. Water demand was determined to be available for the proposed project. Because of the increase in vehicle trips achieved under this alternative, impacts to the operation of local roadways and intersections would be proportionally greater that what was identified for the proposed project; therefore, long-term traffic impacts would remain significant and unavoidable. Traffic-related noise would be greater in magnitude and noise impacts would be significant and unavoidable like the proposed project.

*… Under this alternative, only some of the proposed project objectives would be met as a variety of uses would be built…. Development of this alternative would provide new employment opportunities for residents of Moreno Valley but not nearly to the degree as the proposed project." (*DEIR pages 6.15 – 6.22)

An evaluation of economic impacts, while something to be considered by the City Council, is not required of the CEQA process (State CEQA Guidelines Section 15131).

Response to Comment G-3-4. The commenter asks how SR-60 and city streets will handle traffic from workers from Moreno Valley as well as other communities. The commenter states the DEIR indicates the City will experience additional traffic almost immediately. He states replacing car traffic with truck traffic would be a disaster.

The impact of project traffic on city streets have been fully analyzed in the Traffic Impact Analysis (TIA) (see FEIR Volume 2 Appendix L-1), and the measures needed to mitigate these impacts have been described in the report.

The commenter's statement that impacts would occur almost immediately appears to be a misunderstanding concerning the Existing Plus Project scenario in the TIA. That scenario is an analytical tool designed to assign responsibility for mitigation improvements and does not represent an actual proposed plan. The project would be built out over a period of years and as each building is completed an additional traffic study would be conducted to identify which of the identified improvements are triggered by each successive building. Thus, road improvements would stay in step with project development and its generation of traffic.

The TIA does not say car traffic would be replaced with truck traffic. The TIA analysis found car traffic would be reduced at some locations and truck traffic would increase at some locations, which is fully accounted for in the LOS analysis. The difference in the driving characteristics of trucks and cars were accounted for using Passenger Car Equivalent (PCE) factors which vary depending on the type of terrain and design speed of the road. These characteristics were fully accounted for in the analysis using PCE factors approved by Caltrans (see TIA Chapter 2, Section A, sub-section entitled "Passenger Car Equivalents").

Response to Comment G-3-5. None of the comments apply to the EIR analysis or conclusions, but are personal observations about the project and project review process. The DEIR concluded that a number of project impacts (e.g., air quality, traffic, etc.) would be significant even after implementation of mitigation, and the City Council would need to adopt a Statement of Overriding Considerations for the project that state what benefits of the project outweigh the identified significant impacts of the project. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project, if it decides to approve the project.

Response to Comment G-3-6. The commenter asked for more time to review the EIR documents and make comments. The City granted a 60-day EIR review period, instead of the customary 45-days, that began on February 5, 2013 and ended on April 8, 2013, but has been accepting "late" comments submitted by several individuals and the City of Redlands since that time. It appears to be sufficient time for all parties to have reviewed and commented on the EIR.

Response to Comment G-3-7. As much as possible, real numbers were used, despite the fact that specific facility operators generally do not reveal their operating conditions or personnel information, actual industry information is used when it is available.

Response to Comment G-3-8. The commenter is referred to Exhibit A-9 of the fiscal component in the Beacon economic study (Appendix O-4 of FEIR Volume 2) that outlines approximately $1.8M in annual/recurring operation and maintenance costs to support the WLC. For a discussion of one-time fees and charges, please see the text of the Beacon study (Appendix O-4 of FEIR Volume 2). Specifically, the capital outlays will be offset by the tens of millions in development impact and permitting fees that will be paid by future development within the WLC Specific Plan area.

Letter G-4A: Devlin Engineering (March 21, 2013)

Letter G-4A

Devlin Engineering

1120 Pepper Drive, #32 • El Cajon, California 92021 • Tel (619) 966-9589

March 21, 2013

Mr. John C. Terell, Planning Official
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Subject: Objections and comments regarding drainage impacts of the World Logistics Center (WLC)that should be, but are not addressed in the Draft EIR (SCH #2012021045) and conditions for the project regarding drainage onsite and downstream. Planning Cases PA 12-0011, 0012, 0013, and 0015.

Dear John,

The World Logistics Center will have many more impervious surfaces than the residential uses that were part of the existing general plan for this area. As a result, it will greatly increase the size of the drainage facilities that will be required downstream if World Logistics Center does not provide adequate drainage basins onsite. The increased runoff will greatly affect the size of the drainage facilities in this area. Therefore, a portion of the Draft EIR (DEIR)should discuss the impacts on drainage on adjacent properties and all downstream projects and drainage facilities. 1

The Draft EIR should also discuss the affect of changes to the existing drainage basins brought about by the World Logistics Center. As one example, the World Logistics Center will grade out the existing 30+ acre drainage basin located at the Northeast corner of Alessandro Blvd and Merwin Street. The City of Moreno Valley has asked that County of Riverside Flood Control move the drainage basin to properties located at the Northeast corner of Wilmot Street and Cactus Ave. This location is on property owned y Multivac Inc., my client. This location is also shown on the revised Moreno Master Drainage Plan as the Cactus Basin. Riverside County Flood Control is presently preparing a Draft EIR for the revisions to the Moreno Master Drainage Plan. 2

Wrongfully, the World Logistics Center DEIR has utilized a proposed change to the Moreno Master Drainage Plan as if it has been passed and accepted by the Riverside County Board of Supervisors. It also utilizes this change to the Master Drainage Plan to avoid discussing these changes as an effect of their development. Of particular note this preliminary drainage plan shows a 30 acre debris basin relocated from the Northeast corner of Alessandro Blvd and Merwin Street to the Cactus Basin location, which is on Multivac Inc.'s, property. No mention of the relocation of this drainage basin is mentioned in the Draft EIR for World Logistics Center nor is it mentioned in any of the appendices. There are five such drainage basins shown relocated on 3

revised Moreno Master Drainage Plan. Are the locations of all five of the basins designated in the revised Moreno Master Drainage Plan actually the relocation of existing basins caused by construction of the World Logistics Center project?

I was told by City Engineering staff that the location of the Cactus Basin on the revised Moreno Master Drainage Plan is merely conceptual and would vary in location. I was also told that the City of Moreno Valley had no intention of taking Multivac's property without due compensation.

In talking with Kris Flanagan of Riverside County Flood Control I was told the same thing, that the input for the basin locations came from the City of Moreno Valley and the intent was that unlike pipelines, channels and box structures, these basins were located only conceptually and the text of the DEIR for the basin would reflect this. Kris advised me that the actual location would be wherever the City and Flood Control could purchase the appropriate land for the basin. However, I disagree, because in reality, engineers always fight over which side of the street a pipe is shown or on which portion of which particular property the drainage structure is shown. The Drainage Basins proposed as part of the revised Moreno Master Drainage Plan are no different. In fact the fighting has already begun. WLC is utilizing the proposed Moreno MDP as if it has already been passed. Therefore, they are not addressing the impact of their grading out the existing basins and requiring others to provide property for these basins. 3

The staff of the City of Moreno Valley and the County of Riverside Flood Control seem to have made an error and allowed CEQA to be by-passed by WLC. As to my clients property, they have ignored the most feasible sites for the Cactus Drainage Basin. World Logistics Center is a very large project covering over 3,900 acres. It makes more sense that the location for such a drainage basin be on WLC property. The WLC would get credits against its drainage fees and should be in a position to build and provide the facilities for the drainage basin during its grading operations. It is only appropriate that if World Logistics Center is allowed to grade out the existing 30+ acre basin, it provide the area for a new 30+ acre basin on its property east of Merwin Street at Brodiaea Ave or leave it in the existing location.

Additionally, WLC construction could precede all development in the area, making the basin functional from the beginning of any development. For the WLC sites to be left out in the discussions for the location and the feasibility of the Cactus Basin is to ignore the best possible site for such a basin. If the CEQA process continues without a discussion of the WLC site as a possible location of the Cactus Basin, as well as leaving the basin in its present location at Alessandro Boulevard all owners downstream of the intersection of Brodiaea Ave and Merwin Street will be detrimentally affected to the great benefit of World Logistics Center. 4

We do not feel that the City is or should be biased toward the WLC project. Therefore, the DEIR for World Logistics Center should include discussion of the existing location and the WLC property located adjacent and east of Merwin Street as possible locations for the Cactus Basin. If this basin is sized correctly, it would mitigate all increased runoff from the World Logistics Center property and keep all downstream drainage facilities the same size as indicated on the present Moreno Area Drainage Plan. To not discuss this area as a possible location of such a basin is to require larger drainage facilities and loss of property by smaller property owners downstream of WLC. To not discuss leaving the Cactus drainage basin and the other drainage

basins in their present location and any other location on the WLC property is also in our opinion, a violation of the CEQA requirements to discuss all effects of the proposed development. We think the other four drainage basins as shown on the revised Moreno Master Drainage Plan also need to be discussed.

We think this process of putting the relocation of drainage basins on the revised Moreno Master Drainage Plan also violates due process by inadequately informing property owners of the effect to their lands. The initial meeting to kick off the revised Master Drainage Plan was noticed in some local newspaper, which few land owners read . As a result there was little to no public turn out or input at the meeting. My clients object to this lack of notice. If we hadn't seen a copy of the revised MMDP in the appendices of WLC's DEIR we would not have known about the deleterious affect on the Multivac Inc. property. To this day, we have not received written notice of the proposed changes to the Moreno Master Drainage Plan. **We feel it is inappropriate to utilize the revision to the Moreno Master Drainage Plan as a vehicle to move drainage basins onto other people's lands without proper notification.** 4

Additionally, there is at this time, no mention in the DEIR for the World Logistics Center of a double 10 by 10 reinforced concrete box structure crossing Merwin Street north of Brodiaea as shown on the existing Moreno Master Drainage Plan. There is also a double 10 by 10 box culvert required in the existing MMDP crossing Alessandro Boulevard at Merwin Street that is not discussed. These items are shown on the present Moreno Area Drainage Plan and are facilities that would be the responsibility of World Logistics Center. Accordingly, the DEIR should discuss the requirement that World Logistics Center construct all facilities shown on the existing Moreno Master Drainage Plan. 5

We ask that all of the above drainage impacts be made a part of the DEIR text and discussions. We also ask that the following requirements be made a condition on the development of the World Logistics Center: 6

1. All runoff leaving World Logistics Center shall be designed to match the existing Moreno Master Area Drainage Plan of this area. There should be no increases in runoff from this property that could affect any downstream properties or require downstream properties to install increased or larger drainage facilities.

2. World Logistics Center must be conditioned to construct all new drainage basins within their property and to replace all basins they are removing by construction of their project.

3. WLC must be conditioned to replace the 30+ acre Cactus Basin on their property.

My client, Multivac Inc. is very concerned not only about the taking of their property, but about the affect of increased runoff on its properties downstream of WLC and asks that the City be fair and impartial when locating drainage facilities. We are afraid that some bias or favoritism may enter the system as World Logistics Center is a project favored by the City Council. 7

Thank you for your consideration of this matter we look forward to the discussions to follow that will be part of the EIR process.

7

Attached and made a part hereof, please see a letter addressed to Riverside County Flood Control objecting to the process used to develop the revised Moreno Master Drainage Plan and the notifications to property owners.

Thank you.

Sincerely,

Devlin Engineering

James R. Devlin

James R. Devlin, RCE 24655

Contact information:
James Devlin
Devlin Engineering
1120 Pepper Drive, #32
El Cajon, CA 92021
Tel. (619) 966-9589
Cell (858) 442-9549

Attachment: Letter to RCFCD

cc: C. Moothart, Multivac

RESPONSES TO LETTER G-4A

Devlin Engineering

Response to Comment G-4A-1. The World Logistics Center Specific Plan (WLCSP) Draft Environmental Impact Report (DEIR) does discuss the impacts on drainage facilities in Section 4.9.6.1, Drainage Pattern and Capacity Related Impacts. In response to comments additional detail has been provided as outlined in *Appendix J-1 Hydrology and Water Quality Master Plan of Drainage Report*. The mitigation of impacts of the facilities are discussed in *Section 4, Mitigation of Impacts of Proposed Development.* Key elements are summarized in the Responses to Comments B-3-37 and B-3-39 in Letter B-3 from the California Department of Fish and Game, including changes to mitigation measures.

Response to Comment G-4A-2. There are no changes to existing Riverside County Flood Control and Water Conservation District (RCFC&WCD) basins brought about by the WLC project. There is no existing 30+ acre drainage basin at the Northeast corner of Alessandro Blvd and Merwin Street. There is a 4-foot high berm that was constructed by the property owner to prevent sediment-laden flows from sheet-flowing across Merwin Street and Alessandro Blvd. This berm is not a drainage basin. The Cactus Basin shown on the proposed revisions to the Moreno Master Drainage Plan (MMDP) is not a relocation of an existing basin. It is a new basin proposed by RCFC&WCD as part of their revisions to the MMDP.

Response to Comment G-4A-3. The revision to the MMDP by the RCFC&WCD is not being done as a result of or caused by the proposed WLC project. As discussed in Response to Comment G-4A-2 above, the proposed Cactus Basin is not a relocation of an existing basin. The locations of the proposed basins on the revised MMDP are not related to nor are they a result of the WLC project. The proposed WLC project will comply with the existing MMDP and is aware of the proposed revisions to the MMDP. Regardless of any changes to the MMDP ultimately approved by the County of Riverside, the proposed WLC will mitigate its runoff as outlined in Mitigation Measure (MM) 4.9.6.1A.

Response to Comment G-4A-4. As discussed in Response to Comment G-4A-2 there is no existing drainage basin at Merwin St. and Alessandro Blvd. and the proposed Cactus Basin by RCFC&WCD is not a result of the WLC project. Nor are any of the other basins proposed by RCFC&WCD revision to the MMDP a result of the WLC project. The effects of the proposed development are discussed in Section 4.9.6.1 of the DEIR and WLC is constructing 11 detention basins within the project to mitigate the project's runoff to predevelopment conditions as outlined in MM 4.9.6.1A.

Response to Comment G-4A-5. As shown on Figure 4.9.3 in the DEIR Line "A" is a proposed drainage system of the WLC project from Redlands Boulevard at the southerly end of the project to Eucalyptus Avenue at the northerly end. Line "A" is the same as Line "F" in the existing MMDP. The construction of Line "A" will include the construction of any necessary reinforced concrete box structures at the street crossings.

Response to Comment G-4A-6. The WLC is mitigating its runoff as outlined in MM 4.9.6.1A to match pre-development flows. The WLC project is not removing any existing drainage basins as part of the project but is constructing 11 detention basins within the project boundary. RCFC&WCD's proposed Cactus Basin as part of their revision to the MMDP is not related to nor affected by the WLC project, as such the WLC project is not required to replace it.

Response to Comment G-4A-7. The WLC is mitigating its runoff as outlined in MM 4.9.6.1A to match pre-development flows. The mitigation includes construction of detention basins within the project's boundary. The revision to the MMDP by the RCFC&WCD is not being done as a result of or

caused by the proposed WLC project. See separate response to the attachment in Response to Comments G-4B.

Letter G-4B: Devlin Engineering (March 21, 2013)

Letter G-4B

Devlin Engineering

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March 21, 2013

Mr. Kris Flanigan
Riverside County Flood Control
and Water Conservation District
1995 Market Street
Riverside, California 92501

Subject: Comments to be considered during the preparation of a DEIR for the Moreno Master Drainage Plan (MMDP) revision and the World Logistics Center (WLC) Draft EIR (SCH #2012021045).

Dear Kris,

My client, Multivac, Inc. objects to the process Flood Control has used to develop the proposed revision to the Moreno Master Drainage Plan (MMDP). My clients like so many other property owners did not receive any notification of the initial proceedings. We feel that notification of the Draft EIR review should be handled more appropriately with adequate notification given to each property owner that is affected by the project. Putting a notice in the paper and hoping that the thousands of affected property owners would get word is completely inadequate. This is particularly true of the Drainage Basins proposed on the revision to the Moreno Master Drainage Plan. In our phone conversation, you mentioned that there was a very low turnout at the kickoff meeting for this project. We believe this is a direct result of inadequate notification to the affected land owners. 1

We also feel Flood Control has located the drainage basins on the proposed master drainage study inappropriately. We have been told that the location of the basins is conceptual only and that the location could vary. However in the past, engineers and contractors have argued strongly on the location of the facilities as to what side of the street the line is drawn, and on what portion of what lot the facility was drawn. We feel the drainage basins will be no different. In fact, World Logistics Center, a 3,914 acre project abutting Merwin Street seems to have utilized your revised Moreno MDP plans as if it is already adopted and exempts its site from building the Cactus basin. Drawing these "conceptual" basins over one property versus another amounts to a taking of the land without compensation. 2

In regards to the Cactus Basin, it is our opinion that the city has requested this Basin location in order to facilitate the World Logistics Center project. The Cactus Basin is basically a relocation of a 30+ acre basin that exists at the Northeast Corner of Alessandro Blvd and Merwin Street. World Logistics Center will be grading over the existing basin 3

and as a result, the City needs to relocate this basin. This may be the reason the other four drainage basins have been requested on the revised MMDP. The Moreno Master Drainage Plan becomes a convenient instrument to accomplish these changes. World Logistics Center does not have to discuss the effects of grading out and moving the drainage basins. Notification to the public is limited and the World Logistics Center is not viewed as the bad guy nor is the City of Moreno Valley. Isn't this a violation of CEQA guidelines? 3

There are several locations for the Cactus Basin. One location is for it to remain in its existing location at the Northeast corner of Alessandro and Merwin Street. A second location would be to relocate it south of Alessandro Blvd, but North of Brodiaea Ave, which would keep it on World Logistics Center property. A third alternative is to move it to the location suggested on the revision to the Moreno Master Plan of Drainage, which is an area bounded on the east by Redlands Blvd, on the west by Wilmot Street, on the south by Cactus Ave and on the north by Brodiaea Ave. 4

In regards to the Cactus Basin placed as shown on the proposed MMDP, Flood Control has missed the most feasible, logical and reasonable location on the East side of Merwin Street at Brodiaea Ave. World Logistics Center has a 3,918 acre project along the east side of Merwin Street. They will be responsible for providing drainage fees to RCFCD for their 3,918 acres. They could gain credit toward these fees for design and building the Cactus basin within their project. In this way, the basin can be provided at the very beginning of the construction of World Logistics Center and would help mitigate their increased runoff from the impervious building and pavement they will be constructing. 5

To leave this area out of the discussions for location of the Cactus drainage basin is to ignore the best possible site, one which is immediately accessible to build the facilities. Additionally, it would add greenbelt area to a project of warehouses that could blight the area indefinitely. Lastly, 30+ acres out of 3,918 or so would not have a significant effect on their project, unlike my clients property which will be taken completely if the revision to the Moreno Master Drainage Plan is approved. 6

I am enclosing a copy of a letter to the City of Moreno Valley regarding the DEIR on World Logistics Center. It has bearing on the location of the Cactus drainage basin shown on the proposed revision to the MMDP and as attached is made a part of this letter.

Sincerely,

Devlin Engineering

James R. Devlin

James R. Devlin, RCE 24655

attachment: Letter to City of Moreno Valley
cc: C. Moothart, Multivac Inc.

RESPONSES TO LETTER G-4B

Devlin Engineering

Response to Comment G-4B-1. Riverside County Flood Control and Water Conservation District (RCFC&WCD) is responsible for the proposed revisions to the Moreno Master Drainage Plan (MMDP). The revision to the MMDP by the RCFC&WCD is not being done as a result of or caused by the proposed World Logistics Center (WLC) project. RCFC&WCD is responsible for noticing the public on that project.

Response to Comment G-4B-2. As discussed in Response to Comment G-4B-1, Riverside County Flood Control and Water Conservation District (RCFC&WCD) is responsible for the proposed revisions to the Moreno Master Drainage Plan (MMDP). The revision to the MMDP by the RCFC&WCD is not being done as a result of or caused by the proposed WLC project. The WLC is mitigating its runoff as outlined in Mitigation Measure (MM) 4.9.6.1A. RCFC&WCD's proposed location for the Cactus Basin as part of their revision to the MMDP is not related to nor affected by the WLC project.

Response to Comment G-4B-3. There are no changes to existing RCFC&WCD basins brought about by the WLC project. There is no existing 30+ acre drainage basin at the northeast corner of Alessandro Blvd and Merwin Street. There is a 4-foot high berm that was constructed by the property owner to prevent sediment-laden flows from sheet-flowing across Merwin Street and Alessandro Blvd. This berm is not a drainage basin. The Cactus Basin shown on the proposed revisions to the MMDP is not a relocation of an existing basin. It is a new basin proposed by RCFC&WCD as part of their revisions to the MMDP.

Response to Comment G-4B-4. RCFC&WCD's proposed location for the Cactus Basin as part of their revision to the MMDP is not related to nor affected by the WLC project. RCFC&WCD is responsible for evaluating potential locations of the proposed basin.

Response to Comment G-4B-5. See Response to Comment G-4B-4.

Response to Comment G-4B-6. See Response to Comment G-4B-4.

Letter G-5: Devlin Engineering (March 25, 2013) and Appendix 1 (on Flash Drive)

Devlin Engineering

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Letter G-5

March 25, 2013

Mr. John Terell, Planning Official
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Subject: Lack of Aesthetics and buffering by World Logistics Center, and an Alternative to Street D on WLC plans affecting Draft EIR (SCH #2012021045) and Planning Cases PA 12-0011, 0012, 0013, and 0015.

Dear John,

One year ago, I wrote a letter to you on behalf of my clients Multivac Inc., requesting reasonable conditions or inclusions to the World Logistics Center project. In this letter we asked that the project be planned or conditioned to provide buffers against noise, lights, building heights, truck traffic, architecture and land uses to protect adjoining residential neighborhoods. Additionally, up until the end of January of this year we were told by staff and by representatives of World Logistics Center that there were no drawings to review. Now after the Draft EIR is out for public review with only a two month window, maps and exhibits magically appear. The dates on the exhibits indicate that the drawings were available and probably reviewable a whole lot sooner. And, after reviewing the exhibits provided with the Draft EIR for World Logistics, it is apparent that the suggestions in my letter dated March 15, 2012 were ignored. 1

Truck Traffic - Location of Street "D"

World Logistics Center is proposing that Merwin Street, labeled Street D on their plans, be modified to a 112 foot Major Arterial from Alessandro to Cactus. This is not right. This is presently a residential neighborhood. Now, it will be very negatively impacted by an industrial park with no concerns for the citizens that already own homes here. Homes along Cactus Ave and homes along Merwin Street will all be negatively affected. WLC's Street D should have been located another 500 to 1,000 feet east to enter WLC's development where the water tanks meet Cactus Ave. The grades still work to make an intersection and the noise from trucks starting and stopping at an intersection will not affect existing and proposed home owners. Merwin Street should be left alone as a local collector for a residential neighborhood. 2

Noise

If Street D is relocated East 500 to 1000 feet, noise will be mostly eliminated as an issue. The plan as presently proposed with the placement of Street D over Merwin Street is not a good idea. The residences along Merwin and Cactus will be overwhelmed by truck and traffic noise. Traffic lights will be required at the Cactus and Merwin intersection and again at the Merwin and Alessandro intersection. These will magnify truck noise as starting and stopping trucks will create havoc. Please look at moving Street D, as it is shown on WLC's plans, 500 to 1000 feet east to intersect Cactus Ave inside the WLC project. Leave Merwin street as a residential collector for which truck traffic is not appropriate. An alternative and perhaps a better solution might be to close off Merwin Street between 300 feet south of Alessandro Blvd and 800 feet north of Cactus Ave and reroute and extend Cactus Ave as Street D into WLC. See below and on the attached Exhibit A for a description of the benefits of closing part of Merwin Street and part of Brodiaea Ave. — 3

Landscape Buffers

Originally, I thought that the building heights projected for World Logistics Center would be reasonable. In my letter I proposed landscaping setbacks of 20 feet or so. As the World Logistics Center is proposed, 100 feet may be more workable. These buildings will tower over the existing proposed residential uses along Merwin Street. On one of the proposed exhibits for building heights the designation along Merwin Street is for 60 foot tall buildings. Buildings 60 feet tall next to 28 foot high residential buildings is not a buffering use. This is placing overwhelming structures next to residential neighborhoods. And it is highly likely that these buildings will be placed right up against any fencing they are required to build. It will look like the industrial buildings along Newhope Street, just west of City Hall, where the view from any point is just overwhelming buildings with little aesthetic presence or pleasing appearance. — 4

Architecture

Unless some architecturally pleasing elements are added to the sides and rears of the proposed warehouses, World Logistics will become the next major blight on Riverside County. Have any of staff or the City Council driven the area of warehouses near Nandina Street and Perris Ave or the warehouses along Cactus Ave east of Frederick Ave? These are stark neighborhoods except for the frontage of the buildings. These rear and side views are what the majority of residential properties will see from their homes adjacent to the World Logistics Center. Relief has to be provided along the sides and rear of these buildings to make them more aesthetically pleasing to existing and proposed residential uses. — 5

Lights

Warehouse districts have lights, lots of lights. World Logistics Center will be no different. At the western edge of the property the buildings are proposed to be 6o feet in height. Lights placed 60 feet above the ground will be seen completely across the valley. Light placement on the buildings must be placed at a level of no more than 25 feet above the ground with cutoff luminaires. They must be not be comprised of high density light such as mercury vapor lamps or — 6

halogen lamps. The lamps must be low pressure sodium or equivalent lamps with cutoff luminaires. If the 60 foot high buildings are on graded lots that have been raised 10 feet or more off the ground, then the lights must be lowered to 20 feet off the ground and have shrouds that cutoff or limit the distance at which the direct rays from the lamps can be seen. 6

Traffic Lights

Because of the large street section World Logistics Center is proposing for Merwin Street, two Traffic Lights will be required, one at the Intersection with Cactus Street at one end and one at Alessandro Blvd on the other end. These traffic lights will shine into the homes of residences nearby. Trucks and cars will have to stop at all hours of the day and night causing a lot of noise to be generated where presently there is only silence. The existing residences should be protected from the lights and noise generated by WLC, especially on a major arterial that was never supposed to be near this neighborhood. Taking Street D and making it a continuation of Cactus into the WLC development would eliminate both Traffic lights. See below for a description of eliminating Street D and making it an extension of Cactus Ave. 7

Residential Land Uses

We do not feel that the City of Moreno Valley is doing enough to protect the existing, home owners and proposed residential land uses from the massive impacts of World Logistics Center. We have never been against any project in this area if proper respect for existing land uses and residences are provided in the project design. World Logistics Center is different. It is more massive than any project proposed before. There are no buffering land uses, nor any residential or mixed use sites to buffer the massive monoliths that will be warehouses. We don't feel proper planning has gone into this project. With just a modicum of buffering this project would probably not be noticed from adjacent residential along Merwin Street and Cactus Ave. However, The designers have chosen to maximize their yield to the detriment of these neighborhoods and staff needs to make sure this is changed. 8

Alternative A, Closing Merwin and Brodiaea, rerouting Cactus Ave as Street D into WLC

One alternative not considered by WLC will eliminate most of the complaints in this letter. It will also save a lot of money and difficulty in engineering the hydraulics of WLC as well as adjacent properties. As shown on Exhibit A to this letter, if Merwin Street is closed off a couple of hundred feet south of Alessandro, the right of way can be utilized as a green belt buffer for WLC to be added on to a 20 to 40 foot buffer that WLC would be required to place their buildings from the western property boundary. This also eliminates the traffic light at Alessandro Blvd. and Merwin Street.

Closing Merwin Street 800 feet north of Cactus will provide the same benefits as the above closure, eliminating a second traffic light and providing a landscape buffer between WLC and the proposed residential uses on the East side of Merwin. My client's property along the west side of Merwin Street presently utilizes Merwin Street as a secondary access. However, we would gladly give up the rights to have an open intersection and street light at Cactus Ave and 9

Merwin Street. We probably won't need to utilize more than a half street plus 12 feet for our entry. We may need the right to have a left turn pocket into our development, but we won't be providing enough traffic to justify a street light.

Extending and realigning Cactus Ave as Street D on the WLC plan, as shown on Exhibit A to this letter, will allow the existing portion of Cactus to intersect with Merwin Street, a 56 foot wide street, with "T" intersection. This would provide a buffer to the existing residential uses along Cactus Ave east of Merwin Street. This w ill also eliminate all noise impacts of a major intersection. It will save the light problems associated with a lighted intersection. Additionally, this alternative also saves WLC from providing land and constructing a Major Arterial that was proposed to be their D Street although some of it will be given back by extending Cactus into their development.

Closing Brodiaea from Redlands Ave to Merwin St reet would provide additional savings. It will allow Line F on the MMDP to be located completely in green belt, drainage basins or drainage channels eliminating two RCB drainage structures, one, crossing Brodiaea Ave. and a second RCB crossing Merwin Street. It also eliminates the need to relocate the drainage basin all the way to Cactus Ave and purchasing land for the drainage basin. This alternative may allow the existing channel elevations to be kept for drainage along this reach of the Line F channel eliminating the need to relocate a 30 inch High Pressure Gas Main owned by Southern California Gas Company, a possible $200,000 expense. 9

Savings to WLC

By not constructing two Street lights, two RCB structures, relocating a 30 inch gas main, construction and construction of Street D, Alternate A will provide needed relief and buffering for the existing residential neighborhoods. Additionally, it will save over $700,000 in drainage and traffic fees that would have been used for construction of the improvements. It would mean that drainage fees paid by WLC and other developers would be available to the City to build other facilities that are much needed.

We think the whole process for World Logistics Center may be blinding the City of Moreno Valley. By rallying around the need for jobs and virtually chanting "Jobs, Jobs, Jobs", at the meetings in favor of the World Logistics Center, the eyes of the City are being closed to the massive impacts of their development. Indeed, a City Director at the last public meeting was using the chant to promote the project. The possibility of creating 15,000 new jobs seems to have the whole City salivating heavily. The $15 Billion in revenue touted by the City at the last public meeting also fed into this frenzy. In the end, the reality is that much of the touted benefits may not appear. 10

Has anyone gone to the Ontario Airport vicinity to see how these industrial parks appear after they are completed? Or, closer to home, take a look at the industrial buildings just a short distance west of City Hall along Newhope Street and North of Cactus Avenue across from the March Air Force Base or the Buildings in south Moreno Valley along Nandina Street and Indian Street. One can even look at the warehouse developments along Cactus Ave east of Frederick 11

Ave. The entrance areas may look interesting because of the paint schemes and building setbacks to Cactus Ave. However the look from the sides and rear of the buildings is much different. When one takes a look a the sides and rear of these buildings and fenced yards, they are stark, uninteresting and clearly a view one does not want to look at daily. From these angles, warehouse projects are not beautiful developments. They are stark neighborhoods. Many times, security lights shine brightly in all directions blinding anyone nearby. If cities allow these developments, they should take proper precautions and buffer adjacent residential areas from any and all excessive impacts caused by these developments. Too often, these projects are blights which are noticeable for decades after they are built. The neighborhoods are detrimentally affected for years and years to come. 11

Please make sure that The WLC project does not become the bad neighbor it seems to be. Only the City and its staff stand between this project and the existing land owners and residential homes that exist in this area. Only you have the power and standing to protect these neighborhoods from the excessive demands of a project this size. Please review the suggestions made in this letter and require changes to the plans for the World Logistics Center. 12

My clients and I feel the tremendous heat and pressure of being forgotten in the stampede to approve a project making such magnificent claims of benefitting the City. Soon the existing residences along Cactus Ave and Merwin Street w ill too. Please help us protect our interests and the interests of the existing home owners. Make sure there is adequate buffering as we suggest in this letter.

Sincerely,

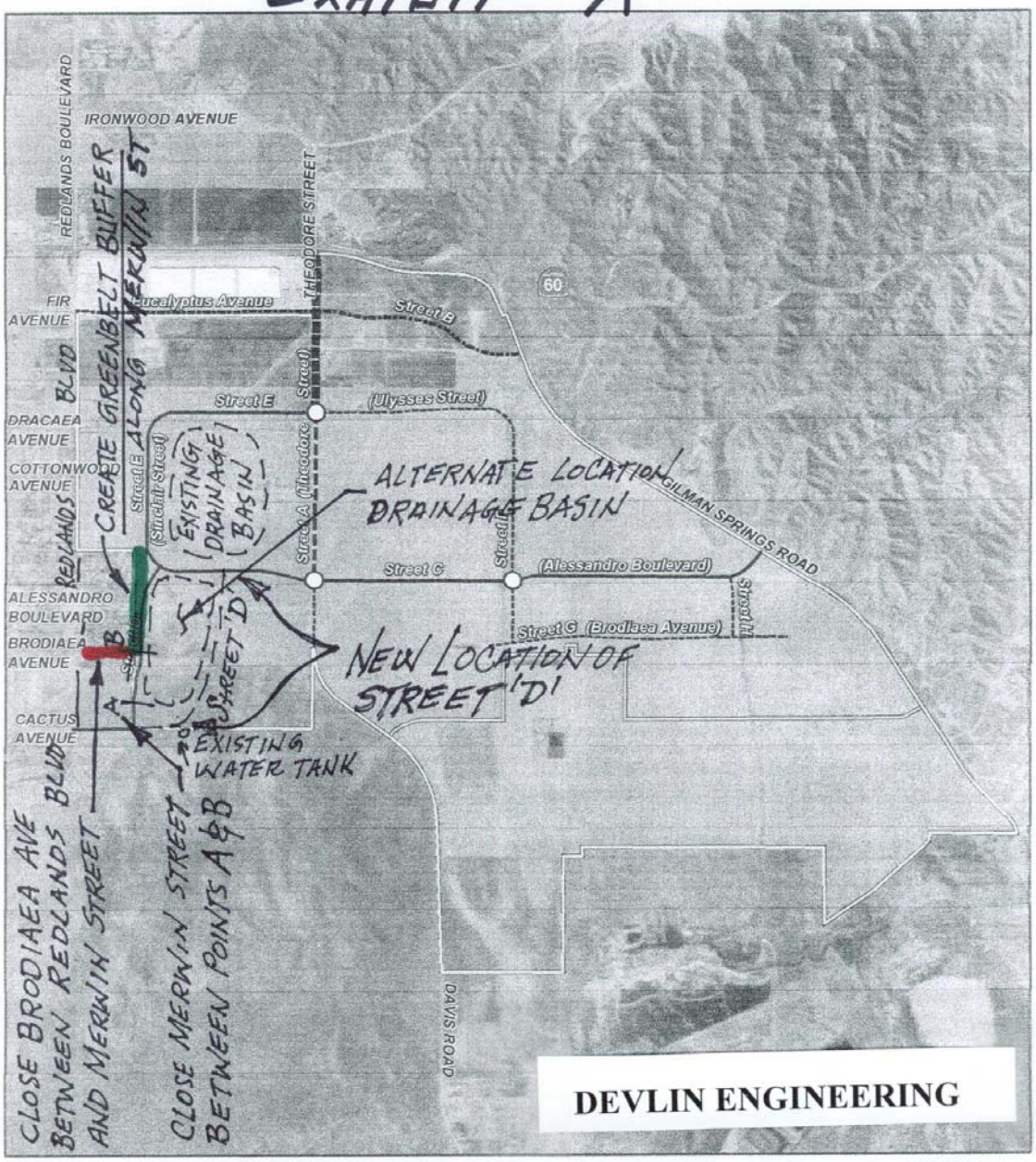
Originals signed

James R. Devlin
Devlin Engineering

Contact information:
James Devlin
Devlin Engineering
1120 Pepper Drive, #32
El Cajon, CA 92021
Tel. (619) 966-9589
Cell (858) 442-9549

cc: C. Moothart, Multivac Inc.

EXHIBIT 'A'



1

LSA

FIGURE 3.10

Project Boundary
Specific Plan Boundary
Traffic Circle

6-Lane Divided (Wide Median)
4-Lane Divided (Wide Median)
4-Lane Divided (Std. Median)
4-Lane Undivided
2-Lane

0 1,500 3,000
FEET

See figure 3.11 for typical roadway cross sections.

World Logistics Center Project
Environmental Impact Report

Circulation Plan

SOURCE: ESRI World Imagery, 2010; Bing Maps, 2010; Google Maps, 2011

I:\HFV1201\Reports\EIR\fig3-10_Circulation.mxd (12/26/2012)

EXHIBIT A TO LETTER DATED 3-25-2013

RESPONSES TO LETTER G-5

Devlin Engineering

Response to Comment G-5-1. The proper timing of review of conceptual plans of the World Logistics Center (WLC) project is during public circulation of the Draft Environmental Impact Report (DEIR). The Specific Plan and various graphic or visual representations of the WLC project were provided in Appendix H of the DEIR. Some of the World Logistics Center Specific Plan (WLCSP) graphics were revised a number of times based on review comments by City staff, so it could have been misleading or inappropriate to provide "early" versions of the Specific Plan graphics to the public which could have led to confusion or complaints about inaccurate or misleading information. The commenter's letter dated March 15, 2012 was in fact reviewed as part of the Notice of Preparation and Environmental Impact Report (EIR) scoping process. In fact, all five of the mitigation issues raised or recommended in the commenter's March 15, 2012 letter, including (1) truck traffic, (2) noise, (3) landscape buffer, (4) architecture, and (5) residential land uses, were not ignored and were addressed in the DEIR, as outlined in the following responses.

Response to Comment G-5-2. Truck Traffic – Location of Street "D." The commenter has incorrectly assumed Street "D" is an extension of or connection to Merwin Street. Although Merwin Street and Street "D" appear very close to each other, Figure 2-1 and other graphics in the Specific Plan and EIR clearly show that Street "D" will be completely separate from Merwin Street, and in fact there will be **no direct road connection** between the residential neighborhoods along Redlands Boulevard and the WLC project, and the new Street "D" will be the only road connection from the WLC area southwest to Cactus Avenue. Truck traffic on Street "D" will be prohibited, so there will be no truck traffic or noise from trucks along Street "D" or Cactus Avenue. Street "D" will provide access only for project employees in their personal vehicles. Trucks are also prohibited on Redlands Boulevard south of Eucalyptus Avenue (at the new Skechers warehouse). The Specific Plan EIR clearly states this in Section 4.15.1.3 on page 4.15-24.

The commenter's final comment is that "Merwin Street should be left along as a local collector for a residential neighborhood" which is what in fact will occur under the WLCSP.

Response to Comment G-5-3. Noise. The commenter is correct that homes along Cactus Avenue will be affected by project noise, but, the impact will only be from employee vehicles, not trucks. The noise impacts of the project to residents along Cactus Avenue were examined in Section 4.12, *Noise*, of the DEIR, and were determined to be significant over the long-term as it may not be physically possible to install the recommended walls on Cactus Avenue west of Redlands Boulevard for noise attenuation/mitigation, as described in DEIR Section 4.12.6.2, *Long-Term Noise Impacts*, on DEIR page 4.12-48 shown below:

> ***Off-Site Areas Adjacent to the Specific Plan Area.*** *For areas adjacent to the Specific Plan area, 22 segments would experience a noise increase that would be greater than significance criteria specified previously. These seven areas are described below.*
>
> > *Cactus Avenue (Redlands Boulevard to Street D). This area is occupied by a small group of single-family homes along Cactus Avenue between the future Street D and Redlands Boulevard. A significant noise increase is projected for all four time horizons. Currently, there is no soundwall along these homes. Therefore, this is a significant impact requiring mitigation.*
> >
> > *Cactus Avenue (west of Redlands Boulevard). As identified in the noise study, this area shows noise increases ranging from 1.5 dB to 5.1 dB depending on the time horizon. Only the 2035 case results in a significant noise increase.*

Later on in that section the DEIR (page 4.12-51) recommends the following mitigation to address noise impacts along Cactus Avenue:

Mitigation Measures. *Construction of the proposed WLC project would result in noise levels at the closest residences within and adjacent to the WLCSP area exceeding the maximum noise level allowed under the City's Municipal Code. The following measures would reduce long-term traffic related noise impacts associated with the proposed project:*

~~**4.12.6.2A** Within the WLCSP, Street D shall be designed such that exterior noise levels at existing residential areas shall not exceed 65 CNEL, which may require installation of a soundwall or other noise attenuation improvements. The design and calculations of such improvements shall be incorporated into a report that shall be submitted to the City for review and approval prior to the issuance of construction permits for Street D.~~

4.12.6.2A When processing future individual buildings under the World Logistics Center Specific Plan, as part of the City's approval process, the City shall require the Applicant to take the following three actions for each building prior to approval of discretionary permits for individual plot plans for the requested development:

Action 1: Perform a building-specific noise study to ensure that the assumptions set forth in the FEIR prepared for the programmatic level entitlement remain valid. These procedure used to conduct these noise analyses shall be consistent with the noise analysis conducted in the programmatic FEIR and shall be used to impose building-specific mitigation on the individually-proposed buildings.

Action 2: If the building-specific analyses identify that the proposed development triggers the need for mitigation from the proposed building, including all preceding developments in the specific plan area, the Applicant shall implement the mitigation identified in the WLC FEIR. Prior to implementing the mitigation, the Applicant shall send letters by registered mail to all property owners and non-owner occupants of properties that would benefit from the proposed mitigation asking them to provide a position either in favor of or in opposition to the proposed noise abatement mitigation within 45 days. Each property shall be entitled to one vote on behalf of owners and one vote per dwelling on behalf of non-owner occupants.

If more than 50% of the votes from responding benefited receptors oppose the abatement, the abatement will not be considered reasonable. Additionally, for noise abatement to be located on private property, 100% of owners of property upon which the abatement is to be placed must support the proposed abatement. In the case of proposed noise abatement on private property, no response from a property owner, after three attempts by registered mail, is considered a *no* vote.

At the completion of the vote at the end of the 45 day period, the Applicant shall provide the tentative results of the vote to all property owners by registered mail. During the next 15 calendar days following the date of the mailing, property owners may change their vote. Following the 15-day period, the results of the vote will be finalized and made public.

Action 3: Upon consent from benefited receptors and property owners, the Applicant shall post a bond for the cost of the construction of the necessary mitigation as estimated by the City Engineer to ensure completion of the mitigation. The certificate of occupancy permits shall be issued upon posting of the bond or demonstration that 50% of the votes from responding benefited receptors oppose the abatement or, if the abatement is located on private property, any property owners oppose the abatement (per Noise Study MM N-8, pg.53)

~~**4.12.6.2B** Prior to issuance of any discretionary approvals for development in the WLCSP, a WLC Noise Development Impact Fee study shall be submitted to the City for review and approval. The City shall require future development within the WLCSP to participate in a WLC Noise Development Impact Fee program to include soundwall attenuation to mitigate impacts from the proposed project based on the collection of fair-share fee payments from each increment of development and the implementation of each soundwall in accordance with Mitigation Measure 4.12.6.2C. The update to the DIF shall be based on a nexus study in conformance with State law (i.e., AB 1600). The Nexus study shall examine the soundwalls specified below, shall include detailed cost estimates for each soundwall, and shall establish a pro-rated fee to be paid per square foot by all development proposals within the WLCSP. The soundwalls to be included in this study include:~~

~~**Cactus Avenue Soundwall from Redlands Boulevard to Street D.** Construct an approximately 1,000-foot long, 6-foot high soundwall at the top of slope. The existing wrought iron fencing will be removed and replaced with the soundwall (e.g., masonry wall, berming, glass barrier, or combinations of these barriers). The soundwall would need to measure 6 feet as measured from the rear yard of the residences.~~

~~**John F. Kennedy Drive, east side, Soundwall from Cactus Avenue to Bay Hill Drive.** Construct an approximately 5,000-foot long, 6-foot high soundwall at the top of slope for the existing residences that are on the east side of John F. Kennedy Drive. The existing wrought iron fencing will be removed and replaced with the soundwall (e.g., masonry wall, berming, glass barrier, or combinations of these barriers). The soundwall would need to measure 6 feet as measured from the rear yard of the residences.~~

~~**Moreno Beach Drive Soundwall between Locust Avenue and Ironwood Avenue.** Construct an approximately 2,000-foot long, 6-foot high soundwall at the top of slope for the existing residences that are on the east side of John F. Kennedy Drive. The soundwall would need to measure 6 feet as measured from the rear yard of the residences.~~

~~**Perris Boulevard Soundwall between John F. Kennedy Drive and Iris Avenue.** Construct an approximately 1,500-foot long, 6-foot high soundwall at the top of slope for the existing residences that are on the east side of John F. Kennedy Drive. The soundwall would need to measure 6 feet as measured from the rear yard of the residences.~~

~~**State Route 60 Soundwall from Redlands Boulevard to Theodore Street.** Construct an approximately 580-foot long, 6-foot high soundwall for the existing residences. The soundwall would need to measure 6 feet as measured from the rear yard of the residences.~~

~~**Iris Avenue Soundwall from Nason Street to Oliver Street.** Construct an approximately 3,000-foot long, 6-foot high soundwall along the property line for the existing residences.~~

~~**Sycamore Canyon Boulevard Soundwall from College Boulevard and Central Avenue**. Construct an approximately 1,000-foot long, 6-foot high soundwall at the top of slope for the existing residences. The soundwall would need to measure 6 feet as measured from the rear yard of the residences.~~

4.12.6.2B Prior to issuance/approval of any building permits, the centerline of Cactus Avenue Extension will be located no closer than 114 feet to the residential property lines along Merwin Street. An alternative is to locate the roadway closer to the residences and provide a soundwall along Cactus Avenue Extension. The soundwall location

and height should be determined by a Registered Engineer, and the soundwall shall be designed to reduce noise levels to less than 65 CNEL at the residences. The Engineer shall provide calculations and supporting information in a report that will be required to be submitted to and approved by the City prior to issuing permits to construct the road (per Noise Study, pg. 51, Cactus Avenue Extension, ID #50).

~~**4.12.6.2C** Prior to issuance of any building permits for development in the WLCSP, the City shall collect the Development Impact Fee (DIF) as modified in accordance with Mitigation Measure 4.12.6.2B. The City shall establish a schedule for installing the specific soundwalls listed in Mitigation Measure 4.12.6.2B consistent with the WLC Noise DIF program.~~

4.12.6.2C Prior to the approval of any discretionary permits, cumulative impact areas shown in the WLC EIR Noise Study shall be included in the soundwall mitigation program outlined in Mitigation Measures 4.12.6.2A and 4.12.6.2D (per Noise Study MM N-9, pg. 62).

4.12.6.2D Prior to issuance of a building permit, the applicant shall demonstrate that the development maintains a buffer with soundwall for noise attenuation at residential/warehousing interface (i.e., western and southwestern boundaries of the project site). To keep the noise levels at nearby residential areas less than typical ambient conditions, the warehousing property line shall be located a minimum of 250 feet from the residential zone boundary , and a 12-foot noise barrier shall be located along the perimeter of the property that faces any residential areas. The 12 foot noise barrier may be a soundwall, berm, or combination of the two. The height shall be measured relative to the pad of the warehouse. This requirement shall be implemented anytime residential areas are within 600 feet of the warehousing property line to insure that a noise level of 45 dBA (Leq) will not be exceeded at the residential zone. This requirement is consistent with Item 10 of Municipal Code Section 9.16.160 Business park/industrial that states, "All manufacturing and industrial uses adjacent to residential land uses shall include a buffer zone and/or noise attenuation wall to reduce outside noise levels" (per Noise Study MM N-10, pg.62).

Section 4.12 of the DEIR demonstrates that the commenter's first comment, about relocating Street D 500 to 1,000 feet east of Merwin Street, is not necessary to produce less than significant noise impacts to the homes on the segment of Cactus Avenue from Redlands Boulevard to Street D.

Response to Comment G-5-4. Landscape Buffers. The Specific Plan restricts warehouse buildings fronting on D street to a height of 60 feet (DEIR Figure 3-9) except for architectural details, and the buildings will be set back from residences along Merwin Street by at least 250 feet (DEIR Mitigation Measure (MM) 4.1.6.1A). Views of WLC project buildings from Merwin Street and surrounding residential areas are shown in Figures 4.1-4 and 4.1-5 in the *Aesthetics* Section of the DEIR (Views 5 and 6 are from Merwin Street, View 4 is from Bay Avenue, and Views 1-3 are from Redlands Boulevard).

Response to Comment G-5-5. Architecture. The commenter is referred to the many architectural views and photographs of example buildings in the WLC Specific Plan (DEIR Appendix H, Section 4.1 and 5.4) as well as Figures 4.1-4 and 4.1-5 in the *Aesthetics* Section of the DEIR (Views 5 and 6 are from Merwin Street, View 4 is from Bay Avenue, and Views 1-3 are from Redlands Boulevard). Figure 4.14 provides line-of-sight illustrations (i.e., horizontal cross section) so the reader can better see the spatial relationship of potential buildings to existing residential areas. MM 4.1.6.1B requires a more site-specific photographic rendering of actual buildings once a specific development is proposed. Due to the magnitude of the change in visual character, the DEIR concluded that aesthetic impacts of the

WLC project were significant even with mitigation, and would require a Statement of Overriding Considerations to be adopted (DEIR page 4.1-66).

Response to Comment G-5-6. Lights. Section 4.1.6.4, *Aesthetics – Lighting and Glare*, of the DEIR did examine the potential impacts of increased lighting related to the WLC project, but determined that they would be less than significant as long as they complied with the City's new Municipal Code Section 9.08.100 regarding night-time lighting. Page 4.1-75 of the DEIR states…"the Specific Plan includes the following guidelines regarding lighting (WLCSP page 127):

5.5.2.2 All exterior on-site lighting must be shielded and confined within site boundaries. No direct rays or glare are permitted to shine onto public streets or adjacent lots.

5.5.2.3 Lighting fixtures are to be of clean, contemporary design.

5.5.2.4 Lighting must meet all requirements of the City of Moreno Valley.

5.5.2.5 Tilted wall fixtures (i.e., light fixtures which are not 90 degrees from vertical) are not permitted. Lights mounted to the roof parapet are not permitted. Wall-mounted light fixtures used to illuminate vehicular parking lots are not permitted.

5.5.2.6 Wall-mounted utility lights that cause off-site glare are not permitted. "Shoebox" lights are preferred.

5.5.3.4 All luminaires shall be metal halide or L.E.D.

5.5.4.2 Walkway lighting must have zero cut-off fixtures mounted at a uniform height no more than eight (8) feet above the walkway.

Therefore, there appear to be sufficient controls over future night-lighting design to reduce impacts to less than significant levels, as outlined on page 4.1-76 of the DEIR.

Response to Comment G-5-7. Traffic Lights. As outlined in Responses to Comments G-5-1 and G-5-2 above, the commenter's assumptions about Merwin Street and Street "D" are incorrect, they will be separate roads and there will be adequate visual screening from existing residential areas to planned warehouse buildings. It does not appear from the site information available that lights from vehicular traffic on Street "D" will impact existing residences. In addition, Street "D" is not planned to have a traffic light so there will be no lighting impacts from those potential sources along Merwin Street.

Response to Comment G-5-8. Residential Land Uses. The goal of the WLC project is to create a contiguous regional logistics center in this area, so no other land uses have been proposed within the WLC project. As outlined in Responses to Comments G-5-1, G-5-2, G-5-4, and G-5-5 above, there will be a minimum 250-foot setback of future buildings from existing residential uses (including those on Merwin Street) and a series of berms, walls, and extensive landscaping to help shield the new warehouse buildings visually from existing residential uses.

Response to Comment G-5-9. As part of the FEIR the circulation of the project has been revised to reroute Cactus Ave as Street "D" into the WLC based on the Transportation Engineering Division's recommendations. Incorporating this road alignment impacts the original land plan for the southwestern portion of the Specific Plan to the point where approximately 100 acres of land in this area can no longer function as an integral part of the WLC project. Section 3.1 of the WLC depicts the revised circulation system. The revised circulation system severs the Alessandro street connections and reroutes Cactus as Street D into the WLC. The project limits are no longer adjacent to Merwin south of Alessandro and Brodiaea, and therefore are no longer part of the project. If the property owner adjacent Merwin and Brodiaea wish to have additional modification made to the existing circulation system they are required make a separate application request to the City.

Response to Comment G-5-10. The employment and revenues for the proposed project have been estimated using industry standard data and methodologies, and appear to be accurate given the proposed land uses (logistics warehousing). For additional information on employment and revenues, see Responses to Comments G-3-1, G-3-2, G-3-5, and G-4-6 to Letter G-3 from Scott Johnson. The City Council will weigh the benefits to be derived from the project against the impacts that will result from it if it is approved.

Response to Comment G-5-11. The WLCSP does include physical setbacks and landscaped buffers between existing residences and future warehouse buildings, as outlined in the responses above. The issue of the potential appearance of future warehouse buildings was addressed in Response to Comment G-5-5 above. Future warehouses within the proposed WLCSP will likely appear similar to those in areas cited by the commenter, and as shown in the WLCSP (DEIR Appendix H). It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

Response to Comment G-5-12. Future development under the WLCSP will be reviewed by City staff to verify compliance with the Specific Plan and applicable City development guidelines and requirements. The suggestions made by the commenter were in fact reviewed during the Notice of Preparation period (i.e., Devlin Engineering letter dated March 15, 2012) and the issues raised were evaluated in the DEIR, as explained above.

Response to Appendix 1 (Annotated Map of Site Plan) The appendix was referenced in the comment letter in regards to the proposed location of D Street and the roadways proposed for the western portion of the project site. The appendix provides an annotated map of site plan showing requested closure points for Merwin Street and Brodiaea Avenue.

Letter G-6: Melissa Moore (email) (March 20, 2013)

Letter G-6

From: mmoore7 [mailto:mmoore7@student.rcc.edu]
Sent: Wednesday, March 20, 2013 11:58 AM
To: Mark Gross
Subject: World Logistic Center

Dear Mr. Mark Gross,

As a concerned native Moreno Valley resident, I would like to express my attitudes toward the World Logistic Center. Moreno Valley is a community that is in need of economic growth opportunities, but these opportunities should not come at the cost of our health and environmental attributes. Since I have been a resident, for about 25 years, I have seen the city develop exponentially. This city must keep a balance between its business developments and keeping its aesthetic appeal. One of the most alluring characteristics that Moreno Valley possess is its open fields and small mountains that are habitats to wildlife and wonderful nature experiences for citizens of Moreno Valley to explore. Building such a large and obstructing structure will surely kill much habitat crucial to animal life as well as creating an unappealing obtrusive obstacle in the middle of our beautiful wetlands. It will create more congestion on our roads and pollution in our city. Thank you for your consideration. 1

Sincerely yours,
Melissa Moore

RESPONSES TO LETTER G-6

Melissa Moore

Response to Comment G-6-1. Section 4.4, *Biological Resources*, of the Draft Environmental Impact Report (DEIR) examines potential impacts of the proposed project on existing vegetation and animals. It should be noted the site generally lacks important biological resources (including wetlands) due to the historical and ongoing disturbance by agricultural activities. The DEIR also examined potential impacts on the nearby San Jacinto Wildlife Area and Mystic Lake, and determined the project design, with proposed setbacks and landscaped buffers, and recommended mitigation measures would reduce potential impacts on these areas to less than significant levels. In addition, traffic and air quality impacts of the project were evaluated in DEIR Sections 4.15 and 4.3, respectively. Both were found to be significant, even with proposed mitigation, and will require a Statement of Overriding Considerations be adopted by the City Council if the project is approved. The City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed World Logistics Center (WLC) project.

Letter G-7: Daccomando (email) (April 2, 2013)

Letter G-7

From: Daccomando [mailto:daccomando@aol.com]
Sent: Tuesday, April 02, 2013 6:05 PM
To: John Terell
Subject: "WLC"

To Whom It May Concern:
I am strongly opposed to the "WLC" being approved in the Eastern part of Moreno Valley. I have lived in the area over 13 years and the air quality,traffic and just over all quality of life has gone downhill. It is bad enough that Sketchers was approved but now this. I am the Vice president of a mortgage comp any in Moreno Valley so I am very much in touch with the Real Estate market. I can tell you 2 homes in our area just went up for sale and they are the original owners of 25 years. These people are selling before the proposed warehouse is approved. Nobody wants to live or raise a family in a warehouse district. More people are contemplating the same thing.. People moved out there for a reason and that was because it was rural and they could raise their kids in a safe environment. It is not that way anymore. Just this week I passed over 10 big rigs running up and down Redlands Blvd which to my knowledge is against the law. The traffic has increased tremendously. Any added warehouses will decrease the quality of life. I strongly urge you not to approve there is plenty of other areas in Moreno Valley that are already developed for this kind of activity. 1
Thank You
Daccomando
daccomando@aol.com<mailto:daccomando@aol.com>

RESPONSES TO LETTER G-7

Daccomando

Response to Comment G-7-1. The commenter does not take issue with the analysis of the Draft Environmental Impact Report (DEIR). Many of the comments regarding impacts of the World Logistics Center (WLC) project on the overall quality of life, specifically air quality and traffic, were addressed in the DEIR Sections 4.4 and 4.15, respectively. The DEIR concluded that air quality and traffic impacts would be significant even after implementation of mitigation, and the City Council would need to adopt a Statement of Overriding Considerations for the project that state what benefits of the project outweigh the identified significant impacts of the project, if it decided to approve the project. It should be noted the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

Letter G-8: Tom Hyatt (email) (March 30, 2013)

From: tom hyatt [mailto:ubiquitous53@gmail.com]
Sent: Saturday, March 30, 2013 7:35 AM
To: Tom Owings; Marcelo Co; Victoria Baca; Jesse Molina; Richard Stewart
Subject: World Logistics Center warehouses

City Council members, I was not able to attend any of the recent council meetings or town halls regarding the World Logistics Center project. I have been a resident of Moreno Valley since 1994 and live off of Moreno Beach (what you have re-named "Rancho Belago") I purchased a house near the SKETCHER warehouse and watched Mr. Benzeevi bus in a bunch of out of town warehouse workers who do not even live in Moreno Valley, hand out red "JOBS NOW" T-shirts and have the audacity to feed them hoagie sandwiches on the porch to the council chambers. They stacked the meeting and filled out comment cards to speak and drown out the opposition of real citizens who actually live here and have a vested interest in our community. You may call that shrewd politics, I call it nasty, conniving and dishonest politics.
I also watched as he has manipulated all of you like a pied piper and turned you into his minions. Yes, how does it feel to be a "minion"? I also watched Council Woman BACA and her rude daughter staff a flashy Benzeevi propaganda booth at the Moreno Valley Mall handing out polished and expensive brochures. When the rude daughter tried to hand me a brochure and talk to me, I politely told her I was opposed to the project. She asked me why and when I told her I live near the project and have a disabled son who I am concerned with and my environmental concerns, she called me 'crazy"!!! Is that how you treat someone with an opposing opinion??? So, yes I call her a rude daughter but a more appropriate description is ugly and nasty! Benzeevi mis-represented his employment and profit numbers for that project and now you follow him like lemmings to his next boondoggle, the WORLD LOGISTIC CENTER. Is there not already enough diesel exhaust and traffic on HWY 60? Didn't you follow Benzeevi and re-name Rancho Belago to be an "upscale part of the city"? Then why the big polluting warehouses? "$$$$$" By now, you know the intent of my message is to voice my opposition to this project. Please re-consider your un-wavering support of this project and for this developer who has manipulated all of you like some cult leader. 1
Have a nice day,
Tom
Rancho Belago

RESPONSES TO LETTER G-8

Tom Hyatt

Response to Comment G-8-1. Most of the comments do not apply to the Environmental Impact Report (EIR) analysis or conclusions, but are personal observations about the project and project review process. The Draft Environmental Impact Report (DEIR) concluded that a number of project impacts (e.g., air quality, traffic, etc.) would be significant even after implementation of mitigation, and the City Council would need to adopt a Statement of Overriding Considerations for the project that state what benefits of the project outweigh the identified significant impacts of the project. It should be noted the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed World Logistics Center (WLC) project.

Letter G-9: Charles Moothart (March 27, 2013)

Letter to homeowners in Moreno Valley March 27, 2013

Dear Homeowner,

Your immediate help is needed to avoid potential major problems associated with the World Logistics Center Development. Please understand that I am not suggesting opposition or support for the World Logistics Center – that is a personal decision. I do, however, feel that the impacts on the neighboring properties must be given more consideration. To date, all you have heard from the City is that the project will create jobs and more jobs in the City of Moreno Valley. You have not heard about the traffic noise, street lights, development lights and air pollution created by this development. Virtually nothing has been said by the City about the problems created by this development. 1

As the plan is proposed, the City of Moreno Valley is going to allow Highland Fairview to construct **40 to 50 more industrial developments like the Sketchers warehouses** on the East side of Merwin St. However, this will be in one development adjacent to your neighborhood. One can just look at Google Maps or the attached map where the Sketchers warehouse is built, and imagine the whole open space to the North and East of your property as an ocean of stark white buildings 60 to 80 feet tall with security lights and street lights blaring into your homes. That will be your total view for as far as you can see to the north and east of your property. 2

Warehouse districts have lights, lots and lots of lights. These lights must be controlled to point away from the existing residential neighborhoods. Does anybody want to have stark white security lights shining in through their windows at night? The City needs to make sure this does not happen. 3

Merwin Street north and south of Alessandro Blvd is projected to become a major thoroughfare with traffic lights and very tall street lights, closely spaced. Your neighborhood will be lit up like a shopping mall without any of the benefits. Dark, quiet nights will be a thing of the past unless the city adopts measures to eliminate the use of Merwin Street. 4

Additionally, if Merwin Street is used as a major arterial thoroughfare, The neighborhood will be impacted with truck traffic day and night throughout the year. Trucks will be starting and stopping at the traffic signals and other intersections. If you happen to live near Merwin Street, you will not be able to sleep much. 5

These problems can be avoided with proper buffering and traffic control. The City of Moreno Valley must require that World Logistics Center be barred from using Merwin Street. World Logistics Center must bring their thoroughfare roads into their project within their development and avoid adjacent residential neighborhoods. This will keep the truck noise and traffic noise out of the residential neighborhoods. 6

It is only fair that the project be built as a good neighbor. It should have adequate measures to eliminate its harmful effects on the residential areas it will invade. 7

The attached letter to the City demands that World Logistics Center's Development Plan be changed to move their Streets D and E away from the residential neighborhoods and include measures that will eliminate noise, lighting and traffic issues.

If you agree with the content of the letter, please sign and send the letter in the included envelope immediately. There is a blank space for you to fill in any additional issues you may wish to address. The deadline for the City to receive comments is April 8 at 5:00 p.m., so you must send this letter immediately. Please be sure to fill in your name and address and sign the letter. 8

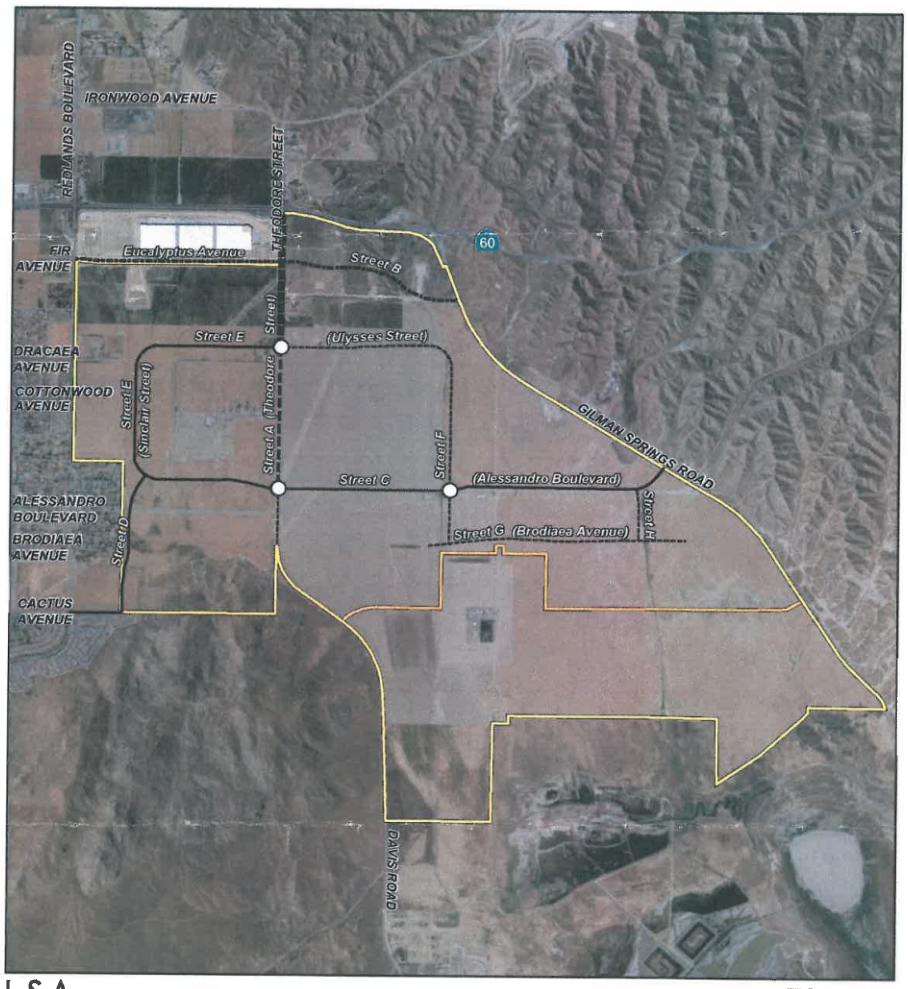
Thank you for your consideration – I hope you will voice your opinion, whatever it may be.

Sincerely,

Charles F. Moothart, a fellow property owner

World Logistics Center (outlined in yellow)

Sketchers Buildings at Eucalyptus Ave. (white buildings)



LSA

Project Boundary
Specific Plan Boundary
Traffic Circle

6-Lane Divided (Wide Median)
4-Lane Divided (Wide Median)
4-Lane Divided (Std. Median)
4-Lane Undivided
2-Lane

0 1,500 3,000
FEET

See figure 3.11 for typical roadway cross sections.

SOURCE: ESRI World Imagery, 2010; Bing Maps, 2010; Google Maps, 2011.

I:\HFV1201\Reports\EIR\fig3-10_Circulation.mxd (12/26/2012)

FIGURE 3.10

World Logistics Center Project Environmental Impact Report

Circulation Plan

March 27, 2013

John Terell, Planning Official
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Subject: World Logistics Center's Draft EIR (SCH#2012021045) and
Planning Cases PA 12-0011, 0012, 0013, 0014 and 0015

I/we, the undersigned, are homeowners in the City of Moreno Valley at the address listed below. We want to make sure that the World Logistics Center has as little impact on our neighborhood as possible. We ask that you incorporate the following mitigation measures:

- Please move all truck traffic off Merwin Street. Relocate Streets D and E as shown on the World Logistics Center Site Plan 500 to 1000 feet east of Merwin Street. Remove all truck traffic from Merwin street. 9
- Please require all security lights to use cutoff luminaires and be located on buildings no higher than 25 feet off the ground. 10
- Please require a 100 foot wide greenbelt area between the residential neighborhoods and the World Logistics Center buildings or streets. 11
-

Sincerely,

_____
(signature)

Property owner: Name _____

Address _____

_____

APN# _____

RESPONSES TO LETTER G-9

Charles Moothart

NOTE: Although this letter was not directly addressed to the City or the Draft Environmental Impact Report (DEIR), a number of residents used it as a template for submitting their own comment letters, so responses have been drafted to address all of these comments in one letter to avoid duplication.

Response to Comment G-9-1. The DEIR examined all the potential environmental impacts of the proposed World Logistics Center (WLC) project and concluded that a number of impacts (e.g., air quality, traffic, etc.) would be significant even after implementation of mitigation. Under the California Environmental Quality Act (CEQA), the City Council would need to adopt a Statement of Overriding Considerations for the project that state what benefits of the project outweigh the identified significant impacts of the project. It should be noted the City Council will consider all stated opinions and comments on the project and Environmental Impact Report (EIR) prior to making any decisions regarding the proposed WLC project.

Response to Comment G-9-2. Section 3 of the DEIR explains the various characteristics of the proposed WLC project, but the commenter's physical characterization of the WLC project at buildout is generally correct. The future warehouse buildings within the World Logistics Center Specific Plan (WLCSP) will generally be white to help with energy conservation, but will be partially shielded by landscaping and will have architectural treatments to help break up vertical and long horizontal lines of the buildings (per Specific Plan Section 5.3). However, the commenter's assertion that street lights and security lights will be "blaring" into adjacent homes is not correct (see Response to Comment G-9-3 below).

Response to Comment G-9-3. Section 4.1.6.4, *Aesthetics – Lighting and Glare*, of the DEIR did examine the potential impacts of increased lighting related to the WLC project, but determined that they would be less than significant as long as they complied with the City's new Municipal Code Section 9.08.100 regarding night-time lighting. Page 4.1-75 of the DEIR states…"the Specific Plan includes the following guidelines regarding lighting (WLCSP page 127):

5.4.2.2 All exterior on-site lighting must be shielded and confined within site boundaries. No direct rays or glare are permitted to shine onto public streets or adjacent lots.

5.4.2.3 Lighting fixtures are to be of clean, contemporary design.

5.4.2.4 Lighting must meet all requirements of the City of Moreno Valley.

5.4.2.5 Tilted wall fixtures (i.e., light fixtures which are not 90 degrees from vertical) are not permitted. Lights mounted to the roof parapet are not permitted. Wall-mounted light fixtures used to illuminate vehicular parking lots are not permitted.

5.4.2.6 Wall-mounted utility lights that cause off-site glare are not permitted. "Shoebox" lights are preferred.

Therefore, there appear to be sufficient controls over future night-lighting design to reduce impacts to less than significant levels, as outlined on page 4.1-76 of the DEIR. In addition, the commenter's assumptions about truck traffic, traffic lights, and lights from vehicular traffic on Merwin Street impacting local resident/residences are not correct, as explained in the other responses in this section.

Response to Comment G-9-4. The commenter's assumptions about Merwin Street and Street "D" are incorrect, they will be separate roads and there will be adequate visual screening from existing residential areas to planned warehouse buildings. It does not appear from the site information

available that lights from vehicular traffic on Street "D" will impact existing residences. In addition, Street "D" is not planned to have a traffic light so there will be no lighting impacts from those potential sources along Merwin Street. In addition, the commenter's assumptions about truck traffic, traffic lights, and lights from vehicular traffic on Merwin Street impacting local resident/residences are not correct. In addition, 100 acres in the southwest portion of the WLCSP has been removed from the specific plan area shown in the original project (was 2,710 acres and now is 2,610 acres), so the only major construction in the area adjacent to these homes will now be from the construction/extension of Cactus Avenue onto the WLCSP property. Therefore, there will be substantially reduced construction-related impacts to the residential areas east of Redlands and south of Alessandro.

Merwin Street will **not** be used or modified in any way to be or function as a major arterial thoroughfare. The commenter has incorrectly assumed Merwin Street will be impacted by WLC project traffic, noise, and lights because Street "D" is an extension of or connection to Merwin Street under the old Specific Plan road layout. Although Merwin Street and Street "D" appear very close to each other in the original land plan, Figure 2-1 and other graphics in the Specific Plan and EIR clearly show that Street "D" will be completely separate from Merwin Street, and in fact there would have been **no direct road connection** between the residential neighborhoods along Redlands Boulevard and the WLC project, and the new Street "D" would have been the only road connection from the WLC area southwest to Cactus Avenue. Under the revised WLCSP land plan (minus 100 acres at the southwest corner of the project), there is now no "D" street and Cactus Avenue will now be extended east and north to connect up to Street E within the WLCSP. Truck traffic on Cactus Avenue will be prohibited, so there will be no truck traffic or noise from trucks along Cactus Avenue that would affect homes off of Merwin Street. Cactus Avenue will provide access only for project employees in their personal vehicles. Trucks are also prohibited on Redlands Boulevard south of Eucalyptus Avenue (at the new Skechers warehouse).

Response to Comment G-9-6. As outlined in Responses to Comments G-9-4 and G-9-5, the commenter's assumptions about Merwin Street and the new Cactus Street extension (formerly Street "D") are incorrect, they will be separate roads so it does not appear that vehicular traffic or noise on the extension of Cactus Avenue will impact existing residences. In addition, the extension of Cactus Avenue is not planned to have a traffic light so there will be no lighting impacts from those potential sources along Merwin Street.

Along the western, northern, and southern boundaries of the site, the Specific Plan restricts warehouse buildings to a height of 60 feet (DEIR Figure 3-9) except for special circumstances, and the buildings will be set back from residences along Merwin Street by at least 250 feet (DEIR Mitigation Measure (MM) 4.1.6.1A). Section 5.3.3 of the Specific Plan provides that alternative building heights may be approved to accommodate special interior uses or screening of special mechanical equipment unique to these facilities. Requests for such alternative standards would be processed per Section 11.3.3 of the Specific Plan which contains the provisions for any proposed variances to development standards. Variances up to 10% of the standard may be approved administratively in accordance with Section 9.02.090 of the Municipal Code. Other variance requests would be processed in accordance with Section 9.02.100 of the Municipal Code. It is expected that most buildings will adhere to the 60-foot building limit, so no significantly different visual impacts are expected as a result of this potential height exception, especially adjacent to residential areas where buildings will be visible.

Response to Comment G-9-7. The comment is general without specifics about what impacts are involved. However, the WLCSP does include physical setbacks and landscaped buffers between existing residences and future warehouse buildings, as outlined in the responses above.

Response to Comment G-9-8. As noted in Responses to Comments G-9-4 and G-9-5 above, the commenter's statements about Merwin Street and truck traffic from the WLC project are incorrect. In addition, the WLCSP does include physical setbacks and landscaped buffers between existing

residences and future warehouse buildings, as outlined in the responses above. For additional discussion of these issues, see the Response to Comment G-5. Finally, the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

Response to Comment G-9-9. The comment is a form letter requesting the project move all truck traffic off Merwin Street. The commenter also requests that Streets D and E be relocated 500 to 1000 feet east of Merwin Street.

As explained in the revised TIA Chapter 4, Section B (FEIR Volume 2, Appendix L), Alessandro Blvd will be severed in the project site. This is being done specifically to prevent project traffic from entering the Old Moreno neighborhood. Project traffic will not use Merwin Street. Project-related car traffic heading west will be directed towards Cactus Blvd. Trucks will not be permitted to use the Cactus Blvd. access point and would instead be directed to SR-60.

The proposed on-site road network has been revised so that Street E is 400 ft. away from Merwin Street and Cactus is 1270 ft. away from Merwin Street. See Chapter 4, Section B, Figure 16 of the revised Traffic Impact Analysis (TIA).

Response to Comment G-9-10. The DEIR Section 4.1.2.2 *City of Moreno Valley Municipal Code* notes Section 9.08.100 of the code requires non-residential lighting to be fully shielded and directed away from surrounding residential uses. It also restricts non-residential lighting to not exceed 0.25 foot-candle of light measured from within five feet of any property line.

In addition, the WLCSP Section 5.5.2 *General On-Site Lighting Parameters* requires all exterior on-site lighting to be shielded and confined within the site boundaries. No direct rays are permitted to shine onto public streets or adjacent lots, this includes wall mounted lighting. The WLCSP does limit the light poles to a maximum of 25 feet in height and both pole and wall mounted lighting must use cut-off fixtures.

While the WLCSP contains lighting guidelines for future development, ambient light level impacts will need to be calculated and reviewed for conformance with the DEIR mitigation measures and WLCSP, through the City's site plan review process for each specific building proposed. The commenter is referred to letter G-3-3.

Responses to Comment G-9-11. The DEIR does provide a buffer area along Redlands Boulevard, Bay Avenue and Merwin Street through MM (MM) 4.1.6.1A which reads as follows:

4.1.6.1A ~~Prior to the issuance of any discretionary permit for development along the western boundary of the WLCSP, a minimum 250-foot setback shall be verified from closest residential property line along Redlands Boulevard, Bay Avenue, and Merwin Street to any truck access area of the WLC project.~~ Each Plot Plan application for development along the western, southwestern, and eastern boundaries of the project (i.e., adjacent to existing or planned residential zoned uses) shall include a minimum 250-foot setback measured from the City/County zoning boundary line and any building or truck parking/access area within the project. The setback area shall include landscaping, berms, ~~planted~~ and walls ~~and landscaping sufficient~~ to provide ~~effective~~ visual screening between the new development and existing residential areas upon maturity of the landscaping materials. ~~Prior to development of the portion of the WLC Specific Plan property adjacent to Redlands Boulevard, the~~ The existing olive trees along Redlands Blvd. shall remain in place as long as practical to help screen views of the project site. This measure shall be implemented to the satisfaction of the ~~City~~ Planning Official ~~Division~~.

In addition, the minimum setback from all residential zoning to buildings along Redlands Boulevard, Bay Avenue and Merwin Street is 250 feet per the Specific Plan. Compliance with MM 4.1.6.1A and the minimum building setback, will provide for berms and landscaping that would exceed the suggested 100-foot wide greenbelt area in the comment letter.

Letter G-10: Alexander and Rachel Moreno (March 27, 2013)

RECEIVED
APR 2 - 2013
CITY OF MORENO VALLEY
Planning Division

March 27, 2013

John Terell, Planning Official
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Subject: World Logistics Center's Draft EIR (SCH#2012021045) and Planning Cases PA 12-0011, 0012, 0013, 0014 and 0015

I/we, the undersigned, are homeowners in the City of Moreno Valley at the address listed below. We want to make sure that the World Logistics Center has as little impact on our neighborhood as possible. We ask that you incorporate the following mitigation measures:

- Please move all truck traffic off Merwin Street. Relocate Streets D and E as shown on the World Logistics Center Site Plan 500 to 1000 feet east of Merwin Street. Remove all truck traffic from Merwin street. 1
- Please require all security lights to use cutoff luminaires and be located on buildings no higher than 25 feet off the ground. 2
- Please require a 100 foot wide greenbelt area between the residential neighborhoods and the World Logistics Center buildings or streets. 3
- There should be "Truck restrictions" close To Homes, And only one exit off the 60 That will be Truck Exit only 4

Sincerely,

Alexander Moreno
(signature)

Property owner: Name Alexander & Rachel MORENO

Address 28726 Highpoint Ave
Moreno Valley CA 92555

APN# _____

RESPONSES TO LETTER G-10

Alexander and Rachel Moreno

NOTE: This letter is based on a template provided by C. Moothart in Letter G-9. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-10-1. See Response to Comment G-9-9 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-10-2. See Response to Comment G-9-10 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-10-3. See Response to Comment G-9-11 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-10-4. Trucks are prohibited on Redlands Boulevard south of Eucalyptus Avenue (i.e., entrance to Skechers warehouse). Trucks are also prohibited on all residential streets, such as Merwin Street, and will prohibited on Street “E” at the southwest corner of the project site. Theodore Street will become the primary truck access point to the World Logistics Center (WLC) project area off the SR-60 freeway.

Letter G-11: Donald Papiernik (March 27, 2013)

Letter G-11

RECEIVED
APR 4 - 2013
CITY OF MORENO VALLEY
Planning Division

March 27, 2013

John Terell, Planning Official
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Subject: World Logistics Center's Draft EIR (SCH#2012021045) and
Planning Cases PA 12-0011, 0012, 0013, 0014 and 0015

I/we, the undersigned, are homeowners in the City of Moreno Valley at the address listed below. We want to make sure that the World Logistics Center has as little impact on our neighborhood as possible. We ask that you incorporate the following mitigation measures:

- Please move all truck traffic off Merwin Street. Relocate Streets D and E as shown on the World Logistics Center Site Plan 500 to 1000 feet east of Merwin Street. Remove all truck traffic from Merwin street. 1
- Please require all security lights to use cutoff luminaires and be located on buildings no higher than 25 feet off the ground.
- Please require a 100 foot wide greenbelt area between the residential neighborhoods and the World Logistics Center buildings or streets.
-

Sincerely,

Donald S. Papiernik
(signature)

Property owner: Name DONALD PAPIERNIK

Address 28900 RAINIER WAY
MORENO VALLEY, CA 92555

APN# 304 290 058

RESPONSES TO LETTER G-11

Donald Papiernik

NOTE: This letter is based on a template provided by C. Moothart in Letter G-9. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-11-1. See Responses to Comments G-9-9, G-9-10, and G-9-11 of Letter G-9 for a more detailed response to this comment.

Letter G-12: Paul and Kathy Dembowski (March 27, 2013)

Letter G-12

March 27, 2013

RECEIVED
APR 4 - 2013
CITY OF MORENO VALLEY
Planning Division

John Terell, Planning Official
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Subject: World Logistics Center's Draft EIR (SCH#2012021045) and Planning Cases PA 12-0011, 0012, 0013, 0014 and 0015

I/we, the undersigned, are homeowners in the City of Moreno Valley at the address listed below. We want to make sure that the World Logistics Center has as little impact on our neighborhood as possible. We ask that you incorporate the following mitigation measures:

- Please move all truck traffic off Merwin Street. Relocate Streets D and E as shown on the World Logistics Center Site Plan 500 to 1000 feet east of Merwin Street. Remove all truck traffic from Merwin street. This is a residential street! 1
- Please require all security lights to use cutoff luminaires and be located on buildings no higher than 25 feet off the ground. 2
- Please require a 100 foot wide greenbelt area between the residential neighborhoods and the World Logistics Center buildings or streets. 3
- Please reconsider zoning changes. Our city was meant to be a bedroom community, not a hub for distribution! We do not have the infrastructure to handle such a large distribution center. Just look at Alessandro Blvd & all the potholes along the entire stretch of it. 4

Sincerely,

Paul Dembowski + Kathy Dembowski
(signature)

Property owner: Name Paul + Kathy Dembowski

Address 23863 Creekwood Dr.
Moreno Valley, CA 92557

APN# _____

RESPONSES TO LETTER G-12

Paul and Kathy Dembowski

NOTE: This letter is based on a template provided by C. Moothart in Letter G-9. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-12-1. See Response to Comment G-9-9 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-12-2. See Response to Comment G-9-10 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-12-3. See Response to Comment G-9-11 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-12-4. The Draft Environmental Impact Report (DEIR) examines the land use issues involved in the requested General Plan and Zone Change and did conclude that impacts were significant. A significant amount of project-related traffic is not anticipated to use Alessandro Boulevard, but the project traffic study (DEIR Appendix E) does identify all streets and intersections in the City and surrounding jurisdictions that will be impacted by project traffic, both trucks and passenger vehicles. The DEIR concluded a number of project impacts (e.g., air quality, traffic, etc.) were significant even after implementation of mitigation. Therefore, the City Council will need to adopt a Statement of Overriding Considerations that states what benefits of the project outweigh the identified significant impacts of the project, if it decides to approve the project. It should be noted that the City Council will consider all stated opinions and comments on the project and Environmental Impact Report prior to making any decisions regarding the proposed World Logistics Center (WLC) project.

Letter G-13: Michael Cox (March 27, 2013)

Letter G-13

March 27, 2013

RECEIVED
APR 4 - 2013
CITY OF MORENO VALLEY
Planning Division

John Terell, Planning Official
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Subject: World Logistics Center's Draft EIR (SCH#2012021045) and Planning Cases PA 12-0011, 0012, 0013, 0014 and 0015

I/we, the undersigned, are homeowners in the City of Moreno Valley at the address listed below. We want to make sure that the World Logistics Center has as little impact on our neighborhood as possible. We ask that you incorporate the following mitigation measures:

- Please move all truck traffic off Merwin Street. Relocate Streets D and E as shown on the World Logistics Center Site Plan 500 to 1000 feet east of Merwin Street. Remove all truck traffic from Merwin street. 1
- Please require all security lights to use cutoff luminaires and be located on buildings no higher than 25 feet off the ground. 2
- Please require a 100 foot wide greenbelt area between the residential neighborhoods and the World Logistics Center buildings or streets. 3
- ANY POLITICAN VOTING for this project, WILL NOT get my VOTE for RE-ELECTION. 4

Sincerely,

(signature)

Property owner: Name MICHAEL W. COX

Address 13555 PLANTATION WAY
MV 92555

APN# _____

RESPONSES TO LETTER G-13

Michael Cox

NOTE: This letter is based on a template provided by C. Moothart in Letter G-9. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-13-1. See Response to Comment G-9-9 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-13-2. See Response to Comment G-9-10 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-13-3. See Response to Comment G-9-11 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-13-4. The City Council will consider all stated opinions and comments on the project and Environmental Impact Report prior to making any decisions regarding the proposed World Logistics Center (WLC) project.

Letter G-14: Ruben Soto (March 27, 2013)

March 27, 2013

RECEIVED
APR 4 - 2013
CITY OF MORENO VALLEY
Planning Division

John Terell, Planning Official
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Subject: World Logistics Center's Draft EIR (SCH#2012021045) and Planning Cases PA 12-0011, 0012, 0013, 0014 and 0015

I/we, the undersigned, are homeowners in the City of Moreno Valley at the address listed below. We want to make sure that the World Logistics Center has as little impact on our neighborhood as possible. We ask that you incorporate the following mitigation measures:

- Please move all truck traffic off Merwin Street. Relocate Streets D and E as shown on the World Logistics Center Site Plan 500 to 1000 feet east of Merwin Street. Remove all truck traffic from Merwin street. 1
- Please require all security lights to use cutoff luminaires and be located on buildings no higher than 25 feet off the ground. 2
- Please require a 100 foot wide greenbelt area between the residential neighborhoods and the World Logistics Center buildings or streets. 3
-

Sincerely,

Ruben Soto
(signature)

Property owner: Name RUBEN SOTO

Address 28881 MALTBY AVE
MORENO VALLEY CA 92555

APN# (626) 485-8541

RESPONSES TO LETTER G-14

Ruben Soto

NOTE: This letter is based on a template provided by C. Moothart in Letter G-9. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-14-1. See Response to Comment G-9-9 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-14-2. See Response to Comment G-9-10 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-14-3. See Response to Comment G-9-11 of Letter G-9 for a more detailed response to this comment.

Letter G-15: Gloria Wike (April 1, 2013)

Letter G-15

RECEIVED
APR 2 - 2013
CITY OF MORENO VALLEY
Planning Division

4-1-13

Attention: John Terell

I received a letter from a Charles Northart regarding the "World Logistic Center Development". I do not know who he is and the changes he recommended to the Center and the affects it will have on our area. 1

I have been concerned ever since Skechers went in. It was just a prelude to more Warehouses in the east end and that is exactly what is happening. No project such as this Logistic Center should ever be built next to homes and Bird Sanctuary's. The 60 freeway coming and going is much to narrow and dangerous for more Truck Traffic. Where will the State and Caltrans get the money to expand the freeway thru the Badlands if Calif Ania is critically in debt? Without that guarantee that in itself should forbid this project of such 2

enormous highways to be built.

Noise pollution, additional traffic, being built next to homes and Wildlife preserves are beyond reasonable, it is dangerous health wise and for traffic driving thru Badlands that has already proven how unsafe it is. 2

They state it will eventually bring 20,000 jobs. That is quite a sum if true, but the dangers involved and the effects on homeowners with families is very serious. Look what it has done to Mira Loma. 3

Charles Moothart brought up some changes that should have been part of the original plan. I am sure he is part of this project also and that is suspect also. 4

Respectfully,

Glen P. Webb
28918 Mulberry Ave.
Moreno Valley, Cal.
92555

RESPONSES TO LETTER G-15

Gloria Wike

Response to Comment G-15-1. The commenter is correct, if the World Logistics Center (WLC) project is approved, many more large logistics warehouse buildings will be constructed and operated in the area east of Redlands Boulevard which is now largely agricultural fields.

Response to Comment G-15-2. The commenter is correct, development of the WLC project will increase area traffic on local roads, including Gilman Springs Road (currently a 2-lane road), and area freeways including the SR-60 and I-215. Traffic impacts of the project were evaluated in Draft Environmental Impact Report (DEIR) Section 4.15 and were found to be significant, even with proposed mitigation. Approval of the project will require the City Council to adopt a Statement of Overriding Considerations explaining what project benefits outweigh the identified significant impacts of the project.

Section 4.4, *Biological Resources*, of the DEIR examines potential impacts of the proposed project on existing vegetation and animals. It should be noted the site generally lacks important biological resources (including wetlands) due to the historical and ongoing disturbance by agricultural activities. The DEIR also examined potential impacts on the nearby San Jacinto Wildlife Area and Mystic Lake, and determined that the project design, with proposed setbacks and landscaped buffers, and recommended mitigation measures would reduce potential impacts on these areas to less than significant levels.

The City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

Response to Comment G-15-3. Section 4.13 of the DEIR did examine potential employment that could be generated by the WLC project. For more information in that regard, the reader is referred to the Response to Comment G-1-5 in Letter G-1 (Cree Family) and Responses to Comments G-3-1 and G-3-2 to Letter G-3 (Perry Johnson).

Response to Comment G-15-4. Charles Moothart did comment on the WLC project and Environmental Impact Report, as outlined in the Response to Comment G-9. For more information regarding Mr. Moothart's comments, the reader is referred to the responses to that letter.

Letter G-16: Jim, Rosemary, and Paul Hernandez (March 28, 2013)

March 28, 2013

City of Moreno Valley Economic Planning Department:

This letter is written in response to the proposed World Logistics Center project. It is apparent that the City Planning Commission and City Council have chosen to approve recommendation of this project without concern for the citizens of this community. The environmental impacts of this project should be considered before this project moves forward. First of all, the pollution generated from the amount of trucks that are estimated to be traveling through the area will have adverse effects on the health of the residents and will deteriorate the air quality in the area. This increase in truck traffic will also affect the gridlock on the 60 freeway and surrounding streets. This is already a problem as there is only one way into the city and one way out, it will only be compounded by the addition of hundreds of more trucks. Also, these trucks bring additional noise that will affect the residents. This is all in contradiction to the general land use that was originally designated for this area. Agriculture and wildlife in the area will also be adversely affected as will the open spaces and aesthetics of the community. As residents of this community for 32 years we would like to voice our opposition to such a project. The proposed "benefits" do not outweigh the significant negative impacts. 1

Jim Hernandez

Rosemary Hernandez

Paul Hernandez

28786 Kimberly Ave.

Moreno Valley 92555

RESPONSES TO LETTER G-16

Jim, Rosemary, and Paul Hernandez

Response to Comment G-16-1. The Planning Commission and City Council members will review the Draft Environmental Impact Report (DEIR) and Final Environmental Impact Report (FEIR), including responses to all comments on the DEIR, and all relevant project information before making a decision on the World Logistics Center (WLC) project. The DEIR examined all potential environmental impacts of the project and identified a number that were significant even after implementation of mitigation (e.g., air quality, health risks, traffic, noise, etc.). The DEIR did evaluate traffic impacts on the SR-60 freeway as well as local streets and intersections. It examined noise impacts from project trucks and vehicles, and recommended various noise attenuation improvements, but found that noise impacts would still be significant because a number of measures could not be implemented as recommended due to physical constraints of existing development. Impacts to area plants and animals were examined, as well as the loss of agricultural land (also determined to be significant). The City Council will consider all stated opinions and comments on the project and Environmental Impact Report prior to making any decisions regarding the proposed WLC project. Finally, approval of the project will require the City Council to adopt a Statement of Overriding Considerations explaining what project benefits outweigh the identified significant impacts of the project.

Letter G-17: Joanne Lindgren (April 1, 2013)

Letter G-17

RECEIVED
APR 4 - 2013
CITY OF MORENO VALLEY
Planning Division

April 1, 2013

City of Moreno Valley

Community and Economic Development Department

14177 Frederick Street

Moreno Valley, CA 92553

RE: Proposed World Logistics Center Environmental Impact Report - PA12-0010 (General Plan Amendment); PA12-0011 (Development Agreement); PA12-0014 (Annexation); PA12-0012 (Change of Zone); PA12-0013 (Specific Plan) and PA12-0015 (Tentative Parcel Map)

I'd like to respond and ask some questions about the EIR for the World Logistics Center project. I read the traffic numbers for the current and *future* truck/vehicle traffic for our city because of this project. How can our city survive the impact of all the new truck traffic that will be funneled down streets like *Alessandro* and *Cactus*? We use to live in the City of Temecula and the *vehicle traffic* was the largest planning concern of the people in that area. That city is split by the 15 freeway, similar to Moreno Valley that has the 60 freeway running through the city limits. Many street widening projects were funded but still that city has enormous traffic jams on the main arteries of town as well as the freeway off ramps to Temecula. The World Logistics Center has these wide four lane streets within the complex but they empty out to smaller two lane roads like Redlands Avenue, between the 60 freeway and Dracaea Avenue. Is the developer going to widen Redlands Avenue in that area or are will our tax dollars go towards that improvement? As i see it, our city infrastructure is not there to support such a large project. The 60 freeway is currently being widened on the eastbound side, the intersection of the 60/215 north and the widening of the Nason Street overpass bridge. The amount of traffic at the intersection of the 60 freeway and the 215 currently has reached its capacity for the morning and evening commute. Seeing the current construction improvements that Caltrans is working on does not look like it would be enough to handle the increase *truck traffic* that the World Logistics Center would create. Our roads will need more maintenance (potholes and rough washboard ruts) and the taxpayers will be for asked to pay for this. Truck drivers are likely to wander or get lost in our community onto residential streets. Will the city post *"vehicles >10,000 lbs. are not permitted"* signs in all our neighborhoods? Does Caltrans have additional construction projects for widening the 60 and 215 freeways in the next 10 years? Has the surrounding cities, like Riverside and San Bernardino, been apprized of the enormous impact on their city streets and the air quality of the valley we share? 1

The City of Moreno Valley does not have the infrastructure to support a trucking logistics center of this size. The railroad runs along the 215 freeway and trucks will have to travel through our city to reach neither the rail or to the Los Angeles/Long Beach Ports for shipped merchandise. Had there ever been a dialog about proposing a rail expansion through our city? Will we be asked to endure that as residents 2

of Moreno Valley in the future? The developer of this project is proposing an airport facility in the Beaumont area. Are there plans to transport merchandise via trucks through the Badlands (Eastbound on the 60 freeway) to the World Logistics Center? 2

Appendix D (Air Quality, Greenhouse Gas and Health Risk Assessment Report), it speaks to the construction and operations of the World Logistics Center upon its completion. The health concerns of the children, sick and elderly are at great risk. During City Planning Commission meetings, a representative from AQMD will speak on the City's responsibility in continuing to approve warehouse development without any regard to the quality of air. But these projects continue to be approved and now the largest warehouse project in Southern California being proposed and even when the EIR report points out the devastating air quality that this project will contribute to our valley, the City Planners praise the project for its best use of space and the job benefits it will provide to our community. I worked in the City of Commerce for many years. During that time, AQMD had set up monitoring stations throughout the city and along the 5 freeway. These monitoring stations were to measure the levels of pollutants that the diesel trucks were contributing to the air quality of Los Angeles County. My work took me to the residential households of the City and there were several incidents relayed to me of a family member that had been diagnosed with lung cancer due to their environment. Once a father asked me to explain what kind of chemicals were present in a business next door that he suspected the reason his two children were born with learning disorders. We cannot always know what is being stored in warehouses! Fire Inspectors have annual inspection programs but are primarily concern with types of flammables and quantity of product for the prevention of fires. Health risks to the employees are OSHA's jurisdiction. But they don't do annual inspections! Residential homes that back up to major well-travelled streets are plagued by pollutants in their yards and HVAC equipment. These existing homes are not constructed with triple-pane windows and sound board on their exterior walls to prevent the noise and pollution of extension truck traffic. Housing values will go down on these homes along truck paths and near the project itself. 3

This World Logistics Center is being sold to the citizens of Moreno Valley as a solution to the inadequate number of jobs that keeps our residents commuting for employment. Warehouse employee unions have told us how poorly the employees are treating in this type of job. These are low skill workers that are paid low wages and are generally employed as part-time workers without benefits. The Sketchers' project was presented to the citizens as a number of new jobs would be generated from this development. This was not true. Neighbors have done number counts on vehicles in the parking lot and *Sketchers* has been a disappointing employment rate of one job per 18,000 square feet of building space. The city planners has estimated that even with automated warehousing projects the employment rate could be one job for every 2,200 square feet. This kind of guesswork and this type of jobs will not provide what the city needs in terms of local employment. Automated warehouses will only bring trucks to our community not jobs! 4

Even though our city will receive a substantial amount of permit and development fees initially, warehousing offers no sales tax base. Revenue will also serve to be inadequate in business license fees. Also building permit fees are forbidden by law to be used to benefit the general fund but must be collected to cover the actual cost of building inspection and plan checking. Riverside County has already 5

been sued in court over excessive permit fees for residential developments. We cannot subject our already deficit city budget with any devastating expensive lawsuit. 5

In conclusion, I believe the project is too large and creates too many problems for our little community. We need to reject this project and go back to the *General Plan* with mixed zoning which was approved by the people of Moreno Valley. This idea appeals to the residential and small business communities and presents itself as a healthful, quality way of life for the citizens of Moreno Valley. 6

Respectfully submitted,

Joanne Lindgren

28842 Dracaea Ave.

Moreno Valley, CA 92555

Caminoray@aol.com

RESPONSES TO LETTER G-17

Joanne Lindgren

Response to Comment G-17-1. The commenter asks how the City can survive all the new truck traffic on streets like Alessandro and Cactus. The commenter cites his experience at his previous residence in Temecula where traffic jams existed despite road widening projects. The commenter claims that the World Logistics Center (WLC) would have 4-lane internal roads that empty out to small 2-lane roads like Redlands Avenue between SR-60 and Dracaea Avenue and asks if widening of Redlands Avenue would be paid for by the developer or tax money. The commenter opinion is city infrastructure cannot support such a large project and that current improvements on over-capacity SR-60 and I-215 will not be enough to handle the increased truck traffic from WLC. The commenter asks if Caltrans has planned widening projects on SR-60 or I-215 in the next 10 years. The commenter also asks if the City will post "vehicles >10,000 lbs. are not permitted" signs in all neighborhoods. He also asks if surrounding cities such as Riverside and San Bernardino have been apprised of the projects impacts on streets and air quality.

As explained in the revised Traffic Impact Analysis (TIA) Chapter 4, Section B (Final Environmental Impact Report (FEIR) Volume 2, Appendix L), Alessandro Blvd will be severed in the project site. Project-related car traffic heading west will be directed towards Cactus Blvd. Trucks will not be permitted to use the Cactus Blvd. access point and would instead be directed to SR-60. For these reasons, there is no project-related truck traffic expected on Alessandro Blvd. See Figure 16 in the TIA, copied below as Exhibit G-17-1.

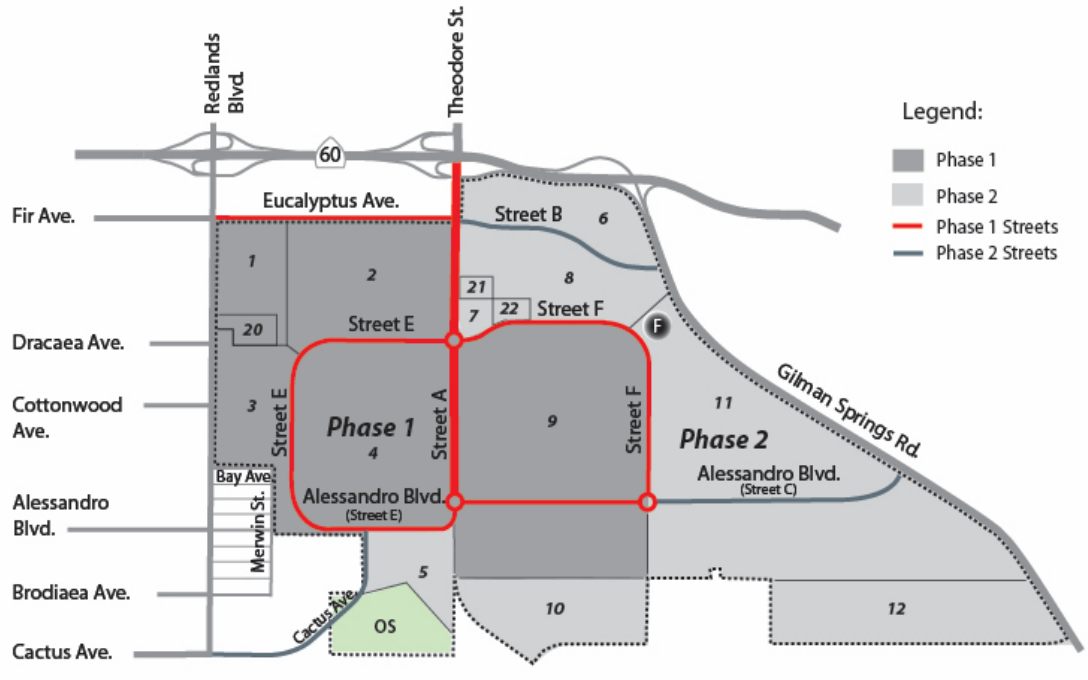


Exhibit G-17-1: Proposed Roadways and Phasing

The City plans to widen Redlands Avenue from Eucalyptus Ave. to SR-60 and the WLC will be required to pay its fair share for this improvement.

Caltrans completed a Route Concept Report for the SR-60/I-215 corridor in September 2012. The report is available at the City's Planning Department. This report focused on identifying the number of lanes required in each section of the corridor and did recommend additional lanes in some places, including adding a mixed-flow lane in both directions from the Redlands Blvd. interchange to the Gilman Springs Rd. interchange.

An additional figure (Figure 8) has been included in the TIA showing the designated truck routes in and around Moreno Valley. Trucks are legally restricted from using other route except when the destination is outside of the route, such as a moving van going to a house in a residential neighborhood. The City would typically not post truck prohibited signs as suggested by the commenter unless a recurring problem exists of trucks using roads they should not use.

The surrounding cities were apprised of the project by being sent both the Notice of Preparation and the Notice of Availability. The Cities of Perris, Riverside, San Jacinto, and Redlands submitted comments on the DEIR (see Comment letters E-1, E-2, E-4, and E-5 respectively).

Response to Comment G-17-2. The commenter points out that there is a railroad running along the I-215 and asks if there has been a dialog about rail expansion in Moreno Valley. The commenter asks if residents will "be asked to endure that." He also asks if there are plans to transport merchandise through the Badlands to a possible new airport in the Beaumont area.

An additional section (Chapter 4, Section F) has been included in the revised TIA (FEIR Volume 2, Appendix L) that analyzes the potential for serving project trips by rail. The analysis showed that rail service to the project site is not viable due to a range of factors. Possible impact on city residents was specifically cited as a reason why rail is not considered a viable option.

The WLC project has no relationship with a possible new airport in the Beaumont area. Transportation of merchandise via trucks eastbound on SR-60 from the WLC is anticipated as part of the project. Caltrans has a project to build truck climbing lanes through the Badlands which will ease congestion there.

Response to Comment G-17-3. The "health effects from air pollution" information provided by the commenter is anecdotal and does not provide any specific scientific data or evidence in this regard. Any specific health to a specific person(s) would have to be investigated as to the health effect noted before any cause or causes could be established. It should be noted that Redlands Boulevard from Cactus Avenue north to Eucalyptus Avenue is not designated as a truck route and no heavy duty trucks will be allowed on this roadway – if any do use these roadways, they are subject to enforcement and ticketing by the City Police Department. The DEIR does explain health risks and whether the impacts outweigh the benefits will be decided by the City Council (refer to FEIR Volume 2 Section 4.3.3.4.)

The commenter presents several incidents of illnesses suffered by individuals, which the commenter claims are due to the environment in which they are living; worry regarding what is stored in the warehouses and the supposed lack of annual inspections; concern over the residences that are adjacent to heavily traffic streets and HVAC equipment; potential air pollution exposure for the residences along truck routes; and concern that values for the homes along truck paths and near the project would go down. With regard to the incidences of illnesses suffered by individuals, the stories are anecdotal and cannot be verified as to cause and effect.

With regard to storage of materials in warehouses and annual inspections, Section 4.8.2 of the DEIR explains all of the existing federal, state, county, and city policies and regulations that pertain to the

storage and handling of hazardous wastes and facility inspections. While the warehouse facilities themselves are not expected to utilize acutely hazardous materials, the possibility exists that such materials could be stored or transported to and from the project site. Both the Federal Government and the State of California require all businesses that handle more than a specified amount of hazardous materials or extremely hazardous materials to submit a Hazardous Materials Business Emergency Plan (HMBEP) to the local Certified Unified Program Agency (CUPA). The CUPA with responsibility for the City of Moreno Valley is the County of Riverside Community Health Agency, Department of Environmental Health. The HMBEP must include an inventory of the hazardous materials used in the facility, and emergency response plans and procedures to be used in the event of a significant or threatened significant release of a hazardous material. The HMBEP must also include the Material Safety Data Sheet for each hazardous and potentially hazardous substance used. The Material Safety Data Sheets summarize the physical and chemical properties of the substances and their health impacts. The plan also requires immediate notification to all appropriate agencies and personnel of a release, identification of local emergency medical assistance appropriate for potential accident scenarios, contact information of all company emergency coordinators of the business, a listing and location of emergency equipment at the business, an evacuation plan, and a training program for business personnel. Though the uses in the project area are not expected to utilize acutely hazardous materials in their daily operation, a potential for an accidental release of hazardous materials into the environment is present at the project site as it is at any commercial, retail, or industrial site. Compliance with the identified state and federal transportation safety standards will govern the handling of hazardous materials during truck and freight transfer operations. These standards include procedures to contain, report, and remediate any accidental spill or release of hazardous materials. The handling of hazardous materials in accordance with all applicable local, state, and federal standards, ordinances, and regulations will ensure that impacts associated with environmental and health hazards related to an accidental release of hazardous materials at the project site will be less than significant and no mitigation is required

With regard to the potential for air pollutant exposures for residences along truck routes, a major feature of the plan is a road system that directs all heavy truck traffic to and from State Route 60 (SR-60) and Gilman Springs Road, eliminating the need to travel through residential areas to the west. Redlands Boulevard south of Eucalyptus Street and Cactus Avenue are not designated Truck Routes. Cactus Avenue will be designed to prohibit use by heavy trucks. The air quality impact analyses contained in the DEIR and revised analysis examined potential air quality impacts from the project. Based on the revised analysis, the air quality impacts outside of the project boundaries including the impacts from truck traffic originated from the project were found to be less than the South Coast Air Quality Management District's (SCAQMD) air quality significance thresholds.

While it is not possible to determine the impact of home values along designated trucks routes and that such economic issues are beyond the scope of California Environmental Quality Act (CEQA), it is important to note that the proposed project is not establishing any new truck routes. In fact, the proposed project will sever some truck routes, such as Alessandro, in order to prevent trucks from the proposed project from traveling through neighborhoods.

Response to Comment G-17-4. The original employment estimates for the Highland Fairview Corporate Park, which includes the Skechers warehouse, was on the order of 2,500 employees at full occupancy, however, the Skechers warehouse is only a part of that project's land use, and the current economy necessitates less than full activity for the Skechers facility at this time, which may be contributing to the lower numbers of employees cited by the commenter.

Section 4.13, *Population, Housing, and Employment*, of the DEIR presents detailed information and analyses on the potential number of jobs that could be generated by the WLC project over time. These estimates are based on extensive surveys and collecting data available from the logistics industry, and are different than "standard" or more historical types of warehousing uses (i.e.,

compared to more high tech logistics warehousing). An extensive analysis of employment issues, including those expressed by these commenters, is included in Responses G-3-1 and G-3-2 to Letter G-3 (Scott Thompson).

Response to Comment G-17-5. Despite the fact that specific facility operators generally do not reveal their operating conditions or personnel information, actual industrial project information was used for the WLC project fiscal studies when it was available. In addition to the fiscal study prepared by David Taussig & Associates (DTA)(FEIR Volume 2 Appendix O-1), an independent fiscal assessment was prepared by Beacon (FEIR Volume 2 Appendix O-4). Exhibit A-9 of the Beacon study indicates approximately $1.8 million in annual/recurring operation and maintenance costs to support the WLC project. For a discussion of one-time fees and charges, please see the text of the Beacon study. Specifically, the capital outlays will be offset by the tens of millions in development impact and permitting fees that will be paid by future development within the WLC Specific Plan area.

Response to Comment G-17-6. The DEIR identified a number of significant environmental impacts associated with the proposed WLC project. Therefore, approval of the project will require the City Council to adopt a Statement of Overriding Considerations explaining what project benefits outweigh the identified significant impacts of the project. Finally, the City Council will consider all stated opinions and comments on the project and Environmental Impact Report (EIR) prior to making any decisions regarding the proposed WLC project.

Letter G-18: Sam Ziady (March 24, 2013)

Letter G-18

LIBRARY
THE FORMULA FOR LIFELONG EDUCATION
Newberry County Library System
www.newberrylibrary.org
1100 Friend Street
Newberry, South Carolina 29108-3416
(803) 276-0854 ext. 111

T. Sam Ziady, Director
sziady@newberrycounty.net

RECEIVED
APR 1 - 2013
CITY OF MORENO VALLEY
Planning Division

March 24, 2013

Dear Sirs,

I would like to take this opportunity to comment on the "World Logistics Center" planned for eastern Moreno Valley. I own a home in the Mission Grove neighborhood of Riverside that is located very near Alessandro Boulevard. I hope to retire there in nine years.

To lessen the negative impact of the development I would like to see railroad service extended through out the development. This would include freight and a passenger transit station. Rail is the most energy efficient method of moving freight and reduces the number of needed trucks and cars. 1

To mitigate the negative impact on wildlife the developer needs to create a wildlife corridor connecting Sycamore Canyon Wilderness Park and Box Springs Park. This would help lessen the impact of the increased traffic on wildlife created by the development. 2

The developer of the World Logistics Center needs to be held responsible for the impact of his actions on the entire Inland Empire region. 3

Sincerely,
T. Sam Ziady

RESPONSES TO LETTER G-18

Sam Ziady

Response to Comment G-18-1. The commenter is requesting extensive rail service extended or added to the World Logistics Center (WLC) project site and area. The commenter is correct that overall, rail service is more energy efficient than truck service for warehousing. However, other private commenters (e.g., Letter G-2 from Perry Johnson, Letter G-17 from Joanne Lindgren) have strongly discouraged any addition of rail service to this area due to the increased air pollutant impacts it would create over both the short- and long-term. The WLC project area, if built out as logistics warehousing, would not have a population density anywhere near high enough to support commuter or passenger rail, and the impacts associated with extending rail to the project site would be considerable, especially since there is no current right-of-way for rail service to the project site from any direction. See Traffic Impact Analysis (TIA) Section 4.F for further analysis.

Response to Comment G-18-2. The Sycamore Canyon Wilderness Park and the Box Springs Mountain Park are separated by rural and suburban residential development/neighborhoods, and it would be problematic at best to attempt connecting these open space areas. More importantly, the Draft Environmental Impact Report (DEIR) did not identify any specific impacts of the proposed WLC project on either of these open space areas, so there would be no justification for mitigation involving their connection, regardless of whether such connection provided benefits for area wildlife.

Response to Comment G-18-3. Comment on responsibility not related to issues addressed in the Environmental Impact Report (EIR). However, the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

Letter G-19: Betty Masters (email) (April 3, 2013)

Letter G-19

From: Betty Masters [mailto:mastersb@att.net]
Sent: Wednesday, April 03, 2013 11:28 PM
To: 'markg (markg@moval.org<mailto:markg@moval.org>)'
Subject: Official Comments for the DEIR for WLC

I am absolutely opposed to the World Logistic Center in Moreno Valley after hearing the well-researched reports on the negative impacts of such developments. I attended the information meeting on March 9, 2013, and am convinced that the health risks (cancer, asthma, autism,...) from increased pollution of thousands of trucks a day should be a sufficient reason to stop this project. Our area already suffers from the Mira Loma pollution due to a significant increase in truck traffic to the warehouses there. Air pollution in Mira Loma is fourth worst in the WORLD and that pollution blows through our valley on most days. Mira Loma residents are suffering and cannot restore the quality of life enjoyed before the massive warehouses were built. Now is the time to stop the WLC in Moreno Valley, not after the warehouses are filled with unknown contents hauled in by thousands of polluting, noisy diesel trucks that clog city streets and cost the cash short city money to repair the truck damage. Mira Loma can only try to mitigate the many problems of air quality, noise pollution and congestion of streets. 1

Proponents claim "good paying jobs" will result from the WLC; however, Sketchers workers were moved from their Ontario facility and the estimated 2,500 are actually about 500. Only one new job was created for a Moreno Valley resident. Working conditions at warehouses are generally poor, wages minimal, and benefits are non-existent for the majority of workers who are employed by temporary employment agencies, not by retail companies directly. Any claim that the city will 2

benefit from increased revenues is likely to be wishful thinking as residents of Mira Loma understand. Home values near warehouses plummeted. Businesses also are reluctant to locate nearby except those related to truck repairs and trucker interests. The land for WLC in Moreno Valley was changed from residential housing to industrial use without most residents understanding the drastic effect on their lives. Information is still being disseminated to those impacted by the WLC proposal. I live 3 homes away from I-215/60 East. The University City residents I contacted today are surprised by the WLC proposal and several are opposed to it, but their opposition is likely to be stated after they attend an information meeting that is scheduled at 6pm next Monday-too late for their e-mails to you . They do plan to attend the next information session on April 13 at Valley View HS. Our entire community will suffer from pollution of diesel exhaust as thousands of trucks per day slow down as they go up the Box Springs grade. As more is known of the microscopic particles in diesel pollutants, the more necessary it is to STOP construction of warehouses in the Riverside and San Bernardino valleys where the level of pollution is already dangerous to our health within 10 miles of the truck transportation corridor. Please allow more residents of affected areas to be informed of the WLC proposal. Residents all along I-60, I-215, I-10, I-15 in the Mira Loma to Moreno Valley warehouses and eastward need to have the facts about the impacts of this project on health, traffic congestion, noise, quality of life, and property values.

2

3

4

Please send me confirmation of receipt of this e-mail. Thank you for your assistance.
Betty Masters e-mail: mastersb@att.net<mailto:mastersb@att.net>

RESPONSES TO LETTER G-19

Betty Masters

Response to Comment G-19-1. Section 4.4 of the Draft Environmental Impact Report (DEIR) provided a very detailed evaluation of the anticipated air quality impacts of the World Logistics Center (WLC) project, which was based on a scientific study of air pollution, health risks, and greenhouse gas impacts of the project by Michael Brandman Associates (MBA). (DEIR Appendix D). The DEIR identified a number of significant environmental impacts associated with the proposed WLC project, including air quality. Therefore, approval of the project will require the City Council to adopt a Statement of Overriding Considerations explaining what project benefits outweigh the identified significant impacts of the project. For a thorough evaluation of similar comments regarding air quality, health risks, diesel particulates, etc., the reader is referred to the Master Responses in Letter C-3 from the South Coast Air Quality Management District (SCAQMD).

Response to Comment G-19-2. The original employment estimates for the Highland Fairview Corporate Park, which includes the Skechers warehouse, was on the order of 2,500 employees at full occupancy, however, the Skechers warehouse is only a part of that project's land use, and the current economy necessitates less than full activity for the Skechers facility at this time, which may be contributing to the lower numbers of employees cited by the commenter.

Section 4.13, *Population, Housing, and Employment*, of the DEIR presents detailed information and analyses on the potential number of jobs that could be generated by the WLC project over time. These estimates are based on extensive surveys and collecting data available from the logistics industry, and are different than "standard" or more historical types of warehousing uses (i.e., compared to more high tech logistics warehousing). An extensive analysis of employment issues, including those expressed by these commenters, is included in Responses G-3-1 and G-3-2 to Letter G-3 (Scott Thompson).

Response to Comment G-19-3. The DEIR was advertised in the Press Enterprise, a newspaper of local distribution, and posted on the City's website. There have been numerous articles in the local Moreno Valley newspaper and the Riverside Press Enterprise about the WLC project and that an EIR was being prepared. There have been several public meetings advertised City-wide regarding the WLC project at which City residents or any interested persons could obtain information about the WLC project.

Response to Comment G-19-4. The commenter makes a number of statements about air pollutant impacts of the project, especially relative to diesel particulate matter and other pollutants most directly associated with diesel truck exhaust. Much of the information is relative to the Mira Loma area which contains a large number of older more "standard" warehouses (see Response to Comment G-19-2 above). However, the warehousing proposed for the WLC project will be more automated and newer truck fleets have substantially reduced diesel emissions than older truck fleets. For a thorough evaluation of similar comments regarding air quality, health risks, diesel particulates, etc., the reader is referred to the Master Responses in Letter C-3 from the South Coast Air Quality Management District.

Regarding regional notification about the project, there is no California Environmental Quality Act (CEQA) requirement to legally notify residents along the freeways that would have project traffic of the WLC project or the EIR. However, it should be noted that this project has received national attention from the news media and conservation organizations, and has been the subject of more than one newscast on National Public Radio during the summer of 2013. There has been sufficient public notification regarding this project.

Letter G-20: Jack Weleba (April 5, 2013)

John Terell, Planning Official

Community & Economic Development Department

Planning Division

14177 Frederick Street

Post Office Box 88005

Moreno Valley CA 92552

Re: World Logistic center DEIR

Dear Mr. Terell,

I am a land owner in the San Jacinto Valley and a frequent user of the San Jacinto Wildlife Area.

The Draft Environmental Impact Report (DEIR) incorrectly designates an area adjacent to the San Jacinto Wildlife Area (SJWA) and part of the World Logistic Center project as a "Conservation buffer". There is no such entity and the area described within this "Conservation buffer" is owned and maintained by the California Department of Fish and Wildlife as part of the San Jacinto Wildlife Area. This area was acquired by the Wildlife Conservation Board in 2001 for addition to the San Jacinto Wildlife Area for endangered and threatened species habitat along with conservation efforts for wildlife in the county of Riverside. This was never meant to be or considered anything other than part of the San Jacinto Wildlife Area. This designation is incorrect and misleading.

The area in question is also included in the Multi-Species Habitat Conservation Plan (MSHCP) developed in 2004 for Riverside County. It was not described as a buffer zone but as MSHCP Conservation habitat.

None of the direct and indirect impacts to the MSHCP and other species on the SJWA are properly analyzed in the DEIR.

The EIR must address these issues, correctly identify the false "CDFW Conservation Buffer" as part of the SJWA and properly analyze an appropriate buffer for the SJWA. Any buffer proposed must be justified by evidence-based research that supports the size of such buffer.

1

The people of the state of California have over 100 million dollars invested in the SJWA and any threat or compromise of that investment needs to be thoroughly evaluated.

The current DEIR does not meet that criteria and, in its current form, is woefully inadequate in its evaluation of the detrimental effects of this project on the San Jacinto Wildlife Area. 1

This is only one of many issues that I am concerned about with this project. The amount of increased traffic from cargo trucks, the increased diesel emissions and light pollution created will all have a tremendous detrimental effect on the wildlife area and the adjacent lands that the state partners with in their conservation easement program. 2

This project may create jobs but will do so at the expense of what little wildlife habitat is left in Southern California and is not in the best interest of the people of the State of California. 3

The previous statements express my feelings but I have added a few thoughts of my own to address the disgust I have for the disregard of the people's continued disregard of our natural resources and the decline of our wetlands, which by all accounts, are vital not only to those creatures that inhabit them but to all of us who depend on them for the cleansing of our environment.

This seems to be a poorly thought out development in an area that has been designated one of the only two areas in southern California set aside for the benefit of not only waterfowl on their migrations , but for the many other species that inhabit and use these pristine locations. These lands which have been saved from past developments through the hard work and dedication of not only hunters but all those who cherish the outdoors and respect the need for declining areas for the wildlife of California. We have as a whole the need and the responsibility to save what little areas that remain as a place for these creatures. To implement this new development in this area is a shame and an affront to the respect development has shown for those who cannot speak for themselves. 4

Yours truly,

Jack Weleba

Senior Structural Designer

Pasadena , California

RESPONSES TO LETTER G-20

Jack Weleba

Note: This letter was used by a number of residents as a template for submitting their own comment letters, so responses have been drafted to address all of these comments in one letter to avoid duplication.

Response to Comment G-20-1. The World Logistics Center Specific Plan (WLCSP) does not include any public lands, including any portion of the San Jacinto Wildlife Area (SJWA), as a form of mitigation. The Draft Environmental Impact Report (DEIR) has analyzed the impact of the development which will take place as part of the World Logistics Center (WLC) project in the CDFW Conservation Buffer Area. The 910-acre portion of the project area owned by the State is being rezoned to "open space." It is California Department of Fish and Wildlife (CDFW) land acquired as a buffer (and for other reasons as well), between the high quality SJWA habitat and any proposed development to the north. Calling it the CDFW Conservation Buffer Area is not inaccurate or misleading.

The DEIR provides an assessment of both direct impacts associated with the WLCSP through the proposed construction of logistics facilities and provides an assessment of any direct or indirect impacts associated with the General Plan Amendment associated with the 910 acres of CDFW lands and the San Diego Gas and Electric (SDG&E) rezoning. Since the rezoning would have no direct impacts, no further discussion was considered necessary. A requirement of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) in Section 6.4.1 calls for an analysis of any Urban/Wildlands Interface issues. This is specifically stated to cover indirect impacts within conserved areas or areas considered for conservation under the MSHCP. This analysis was completed in the MSHCP Consistency Analysis (FCS-MBA 2013). The analysis covers indirect impact issues regarding light, noise, trash, emissions, vectors, fuel management, runoff and water quality, as outlined in appropriate sections of the DEIR (e.g., 4.1, *Aesthetics*, addresses night lighting facing the SJWA), although most potential impacts to the SJWA are addressed in Section 4.4, *Biological Resources*. There will be no direct impacts to any portion of the SJWA as part of the WLCSP and no mitigation measures are required.

It is a defined term in the DEIR (Section 4.4.1.16) and the commenter misunderstands the relationship of the state conservation land south of the WLCSP property. The 1000 acres south of the WLCSP property was purchased from or out of the Moreno Highlands Specific Plan (MHSP) property. The minutes from the Wildlife Conservation Board action at that time specifically says it will act as a buffer from planned urban development (i.e., at that time the rest of the MHSP). The existing state conservation land is being rezoned as part of the discretionary actions requested by the WLC project because at present those lands are still zoned for a golf course and various residential uses under the Moreno Highlands Specific Plan.

Response to Comment G-20-2. The commenter expressed concern about project traffic, diesel emissions, and light impacts on the wildlife area adjacent to the WLC. The DEIR and technical studies evaluated the project's potential impacts regarding traffic In Section 4.15 of the DEIR and concluded there were no significant impacts in the wildlife area because there are no roads in the San Jacinto Wildlife Area. The DEIR and technical studies also evaluated the project's potential impacts regarding air pollutants, including diesel emissions. Sections 4.3 and 4.4 of the DEIR addressed air quality and biological resources and determined project impacts on the wildlife area were less than significant. The DEIR also examined the lighting impacts of the project on the adjacent San Jacinto Wildlife Area (Section 4.1, *Aesthetics*, and 4.4, *Biological Resources*) and determined impacts were less than significant.

Response to Comment G-20-3. The commenter worries about balancing jobs against loss of wildlife. The DEIR evaluated potential new employment as well as impacts, both direct and indirect, to wildlife in the San Jacinto Wildlife Area south of the WLC property. It determined that impacts to wildlife would less than significant with the proposed buffer and other mitigation. The City Council will weigh all comments on the DEIR and the results of the EIR regarding significant impacts, and determine if the benefits of the project outweigh the environmental impacts. A Statement of Overriding Considerations will be needed if the City Council decides to approve the WLC project as currently outlined.

Response to Comment G-20-4. The commenter expresses concern for the loss of wetlands in the state and that this project will have serious impacts on Mystic Lake and the San Jacinto Wildlife Area. As outlined in the Response to Comment B-3-3, the DEIR evaluated potential impacts to wildlife in the SJWA and Mystic Lake. It determined that impacts to wildlife would less than significant with the proposed buffer and other mitigation. The City Council will weigh all comments on the DEIR and the results of the EIR regarding significant impacts, and determine if the benefits of the project outweigh the environmental impacts. A Statement of Overriding Considerations will be needed if the City Council decides to approve the WLC project as currently outlined.

Letter G-21: Skete Simmons (April 5, 2013)

John Terell, Planning Official
Community & Economic Development Department
Planning Division
14177 Frederick Street
Post Office Box 88005
Moreno Valley CA 92552

Re: World Logistic center DEIR

Dear Mr. Terell,

I am a land owner in the San Jacinto Valley and a frequent user of the San Jacinto Wildlife Area.

The Draft Environmental Impact Report (DEIR) incorrectly designates an area adjacent to the San Jacinto Wildlife Area (SJWA) and part of the World Logistic Center project as a "Conservation buffer". There is no such entity and the area described within this "Conservation buffer" is owned and maintained by the California Department of Fish and Wildlife as part of the San Jacinto Wildlife Area. This area was acquired by the Wildlife Conservation Board in 2001 for addition to the San Jacinto Wildlife Area for endangered and threatened species habitat along with conservation efforts for wildlife in the county of Riverside. This was never meant to be or considered anything other than part of the San Jacinto Wildlife Area. This designation is incorrect and misleading.

The area in question is also included in the Multi-Species Habitat Conservation Plan (MSHCP) developed in 2004 for Riverside County. It was not described as a buffer zone but as MSHCP Conservation habitat. 1

None of the direct and indirect impacts to the MSHCP and other species on the SJWA are properly analyzed in the DEIR.

The EIR must address these issues, correctly identify the false "CDFW Conservation Buffer" as part of the SJWA and properly analyze an appropriate buffer for the SJWA. Any buffer proposed must be justified by evidence-based research that supports the size of such buffer.

The people of the state of California have over 100 million dollars invested in the SJWA and any threat or compromise of that investment needs to be thoroughly evaluated.

The current DEIR does not meet that criteria and, in its current form, is woefully inadequate in its evaluation of the detrimental effects of this project on the San Jacinto Wildlife Area. 1

This is only one of many issues that I am concerned about with this project. The amount of increased traffic from cargo trucks, the increased diesel emissions and light pollution created will all have a tremendous detrimental effect on the wildlife area and the adjacent lands that the state partners with in their conservation easement program. 2

This project may create jobs but will do so at the expense of what little wildlife habitat is left in Southern California and is not in the best interest of the people of the State of California. 3

Yours truly,

Skete Simmons

RESPONSES TO LETTER G-21

Skete Simmons

NOTE: This letter is based on a template provided by J. Weleba in Letter G-20. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-21-1. See Response to Comment G-20-1 of Letter G-20 for a more detailed response to this comment.

Response to Comment G-21-2. See Response to Comment G-20-2 of Letter G-20 for a more detailed response to this comment.

Response to Comment G-21-3. See Response to Comment G-20-3 of Letter G-20 for a more detailed response to this comment.

Letter G-22: Curt Perry (April 5, 2013)

Curt Perry
2718 Azalea Drive
San Diego, CA 92106

John Terell, Planning Official
Community & Economic Development Department
Planning Division
14177 Frederick Street
Post Office Box 88005
Moreno Valley CA 92552

Re: World Logistic center DEIR

Dear Mr. Terell,

I am a land owner in the San Jacinto Valley and a frequent user of the San Jacinto Wildlife Area.

The Draft Environmental Impact Report (DEIR) incorrectly designates an area adjacent to the San Jacinto Wildlife Area (SJWA) and part of the World Logistic Center project as a "Conservation buffer". There is no such entity and the area described within this "Conservation buffer" is owned and maintained by the California Department of Fish and Wildlife as part of the San Jacinto Wildlife Area. This area was acquired by the Wildlife Conservation Board in 2001 for addition to the San Jacinto Wildlife Area for endangered and threatened species habitat along with conservation efforts for wildlife in the county of Riverside. This was never meant to be or considered anything other than part of the San Jacinto Wildlife Area. This designation is incorrect and misleading.

The area in question is also included in the Multi-Species Habitat Conservation Plan (MSHCP) developed in 2004 for Riverside County. It was not described as a buffer zone but as MSHCP Conservation habitat.

None of the direct and indirect impacts to the MSHCP and other species on the SJWA are properly analyzed in the DEIR.

The EIR must address these issues, correctly identify the false "CDFW Conservation Buffer" as part of the SJWA and properly analyze an appropriate buffer for the SJWA. Any buffer proposed must be justified by evidence-based research that supports the size of such buffer.

The people of the state of California have over 100 million dollars invested in the SJWA and any threat or compromise of that investment needs to be thoroughly evaluated.

1

The current DEIR does not meet that criteria and, in its current form, is woefully inadequate in its evaluation of the detrimental effects of this project on the San Jacinto Wildlife Area. 1

This is only one of many issues that I am concerned about with this project. The amount of increased traffic from cargo trucks, the increased diesel emissions and light pollution created will all have a tremendous detrimental effect on the wildlife area and the adjacent lands that the state partners with in their conservation easement program. 2

This project may create jobs but will do so at the expense of what little wildlife habitat is left in Southern California and is not in the best interest of the people of the State of California. 3

Yours truly,

Curt Perry

RESPONSES TO LETTER G-22

Curt Perry

NOTE: This letter is based on a template provided by J. Weleba in Letter G-20. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-22-1. See Response to Comment G-20-1 of Letter G-20 for a more detailed response to this comment.

Response to Comment G-22-2. See Response to Comment G-20-2 of Letter G-20 for a more detailed response to this comment.

Response to Comment G-22-3. See Response to Comment G-20-3 of Letter G-20 for a more detailed response to this comment.

Letter G-23: Jeff Hamman (April 5, 2013)

John Terell, Planning Official
Community & Economic Development Department
Planning Division
14177 Frederick Street
Post Office Box 88005
Moreno Valley CA 92552

Re: World Logistic center DEIR

Dear Mr. Terell,

I am a frequent user of the San Jacinto Wildlife Area.

The Draft Environmental Impact Report (DEIR) incorrectly designates an area adjacent to the San Jacinto Wildlife Area (SJWA) and part of the World Logistic Center project as a "Conservation buffer". There is no such entity and the area described within this "Conservation buffer" is owned and maintained by the California Department of Fish and Wildlife as part of the San Jacinto Wildlife Area. This area was acquired by the Wildlife Conservation Board in 2001 for addition to the San Jacinto Wildlife Area for endangered and threatened species habitat along with conservation efforts for wildlife in the county of Riverside. This was never meant to be or considered anything other than part of the San Jacinto Wildlife Area. This designation is incorrect and misleading.

The area in question is also included in the Multi-Species Habitat Conservation Plan (MSHCP) developed in 2004 for Riverside County. It was not described as a buffer zone but as MSHCP Conservation habitat. 1

None of the direct and indirect impacts to the MSHCP and other species on the SJWA are properly analyzed in the DEIR.

The EIR must address these issues, correctly identify the false "CDFW Conservation Buffer" as part of the SJWA and properly analyze an appropriate buffer for the SJWA. Any buffer proposed must be justified by evidence-based research that supports the size of such buffer.

The people of the state of California have over 100 million dollars invested in the SJWA and any threat or compromise of that investment needs to be thoroughly evaluated.

The current DEIR does not meet that criteria and, in its current form, is woefully inadequate in its evaluation of the detrimental effects of this project on the San Jacinto Wildlife Area. 1

This is only one of many issues that I am concerned about with this project. The amount of increased traffic from cargo trucks, the increased diesel emissions and light pollution created will all have a tremendous detrimental effect on the wildlife area and the adjacent lands that the state partners with in their conservation easement program. 2

This project may create jobs but will do so at the expense of what little wildlife habitat is left in Southern California and is not in the best interest of the people of the State of California. 3

Yours truly,

Jeff "Hoss" Hamman

RESPONSES TO LETTER G-23

Jeff Hamman

NOTE: This letter is based on a template provided by J. Weleba in Letter G-20. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-23-1. See Response to Comment G-20-1 of Letter G-20 for a more detailed response to this comment.

Response to Comment G-23-2. See Response to Comment G-20-2 of Letter G-20 for a more detailed response to this comment.

Response to Comment G-23-3. See Response to Comment G-20-3 of Letter G-20 for a more detailed response to this comment.

Letter G-24: Jeff Dandridge (April 5, 2013)

April 5, 2013

John Terell, Planning Official
Community & Economic Development Department
Planning Division
14177 Frederick Street
Post Office Box 88005
Moreno Valley CA 92552

Re: World Logistic center DEIR

Dear Mr. Terell,

I am a land owner in the San Jacinto Valley and a frequent user of the San Jacinto Wildlife Area.

The Draft Environmental Impact Report (DEIR) incorrectly designates an area adjacent to the San Jacinto Wildlife Area (SJWA) and part of the World Logistic Center project as a "Conservation buffer". There is no such entity and the area described within this "Conservation buffer" is owned and maintained by the California Department of Fish and Wildlife as part of the San Jacinto Wildlife Area. This area was acquired by the Wildlife Conservation Board in 2001 for addition to the San Jacinto Wildlife Area for endangered and threatened species habitat along with conservation efforts for wildlife in the county of Riverside. This was never meant to be or considered anything other than part of the San Jacinto Wildlife Area. This designation is incorrect and misleading.

The area in question is also included in the Multi-Species Habitat Conservation Plan (MSHCP) developed in 2004 for Riverside County. It was not described as a buffer zone but as MSHCP Conservation habitat. 1

None of the direct and indirect impacts to the MSHCP and other species on the SJWA are properly analyzed in the DEIR.

The EIR must address these issues, correctly identify the false "CDFW Conservation Buffer" as part of the SJWA and properly analyze an appropriate buffer for the SJWA. Any buffer proposed must be justified by evidence-based research that supports the size of such buffer.

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The current DEIR does not meet that criteria and, in its current form, is woefully inadequate in its evaluation of the detrimental effects of this project on the San Jacinto Wildlife Area. 1

This is only one of many issues that I am concerned about with this project. The amount of increased traffic from cargo trucks, the increased diesel emissions and light pollution created will all have a tremendous detrimental effect on the wildlife area and the adjacent lands that the state partners with in their conservation easement program. 2

This project may create jobs but will do so at the expense of what little wildlife habitat is left in Southern California and is not in the best interest of the people of the State of California. 3

Yours truly,

Jeff Dandridge

(626) 437-7034

RESPONSES TO LETTER G-24

Jeff Dandridge

NOTE: This letter is based on a template provided by J. Weleba in Letter G-20. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-24-1. See Response to Comment G-20-1 for a more detailed response to this comment.

Response to Comment G-24-2. See Response to Comment G-20-2 for a more detailed response to this comment.

Response to Comment G-24-3. See Response to Comment G-20-3 for a more detailed response to this comment.

Letter G-25: Mark Mcmorris (April 5, 2013)

John Terell, Planning Official
Community & Economic Development Department
Planning Division
14177 Frederick Street
Post Office Box 88005
Moreno Valley CA 92552

Re: World Logistic center DEIR

Dear Mr. Terell,

(Mark McMorris)

I am a land owner in the San Jacinto Valley and a frequent user of the San Jacinto Wildlife Area.

The Draft Environmental Impact Report (DEIR) incorrectly designates an area adjacent to the San Jacinto Wildlife Area (SJWA) and part of the World Logistic Center project as a "Conservation buffer". There is no such entity and the area described within this "Conservation buffer" is owned and maintained by the California Department of Fish and Wildlife as part of the San Jacinto Wildlife Area. This area was acquired by the Wildlife Conservation Board in 2001 for addition to the San Jacinto Wildlife Area for endangered and threatened species habitat along with conservation efforts for wildlife in the county of Riverside. This was never meant to be or considered anything other than part of the San Jacinto Wildlife Area. This designation is incorrect and misleading.

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The EIR must address these issues, correctly identify the false "CDFW Conservation Buffer" as part of the SJWA and properly analyze an appropriate buffer for the SJWA. Any buffer proposed must be justified by evidence-based research that supports the size of such buffer.

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This project may create jobs but will do so at the expense of what little wildlife habitat is left in Southern California and is not in the best interest of the people of the State of California. 3

Yours truly,

(Mark McMorris)

RESPONSES TO LETTER G-25

Mark McMorris

NOTE: This letter is based on a template provided by J. Weleba in Letter G-20. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-25-1. See Response to Comment G-20-1 of Letter G-20 for a more detailed response to this comment.

Response to Comment G-25-2. See Response to Comment G-20-2 of Letter G-20 for a more detailed response to this comment.

Response to Comment G-25-3. See Response to Comment G-20-3 of Letter G-20 for a more detailed response to this comment.

Letter G-26: Michael Marshall (April 5, 2013)

April 5, 2012

John Terell, Planning Official
Community & Economic Development Department
Planning Division
14177 Frederick Street
Post Office Box 88005
Moreno Valley CA 92552

Re: World Logistic center DEIR

Dear Mr. Terell,

I am a land owner in the San Jacinto Valley and a frequent user of the San Jacinto Wildlife Area.

The Draft Environmental Impact Report (DEIR) incorrectly designates an area adjacent to the San Jacinto Wildlife Area (SJWA) and part of the World Logistic Center project as a "Conservation buffer". There is no such entity and the area described within this "Conservation buffer" is owned and maintained by the California Department of Fish and Wildlife as part of the San Jacinto Wildlife Area. This area was acquired by the Wildlife Conservation Board in 2001 for addition to the San Jacinto Wildlife Area for endangered and threatened species habitat along with conservation efforts for wildlife in the county of Riverside. This was never meant to be or considered anything other than part of the San Jacinto Wildlife Area. This designation is incorrect and misleading.

The area in question is also included in the Multi-Species Habitat Conservation Plan (MSHCP) developed in 2004 for Riverside County. It was not described as a buffer zone but as MSHCP Conservation habitat. 1

None of the direct and indirect impacts to the MSHCP and other species on the SJWA are properly analyzed in the DEIR.

The EIR must address these issues, correctly identify the false "CDFW Conservation Buffer" as part of the SJWA and properly analyze an appropriate buffer for the SJWA. Any buffer proposed must be justified by evidence-based research that supports the size of such buffer.

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The current DEIR does not meet that criteria and, in its current form, is woefully inadequate in its evaluation of the detrimental effects of this project on the San Jacinto Wildlife Area. 1

This is only one of many issues that I am concerned about with this project. The amount of increased traffic from cargo trucks, the increased diesel emissions and light pollution created will all have a tremendous detrimental effect on the wildlife area and the adjacent lands that the state partners with in their conservation easement program. 2

This project may create jobs but will do so at the expense of what little wildlife habitat is left in Southern California and is not in the best interest of the people of the State of California. 3

Yours truly,

Michael W. Marshall, DDS

RESPONSES TO LETTER G-26

Michael Marshall

NOTE: This letter is based on a template provided by J. Weleba in Letter G-20. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-26-1. See Response to Comment G-20-1 of Letter G-20 for a more detailed response to this comment.

Response to Comment G-26-2. See Response to Comment G-20-2 of Letter G-20 for a more detailed response to this comment.

Response to Comment G-26-3. See Response to Comment G-20-3 of Letter G-20 for a more detailed response to this comment.

Letter G-27: Radene Hiers (email) (April 6, 2013)

Letter G-27

-----Original Message-----
From: honeyhiers7@verizon.net [mailto:honeyhiers7@verizon.net]
Sent: Saturday, April 06, 2013 10:21 PM
To: Mark Gross
Subject: Official DEIR Comments on the World Logistic Center

I am opposed to the World Logistic Center for several reasons:

1. Negative environmental impact as shown by the DEIR. I live adjacent to March Air Reserve Base which I believe has already caused medical problems with my children & pets. Do not want additional hazards in my community. 1

2. Economic injustice - Warehousing is generally planned in economically depressed areas where there is a source of those willing to work low paying jobs. Warehousing does not produce jobs that pay a living wage and have a history of employee abuse. Temporary employment is the major source of warehouse jobs. They offer no benefits, no protection for on the job injuries, nor the means to support a family. Many warehouse employees rely on additional government help (cash, food stamps, Medi-Cal). Taxpayers shouldering what the employer should be paying. 2

Need jobs that pay a living wage for our city to prosper. Wages that empower employees to buy homes in our city and become part of our community.

3. The developer has a history of shouldering the community's taxpayer with fees he should be paying. There are not even any recreational trails showing on the WLC plans and the developer has made successful attempts to avoid his financial responsibility for these community improvements. 3
4. Infrastructure - who is going to pay for the necessary improvements? As shown, the developer will not. Just another taxpayer expense with no clear advantage 4 5. Deviation of City's General Plan. I consider this deviation breaking a contract between the city officials and those who have invested in our community. 5
6. Warehousing offers no benefit. If a deviation of the General Plan was necessary, I would have preferred a sports complex, performing arts center, or both. 6

A 27 year homeowner in Moreno Valley,

Radene Ramos Hiers
24460 Electra Court
Moreno Valley, CA 92551
(951) 488-0547
Sent from my Verizon Wireless BlackBerry

RESPONSES TO LETTER G-27

Radene Hiers

Response to Comment G-27-1. The commenter merely states their opposition to the World Logistics Center (WLC) project because of the negative environmental impacts. Many of the comments regarding impacts of the WLC project on the overall quality of life and health, specifically air quality and traffic, were addressed in the Draft Environmental Impact Report (DEIR) Sections 4.4 and 4.15, respectively. The DEIR concluded that air quality and traffic impacts would be significant even after implementation of mitigation, and the City Council would need to adopt a Statement of Overriding Considerations for the project that state what benefits of the project outweigh the identified significant impacts of the project. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

Response to Comment G-27-2. The commenter emphasizes that warehousing is not a source of good well-paying jobs. DEIR Section 4.10.5.2, examines the employment and revenue-generating capabilities of the proposed project relative to existing conditions in the City of Moreno Valley. The City currently has high unemployment and the WLC project would help provide thousands of part-time and full-time positions as development occurred within the World Logistics Center Specific Plan (WLCSP). Wages for jobs within the WLC would naturally vary depending on hours and skill levels. The commenter is encouraged to review the cited section of the DEIR, as well as the three reports in DEIR Appendix O for more accurate information on anticipated revenues and jobs within the WLC project.

Response to Comment G-27-3. The commenter emphasizes the past history of the project developer and that there will be no trails in the project. Personal comments on the applicant for this project are not germane to the EIR or California Environmental Quality Act (CEQA) process and will not be addressed in these responses.

Regarding trails, the original project evaluated in the DEIR did propose a recreational trail along the boundary of the proposed open space area in the southwestern portion of the site. In addition, the commenter is referred to Section 1.3 of this Final Environmental Impact Report (FEIR) and the revised WLC Specific Plan (SP) (FEIR Appendix H) which describe the most current proposed trail through the southwestern portion of the WLC project which will connect to existing trails to the west (along Cactus and Redlands) and south (to the San Jacinto Wildlife Area (SJWA) and Mystic Lake).

Response to Comment G-27-4. The commenter asks who will pay for the infrastructure and complains that the General Plan should not be changed. Future development within the WLCSP will be required to fund their fair share of infrastructure improvement costs as part of the City's development review process. The City will not be expected to build or fund infrastructure in this area. The mitigation measures (MM) in Section 4.15 of the DEIR require installation of various infrastructure improvements and payment of Development Impact Fees (DIF) for infrastructure, including roads.

Response to Comment G-27-5. The City's General Plan allows for revision and updating as needed, and the DEIR provides an analysis of General Plan consistency in each environmental topic (Sections 4.1 through 4.16). The WLC project does represent a fundamental change in the planned land uses for this area, however, the review and approval process for a Specific Plan, such as the WLCSP, always requires a review of existing General Plan policies to make sure the proposed action is consistent with the General Plan, or a General Plan Amendment is required. Such was the case with the proposed WLC project.

Response to Comment G-27-6. The comment does not apply to the EIR analysis or conclusions, but is a personal observations about the project and project review process. The DEIR concluded that a

number of project impacts (e.g., air quality, traffic, etc.) would be significant even after implementation of mitigation, and the City Council would need to adopt a Statement of Overriding Considerations for the project that state what benefits of the project outweigh the identified significant impacts of the project, if it decides to approve the project. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

Letter G-28: Clinton Blain (email) (April 5, 2013)

Letter G-28

CLINTON L. BLAIN
Attorney at Law

3990 Old Town Avenue, Suite B-101
San Diego, California 92110

(619) 584-1600 Telephone
(619) 584-1601 Facsimile
E-Mail: cb@blainlaw.com

April 5, 2013

Via Email: markg@moval.org

Mark Gross, Planning Official
Community & Economic Development Department
Planning Division
14177 Frederick Street
Post Office Box 88005
Moreno Valley CA 92552

Re: World Logistic center DEIR

Dear Mr. Gross:

I am a land owner in the San Jacinto Valley and a frequent user of the San Jacinto Wildlife Area.

The Draft Environmental Impact Report (DEIR) incorrectly designates an area adjacent to the San Jacinto Wildlife Area (SJWA) and part of the World Logistic Center project as a "Conservation buffer". There is no such entity and the area described within this "Conservation buffer" is owned and maintained by the California Department of Fish and Wildlife as part of the San Jacinto Wildlife Area. This area was acquired by the Wildlife Conservation Board in 2001 for addition to the San Jacinto Wildlife Area for endangered and threatened species habitat along with conservation efforts for wildlife in the county of Riverside. This was never meant to be or considered anything other than part of the San Jacinto Wildlife Area. This designation is incorrect and misleading. 1

The area in question is also included in the Multi-Species Habitat Conservation Plan (MSHCP) developed in 2004 for Riverside County. It was not described as a buffer zone but as MSHCP Conservation habitat.

None of the direct and indirect impacts to the MSHCP and other species on the SJWA are properly analyzed in the DEIR.

The EIR must address these issues, correctly identify the false "CDFW Conservation Buffer" as part of the SJWA and properly analyze an appropriate buffer for the SJWA. Any buffer proposed must be justified by evidence-based research that supports the size of such buffer.

The people of the state of California have over 100 million dollars invested in the SJWA and any threat or compromise of that investment needs to be thoroughly evaluated. 1

The current DEIR does not meet that criteria and, in its current form, is woefully inadequate in its evaluation of the detrimental effects of this project on the San Jacinto Wildlife Area.

This is only one of many issues that I am concerned about with this project. The amount of increased traffic from cargo trucks, the increased diesel emissions and light pollution created will all have a tremendous detrimental effect on the wildlife area and the adjacent lands that the state partners with in their conservation easement program. 2

This project may create jobs but will do so at the expense of what little wildlife habitat is left in Southern California and is not in the best interest of the people of the State of California. 3

Sincerely,

Clinton L. Blain

CLB/pgp
cc: John Terell (via email: johnT@moval.org)

RESPONSES TO LETTER G-28

Clinton Blain

NOTE: This letter is based on a template provided by J. Weleba in Letter G-20. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-28-1. See Response to Comment G-20-1 of Letter G-20 for a more detailed response to this comment.

Response to Comment G-28-2. See Response to Comment G-20-2 of Letter G-20 for a more detailed response to this comment.

Response to Comment G-28-3. See Response to Comment G-20-3 of Letter G-20 for a more detailed response to this comment.

Letter G-29: Stephen Coates (email) (April 5, 2013)

Dear Mr. Terell,

Letter·G-29

I have had the pleasure of being a frequent user of the San Jacinto Wildlife Area.

The Draft Environmental Impact Report (DEIR) incorrectly designates an area adjacent to the San Jacinto Wildlife Area (SJWA) and part of the World Logistic Center project as a "Conservation buffer". There is no such entity and the area described within this "Conservation buffer" is owned and maintained by the California Department of Fish and Wildlife as part of the San Jacinto Wildlife Area. This area was acquired by the Wildlife Conservation Board in 2001 for addition to the San Jacinto Wildlife Area for endangered and threatened species habitat along with conservation efforts for wildlife in the county of Riverside. This was never meant to be or considered anything other than part of the San Jacinto Wildlife Area. This designation is incorrect and misleading. 1

The area in question is also included in the Multi-Species Habitat Conservation Plan (MSHCP) developed in 2004 for Riverside County. It was not described as a buffer zone but as MSHCP Conservation habitat.

None of the direct and indirect impacts to the MSHCP and other species on the SJWA are properly analyzed in the DEIR.

The EIR must address these issues, correctly identify the false "CDFW Conservation Buffer" as part of the SJWA and properly analyze an appropriate buffer for the SJWA. Any buffer proposed must be justified by evidence-based research that supports the size of such buffer.

The people of the state of California have over 100 million dollars invested in the SJWA and any threat or compromise of that investment needs to be thoroughly evaluated.

The current DEIR does not meet that criteria and, in its current form, is woefully inadequate in its evaluation of the detrimental effects of this project on the San Jacinto Wildlife Area. 1

This is only one of many issues that I am concerned about with this project. The amount of increased traffic from cargo trucks, the increased diesel emissions and light pollution created will all have a tremendous detrimental effect on the wildlife area and the adjacent lands that the state partners with in their conservation easement program. 2

This project may create jobs but will do so at the expense of what little wildlife habitat is left in Southern California and is not in the best interest of the people of the State of California. 3

Yours truly,

Dr. Stephen Coates
5400 E. El Jardin
Long Beach, CA 90815

RESPONSES TO LETTER G-29

Stephen Coates

NOTE: This letter is based on a template provided by J. Weleba in Letter G-20. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-29-1. See Response to Comment G-20-1 of Letter G-20 for a more detailed response to this comment.

Response to Comment G-29-2. See Response to Comment G-20-2 of Letter G-20 for a more detailed response to this comment.

Response to Comment G-29-3. See Response to Comment G-20-3 of Letter G-20 for a more detailed response to this comment.

Letter G-30: Robie and Douglas Coffing (email) (April 7, 2013)

Letter G-30

From: Robie and Doug Coffing [mailto:lhgr1@aol.com]
Sent: Sunday, April 07, 2013 11:45 AM
To: Mark Gross; John Terell
Subject: World Logistic Center DEIR

Dear Mr. Gross and Mr. Terell,

I am a land owner in the San Jacinto Valley and a frequent user of the San Jacinto Wildlife Area.

The Draft Environmental Impact Report (DEIR) incorrectly designates an area adjacent to the San Jacinto Wildlife Area (SJWA) and part of the World Logistic Center project as a "Conservation buffer". There is no such entity and the area described within this "Conservation buffer" is owned and maintained by the California Department of Fish and Wildlife as part of the San Jacinto Wildlife Area. This area was acquired by the Wildlife Conservation Board in 2001 for addition to the San Jacinto Wildlife Area for endangered and threatened species habitat along with conservation efforts for wildlife in the county of Riverside. This was never meant to be or considered anything other than part of the San Jacinto Wildlife Area. This designation is incorrect and misleading.

The area in question is also included in the Multi-Species Habitat Conservation Plan (MSHCP) developed in 2004 for Riverside County. It was not described as a buffer zone but as MSHCP Conservation habitat.

None of the direct and indirect impacts to the MSHCP and other species on the SJWA are properly analyzed in the DEIR.

The EIR must address these issues, correctly identify the false "CDFW Conservation Buffer" as part of the SJWA and properly analyze an appropriate buffer for the SJWA. Any buffer proposed must be justified by evidence-based research that supports the size of such buffer.

The people of the state of California have over 100 million dollars invested in the SJWA and any threat or compromise of that investment needs to be thoroughly evaluated.

The current DEIR does not meet that criteria and, in its current form, is woefully inadequate in its evaluation of the detrimental effects of this project on the San Jacinto Wildlife Area. 1

This is only one of many issues that I am concerned about with this project. The amount of increased traffic from cargo trucks, the increased diesel emissions and light pollution created will all have a tremendous detrimental effect on the wildlife area and the adjacent lands that the state partners with in their conservation easement program. 2

This project may create jobs but will do so at the expense of what little wildlife habitat is left in Southern California and is not in the best interest of the people of the State of California. 3

Yours truly,

Douglas J. Coffing
949 521 0049
52 Foxtail Lane
Dove Canyon, CA 92679

RESPONSES TO LETTER G-30

Robie and Douglas Coffing

NOTE: This letter is based on a template provided by J. Weleba in Letter G-20. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-30-1. See Response to Comment G-20-1 of Letter G-20 for a more detailed response to this comment.

Response to Comment G-30-2. See Response G to Comment -20-2 of Letter G-20 for a more detailed response to this comment.

Response to Comment G-30-3. See Response to Comment G-20-3 of Letter G-20 for a more detailed response to this comment.

Letter G-31: Darryl Lafayette (email) (April 7, 2013)

From: darryl96@aol.com [mailto:darryl96@aol.com]
Sent: Sunday, April 07, 2013 7:41 PM
To: Mark Gross
Subject: World Logistic Center DEIR

Letter G-31

April 7, 2013

John Terell, Planning Official
Community & Economic Development Department
Planning Division
14177 Frederick Street
Post Office Box 88005
Moreno Valley CA 92552

Re: World Logistic center DEIR
Dear Mr. Terell,
I am a land owner in the San Jacinto Valley and a frequent user of the San Jacinto Wildlife Area.
The Draft Environmental Impact Report (DEIR) incorrectly designates an area adjacent to the San Jacinto Wildlife Area (SJWA) and part of the World Logistic Center project as a "Conservation buffer". There is no such entity and the area described within this "Conservation buffer" is owned and maintained by the California Department of Fish and Wildlife as part of the San Jacinto Wildlife Area. This area was acquired by the Wildlife Conservation Board in 2001 for addition to the San Jacinto Wildlife Area for endangered and threatened species habitat along with conservation efforts for wildlife in the county of Riverside. This was never meant to be or considered anything other than part of the San Jacinto Wildlife Area. This designation is incorrect and misleading.
The area in question is also included in the Multi-Species Habitat Conservation Plan (MSHCP) developed in 2004 for Riverside County. It was not described as a buffer zone but as MSHCP Conservation habitat.
None of the direct and indirect impacts to the MSHCP and other species on the SJWA are properly analyzed in the DEIR.
The EIR must address these issues, correctly identify the false "CDFW Conservation Buffer" as part of the SJWA and properly analyze an appropriate buffer for the SJWA. Any buffer proposed must be justified by evidence-based research that supports the size of such buffer.
The people of the state of California have over 100 million dollars invested in the SJWA and any threat or compromise of that investment needs to be thoroughly evaluated.

The current DEIR does not meet that criteria and, in its current form, is woefully inadequate in its evaluation of the detrimental effects of this project on the San Jacinto Wildlife Area. 1

1

This is only one of many issues that I am concerned about with this project. The amount of increased traffic from cargo trucks, the increased diesel emissions and light pollution created will all have a tremendous detrimental effect on the wildlife area and the adjacent lands that the state partners with in their conservation easement program. 2

This project may create jobs but will do so at the expense of what little wildlife habitat is left in Southern California and is not in the best interest of the people of the State of California. 3

Yours truly,
Darryl LaFayette

RESPONSES TO LETTER G-31

Darryl LaFayette

NOTE: This letter is based on a template provided by J. Weleba in Letter G-20. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-31-1. See Response to Comment G-20-1 of Letter G-20 for a more detailed response to this comment.

Response to Comment G-31-2. See Response to Comment G-20-2 of Letter G-20 for a more detailed response to this comment.

Response to Comment G-31-3. See Response to Comment G-20-3 of Letter G-20 for a more detailed response to this comment.

Letter G-32: Barbara and Bryon Johnson (email) (April 3, 2013)

Letter G-32

From: Barbara & Byron Johnson [mailto:myscubashp@aol.com]
Sent: Wednesday, April 03, 2013 10:05 AM
To: Mark Gross
Subject: Official Comments for the DIER for the WLC

Mark: There was an article in the PRESS last week stating that the area around San Jacinto has an exceptually high rate of lung disease.
The past weeks the fog was exceptionally dense over Mistic Lake. This in not unusual. NOW, think of the large number of trucks
the WLC project will use...coughing poison fumes which will combine withe natural smog and float down the valley to SJ, Hemet and
other communities. I just hope the wind doesn't blow those fumes to the near west. That is where I live...along with a lot of other Moreno Valley residents. 1

Byron Johnson
14707 Grandview Dr.
951-243-5605

RESPONSES TO LETTER G-32

Barbara and Bryon Johnson

Response to Comment G-32-1. The commenter notes the possibility of emissions truck emissions from the project mixing with natural fog in the San Jacinto-Hemet area.

While it is certainly possible for fog to form in the Mystic Lake area on occasion, the project's emissions would more than likely be dispersed to background pollutant levels (levels unaffected by the project) well away from the residential areas of San Jacinto (9 miles away) and Hemet (13 miles away).

Letter G-33: Tom Behrens (email) (April 8, 2013)

Letter G-33

Mr Terell and Mr Gross,

I oppose the World Logistic Center Project for the following reasons,

1. I do not feel that the city has looked fully into the long term effects this project will have on the residents of this city nor is the city looking out for the interest of its citizens. 1

2. This project will increase traffic on the 60 freeway and arterial streets by hundreds if not thousands of vehicles day the 60 freeway can not handle this added traffic daily and the traffic will be using arterial streets as alternatives I do not think the city streets have been designed for this type of continues traffic use. 2

3. Noise will be a concern as traffic will use the arterial streets which run through residential areas. 3

4 Safety will be a concern as trucks use arterial streets to bypass the heavy traffic on the 60 freeway they will pass many school zones on Ironwood such as Box Springs Elementary, Palm Middle School, Calvery Chapel Christian School to name a few. 4

4. Air quality will be a major concern with the added traffic most of the emmissions and soot from the trucks will linger in the valley to the south of the proposed project and may continue into the San Jacinto Valley. 5

5. The views of the valley will be lost after the project is completed. 6

6. The warehousing operations are modern and automated which will reduce jobs not increase jobs this was evident with Skecthers. 7

7 Most of the jobs will be performed by temporary employees not permanent employs the helps keep cost down for the employers and make personal adjustments as necessary for the work load. 8

8. There is nothing firm that city residents will be hired to work in these warehouse positions. 9

9.. There are no truck stops in Moreno Valley so there will be very little tax revenue from fuel purchase but these large truck will be using the cities roads causing damage. 10

Tom Behrens
tom.behrens@verizon.net
24040 Kernwood Drive
Moreno Valley, CA 92557

To: Mr. Terrell

Mr. Gross

April 7, 2013

Re: World Logistics Center Project, Moreno Valley California

SCH # 2012021045

MR. Terrell and Mr. Gross

I would like to comment on a few of the issues in the EIR report that was prepared for the World Logistic Center.

4.1.6.1 The views in this area can be very spectacular at certain times of the year that would be a great loss if this project were to be approved. 11

4.2.6.1 The east end of Moreno valley is the last area that has large open space and it should try to be preserved as such. If this project is allowed to proceed there will most likely be zoning changes in the future that will prevent residents from having livestock. 12

4.3.6.1 Air quality is a concern for everyone if approved this project will see a huge increase in truck traffic and also equipment used in and around the warehouse areas there will be idling trucks along roadways waiting to enter the yards increasing emission into the air which will linger in the valley to the south of this area. (This is a concern in Mira Loma) 13

4.3.6.4 Long term air quality should be a number 1 priority. There should not be large increases in emissions, exploring possibilities for reducing emissions should be of the highest priority. 14

RESPONSES TO LETTER G-33

Tom Behrens

Response to Comment G-33-1. The commenter believes the City is not concerned about the long-term effects of the project or the interests of City residents. The Draft Environmental Impact Report (DEIR) evaluates the entire spectrum of potential environmental impacts of the project, and many impacts remain significant, even with implementation of recommended mitigation, mainly due to the size and nature of the project. It is up to the City Council to weigh the estimated benefits of the project against the potential environmental impacts of the project before making a decision on the project. If the City Council decides to approve the project, a Statement of Overriding Considerations will be necessary to show what project benefits outweigh the significant project impacts.

Response to Comment G-33-2. Section 4.15, *Traffic and Circulation*, of the DEIR evaluates the potential traffic impacts of the project on surrounding roads, intersections, and freeways including SR-60 within the City of Moreno Valley and surrounding jurisdictions (e.g., Redlands, Riverside, Perris, etc.). An extensive analysis of traffic-related issues, including those expressed by these commenters, is included in the Responses to Comments F-11-22. The commenters are encouraged to review the specific responses to Letter F-11.

Response to Comment G-33-3. The commenter is concerned about noise on City streets from project traffic. The project noise report (DEIR Appendix K) and the DEIR Section 4.12, *Noise*, assess the potential impacts of project traffic and related noise on local streets. It must be remembered that project trucks will be restricted to established truck routes in the City, and most project trucks will utilize Theodore, SR-60, and Gilman Springs Road for project access. The EIR identifies which local streets will require mitigation such as sound walls, and also a funding mechanism to provide the identified improvements. Truck traffic is barred from going through residential areas west and south of the project site.

Response to Comment G-33-4. Section 4.15, *Traffic and Circulation*, of the DEIR evaluates the potential traffic impacts of the project on surrounding roads, intersections, and freeways including SR-60 within the City of Moreno Valley and surrounding jurisdictions (e.g., Redlands, Riverside, Perris, etc.). An extensive analysis of traffic-related issues, including those expressed by these commenters, is included in the Responses to Comments F-11-36. The commenter is encouraged to review the specific responses to Letter F-11 relative to his own expressed concerns.

Response to Comment G-33-5. Section 4.3, *Air Quality*, of the DEIR evaluates potential air quality and health risk impacts of the proposed project, including diesel particulate matter from diesel truck exhaust and the project's location. An extensive analysis of air quality and health risk-related issues, including those expressed by these commenters, is included in the Master Responses in Letter C-3.

Response to Comment G-33-6. Section 4.1, *Aesthetics*, of the DEIR evaluates the potential aesthetic impacts of the project on neighboring residences and land uses, including views from locally designated scenic routes (SR-60 and Gilman Springs Road). In addition, MM 4.1.6.3A has been modified to preserve the upper two thirds of views of Mt. Russell (refer to Response to Comment F-8-3).

Response to Comment G-33-7. Section 4.13, *Population, Housing, and Employment*, of the DEIR presents detailed information and analyses on the potential number of jobs that could be generated by the WLC project over time. These estimates are based on extensive surveys and collecting data available from the logistics industry, and are different than "standard" or more historical types of warehousing uses (i.e., compared to more high tech logistics warehousing). An extensive analysis of

employment issues, including those expressed by these commenters, is included in the Responses to Comments F-8-105 and F-3-12.

Response to Comment G-33-8. The commenter believes most of the project jobs will be temporary. The project will hire thousands of construction workers as development occurs consistent with the Specific Plan over a period of at least 15 years. In comparison, the warehouses that will be built as part of the WLC project will hire both part-time (not necessarily temporary) and full-time workers, as outlined in the project economic study (DTA 2014) and Section 4.13, *Population, Housing, and Employment*, in the DEIR.

Response to Comment G-33-9. The commenter says there is nothing to require the project to hire City residents. Future users cannot be legally required to hire City residents, and there is no significant employment impact identified in Section 4.13 of the DEIR that requires mitigation. The Development Agreement includes a provisions for a Local Hiring Program.

Response to Comment G-33-10. The new alternative fueling station will generate tax revenues to the City based on the amount of fuel sold to alternative fuel trucks.

Response to Comment G-33-11. The commenter is concerned about loss of views (DEIR Section 4.1.6.1). MM 4.1.6.3A has been modified to require WLC project buildings to not block the upper two thirds of the vertical view of Mt. Russell from the SR-60 Freeway. While this will not eliminate visual impacts of the project, it will substantially reduce them.

Response to Comment G-33-12. The commenter is concerned about the loss of open space and keeping livestock (DEIR Section 4.2.6.1). As the WLC project develops, the existing vacant dry-farmed land that represents the “open space” referred to by the commenter will be lost as it is replaced by large warehouse buildings. This would be an inevitable process if the project is approved by the City. The only persons able to keep livestock right now on the project site would be at the 7 rural residences, and it is anticipated these uses will slowly leave the site as it is developed with warehousing uses. The keeping of livestock on other land within the City would not be affected by the WLC project.

Response to Comment G-33-13. The commenter is concerned about truck emissions (DEIR Section 4.3.6.1). The DEIR identifies a number of air quality impacts of the project in DEIR Section 4.3, *Air Quality*, and its attendant technical study, and also recommends a variety of mitigation to reduce potential impacts. However, long-term air quality impacts will be significant due to the size and nature of the WLC project. If the City Council decides to approve the project, a Statement of Overriding Considerations will be necessary to show what project benefits outweigh the significant project impacts.

Response to Comment G-33-14. The commenter expressed concern about long-term air quality (DEIR Section 4.3.6.4). The Response to Comment G-33-13 above addresses this concern as well.

Letter G-34: Lindsay Robinson (email) (April 7, 2013)

Letter G-34

From: Lindsay Robinson [mailto:lindsay.robinson@ucr.edu]
Sent: Sunday, April 07, 2013 8:54 AM
To: Mark Gross
Cc: Lindsay Robinson
Subject: Official DEIR Comments for the World Logistics Center

To whom it may concern:

I am opposed to the World Logistics Center in Moreno Valley.

I have been a resident of Moreno Valley since 1997 and purchased my home after reviewing the general plan and zoning for my area. I SHOP Moreno Valley to support our city and tax base, and volunteer on a regular basis with non-profit organizations of many types. I used to encourage people to move here, but no more. Long time residents who can afford to move are doing so as they feel that the City Council has sold us out. Unfortunately for me, I don't know that I'll be able to afford to move so will suffer all the negative impacts this project will force on me. 1

I attended meetings when the new general plan was being developed. Residents and employees from throughout Moreno Valley participated in the process and came up with a well balanced general plan. This plan included an new high school at the eastern end of the city as well as keeping the zoning for large lots and animal keeping. It was a well thought out plan that was for the benefit of the residents and the city. That plan and zoning were changed once already to accommodate the Sketchers Warehouse. Mr. Benzeevi made lots of promises to the residents and city council in order to get that change and as most know, he did not fulfill his promises (beautiful freeway landscape, many jobs for residents, keeping the designated trail system etc). As most interested parties know, Mr. Benzeevi has also been very active in supplying funds to elect officials that will support him and he has been instrumental in getting 2

people removed who oppose his plans. Completely changing the general plan after all the hard work and cost goes against the residents and what is fair and honorable. 2

Many studies have been done that link diesel fumes with increased breathing problems especially with children and elderly people. Studies also show that there is a link to autism (Press Enterprise last week). Mira Loma has some of the worst air quality in the **world** and the Inland Empire is a basin that traps particulate matter and damages our health. Please look at all the studies provided by CEQE. It makes no sense to create such a large warehouse district in that area which is surrounded by mountains. Particulate matter travels quite far and will affect all the surrounding communities as well especially when the afternoon winds occur. 3

Additionally that location is unsuitable for increased numbers of trucks as the freeway narrows and winds thru the badlands to meet up with I-10. Accidents in either direction basically close down the narrow freeway, trapping commuters and forcing trucks and cars into residential neighborhoods to find alternate routes. Cities off the I-10 are consulting with Mr. Benzeevi and have stated in a recent Press Enterprise article that their airport district would be a suitable location for a mega-warehouse district. There is also rail line up there, Does that mean we'll be having 2 mega-warehouses within a short distance of each other? High volume truck traffic on narrow winding roads such as Redlands Blvd., San Timeteo Canyon, 60 Fwy east of Moreno Beach, Gilman Hot Springs etc is dangerous and should be taken into account when this project is examined. The residential areas were not designed for truck traffic and the city will not be able to afford to keep up with the repairs needed. 4

Having a mega-warehouse district this far removed from rail line also does not make any sense and again, this area was not planned for ware-houses.Changes in the Panama Canal will lessen the amount of cargo coming through LA not increase it. Why would any business want to truck to a warehouse so far from a rail line and then move it again by truck to the rail line. Economics says they won't. 5

Proponents of the warehouses keep touting high paying jobs and yet we all know that warehouses are automated now requiring fewer employees than ever- and the jobs for regular workers are not high paying. Mr. Benzeevi highly exaggerated the job creation and Sketchers always said they would be bringing their Ontario employees which again, meant few new jobs. The residents were proven correct when the jobs didn't materialize. Additionally during construction, liens were filed because of non-payment to construction companies and non-union electricians were used and the work had to be re-done by proper electricians. Are we going to have the same broken promises and shoddy business practices if this project goes through? 6

And lastly, how can a project of this magnitude be approved and allowed to go forward next to a wildlife preserve? Pollution effects on wildlife can be even more severe than on humans. 7

I realize the City Council of Moreno Valley has basically rubber stamped and approved this project before all the proper procedures were followed as demonstrated by their slide show last year. It's unfortunate that they are putting the wants of one person, Mr. Benzeevi, above the residents of Moreno Valley and surrounding cities who will all suffer if this project is allowed. I'll never understand this type of greed and dereliction of duty. 8

Thank you for allowing me to submit this in opposition to the World Logistics Center in Moreno Valley.

Lindsay Robinson
28399 Black Oak
Moreno Valley, CA 92555

RESPONSES TO LETTER G-34

Lindsay Robinson

Response to Comment G-34-1. The many potential environmental impacts of the proposed WLC project are fully evaluated in the Draft Environmental Impact Report (DEIR), including substantial changes to the general plan and zoning. The City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed World Logistics Center (WLC) project.

Response to Comment G-34-2. The proposed WLC project includes a General Plan Amendment (GPA) that identifies those portions of the City's General Plan that will be revised if the WLC project is approved, and that GPA was evaluated in appropriate sections of the EIR (e.g., 4.10, *Land Use and Planning*). Also, the City does not have the authority to pick and choose which company can occupy which buildings, just as it cannot select which person can buy/rent which home in the City. The City regulates land uses, not individuals occupying specific parcels. The City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

Response to Comment G-34-3. Section 4.3, *Air Quality*, of the DEIR evaluates potential air quality and health risk impacts of the proposed project, including diesel particulate matter from diesel truck exhaust and the project's location. An extensive analysis of air quality and health risk-related issues, including those expressed by these commenters, is included in the Master Responses in Letter C-3.

Response to Comment G-34-4. Section 4.15, *Traffic and Circulation*, of the DEIR evaluates the potential traffic impacts of the project on surrounding roads, intersections, and freeways including SR-60 within the City of Moreno Valley and surrounding jurisdictions (e.g., Redlands, Riverside, Perris, etc.). An extensive analysis of traffic-related issues, including those expressed by these commenters, is included in the Responses to Comments in Letters E-2A and E-2B. The commenter is encouraged to review the specific responses to those letters relative to his own expressed concerns.

Response to Comment G-34-5. The commenter is correct that the proposed project site is not close to a rail line. The widening of the Panama Canal will divert some of the present Los Angeles/Long Beach port traffic to ports on the Gulf Coast and East Coast. However, Ports of Los Angeles/Ports of Long Beach (POLA/POLB) will remain the nation's busiest shipping ports and will continue to expand as imports levels continue to grow in the future.

The provision of a rail service to the project site has been studied to determine if it is an alternative which will reduce the number of trucks driving between ports and the site, and therefore reduce the number of significant impacts. However, it has been determined that this alternative is not a viable option due to the following reasons. The WLC site is not currently served by rail and would need to be aligned to an existing branch. All possible alignments would cause impacts equal or greater than the projected truck traffic. It was also determined that for a rail service to be economical 50 percent of all shipments must be shipped 500 miles or greater on rail. Shipments to the WLC would only be travelling from the ports of Los Angeles and Long Beach, a distance of about 70 miles. Additionally, the existing rail system is already at or near maximum capacity. Therefore, shifting cargo from trucks on freeways to rail would transfer the congestion problem from stressed freeway systems to stressed rail networks. Finally, the reduction in truck traffic to the WLC is projected to be as little as 2 to 7 percent. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project. For further discussion of rail refer to section 4.F of the Traffic Impact Assessment (TIA) Appendix L.

Response to Comment G-34-6. Section 4.13, *Population, Housing, and Employment*, of the DEIR presents detailed information and analyses on the potential number of jobs that could be generated

by the WLC project over time. These estimates are based on extensive surveys and collecting data available from the logistics industry, and are different than "standard" or more historical types of warehousing uses (i.e., compared to more high tech logistics warehousing). An extensive analysis of employment issues, including those expressed by these commenters, is included in the Responses to Comments F-3-12 and F-8-94. The commenters are encouraged to review the specific responses to Letters F-3 and F-8.

Response to Comment G-34-7. Section 4.4, *Biological Resources*, of the DEIR examines potential impacts of the proposed project on existing vegetation and animals. It should be noted that the site generally lacks important biological resources (including wetlands) due to the historical and ongoing disturbance by agricultural activities. The DEIR also examined potential impacts on the nearby San Jacinto Wildlife Area and Mystic Lake, and determined that the project design, with proposed setbacks and landscaped buffers, and recommended mitigation measures would reduce potential impacts on these areas to less than significant levels. In addition, traffic and air quality impacts of the project were evaluated in DEIR Sections 4.15 and 4.3, respectively. Both were found to be significant, even with proposed mitigation, and will require a Statement of Overriding Considerations if the project is approved. The City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

Response to Comment G-34-8. Most of the comments do not apply to the EIR analysis or conclusions, but are personal observations about the project and project review process. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

Letter G-35: Peggy Hadaway and John Neal (email) (April 7, 2013)

Letter G-35

From: Peg Hadaway [mailto:phadaway@roadrunner.com]
Sent: Sunday, April 07, 2013 12:56 PM
To: Mark Gross
Subject: FW: Official DEIR Comments for the World Logistics Center Projects

Resent with corrected email address.

From: Peg Hadaway [mailto:phadaway@roadrunner.com]
Sent: Sunday, April 7, 2013 12:08 PM
To: 'marg@moval.org'
Subject: Official DEIR Comments for the World Logistics Center Projects

We are adamantly opposed to the World Logistics Center Project for the following reasons:

1.Moreno Valley is already deeply in debt and close to bankruptcy. There is no disclosure of how much tax money that will be used for the project. Judging from past projects with the developer, it will be considerable. We can not afford this project! 1

2.The project ignores the state and the federal Clean Air Acts that severely limits the amounts of carcinogen and allergens that can pollute the air from any source in this part of southern California. Highway trucks are already a 2

major source of carcinogen and allergen pollution. The World Logistics Center proposes radically increasing the number of these highway trucks into and out of Moreno Valley. This will be an air pollution disaster for Moreno Valley and all the surrounding towns and counties that will not be mitigated. 2

3. The greatest harm will be to the people of Moreno Valley, especially to the children. There will be enormous increase in diseases, such as cancers, asthma, bronchitis, emphysema, etc. Infants and small children will develop much more slowly both physically and mentally. This will affect them for the rest of their lives and even affect their own children as well. To intentionally and knowingly cause this harm is irresponsible and unconscionable. 3

4. The logistics industry recognizes that movement of product by highway trucks is no longer the most effective, economical, or desirable method. Instead, the use of movement by railroad is being promoted by all the forward thinkers and planners in the logistics industry. 4

5.The area designated by the developer for this project was and is zoned only for residential use. It should remain so. We need to honor our commitments to ourselves and to each other that we made when we agreed to the zoning plan. 5

In summary, the World Logistics Center project is in the wrong place at the wrong time and it will not work no matter how much the city council and the developer tries to make it work. We are residents and property owners and we care that Moreno Valley does not become even more culturally anemic than it is already. It is very telling that the developer himself gives as his address Rancho Ballago, and not Moreno Valley, even if it is not a legitimate mailing address. 6

Peggy Hadaway and John Neal

RESPONSES TO LETTER G-35

Peggy Hadaway and John Neal

Response to Comment G-35-1. The commenter is concerned about the City's financial condition and if it can "afford" the World Logistics Center (WLC) project. Draft Environmental Impact Report (DEIR) Section 4.13, *Population, Housing, and Employment*, analysis the various economic costs and benefits of the WLC project. The Development Agreement between the City and the developer will outline the responsibilities for constructing various infrastructure improvements to support the WLC project. The analysis shows projected fiscal revenues to the City of Moreno Valley totaling $11.2 million dollar (Table 4.13.G) and projected fiscal costs of $5.5 million dollar (Table 4.13.H). The Net Fiscal Impact based on recurring revenues and costs shows a $5.7 million dollar surplus to the City which is equal to 2.03 times the project annual City General Fund costs. (Table 4.13.I). Infrastructure needed to support the demands of the project would be constructed by the developer.

Response to Comment G-35-2. The commenter is concerned about air quality impacts. However, the DEIR does not "ignore" federal and state laws regarding air pollution, but does estimate the amounts and types of air pollutants that can be expected during development and occupancy of the WLC project. Due to the size and type of project, it is estimated the project will have significant air quality impacts, even with implementation of the recommended mitigation measures (see DEIR Section 4.3 *Air Quality*). This information will be presented to the City Council, and they will consider all comments and responses in this Final Environmental Impact Report (FEIR) document, prior to making a decision on the project. If the City Council decides to approve the project, a Statement of Overriding Considerations will be necessary to show what project benefits outweigh the significant project impacts.

Response to Comment G-35-3. Section 4.3, *Air Quality*, of the DEIR evaluates potential air quality and health risk impacts of the proposed project, including diesel particulate matter from diesel truck exhaust and the project's location. An extensive analysis of air quality and health risk-related issues, including those expressed by these commenters, is included in the Master Responses in Letter C-3.

Response to Comment G-35-4. The provision of a rail service to the project site has been studied to determine if it is an alternative which will reduce the number of trucks driving between ports and the site, and therefore reduce the number of significant impacts. However, it has been determined that this alternative is not a viable option due to the following reasons. The WLC site is not currently served by rail and would need to be aligned to an existing branch. All possible alignments would cause impacts equal or greater than the projected truck traffic. It was also determined that for a rail service to be economical 50 percent of all shipments must be shipped 500 miles or greater on rail. Shipments to the WLC would only be travelling from the ports of Los Angeles and Long Beach, a distance of about 70 miles. Additionally, the existing rail system is already at or near maximum capacity. Therefore, shifting cargo from trucks on freeways to rail would transfer the congestion problem from stressed freeway between systems to stressed rail networks. Finally, the reduction in truck traffic to the WLC is projected to be 2 and 7 percent over the next 50 years. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project. Refer to section 4.F of the Traffic Impact Assessment (TIA) FEIR Volume 2 Appendix L-1.

Response to Comment G-35-5. The proposed WLC project includes a General Plan Amendment (GPA) that identifies those portions of the City's General Plan that will be revised if the WLC project is approved, and that GPA was evaluated in appropriate sections of the EIR (e.g., 4.10, *Land Use and Planning*). The City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

Response to Comment G-35-6. The comment does not apply to the EIR analysis or conclusions, but are personal observations about the project and project review process. The DEIR concluded that a number of project impacts (e.g., air quality, traffic, etc.) would be significant even after implementation of mitigation, and the City Council would need to adopt a Statement of Overriding Considerations for the project that state what benefits of the project outweigh the identified significant impacts of the project if it decides to approve the project. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

Letter G-36: Scott Heveran (2 emails) (April 7 and April 8, 2013)

From: Scott Heveran [mailto:saidhev@rocketmail.com]
Sent: Sunday, April 07, 2013 4:17 PM
To: Mark Gross
Subject: CEQA

Letter G-36

I'm not sure my previous comment was recieved . It is my belief from talking to my fellow residents that a future as a logistics hub is NOT desirable. Bringing mor warehouses to our city will brand is unfavorably linked to traffic and pollution 1

Sent from my iPhone

Mark Gross

From: Scott Heveran <saidhev@rocketmail.com>
Sent: Monday, April 08, 2013 2:24 PM
To: Mark Gross
Subject: Re: Comments in response toCEQA

My name is Scott J Heveran.I live at 12109 Swegles Ln 92557. My comments are: I am opposed to WLC because of the pollution and traffic it MUST bring with it. It is my opinion it will forever brand is as Morewarehouse Valley and think we can do a lot better by bringing renewable energy industry to Moreno Valley 2

Sent from my iPhone

On Apr 8, 2013, at 1:08 PM, Mark Gross <markg@moval.org> wrote:

> Good afternoon,
>
> There were no written comments or attachments provided with the e-mail. Please send any written comments to my attention. In order to add you to the mailing list and provide responses to comments within the Final Environmental Impact Report in disk format, please also provide your full name and address for our records.
>
> Thank you.
>
>
> Mark Gross, AICP
> Senior Planner
> City of Moreno Valley
> Community & Economic Development Department Planning Division
> 14177 Frederick Street
> P.O. Box 88005
> Moreno Valley, CA 92552-0805
> Tel: (951) 413-3215
> Fax: (951) 413-3210
> E-mail: markg@moval.org
> Web site: www.moreno-valley.ca.us
>
>
>
>
>
>
> Thank you.
> ----Original Message----
> From: Scott Heveran [mailto:saidhev@rocketmail.com]
> Sent: Friday, April 05, 2013 7:45 PM
> To: City of Moreno Valley
> Cc: Mark Gross
> Subject: Comments in response toCEQA
>
>
>
> Sent from my iPhone

RESPONSES TO LETTER G-36

Scott Heveran

Response to Comment G-36-1. Many of the comments regarding impacts of the World Logistics Center (WLC) project on the overall quality of life, specifically air quality and traffic, were addressed in the Draft Environmental Impact Report (DEIR) Sections 4.4 and 4.15, respectively. The DEIR concluded that air quality and traffic impacts would be significant even after implementation of mitigation, and the City Council would need to adopt a Statement of Overriding Considerations for the project that state what benefits of the project outweigh the identified significant impacts of the project, if it decides to approve the project. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

Response to Comment G-36-2. See Response to Comment G-36-1 of Letter G-36 for a more detailed response to this comment.

Letter G-37: Robert Wilson (email) (April 7, 2013)

From: Robert Willson [mailto:rwwillson@earthlink.net]
Sent: Sunday, April 07, 2013 9:57 PM
To: Mark Gross
Subject: Official DEIR Comments for the World Logistics Center

Letter G-37

Dear Mr. Gross,

I am writing to oppose the approval of the proposed World Logistics Center. The issue that I am most concerned about is the effect that the Center would have on our air quality. As a result largely of regulations of emissions, that pollution problem has been improving gradually over the past two decades or so. But the addition of an estimated 14,000-20,000 additional diesel-emitting truck visits per day is bound to cause a degradation in the quality of the air that we all breathe. This especially affects our children, who like to play outside during the summers when the pollution is the worst. Many students in our schools already are afflicted by asthma, and exposure to diesel particulates can also increase the risk of cancer among those of all ages. 1

A second area of concern is damage to our streets from all of the trucks traveling over them. The proponents definitely can't guarantee that all of the trucks will stay on prescribed truck routes. Also, who is going to pay for the millions of dollars in infrastructure improvements that will be required? 2

Most of the home-owners on the east side of Moreno Valley purchased their houses under the assumption that the City would adhere to the general plan, which calls for high-end homes and small commercial development in the area. Instead, if this is approved, they will be getting an enormous warehouse complex which will be a magnet for many thousand of trucks each day. 3

I respectfully urge the City Council to not approve such a huge, destructive project.

Robert Willson
Moreno Valley

RESPONSES TO LETTER G-37

Robert Wilson

Response to Comment G-37-1. Section 4.3, *Air Quality*, of the Draft Environmental Impact Report (DEIR) evaluates potential air quality and health risk impacts of the proposed project, including diesel particulate matter from diesel truck exhaust and the project's location. An extensive analysis of air quality and health risk-related issues, including those expressed by these commenters, is included in the Master Responses in Letter C-3.

Response to Comment G-37-2. Mitigation measures in Section 4.15 of the DEIR to require installation of various road and intersections improvements and payment of Development Impact Fees (DIF) for infrastructure, including roads.

Response to Comment G-37-3. The proposed World Logistics Center (WLC) project includes a General Plan Amendment (GPA) that identifies those portions of the City's General Plan that will be revised if the WLC project is approved, and that GPA was evaluated in appropriate sections of the EIR (e.g., 4.10, *Land Use and Planning*). The City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

Letter G-38: Jay and Sylvia Koo (April 3, 2013)

Letter G-38

RECEIVED
APR 3 - 2013
CITY OF MORENO VALLEY
Planning Division

March 27, 2013

John Terell, Planning Official
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Subject: World Logistics Center's Draft EIR (SCH#2012021045) and Planning Cases PA 12-0011, 0012, 0013, 0014 and 0015

I/we, the undersigned, are homeowners in the City of Moreno Valley at the address listed below. We want to make sure that the World Logistics Center has as little impact on our neighborhood as possible. We ask that you incorporate the following mitigation measures:

- Please move all truck traffic off Merwin Street. Relocate Streets D and E as shown on the World Logistics Center Site Plan 500 to 1000 feet east of Merwin Street. Remove all truck traffic from Merwin street. 1
- Please require all security lights to use cutoff luminaires and be located on buildings no higher than 25 feet off the ground. 2
- Please require a 100 foot wide greenbelt area between the residential neighborhoods and the World Logistics Center buildings or streets. 3
-

Sincerely,

Jay Koo
(signature)

Property owner: Name JAY & Sylvia Koo
Address 28800 RAINIER WAY
MORENO VALLEY CA 92555

APN# _____

RESPONSES TO LETTER G-38

Jay and Sylvia Koo

NOTE: This letter is based on a template provided by C. Moothart in Letter G-9. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-38-1. See Response to Comment G-9-9 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-38-2. See Response to Comment G-9-10 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-38-3. See Response to Comment G-9-11 of Letter G-9 for a more detailed response to this comment.

Letter G-39: Eusebio and Elisa Urias (April 3, 2013)

Letter G-39

RECEIVED
APR 3 - 2013
CITY OF MORENO VALLEY
Planning Division

March 27, 2013

John Terell, Planning Official
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

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- Please require all security lights to use cutoff luminaires and be located on buildings no higher than 25 feet off the ground. 2
- Please require a 100 foot wide greenbelt area between the residential neighborhoods and the World Logistics Center buildings or streets. 3
- must meet all requirements. 4

Sincerely,

Eusebio R. Urias
(signature)

Property owner: Name Eusebio R Urias + Elisa J. Urias
Address 28880 Rainier Way
Moreno Valley, Ca. 92555

APN# 304 290 05 E

RESPONSES TO LETTER G-39

Eusebio and Elisa Urias

NOTE: This letter is based on a template provided by C. Moothart in Letter G-9. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-39-1. See Response to Comment G-9-9 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-39-2. See Response to Comment G-9-10 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-39-3. See Response to Comment G-9-11 of Letter G-9 for a more detailed response to this comment.

Letter G-40: Mayra Pelayo (April 3, 2013)

Letter G-40

RECEIVED
APR 3 - 2013
CITY OF MORENO VALLEY
Planning Division

March 27, 2013

John Terell, Planning Official
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Subject: World Logistics Center's Draft EIR (SCH#2012021045) and
Planning Cases PA 12-0011, 0012, 0013, 0014 and 0015

I/we, the undersigned, are homeowners in the City of Moreno Valley at the address listed below. We want to make sure that the World Logistics Center has as little impact on our neighborhood as possible. We ask that you incorporate the following mitigation measures:

- Please move all truck traffic off Merwin Street. Relocate Streets D and E as shown on the World Logistics Center Site Plan 500 to 1000 feet east of Merwin Street. Remove all truck traffic from Merwin street. 1
- Please require all security lights to use cutoff luminaires and be located on buildings no higher than 25 feet off the ground. 2
- Please require a 100 foot wide greenbelt area between the residential neighborhoods and the World Logistics Center buildings or streets. 3
-

Sincerely,

Mayra Pelayo
(signature)

Property owner: Name Mayra Pelayo

Address 28716 Kimberly Ave
Moreno Valley, CA, 92555

APN# _____

RESPONSES TO LETTER G-40

Mayra Pelayo

NOTE: This letter is based on a template provided by C. Moothart in Letter G-9. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-40-1. See Response to Comment G-9-9 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-40-2. See Response to Comment G-9-10 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-40-3. See Response to Comment G-9-11 of Letter G-9 for a more detailed response to this comment.

Letter G-41: Margaret Koehler (April 3, 2013)

March 27, 2013

RECEIVED
APR 3 - 2013
CITY OF MORENO VALLEY
Planning Division

John Terell, Planning Official
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Subject: World Logistics Center's Draft EIR (SCH#2012021045) and Planning Cases PA 12-0011, 0012, 0013, 0014 and 0015

I/we, the undersigned, are homeowners in the City of Moreno Valley at the address listed below. We want to make sure that the World Logistics Center has as little impact on our neighborhood as possible. We ask that you incorporate the following mitigation measures:

- Please move all truck traffic off Merwin Street. Relocate Streets D and E as shown on the World Logistics Center Site Plan 500 to 1000 feet east of Merwin Street. Remove all truck traffic from Merwin street. 1
- Please require all security lights to use cutoff luminaires and be located on buildings no higher than 25 feet off the ground. 2
- Please require a 100 foot wide greenbelt area between the residential neighborhoods and the World Logistics Center buildings or streets. 3
-

Sincerely,

Margaret Koehler
(signature)

Property owner: Name Margaret Koehler
Address 28942 Maltby Ave
Moreno Valley, CA 92555

APN# _____

RESPONSES TO LETTER G-41

Margaret Koehler

NOTE: This letter is based on a template provided by C. Moothart in Letter G-9. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-41-1. See Response to Comment G-9-9 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-41-2. See Response to Comment G-9-10 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-41-3. See Response to Comment G-9-11 of Letter G-9 for a more detailed response to this comment.

Letter G-42: Kathleen Dale (April 8, 2013) and Appendix 1 (on Flash Drive)

April 8, 2013

Letter G-42

John Terell, Planning Official
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

RE: World Logistic Center (WLC) Project Draft EIR (SCH No. 2012021045

Mr. Terell:

The following comments are submitted in response tothe public review period for the referenced document. These comments are based upon a very preliminary review of the 1,094 page draft EIR document and indicate that there are substantial deficiencies that warrant recirculation of a revised draft EIR.

1. Alternatives

The build alternatives presented in the draft EIR represent an arbitrary range of scenarios with no relationship to the identified significant impacts of this project. CEQA Guidelines Section 15126.6 requires that an EIR include a reasonable range of alternatives that would avoid or substantially lessen the significant environmental impacts of the project. Also, the conclusory dismissal of and off-site alternative is predicated on an assumption that the project could only be located at another single site. There is no indication that agglomeration of a minimum square-footage of high-cube warehousing is a basic objective of the project. Accommodation of the indicated building area at more than one off-site location should also be addressed as a viable off-site alternative. 1

2. Project Description/Cumulative Projects/Traffic Impacts

Recent articles in the Press-Enterprise (March 25, 2013 – "City Seeks Guidance from Moreno Valley Developer" and March 26, 2013 – "Council Approves Negotiating Agreement with Moreno Valley Developer") have disclosed dealings of the project proponent with the City of Banning to develop a multi-modal center entailing air, rail and logistics uses centered around Banning's municipal airport, this proposed facility is referred to as the Morongo Inland Port and Intermodal Center. The March 25th article discloses that Highland Fairview has been under contract with the City of Banning for this proposal since last November and cites activities dating back to 2011.

It seems implausible that there is not a connection between the proposed WLC project and the proposed Morongo Inland Port and Intermodal Center. While the Banning project is clearly in early stages, the involvement of the same developer and the apparent timeline demands disclosure of this connection in the WLC EIR. In particular, this connection has substantial ramifications as to assumed truck trip distribution and all impact categories related to truck traffic (traffic, air, greenhouse gases, and noise). At page 4.15-32 of the draft EIR, it is stated that 82% of the truck traffic is assumed to be travelling to the west. With an inland port and multimodal facility situated to the east, this heavily skewed distribution of traffic to the west is suspect. At a minimum, an alternative or future scenario analyzing traffic patterns between the rail and air facilities to the east should be addressed. 2

Letter G-42

3. Biological Resources Impacts/Western Riverside Multiple Species Habitat Conservation Plan Consistency

Mitigation Measure 4.4.4.6D for potential impacts to burrowing owl is not consistent with the provisions of the Western Riverside Multiple Species Habitat Conservation Plan, which also require more extensive habitat replacement provisions if more than three pairs of Burrowing Owls are found in pre-construction surveys (see objective 5 in MSHCP excerpt provided with this letter).

This section of the EIR repeatedly refers to the DBESP as a Determination of Biologically Equivalent or Superior Project, rather than Determination of Biologically Equivalent or Superior Preservation. This, together with the mischaracterization/lack of recognition of the MSHCP burrowing owl provisions calls into question the accuracy of the analysis of consistency with the MSHCP, to which the City is a signatory and participating entity. This section of the EIR should be revisited to ensure that provisions of the MSHCP are accurately identified and incorporated in the mitigation program. 3

4. Impacts of Off-site Traffic Improvements

The traffic study identifies an extensive inventory of road improvements required to maintain appropriate Level of Services Standards throughout the City of Moreno Valley and an extended regional influence area beyond. These improvements are identified specifically by location and nature of improvement, providing an adequate level of information to evaluate associated impacts of construction. It is not evident that the impacts of these off-site improvements were considered in the draft EIR. For instance, the added lanes noted for the intersection of Cactus Avenue and Elsworth Street would likely encroach upon the jurisdictional stream along the south side of Cactus Avenue and could impact the existing commercial uses at this intersection. Potential impacts associated with implementation of all off-site traffic improvements also require disclosure in a revised draft EIR. 4

I trust that these comments will be given due consideration in the analysis of comments on the draft EIR and that the City will arrive at the conclusion that circulation of a revised draft EIR is warranted. While it is not directly germane to the draft EIR review process, please note that I am opposed to the proposed WLC project and would hope that the City leaders and Council will acknowledge the extensive array of significant and unavoidable impacts within the City and throughout he extended region as a clear indication that this expansive change to the adopted General Plan should be denied.

Respectfully submitted,

Kathleen Dale
25157 Aleppo Way
Moreno Valley, CA 92553

RESPONSES TO LETTER G-42

Kathleen Dale

Response to Comment G-42-1. It is the commenter's opinion the alternatives studied in the Environmental Impact Report (EIR) are not a reasonable range as required by California Environmental Quality Act (CEQA). The alternatives analysis in the EIR does in fact represent a reasonable range of alternatives, including several with reduced impacts. However, those alternatives must be evaluated in light of project objectives, which in this case are to create a regional logistics center with significant new employment. Project objectives include:

- Create substantial employment opportunities for the citizens of Moreno Valley and surrounding communities.
- Provide the land use designation and infrastructure plan necessary to meet current market demands and to support the City's Economic Development Action Plan. See FEIR Volume 1 Response to Comments Section 1.5.1 for 2011 and 2013 Economic Development Action Plan objectives related to the WLC.
- Create a project that will provide a balanced approach to the City's responsibilities of fiscal viability, economic expansion, and environmental integrity.
- Encourage new development consistent with regional and municipal service capabilities.
- Significantly improve the City's jobs/housing balance and help reduce unemployment within the City.
- Provide thousands of construction job opportunities during the project's build-out phase.

A plan of this scope and scale must by its very nature have broad and large objectives, some of which could not be met by much smaller or very different projects. Indeed, it would be very difficult for just about any project of this size (i.e., 2,600 acres) to substantially reduce the significant impacts identified for the proposed project except possibly for air quality (i.e., health risks from diesel particulate matter and toxic air contaminants from diesel exhaust). All of the other project alternatives propose land uses that would not produce as many truck-related air emissions (e.g., No Project - Moreno Highlands Specific Plan, Less Intense Alternative, and Mixed Use Alternatives A and B). However, some would produce substantially more vehicular traffic and would not introduce nearly as much employment within the City of Moreno Valley as the proposed project which helps improve the City's jobs/housing balance.

CEQA also requires an evaluation of alternative sites that could reasonably support the proposed project as characterized in the EIR. The reason for this analysis is to determine if moving the project to some other site would reduce or eliminate one or more significant impacts. In other words, this analysis is to determine if there is something about the project site itself that generates a significant impact in combination with the proposed project. In this case, the proposed World Logistics Center (WLC) project is so large that its placement anywhere within the Southern California basin would likely generate similar types of impacts other than possibly aesthetic impacts (project site is near a locally scenic highway). It should be noted that the EIR used the ability of an alternative site to accommodate the proposed project, and the significant impacts of the proposed project as the two main factors to evaluate alternative sites.

Response to Comment G-42-2. First, the baseline conditions for the Draft Environmental Impact Report (DEIR) analysis were established well before any discussion of potential warehousing sites in Banning, as outlined by the commenter. Also, there is no relationship to the referenced project due to the City of Banning choosing not to pursue the project. The analysis of impacts to the proposed WLC site must necessarily be separate from analysis of any specific site or sites in other jurisdictions, other

than the "alternative sites" analysis described in the Responses to Comments G-52-1 and G-52-2. The EIR has been prepared a programmatic level so the analysis of potential alternative sites must also be at a programmatic level.

Response to Comment G-42-3. The commenter expresses concern about impacts to burrowing owls (BUOW). Section 4.4.6.4 of the DEIR examined in detail potential impacts to burrowing owls, which have not been found in abundance on this site. No more than a single pair of burrowing owls have been observed within the World Logistics Center Specific Plan (WLCSP) during any of the focused burrowing owl surveys conducted within the last eight years (See Section 4.4.3.6 of the DEIR). However, in the event that more than 3 pairs of burrowing owls are observed during an updated burrowing owl protocol survey or a pre-construction survey, 90 percent of the suitable habitat will be conserved until the conservation goals for burrowing owl have been met. This is a general requirement under the Riverside County Multiple Species Habitat Conservation Plan (MSHCP), and although not anticipated, it should be mentioned as a possibility. This procedure is outlined in MM 4.4.6.4D of the EIR. The use of the term DBESP has been corrected to Determination of Biologically Equivalent or Superior Preservation.

Response to Comment G-42-4. The commenter is concerned that implementation of recommended mitigation measures in the DEIR must be addressed in the EIR. While it is possible that the drainage course mentioned by the commenter might be affected by improvements at the cited intersection, it is also possible the design of future improvements may avoid impacts to the drainage, or it is possible that the drainage may have already been affected by improvements made by another proposed development. This is the case with a long-range programmatic EIR such as for the WLCSP. However, the DEIR clearly states that subsequent analysis of specific development, and its attendant specific mitigation, will be evaluated and implemented as appropriate in the future to maintain City standard levels of service, as outlined in the DEIR traffic impact assessment (TIA). For example, subsequent development in the future will require project specific traffic studies tiered off of the programmatic TIA in the WLCSP EIR.(FEIR Volume 2 Appendix L). The City Council will review all comments on the EIR and responses to these and all comments prior to making a decision on the WLC project.

Response to Appendix 1 (Table 9-2 Species Conservation Summary (MSHCP), pp. 9-59-9.61). This appendix was directly referenced in the comment letter. The reference identifies the habitat replacement is required for impacts to more than three pairs of burrowing owls are found during pre-construction surveys. This information is correct and has been corrected. The information was considered in preparing the response to comments. In addition, the commenter has asked that the DEIR be recirculated. The commenter is referred to Response to Comment F-7A-11 to address the issue of recirculation.

Letter G-43: Catherine Yorkovich (email) (April 8, 2013)

Letter G-43

-----Original Message-----
From: cathyyurkovich@roadrunner.com [mailto:cathyyurkovich@roadrunner.com]
Sent: Monday, April 08, 2013 4:30 PM
To: John Terell
Subject: Official Comments for the DEIR for the WLC

I oppose the World Losgistics Project due to the negative health impact of diesel particulates which will destroy our quality of air and oppose the number of trucks on our freeways that this project will produce. 1

I am requesting confirmation that my email was received. Thank you.

Catherine R. Yurkovich
--
Catherine R. Yurkovich
cathyyurkovich@roadrunner.com
(951) 924-5622
PLEASE NOTE: change in email address

RESPONSES TO LETTER G-43

Catherine Yorkovich

Response to Comment G-43-1. Many of the comments regarding impacts of the World Logistics Center (WLC) project on the overall quality of life, specifically air quality and traffic, were addressed in the Draft Environmental Impact Report (DEIR) Sections 4.4 and 4.15, respectively. The DEIR concluded that air quality and traffic impacts would be significant even after implementation of mitigation, and the City Council would need to adopt a Statement of Overriding Considerations for the project that state what benefits of the project outweigh the identified significant impacts of the project, if it decides to approve the project. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

Letter G-44: Jerry Villaneuva (email) (April 8, 2013)

Letter G-44

From: Jerry Villanueva [mailto:romans132004@aol.com]
Sent: Monday, April 08, 2013 10:00 AM
To: Mark Gross
Subject: World Logistics Center DEIR

Greetings,

My name is Jerry N. Villanueva, I am (59) years old and I have been a resident of Moreno Valley since 1984. Our first home was near Fir Ave. and Willow Tree Ave but we now live at 28040 War Admiral St. near Cottonwood and Moreno Beach Drive.

I have made an attempt to read, review and understand the posted World Logistics Center DEIR but honestly there is a lot of information in the report which I am sure is complete and thorough but fails to meet the basic concerns of myself and my neighbors. 1

We know that despite our efforts we are losing the last area of Moreno Valley that offers rural living and the beautiful view of our fields and mountains. We also know that our neighborhoods will be overwhelmed with trucks, vehicle traffic, pedestrians, etc. and are not happy.

I have been in law enforcement for almost (35) years with the first (20) years working in a small suburb of Los Angeles and have witnessed first hand the result of warehouses in or near residential areas and the crime/destruction it brings to a city.

So I find all the plans, photos and words describing different results to be worthless. 1

Although I oppose the project, I was looking in the DEIR for any mention of how the police department will be supported in order to address the crime and traffic issues this project will bring. Is there any plan to provide the police department with a Commercial Vehicle Enforcement Unit? Will there be funding to train our officers and provide them with the proper equipment to enforce commercial vehicle laws as well as the vehicle code violations which are sure to occur? Will there be a specific number of officers assigned to this area? 2

If we are going to allow this project to continue, why not consider the handling of these issues now? By working with the traffic court judges and clerical staff, commercial enforcement can be a huge revenue source for the city. If the city were to adopt municipal codes similar to the vehicle code violations and train the officers to cite for those codes, the fines could go to the city instead of the DMV, State and other agencies. 3

If you are not the correct person to receive this objection and recommendation, could you please forward it to the right department and please acknowledge receipt of this email. 4

Thank you very much for your time and the work you do,

Jerry N. Villanueva
romans132004@aol.com
(951) 675-5704

RESPONSES TO LETTER G-44

Jerry Villaneuva

Response to Comment G-44-1. Most of the comments do not apply to the Environmental Impact Report (EIR) analysis or conclusions, but are personal observations about the project and project review process. The Draft Environmental Impact Report (DEIR) concluded that a number of project impacts (e.g., air quality, traffic, etc.) would be significant even after implementation of mitigation, and the City Council would need to adopt a Statement of Overriding Considerations for the project that state what benefits of the project outweigh the identified significant impacts of the project. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed World Logistics Center (WLC) project.

Response to Comment G-44-2. The commenter is concerned about police services for this project. Section 4.14, *Public Services*, of the DEIR evaluated potential impacts of the World Logistics Center (WLC) project on existing police services, and determined they are less than significant and do not require mitigation. The City police department will consider and implement programs like the suggested programs as needed to continue to protect public safety within the WLC project. It is anticipated that the WLC project will provide additional tax revenues to the City, a portion of which will go for continued or expanded police service as needed as the WLC project develops (DEIR Section 4.14.6.1).

Response to Comment G-44-3. The commenter is correct that such a program or programs could generate additional revenues to the City and courts, and the City Council will consider all comments and responses like this before making a decision on the WLC project.

Response to Comment G-44-4. The commenter wanted to make sure the comments got to the right person. This is indeed the correct forum for presenting your comments, and the City Council will consider all comments and responses like this before making a decision on the WLC project.

Letter G-45: Ted and Marica Amino (email) (April 8, 2013)

From: Marcia Amino [mailto:tmamino@aol.com]
Sent: Monday, April 08, 2013 10:25 AM
To: Mark Gross; John Terell
Subject: OFFICIAL COMMENTS FOR DEIR FOR RORLD LOGISTICS CENTER "WLC"

Letter G-45

E-MAILED APRIL 8, 2013
Please provide a confirmation of receipt of this e-mail.

We are opposed to the WORLD LOGISTICS CENTER PROJECT for the following reasons:

Chapter 4.3 in Air Quality Section Pg 4.3-36 states that Dr. James Enstrom believes that the risk from diesel PM is exaggerated (2008), However, http://oehha.ca.gov/public_info/facts/pdf/diesel4-02.pdf states that diesel health impacts are negative and our city, in order to protect our health and welfare owes it to the residents to use caution and protect us from negative development impacts, thus this project should not be approved. 1

Chapter 4.3 in Air Quality Section Pg 4.3-39 says that the localized significance threshold analysis in Scenario 1 having 2012 for phase 1 buildout is exaggerated because of cleaner diesel engines, so this presents a worst case scenario. Further Scenario 2 states buildout for phase 1 occurs in 2017 and and phase 2 occurs in 2022 and impact of diesel should be less because of the assumption that the future diesel fleets will have less emissions and resulting impacts in the air. California has postponed the more stringent diesel emission standards http://www.dailyfinance.com/2010/12/17/california-postpones-its-diesel-emission-standards/ and https://www.cmca.com/pdf/maintenance/CTA_CARB_GUIDE_04.12.pdf and although phasing has started, I believe, it varies on year of truck, model, standard, etc. http://www.truckline.com/AdvIssues/Environment/Documents/California%20Tractor-Trailer%20Regulation.pdf so there will still be a period of time before all the appropriate equipment or upgraded trucks are on the roads and running, and in the meantime the diesel particulate matter will increase in Moreno Valley's area and negatively impact the health of residents, especially our children and elderly, thus this project should not be approved. 2

Chapter 4.3 in Air Qualty Section Pg 4.3-49, Section 4.3.6.1: Implementation of the proposed project has the potential to conflict with implementation of the SCAQMD 2012 AQMP. This project has the likelihood of adding to air quality degradation and include air quality violations which is not acceptable to an area that currently has some of the worst air quality in the nation per our SCAQMD http://www.pe.com/local-news/topics/topics-environment-headlines/20121221-moreno-valley-district-raps-warehouse-plans.ece 3

Mitigation in a vacuum is no in name only. Moreno Valley residents deserve a high quality of life and that includes air that does not contribute to asthma in all age groups, especially our most vulnerable and a city council that understands that their job is to protect the quality of life in our city and that promising cheap jobs that may or may not materialize is not doing their job. 4

This project is being viewed alone and not in conjunction with the accompanying development of numerous other warehouses that are now active in Moreno Valley, and as such, all the estimated air quality impacts and accompanying mitigations measures are inadequate. Refer to SCAQMD letter dated 12-14-12 to John Terrel, Planning Director, Community & Economic Dev Dept. for the City of Moreno Valley. 5

There are many reasons this project should not be approved, and the Press Enterprise editorial of 1-6-13 says it best, http://www.pe.com/opinion/editorials-headlines/20130106-editorial-restrict-air-pollution-from-moreno-valley-warehouses.ece

P-E Editorial 1-6-13

Moreno Valley needs to take a more stringent approach to air pollution from warehouse traffic than the city now proposes. A city contemplating a vast expansion of warehouse space should take every possible step to curb diesel emissions — for the good of city residents and the region.
The South Coast Air Quality Management District says that Moreno Valley is pushing ahead with warehouse projects without doing enough to protect air quality. The district last month urged the city to put stronger restrictions on the proposed 1.5 million-square-foot March Business Center, slated for land east of Heacock Street near March Air Reserve Base, which is still moving through the city's approval process. The district wrote the city after the project's environmental report in November rejected the agency's suggestions for cutting pollution from truck traffic as impractical. 6

Air quality should be a fundamental concern for any city proposing to become a warehouse center, as Moreno Valley is. Warehouses are at best a mixed proposition for a city already grappling with heavy traffic congestion in a region with some of the dirtiest air in the nation. Exhaust from diesel engines is a primary source of pollutants, particularly the tiny particle pollution linked to a variety of heart and lung ailments, including cancer and early death. Not surprisingly, fears of deteriorating air quality are one of the biggest reasons for public opposition to city warehouse projects. 6

So Moreno Valley should address that issue aggressively, especially given the city's plans for millions more square feet of warehouse space — including one proposal for a massive warehouse complex equal in size to more than 700 football fields. If the projects advance, strict air quality requirements from the start could help the city avoid becoming an object lesson in pollution-spewing planning.

Yet the city's response to the air quality regulators' concerns hardly builds public confidence that the city is carefully considering its rush to build warehouses. The air agency said the city could, for example, require trucks serving the warehouse to meet 2010 emissions standards, or create a plan to phase in newer, cleaner trucks as quickly as possible. The city could also require warehouse tenants to apply for government grants to retrofit or replace older trucks, among other steps. The city's reaction: Moreno Valley has no control over truck emissions, which fall under state and federal law. The city also called the air quality agency's proposed solutions infeasible. 7

Other local governments do not share that view, however. The air district points to projects in San Bernardino and Mira Loma, where planners imposed such conditions on warehouse proposals. Those examples suggest that the issue is not legality and feasibility, but political will. 8

And council members' complaints that the air quality district is unfairly picking on Moreno Valley miss the point. The real issue is whether the city is acting responsibly in pursuing warehouse development. The city envisions a massive logistics hub, and yet wonders why anyone would complain when officials wave off concerns about pollution from truck traffic? Moreno Valley should not have to sacrifice air quality for the city's future. Southern California has managed to greatly improve its air even as the region's economy expanded, but not by scrimping on pollution control measures. Moreno Valley can grow and still do everything possible to protect residents' health and the region's air — but not if the city takes a hands-off approach to diesel pollution. 9

Moreno Valley would do well to look at California Cities with high environmental and quality of life standards as both go together, much as the City of Berkeley has stated very well,

"**Goal #3: Protect local and regional environmental quality**: Without a healthy environment, the high quality of life in Berkeley will be degraded for present inhabitants and future generations. This Plan emphasizes the protection of the environment, both locally and regionally. It addresses City programs and actions, the importance of regional solutions, and the importance of the actions of the individual in day-to-day decisions on the health of the environment."

Improve Air Quality and Conserve Resources. Air quality in the Bay Area is threatened by increased emissions from motor vehicle use and other sources. The City Council recently the Resource Conservation and Global Warming Abatement Plan. Many policies from that plan are incorporated into the General Plan. The Plan's Transportation Element contains policies to reduce automobile use and the Land Use Element encourages housing development along transit corridors to reduce the need for automobiles. http://www.ci.berkeley.ca.us/contentdisplay.aspx?id=488 10

Ted and Marcia Amino
Morneo Valley Residents
951-247-8225
tmamino@aol.com

RESPONSES TO LETTER G-45

Ted and Marica Amino

Response to Comment G-45-1. The commenter notes the citation from Enstrom in the Draft Environmental Impact Report (DEIR) that concluded that risk from diesel particulate matter (PM) is exaggerated and then cites a study from the Office of Environmental Health Hazard Assessment (OEHHA) that discussed the negative health effects of diesel PM. The intent of including the citation from Enstrom was to provide an alternative viewpoint for discussion and informational purposes. The potential negative health effects from diesel PM are discussed at several locations as discussed in the Master Response-2: (refer to Letter C-3) Health Effects of Diesel Particulate Matter.

Response to Comment G-45-2. The commenter notes that because of some rescheduling of compliance dates by the Air Resource Board (ARB), the expected truck emission reductions may also be delayed, resulting in higher emissions than under the original compliance date phase-in schedule.

The project has already committed in a project design feature as well as in Mitigation Measure (MM) 4.3.6.3B to require all diesel trucks that access the project to be compliant with Model Year 2010 or better engines, the cleanest diesel engines required under regulation. Thus, there will be no delay in implementing clean trucks as part of the project.

The commenter says the project should not be approved. This information will be presented to the City Council, and they will consider all comments and responses in this Final Environmental Impact Report (FEIR) document, prior to making a decision on the project. If the City Council decides to approve the project, a Statement of Overriding Considerations will be necessary to show what project benefits outweigh the significant project impacts.

Response to Comment G-45-3. The commenter questions some of the phasing assumptions relative to air pollutant estimates. The commenter should note that project phasing was extended from 10 to 15 years which would allow more time for the state emission control regulations to be enacted, including for World Logistics Center (WLC) project trucks. In addition, the project was reduced by 3 percent and the traffic and air quality reports revised to respond to the many comments on the DEIR and utilize more accurate assumptions about project-related air pollutant emissions. Therefore, the City continues to believe the estimates of air pollution impacts during project phasing are still worst case estimates. See also Response to Comment G-45-5 for more information on cumulative impacts and the Air Quality Management Plan (AQMP).

The commenter indicates the project has the potential to conflict with implementation of the South Coast Air Quality Management District (SCAQMD) Air Quality Management Plan. The commenter is correct. The commenter also indicates that adding air quality violations is not acceptable. The policies of the region do not seek to attain compliance with ambient air quality standards through prohibiting growth. In fact, regional planning documents such as the South Coast Air Quality Management Plans seek to reduce air emissions through the application of advanced emission control technology, which this project is implementing through measures such as requiring 2010-compliant trucks. All of the air quality improvements in the South Coast Air Basin over the 50 years have been achieved through the use of cleaner technologies, not prohibitions on development.

Response to Comment G-45-4. The commenter expresses concern about mitigation and the City's decision-makers. This does not make a specific comment about the WLC project or EIR, but the City Council will consider all comments and responses on the project and EIR before making a decision. The commenter indicates that Moreno Valley residents deserve air that does not contribute to asthma. The comment is noted; the City Council will consider all comments on the project prior to making a decision on the project.

Response to Comment G-45-5. The cumulative analysis in Section 4.3.7 of the DEIR examined cumulative air emissions from the project and expected growth in the project area through 2035, as outlined in Section 3.6, *Project Description – Cumulative Projects*, of the DEIR. Section 4.3.7 of the DEIR determined the project was not consistent with the 2012 AQMP. If the City Council decides to approve the project, a Statement of Overriding Considerations will be necessary to show what project benefits outweigh the significant project impacts, including air pollution. The Traffic Impact Assessment (TIA) incorporates cumulative traffic from all known land development projects and all funded roadway projects, as stated in Section 7 in the revised TIA (FEIR Volume 2 Appendix L-1). The air quality localized analysis and the health risk assessment take into account this cumulative traffic on the freeways and roadways in Moreno Valley (see revised air quality analysis in FEIR Volume 2 Appendix D-1). Therefore, the project analysis does take into account the other development in the area.

The commenter refers to the SCAQMD letter dated 12-14-12. We believe this letter refers to the SCAQMD's comments on the FEIR for the proposed March Business Center. (http://www.aqmd.gov/ceqa/igr/2012/December/MarchBC_RTC.pdf). The commenter is wondering if the March Business Center has been included as a cumulative project. As of the time the notice of preparation (NOP) was issued, no portion of the March Business Center was completed and generating traffic, therefore it was not included in the baseline conditions for the TIA. However, it was included as part of the cumulative growth projections in the TIA.

Response to Comment G-45-6. The commenter urges the City to curb diesel emissions. Section 4.3 of the DEIR provided an extensive analysis of air quality impacts, including diesel particulate matter (DPM), and provided a number of mitigation measures to help reduce air emission impacts. The project air quality study and Section 4.3 of the DEIR were subsequently revised in large part to respond to comments about air quality impacts of the project. The Master Responses 1 through 5 in Letter C-3 from the South Coast Air Quality Management District provide more information relative to air quality impacts of the project in response to comments on the DEIR. The City Council will consider the information presented in the DEIR and revised technical studies regarding mitigation for air quality impacts and health risks from air pollution. If the City Council decides to approve the project, a Statement of Overriding Considerations will be necessary to show what project benefits outweigh the significant project impacts, including air pollution.

Response to Comment G-45-7. The commenter wants to phase in newer trucks. In fact, the revised air quality study requires earlier implementation of newer and cleaner trucks (Mitigation Measure 4.3.6.3B which requires that diesel trucks be model year 2010 or later).

Response to Comment G-45-8. The commenter refers to air quality mitigation in other areas. Information on measures enacted in other jurisdictions may be useful to decision-makers when considering appropriate mitigation for the WLC Project. However, there is no legal requirement for the City of Moreno Valley to implement measures developed by and in other jurisdictions, the mitigation for WLC project impacts must be proportional and appropriate given the characteristics of this specific project. MM 4.3.6.2A requires 4 Tier 4 equipment and MM 4.3.6.3B requires that diesel trucks during operation be model year 2010 or later. These two mitigation measures will require the cleanest diesel technology available under the current regulatory requirements

Response to Comment G-45-9. The commenter hopes that project job estimates will not outweigh air pollution concerns. The City Council will consider all comments and responses in this FEIR document, prior to making a decision on the project. If the City Council decides to approve the project, a Statement of Overriding Considerations will be necessary to show what project benefits outweigh the significant project impacts.

Response to Comment G-45-10. The commenter refers to Berkeley General Plan Goal #3 regarding air pollution. The City Council will consider the project's consistency or inconsistency with the Moreno Valley General Plan, as well as all comments and responses on the project and the EIR prior to making a decision on the WLC project. It should be noted that the Housing Report (DEIR Appendix O-3) indicated that poverty and unemployment create worse health effects on minorities and low income individuals compared to diesel particulate matter (DPM).

Letter G-46: Tracy Hodge (email) (April 8, 2013)

Letter G-46

From: Tracy Hodge [mailto:Tracy@wrridge.com]
Sent: Monday, April 08, 2013 10:25 AM
To: John Terell; Mark Gross
Cc: tracy@wrridge.com
Subject: DEIR Comments for the WLC

To whom it may concern:

I am a homeowner on the east side of Moreno Valley and have reviewed the Draft Environmental Impact Report with regard to the proposed World Logistics Center and find this project to have insurmountable consequences to our region if approved.

The Health impact, traffic impact, infrastructure impact and loss of economic benefits to our community does not warrant the approval of such a project. This scope development should be deemed unlawful to be situated near residential communities that could even remotely be burdened by the ongoing significances that the project is proposing. 1

It is my opinion that not enough due diligence has been practiced by our local city officials to make an educated decision on the magnitude of such a project. If they have then where is proof of their deliberations and what supporting documents will they provide to prove they have full awareness and acceptance of the consequences of their decision?

Also, where in the justice system does it give a City Council permission to cause direct and indirect physical harm to the citizens due to their decision before their actions become criminal?

Also, with the DEIR presenting the significant impacts with no mitigation to resolve the impact, were is the protection by our City Council to the community to protect us from this sort of demise on every impact level?

To approve this project shows such lack of consideration for the protection of our citizens what charges could this government be held accountable for? There is not enough tax base or ongoing proof of employment to warrant this kind of disregard for the impending consequences. 2

There will be thousands of residents directly in harm's way due to every significant impact this project promises. What will be the City Councils retribution to the citizens within the region with the quality of life willfully being revoked by them due to their decision? This project not only brings health consequences, infrastructure deterioration that our community cannot afford but what about the blighting of our communities and deliberate theft by our City Council of the property owners value and equity of their real estate?

Our elected officials have an amazing opportunity to pay close attention to the communities like Temecula, Riverside, Corona, Rancho Cucamonga just to name a few, that got it right! We are at a pivotal moment in our city's history to make decisions that lay the groundwork for impressive financial rewards that could last for many generations to come. Give us roof tops to house the high wage earners that the medical corridor will attract. Give us Business Parks to bring high wage earners such as medical professionals, engineers, law offices, and high end business components that come to Moreno Valley to do their business instead of having to travel to outlying cities because we do not have those key components to house them. This is an opportunity to bring stable tax base business to our city and build on creating a livable community for all. 3

I oppose this project and any decision to approve such a horrific development within our community! There are no acceptable overriding consideration that could justify approving it as proposed!

Tracy Hodge
13097 Shubert Street
Moreno Valley, CA 92555

RESPONSES TO LETTER G-46

Tracy Hodge

Response to Comment G-46-1. The commenter believes the project will have many impacts, and the air quality/health risk impacts do not outweigh the economic benefits. The potential environmental impacts of the World Logistics Center (WLC) project on both the natural and man-made environment are evaluated in the Draft Environmental Impact Report (DEIR) Sections 4.1 through 4.16. The DEIR determined there would be significant impacts related to views, agriculture, air quality, climate change, land use, noise, and traffic but that impacts to biological resources would be reduced to less than significant levels by project design implementation of recommended mitigation measures. The DEIR identifies a number of air quality impacts of the project in DEIR Section 4.3, Air Quality, and its attendant technical study, and also recommends a variety of mitigation to reduce potential impacts. However, long-term air quality impacts will be significant due to the size and nature of the WLC project, the City Could will consider all comments before deciding whether to approve the project. If the City Council decides to approve the project, a Statement of Overriding Considerations will be necessary to show what project benefits outweigh the significant project impacts.

Response to Comment G-46-2. The commenter questions the City's decision making process and elected officials. The project review process is outlined in the Response to Comment G-46-1. The remaining comments about the City Council and legal protection do not comment on the project or EIR so they will not be responded to here. The City Council will consider all comments and responses on the project and EIR before taking action on the WLC project.

Response to Comment G-46-3. Most of the comments do not apply to the EIR analysis or conclusions, but are personal observations about the project and project review process. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

Letter G-47: Louann Moore (email) (April 8, 2013)

Letter G-47

From: moorelulu@aol.com [mailto:moorelulu@aol.com]
Sent: Monday, April 08, 2013 10:51 AM
To: Mark Gross
Subject: Re: World Logistic Center

Good morning,

Thank you for your response. My name is Louann Moore. I live at 26418 Capay Bay Court, Moreno Valley, CA 92555. I am the original owner/occupant and have lived there over 25 years. I am actually pro-development, but not for this project. 1

In addition to my other email, I also want to say that the estimated top wage/salary range of $60,000 for the World Logistics Center is very low. Considering that is the "high" estimate, it seems the low would be pretty dismal. The warehouse workers will probably never be able to afford a house at that wage, especially since the banks seem to be selling all the foreclosures to investors with cash. Since the recession started, we have wound up with a lot more multiple-family tenants occupying single-family homes in our neighborhood. 2

It is wrong to put industrial development right next to Lake Perris recreational area where people are supposed to be able to have a wilderness experience camping, fishing, boating, and enjoying the outdoors. It does seem like the investors and developers, who don't and won't live in Moreno Valley, will be benefiting and making a profit from the World Logistics Center project, but the residents will be long-term losers, left with massive unsightly industrial buildings and low paying jobs. I doubt that individually we will see benefits from any taxes the City may collect from this project. 3

I think Moreno Valley would be better off to pursue the medical developments and the jobs and professional careers that will follow, The planned locations for those projects are also far more acceptable and compatible with existing uses. 4

Thank you,
Louann Moore

-----Original Message-----
From: Mark Gross <markg@moval.org>
To: 'moorelulu@aol.com' <moorelulu@aol.com>
Sent: Mon, Apr 8, 2013 8:31 am
Subject: RE: World Logistic Center

Good morning,

Thank you for your comments. In order to add you to the mailing list and provide responses to comments within the Final Environmental Impact Report in disk format, please provide your full name and address for our records.

Thank you.

Mark Gross, AICP
Senior Planner
City of Moreno Valley
Community & Economic Development Department
Planning Division
14177 Frederick Street
P.O. Box 88005
Moreno Valley, CA 92552-0805
Tel: (951) 413-3215
Fax: (951) 413-3210
E-mail: markg@moval.org
Web site: www.moreno-valley.ca.us

From: moorelulu@aol.com [mailto:moorelulu@aol.com]
Sent: Thursday, April 04, 2013 9:29 AM
To: Mark Gross
Subject: Fwd: World Logistic Center

Dear Mr. Gross,

I am the owner/occupant of 26418 Capay Bay Court. I agree completely with my daughter's email to you (below). While Moreno Valley needs more business and economic development, we should not be rezoning our beautiful natural habitat for giant warehouses. Warehouses should be located by the 215 and 60 freeways and by City Hall where the land is already zoned for commercial/industrial uses. There should also be more infill redevelopment for places like the old Home Base on Hemlock and other vacant or eyesore spots in the city. Commercial and industrial development should be limited to freeway-side locations and not inland, especially in nature conservancy areas. I do not want to be stuck in gridlock breathing diesel fumes, and I don't think that all the children playing sports at our wonderful Morrison park, Valley View High School and Mountain View Middle School ball fields should be breathing the pollution either. 5

Thank you for your consideration,
Louann Moore

RESPONSES TO LETTER G-47

Louann Moore

Response to Comment G-47-1. The comment does not apply to the Environmental Impact Report (EIR) analysis or conclusion but is a personal introduction. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed World Logistics Center (WLC) project.

Response to Comment G-47-2. The commenter's April 8, 2013 email questioned the wage/salary maximum for the WLC, although the author did not suggest a specific salary range. The Draft Environmental Impact Report (DEIR) relied on average wages provided by governmental sources (i.e. Bureau of Labor Statistics, Employment Development Department and the Census Bureau) for the applicable data within the warehousing and logistics sector, as explained in the Responses to Comments G-90-1 and G-90-2. Importantly, these numbers have been compiled from data sources within the County and Metropolitan Statistical Areas pertinent to the WLC.

In terms of the WLC's anticipated "maximum" employee income, the commenter indicated that an estimated top wage/salary range of $60,000 for the WLC is very low. We are not clear on where the commenter determined that this would be the maximum remuneration paid by the employers to be located in the WLC. While the Applicant expects a wide salary range for warehouse and logistics workers, an average income of $41,076 was applied as a reasonable estimate based on wages provided by the governmental sources listed above. While it is certainly true that many WLC employees may fall into lower income categories, it wouldn't be prudent to suggest that an annual salary of $60,000 is the ceiling as it would neglect a significant number of positions within management, as well as those requiring higher skills and/or educational levels. For example, according to Salaries.com, the median income (salary plus bonus) for an Information Technology generalist working in Moreno Valley is $55,594, with 25% of these employees earning over $66,750 (Exhibit R). As Information Technology generalists are necessary to assure that computer systems are adequately operated and maintained at most businesses, there will be employees filling this position at many firms located WLC. Furthermore, even the lower income jobs that will be provided at the WLC will be an important component of the City's economy, as they meet the needs of students and other individuals who are new to the labor market and/or seeking part-time work due to other obligations, as well as family members from dual-income households.

While not every employee working in a logistics facility will be able to purchase a home, this state of affairs is not atypical of Moreno Valley residents in general, as according to the U.S. Census, 62.9 % of the City's households actually owned their own home between 2008 and 2012. In some cases, WLC employees may be students or retired individuals who at this point in their lives do not intend to own their own homes. In addition, those employees with higher salaries, as well as those with lower salaries who are the second or third income sources in their families, may very well reside in owner-occupied homes. To imply that WLC employees will be buying homes in lower percentages than current Moreno Valley residents may be incorrect.

Response to Comment G-47-3. None of the comments apply to the EIR analysis or conclusions, but are personal and political observations about the project and project review process. The DEIR concluded that a number of project impacts (e.g., traffic, air quality, etc.) would be significant even after implementation of mitigation, and the City Council would need to adopt a Statement of Overriding Considerations for the project that state what benefits of the project outweigh the identified significant impacts of the project, if it decides to approve the project.

Response to Comment G-47-4. The comments do not apply to the EIR analysis or conclusions, but are personal desires for the outcome of the project. It should be noted that the City Council will

consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

Response to Comment G-47-5. None of the comments apply to the EIR analysis or conclusions, but are personal desires for the outcome of the project. Many of the comments regarding impacts of the WLC project on the overall quality of life, specifically air quality and traffic, were addressed in the DEIR Sections 4.4 and 4.15, respectively. Aesthetics was also discussed in DEIR Sections 4.1. The DEIR concluded that air quality and traffic impacts would be significant even after implementation of mitigation, and the City Council would need to adopt a Statement of Overriding Considerations for the project that state what benefits of the project outweigh the identified significant impacts of the project, if it decides to approve the project. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

Letter G-48: Donna Castelos (email) (April 8, 2013)

Letter G-48

From: Donna Casteloes [mailto:dcasteloes@verizon.net]
Sent: Monday, April 08, 2013 10:52 AM
To: Mark Gross
Subject: warehouse project

I strongly objject warehouses that is proposed for East Moreno Valley. 1
Please keep me informed of meetings regarding this project.
Donna Casteloes

RESPONSES TO LETTER G-48

Donna Castelos

Response to Comment G-48-1. The comment does not apply to the Environmental Impact Report (EIR) analysis or conclusion but is a personal objection to the proposed project. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed World Logistics Center (WLC) project.

Letter G-49: Karen Jakpor (April 8, 2013)

Comments on the Environmental Impact Report for the Proposed World Logistics Center in Moreno Valley, California

From: Karen Jakpor, MD, MPH
Physician Volunteer with the American Lung Association in California
16941 Mockingbird Canyon Rd.
Riverside, CA 92504

To: Mr. John Terell
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92553

RE: Comments on the Environmental Impact Report for the Proposed World Logistics Center in Moreno Valley

April 8, 2013

Dear Mr. Terell:

I am a Riverside resident and a physician volunteer with the American Lung Association. I have experienced firsthand the trials of living in an area with severe air pollution as an asthmatic, as I have been admitted to the hospital or ER on numerous occasions with asthma. I am certainly not alone in this struggle, as the prevalence of asthma in Riverside County is 14.5%. If you have ever lost your health, you would realize that as important as jobs are, health is even more important.

I am deeply concerned about the proposed 41.6 million-square-foot World Logistics Center, because upon reviewing the DEIR I found **no less than six "significant and unavoidable impacts."** Please refer to Addendum1-The Executive Summary 1.2 of the "Air Quality, Greenhouse Gas, and Health Risk Assessment Report, World Logistics Center, City of Moreno Valley, California" prepared by Michael Brandman Associates. 1

The American Lung Association's 2012 State of the Air Report gives the Moreno Valley and surrounding Riverside County region an F grade for all three pollutants: ozone, year-round particle pollution and short-term particle pollution. The Riverside-Los Angeles County region was ranked #1 in the nation for worst ozone pollution, #3 in the nation for annual particle pollution, and #4 in the nation for 24-hour particle pollution.(1) Riverside County has 111 unhealthy ozone days and 29 unhealthy particulate matter days per year.(2) As Moreno Valley is already one of the most air-polluted cities in the nation, I would expect the Moreno Valley City Council to reject any proposal that would have numerous **"significant and unavoidable impacts"** that are not mitigated in the environmental impact report. 2

The proposed area for the development is currently a "nonattainment" area for both federal and state standards for PM2.5, PM10, and ozone. With the current state of air pollution in Moreno Valley, and lack of rail and adequate freeway infrastructure along the winding part of the 60 freeway through the "Badlands," it would be hard to find an area in the nation more unsuitably situated for one of the largest warehouse complexes in the world. 3

- How can the city of Moreno Valley help reach "attainment" of state and federal air quality standards by building a 41.6 million-square-foot warehouse complex the equivalent of 700 football fields and adding an estimated 14,682 truck trips per day? 4

- What contributions have Moreno Valley city planners made to help the region attain these standards? 5

I would like to remind Moreno Valley's city council and city planners that air pollution has multiple significant impacts on a community (even when many individuals appear to be unaware of how air pollution affects them.) Approximately 9,200 Californians die each year from particulate air pollution, more than twice the number killed in car accidents. (3, 4) Small particulates are so small that they get absorbed into the bloodstream which carries the particulates to all parts of the body. These particulates are associated not only with lung diseases such as asthma and COPD, but they are also associated with heart attacks, stroke, and cancer. The County of Riverside Department of Public Health released a report which states that Riverside County ranks 32nd in health out of 54 counties. (5, 6) Air pollutants play a role in each of the top 4 causes of death in Riverside County: 1. heart disease, 2. cancer, 3. chronic lower respiratory disease (CLRD), and 4. stroke. When comparing mortality rates from these four diseases with other California counties, Riverside County ranked 54th, 47th, 45th, and 42nd, respectively.(6) 6

I acknowledge that the DEIR includes estimates on the impact of the project on additional cases of cancer. However, air pollution causes numerous health impacts other than cancer. 7

- Please calculate the impact of the additional truck traffic from the proposed World Logistics Center on the additional rate of premature deaths from heart disease, chronic lower respiratory disease, and stroke. 8
- Please calculate the additional health costs that result from the additional disease burden of heart disease, cancer, chronic lower respiratory disease, and stroke. 9

The County of Riverside Department of Public Health estimates that the prevalence of asthma is 14.5% in Riverside County, and among blacks in Riverside County, it is even higher—30.6%.(6) Increasing air pollution is known to be associated with an increased number of cases of asthma, ER visits and hospitalizations for asthma. Millions of lost school and work days occur each year in California due to the health effects of air pollution. The South Coast Air Quality Management District estimates that the monetary costs of air pollution in Southern California alone are at least $14.6 billion dollars per year. (7) In 2005, the cost of asthma hospitalizations in California was $763 million. And approximately 61% of these costs were born by the government through Medicare and Medicaid. (8) 10

- What is the additional economic burden caused by the air pollution produced by the World Logistics Center? 11
- And what proportion of the additional economic burden caused by increased health costs will be paid for by the World Logistics Center? By the county and state governments? By local health insurance plans? By individuals for out-of-pocket costs for expensive inhalers costing $50 per month? 12

Any quality analysis of air pollution health effects in the Inland Empire would certainly not omit discussing the findings in USC's classic "Children's Health Study" which included studying children from Riverside and Mira Loma, California—a highly relevant study. One of the key findings was that children growing up in the most air polluted regions had a stunted rate of lung function growth. In fact, the children of Mira Loma, an area known for a huge number of warehouses and truck traffic, had among the most stunted growth in lung function of the thousands of children studied in Southern California communities. (9) Other key findings in the study showed that there were more asthma exacerbations as traffic-related pollution increased. There were also more newly diagnosed cases of asthma in children in areas with high ozone levels. 13

- Why does this environmental impact report not include information from the USC Children's Health Study in its analysis? 14
- Why is there not a more careful examination and calculation of non-cancer health risks, both acute and chronic? 15

Additional Questions:

- How will using such a large piece of land for warehousing and resultant trucking allow the City of Moreno Valley to comply with SB375 and AB32? 16
- Enumerate the cumulative effects of emissions from other nearby proposed warehouse projects such as this same developer's proposed project in the City of Banning. How much more will the impact be on the emissions of criteria air pollutants for the region when you consider the cumulative effects? What are the cumulative effects of the additional health risks, both acute and chronic, both cancer, and non-cancer effects? What other big warehouse projects are you aware of being considered in neighboring communities which will also burden the freeway infrastructure? 17
- Will the 60 freeway need widening, especially if one considers the cumulative effects of neighboring cities building large warehouse complexes such as Morongo Intermodal? What additional effects would this have on air pollutants? 18
- Why is this large warehouse project being considered in an area that currently has no rail line, so that "cleaner trains" are not even a current option for goods movement? Or are there railroad plans in the works that we are not aware of? If so, how will this impact air quality in the region? Already the current Riverside-Line of Metrolink has comparatively few trains running, as it shares its track with freight trains. If a rail link were expanded to Moreno Valley to service the warehouses, would this reduce available mass transit by Metrolink? What impact would this have on emissions? 19

The draft EIR mentioned that more jobs would be created in Moreno Valley, which could reduce automobile trips by people working and living in Moreno Valley. But previous experience with Mr. Benzeevi's Sketchers warehouse proved that his job creation estimates fell extremely far short. Some suggest the construction of the warehouse caused a net job-loss for the Inland Empire and that people who worked for Sketchers plants in Ontario now commute to Moreno Valley, after they were transferred when the Ontario plants closed. That suggests longer commutes and higher automobile emissions. 20

- Have you considered the impact of commuters traveling to Moreno Valley to work on the level of emissions? 21

According to the Press-Enterprise:

"Predicting warehouse jobs already has proven tricky for Moreno Valley.

The Skechers warehouse, which Benzeevi has held up as a model for buildings at the World Logistics Center, has not delivered on the 1,000 jobs that supporters were trumpeting as the project navigated city approval processes. A city survey in January found 600 jobs there — a rate of one job per 3,000 square feet.

Skechers also shed jobs last year, around the time its distribution operations moved from Ontario to Moreno Valley." 22

The shoe company had employed about 1,000 people in five smaller warehouses before consolidating and moving to Moreno Valley. Skechers notified state offi cials that it would terminate 339 people at four Ontario locations on Oct. 31." (11) 22

In conclusion, based on the enormous size of the proposed World Logistics Center, I am concerned that the project would have an enormous impact on truck traffic, air pollution, health, and health care costs in the surrounding region. As the size of the proposed warehouse complex appears unprecedented, the modeling used in the environmental impact report may have overstated benefits and underestimated risks. I am personally strongly opposed to the proposed project, especially in the absence of adequate mitigation measures. 23

Sincerely,

Karen Jakpor, MD, MPH

Addendum 1:

Executive Summary 1.2 of the "Air Quality, Greenhouse Gas, and Health Risk Assessment Report, World Logistics Center, City of Moreno Valley, Calif ornia" prepared by Michael Brandman Associates.

The Executive Summary 1.2 states:

"The following is a summary of the analysis results:

•The project would exceed the SCAQMD regional emission significance thresholds for VOC, NOX, CO, PM10, and PM2.5during construction.

•The project would exceed the SCAQMD regional significance thresholds for VOC, NOX, CO, PM10, and PM2.5 during operation.

•The project would exceed the SCAQMD localized significance threshold for nitrogen dioxide (NO2) and PM10during operation under worst-case conditions assuming that the project would be operational in the existing year 2012.

•The project would exceed the SCAQMD localized significance thresholds for nitrogen dioxide, PM10, and PM2.5 concentrations during construction and during overlapping construction and operation under the proposed development schedule.

•At final build out, the project would exceed the SCAQMD localized significance threshold for PM10and PM2.5concentrations during operations under the proposed development schedule.

•The project generated construction and operational emissions of diesel particulate matter would exceed the SCAQMD 70-year lifetime cancer risk significance threshold at the existing residential areas located within the Specific Plan and to the west of the project across Redlands Boulevard.

•The project-generated traffic would not result in a carbon monoxide hot spot at project- impacted intersections.

Impact AIR-1:

The project would conflict with or obstruct implementation of the applicable air quality plan. **Significant and unavoidable impact.**

Impact AIR-2: The project would violate air quality standards or contribute substantially to an existing or projected air quality violation. **Significant and unavoidable impact.**

Impact AIR-3:

The project would result in a **cumulatively considerable net increase of criteria pollutants for which the project region is in nonattainment** under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors). **Significant and unavoidable impact.**

Impact AIR-4:

The project would expose sensitive receptors to substantial pollutant concentrations. **Significant and unavoidable impact.**

Impact AIR-5:

The project would not create objectionable odors affecting a substantial number of people. Less than significant impact.

Impact AIR-6:

The project would generate direct and in direct greenhouse gas emissions that would result in a significant impact on the environment. **Significant and unavoidable impact.**

Impact AIR-7:

The project could conflict with an applicable plan, policy or regulation of an agency adopted to reduce the emissions of greenhouse gases. **Significant and unavoidable impact.“**

References:

1. http://www.stateoftheair.org/2012/msas/Los-Angeles-Long-Beach-Riverside-CA.html#
2. http://www.lung.org/associations/states/california/assets/pdfs/sota-2012/sota-2012-south-coast-fact.pdf
3. http://www.arb.ca.gov/research/health/pm-mort/pm-report_2010.pdf
4. http://www.lung.org/associations/states/california/assets/pdfs/advocacy/protect-ab-32/air-pollution-by-the-numbers.pdf
5. http://www.rivcoph.org/Portals/0/pdf/health_profile_press_release.pdf
6. http://www.rivcohealthdata.org/downloads/reports/publications/2013_Community_Health_Profile.pdf
7. http://www.aqmd.gov/pubinfo/PDF/poweringthefuture.pdf
8. http://www.californiabreathing.org/phocadownload/asthmaburdenreport.pdf
9. http://www.scpcs.ucla.edu/news/CHSPolicyBrief.pdf

10. http://www.scpcs.ucla.edu/news/CHSPolicyBrief.pdf
11. http://www.pe.com/local-news/riverside-county/moreno-valley/moreno-valley-headlines-index/20120616-moreno-valley-jobs-analysis-doesnt-mesh-with-warehouse-realities.ece

RESPONSES TO LETTER G-49

Karen Jakpor

Response to Comment G-49-1. The commenter notes that that the project would have six air quality-related significant and unavoidable impacts as shown in the Draft Environmental Impact Report (DEIR). The comment is noted and acknowledged but does not raise any new issues.

Response to Comment G-49-2. The commenter notes the statistics on the state of air quality published by the American Lung Association for the greater Riverside County region including Moreno Valley.

The commenter did not raise any new issues. Air quality in the region has significantly improved in the past two decades, as discussed in the DEIR (Figure 4.3.1: Percent of Days Basin Exceeds Federal Ambient Air Quality Standards (AAQS); Figure 4.3.2: Exceedances of 1-Hour and 8-Hour Federal Standards; Figure 4.3.3: Number of Days per Month Federal Ozone Standard Exceeded, 1976–2000; Figure 4.3.4: NO_x, VOC, and Ozone Trends in the South Coast Air Basin; and Figure 4.3.5: Particulate Matter Trends in the South Coast Air Basin).

Further, a review of $PM_{2.5}$ air quality trends in the Inland Empire including air monitoring data at Mira Loma, Fontana, San Bernardino, and Riverside Rubidoux have shown marked downward trends in the Inland Empire since 2001. $PM_{2.5}$ is often used as a surrogate for airborne particulate matter such as diesel particulate matter (PM). These trends are evident despite the urban and logistics warehouse development during this time period. These trends are shown in the exhibit, Particulate Matter Trends and Emissions Forecast, contained in the revised analysis.

Response to Comment G-49-3. The commenter notes that because of air quality nonattainment in the project region, the site is unsuitable for such a large project and that the project should not be approved

The entire South Coast Air Basin is in nonattainment. If the project were not constructed in the proposed site, warehouses would likely be constructed elsewhere in the air basin. Also see Response to Comment G-49-2. The policies of the region do not seek to attain compliance with ambient air quality standards through prohibiting growth. In fact, regional planning documents like the South Coast Air Quality Management District (SCAQMD) Air Quality Management Plans seek through the application of advanced emission control technology, which this project is implementing through measures such as requiring 2010-compliant trucks. All of the air quality improvements in the South Coast Air Basin over the 50 years have been achieved through the use of cleaner technologies, not prohibitions on development. The City Council will consider all comments made on the project before making a decision on the project.

Response to Comment G-49-4. The commenter inquires how the city can help reach attainment of ambient air quality standards by approving the project. See Response to Comment G-49-3.

Response to Comment G-49-5. The commenter asks how city planners have helped achieve state and federal air quality standards. Local planners help in this regard by requiring individual development projects to comply with established laws and regulations regarding air pollution, and by recommending appropriate mitigation for such projects in the California Environmental Quality Act (CEQA) documents that must be prepared and approved prior to development of such projects. Planners also help achieve these standards by recommending General Plan goals, policies, and objectives that guide future development and City activities in ways that help achieve these standards. However, it is the decision-makers who must adopt and are ultimately responsible for the implementation of the General Plan (see DEIR MMs 4.3.6.2A-D, 4.3.6.3A-D, and 4.3.6.4A).

Response to Comment G-49-6. The commenter provides several statistics that indicate the severity of air pollutants and their health impacts in California and Riverside County. Please refer to Response to Comment G-49-2.

Response to Comment G-49-7. The commenter notes that air pollution causes numerous health impacts other than cancer. Non-cancer health hazards are discussed in the Master Response-2: Health Effects of Diesel Particulate Matter in Letter C-3.

Response to Comment G-49-8. The commenter asks for the calculation of the additional rate of premature deaths from heart disease, chronic lower respiratory disease, and stroke.

Particulate matter (PM_{10} and $PM_{2.5}$) is a public health concern, as it is known to impact both the respiratory and cardiovascular systems. PM_{10} and $PM_{2.5}$ deposition in the lungs and penetration into the bloodstream (for the smallest particles) triggers a range of inflammation responses and exacerbates health problems such as asthma and chronic bronchitis. Individuals susceptible to higher health risks from exposure to airborne PM include children, the elderly, smokers, and people of all ages with low pulmonary/cardiovascular function. The Air Resource Board (ARB) reviewed and summarized the non-toxic health effects (mortality and morbidity) of PM exposure and presented a health effect model attempting to quantify these impacts based on concentration-response functions.[39] This ARB model has been used, for example, to estimate the number of cases of disease and premature deaths linked to PM and ozone exposure from ports and goods movement activity in California.[40]

Although the ARB model has also been used to quantitatively assess project-specific incremental levels of public mortality and morbidity, such calculations are subject to significant uncertainty. Sources of uncertainty include emission estimates, population exposure estimates, concentration-response functions[41], baseline rates of mortality and morbidity that are entered into concentration response functions (C-R functions), and occurrence of additional not-quantified adverse health effects. It should be noted that the nature of PM as a complex mixture of various pollutants, as well as the confounding health effects of pollutants such as sulfur dioxide, nitrogen dioxide, carbon monoxide, and ozone that tend to co-occur with PM in ambient air, greatly increase the complexity of deriving accurate PM concentration-response functions. Health risk estimates derived in the presence of significant uncertainty tend to rely on very conservative assumptions that may greatly overestimate the potential adverse health effects. As stated by ARB in a 2006 study of diesel PM exposure from ports and goods movement in California: "Risk assessment has various uncertainties in the methodology and is therefore deliberately designed so that risks are not under predicted. Risk assessment is thus best understood as a tool for comparing risks from various sources, usually for purposes of prioritizing risk reduction, and not as literal prediction of the community incidence of disease from exposure."

However, perhaps the most compelling use limitation of C-R functions for site-specific projects is the consideration of whether it is valid to apply the C-R functions to changes in PM concentrations that are far below the ambient concentration. For example, the Air Resource Board/ Office of Environmental Health Hazard Assessment (ARB/OEHHA) analysis applied a threshold of 18 $\mu g/m^3$ for the long-term mortality C-R function for PM10 and 9 ug/m^3 for PM2.5, representing the lowest

[39] Concentration-response functions are used to predict the effect of changes in ambient PM concentrations on health effects such as premature deaths, cardiac and respiratory hospitalizations, asthma and other lower respiratory symptoms, lost work/school days, etc.

[40] ARB 2006. Emission Reduction Plan for Ports and Goods Movement in California. April 20.

[41] Concentration-response functions may be location-specific, since the composition of particulate matter varies significantly by region, and not all types of particulate matter are expected to have the same health effects. Therefore, the application of concentration-response functions obtained from epidemiologic studies conducted, for example, outside of California may introduce significant errors in estimating impacts in the South Coast Air Basin.

concentration level observed in the long-term mortality studies evaluated[42]. In other words, ARB/OEHHA assumed that the C-R functions were continuous and differentiable down to threshold levels. In the case of trying to quantify project-specific impacts, it may not be appropriate to use C-R functions that were developed with a threshold significantly higher than the change in PM due to the project.

Despite these uncertainties in the analysis methodology, the estimated increase in mortality was calculated for the project. The most common forms of the C-R function are represented in the log-linear form as discussed in the Health Risk Assessment of the Port of Long Beach Middle Harbor Project.[43]

$$\Delta y = y_o \left(e^{\beta \Delta PM10} - 1\right) \times \text{population}$$

Where:

Δy = changes in the incidence of a health endpoint corresponding to a particular change in diesel PM
y_0 = baseline incidence rate per person for the South Coast Air Basin (= 0.001768)
β = coefficient (diesel PM: 0.005827); this coefficient is based on the relative risk that is associated with a particular concentration and varies from one study to another; and
$\Delta PM10$ = change in diesel PM concentration (ug/m^3)
Population = population of the impacted area (for this case greater than 30 years of age)

From the health risk assessment contained in the revised analysis, the highest annual average diesel PM concentration increase due to the project noted prior to mitigation was approximately 0.103 µg/m^{3}south of the project. The population noted within this census tract at this location based on the 2010 census data was 3,784 (or 2,081 at 55 percent of the total population). Inserting these values into the above mortality equation yields an increase in mortality (cases per year) of 0.002 at this location and a total of an additional 0.2 cases per year over all of the census tracts contained in the air dispersion modeling domain. The revised air quality assessment provides the results for additional health risk endpoints including chronic illness (chronic bronchitis), hospitalization (Chronic obstructive pulmonary disease), hospitalization (pneumonia – Age 65+), hospitalization (cardiovascular-Age 65+), hospitalization (asthma-Ages 0-64), and emergency room visits (asthma).

Response to Comment G-49-9. The commenter asks for the calculation of additional health care costs that result from the additional disease burden of heart disease, cancer, chronic lower respiratory disease, and stroke.

Health costs are speculative due to several levels of uncertainties in establishing concentration-response relationships between pollutant levels and a particular health outcomes (i.e., mortality, hospitalizations, etc.) and then assigning monetary cost relationships between pollutant levels and health effects, uncertainties in population dynamics, uncertainties in estimating emission levels and their corresponding impacts on air quality, and establishing the linkage between the toxicity of various air pollutants and their effects on health effects[44]. These uncertainties are rooted in incomplete

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42 California Air Resources Board 2002. Staff Report: Public Hearing to Consider Amendments to the Ambient Air Quality Standards for Particulate Matter and Sulfates, Chapter 9; Website: http://www.arb.ca.gov/carbis/research/aaqs/std-rs/pm-final/PMfinal.pdf

43 Port of Long Beach 2008. Health Risk Assessment for the Port of Long Beach Middle Harbor Redevelopment Project. Website: http://www.polb.com/civica/filebank/blobdload.asp?BlobID=5134.

44 Frass, A. 2010. The Treatment of Uncertainty on EPA's Analysis of Air Pollution Rules. Website: http://www.rff.org/documents/RFF-DP-10-04.pdf

scientific knowledge. When benefits are estimated for future target populations, the cumulative magnitude of the uncertainties can be formidable. Many of them can be reduced by further research, but on the whole, they are likely to remain high. Because of the inherent speculative nature involved in the cost estimation process, no further discussion is necessary.

Response to Comment G-49-10. See Response to Comment G-49-9.

Response to Comment G-49-11. The commenter asks, "what is the project's economic burden on air quality." California Environmental Quality Act (CEQA) does not require the analysis of economic impacts of a project unless there is a direct correlation to adverse physical changes in the environment. In the case of the World Logistics Center (WLC) project, the economic study prepared for the project, (DTA 2014) clearly outlines the direct and indirect costs and benefits of the project on the City finances. Appropriate assumptions and methodologies have been clearly established in the David Taussig & Associates (DTA) study for this level of analysis. However, the commenter does not define what is meant by economic burden, and the DTA study does not provide overly speculative estimates of more general or indirect regional economic impacts of the project that are likely intended under the category of “economic burden.”

Response to Comment G-49-12. The commenter asks, "what are the health costs of air pollution from the project." As outlined in the Response to Comment G-49-11, the project economic study and EIR did not examine overly speculative issues such as economic burden, including health costs from air pollution. Such a level of analysis is not required and is even discouraged by CEQA (State CEQA Guidelines Section 15145).

Response to Comment G-49-13. The commenter notes the finding of the USC Children’s Health Study and questions why it was not included in the project analysis. The Children’s Health Study is discussed in the Master Response-2: Health Effects of Diesel Particulate Matter, in Response to Comment F-11-A6, and in the revised air quality analysis.

Response to Comment G-49-14. See Response to Comment G-49-13.

Response to Comment G-49-15. The commenter questions why there was not a more thorough examination of non-cancer health risks, both acute and chronic. The DEIR did examine the chronic non-cancer health risks from the project’s emissions and concluded that the project’s diesel PM emissions would not result in a significant non-cancer impact, that is exceed the non-cancer health hazard significance threshold established by the SCAQMD. In the revised analysis, more attention was focused on potential acute non-cancer hazards by examining the various chemical constituents of the gasoline and diesel total organic emissions from the project. To accomplish this, estimates were made of the maximum hourly emission rates of TOGs from all of the project’s vehicles including gasoline-powered vehicles and diesel-powered vehicles. This is fully discussed in Response to Comment E-3-6. The assessment of acute non-cancer hazards concluded that the project’s emissions from gasoline and diesel vehicles would not results in any significant impacts based on the significance threshold established by the SCAQMD for assessment acute non-cancer hazards.

Response to Comment G-49-16. The commenter wonders how the project will help the City comply with SB 375 and AB 32. The WLC project will generate a large amount of greenhouse gases (GHGs) due to its size and type of land use. However, most of these emissions are capped by AB 32 through its cap-and-trade program. The project’s uncapped GHG emissions are less than the SCAQMD’s significance threshold. In addition, the project will implement many programs and strategies to limit GHG emissions from future users (DEIR MM 4.7.6.1A) to help reduce “business as usual” (BAU) emissions by 30 percent or more, which complies with the goals of AB 32. In addition, the creation of a large job center in a housing rich/jobs poor areas such as Moreno Valley will incrementally help the region achieve a better balance of jobs and housing, and will ultimately reduce regional air pollutants and GHGs by reducing commuting distances for future workers within the WLC and the City of

Moreno Valley (refer to the discussion of AB 32 and SB 71 in DEIR Section 4.7 on pages 17 through 20.

Response to Comment G-49-17. The commenter inquires about the cumulative effects of emissions from other nearby proposed warehouses on health risks. The DEIR, Section 4.3.7.4 Health Risk Impacts examined the cumulative impacts of the project in combination with existing, proposed, and reasonably foreseeable projects in the area surrounding the project and concluded that the cumulative impacts of the project would be significant. The results contained in the revised analysis confirm the conclusions in the DEIR. The revised analysis, Section 5 Cumulative Impacts and the DEIR both concluded that the project would have a cumulatively considerable impact.

Response to Comment G-49-18. The commenter inquires as to the cumulative effects of the I-60 freeway widening on air pollutants. The widening of the I-60 Freeway would lead to a more efficient flow of traffic and lower emissions and consequently lower air quality impacts.

Response to Comment G-49-19. The commenter asks why rail was not considered, or if there are rail plans in the works. He points out that the Riverside line of Metrolink has comparatively few trains running as it shares its track with freight trains, and asks if rail expansion to warehouses would reduce track availability for mass transit. An additional section (Chapter 4, Section F) has been included in the revised TIA (FEIR Volume 2, Appendix L) that analyzes the potential for serving project trips by rail. The analysis showed that rail service to the project site is not viable due to a range of factors, including high fixed costs, secondary impacts on the community, and capacity constraints within the rail system.

Response to Comment G-49-20. The commenter expresses concern that workers at the new Skechers facility only transferred from the Ontario facility and regional workers were actually a net loss. First, it must be noted that this comment is about the Skechers facility rather than specifically about the proposed World Logistics Center (WLC) project. The Skechers facility has been used as a negative model in evaluations of the WLC project, with commenters assuming job estimates from future development within the World Logistics Center Specific Plan (WLCSP) would be much lower and just transfer from other areas. Several points must be made in this regard. First, the job estimates widely touted for the Skechers facility were actually for the entire Highland Fairview Corporate Park, of which Skechers was only a part. Second, it is true the Skechers facility was an existing warehouse that transferred from the Ontario area, but future warehouses within the WLC project will be of many different types, most likely to be new warehouses, rather than simply transfers from other areas. Third, the Skechers facility opened just before a major downturn in the local and national economy, so even now it is not operating at full capacity or employment. Fourth, the Skechers facility is highly automated, but the degree of automation in future warehouses within the WLC project would probably vary tremendously (e.g., automated warehouses have fewer but higher skilled workers, while less automated warehouses may have many more unskilled or lower skilled workers). Finally, the amount of part-time to full-time workers, as well as the degree of skilled workers, each warehouse employs will vary tremendously. The employment assumptions used on the DTA study, both the original study and the revised study, were based on industry standard regional values which have proved to be reliable over the years in estimating future employment from new uses such as logistics warehousing.

Response to Comment G-49-21. The commenter queries as to whether the impact of commuters traveling to Moreno Valley on level of emissions was considered. All traffic (by employees and delivery trucks) resulting from the project was accounted for in the development of the traffic impacts from the project. The traffic volumes, in turn, were used to estimate the project's traffic emissions and resulting air quality impacts from the project. The daily traffic volumes used in the air quality and greenhouse gas emissions analyses in the DEIR are identified in Table 17 and Table 18 in Appendix D in the DEIR. The trip generation rates for the "local" trips as estimated in the DEIR (which are assumed to be primarily employee trips) are shown in Table 16 in Appendix D in the DEIR. In the

revised analysis, the revised traffic analysis provided the traffic volumes and the fleet mix on roadways on project impacted roadways and freeways. The emissions from trucks and commuters were input into a dispersion model for the localized analysis and health risk assessment to determine air pollution and cancer risk impacts to the surrounding communities.

Response to Comment G-49-22. The commenter's April 9, 2013 letter questions the projected number of warehousing jobs to be created by the WLC on the basis that the Skechers warehouse project did not generate as many jobs as may have been expected. The DEIR analysis relied on information compiled from data sources within the County and Metropolitan Statistical Areas pertinent to the WLC, as explained in detail in the Response to Comment G-90-1. Notably, as the Skechers warehouse project has not completed their second phase of development , and the company was negatively impacted by the Great Recession, it is not known yet whether it will ultimately generate the number of jobs that were initially expected. Furthermore, while both the Skechers warehouse and the WLC both provide a location of logistics-type activities, the WLC is a much larger project that it is expected to encompass a much wider range of logistics facilities. Some of these facilities may be highly robotized and less labor intensive, while others (e.g.; fulfillment centers) are likely to be more labor intensive and will require a higher number of employees per square foot. Therefore, even if the Skechers plant does not ultimately generate as many jobs as were expected, it is unfair to apply the number of Skechers jobs with the employment expected in much larger and more versatile facilities as are anticipated for the WLC.

Response to Comment G-49-23. The commenter is concerned about the size and impacts of the project and that it has inadequate mitigation for air quality impacts. The WLC project is a regional logistics center large and proposes a large amount of new warehousing in this area. The original air quality study contained extensive mitigation for air pollutant impacts, and the revised study (based on the many comments received on the DEIR) provide additional mitigation for both onsite and offsite air quality impacts. It will up to the discretion of the City Council to determine if the benefits of the project outweigh its significant environmental impacts, and the Council will consider all comments and responses on the project and EIR prior to making a decision on the project.

Letter G-50: Ann McKibben (April 8, 2013)

8 April2013

Letter G-50

Via e-mail: markg@moval.org

Mark Gross, Senior Planner
Community & Economic Development Dept.
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92557

Dear Mr. Gross:

Re: World Logistics Center Project, Draft Environmental Impact Report (SCH #2012021045)

The following are my comments on the Draft Environmental Impact Report (DEIR) for the World Logistics Center Project.

The project design is extremely poor land use planning. The proposed project is 41.6 million square feet of warehousing, approximately the size of 700 football fields set in the midst of low density residential and agricultural lands. The land use is incompatible with surrounding land uses and does not match the city's general plan. 1

There is not adequate infrastructure in place (such as rail facilities and highways) to serve the project. Thousands of trucks will clog our already traffic-filled freeways and local roads; it will increase freeway congestion. The taxpayers of Moreno Valley and the entire inland region will end up subsidizing infrastructure improvements through their local, county, state and federal taxes. It places an unfair tax burden on the residents of Moreno Valley and the Inland Empire. 2

The Inland Empire already has some of the worst air quality in the country. The project will increase air pollution, fine and ultra-fine diesel particulates which are known to have negative effects on children's health, those with asthma, lung disease and the elderly. The following source (http://www.catf.us/diesel/dieselhealth/
Diesel Soot Health Impacts; Clean Air Task Force; map) states that: "The average lifetime diesel soot cancer risk for a resident of Riverside County is 1 in 3,917. This risk is 255 times greater than EPA's acceptable cancer level of 1 in a million." 3

The proposed project will have devastating impacts on the state-owned 11,000 acre San Jacinto Wildlife Area (SJWA). The SJWA shares a common boundary with the proposed WLC project lands. The wildlife area is a Multi-Species Habitat Conservation Plan (MSHCP) reserve for the County of Riverside. Its purpose is to preserve threatened and endangered plants and animals for future generations. Lights, noise, air pollution will affect the viability of the SJWA as an MSHCP reserve and its recreational uses such as hunting and observing birds and other wildlife. 4

Lastly, I do not support this project. It is extremely disappointing to see the city of Moreno Valley lower its standards and work to promote a project that will in the long term destroy the quality of life of our city. It is obvious to anyone that the economic benefits touted by the city and its band of supporters will not be attained. Here is a city that has a population of almost 200,000 residents but yet chooses to ignore the comments of its residents and has denied them the ability to be part of the planning process from the inception of the project. The city holds 'public forums' that do not allow the residents to ask questions or make comments saying that opportunities will come. You can do a better job. 5

Thank you for considering my comments. Please notify me of all meetings, documents and any other information related to this project. My contact information is listed below.

Sincerely,

Ann Turner McKibben
23296 Sonnet Drive
Moreno Valley, CA 92557-5403
atmckibben@roadrunner.com

RESPONSES TO LETTER G-50

Ann McKibben

Response to Comment G-50-1. The proposed World Logistics Center (WLC) project includes a General Plan Amendment (GPA) that identifies those portions of the City's General Plan that will be revised if the WLC project is approved, and that GPA was evaluated in appropriate sections of the EIR (e.g., 4.10, Land Use and Planning). The City Council will consider all stated opinions and comments on the project and Environmental Impact Report (EIR) prior to making any decisions regarding the proposed WLC project.

Response to Comment G-50-2. The commenter their opinion that there is not adequate infrastructure in place (such as rail facilities and highways) to serve the project. "Thousands of trucks will clog our already traffic-filled freeways and local roads; it will increase freeway congestion. The taxpayers of Moreno Valley and the entire inland region will end up subsidizing infrastructure improvements through their local, county, state and federal taxes. It places an unfair tax burden on the residents of Moreno Valley and the Inland Empire."

The project does not propose to use rail services. An additional section (Chapter 4, Section F) has been included in the revised Traffic Impact Assessment (TIA) (FEIR Volume 2, Appendix L) that analyzes the potential for serving project trips by rail. The analysis showed that rail service to the project site is not viable due to a range of factors. Limitations on the ability of rail infrastructure to accommodate additional loads were specifically cited as a reason why rail service is not considered a viable option.

The TIA analyzes the project's impacts on surface streets and freeways, identifies where impacts would occur, and describes the improvements needed to mitigate these impacts. The project will be required to pay its fair share for these improvements. Chapter 11, Section E of the TIA describes the project's contribution to for improvements needed to mitigate direct impacts. Chapter 11, Section F similarly describes the project's fair-share contribution towards the improvements needed to mitigate cumulative impacts.

Response to Comment G-50-3. See Response to Comment E-3-6.

Response to Comment G-50-4. The DEIR correctly spells out measures associated with the requirements of Section 6.1.4 of the (Western Riverside County) Multiple Species Habitat Conservation Plan (MSHCP) on the Urban/Wildlands Interface to protect adjacent resources. These include, light, noise, toxics, and water quality. Based on the revised MSHCP Consistency Analysis Document (FCS/MBA 2013), Mitigation measures will be imposed by the City of Moreno Valley through its processing of entitlements on a project-by-project basis regarding light, noise, trash, emissions, vectors, fuel management, runoff and water quality, as outlined in the various sections of the DEIR (e.g., 4.1, *Aesthetics*, 4.4, *Biological Resources*). All project operations within the WLCSP will be required to prepare a Water Quality Management Plan (WQMP), which will specifically detail all of the required safety precautions necessary to eliminate the risk of toxic contamination to any downstream water body. All project construction activities within the WLCSP will be required to prepare a Storm Water Pollution Prevention Plan (SWPPP), which will specifically detail all of the required safety precautions necessary to eliminate the risk of construction related contamination to any downstream water body. All development within the project area will be required to obtain a statewide general National Pollutant Discharge Elimination System (NPDES) construction permit for all construction activities associated with the proposed project and will be subject to the County of Riverside's regulations to implement the NPDES program. The NPDES requirements are discussed in detail in Section 4.9 of the DEIR, Hydrology and Water Quality. Lastly, the portions of the WLCSP that are specifically located adjacent to Core Conservation Areas, which are located along the eastern and southern boundary of the WLCSP, will require project specific design features and

measures related to light, noise, trash, emissions, vectors, fuel management, runoff and water quality as part of the MSHCP requirements for projects affecting a recognized Urban/Wildlands interface. Mitigation measures will include specific project designs such as:

1. Light directing/restricting covers on light poles,
2. Vegetated buffer along the southern and western edge of the WLCSP to reduce noise impacts adjacent to residential development and the conservation area,
3. Street sweeping and trash removal requirements to reduce on-site and off-site trash issues,
4. The vegetated buffer mentioned above as well as a perimeter wall will be used to reduce the emissions leaving the WLCSP,
5. All detention basins will be designed to facilitate water quality improvements and will require assessments by vector control to reduce or eliminate standing water, and
6. The SWPPP and NPDES for each project will adequately address all fuel management, runoff water quality requirements.

Response to Comment G-50-5. The comment does not apply to the EIR analysis or conclusions, but are personal observations about the project and project review process. The DEIR concluded that a number of project impacts (e.g., air quality, traffic, etc.) would be significant even after implementation of mitigation, and the City Council would need to adopt a Statement of Overriding Considerations for the project that state what benefits of the project outweigh the identified significant impacts of the project, if it decides to approve the project. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

Letter G-51: Michael McCoy (email) (April 7, 2013)

April 7, 2013

TO: City of Moreno Valley Planning Dept, Attn: Mr Mark Gross at markg@moval.org
City Hall, 14177 Frederick St, Moreno Valley, CA 92552

FROM: Michael McCoy, 10304 Crossing Green Cir, Moreno Valley CA 92557 at mikeandnan@mac.com

SUBJECT: Official Comments for the Draft Environmental Impact Report (DEIR) for the World Logistics Center (WLC) proposed for Moreno Valley, State Clearinghouse No. 2012021045

A. Opening General Comments on Overall Project:

Thank you, City Council for allowing others and me to comment on the environmental impacts of the proposed World Logistics Center in Moreno Valley. The EIR document is generally adequate although I will point out some important omissions and weak spots. The consultants the developer hired under City advisement are generally some of the best in the business and I respect their hard work. However, the citizens also should have an equal chance to voice their concerns and try to get the City Council to slow down the review process and listen to the people. The Mayor recently admitted that "trust" was a major problem between the people and elected officials that cried out to be remedied. If the WLC is given a complete and total airing of all views and allows all questions to be proposed by both the developer and project opponents it would go a long way to re-establishing that trust. Steamrolling a project through does not bide well for trusting the Council and their motives. 1

How the City deals with the vast list of unavoidable and severe environmental impacts the project would generate will illustrate that level of trust and of belief in the valid concerns of the general public. Will the City require even more mitigation? Will the project be declined in total and the developer shown the door? Will the City leaders go forth with the potentially divisive "overriding considerations" strategy, under CEQA to force the project on the community? Would the City put the project up to a vote of the people? Deep questions need supportable answers and so far I have mostly heard a lot of concealment and avoidance of unfriendly opinions from City Hall. 2

It's no secret that I am an opponent of the World Logistics Center as now envisioned by the developer and its cheering section on the City Council. My comments in the following pages show that I am invoking much of the data and predictions found in this Draft EIR as glaring proof that the WLC is totally inappropriate for this particular location, for Moreno Valley and for the entire Inland Region. The developer acquired some relatively cheap land and is maneuvering the approval process to its liking and claiming it will be a 'jobs bonanza' despite a track record to the contrary. The Skechers project brought insignificant new jobs to Moreno Valley's citizens and indeed now only employs about 160 workers compared to the 2,000 originally promised. 3

During these forthcoming debates over approval of the project, I propose a moratorium on any job predictions for the WLC. Neither the City, the developer or its consultants can guess years ahead what tenants will build there, the nature of their logistics and warehouse operations, or at what future date they will be up and running. Final build out is predicted for either 2022 or 2035 in the EIR. Any such job numbers for that far ahead are pure fiction. 4

The World Logistics Center is in my opinion, also doomed to failure in this location because it faces significant loss of business potential due to forthcoming shifts in global goods movement as a result of the long-forecasted widening of the Panama Canal. No matter what is proposed for Moreno Valley, factors far beyond our control will constrain and reduce the need for west coast warehouses. In a once-in-a lifetime paradoxical shift due to the Canal, West Coast ports will lose their competitive edge and regional warehouses could be left vacant.

The WLC, especially, will be "left behind" as a desirable freight staging area as goods movement shifts from the Ports of LA and Long Beach to Mexican, Gulf Coast and East Coast harbors closer to cargos' ultimate destination. The other entry ports are usually cheaper to operate, also. Recent LA Times news articles indicate LA-based officials are now concerned and local California ports, railroads and trucking services are fighting back. However, improved rail and air faci lities plus more robust freeway and cargo transferring resources exist elsewhere, all of which are lacking at the WLC site. Better accessed warehouse complexes in Palmdale, Victorville and other desert locations that have plenty of rail, air, interstate freeway and room for innovative cargo-handling facilities, including "high cube" design will hang on to whatever logistics business remains tied to the West Coast. 5

B. Comments pertaining to Section 1.0 Executive Summary:

1.3 Public Involvement

In some respects the City as Lead Agency has not been as pro-active with encouraging and incorporating expressions of concern and alternative views from the public on the WLC as should be expected with a project as important and controversial as this is. In my opinion, the City has breached the public trust by only barely complying with the legal requirements under CEQA and has avoided or shunned any kind of fair and equal debate. This "doing as little as possible" or "meeting the letter of the law and nothing more" attitude has damaged the integrity of the Council, the review process by not having a true dialog addressing the concerns of the General Public. 6

All meetings, so-called "forums" and presentations have been almost totally one sided and favoring only the City Council's position regarding the WLC, being one of unwavering support for it. Project opponents have been limited to brief three-minute speeches at meetings and face other limited opportunities. For example, no procedure was provided by the City Council for the public to comment on or ask questions to

taxpayer-paid presenters at recent forums, impeding any fair assessment of all sides of the issue in a public meeting.

When I asked Mayor Owings after the Feb. 26 "Forum" if there would be a future opportunity to ask questions and comment on his statements and those of the consultants made that evening, he told me to e-mail him and that he was also planning for a more genuine question and answer forum soon… but I have never heard back or seen any announcements thereto. Project opponents have had to organize and operate their own meetings and programs, which, curiously, were attended by City staff and the WLC developer. 6

Even the City's internet presence for this Draft EIR seemed buried in the many diverse sections of the municipal website. Due to its controversy and public interest, perhaps it should been tagged somehow on the home page or directly in the Planning Dept section. Search line entries for "DEIR" and other guesses by the public usually failed because the user didn't enter the proper arcane jargon. Oh, no laws were broken and maybe this wasn't on purpose and I'm certain the tech-savvy among us had no serious issues, but its just another example of the City sometimes unfairly makes it tough on opponents of the project while it smoothes the way for the developer.

1.4 Areas of Controversy and Issues to be Resolved

Some of the points I raised following the March 2012 Notice of Preparation (NOP) Hearing were not mentioned in this section that claims to be a fair summary. The usually highly-thought-of and reputable LSA staff must have considered some topics either not controversial or not subject to comment or responses under CEQA, including:

- A conceptual site plan showing generalized street network and building placement. Later on I did find a basic street network but not any buildings.
- Air Quality emission impacts beyond just the "nearby residential" area. 7
- Alternative fuels as potential mitigation to excessive pollutant emissions.
- Review of WLC's position in the real-world global logistics and goods movement picture, especially with respect to the widening of the Panamá Canal.

Most of these topics are covered in the detailed portions of the EIR or in the appendices but not including them in the Executive Summary is a disservice because most of the public cannot spare the time to investigate those thousands of pages.

1.5 Significant Impacts

I agree that these 10 bullet points will obviously be significant, however this list is incomplete should be greatly expanded, even at the Executive Summary level, because this is the only section of the DEIR that the vast majority of the public can absorb. 8

1.6 Alternatives to the Proposed Project

This section does a commendable job of mentioning alternatives to the project. I have no further comments on it. 9

1.7 Impacts and Mitigation Summary Table

I note or recommend the following:

On Agricultural Impacts Section 4.2.6.1A, the donation by Highland Fairview for a 5-acre heritage farm is noted but some might see this as a cruel joke considering the overall loss of farmland under WLC warehouses and accessways. However, this idea has potential and the developer should work with gardeners or clubs to find the best soil or accessible site in the WLC for the amenity. 10

I strenuously object to the description of air quality Impact 4.3.6.1 and lack of feasible mitigation offered. I contest the statement "substantially improve the jobs/housing balance" and predict that if WLC is built out it will only marginally, at best, expand employment in Moreno Valley. The "jobs" argument in favor of this project is a Big Lie, as evidenced by past and current performance of Highland Fairview and Skechers. 11

Regarding Construction Phase Air Quality impacts 4.3.6.2 in general, the mitigation described is the usual boilerplate language for these kinds of large projects and I see little technological advancement over what's been done for decades. My concerns are with this huge, 41 million sq ft WLC project dragging on for years, with construction emissions becoming more "permanent" and having continual, nagging negative impacts on the entire eastern "Rancho Belago" section of Moreno Valley, and would suppress property values, positive attitudes and quality of life for a generation. 12

I object to the project's Air Quality 4.3.6 evaluation that will evidently lead to "significant and unavoidable" impacts as the WLC is built out. Lady and Gentlemen of the Council, severe truck-related local and long-term regional air pollutant emissions and chronic health risks are simply not worth it just to attain a marginal employment value and enrich the developer. This project's scope, impact and unfavorable location are simply incompatible with public health throughout the Inland Counties. 13

Impact 4.6.6.1 regarding mapped earthquake faults and Alquist-Priolo Fault Zone setbacks is adequately covered in the summary, however, I question the usefulness and reliability of work-around special engineering devices and schemes for building on or near the faults. The developer should refrain from building in these areas even though it would reduce the overall square-footage of the WLC. 14

I contest the statements in Impact 4.10. regarding WLC conflict with existing and applicable land use plans and policies where it promises the WLC "will substantially improve the City's jobs/housing balance" and therefore can avoid any stigma of 15

inconsistency with the General Plan upon its amendment to favor the project. Again, this huge 'jobs goldmine' is a greatly over-valued contention by the City, the developer and the Environmental Consultant. I predict only a marginal or inconsequential positive employment impact, especially with the price being paid by the community to accept this WLC boondoggle being forced on us. 15

Perhaps the WLC would not precisely "Physically Divide an Established Community", (see also in Impacts section 4.10,) but it will threaten and isolate the quality of life of the more rural and relaxed eastern side of Moreno Valley. Established neighborhoods such as the attractive Canterbury Downs and neighboring streets just west of Redlands Blvd, with large lots, horse stables, country clubs and even a few working farms will be negatively impacted forever by the poorly conceived World Logistics Center. 16

The quiet, established neighborhood of Old Moreno will be directly adjacent to WLC property and will suffer serious and needless impacts in many ways. The mitigation suggested in the EIR will be insufficient to maintain livability in Old Moreno and people will become disgusted with the overall environment and will have to fight a long battle to maintain their quality of life and property values. For example, see the story that's been in the press about the little neighborhood in Jurupa Valley at the NE corner of the 60 Freeway and Etiwanda Ave that is now ground zero for particulate pollution in the South Coast region, mostly due to transportation-generated emissions from trucks. 17

Long-term property values will likely suffer due to the intrusive presence of the WLC. This part of Moreno Valley should have been set aside for a rural gentry neighborhood similar to Riverside's Arlington Heights or parts of Redlands and Banning. It could be the pride of an upscale Moreno Valley instead of a Regional headache, eyesore and so-out-of-place industrial zone. 18

The section on traffic Impacts 4.15.7 seems, in my opinion to "hope and pray" the City can work with Caltrans and other agencies to "employ measures" to construct additional facilities needed for truck access to the WLC. The Executive Summary here retreats to the "significant and unavoidable" position yet fails to draw (or is concealing a point-by-point illustration of it) any nexus between truck traffic generated by 41 million square ft of warehouses and the subsequent need for widened freeways, interchanges and the expenses of truck-only climbing lanes through the Badlands to move WLC-based cargo to Eastern destinations. These upgrades will take a decade to complete and just don't appear by magic. In a state strapped for highway funds, there is no guarantee they could ever be built in time for 2035's full occupancy of the WLC and the resulting snafus would lead to night-and-day traffic nightmares throughout the Inland Region, as documented later in the EIR under Traffic and Circulation. 19

Table 1.B. List of All Mitigation Measures.

I'm glad the developer will have to preserve the olive trees along Redlands Blvd. 20

Glare from buildings will have negative impacts throughout the region and even stricter regulation of lighting glare will be needed to preserve "dark skies". The proposed mitigation is a good step in the right direction but needs to be beefed up. 21

The many construction phase mitigation measures (4.3 & 4.4) are a valiant effort to clean up the messiest part of any project but most nearby residents and businesses are concerned that these measures will still fall short of adequately protecting existing neighborhoods. For example, dirt hauler trucks are chronic violators by the nature of their independent driver speed-up and by-the-load method of payment by vendors. This often leads to reckless, short cut driving behavior by some at times, as trucks descend on projects by the dozens, often in numbers beyond police power to control them. What can be done? The accumulative impacts of the construction traffic, hazards, fugitive dust and other annoyances will ruin the atmosphere in the east end of Moreno Valley for years, despite these efforts to mitigate them. 22

Besides, the current developer has a pattern of weaseling out of conditions of approval and other regulations during the actual discretionary review process – as exhibited when Skechers went thru Planning - and in my opinion this behavior will not change and some of the mitigation measures will end up existing only on paper. The developer's friends on the City Council will likely coddle and protect their benefactor. 23

In Measure 4.5.6.2B, I'm glad the developer will contribute to a Juan Bautista de Anza historic marker. 24

Under Noise Mitigation measures, Section 4.12.6 regarding sound walls, many of the proposed sound walls are quite distant from the World Logistics Center, indeed one is contemplated for somewhere along Riverside's Sycamore Canyon Blvd. near Central Ave, (unclear in Mitigation Measure text as to its precise location) nearly 10 miles distant from the WLC, along the steep "Box Springs Grade" of Interstate 215 and State Route 60. This is apparently to reduce traffic noise from vastly increased truck movement resulting from the project. The Final EIR needs to better explain the rationale behind requiring a sound wall so distant from the project site. Some explanation is given in The Traffic and Circulation portion of the EIR, later on. 25

Despite the noise studies, I doubt the effectiveness of all these distantly placed sound walls. Indeed, I find that this particular Sycamore Canyon one illustrates the impacts of additional truck traffic noise that could affect all existing residential and commercial neighborhoods all across Moreno Valley adjacent to the 60 Freeway. It will become a "river of noise" impacting the lifestyle of the heart of the City. This underscores the little-publicized nuisance and intrusion of truck traffic noise brings into existing homes. 26

As an additional mitigation measure, the speed limit for all big rig trucks along the 60 Freeway, for 10 miles either side of the WLC, should be reduced to 45 mph for safety and noise-reduction reasons. The EIR's noise consultant should perform the calculations showing how noise levels would be mitigated. 27

Regarding Traffic and Circulation Mitigation Measures, in Section 4.15.7, I oppose the unfair degree of reduced TUMF and DIF fees to be assessed on individual warehouse development projects. The City Council brokered this cozy arrangement by consultation with and undue political pressure upon WRCOG to benefit the developer to use this fee reduction as a marketing selling point. I have seen these reductions used in real estate ads for competing logistics complexes in Adelanto and Victorville, for example. Although some minor relief from DIF and other fees for warehouses is common, nationally, in my opinion, this "gift" to the WLC developer is excessive and unfair to others who have participated in these fee assessments. 28

Any TUMF fee reduction for high cube warehouses would be especially unwise considering that these heavily overweight trucks serving the project would disproportionately assail and damage the public roads in comparison with other traffic that pays more than their share of the highway repair bills. Trucks are always beating up the pavement and crashing into overpasses. Our little automobiles don't do either. This is another example of a cushy deal that benefits only the developer, warehouses and trucking companies while the general public pays an unfair share for infrastructure. 29

I don't have a lot of confidence in any agency, especially the City of Moreno Valley to successfully identify and implement adequate funding sources for State and "extra-territorial improvements" (alas, unwelcome transportation jargon for "widening the 60 Freeway between Riverside and Beaumont") as written in 4.15.7.4F. The cost of such a project alone would approach $1 billion in scarce highway widening funds. Such a costly concept for widening 60 would have to compete, politically, with hundreds of other worthy projects on the drawing boards, statewide. I feel the same way regarding all the interchange improvements needed. 30

C: Comments on Section 2.0, Introduction and Purpose.

I agree that the Program EIR is the appropriate CEQA process for the World Logistics Center however that processing benefit to the developer needs to be balanced with greater public input and discourse than has been allowed and encouraged by the City Leadership, so far. A project of this vast local and regional significance deserves every opportunity to go beyond the minimum that the law requires and not be, to any degree, 'railroaded' through the approval process. In my opinion, the City has not been fair about this and in fact has given undue voice and even tax dollars to support to promote and favor the developer, primarily and not a fair and comprehensive public discussion. 31

The 45 issues identified in Table 2.B seems to be an adequate basis for discussion. 32

D: Comments on Section 3.0 Project Description:

I reject, resist and will not personally adhere to using the "Rancho Belago" mis-designation of eastern Moreno Valley. This appellation is an artificially created 33

marketing device of dubious value and has not been supported by polling data or anecdotal comments from the citizens of Moreno Valley, including former City leaders. Although a few current City Council members have to various degrees supported the label, it evidently has little public support. This designation has never been put to a citywide referendum because there is doubt it would be approved. 33

I generally support the intent and land use designations as depicted in the existing but not implemented Moreno Valley Highlands Specific Plan. To me they are imminently preferable over the World Logistics Center. Although development as envisioned by that plan has not occurred, an improving economy seems to have increased interest in residential uses, especially "rural estate" or similar type larger homes which could be available at bargain rates in Moreno Valley, with some proper marketing initiatives. 34

Sections 3.4.2 and 3.4.6.1 fail to adequately describe the distinctions between "high cube" and conventional truck dimensions. The revised EIR needs to explain the etymology of the appellation "high cube", especially as it applies to global logistics standards and patterns of efficient goods movement both in the field and in warehousing facilities. Why is it called "high", compared to what, people are asking. 35

Further, this expanded High Cube descriptive section <u>needs considerable expansion</u> and enhancement to compare dimensions, especially the height, the cargo weights both empty and full and the braking distances at various speeds between the High Cube tractor- trailers and smaller conventional trucks that still dominate the trucking business. The California Highway Patrol probably has some methodology to make the calculations. Current literature in trade magazines and other sources (such as WRCOG's studies) provide plenty of data and interpretation of the role of High Cube trucks and its safety, congestion and cargo-carrying consequences. 36

My point is that by leaving out this necessary safety data, the project proponents are again concealing vital information that could reveal further negative impacts that the public and first responders need to know the WLC will cause. I can't help but feel this descriptive data was a deliberate omission. 37

The Section 3.4.8, Architectural Guidelines, needs a list of some local examples of 60 and 80 ft warehouse building heights (approximately, of course) that can be viewed by interested parties onsite and in person so that their true visual impacts could be gauged. 80 feet (8 stories?) will be judged by many to be too tall. The Skechers building would be a prime example to list, as would the soon-to-be-vacated Fresh & Easy Warehouse off the 215 Freeway near Van Buren Blvd and also other warehouses in the southwest section of Moreno Valley. 38

Its noted in the Phasing Section 2.4.13 that full WLC build out of both phases is tentatively projected for 2022 while elsewhere in the document I believe it states 2035. Please clarify. 39

Comments on Section 4.0 Environmental Impact Evaluation:

In the Aesthetics Section, 4.1, the developer has made a valiant effort as depicted in the many artist's renderings to shield and screen warehouses and truck parking areas from nearby residential properties by means of landscaping and robust earthen berms. Viewsheds from various developer-selected locations on the project perimeter are detailed and well evaluated but they still lack a vital component of the overall Aesthetics impacts of the WLC, as follows: 40

This section barely and inadequately addresses the very important issue of Community Gateway views, the aesthetic impressions that impact westbound motorists who may be seeing our city of Moreno Valley for the first time when they emerge from The Badlands. I'm afraid that a 41 million square feet sea of warehouse walls and rooftops will have leave an immediate and lasting negative impression on visitors and long-time residents alike. The EIR should include a section addressing the Community Gateway issue. 41

Most cities leaders and community groups such as Chambers of Commerce are very sensitive to how visitors view their community as seen from its entrances. Despite the dubious promises of improved employment, is a negative community visual image worth the costs of the project? I could cite several examples of where Moreno Valley has tried to improve its gateways (such as at Alessandro and Old 215) and where Corona, Temecula, Riverside and others have made vast scenic and often acclaimed gateway modifications and improvements. In my opinion, having a rather ugly and obtrusive World Logistics Center as our "Welcome to Moreno Valley" entry statement will put us near the bottom of the list, aesthetically, among Inland area cities. Such a view may be heavenly to a developer but not to the traveling public. I think we could do better. And our warehouses belong in the southwestern part of the city, not at a primary gateway. 42

Section 4.3, Air Quality, there appears to be no mention that the northeast portion of Moreno Valley constitutes a minor geographic basin, lobe or "pocket" as it is partially surrounded by hills that tend to capture air pollution as spread by prevailing west winds, 90% of the time. This is the area where much of the WLC would be sited and where the vast majority of incoming and outgoing truck traffic would be travelling and emitting pollutants. Such pockets will collect and concentrate a substantially higher level of pollutants and allow them to persist for longer periods than flatter lands. 43

Were any air quality monitoring devices placed at the intersection of the 60 Freeway and Theodore, for example, over 9 months or so, providing a representative sampling of existing air quality at the WLC project site? If not, accuracy of air quality readings and predictions falls off rapidly with the distance from the WLC, despite modeling protocols. The nearest monitoring station is near Downtown Riverside, 15 miles west of the project site. 44

I note that Figure 4.3.8, a map of "Change in Air Toxics, 1998 to 2005" in the South Coast Air Basin indicates that the worst increases, more than 250% over those 7 years, is air pollution occurring near the Ports of Los Angeles and Long Beach. The WLC is envisioned by its promoters as a dependent sub-concentration of cargo traffic closely dependent those ports and therefore its connecting routes would tend to drag this area of increasing pollution in the direction of Moreno Valley. 45

Still in the Air Quality section, it is also curious why the EIR mentioned Dr Enstrom's discredited, truck-industry financed study that declared the subset of career truck drivers as actually having healthier lungs than the general population. The study seeks to minimize the health effects of diesel particulates. Sounds like those "smoking is good for you" declarations by the tobacco industry in the 1950s! It almost makes us want to move next door to the World Logistics Center to improve our overall health. 46

Its noted that the developer and environmental consultant interpreted air quality modeling and Air District regulations to arrive at a trip rate for the WLC of 1.68 trips per thousand square feet of warehouse space, described as a conservative basis for consequent complicated air quality calculations applicable to the WLC at full build out. 47

Nevertheless, several statements in the Air Quality analysis reveal that the overall project in both construction and operational phases will exceed most air quality standards and impede overall regional clean air attainment plans, thus leading to reversed progress in improved air quality both locally and regionally. This situation is unacceptable to the people of Moreno Valley and the Inland Counties. This is a primary reason why we oppose the World Logistics Center project. 48

Yikes! Compelling Figure 4.3.10 and other illustrations show the modeled Cancer Risks as particularly hazardous along the 60 Freeway corridor and especially around the WLC site. Compared with the No Project alternative or the Moreno Valley Highlands Specific Plan, these figures demonstrate the likelihood of a great increase in air toxics, bringing Eastern Moreno Valley into the same category as the current (2012) ground zero of pollution near the Ontario Airport. It also appears that, even with mitigation, the Old Moreno neighborhood will suffer more than double the amount of life-threatening pollution as compared to the WLC not being built. 49

The Soils and Geology Section, 4.6, I note that the EIR seems to adequately deal with the potential effect of earth-movement faults within or near the project site. State regulations will be observed and all building codes related to tilt-up concrete construction will be enforced as development occurs. There will be further geologic investigation as necessary for particular building parcels adjacent to the active San Jacinto Fault. 50

I might point out that my own calculations regarding a serious earthquake impacting Moreno Valley suggest the San Jacinto fault has a greater than 50% chance of creating a 7.0 earthquake over the next 30 years. Subsequently, I have purchased full quake 51

coverage for my home in Moreno Valley, located about 4 miles from the fault. Most geologists agree that in general, this area is "long overdue" for a serious seismic event. This insurance would pay for full replacement value in case my home is red-tagged and could not be occupied due to damage that a 7.0 shaker might produce. Will the buildings and occupants of the WLC be ready in case of such an earthquake? 51

In Section 4.10, regarding transit service, it is fair or correct for the developer to refer to Riverside Transit Agency's Route 35 as having a potential to directly serve the World Logistics Center? It would take more than mere rerouting. Route 35 has a limited schedule, makes very few stops and currently uses smaller rolling stock than the standard 40-passenger bus. The developer or other agency should recognize that the WLC would be a significant generator of new bus demand, even if the rosy employment projections are scaled back. I recommend the City stay in touch with RTA planners. 52

The developer or the City should eventually approach RTA to determine if a new or revised route could more effectively serve a built out WLC. Since warehouse staffing tends to be two or even three shifts, employing mostly part-time, labor-contractor personnel, a more robust RTA service will eventually be necessary. Low-paid workers tend to use transit more, recent studies indicate. 53

In the Noise Section, 4.12, under Long-Term Traffic Noise Impacts, it states that there would be about 50 more peak hour trips added due to the project, evidently including both truck and employee traffic. With truck traffic, and the nature of the business of shipping, this amount of trips would likely continue for most of the 24-hr day, making truck noise near the project and indeed all along the 60 Freeway corridor a serious nuisance that most nearby residences will find objectionable. 54

Some of the noise modeling charts for the built out project also suggest negligible increases in noise due to the project but I personally find that hard to accept and would be more worried about the constant and continuing din of additional truck traffic on the 60 Freeway. However, later on, text explanations describe significant future noise impacts near the project. 55

One isolated location in the text, Placentia Ave near Evans Rd is actually way, way south of the site in the middle of the City of Perris and is sheltered by Lake Perris' mountains from the WLC. I wonder how this paragraph got into the study? A proofreading error, perhaps, when some other project's text was copied and pasted into the WLC noise materials? This location is quite far from the project. Indeed, there are several other locations in the text, such as Day St between Cottonwood and Alessandro that seem out of place in the text and I believe instinctively that they would <u>not</u> suffer a "significant and unavoidable" impact. I'm no noise modeling expert but some parts of this study seem very out of place or not well thought out as applicable to the WLC. 56

Further, I didn't spot a handy area map in the Noise Section depicting the location of all these noise monitoring stations so that they could be studied logically. Therefore a map is needed, and probably a reality-check review of the Noise Section. 57

Table 4.13.F for Employment estimates is in my opinion, overly optimistic about the number of eventual jobs generated by the WLC project. The Skechers operation, for example, has not proved to be the employment dynamo its promoters promised the community. A person familiar with the Skechers operation told me just last week that only 160 people work there compared to the 2,000 that was originally predicted by the developer. Even the City scaled down the estimates over the months of construction from 2,000 down to 500 and even that amount has not come forth. The track record of jobs prediction for WLC-related warehouses has not turned out as promised. It's a wholesale misleading of the public to continue throwing out these job numbers to misguide the public into approving the project. 58

I also contend that the projected annual wages for warehouse workers at the WLC are highly inflated and need to be revised to reflect real conditions. An independent survey (not overseen by employers) is needed to determine the actual take home pay occurring at Skechers. Besides, global logistics patterns will be changing in years ahead, reducing business interest in the WLC and its ill-conceived location, further lowering employment and salary expectations. 59

My review of the Traffic and Circulation Section 4.15 indicates a total of about 71,000 trips per day as a result of the built out World Logistics Center. Unfortunately I was not able to fully review this section. Parsons & Brinckerhoff have done their usual thorough job on the traffic analysis, a very complicated part of the EIR. Although I don't have anything further to add until I study the materials further, I note several key points such as 80% of the vehicle trips to warehouses are via employee vehicles, not trucks. 60

However, I instinctively fear that the built-out project will have a tremendous and negative traffic impact on the City of Moreno Valley that is difficult even for the experts to predict through the modeling. All aspects of heavy and continual truck traffic will bring more noise, pollution, loss of levels of service, road damage, congestion and accidents to our community and on these grounds alone, the WLC is demonstrated to be a detriment to the City despite the dubious job growth predictions. The traffic analysis seems to back up many of opponents' fears as the EIR's claims of significant impacts being unavoidable and that impacts will remain despite mitigation measures. 61

In the Traffic mitigation measures portion of 4.15, the extensive list of road projects alone needed to improve capacity, signalization, and other circulation infrastructure improvements will place a staggering financial burden on the general public, despite any contributions by the developer or eventual occupants. I'm astounded at the millions of dollars these projects will take from tax revenues and other sources. This money could be better spent on other needs, first. The existing Moreno Valley 62

Highlands Specific Plan, if instead implemented over time, would reduce the need for the WLC's level of improvements and save millions of tax dollars. 62

The negative effects on the already-stressed Freeway 60 "Mainline" are extremely challenging to existing and future traffic patterns and community comfort levels as described in the Traffic Study. In fact, impacts to the uphill portion of 215-60 near the Central Ave. interchange, for example, are so bad as to be unavoidable and without any means of significant mitigation. There's no room left to widen the freeway, the study states without threatening existing homes and businesses. This assessment of "unavoidable impacts to the Mainline" is repeated dozens of times throughout the freeway system in the Inland Counties, according to the EIR text. The WLC-based additional traffic, 71,000 trips more per day, will basically ruin and totally gum up what little mobility we have now on those routes. The 60 is maxed out, ladies and gentlemen! 63

Ironically, such congestion would also negatively impede WLC-bound truck traffic, making the WLC less accessible, becoming a stuck-in-gridlock waste of travel time, and less attractive as a warehouse staging and storage area, as seen in competition with other warehouse centers such as in Victorville and Palmdale along more freely-flowing Interstate routes. 64

Further, the study mentions that Caltrans plans to add a truck lane through The Badlands but I have my doubts as to when, if ever, this improvement becomes operational. 65

Finally, in Section 5.0, Other CEQA Topics, a huge list of unavoidable environmental bad stuff welcomes us to this part of the discussion. How discouraging to read this list and wonder how it would negatively erode the quality of life in Moreno Valley, despite the promise of 24,000 jobs. 66

This concludes my comments on the Draft EIR for the World Logistics Center. Good luck ladies and gentlemen in incorporating the EIR into the complicated debate on whether or not to approve this project. 67

Thank you.

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RESPONSES TO LETTER G-51

Michael McCoy

Response to Comment G-51-1. The comment does not apply to the Environmental Impact Report (EIR) analysis or conclusions, but are personal observations about the project and project review process and political statements.

Response to Comment G-51-2. The commenter wonders what decision path the City will take regarding this project. It does not contain a comment on the EIR or California Environmental Quality Act (CEQA) process.

Response to Comment G-51-3. The comment does not apply to the EIR analysis or conclusions, but are personal observations about the project and project review process. The Draft Environmental Impact Report (DEIR) concluded that a number of project impacts (e.g., air quality, traffic, etc.) would be significant even after implementation of mitigation, and the City Council would need to adopt a Statement of Overriding Considerations for the project that state what benefits of the project outweigh the identified significant impacts of the project, if it decides to approve the project. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed World Logistics Center (WLC) project.

The commenter also questions the job predictions for the project because of the Skechers project. The Skechers facility has been used as a negative model in evaluations of the WLC project, with commenters assuming job estimates from future development within the World Logistics Center Specific Plan (WLCSP) would be much lower and existing employees would be transferred from other areas. Several points must be made in this regard. First, the job estimates widely touted for the Skechers facility were actually estimates for the entire Highland Fairview Corporate Park, of which Skechers is only a part. Second, it is true the Skechers facility was an existing warehouse complex that transferred from the Ontario area, but future warehouses within the WLC project will be of many different types, including new warehouses, rather than simply transfers from other areas. Third, the Skechers facility opened just before a major downturn in the local and national economy, so even now it is not operating at full capacity or employment. Fourth, the Skechers facility is highly automated, but the degree of automation in future warehouses within the WLC project would likely vary (e.g., more automated warehouses may have fewer but higher skilled workers, while less automated warehouses may have more lower skilled workers). Finally, the number of part-time to full-time workers, as well as the degree of skilled workers, each warehouse employs will vary. The employment assumptions used on the David Taussig & Associates (DTA) study, both the original study and the revised study, were based on industry standard regional values which have been proven to be reliable over the years in estimating future employment from new uses such as logistics warehousing.

Response to Comment G-51-4. The commenter is correct that predicting the number jobs that the project will generate in the future is speculative, but the California Environmental Quality Act (CEQA) requires the projects' environment impacts be evaluated based upon the best available information at the time of the EIR preparation. An estimate of the number of jobs is needed in connection with several topical items including the fiscal evaluation of the project. Accordingly, the EIR has utilized several recognized sources for estimates on the number of jobs that the project will generate. It is the best currently available information.

Response to Comment G-51-5. Contrary to the inference of the commenter, the WLC project is not highly dependent on port-related traffic, rather it is the goods movement in the Southern California/Western United State (US) region that generates the need for warehousing. No more than 7% of WLC truck trips are projected to be port-related trips between initial operation and 2035 (see Section 12.F of Traffic Impact Analysis), and only a small percentage of that traffic would be impacted

by improvements to other national and international ports. The need for warehousing close to the demand (i.e. the Southern California Association of Governments (SCAG) region) will keep WLC competitive over locations in the desert areas. In addition, SCAG's June 2010 report, Industrial Space in Southern California (http://www.valleyconnect.com/~valleyco/images/stories/Library/reports/_IndustrialSpaceInSouthernCalifornia.pdf), estimates that by 2035 there will be a shortage of 228 million square feet of warehouse space in Southern California. As Southern California's population and economy continue to grow, there will be increasing demand for goods movement and logistics services. As a result, expected growth and the best available studies indicate there will be strong demand for warehousing in Southern California in general, and the Inland Empire in particular, well into the future.

The Traffic Impact Analysis discusses the viability of using rail for the WLC project and concludes that in addition to a number of physical constraints, rail is not economically viable at distances less than 500 miles (see Section 4.F). This precludes use of rail not only for WLC but also warehouse complexes in the Southern California desert areas. Air service for goods movement has long proven to be a prohibitively-expensive option except for highly specialized products. The WLC offers as much interstate access as most cities with its convenient proximity to SR 60, I-10, I-215, and I-15.

Response to Comment G-51-6. The commenter believes the public needs more opportunities for input on the project. The residents of the City were encouraged to participate in a public scoping session hosted by the City on March 12, 2013. Comments were solicited from the public and from public agencies during the 30-day notice of preparation (NOP) period and during the 63-day public comment period on the Draft EIR, and comments have been accepted long past established review period for the DEIR ended (April 4, 2013). The entire DEIR and all technical studies have been on the City's website since issuance of the DEIR on February 4, 2013. In addition, public comments will be allowed at several public hearings for the project (before both the Planning Commission and City Council) prior to a decision on the project. In these ways, City residents have been, and will be, afforded ample opportunity to comment on the proposed WLC project.

Response to Comment G-51-7. The commenter expressed concern about air pollutant emissions, alternative fuels, the Panama Canal, and the absence of a project-specific Site Plan to review. As presented in numerous places in the DEIR, the WLC project and the EIR are programmatic in nature, meaning that the WLC Specific Plan and this EIR address the overall project issues rather than building-specific issues. Additional CEQA review will be required when site-specific future development proposals are submitted for City review. Section 4.3 of the DEIR, its supporting technical study, the revised technical air study (FEIR Volume 2 Appendix D-1), and the revised DEIR section (FEIR Volume 2) all provide very detailed information on air pollutant estimates at various distances from the project site, including adjacent to the project site and along the major freeways that will serve the project. Section 3.4.6.1 of the DEIR Project Description describe the alternative fueling station that will be located on the WLC site. While some of the trucks accessing the WLC project may use alternative fuels (e.g., liquefied natural gas, compressed natural gas, or electric), to make a worst case estimate of WLC air pollutant emissions, it was necessary to assume no widespread use of alternative fuels on the site. Finally, Response to Comment G-2-3 provides more information about the WLC project relative to the Panama Canal.

Response to Comment G-51-8. The commenter wants the list of significant impacts expanded. The list in Section 1.5 of the Executive Summary is based on the detailed analysis of potential impacts to 16 different environmental issues or categories (DEIR Sections 4.1 through 4.16). The specific items listed are based on the CEQA significance thresholds identified in the appropriate sections of the DEIR. Since this section is an executive summary, it provides a sufficient level of detail for a summary of impacts.

Response to Comment G-51-9. The commenter compliments the DEIR on its summary of the project alternatives.

Response to Comment G-51-10. MM 4.2.6.1A has been modified to require the acquisition of an agricultural conservation easements.

Response to Comment G-51-11. Please refer to Responses to Comments F-8-94, F-8-95, and G-49-22.

Response to Comment G-51-12. The commenter believes more stringent mitigation for air quality impacts are needed. The commenter should note that the air quality and greenhouse gas emission technical study was revised based on the revised traffic study and the many comments on the DEIR regarding air pollution and public health risks from diesel truck exhaust. The commenter is encouraged to review the revised and additional mitigation measures regarding air pollution.

Response to Comment G-51-13. The commenter believes the project's air pollution impacts outweigh its jobs benefits. The City Council will consider the information in the DEIR and its technical studies, both the original and revised versions, as well as all comments and responses to written comments before making a decision on the project. If the City Council decides to approve the project, a Statement of Overriding Considerations will be necessary to show what project benefits outweigh the significant project impacts, including air pollutants and health risks.

Response to Comment G-51-14. As presented in the Soils Report, (Leighton 2013), no structures for human occupancy will be located over active faults or within the State Alquist Priolo (AP) Zone, unless structural setbacks are established from active faults identified within the AP Zone. The setbacks will be based on fault trenching performed in accordance with State and County guidelines.

Response to Comment G-51-15. The commenter's April 7, 2013 email questions the jobs/housing balance ratio in the City. While it is likely that some of the jobs may be filled by City residents who possess the skills and/or education required, it is expected that many project employees will be commuting to the project from other locations in the Inland Empire and may eventually move to the City to live closer to work, thereby increasing the population and ultimately the demand for homes within the City over a period of time. The impact of the project on the jobs/housing balance in both the City and throughout the Inland Empire cannot help but be improved by the potential 20,000 jobs to be generated by the WLC, especially because the project itself contains no residential development within a City that has one of the lowest jobs/housing balances in all of the Inland empire. In fact, both the City and the Inland Empire have a surplus of homes versus jobs, which causes residents to drive to Los Angeles (LA) and Orange County for work, leading to traffic congestion, less family time and an overall lower quality of life. As noted in Section 4(III) of the DEIR, the City's Jobs-Housing Balance is currently 0.47, which is one of the lowest of any City in the Inland Empire. Riverside County as a whole only has a Jobs-Housing Balance of 0.74. As the norm throughout Southern California ranges between 1.0 and 1.29 jobs per household according to SCAG's landmark 2001 study *"The New Economy and the Jobs/Housing Balance in Southern California,"* both the City and the County are badly in need of jobs. As a result, the average commute distance for a Riverside County resident of 21.6 miles according to the study was higher than any other County in Southern California. Improving the jobs/housing balance is one of the many attributes of the WLC.

Response to Comment G-51-16. The commenter says the project will conflict with many nearby residential neighborhoods. Sections 4.1, *Aesthetics*, and 4.10, *Land Use and Planning*, both evaluate potential impacts of the WLC project on neighboring land uses, including the neighborhoods mentioned by the commenter, although they are not mentioned by name. The conclusion of significant land use impacts was actually based on impacts to onsite rural residences and not surrounding neighborhoods. The City Council will consider all comments and responses to written comments before making a decision on the project.

Response to Comment G-51-17. The commenter expresses concern about impacts to the Old Moreno neighborhood just west of the project site. Each of the environmental analysis sections of the DEIR (4.1 through 4.16) evaluates potential impacts of the WLC on the adjacent residential neighborhood to the west (i.e., Old Moreno) where appropriate (e.g., aesthetics, traffic, noise, air quality, etc.). The commenter does not indicate what mitigation he believes is inadequate, but he is encouraged to read the air quality and greenhouse gas emission technical study which was revised based on the revised traffic study and the many comments on the DEIR regarding air pollution and public health risks from diesel truck exhaust, including impacts on the adjacent residences. The commenter is encouraged to review the revised and additional mitigation measures regarding air pollution.

Response to Comment G-51-18. The commenter believes the project site should support rural residences. Note that Section 6.2.1 of the DEIR explains why planning the area for rural residences was not considered in detail in the DEIR. This type of housing usually does not generate sufficient property taxes to support the level of municipal services needed and expected in upscale communities unless the housing prices are very high (e.g., Marin County, South Pasadena, Malibu, etc.), and housing prices in the eastern end of Moreno Valley would not be expected to be high enough to exceed service costs. The City Council will consider all comments prior to deciding whether to approve the project.

Response to Comment G-51-19. The commenter states an opinion that the section on traffic impacts seems to "hope and pray" that other agencies will employ measures to mitigate the traffic impacts. He claims that the DEIR retreats to a “significant and unavoidable” position and fails to draw any nexus between the project traffic and the need to widen freeways, interchanges, or the expense of truck climbing lanes through the Badlands. The commenter also states there is no guarantee that these upgrades will be built in time for the full occupancy of the WLC.

The City has no authority to compel Caltrans or other jurisdictions to implement changes to facilities under their control. By pledging to work with Caltrans and other jurisdictions to establish funding mechanisms the City is going as far as its legal authority allows. The Traffic Impact Assessment (TIA) fully discloses this organizational framework and correctly identifies traffic impacts and the improvements needed to mitigate those impacts (Chapter 11, Sections E and F). However, mitigation to facilities outside of the City’s jurisdiction have been characterized as “significant and unavoidable” because mitigation cannot be guaranteed by the City. See TIA Chapter 11, Sections E and F.

Response to Comment G-51-20. The commenter was glad the old windrow along Redlands Blvd. was going to be preserved. However, the commenter should note that MM 4.1.6.1A only requires temporary preservation of the windrow*… “the existing olive trees shall remain in place as long as practical to help screen views of the project site.”* The photo renderings of views along Redlands Blvd. indicate only the tops of some warehouse buildings will eventually be visible with the combination of berms, walls, and mature growth of the planned landscaping. To clarify this condition, the measure will be reworded slightly to emphasize that keeping the olive trees in place will only be temporary.

4.1.6.1A ~~Prior to the issuance of any discretionary permit for development along the western boundary of the WLCSP, a minimum 250-foot setback shall be verified from closest residential property line along Redlands Boulevard, Bay Avenue, and Merwin Street to any truck access area of the WLC project.~~ Each Plot Plan application for development along the western, southwestern, and eastern boundaries of the project (i.e., adjacent to existing or planned residential zoned uses) shall include a minimum 250-foot setback measured from the City/County zoning boundary line and any building or truck parking/access area within the project. The setback area shall include landscaping, berms, ~~planted~~ and walls ~~and landscaping sufficient~~ to provide

~~effective~~ visual screening between the new development and existing residential areas upon maturity of the landscaping materials. ~~Prior to development of the portion of the WLC Specific Plan property adjacent to Redlands Boulevard, the~~ The existing olive trees along Redlands Blvd. shall remain in place as long as practical to help screen views of the project site. This measure shall be implemented to the satisfaction of the ~~City~~ Planning Official ~~Division~~.

Response to Comment G-51-21. The commenter says more mitigation is needed for glare and "dark sky" impacts. The WLC project will comply with the City's lighting ordinance that was recently revised to deal with the "dark sky" issue. Compliance with the ordinance and the lighting plan for the WLCSP will help reduce but not eliminate night lighting from new buildings at night and glare from new buildings during the day. These impacts were examined in detail in Section 4.1.6.4, *Aesthetics – Light and Glare Impacts*, in the DEIR.

Response to Comment G-51-22. The commenter is concerned construction impacts will be greater than anticipated when contractors break posted rules, speed limits, and laws. The DEIR process relies on project activities complying with established local, state, and federal laws and regulations as enforced by appropriate agencies. If they do not, they are subject to a variety of penalties including fines and withholding of subsequent permits. It is overly speculative and beyond the scope of a CEQA document to assume contractors will break established rules and laws.

Response to Comment G-51-23. The comment does not raise an issue regarding the DEIR and no comment is required. The City will consider all comments in connection with its deliberations on the project. Mitigation Measures are incorporated as Conditions of Approval as applicable to project entitlement approvals and are implemented by the City of Moreno Valley.

Response to Comment G-51-24. The commenter is glad the project will contribute an historical marker relative to San Juan Bautista.

Response to Comment G-51-25. The traffic study has been revised, and Sycamore Canyon will not have a significant noise impact.

Response to Comment G-51-26. The traffic study is comprehensive in the roadway links examined. All of the potentially impacted areas are identified in the noise assessment.

Response to Comment G-51-27. The reduction of truck traffic speed limits along the 60 Freeway is not considered feasible because the speed limits posted along freeways are Caltrans responsibility, and therefore, analysis of this effect is not warranted.

Response to Comments G-51-28. The commenter states the opinion that the reduced Transportation Uniform Mitigation Fee (TUMF) and Development Impact Fee (DIF) fees for warehouses are unfair. The comment further states that the City Council pressured Western Riverside Council of Governments (WRCOG) into adopting the reduced fee as a market selling point, and states that the commenter has seen other reductions in ads for competing logistics complexes in Adelanto and Victorville. While the comment acknowledges that some relief from local fees is common for warehouses nationally, in the commenter's opinion this reduction is excessive and unfair. It is also the commenter's opinion that the reduced fee does not consider the greater impact that trucks have on roads compared to cars.

In California impact fees are required to meet the "rough proportionality" test in the Mitigation Fee Act. This requires that fees be roughly proportional to the impact of the development. Surveys show that high-cube warehouses generate far fewer trips per square foot of floor space than other types of industrial development, as can be seen from these daily trip-generation rates from the Institute of Transportation Engineers:

- General Light Industrial 6.97 vehicle-trips per thousand square feet per day
- Industrial Park 6.83
- Manufacturing 3.82
- Conventional Warehousing 3.56
- High-Cube Warehousing 1.68

The City's adoption of lower TUMF and DIF rates for high-cube warehouses compared with other industrial developments within its jurisdiction properly reflects the requirement for the fee to be roughly proportional to the expected impact.

As the commenter acknowledges, jurisdictions sometimes reduce local fees for policy purposes as well. For example in 2009, 10 of the 16 TUMF jurisdictions chose to enact a temporary 50% reduction in TUMF fees on developments within their jurisdiction, with the agency taking responsibility for paying the other 50%. This was done to spur economic activity in the midst of a recession. This type of incentive is considered a legitimate policy option. As acknowledged by the commenter, there is competition among cities to attract the logistics and distribution industries and Moreno Valley's competitors are offering this type of incentive to attract businesses to their cities.

Response to Comments G-51-29. Please refer to response G-51-28.

Response to Comment G-51-30. The commenter is concerned all the traffic improvements identified in cooperation with other agencies will not be carried out. The timing and schedule of the traffic improvements that are outside of the City's jurisdiction (i.e., State and extra-territorial transportation facilities) are not in the City's control. The EIR appropriately states that the impacts necessitating the need for the improvements would remain significant and unavoidable. However, the EIR includes MM 4.15.7.F requiring that the City participate in a multi-jurisdictional effort with Caltrans and adjacent cities to develop a study to identify fair-share contribution funding sources to supplement other regional and State funding sources necessary to implement the State facility and extra-territorial improvements identified in the EIR. The EIR also includes MM 4.15.7.G requiring that the City coordinate with WRCOG with the goal of shifting TUMF funding priorities so they align with the improvements identified by the City and in the proposed project's TIA and EIR. Lastly, the EIR includes MM 4.15.7.H requiring that the City work with the WLCSP development and other jurisdictions to coordinate the funding and installation of intersection and roadway improvements outside of the City's jurisdiction. With these MMs, the City has established a process that will provide the necessary first step towards the eventual multi-jurisdictional coordination needed to implement the traffic improvements that are outside of the City's jurisdiction. Even with such coordination, it is appropriate for the City to consider impacts to these State and extra-territorial transportation facilities significant and unavoidable.

In addition, it would be disingenuous to suggest with a reasonable amount of certainty that the City and/or the proposed project implement the roadway improvements outside of the City's jurisdiction because the necessary first steps of creating a multi-jurisdictional coordination with Caltrans and adjacent cities has not been taken. Such a hypothetical mitigation measure would lack the ability to be implemented and would therefore be considered a infeasible. For this reason, the EIR appropriately states that the impacts necessitating the need for the improvements outside of the City's jurisdiction (i.e., State and extra-territorial transportation facilities) would remain significant and unavoidable.

Response to Comment G-51-31. The commenter believes a programmatic EIR is appropriate for this project but the City has not allocated enough time for public review and discussion regarding this project. The commenter is referred to Response to Comment G-51-6 for a description of the

opportunities the public has had and will have to comment on the WLC project before a decision is made by the City Council.

Response to Comment G-51-32. The commenter says Table 2.B is adequate for discussion purposes.

Response to Comment G-51-33. The commenter does not accept the Rancho Belago designation for east Moreno Valley. The City has accepted that designation to generally refer to the vacant lands within the City east of Redlands Blvd. and south of the SR-60 Freeway.

Response to Comment G-51-34. The commenter believes the Moreno Highlands Specific Plan (MHSP) has the most appropriate land uses for the project area. The MHSP was evaluated as the No Project – Existing General Plan Alternative to the WLC project in Section 6.3.4 in the DEIR. That section explains why the MHSP is no longer the "best" land use for the project property based on current economic and employment conditions. The City Council will consider all comments before it decides whether to approve the project.

Response to Comment G-51-35. The commenter says the DEIR does not adequately define high cube and logistics warehousing. The term "high-cube" is in reference to the proposed warehouse buildings and the storage of manufactured goods. It is not related in any way to vehicle heights or weights and consequently does not create any increased safety hazard for trucks traveling the roadways. Such vehicle regulations are established and enforced by the state.

The term "high-cube warehouse" is defined in the Specific Plan as follows:

> ***"High-cube warehouse*** *– A building used for the storage and/or consolidation of manufactured goods prior to distribution to secondary retail outlets, generally 500,000 square feet or more, often divided for multiple tenants. High-cube warehouse and logistics facilities include ancillary office and maintenance space along with the outdoor storage trucks, trailers, and shipping containers.*
>
> *"High-cube logistics warehouses are generally constructed with vertical-lift dock-high roll up doors to allow access for the loading and unloading of products from truck/trailers. Building interiors are typically large and open to accommodate the temporary storage and consolidation of the products to be distributed."*

The definition used in the Specific Plan is consistent with the generally accepted definition. See the ITE Trip Generation Manual volume 2, page 266 (9th ed. 2012). Also see the definition in the WLCSP at section 13.2. Section 3.4.6.1 of the DEIR and Section 13.2 of the WLCSP define high cube or logistics warehousing as following:

> *High Cube-Logistics Development (LD). The WLC Specific Plan project proposes to develop approximately 2,610 acres with up to 40.4 million square feet of high cube logistics warehouse space. This represents approximately 99.5 percent of the total building area of the WLC Specific Plan project. Land uses allowed under this classification include high cube logistics warehouse buildings of 500,000 square feet or greater. High cube logistics warehouses are characterized by a high level of automated material handling systems and typical truck activities outside of the peak hour. High cube logistics warehouses are generally used for the storage of manufactured goods prior to their distribution to retail outlets (see Section 4.15 and Appendix J of this EIR). Warehouses permitted in the LD portion of the WLC would be no smaller than 500,000 square feet, with a maximum height of 80 feet. The Specific Plan prohibits buildings over 60 feet in height along the western, northern, and southern boundaries of the site (see Figure 3.9).*

Warehousing and logistics activities consistent with the storage and processing of manufactured goods and materials prior to their distribution to other facilities and retail outlets will be permitted throughout the Specific Plan. Ancillary office and maintenance space is included along with the outdoor storage of trucks, trailers, and shipping containers. LD land uses provide a location for businesses to sort, organize, and transfer products from one shipping process to another.

By comparison, the nearby City of Perris adopted the following definition of "high cube warehousing" and added it to their municipal code in 2009 …

"High-cube Warehousing" means warehouses and distribution centers with a minimum gross floor area of 200,000 square feet, a minimum ceiling height of 24 feet, and a minimum dock high door loading ratio of 1 door per 10,000 square feet. High-cube warehouses are characterized by a small employment count due to a high level of automation. High-cube warehouses shall not be used for manufacturing or labor-intensive purposes, nor exceed the ratio of 25 employees per acre."

It is unclear what effect or impact the definition of these uses will have on the analysis or conclusions of the DEIR, given that traffic is one of the major issues relative to these uses and the Institute of Transportation Engineers (ITE) has clearly defined these types of uses in the 9th edition of its Trip Generation Manual (2012). The term "high" merely refers to the raised ceiling height which allows for higher stacking of products that can be accessed by robotic machinery.

Response to Comment G-51-36. The commenter believes that more information about high cube warehouse characteristics is needed because the trucks that utilize them are in some ways different than standard warehousing, and those changes would influence the traffic study. The project traffic impact assessment (TIA) used ITE and other trip generation data specifically for high cube or logistics warehouses, and the air quality study used the latest information from the California Air Resources Board (CARB) on vehicle fleet age and mix for its calculations. It must also be remembered the EIR for the WLC project is a programmatic document, and no detailed information is available as yet on specific building sizes or locations, or actual occupants that might locate to this area or the kind of vehicle fleet they might operate. In addition, future development within the WLCSP will be required to provide subsequent traffic studies and CEQA compliance documentation, consistent with this EIR and the TIA for the overall WLC project (DEIR Appendix L-1). Therefore, information the commenter requests is beyond the scope of this EIR and not necessary for the programmatic analysis of traffic and related impacts from the WLC project. See also Response to Comment G-51-35.

Response to Comment G-51-37. The commenter believes the "high cube" data he requested in Comments G-51-35 and -36 is being deliberately withheld from public review. As outlined in the Response to Comment G-51-36, this is a programmatic EIR and details about specific buildings, land uses, occupants, or truck fleet mix are simply not known at this time based on the level of information in the WLC Specific Plan. See Response to Comment G-51-35.

Response to Comment G-51-38. The Skechers facility is a good example to estimate the scale of 60- to 80-foot tall buildings. In general, the main body of the Skechers building where the truck dock doors occur is approximately 50 ft. in height. The main entry at the southeast corner of the building is approximately 55 ft. high, measured from the adjacent ground to the top of the utility screen on the roof, a good approximation of a 60 ft. high building. The glass façade on the northeast corner of the building is approximately 66 ft. from the adjacent ground to the top of the glass wall. Add 14 feet height to visualize an 80 foot-high building.

Response to Comment G-51-39. The commenter says the EIR uses two different buildout numbers for the project. First, it should be noted the buildout of the WLC project has been extended from ten years as indicted in the DEIR to 15 years under the Final EIR. The traffic and air studies have been

revised as well to account for this modified buildout plan. The Final EIR now examines 2022 as the end of Phase 1 (2015 to 2022) and 2035 as the end of Phase 2 (i.e., project buildout). Year 2035 was used in the original DEIR as a second buildout horizon because the General Plan, along with its Circulation Element and City-wide traffic study, use 2035 as a City buildout figure. That buildout horizon has been maintained to keep continuity with the previous traffic analysis to the extent possible. There is no evidence to predict a faster buildout.

Response to Comment G-51-40. The commenter notes the many photographic renderings provided in the Draft EIR. The commenter should note that the captions on several renderings have been clarified, and several more renderings are being added to the revised DEIR to more fully illustrate potential views from areas surrounding the WLC site. These illustrations include one view toward Mt. Russell from SR-60 (traveling westbound on SR-60) and one additional view toward the Badlands and Mt. San Jacinto (traveling eastbound on SR-60). Please refer to FEIR Volume 2, Section 4.1 Aesthetics, Figures 4.1.5J and 4.1.5K).

Response to Comment G-51-41. The commenter believes the aesthetics analysis is deficient ("community gateway" views). The DEIR provided an analysis of views from many angles surrounding the WLC site in an attempt to accurately characterize the change in views that would occur as the WLC project developed in the future. In fact, the DEIR acknowledged that views would change to the degree that the visual impacts were significant. In response to many comments regarding views, MM 4.1.6.3A was modified (see below) to preserve the upper two thirds of the vertical view of Mt. Russell from SR-60, the main gateway into the Moreno Valley community. We believe these changes will address, at least to some degree, the commenter's concerns about views and community gateways.

~~**4.1.6.3A**~~ ~~Prior to the issuance of any discretionary permit for development under the WLCSP, the developer shall provide a site plan, landscaping plan, and visual rendering(s) consistent with the WLCSP that demonstrate changes in views of Mount Russell, the Badlands, and/or Mystic Lake for travelers along SR-60 or Gilman Springs Road, as appropriate. The renderings shall be sufficient to demonstrate typical views based on proposed site and landscaping plans, but the location and number of view presentations shall be at the discretion of the City Planning Division. These views shall be simulated from a height of six feet from the edge of the roadway travel lane closest to the visual resource.~~

4.1.6.3A Each Plot Plan application for development shall include plans and visual rendering(s) illustrating any changes in views of Mount Russell and/or the Badlands, for travelers along SR-60, as determined necessary by the Planning Official. The plans and renderings shall illustrate typical views based on proposed project plans, with the location and number of view presentations to be determined by the Planning Official. These views shall be simulated from a height of six feet from the edge of the roadway travel lane closest to the visual resource. The renderings must demonstrate that the development will preserve at least the upper two thirds (67%) of the vertical view of Mt. Russell from SR-60.

Response to Comment G-51-42. The commenter again talks about community gateway views and that the project should be in the southwest portion of the City instead. The discussion of gateway views, and especially the modified mitigation to address views, is provided in the Response to Comment G-51-41. It should be noted there are no sites remaining in the City's Industrial Park area (i.e., southwest portion of the City) that can support a regional logistics project like WLC. The City Council will consider all comments before deciding whether to approve the project.

Response to Comment G-51-43. The commenter notes a geographic feature in the project area where pollutants could collect and persist for longer time periods than in flat terrain.

There are two important components that are part of the air quality and health risk assessments prepared for the project: terrain and the prevailing meteorological conditions. Finely resolved terrain data were obtained from the United States Geological Survey for the region extending from near Palm Springs to the ports of Los Angeles and Long Beach. These terrain data act to influence the amount of dispersion of air pollutants. Meteorological data act to influence both the direction of pollutant transport but also the rate of dispersion of the pollutants. The meteorological data used in the project air assessment was obtained from the SCAQMD and is considered representative of meteorological condition in the project area. Thus, the influences of both terrain and air transport and dispersion were included in the assessments.

Response to Comment G-51-44. The commenter inquires as to whether any air monitoring was done at the intersection of the 60 Freeway and Theodore Street.

The air monitoring data used to establish a background for the WLC site was derived from the Riverside Rubidoux and Magnolia air monitoring stations. The commenter is correct in that the Riverside monitoring stations are located about 15 miles from the project site. The use of the Riverside data to characterize the background air quality at the site should provide conservative estimates (in terms of higher pollutant levels) of background pollutant concentrations, than would be expected at the project site. This is because of the locations of the Riverside monitoring sites in a highly urbanized area with surrounding industrial sources and several major freeways compared with the project site, which is influenced by one main freeway.

Response to Comment G-51-45. The commenter notes the possible influence of emissions from the ports of Los Angeles and Long Beach dragging their pollution into the Moreno Valley.

Actually as discussed in Response to Comment E-2A-7, the project Traffic Impact Analysis analyzed project impacts on freeways to the ports. The air quality analysis included that freeway activity and found that only a small percentage of WLC truck traffic would be to and from the ports and very small estimates of cancer risk from these freeways leading to the ports.

Response to Comment G-51-46. The commenter disagrees with the inclusion of the Enstrom discussion on the health effects of diesel PM. See Response to Comment G-45-1.

Response to Comment G-51-47. The commenter notes that the traffic and air quality modeling used a trip generation rate of 1.68 vehicular trips per thousand square feet per day (VT/KSF/day), which is described as a conservative basis for the air quality calculations. The explanation why the rate was used was provided in the TIA report (Chapter 2, Section A).

Response to Comment G-51-48. The commenter is concerned about air quality and does not believe the benefits of the project outweigh its air quality impacts. Section 4.3 of the DEIR and the original and revised air quality technical studies, all evaluate the potential air pollution impacts of the WLC project in considerable detail. The EIR concluded that the WLC project would have significant air quality impacts that could not be mitigated to less than significant levels, even with the recommended mitigation, due to the size and nature of the WLC project. The City Council will consider all comments and responses on the project and EIR before making a decision on the WLC project. If the City Council decides to approve the project, a Statement of Overriding Considerations will be necessary to show what project benefits outweigh the significant project impacts.

Response to Comment G-51-49. The commenter notes that there will be increases in cancer risks resulting from the project.

Since the DEIR was published, there have been multiple updates in the area of air quality analysis. Recently, CARB published updated emissions factors for heavy-duty trucks based on actual testing,

which show that emissions are significantly lower than previously estimated. Also, in response to comments, mitigation measures were strengthened and added further lowering emissions. When these changes are taken together, there is no longer any health risk impact based on the latest research conducted by the Health Effects Institute and sponsored by USEPA and CARB which demonstrates that new technology diesel exhaust do not contribute to cancer (HEI study).[45] Through the mitigation measures adopted by the proposed project, traditional diesel engines are prohibited from the project, eliminating the health risk associated with diesel engines. More information is discussed in Master Response-1 and Master Response-2.

Response to Comment G-51-50. The commenter believes the analysis of geotechnical impacts is adequate.

Response to Comment G-51-51. Refer to DEIR Section 4.6. Moreno Valley, like much of Southern California is in an area of high seismic activity in which destructive earthquakes pose a threat to property and lives. Recent nearby studies of the Claremont segment of the San Jacinto fault zone have estimated the most recent ground rupture to have occurred in the early 1800s with an estimated magnitude of 6.8. This segment of the San Jacinto fault is estimated to have a rupture reoccurrence interval of about 160 to 210 years and therefore it is believed the next earthquake is theoretically overdue or could occur within the next 50 years.

Proposed buildings will be designed according to the latest assessments of earthquake ground motions and in accordance with California Building Code (CBC) and the American Society of Civil Engineers (ASCE) minimum design standards. Those assessments use a Probable Maximum Capable Earthquake scenario, such an earthquake event will only have a 2% probability of exceedance in a 50 year design life. Looking at this conversely, the structural design uses an assumption that the maximum capable earthquake will have a 98% chance of occurrence during the design life of a given structure. It should be noted that the seismic design of structures to resist the maximum capable earthquake is to prevent catastrophic collapse, and not intended to prevent structural damage.

Response to Comment G-51-52. The commenter believes Riverside Transit Agency (RTA) bus route 35 may not be appropriate to serve the project. The City will require future development to coordinate with RTA regarding bus stops and future service. At a point in time when expected ridership reaches appropriate levels RTA could reconfigure an existing bus route or add a new bus route to serve the WLC project. As provided in the WLC Specific Plan, all project streets will be designed to accommodate bus service at such time as determined by the RTA.

Response to Comment G-51-53. The commenter encourages the developer and the City to work together to plan bus service to the project. As indicated in Response to Comment G-51-52, at the appropriate time in the future when RTA believes there is sufficient ridership, it will make appropriate changes or additions to its bus routing to accommodate the WLC. As a result of this and other comments, the developer has agreed to contact RTA to discuss potential timing of additional service for the WLC area.

Response to Comment G-51-54. The 24-hour truck traffic, and indeed, all of the traffic generated by the project was addressed in the noise analysis. All roadways including freeways with any substantial project-generated traffic were assessed. The results are presented in Sections 2.3.1 and 2.3.2 of the technical noise assessment.

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[45] "Advanced Collaborative Emissions Study" published by the Health Effects Institute (HEI) in 2015 (Research Report 184 final). The HEI consists of governmental and private industry representatives including the U.S. Department of Energy, U.S. EPA, engine manufacturers, the petroleum industry, CARB, emission control manufacturers, the National Resources Defense Council, and others

Response to Comment G-51-55. The comment is correct in that several roadway segments have been identified in the noise report as having significant noise impacts that cannot be mitigated (see Section 4.0 of the technical noise assessment). The potential traffic noise impact has been assessed in detail in the technical noise assessment. The City's development review process requires coordination with RTA regarding bus stops and related improvements, however there is no required mitigation requirements.

Response to Comment G-51-56. The commenter asks if several locations mentioned in the DEIR and noise assessment are from other reports. The commenter must remember that many locations distant from the WLC site were required to be evaluated in the project traffic impact assessment (TIA) due to a recent court case involving a nearby residential development in Riverside County ("Villages of Lakeview"). It is therefore possible that some remote locations "show up" in the EIR, and some intersections are shown to have significant traffic impacts because they are in another jurisdiction (like the City of Perris) and thus implementation of mitigation cannot be guaranteed by the lead agency.

The noise study is based on the traffic forecasts and there may be many reasons why project-generated traffic gets focused on roadways distant from the project. The traffic study has been revised since the original analysis. The new analysis does not show significant noise increases along the segments of Placentia Avenue and Day Street referenced in the comment.

Response to Comment G-51-57. The commenter asks for a map of noise monitoring stations in the DEIR. While preparing the EIR, it is always important to determine that level of detail from the related technical study must be included in the DEIR text (i.e., does it clarify the analysis?). In this case, the locations of the monitoring stations is shown graphically in the project noise assessment (DEIR Appendix K, Exhibit 5) and it was felt if someone wanted to see that detailed data they could easily find it in the noise assessment. In addition, there is no CEQA requirement to provide a "handy area map" as part of the noise study. The noise impacts are listed and are presented in alphabetical order, which should be adequate.

Response to Comment G-51-58. Please reference Response to Comment G-49-22.

Response to Comment G-51-59. Please refer to Responses to Comments F-11-37 and G-3-2.

Response to Comment G-51-60. The commenter was in general agreement with the traffic study but was not able to fully review it. Section 4.15 of the DEIR describes how the project traffic study was conducted, what assumptions were used including fleet mix and breakdown of trucks to passenger vehicles, consistent with industry standards for similar types of traffic studies for high cube/logistics warehousing facilities. This information was provided in the TIA report (Chapter 4, Section C)(FEIR Volume 2 Appendix L-1).

Response to Comment G-51-61. The commenter reiterates his concern about the job estimates and traffic impacts. The issue of jobs has already been addressed in the Response to Comment G-51-3. Section 4.15 of the DEIR examines the traffic-related impacts of the WLC project. The EIR concluded that traffic impacts of the project would be significant even with implementation of recommended mitigation, largely because many of the improvements that would be needed to achieve level of service standards are located in other jurisdictions (including Caltrans) and are not under the control of the lead agency. The City Council will consider all comments and responses on the project and EIR before making a decision on the WLC project. If the City Council decides to approve the project, a Statement of Overriding Considerations will be necessary to show what project benefits outweigh the significant project impacts.

Response to Comment G-51-62. The commenter notes the large amount of circulation infrastructure needed for the project and states their opinion that that this will place a staggering financial burden on the public despite any contributions made by the developer or eventual occupants. It is the commenter's opinion, the Moreno Highlands Specific Plan would reduce the need for improvements and save millions of tax dollars.

The commenter's opinion is acknowledged. As was described in Chapter 4, Section E of the TIA, several traffic studies were conducted for the Moreno Highlands Specific Plan before the plan was approved in 1992. The studies are available at the City of Moreno Valley Planning Department. The final traffic study, which served as the basis for approval of that plan, forecast a total of 178,608 average vehicle trips per day (ADT) being generated by the Specific Plan. That would be more than two-and-a-half times, or 256% as many trips as are forecast for the WLC (69,542 ADT), refer to Chapter 4, Section C, Table 23 (of revised TIA). The Moreno Highlands traffic studies did not distinguish between car and truck traffic and so did not provide a forecast in terms of PCEs. However, even if the Moreno Highlands Specific Plan were to generate no truck trips at all (only auto trips), it would still generate nearly twice as many PCEs trips as the WLC. So it is the commenter's opinion, the WLC would generate a larger need for circulation infrastructure than the Moreno Highlands Specific Plan is incorrect.

Response to Comment G-51-63. The commenter is concerned about traffic on SR-60. The original and revised traffic impact assessments (TIAs) for the WLC project both provided extensive discussion and analysis of potential impacts on SR-60 under various development scenarios (Existing plus project buildout in 2012, Year 2022 plus Phase 1, and Year 2035 plus project buildout). The commenter is correct that the EIR shows the SR-60 will continue to be congested as growth occurs in the City and surrounding areas. However, the project TIA does indicate that the WLC project will introduce a large amount of employment in an area that has long been planned for residential uses, which will help improve the City's jobs/housing ratio and actually help reduce regional congestion over the long-term compared to what would have occurred under the currently approved Moreno Highlands Specific Plan. While it is contrary to CEQA to base the determination of significant impacts on a "plan to plan" comparison such as this, the fact remains that regional congestion will be incrementally reduced over the long-term if the WLC project is approved.

Response to Comment G-51-64. The commenter believes project traffic will be stuck in freeway congestion. However, the project traffic study clearly shows that WLC traffic is distributed throughout the day and does not coincide with freeway congestion during typical peak hours of the day (refer to FEIR Volume 2 Appendix L). In that way this type of project will have less impact, and be less impacted by, freeway congestion during peak hours.

Response to Comment G-51-65. The commenter expresses doubts about when Caltrans will provide truck climbing lanes through the Badlands.

The 2012 Regional Transportation Plan (RTP) Federal Transportation Improvement Program (FTIP) (the list of projects for which funding is available in the short term) includes project RIV120201 which is the construction of new east- and west-bound truck climbing lanes on SR-60 from Gilman Springs Road to 1.6 miles west of Jack Rabbit Trail. The project should be complete within ten years.

Response to Comment G-51-66. The commenter is correct, Section 5.1 of the DEIR lists the significant impacts of the WLC project as identified in Sections 4.1 through 4.16 of the DEIR.

Response to Comment G-51-67. The commenter thanks the City for being able to review the EIR.

Letter G-52: Steve Jiannino (April 8, 2013)

Response to the DEIR for the World Logistics Center:

I am writing to state one of my comments to the DEIR for the proposed World Logistics Center project.

I am opposed to this project being developed on the East side of Moreno Valley. I feel a smaller version of this project around March Air Base area where there is access to additional transportation modes would be a better designed project. With the poor existing air quality in the Inland Empire a project of this size with high concentration of diesel trucks would be a large detriment to the entire region. 1

My comment regards section 6, alternatives

Under traffic you make the assumption that an 18 wheeler has the same traffic impact as an automobile. In terms of congestion on the streets, highways, freeway ramps and intersections, I would venture to say that is not the case at all. Under the section on alternative sites you also assume that the alternative sites will not have access to rail or air transportation facilities as the current site does. The southwest area of Moreno Valley around March Air Base has access to both and would therefore lessen daily trips. Noise and air impacts would also be different at an alternative site with access to additional modes of transportation i.e. rail and air. 2

Steve Jiannino

24701 Valley Ranch rd.

Moreno Valley, CA

4-8-13 (e-mail)

RESPONSES TO LETTER G-52

Steve Jiannino

Response to Comment G-52-1. The commenter suggests a smaller logistics project near the March Air Reserve Base and is concerned about air pollutants from trucks. The alternatives analysis did look at less intense development (-20% square feet) but did not look at significantly smaller project sites in other locations, as that was not the proposed project and California Environmental Quality Act (CEQA) requires the analysis of alternative sites to be able to support the project as proposed to see if some other site, by its very nature, would result in less environmental impacts. The Environmental Impact Report (EIR) did not look at other locations for smaller projects in the southwestern portion of the City (i.e., the Moreno Valley Industrial Park) as there are no large sites left in that area (ProLogis Eucalyptus Business Park EIR, Section 6.3.9, *Alternatives to the Proposed Project – Alternative Sites*, February 2013). The revised Traffic Impact Assessment (TIA)(Parson Brinckerhoff December 2013)(Final Environmental Impact Report (FEIR) Volume 2 Appendix L-1 Section 4.F) had an extensive analysis of potential rail service to the World Logistics Center Specific Plan (WLCSP) site, and determined that it could not be provided in an economical or environmentally responsible manner (i.e., had more impacts than no rail). Some of that discussion would apply to any potential logistics site in Moreno Valley or surrounding areas that did have rail service. Even if rail service were available to an alternative site, logistics uses in the Southern California area do not necessarily benefit from rail service as the majority of trips are within the South Coast Basin, and rail service only becomes economically and physically viable for trips across the country or at least to the mid-west or further. An additional issue with rail discussed in the TIA is the over capacity state of the existing railroad lines.

Response to Comment G-52-2. The commenter says for the project alternatives that truck impacts would not be the same as cars, and alternative sites might be able to take advantage of rail service and might have less noise and air impacts if rail service was available. The Response to Comment G-52-1 explains why rail service, even to an alternative site, might not be economically viable for logistics warehousing within the Southern California region. If rail service is not viable, then it is doubtful there would be any traffic or air quality benefits from rail service if the project were built on another site in the same general area, whether it was in the City or Moreno Valley or some other nearby jurisdiction. The commenter is correct that trucks produce different traffic impacts than passenger vehicles, but CEQA does not require a detailed traffic study for each potential alternative to the proposed project, especially when the CEQA document is a programmatic EIR such as for the WLCSP project. The alternatives analysis did provide a trip generation comparison of the various alternatives to the proposed project. Table 6.G indicated trip generation for most of the alternatives was greater than the proposed project (Draft Environmental Impact Report (DEIR) Section 6.4). The less intense development alternative would generally have the same truck/passenger vehicle ratio as the proposed project, while the other alternatives (Moreno Highlands Specific Plan, two mixed use plans) would have a lower truck/passenger vehicle ratio. Even with these differences, the traffic analysis of alternatives does provide an order of magnitude comparison of the potential traffic impacts of the alternatives compared to the proposed project, which is what is required under CEQA.

Letter G-53: Deanna Reader and Kenny Bell (email) (April 8, 2013)

Letter G-53

From: Late98765@aol.com [mailto:Late98765@aol.com]
Sent: Monday, April 08, 2013 5:18 PM
To: John Terell
Subject: Comments for World Logistics Center DEIR

To: John Terell and Mark Gross of the Moreno Valley Planning Department

Draft Environmental Impact Report comments for the World Logistics Center

I am opposed to this project because the economic benefits are seriously inflated and the negative impacts are understated. At first blush the Draft Environmental Impact Report seems to have covered everything but it really doesn't. There are alternatives and impacts that weren't explored. 1

The overly inflated economic projections are way too rosy and the employment projections are unreasonable. Warehouse automation is much like computer technology. Each successive generation is more efficient than the last. And in warehouse automation that means fewer and fewer jobs at technologically advanced fully automated warehouse. Those of us that went to the project hearings from this same developer know how many jobs we were promised. I was one of the only people that brought up the fact that a fully automated warehouse was not going to bring the employment numbers quoted. The quotes weren't even close. First 2500, then 1000 but City Official claim 500 to 600 depending on the day. and claim that is only because the facility isn't at capacity. The fact is the facility was designed for only 300 employees. The actual number of employees is less because the facility isn't at capacity because of the recession. The other reason sales are probably down is because of the $40 million class action lawsuit against the company that lied to its customers. How does this City expect to foster a positive community environment if it doesn't disclose accurate employment numbers to its residents from past projects? (1) How does a community trust its leaders when they refuse to require an independently produced record of the true employment and salary figures of past projects? How can the residents expect the economic benefits touted from this project will be accurate if this developer was not forthcoming with its last project? 2

This developer's last project was estimated to contribute $150 million of economic benefit to the City of Moreno Valley. The Mall, every warehouse and every busin ess in the City along with property and sales taxes combined only amount to $77 million in general fund dollars a year for the City of Moreno Valley. I have asked since this last project was built how that economic benefit figure was determined but have yet to get an answer. I have asked and the Mayor has agreed to provide current economic benefit data, but it hasn't been produced. The last figure the Financial Services Director gave was that the City was getting about $200,000 in property taxes a year and that sales tax were essentially non-existent from the project. The difference between $150,000,000 claimed and $200,000 actually received is astronomical. How are this City's residents supposed to believe the economic benefits of this current project when the city won't give currently accurate data from the last project? Why would anyone believe the data from this project when it was produced by the same persons responsible for producing the inaccurate data from the last project? 3

The project is economically unfeasible because it does not include rail, or rather it doesn't include the cost of the rail needed to make any logistics hub location viable. The role of this project will be to accept trucks with loads originating from overseas thru the ports of Los Angeles and Long Beach. The trucks will come from the west fully loaded and go back to the harbor area empty. More trucks will come from the east to pick up the freight once sorted to deliver to eastern markets. Because trucks are either local (harbor to here and back) or long haul (here to eastern half of continent) there will be twice any many trucks to carry the same amount of cargo. Moreno Valley is surrounded by beautiful majestic mountains that trap pollution. There are calls for this freight to come from overseas in containers that are pre-sorted for the intended destination. The freight would then travel the continent to the east by rail. There is no plan by the state or any local public agency to bring freight rail to this facility. This alternative has not been addressed in the DEIR at all. To be economically viable a logistics hub must be serviced by rail. The location of this facility is not conducive to freight rail and it would be cost prohibitive. A flat area not surrounded by mountains would be a better and more cost effective alternative. 4

The Deir has not adequately addressed how the widening of the Panama Canal will affect the need for additional logistics when it opens next year. If the Panama Canal takes at least 25% of the overseas freight that comes from the ports on the west coast, how will that affect the need for this project? 5

Moreno Valley has been primarily a be droom community. Most of its residents live in single family homes. The City's general plan was thoroughly vetted by all stake holders and approved in 2006. The general plan has a little of everything. Thousands of people moved into brand new houses in the early 2000's based on the promises of the general plan. This project will change the rural east end that is next to the San Jacinto Wildlife Preserve into a mega-warehouse or logistics hub. This is not a small insignificant change but a completely new general plan by way of a mega project. This area was supposed to have over 7000 single family houses as well as many other mixed use businesses. If this project were to go forward the amount of land available for single family homes would be seriously compromised. The only way to accommodate the number of new residents expected would be high density housing. If this project were to go forward this city's future would be warehouses and apartments. Thousands and thousands of people moved here because of the promise of a city life in a rural environment. How does this city expect to foster a positive environment if they remove the reason most people moved to this city? 6

The city produced and paid for an infomercial for this project over a year ago. This developer only plans to build high cube warehouses in this development and this past year the City reduced only the fee for high in half. No other city in California has cut the fee for high cube warehouses to half that of a traditional warehouse. The City Council has instituted a 20% reduction in the electricity bills for high cube warehouse (and medical uses which this particular developer says he intends to build). The City's Economic Development Action Plan states all the things the city is going to do for this project after it is approved. The mayor has stated (at a public meeting) that the city intends to offer assistance for the half a billion dollars that the infrastructure for this project will cost. How does this city intend to increase public participation when most residents think this a done deal and the city doesn't care what they have to say? 7

Sincerely,

Deanna Reeder & Kenny Bell
17351 Riva Ridge Drive
Moreno Valley CA 92555

RESPONSES TO LETTER G-53

Deanna Reader and Kenny Bell

Response to Comment G-53-1. The commenter believes the few benefits of the project will not outweigh its many impacts.

Response to Comment G-53-2. The commenter's April 8, 2013 letter questions the validity of employment projections for the World Logistics Center (WLC) because of the variance in projected employment figures for the Skechers warehouse when compared to current estimates. As explained under Response to Comment G-49, it is unclear at the present time what the total employment in the Skechers facility will be once it is fully built and the economy has totally recovered. Importantly, the Skechers project was not used as a basis for the employment projections made for the WLC project. Furthermore, the employment projections for the WLC are meant to reflect the average employment over the entire project, which will share a variety of types of logistics facilities. Therefore, the average employment figures are expected to be close to the projections stated in the Draft Environmental Impact Report (DEIR). Item 2 of G-90 provides more detailed information on the methodology utilized to determine the number of projected employees.

Response to Comment G-53-3. The commenter is confusing property tax revenues with economic benefit. Economic benefit is defined as overall economic output (i.e. total expenditures including sales or gross receipts, or other operating income) as a result of the project. For example, salaries earned by persons directly or indirectly employed as a result of a development project are considered to be part of an economic benefit projection, as are the dollar amounts of retail or wholesale sales generated directly or indirectly as a result of a project. But none of these revenues would be reflected in the amount of property taxes collected. A detailed analysis of the overall economic output to be generated by the project is included in Section 4 of the Fiscal and Economic Impact Study (Appendix O). A detailed analysis of the project tax revenues is provided separately in Section 3 of the Fiscal and Economic Impact Study (Appendix O), with results summarized in Table 3A. The methodology, sources of information and the model limitation have thoroughly been described in the Impact Study. The City Council will consider all comments on the project before making a decision on the project.

Response to Comment G-53-4. The provision of a rail service to the project site has been studied to determine if it is an alternative which will reduce the number of trucks driving between ports and the site, and therefore reduce the number of significant impacts (Please see Chapter 4, Section F of the revised Traffic Impact Assessment (TIA)). However, it has been determined that this alternative is not a viable option due to the following reasons. The WLC site is not currently served by rail and would need to be connected to an existing branch. All possible connections would cause impacts equal or greater than the projected truck traffic. It was also determined that for a rail service to be economical 50 percent of all shipments must be shipped 500 miles or greater on rail. Shipments to the WLC would only be travelling from the ports of Los Angeles and Long Beach, a distance of about 70 miles. Additionally, the existing rail system is already at or near maximum capacity. Therefore, shifting cargo from trucks on freeways to rail would transfer the congestion problem from stressed freeway systems to stressed rail networks. Finally, the port-related truck traffic to the WLC is projected to be between 2 and 7 percent of the total WLC truck traffic between now and 2035 (TIA). It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

National Association of Industrial and Office Properties (NAIOP) projections indicate a need nationally for about 700 million square feet of warehouse and distribution space over the next decade, on top of 300 million square feet of normal replacement of existing facilities (http://www.naiop.org/~/media/Research/Research/Research%20Reports/Logistics%20Trends%20and%20Specific%20Industries/LogisticsTrendsandIndustries.ashx). The rapid growth of web-based sales with deliveries to consumers coming straight from the warehouse, rather than through

traditional brick and mortar retail stores, will further increase the demand for warehouse space throughout the West, including in the Inland Empire.

Furthermore, a study prepared by the Southern California Association of Governments ("SCAG") titled "*Industrial Space in Southern California: Future Supply and Demand for Warehousing and Intermodal Facilities."* supports the need for more warehousing space. The study's Executive Summary states the following (http://www.valleyconnect.com/~valleyco/images/stories/Library//_IndustrialSpaceInSouthernCalifornia.pdf):

- "According to assumed growth rates, the region will run out of suitably zoned vacant land in about the year 2028. At that time, forecasts show that the demand for warehousing space will be approximately 1,023 million square feet (pg. ES-1).

- "During the year 2035, there will be a projected shortfall of space of about 228 million square feet, unless other land not currently zoned for warehousing becomes available" (pg. ES-2).

The WLC will contribute to the supply of warehouse space necessary to satisfy a portion of this demand. This SCAG Report supports other data presented in responses to DEIR comments that there will be more than sufficient demand to support the WLC (Comment Letter F-10-7).

Response to Comment G-53-5. While the current expansion of the Panama Canal will increase the Canal's ability to handle cargo, and in particular, larger ships, the increased level of demand for logistics facilities nationally should generate greater need for port facilities on both the East and the West Coasts. NAIOP projections indicate a need nationally for about 700 million square feet of warehouse and distribution space over the next decade, on top of 300 million square feet of normal replacement of existing facilities (http://www.naiop.org/~/media/Research//Research%20Reports/%20Trends%20and%20Specific%20Industries/.ashx). The Port of Long Beach's Master Plan calls for the acquisition of 450 acres of landfill to house additional cargo handling facilities due to increased demand (http://www.polb.com/civica/filebank/blobdload.asp?BlobID=2266). Currently, the Panama Canal only receives 20% of Asian impacts and exports because it takes three days longer to deliver goods to the east coast than it does by ship and train from the West Coast. This more lengthy delivery time will also continue to impact the Panama Canal's ability to take over West Coast import export business, even after its expansion. Finally, the rapid growth of web-based sales with deliveries to consumers coming straight from the warehouse, rather than through traditional brick and mortar retail stores, will further increase the demand for warehouse space throughout the West, including in the Inland Empire.

Response to Comment G-53-6. The commenter expresses a number of concerns and doubts about the project, including loss of planned housing and a rural lifestyle. The WLC project is proceeding through the General Plan Amendment and Specific Plan process to address the many concerns and issues that arise when a fundamental change to land use is proposed for an area, especially such a large piece of land adjacent to housing and the San Jacinto Wildlife Area (SJWA). It will be up to the City Council to determine if this project is in keeping with the overall plans for development in the City, and if its benefits outweigh the significant project impacts identified in the EIR. The City Council will consider all comments and responses on the project and EIR before taking action on the WLC project.

Response to Comment G-53-7. The commenter incorrectly states that City has only cut development impact fees for high cube warehouses. The City in fact has cut development fees across the board and was supported by a Nexus Study prepared by the City(http://sirepub.moval.org/sirepub///i1aqtvbfebqn2lgt/244285912132013045943227.PDF). It should also be noted Western

Riverside Council of Governments (WRCOG) has reduced Transportation Uniform Mitigation Fee (TUMF) by at least 50% for high cube warehouse over 600,000 square feet (http://www.wrcog.cog.ca.us//_items/.original.pdf). This reduction was in part was based on traffic characteristics of High-Cube Warehouses and is fully analyzed in the TUMF Nexus Study. The commenter correctly notes that the City has instituted a reduction electricity rates to promote economic development within the City. Any commitments to cost participation by the City would be identified in the project development agreement. The City Council will consider all comments in the project before making a decision on the project.

Letter G-54: Jose and Alicia Espinosa (email) (April 8, 2013)

From: jose espinoza [mailto:azmedtrans@mac.com]
Sent: Sunday, April 07, 2013 1:07 PM
To: Mark Gross
Subject: Comments for World Logistics

I oppose the World Ligistics! These was not part of the General Plan when I moved and the employment hiring numbers are misleading. Trucking fumes are also a factor to my health and the health of our resident children. No to warehousing ! 1

Sent from my iPhone

RESPONSES TO LETTER G-54

Jose and Alicia Espinosa

Response to Comment G-54-1. The proposed World Logistics Center (WLC) project includes a General Plan Amendment (GPA) that identifies those portions of the City's General Plan that will be revised if the WLC project is approved, and that GPA was evaluated in appropriate sections of the EIR (e.g., 4.10, Land Use and Planning). The Draft Environmental Impact Report (DEIR) concluded that a number of project impacts (e.g., air quality, traffic, etc.) would be significant even after implementation of mitigation, and the City Council would need to adopt a Statement of Overriding Considerations for the project that state what benefits of the project outweigh the identified significant impacts of the project. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

Letter G-55: Duncan Bush (April 5, 2013)

City of Moreno Valley
Community & Economic Development Department
14177 Fredrick Street
PO Box 88005
Moreno Valley, CA 92552

April 5, 2013

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Ref: **DRAFT ENVIRONMENTAL IMPACT REPORT (SCH #2012021045)**

The DEIR fails to adequately address any mitigation methods to overcome the "significant cumulative impacts" to my house (14670 Gilman Springs Road) and the other houses along Gilman Springs Road. The DEIR admits there are significant cumulative impacts to views, scenic resources, night lighting, and glare as well as noise, air quality and traffic impacts to those houses on Gilman Springs Road yet there is not one mention about the Moreno Knolls Homeowners Association and the Moreno Knolls Development. No one has sought the input from the Homeowners Association or the individual homeowners other than have an opportunity to comment on the DEIR prior to the publication for public review. 1

The exclusion of any mitigation measures for these minimum 2.5 acre estate properties; just because they are in the unincorporated county area is clearly an Environmental Justice issue. This is especially true when taken into consideration the significant proposed mitigation measures outlined for the properties within the city limits of Moreno Valley. The houses in the city limits other than those in the project don't have anywhere close to these significant cumulative environmental impacts. 2

It is very clear that the City of Moreno Valley is only concerned about pushing through this project without consideration for any property owners other than those within the city limits and then that is only very limited. My property is the closest developed property to Gilman Springs Road yet no noise studies were conducted on my property to measure the impacts. 3

The DEIR is misleading and unclear in the description of how high the structures can be along Gilman Springs Road and how close they can be to the residences 4

and roadway. This is especially true in front of my property. They casually mention that the existing grade will be lowered about 30 feet along Gilman Springs Road and the perception in the report is that will be the case all along Gilman Springs Road. When I read further into the report it says that will not be the case in all locations and it appears that the grade on the south side of Gilman Springs Road will not be reduced more than a couple of feet near my property at the most. I assume this is due to the 16 inch high pressure gas line would be exposed it the site were over-excavated. 4

The report goes on to say that some of the structures could be up to 80 feet high or higher in this area yet the report tries to lead us to believe that no buildings will be more that 55 feet above the 1,795 foot elevation level. That elevation is the highest elevation point in entire project. When it gets to my property the elevation is about 1,620 feet. That could conceivably allow buildings up to 175 feet tall in front of my property. Building of 55 to 80 feet tall is still like a 5 to 8 story building in front of my house (but instead looks like a concrete wall). 5

Right now my house enjoys an unobstructed view of Old Moreno, Lake Perris Mountains, open farm land, duck ponds, Mystic Lake and clear down to San Jacinto. All of my views will be completely wiped out with 55 to 80 foot monolithic concrete walls. I just finished spending several hundred thousand dollars rehabbing my property so that we could move in and retire there, enjoy the openness, peace and quiet and views without having any close neighbors. I wouldn't have minded residential neighborhoods as originally planned and approved for this area. A residential area would not have destroyed our views as the zoning height would only be 35 feet above existing grade. 6

Job Creation Claims to Justify Project

The claim of job creation does not meet the level of justification for such drastic negative impacts the whole east end of Moreno Valley and the San Jacinto Valley area. These new giant distribution warehouses are extremely automated and the DEIR study fails to honestly take into consideration the level of automation that will be going into these warehouses and the resulting job creation. The automation will vastly reduce the number of jobs that would be created. The jobs 7

being touted will not materialize as presented in the report other than the resultant heavy transportation trucking. 7

Additional Roadway Impacts

This project will place thousands of trucks onto the same Freeway (Route 60) that approximately 70 percent of the residences of Moreno Valley use for commuting to jobs and school. The DEIR also fails to take into consideration the proposed County of Riverside proposal to allow trash hauling from LA to the Riverside County Dumps at both the Badlands site and the Lamb Canyon site. These trucks are very slow moving and would add considerable congestion and truck traffic to the freeway and roadways that was not taken into consideration in the DEIR. 8

This DEIR report is replete with failures of The City of Moreno Valley <u>General Plan Policies</u> including:

Policy 2.5.2 "Locate manufacturing and industrial uses to avoid adverse impacts on surrounding land uses". **Note:** The city has already designation the southern portion of the city along I-215 as the primary industrial development area in the general plan.

<u>Conservation Element</u>

Objective: 7.7 "Where practicable, preserve significant visual features, significant views and vistas. 9

Policy: 7.7.5 "Require development along scenic roadways to be visually attractive and allow for scenic views of the surrounding mountains and Mystic Lake".

I am not opposed to the development of this area but this is not an acceptable project for this location.

This DEIR has Significant Cumulative Failures in so many areas that I am unable to adequately respond to them all.

Annexation:

I am also adamantly opposed to any annexation of the unincorporated county land into the City of Moreno Valley as proposed through this EIR process.

This is just an arrogant mechanism to circumvent the LAFCO process and does not give the property owners an opportunity to comment before the Commission on a supposed LAFCO action that will be enacted by this proposal.

By circumventing the annexation through the EIR process, the LAFCO Commission is turning its "State" authorized powers over to the City of Moreno Valley City Council. Where is the legislation for such an action? 10

The City of Moreno Valley via the EIR process is effectively taking unincorporated county land zoned W-2 (minimum 2.5 acres for one residential unit) that is currently being used as agricultural land and bringing it under the city control to allow a project that will put massive industrial distribution warehouses right next to my rural residential estate property. They are also taking away scenic vistas and severely degrading the value of my property as a result of Significant Cumulative Impacts with NO attempts to even try and mitigate the damaging impacts.

This project is not my "California Dream", much closer to a "Nightmare".

Respectfully Submitted,

Duncan Bush
29307 Highland Blvd
Moreno Valley, CA 92555

951-333-3540

RESPONSES TO LETTER G-55

Duncan Bush

Response to Comment G-55-1. The commenter is concerned the Moreno Knolls community was not mentioned in the Environmental Impact Report (EIR). The Draft Environmental Impact Report (DEIR) did not mention specific housing tracts or development, but rather emphasized general land uses away from the WLC project site to the east, west, north, or south as appropriate. The residents of the City, including the Moreno Knolls community, were encouraged and notified to participate in a public scoping session hosted by the City on March 12, 2012. The commenter also correctly indicated that input from the Moreno Knolls community was solicited during the 63-day public comment period on the Draft EIR, and more comments will be allowed at the public hearings for the project (Planning Commission and City Council) prior to a decision on the project. In these ways, residents of the Moreno Knolls community have been able to comment on the proposed World Logistics Center (WLC) project.

Response to Comment G-55-2. The commenter expressed "environmental justice" concerns and lack of mitigation for the Moreno Knolls community. It should be noted that the term environmental justice refers to significant environmental impacts that are "inflicted" on minority and/or lower socioeconomic communities because they have less political influence. That does not appear to be the case with this particular community with 2.5-acre lots, but instead presents more community-wide or City-wide environmental issues, as evidenced by the many comments received on the DEIR.

Response to Comment G-55-3. A number of the environmental studies that were prepared along with the DEIR included impacts along the east side of Gilman Springs Road, such as biological and drainage impacts associated with the Badlands area, visual or aesthetic impacts mentioned by the commenter (DEIR Section 4.1.6.1 views from east of Gilman Springs Road, geotechnical constraints, traffic along Gilman Springs Road, and noise levels along both sides of Gilman Springs Road (DEIR Section 4.12, *Noise*). While the emphasis of the document is impacts to City residents, services, etc., the EIR did not ignored impacts to other areas or residents.

Response to Comment G-55-4. Section 3.4.6.1, *Project Description –Land Use Plan* and Figure 3.9 of the DEIR which indicate warehouse buildings along the north, west, and south boundaries of the WLC project. The commenter is correct, buildings along the west side of Gilman Springs Road can would be approximately 80 feet tall, but will be set back from the roadway in most locations where the San Jacinto Fault passes through this area parallel and just west of Gilman Springs Road. It must be remembered the WLC project and the DEIR that accompanies it are programmatic in nature, so specific development characteristics such as building footprints, building heights, and final grade elevations are not known at this time, including along the west side of Gilman Springs Road. In addition MM 4.1.6.3A has been modified to preserve views of Mt. Russell.

Response to Comment G-55-5. The commenter is concerned about the heights of buildings and blockage of views from his property. In response to this and other comments regarding views, MM 4.1.6.3A has been modified to require WLC project buildings to not block the upper two thirds of the vertical view of Mt. Russell from the SR-60 Freeway (refer to MM 4.1.6.3A) While this will not eliminate visual impacts of the project from homes east of Gilman Springs Road, it will substantially reduce them. The commenter is also referred to Response to Comment F-8-3.

Response to Comment G-55-6. The commenter expands on his concerns regarding loss of views. Views will substantially change from vacant dry-farmed land considered general "open space" to many large warehouses if the WLC project is approved. However, the mitigation for loss of views has been modified as outlined in Response to Comment G-55-5 above which will help preserve some views east of Gilman Springs Road.

Response to Comment G-55-7. Employment projections for the WLC project are contained in a 2013 report entitled, "Fiscal and Economic Impact Study, WLC, Moreno Valley, California" prepared by David Taussig & Associates, Inc. (DTA). This report is provided in Appendix O of the DEIR. In this report, an estimate of 0.50 employees per 1,000 square feet of building square feet was used to project the number of employees that could be located at the WLC project. Based on a the proposed land uses and building areas, this would equate to approximately 20,808 employees. The 0.50 employees per 1,000 square feet factor was based on data supplied by the Southern California Association of Governments (SCAG), the National Association of Industrial and Office Parks, and the U.S. Energy Information Administration. These projections are discussed at length in the DTA report. Additional information regarding these employment projections can be found in the Responses to Comments G-90-1, and A-1 through A-4.

Response to Comment G-55-8. The commenter states the project would place thousands of truck on SR-60, which approximately 70 percent of Moreno Valley residents use for commuting. The DEIR also fails to consider a proposal by the County of Riverside to allow trash hauling from Los Angeles to the Riverside County dumps at the Badlands and Lamb Canyon.

Chapter 3 Section E of the revised TIA (FEIR Volume 2, Appendix L) discusses Moreno Valley residents' heavy reliance on long-distance commuting on the freeways, and points out that the WLC project would benefit the residents who now commute to work outside the city by providing more than 20,000 jobs locally the WLC would offer city residents the option to work near their home rather than commute long distances on the freeway system. The WLC would have some impacts on the freeway system and these impacts have been fully disclosed in the TIA.

The comment appears to refer to a recent (2013) decision by Riverside County to possibly accept trash from Los Angeles County. At this point Riverside County has voted merely to keep the option to accept this trash open, having earlier voted unanimously to vacate their earlier bid on a contract to accept trash from the Sanitation Districts of Los Angeles County. If this option is pursued then the trash hauling project would be subject to environmental review including identification of impacts to the freeway system and the measures needed to mitigate those impacts.

Response to Comment G-55-9. The commenter expressed concern regarding the project's inconsistency with General Plan policy 2.5.2 regarding separation of residential and industrial uses, and General Plan Objective 7.7 and Policy 7.7.5 regarding visual features and scenic views. The DEIR examines the project's consistency with these policies in Sections 4.10, Land Use and Planning and 4.1, Aesthetics, respectively. The project does in fact provide a buffer between residential and warehouse uses equal or greater than that identified in the City's Municipal Code (Section 9.05). As noted previously, MM 4.1.6.3A has been modified to preserve significant views from SR-60 and Gilman Springs Road refer to Response to Comment G-95-18. Other potential impacts of the project are evaluated and mitigated as necessary in appropriate sections of the DEIR. The City Council will have to decide whether the project is consistent with the General Plan policies and objectives.

Response to Comment G-55-10. The commenter is concerned about the annexation aspect of the project. Annexation of the property would still ultimately be up to of Riverside County's Local Agency Formation Commission (LAFCO). LAFCO would have to take separate action to approve the annexation. The property west of Gilman Spring Road within the WLC project that will be annexed is within the City's Sphere of Influence and has been since the City was incorporated. The subsequent steps in the annexation process all are under the authority of Riverside County's Local Agency Formation Commission (LAFCO). Part of the LAFCO application is to provide appropriate environmental documentation, and this WLCSP EIR is that documentation. The WLC EIR confirms that the City will provide all municipal services for the entire WLC project, including the parcel to be annexed. Other regional agencies, such as Eastern Municipal Water District (EMWD), will continue to provide services as they currently do. The applicant cannot file an application with LAFCO until the WLC EIR is certified by the City.

Letter G-56: Ned and Dawn Newkirk (April 8, 2013)

Attn: Mark Gross and John Terrell
From: Ned and Dawn Newkirk
Subject: Official Comments for the DEIR for The World Logistics Center
Date: April 8, 2013

As we live in the affected area of the World Logistics Center and were pulled into this area as a non conforming entity in May of 2012, we wish to express our opposition to this center for a variety of reasons:

We oppose this project as we were pulled into this area without our consent. On Page 25 of the DEIR in the Executive Summary it is stated that the "WLC is located in the eastern end of the city, so its development would not physically divide an established community. However, development could adversely affect seven existing rural residences onsite, and the land plan cannot accommodate residences within logistics warehousing areas." The DEIR further states that no feasible mitigation is available even though the level of significance is significant and unavoidable. This is totally unacceptable as we feel mitigation is possible. If the city is going to diminish or destroy the quality of life for the residents in the seven homes of the World Logistics Center as far as property values, health, pollution/diesel particulates, noise, and lighting and glare are concerned, why isn't the city offering to help these residents relocate to comparable residences or offer financial compensation for all the adverse affects residents within the WLC will have to endure? (see attachment, pages 1-6). 1

As the city made the seven residences in May 2012, a part of the WLC, these residences have been in a state of limbo as far as zoning is concerned. How do we sell our property when it may become industrially zoned? Therefore, if we can't sell our property, how can we buy another house to which we can relocate as we have no money or equity from our existing home that can't be sold? 2

We are opposed to the World Logistics Center as to the harmful effects it could have on the residents of the seven residences within the area of the WLC as well as the warehouse workers and other workers within that area. In the section, Land Use and planning, on page 34, the DEIR states: "It is possible that, as development of the project site occurs according to the WLCSP, large warehouse buildings may eventually be located in close proximity to existing residences. It would be ineffective and inefficient to try to incorporate these residences into the WLCSP land plan of large logistics warehouses to accommodate these residences. In addition, logistics 3

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operations would cause air pollutant, noise, lighting, and health risk impacts on residents living in these units if they were adjacent to operating warehouses. This is a significant land use impact." 3

Why is the city not protecting the seven residences from air pollution, noise, and other health risks by providing buffers between the warehouses and the residences?

The DEIR states that there is no effective way to protect the seven residences from adverse health effects. If the city can't protect its citizens occupying those seven residences from adverse health effects within the WLC area, then why is the city going forward with the project? 4

We are opposed to the WLC because it does not provide protection and safety to residences within the WLC in regards to dangerous air quality or other health risks. In section 4.10 in land use, page 34 in mitigation measures, the DEIR states: "Installation of solid block walls around the warehouse building or the existing residence would help reduce noise and lighting impacts, but they would not help reduce air pollutants or health risk impacts. Therefore, there is no effective mitigation available to protect or separate these existing residences from future warehousing buildings and operations." Since it is the responsibility of government to protect all of its citizens, who will pay for medical expenses, or compensate for pain, injury, and/or death from harmful effects created by the WLC to the residences within the WLC area? Just to say that because the residences are there and that they could be severely and unavoidably impacted is not acceptable. The City needs to find ways to protect all residents within and adjacent to the WLC area. 5

We oppose the WLC for forcing the seven existing residences to have to "eventually convert to 'light logistics' uses" (Executive Summary, table 1.a, P.29.). Why must our zoning and the general plan be changed to "light logistics" when that is not our desire to pursue that venture?

Although there are fifteen plus references to the seven residences within the WLC footprint in the DEIR, it appears as if they are "trapped" there with no intention of the city to help mitigate their obstacles and plight. 6

We oppose the WLC because of the lack of a necessary infrastructure system needed to support the huge warehouse district. The DEIR addresses part of this concern in Traffic and Circulation/

4.15.7.2 The City of Moreno Valley Development Impact Fee Program

The City of Moreno Valley's Development Impact Fee (DIF) program is used to fund road and intersection improvements needed to accommodate new residential, commercial, and industrial development for funding roadways and intersections. The program collects fees from three categories of residential development (single-family, multifamily, and mobile homes) and five categories of commercial 7

development (general commercial, regional commercial, general industrial, high-cube warehouse, and office) based on their respective trip generating characteristics. In many cases, developers dedicate right-of-way and/or construct improvements that are part of the TUMF or DIF programs in lieu of paying the fees. 7

However, what other components would be needed to provide an adequate infrastructure for the WLC. If so, would citizens or would the developer have to fund these needed components. 8

We oppose the WLC for the impact it will have on the region. Mira Loma has one of the poorest air quality in the world and many of their children have developed respiratory diseases. Why would the City of Moreno Valley want to bring in thousands of diesel trucks for goods transport when diesel particulates spewing into the air can cause a myriad of health problems such as cancer, cardiovascular, and respiratory diseases? What research has the City of Moreno Valley conducted to assess how air quality will be affected when pollution from both Mira Loma and Moreno Valley comingle in the basin between the two cities? (see attachments pages 7-32). 9

We oppose the WLC because of the inaccuracy in the Skecher's numbers of jobs that were projected (2500) and only six hundred jobs materialized. Although there have been statistics released on the number of jobs the WLC will create, how will the city guarantee the 20,000 plus jobs they have predicted the WLC will produce? Additionally, warehouse automation is rapidly advancing. How can the city predict such a large number of jobs that the WLC will create when robots are continually replacing vast numbers of warehouse workers? (see attachments pages 33-36). 10

Thank you for your time and attention to our concerns and questions.

Respectfully submitted,

Ned Newkirk

Dawn Newkirk

Ned and Dawn Newkirk
29080 Dracaea Ave.
MV, Ca. 92555

RESPONSES TO LETTER G-56

Ned and Dawn Newkirk

Response to Comment G-56-1. The commenter occupies one of the 7 rural onsite residences and objects to the World Logistics Center (WLC) plan including them. The WLC project applicant has proposed the boundaries of the WLC Specific Plan along natural or appropriate boundaries, taking into consideration existing uses and the objectives of the project. In this case, the western boundary of the specific plan is the existing residences east of Redlands Boulevard both north and south of Alessandro Boulevard. This boundary allows for the largest contiguous area for logistics warehouses but unfortunately does include the 7 rural residences mentioned by the commenter. Excluding these 7 properties would significantly break up the potential land plan for which large areas of contiguous property are needed to efficiently design and support large warehouses. Relocation and financial assistance are not California Environmental Quality Act (CEQA) issues and are not addressed in this response.

Response to Comment G-56-2. The commenter questioned the zoning of their property given the WLC project. The 7 rural properties currently have General Plan and zoning designations consistent with the Moreno Highlands Specific Plan, as shown below (map data from City website, lot sizes taken from Table 9.03.040-6 in the City's Municipal Code):

Location of Rural Residence(s)	Gen. Plan	Zoning
2 lots just east of Redlands	R2 (2 du/ac)	RA2 (20 k SF min lot size)
1 lot just west of Theodore	OS (open space)	OS (open space)
4 lots east of Theodore	R5 (2 du/ac)	R5 (7200 SF min lot size)

du/ac = residential dwelling units per acre SF = square feet

Upon approval of the project, existing residentially-developed properties which are changed to non-residential General Plan and zoning land use designations are permitted to continue the residential use of the property indefinitely as "legal, non-conforming uses" subject to the restrictions contained in Municipal Code section 9.02.180, "Legal nonconforming uses, improvements and parcels." Ownership of these properties is not affected by their non-conforming status. The parcels can be bought and sold as legal, non-conforming uses and the residential use can be continued indefinitely by a new owner subject to limitations on the expansion, modification or abandonment of the use or residential structure as detailed in the above-referenced section of the Municipal Code.

Response to Comment G-56-3. The commenter correctly cites the Draft Environmental Impact Report (DEIR) in that it concludes land use impacts are significant for the 7 rural residences. Due to the overall goal of the project (i.e., to support a regional logistics center) the rural residences cannot be incorporated into the project land plan as they currently exist, but are shown as Light Logistics uses for some time in the future. See Response to Comment G-56-2 above.

Response to Comment G-56-4. The commenter is correct the DEIR did not identify specific air quality mitigation for the onsite rural residences. However, there are mitigation measures to address construction–related noise impacts (MMs 4.12.6.1A and 4.12.6.1B). The City Council will consider the effect on the existing residences when it decides whether to approve the project.

Response to Comment G-56-5. The commenter continues explaining concerns about air quality impacts on the rural residences and other offsite residences. As explained in Response to Comment G-56-4, mitigation has been added to install air conditioning filters for the rural onsite residences, but the revised air quality study has determined that air quality impacts for residents adjacent to the WLC project (i.e., west along Redlands Boulevard) will not be significant so no mitigation is proposed.

Response to Comment G-56-6. The comment raises no issue with the adequacy of the DEIR and no response is required. Development of the private property within the World Logistics Center Specific Plan (WLCSP) would not occur without the express permission and approval of the property owners (i.e., no other entity could propose or process any development proposals on the owner property without owner's express consent). Existing residential uses would be grandfathers as legal non-conforming uses for as long as anyone wants. Please see Response to Comment F-13-9 for information on proposed mitigation measure related to onsite rural residential uses. The City Council will consider all comments on the project before making a decision on the project. As explained in Response to Comment G-56-1, the City has discretion to establish the boundaries of a specific plan along natural or appropriate boundaries, taking into consideration existing uses and the objectives of the specific plan project.

Response to Comment G-56-7. The commenter repeats the TIA's description of the Development Impact Fee (DIF) program. The commenter asks what other components would be needed to provide adequate infrastructure for the WLC, and whether citizens or the developer would fund those components. The commenter resides in one of the seven houses on the site and seems to be asking if existing residents of the project site would be required to pay for WLC infrastructure. The answer is no, they would not be asked to pay for the infrastructure required for the WLC (see MM Trans-3 in Chapter 11, Section G of the Traffic Impact Assessment (TIA)).

Response to Comment G-56-8. See Response to Comment G-56-7 above.

Response to Comment G-56-9. The commenter inquires as to how air quality will be affected when pollution from both Mira Loma and Moreno Valley comingle in the basin between the two cities. From a review of the prevailing wind patterns in the area, the most frequent wind patterns at both locations are generally from the northwest, not towards each location. Therefore, there should be a minimum degree of comingling of emissions from both locations. In addition, as part of the localized significance air quality impact analysis, the cumulative air quality impact from the project's emissions when added to the highest measured air quality levels from all other emission sources surrounding the project, including those emissions from the Mira Loma, area did not violate any ambient air quality standards for locations outside of the project boundaries.

Response to Comment G-56-10. While the City cannot guarantee the exact number of jobs the project will generate, as that will be dependent on the mix of users ultimately locating within WLC, the DEIR projects future employment figures based on the average employment per square foot for a variety of types of logistics faculties. Please reference the Response to Comment G-90-2 for more information.

Letter G-57: Tracy Hodge (April 7, 2013)

Comments for the Draft Environmental Report
For the World Logistics Center

April 7, 2013

RECEIVED
APR 0 8 2013
CITY OF MORENO VALLEY
Planning Division

City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92553

Attn: John Terrell
Mark Gross

Re: Comments for the Draft Environmental Impact Report for the World Logistics Center

To whom it may concern:

I oppose this project because a 41 million square foot warehousing complex is not economically feasible without freight rail and additional highway infrastructure to support its shipping and receiving demands. Plus the Lead Agency has not disclosed how much it will cost in tax dollars for this project. Without knowing that amount, neither the public nor the Lead Agency can determine the economic feasibility. It creates unavoidable health consequences as well as traffic and infrastructure burdens that cannot be effectively mitigated. 1

In direct reference to the Draft Environmental Impact Report (DEIR), section 4.0 there is reference that a "new Specific Plan will be adopted to govern development of the WLC." What is the schedule release date of this Specific Plan for public review and comment? And how does this proposed project conform to the overall regional goals for the Inland Empire? 2

The DEIR states there will be a separate zoning amendment of the 1104 acres of open space. When will the hearing be scheduled and what is the position of the FNSJWL on this rezoning map? 3

Section 4.1 Existing Policies and Regulations references the rezoning of the area within the project boundaries. What will be the allowable uses and restrictions of this area for manufacturing and industrial uses? Who will police the daily activity and what will be the Lessor/Lessee obligation to disclose to the City what their operations entail? 4

In direct reference to section 4.1.2 Existing Policies and Regulations, Objective 2.5; this states "promote a minimum of Industrial uses which provide a sound and diversified economic base and ample employment opportunities for citizens of Moreno Valley with establishment of Industrial activities that have good access to the regional transportation system, accommodating the personal needs of workers and business visitors, and which meets service needs of local businesses." But how is this accomplished if our community already experiences the Level of Service for traffic circulation of an E or F level rating? 5

To designate residential traffic arteries within communities as truck routes does not improve this LOS rating it makes it worst. 6

Who will pay for the upkeep of our community infrastructure of the traffic routes that become designated as truck routes, the tax payer or will there be a special assessment for the occupant in the commercial building that is using those truck routes to support their business? 7

Section 2.5.4 of the same 4.1.2 as noted above references "design industrial developments to discourage access through residential areas." What streets will be specifically designated as Not a Truck Route and what will the penalties be for those who choose to violate those restrictions. Who will be responsible for infrastructure repairs when unauthorized/overweight vehicles damage residential streets? 8

Currently, as a resident who lives on Shubert Street off Redlands Blvd., our street does become a used route for all vehicles when traffic is diverted off Redlands Blvd. to Eucalyptus or Dreacaea. What measures will be put in place to ensure the diesel trucks are NOT using our neighborhood streets? 9

Objective 2.10 of the same 4.1.2 as noted above shows consistent exemplary design is contrary to the installation of sound walls along existing residential neighborhoods as well as displaying inadequate setbacks and streetscape obligations to be provided by the developer. How will this be handled? 10

Policy 2.10.4 of the same 4.1.2 as noted above Landscape buffers and transitions will be a very important part of setting the esthetics benchmark for the development. Will uniformity be a requirement for each parcel so to not detract from an adjacent property? Will the landscape tree and shrub count include enough elements and separation to absorb the diesel particulates to reduce the exposure of diesel toxins to the neighbor/neighborhood? 11

Policy 2.10.11 of the same 4.1.2 as noted above to screen and buffer non-residential projects from adjacent residential properties does not clearly identify the minimum setback requirements to reduce the exposure of diesel particulates to the residential neighborhood adjacent to the commercial building nor does it address the requirements of the No Idling Restrictions. These measures not being clearly addressed will affect the quality of life for any person subjected to the impacts of this project. 12

My concern with this very topic is that cities and counties adopt design standards for Residential neighborhoods with details of maximum rooflines, minimum number of units, setback requirements, colors & materials, walls & fence design standards, lighting restrictions by ordinances, maximum lot coverage, minimum space between structures, watercourse and drainage design to protect the natural and forms, reverse frontage treatments for landscape street medians and parkways, minimum landscape requirements, drainage plan and flood control. What is the design criteria for this project so that the same development standards are applied to the commercial project that would be applicable to a residential project? This DEIR may reference proposed placement of buildings and proposed line of sight based on a specific location, but how do we know this will be the standards of what becomes the finished product? 13

Policy 2.10.5 of the same 4.1.2 as noted above freeways are the only road identified to have landscape buffers. Why aren't the residential neighborhood streets adjacent to the project also included in this buffer requirement? 14

Table 3.A of the Moreno Highland SP (Current Land Use Designation) states the developer owns or controls 46% of an area being planned so how does the developer or the City have any right to override the remaining 54% of the land designation that is owned by other private, none supportive parties? 15

How does warehouses sustain a pleasant "living and working environment" when the output is toxic to our air we breathe, stifles our flow of traffic, deteriorates our infrastructure and completely changes the economics and esthetics of the community? What is pleasant about any of these facts? 16

The Noise Assessment for the World Logistics Center dated January 24, 2013 identifies residents of Site 9 along Shubert Street which was included in this referenced noise study as being a quiet residential area. What actions and traffic restrictions will be put in place to maintain the current quality of life I experience as a property owner on Shubert Street? 17

According to the historical opinion of our past governing body and according to our Community General Plan, specifically noted on page 7-12, Scenic resources contribute to the overall desirability of a community. The distinctive physical setting of Moreno Valley creates much of the city's appeal as a place in which to live. Thus Moreno Valley's visual resources are also of economic value to the Community. So if it has been the opinion for many years, what is the economic value that is being placed on warehouse verses the current expired General Plan? What research has been put in place to validate the economic decision of warehouses instead of the currently expired General Plan and when will that comparison be made available to the general public for review? 18

Many qualities that once promoted a positive livable environment will become dramatically altered when this project becomes reality for this community. We will struggle with the health challenges each of us within the region will have to face which will diminish our quality of life. The road ways that are already congested with the daily demands of our region as of today will become even more of a difficult encounter when diesel trucks are added to the community. Our region already has recorded data of being amongst the worst air quality in the state. The 22,000 additional trucks per day is a nuisance that can be avoided in an area that cannot support that demand. Fact is that 200 vehicles are equivalent to 1 diesel truck when it comes to the health impact on the region. The health impacts alone are overwhelming to try and comprehend and for our local leaders to overlook these facts willfully put our community is harm's way. 19

In closing, I fully support the currently expired General Plan because it develops the east side area in a way that makes the most practical sense to our community. Many of us homeowners read this General Plan to see the vision of the community leadership that aided us in making the decision to buy here in Moreno Valley instead of elsewhere. I support the plan that will attract businesses to our city for it to prosper. As a vested homeowner in this east side community, I respectfully request the reconsideration of these unavoidable impacts and consider choosing a sustainable master plan that provides a livable environment for all. Warehouses are of the poorest economic choice that could be considered for this 20

area and as I see it, it only makes economic sense for one entity and we the people who make up this community deserve better than that! 20

Respectfully,

Tracy Hodge

Tracy Hodge
Homeowner in Moreno Valley
13097 Shubert St.
Moreno Valley, Ca. 92555

RESPONSES TO LETTER G-57

Tracy Hodge

Response to Comment G-57-1. The Traffic Impact Analysis (TIA) prepared as part of the Draft Environmental Impact Report (DEIR), addressed the infeasibility of rail (see Section 4.F of the TIA) and the impacts of the World Logistics Center (WLC) on the City's existing infrastructure, and more information can be found there related to the mitigation of such impacts and the adequacy of the infrastructure once these mitigation measures have been put in place. Furthermore, the DEIR includes a fiscal impact study that analyses the revenues (e.g.: property taxes) as well as expenditures (e.g.: services provided by the City) as a result of the WLC. Notably, Section 3, Table 3C of the Fiscal Impact Analysis shows a positive impact to the City's General Fund, which means that revenues to be collected by the City from the WLC project will outweigh the expenditures to the City from the project.

Response to Comment G-57-2. The Specific Plan was/is available and is included as Appendix H-1 of the DEIR. From the Riverside County service goals and strategies website, the Board of Supervisors feels strongly that the creation of jobs and the promotion of economic diversity are keys to the accomplishment of the County's Strategic Vision. Accordingly, County government will emphasize and promote quality commercial and industrial development in the County through a comprehensive economic development strategy. The county seeks to Encourage Commercial and Industrial Development by: focusing financial incentives on attracting high-skill, high-pay industries such as: semiconductors; biomedical instruments and products; environmental technology; food processing; alternative fuel vehicles; and, distribution and light manufacturing.

Response to Comment G-57-3. The hearing for the rezoning map will be scheduled concurrently with the EIR and Specific Plan. The Friends of Northern San Jacinto Valley Wildlife is in favor of the rezoning.

Response to Comment G-57-4. The allowable uses and restrictions for the WLC will be governed by the WLC Specific Plan Section 2.0 (Land Use Plan), included as Appendix H-1 of the DEIR. Manufacturing and chemical processing are not permitted uses within the WLCSP.

The Lessees are required to disclose what their operations entail upon application for occupancy permits (Moreno Valley Municipal Code and Uniform Building Code). The City's existing code enforcement program will be responsible for ensuring compliance with restrictions on industrial uses.

Response to Comment G-57-5. The commenter refers to Section 4.1.2 of Existing Policies and Regulations, Objective 2.5 in the DEIR which states the City will promote industrial uses to accommodate the needs of workers and business visitors and which meets service needs of local businesses. The commenter asks how this can be accomplished if the city already has Level of Service (LOS) E or F for traffic circulation. The commenter states designating residential traffic arteries within communities as truck routes does not improve LOS but makes it worse.

The WLC would provide a new set of roads specifically designed to accommodate the needs of warehouses. These would have LOS of D or better. Please see TIA Chapter 4, Section B, the sub-section entitled Proposed Road Network. See Figure 16 in the TIA, copied below.

An additional figure (Figure 8) has been included in the revised TIA showing the designated truck routes in and around Moreno Valley. Trucks are prohibited from all other streets except to the extent that it is necessary to access delivery destinations not directly accessible along designated truck routes.

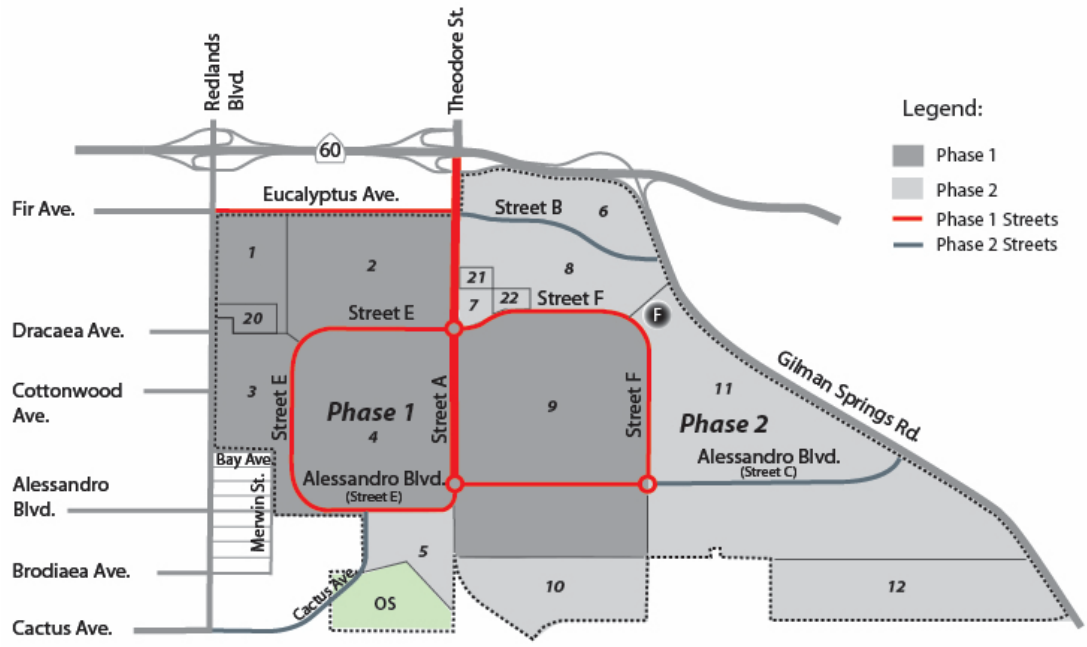

Figure 16: Proposed Roadways and Phasing

Response to Comment G-57-6. See Response to Comment G-57-5 above.

Response to Comment G-57-7: As noted in the Response to Comment G-57-1, the DEIR includes a fiscal impact study that analyses the revenues (e.g.; property taxes) as well as expenditures (e.g.; services provided by the City) as a result of the WLC. The fiscal impact analysis shows a positive impact to the City's General Fund, and the surplus generated by the City will be available to support not only the maintenance of infrastructure adjacent to the project, but also other infrastructure Citywide.

Response to Comment G-57-8. Redlands Blvd south of Eucalyptus Ave and Cactus Ave are both designated as not truck routes. Moreno Valley Police Department is responsible for enforcing truck routes by either responding to community input or proactively patrolling City streets (Moreno Valley Municipal Code Section 12.36). Penalties for violations of the truck route are established and collected by the Riverside County Court system. Likewise the City of Moreno Valley is responsible for infrastructure repairs, but they may seek remedies of habitual violators.

Response to Comment G-57-9. The commenter states their residential street is used by all vehicles when it is used as a diversion route when Redlands Blvd is closed to Eucalyptus or Dracaea. The commenter asks what measures will be put in place to ensure that diesel trucks would not use their neighborhood streets.

The Moreno Valley City Council rescinded Redlands Blvd.'s designation as a truck route south of Eucalyptus Avenue (the section cited in the comment). Previously trucks had been allowed south as far as Alessandro Blvd. See Moreno Valley Ordinance No. 836 dated January 10, 2012.

Response to Comment G-57-10. The setbacks of the project from existing residents are unrelated to the impacts requiring sound walls in existing residential areas. Roadway noise from existing streets

adjacent to residential homes are the source of the impact that is being mitigated by the proposed sound walls.

Response to Comment G-57-11. The World Logistics Center Specific Plan (WLCSP) emphasizes landscaping and energy conservation or sustainability concepts as an integral part of project design consistent with Policy 2.10.4. The energy conservation and sustainability concepts are outlined in Section 6 of the Specific Plan. Uniformity will be required for Buildings and Landscaping as outlined in Section 5 of the Specific Plan.

The effectiveness of vegetative barriers is highly complex and depends on a number of factors including particle size, wind speed, leaf area density, gaps in the vegetation, tree species, and season. The project proposes to plant a wide variety of vegetative species, as shown in the WLCSP, Section 5.4, Onsite Landscaping, which could act as a vegetative barrier. At this time, it is not possible to gauge the effectiveness of the vegetative barriers in absorbing air pollutants and any attempt to do so would be speculative. However, a recent South Coast Air Quality Management District (SCAQMD) forum, Near-Road Mitigation Measures and Technologies featured several presentations that showed that vegetative barriers had measurable benefits in reducing pollution. (http://www.aqmd.gov/tao/ConferencesWorkshops/NearRoadMitigation/Agenda-presentations.pdf),

The commenter also inquires as to the landscape count and separation to absorb the diesel particulates to reduce exposures to the neighborhood. The effectiveness of vegetative barriers is highly complex and depends on a number of factors including particle size, wind speed, leaf area density, gaps in the vegetation, tree species, and season. The project proposed to plant a wide variety of vegetative species, as shown in the World Logistics Center Specific Plan, Section 5.4, Onsite Landscaping, which could act as a vegetative barrier. At this time, it is not possible to gauge the effectiveness of the vegetative barriers in absorbing air pollutants. However, a recent SCAQMD forum, Near-Road Mitigation Measures and Technologies, featured several presentations that showed that vegetative barriers had measurable benefits in reducing pollution.

Response to Comment G-57-12. While the City of Moreno Valley's General Plan Policies do not contain a minimum setback distance as described in Policy 2.10.11, Section 4.1.6 of the DEIR clearly states the following:

> *"The Specific Plan establishes a minimum setback of 250 feet along the west boundary of the project site between sensitive receptors (i.e., houses) and buildings or parking/circulation areas within the WLCSP. The Specific Plan also includes specific landscaping and other design criteria for this buffer (see WLCSP Section 4.2, Offsite Landscaping). It should be noted that the width of the adjacent street outside of the WLC project boundaries (e.g., Redlands Boulevard, Bay Avenue, and Merwin Street) is included in the 250-foot buffer distance."*

The regulations that prohibit idling in excess of 3 minutes are described in detail in Section 4.3.2.3 of the DEIR and mitigation measure (MM) 4.3.6.2A and 4.3.6.3B provide additional requirements to ensure that idling is prevented within the proposed project area. In addition, the 250-foot setback has been determined to be sufficient to make the health risk to neighboring residences from diesel particulates insignificant, citing the appropriate portions of the risk assessment.

The commenter also requests clarification of the minimum setback distances and idling restrictions. The setback distances are covered in the World Logistics Specific Plan Section 2.2 Logistics Development Category, wherein it is stated that the minimum building setback distances would be 250 feet from California Department of Fish and Wildlife-owned property and 250 feet from residentially zoned or occupied property. Section 6.0 of the Specific Plan, Sustainability, specifies a limit of 3 minutes for engine idling).

Response to Comment G-57-13. While the City of Moreno Valley's General Plan Policies do not contain a minimum setback distance as described in Policy 2.10.11, Section 4.1.6 of the DEIR clearly states the following:

> *The Specific Plan establishes a minimum setback of 250 feet along the west boundary of the project site between sensitive receptors (i.e., houses) and buildings or parking/circulation areas within the WLCSP. The Specific Plan also includes specific landscaping and other design criteria for this buffer (see WLCSP Section 4.2, Offsite Landscaping). It should be noted that the width of the adjacent street outside of the WLC project boundaries (e.g., Redlands Boulevard, Bay Avenue, and Merwin Street) is included in the 250-foot buffer distance.*

The regulations that prohibit idling in excess of three minutes are described in detail in Section 4.3.2.3 of the DEIR and MM 4.3.6.2A and 4.3.6.3B provide additional requirements to ensure that idling is prevented within the proposed project area.

The WLC Specific Plan addresses on-site design standards in Section 5, this section provides standards regarding maximum rooflines, setback requirements, colors and materials, walls and fence design standards, lighting restrictions by ordinances, and landscape requirements. Building square footage by planning area is provided in Section 2 of the Specific Plan. Section 3.5 of the Specific Plan provides information on utilities including drainage and flood control facilities.

Line of sight for future buildings will be addressed through mitigation measure, MM 4.1.6.1B. The mitigation measure has been revised to reflect that the purpose of the renderings is to show visual impacts from adjacent residential land uses in order for the City to evaluate and ensure consistency with the General Plan Objective 7.7.

~~**4.1.6.1B** Prior to the issuance of any discretionary permit for development under the WLCSP adjacent to Redlands Boulevard, Bay Avenue, and Merwin Street, the developer shall provide a plot plan or site plan, landscaping plan, and visual rendering(s) consistent with the WLCSP that accurately illustrate the appearance of the proposed development. The renderings shall be sufficient to demonstrate that views of the buildings and trucks will be effectively screened from view by existing residents upon maturity of planned landscaping. The location and number of view presentations shall be at the discretion of the City Planning Division.~~

4.1.6.1B Each Plot Plan application for development adjacent to Redlands Boulevard, Bay Avenue, or Merwin Street, shall include a plot plan, landscaping plan, and visual rendering(s) illustrating the appearance of the proposed development. The renderings shall demonstrate that views of proposed buildings and trucks can be reasonably screened from view from existing residents upon maturity of planned landscaping and to ensure consistency with the General Plan Objective 7.7. "Effective" screening shall mean that no more than the upper quarter (25%) of a building is visible from existing residences, which shall be achieved through a combination of landscaping, berms, fencing, etc. The location and number of view presentations shall be at the discretion of the Planning Division.

Response to Comment G-57-14. Policy 2.10.5 is a City of Moreno Valley General Plan policy. This policy is outlined in Section 4.1.2 and evaluated in Section 4.1.6.3. Treatment of project edges adjacent to residential streets is addressed in Section 4.2.4 of the Specific Plan. In addition, each individual building in the WLC will go through a discretionary plot plan process to evaluate each building's consistency with the Specific and General Plan. In Specific Plan Section 2.5 there are designated special edge treatment areas adjacent to residential neighborhood streets including 250-foot setbacks. The treatment areas are explained in greater detail in Specific Plan Section 4.2.4.

Response to Comment G-57-15: General Plan amendments, rezonings and specific plans are legislative actions but landowners have the right to comment and be involved in the review process for such actions. Ultimately the City Council will make the final decision regarding all land use change requests.

Response to Comment G-57-16. The commenter says the project does not promote a pleasant living and working environment per the General Plan. There are many land uses that are necessary for a healthy economy to operate effectively and efficiently. Large warehousing projects can provide thousands of local jobs and helps the regional economy. Warehouses can be attractive and good neighbors with the proper planning and buffers. It will be up to the City Council to determine if this project is in keeping with the overall plans for development in the City, and if its benefits outweigh the significant project impacts identified in the EIR, including traffic, air quality, and noise.

Response to Comment G-57-17. The technical noise assessment (page 59 of DEIR Appendix K, the technical noise report) shows homes along Shubert Street will have a "potentially significant impact" which cannot be mitigated. This significant impact will be caused by traffic associated with the project. Noise from the logistic uses on-site will be mitigated with soundwalls and setbacks, and will not be a significant impact on the residences in this area.

Response to Comment G-57-18: The Moreno Highlands Specific Plan was never implemented because it was not economically feasible. While the WLC may not visually enhance the scenic aspects of Moreno Valley, the project is expected to satisfy the economic development aspects of the current Community General Plan and will therefore add economic value to the City itself, as compared with more residential development in a City that currently provides few employment opportunities for its residents.

Response to Comment G-57-19. The commenter notes several negative effects of the project including health effects and traffic congestion. The DEIR (section 4.3) discusses and quantifies the new sources of emissions that would have a significant impact on air quality.

The commenter incorrectly indicates a total of 22,000 additional trucks per day that would service the project. The actual number is approximately 14,000 trucks per day[46]. The 22,000 trucks noted are not the actual number but are in the form of passenger car equivalents (PCEs). A passenger car equivalents (PCE) is essentially the impact that a mode of transport has on traffic variables (such as headway, speed, density) compared with a single car as a multiple of number of passenger cars. In the project Traffic Impact Analysis[47], the following PCEs were used:

- Passenger car: 1 for surface streets and freeways
- Light heavy-duty truck (large 2-axle trucks): 1.5 for surface streets and freeways
- Medium-heavy duty trucks (large 3-axle trucks): 2.0 for surface streets and 1.5 for freeways
- Heavy-heavy duty trucks (large 4+ axle trucks): 3.0 for surface streets and 1.5 for freeways

Response to Comment G-57-20. The comment does not apply to the EIR analysis or conclusions, but are personal objections to the project and support of the expired General Plan. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

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46 See Table 24 of the Traffic Impact Analysis Report for the World Logistics Center, October 2013.
47 Ibid.

Letter G-58: Faith Wong (email) (April 8, 2013)

Letter G-58

From: fwong52ut@yahoo.com [mailto:fwong52@yahoo.com]
Sent: Monday, April 08, 2013 3:20 PM
To: Mark Gross
Subject: Official Comments for the DEIR for the World Logistics Center

Dear Mr. Gross:
I am opposed to the World Logistics Center because of the tremendous negative impact it will have on Moreno Valley and the surrounding area. The WLC will destroy air quality, which will lead to severe health issues for many residents, especially children and senior citizens. The numerous trucks will emit Diesel particulates with cancer-causing carcinogens. The trucks will also add an incredible amount of noise pollution, cause traffic congestion, and damage road systems. With huge warehouses and hundreds of Diesel trucks running daily, the Moreno Valley community will have an industrial feel and become a far less desirable place for people to live and rear families. Moreno Valley stands to lose too much with the WLC! 1
Could you please send a confirmation of receipt of this email. Thank you very much for your help!

Respectfully submitted,
Faith Wong

RESPONSES TO LETTER G-58

Faith Wong

Response to Comment G-58-1. None of the comments apply to the Environmental Impact Report (EIR) analysis or conclusions, but are personal observations about the project and project review process. The Draft Environmental Impact Report (DEIR) concluded that a number of project impacts (e.g., air quality, traffic, etc.) would be significant even after implementation of mitigation, and the City Council would need to adopt a Statement of Overriding Considerations for the project that state what benefits of the project outweigh the identified significant impacts of the project, if it decides to approve the project. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

Letter G-59: Thomas Harris (email) (April 8, 2013)

Letter G-59

From: Tom Harris [mailto:harristom@outlook.com]
Sent: Monday, April 08, 2013 3:32 PM
To: Mark Gross
Subject: Official DEIR Comments for the World Logistics Center

I oppose this project because the adverse health effects of diesel particulate pollution from 41 million square feet of warehousing trucks are not fully known. Research has just become available that has linked pollution during pregnancy to increased autism risk. The beautiful majestic mountains that surround our city keep pollution trapped here. Why hasn't an alternative site that is not surrounded by mountains been identified with a corresponding map? 1

I don't think the employment numbers are correct. The previous project from this developer which is Sketchers promised 2500 jobs, but the building was only designed for 300 because it is so modern and electronically advanced. Warehouse electronics are just like computer technology, it's outdated almost as soon as it's finished. That means that each warehouse constructed will have fewer employees than the one before. How can the City or the developer properly estimate the number of jobs? How can the residents trust the City or the developer when they continue to falsify employment numbers? 2

Sincerely
Thomas F Harris

25581 Sierra Leone Ct
Moreno Valley CA 92551

RESPONSES TO LETTER G-59

Thomas Harris

Response to Comment G-59-1. The commenter notes research linking pollution during pregnancy to increased autism risk and mountains that trap pollutants and the need to site the project at an alternative location not surrounded by mountains that trap air pollutants.

Please see Master Response-2: Health Effects of Diesel Particulate emissions. The comment does not provide any references that substantiate the linkage between air pollution and autism. The comment, however, likely refers to a recent study published by Volk, et. al (2010)[1] that tracked children in the Los Angeles area. This study examined the association between autism and proximity of residences to freeways and major roadways during pregnancy and near time of delivery, as a surrogate for air pollution exposures. The conclusion of the study indicated that mothers living close to a freeway have twice the risk of autism compared to living away from a freeway. Heather Volk, the lead author of the study, however, stated that "This study isn't saying exposure to air pollution or exposure to traffic causes autism. But it could be one of the factors that are contributing to its increases."[2] The study did not directly implicate air pollution as a risk factor for autism because the study did not have a way of directly measuring how much air pollution the mothers were exposed to during pregnancy nor how much time the mothers spent at home or working or commuting. Complicating this type of relationship is the fact that recent increases in the rates of autism may be due in large part to the result of better diagnosis and detection and wider awareness and broader and shifting definitions of autism[3]. The linkage is by no means certain and requires substantially more research on cause and effects.

With regard to the effects of mountains, the effects of terrain on air dispersion modeling was included in the assessment of the project's pollutant impacts. In addition, as noted in Section 6.3.9 of the Draft Environmental Impact Report (DEIR), an analysis was performed to determine if any alternative locations in the surrounding region could be identified that would reduce or eliminate one or more of the project's significant impacts. This analysis was based on feasible sites that could realistically support the proposed project (i.e., a contiguous site for 40.4 million square feet of high-cube logistics warehouse uses as envisioned by the World Logistics Center (WLC) Specific Plan). The analysis indicated that there are no feasible alternative sites in the surrounding or nearby jurisdictions that could support the proposed project (i.e., that have enough vacant land zoned or available for logistics warehousing with good freeway and/or rail access).

Response to Comment G-59-2. We are unclear why the author of this letter believes that the Skechers facility was only designed for 300 employees, which is factually untrue. Please reference the discussion in the Responses to Comments G-90-2 and G-57-1, above for more information.

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1 Volk, H. Hertz-Picciotto, I. Delwiche, L., Lurnamm, F. and R. McConnell: 2010. Residential Proximity to Freeways and Autism in the CHARGE Study. Website: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3114825/

2 Los Angeles Times, December 6, 2010. "Proximity to freeways increases autism risk, study finds." Website: http://articles.latimes.com/2010/dec/16/health/la-he-autism-20101217

3 Time Health and Family, March 29, 2012. "Autism Rises: More Children that Ever Have Autism, but is the Increase Real?"; Website: http://healthland.time.com/2012/03/29/autism-rises-more-u-s-children-than-ever-have-autism-is-the-increase-real/

Letter G-60: Timothy Newkirk (email) (April 9, 2013)

Letter G-60

From: Timothy Newkirk [mailto:timothynewkirk1976@gmail.com]
Sent: Monday, April 08, 2013 3:39 PM
To: Mark Gross
Cc: John Terell
Subject: Official comments for the DEiR for the World Logistics Center

I am opposed to the WLC as it will bring thousands of diesel trucks to Moreno Valley that will emit harmful pollutants. 1

Timothy Newkirk
29080 Moreno Valley, Ca 92555

RESPONSES TO LETTER G-60

Timothy Newkirk

Response to Comment G-60-1. None of the comments apply to the Environmental Impact Report (EIR) analysis or conclusions, but are personal observations about the project and project review process. The Draft Environmental Impact Report (DEIR) concluded that a number of project impacts (e.g., air quality, traffic, etc.) would be significant even after implementation of mitigation, and the City Council would need to adopt a Statement of Overriding Considerations for the project that state what benefits of the project outweigh the identified significant impacts of the project if it decides to approve the project. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed World Logistics Center (WLC) project.

Letter G-61: Tiffany Newkirk (email) (April 9, 2013)

Letter G-61

From: Tiffany [mailto:tiffanynewkirk@yahoo.com]
Sent: Monday, April 08, 2013 4:35 PM
To: Mark Gross
Subject: Official comments for the DEIR for the World Logistics Center

I am opposed to The World Logistics Center as I feel the project will not create nearly as many jobs as has been predicted by various economists. In addition, there are too many health risks the center would pose with emissions from thousands of trucks. 1

Respectfully submitted,

Tiffany Newkirk
12795 Moreno Beach Dr. Unit 1103
Moreno Valley, Ca. 92555

Please send me confirmation of receipt of this email

RESPONSES TO LETTER G-61

Tiffany Newkirk

Response to Comment G-61-1. The commenter is concerned that project job promises are overstated and will outweigh air pollution concerns. Many commenters referred to "lower than expected" job estimates for the Skechers warehouse as a reason to mistrust the current projections. A discussion of Skechers job numbers is provided in the Response to Comment G-49-20. The job estimates for the project are based on industry-wide standards for similar types of uses, and so are considered appropriate for this project as well. The City Council will consider all comments and responses in this Final Environmental Impact Report (FEIR) document, prior to making a decision on the project. If the City Council decides to approve the project, a Statement of Overriding Considerations will be necessary to show what project benefits outweigh the significant project impacts, including air pollutants. The Draft Environmental Impact Report (DEIR) has discussed the Health risks associated with the project extensively (refer to DEIR Section 4.3.3.4)

Letter G-62: Barbara Smith (email) (April 8, 2013)

Letter G-62

From: Barbara Smith [mailto:meowmynana@yahoo.com]
Sent: Monday, April 08, 2013 3:49 PM
To: Mark Gross
Subject: Official Comments for the DEIR for the WLC

I oppose the World Logisitics project mainly because of the drastic adverse effects of the health on my community. Surrounding communities are also affected negatively, since the pollution encompasses a twenty mile radius from the center of the project. The health of citizens is jeopardized by the building of massive warehouses in densely populated areas. Living in close proximity to freeways that carry thousands of trucks to a facility, such as the one proposed, causes, as the 2002 study by the AQMD of the air quality in Mira Loma shows, cancer risks, cardio-vascular problems, asthma, and other respiratory problems. 1

Therefore, I vehemently oppose this project.

Barbara J. Smith
Riverside resident

RESPONSES TO LETTER G-62

Barbara Smith

Response to Comment G-62-1. The commenter notes the potential health effects from locating large warehouses in densely populated areas.

The health effects from emissions of diesel particulate matter were discussed in Master Response-2: Health Effects of Diesel Particulate Matter. The project has committed to minimizing its health impacts through the imposition of several mitigation measures and project design features designed to reduce its air emissions. These measures were discussed in Response to Comment letter E-3-8.

Letter G-63: Shelly Mesa (email) (April 8, 2013)

Letter G-63

From: Shelly Mesa [mailto:shellymesa@roadrunner.com]
Sent: Monday, April 08, 2013 4:44 PM
To: Mark Gross
Subject: Official Comments for the DEIR for the "WLC."

Dear Mr. Gross,

I am a concerned resident of Moreno Valley (Rancho Belago) district 5, and I'm writing in "Opposition Of the WLC project.
My home is less than 500 ft. adjacent to Redlands blvd. and Dracaea Ave.
I want to know how you can ignore the "significant cancer risk increases from deisal exhaust, " the engines emit a complex mixture
of pollutants, compossed of gaseous and solid material.also known as particulate matter or PM.
Deisal trucks also contribute to California's fine particulate matter (PM2.5) air quality problems. The most vulnerable are children as well as the elderly who have their own health problems. A report written by Caif. Air Resources Board (CARB) and peer reviewed by the EPA, that (PM2.5) causes 9,200 premature deaths in California each year.
Particulate pollution is categorized into 3 main sizes, PM10 measures up to 10 microns in diameter and appears as black dust or soot.PM2.5 measures 2.5 microns or smaller in diameter and PM0,1 (ultra fines) make up more than 90% of deisal particulates. the smaller the size the greater the health

1

risk. It's very discouraging to have read that these Ultra Fine particles are not regulated by law are not considered in the EIR being conducted by WLC.
Are the residents located where the Deisal trucks will be traveling along Cactus Ave. aware of these hazards? There are a multitude of neighborhoods as well as two elementry schools, and Hospitals along this route, that will be Impacted by Dirty Deadly Diesal.
I'm sure that the six feet soundwalls being built around those areas, will not protect the air everyone will be breathing?
Never mind the financial burden of Cancer Treatment, who will be responsible for picking up future bills from residents being affected by these Warehouses and the hazerdous air quality, Itto Benzeevi or the City Council of Moreno Valley? 1

And what about the Workers who will be employed by these Manufactures, what will be their rights as to the air they breathe?
Who will be taking care of their medical costs, when their bodies start developing health issues from the Hazerdous enviroment
their working in? 2

My convictions tell me "To Whom Much Is Given Much Is Required."
I challenge you to stick to "The General Plan," 700 houses, and Small Business Park where residents are encouraged to open their own business, instead of commuting! I read that would entail 21,000 jobs, where WLC would only promise 20,000 jobs?
The Future is'nt in "200, 000 square feet of warehouses? It's in a city that has become self sustaining and encouraging the farmers, and
the 7-residents, instead of buying them out or better yet forcing them out with the WLC project. I encourage you to way all options of
Community Developement (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives. A suggestion check out " The Riverwalk Developement," located in the "La Sierra," area adjacent to 91 freeway. 3

Sincerely
Shelly Mesa

RESPONSES TO LETTER G-63

Shelly Mesa

Response to Comment G-63-1. The commenter refers to project impacts dealing with diesel exhaust and particulate matter as well as travel along Cactus Avenue

The potential air quality and health risk impacts were fully documented and disclosed in the Draft Environmental Impact Report (DEIR) and the revised analysis (see Section 4.3.6.5 Impacts to Sensitive Receptors in the DEIR and Section 5 Air Quality Impact Analysis in the revised analysis). These assessments examined emissions of not only diesel particulate matter (PM) but also emissions of what are referred to as criteria pollutants for which ambient air quality standards have been established by the Environmental Protection Agency (EPA) and the Air Resource Board (ARB). These criteria pollutants include nitrogen dioxide, carbon monoxide, volatile organic carbon, and particulate matter (PM_{10} and $PM_{2.5}$). Using methods approved by the South Coast Air Quality Management District (SCAQMD) and the ARB[51], emissions were estimated for construction and operation of the project including emissions from the motor vehicles that would visit the project site every day. Based on these emissions, estimates were made of the potential air quality and health risk impacts that would result from the project. The results indicate that the project would result in impacts that would exceed the significance thresholds established by the SCAQMD and would remain so after application of all feasible mitigation measures. One such measure requires all diesel trucks to be equipped with truck engines that are compliant with the Model Year 2010 engine standards, the cleanest diesel truck engines available. See also Response to Comment Letter E-3-8.

The commenter is correct that ultrafine particles (UFP) are not regulated by law. Ultrafine particles are a part of $PM_{2.5}$, since $PM_{2.5}$ contains particles less than 2.5 microns in size. The revised analysis provides a discussion of ultrafine particulate matter but does not quantify them because there is no methodology or standards by which to determine the results or identify significance. There currently are no ambient air quality standards applicable to ultrafine particulate matter. See also Section 2.2.3 of the revised analysis, which discussed the scientific perspectives of the SCAQMD and EPA on ultrafine particulate matter. Potential impacts to school-age children are discussed in Response to Comment E-3-7.

Response to Comment G-63-2. The comment expresses concern regarding the welfare of the workers who will be employed at the warehouses. Please refer to the Response to Comment F-11-27 concerning potential impacts to worker receptors.

Response to Comment G-63-3. None of the comments apply to the EIR analysis or conclusions, but are personal observations about the project and project review process. The DEIR concluded that a number of project impacts (e.g., air quality, traffic, etc.) would be significant even after implementation of mitigation, and the City Council would need to adopt a Statement of Overriding Considerations for the project that state what benefits of the project outweigh the identified significant impacts of the project, if it decides to approve the project. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed World Logistics Center (WLC) project.

[51] The methods applied were the CalEEMod land use emission model and the ARB EMFAC2014 mobile source emission model

Letter G-64: Rosamonde Cook (April 8, 2013)

Comments on World Logistics Center Draft Environmental Impact Statement

April 8, 2013

Regarding: Habitat Assessment, MSHCP Consistency Analysis and HANS Review,
Section 5.2.8 Biological Compliance Issues Not Covered by MSHCP and data summarized in Tables 2 and 3 of that section.

Much of this information in this section is inaccurate. The authors used data from the California Natural Diversity Database (CNDDB) only. This database is a valuable repository for local occurrence records of rare and endangered species. However, it does not include all of the data available for the species it covers. Furthermore, there is frequently a backlog of data that remains to be entered in the database at any given point in time. The backlog can span multiple years. The Biological Monitoring Program (BMP) of the Western Riverside Multi-Species Habitat Conservation Plan (MSHCP) conducts inventory and monitoring surveys of 146 plant and animal species covered by the Plan. With few exceptions, BMP surveys are conducted only within lands currently in conservation. Results are available in the form of annual reports which are posted every year on the Riverside Conservation Authority's (RCA) website and available to the public. Data are available by request to the Monitoring Program and the State of California's Biological Information System (BIOS) database. 1

To the best of my knowledge, BMP data were never requested by Michael Brandman Associates nor any other party involved in preparation of the DEIR. These data are far more complete and up-to-date compared with what is represented in the Habitat Assessment. As a result, the DEIR represents an inaccurate assessment of the distribution and frequency of occurrence of the plant and animal species covered in Section 5.2.8 with respect to the proposed boundaries of the World Logistics Center. The historic frequency of occurrences described, and the distance of observations from the proposed WLC boundaries require revision based on BMP data. In particular, I am greatly concerned that many of the species considered in this section have numerous records of occurrence much closer to the proposed boundaries than indicated in Tables 2 and 3 which suggest 1) that their probability of occurrence within the proposed boundaries of the WLC may be higher than represented in the DEIR and 2) that the impact of the WLC may be much greater on these species than indicated. I believe this analysis should necessitate re-consideration of the potential impacts through the Urban/Wildlands interface on these species. 2

Below I contrast the data in Tables 2 and 3 of Section 5.2.8 with data collected by the BMP from 2005 to 2012 and stored in the MSHCP database. I include only species for which there is a discrepancy. Each record of occurrence noted represents a unique location where an observation has been made.

Plants

Atriplex coronatum var. *notatior* – The MSHCP database has the closest record of occurrence at 1.56 miles south of the nearest proposed WLC boundary. Data in Table 2 has it at 2.5 miles southeast. 3

Brodiaea filifolia – MSHCP database has the closest record of occurrence at 3.73 miles due south. Data in Table 2 has it at 5 miles south. 4

Centromadia pungens ssp. l*aevis* – The MSHCP database has the closest record of occurrence at 2.37 miles due south. Data in Table 2 has it at 3 miles south. 5

Lasthenia glabrata ssp. *coulteri* – The MSHCP database has the closest records of occurrence at 0.72, 1.32 miles due south and southeast, respectively, and there are 13 records of occurrence within 2 miles of the proposed WLC boundaries. (Data in Table 2 has it at 2 miles south) 6

Animals

Amphispiza belli belli – The MSHCP database has the closest record of occurrence at 4.34 miles due south. Data in Table 3 has it at 4 miles northwest. The species is apparently more widespread within the vicinity of the WLC than indicated. 7

Polioptila californica californica – The MSHCP database has closest records of occurrence at 0.28 and 0.35 miles due south of the proposed WLC boundary. Table 3 has this species closest occurrence at 4 Miles northeast. 8

Buteo regalis – The MSHCP has 45 records within 2.0 miles of the closest WLC boundary, mostly to the due south. Three observations are within the proposed boundaries. Table 3 gives the closest occurrence at approximately 1 mile northeast of the study area. 9

Vireo bellii pusillus – The MSHCP has 3 records within 2.0 miles of the closest WLC boundary. Table 3 lists its closest occurrence at 3 miles. 10

Lanius ludovicianus - The MSHCP has 13 records of occurrence within 1.0 miles of the nearest proposed WLC boundary and 115 records within 2.0 miles. Table 3 states that it has been observed within the study area. 11

Perognathus longimembris brevinasus – The MSHCP database has closest records of occurrence at 1.8 and 1.92 miles south of the closest proposed WLC boundary and 16 observations within 2.0 miles. Table 3 states that the closest observation in 3 miles south of the study area. 12

Falco columbarius - The MSHCP database has closest records of occurrence at 0.58 and 0.72 miles due south of the proposed boundaries of the WLC, and 15 observations within 2.0 miles. Table 3 states no observations on record within 7 miles of the study area. 13

Crotalus rubber rubber – The MSHCP database has closest records of occurrence at 0.89, 0.97, and 1.06 miles due south and seven observations within 2.0 miles. Table 3 claims only one observation 1.0 mile south and that was 80 years ago. 14

Chaetodipus fallax fallax – The MSHCP database has the closest record of occurrence at 0.70 miles of the nearest proposed WLC boundary and 233 observations within 2.0 miles. Table 3 stated the closest occurrence in 1.0 mile north and south. 15

Falco peregrinus anatum – The MSHCP database has the closest records of occurrence at *0*.80, 0.86, 0.94, and 0.95 miles due south, and a total of 12 observations within 2.0 miles of the nearest WLC boundary. Table 3 states no occurrences within 7.0 miles of the study site. 16

Lepus californicus bennettii – The MSHCP database has the closest records of occurrence at *0*.83 and 1.29 miles due south of the nearest boundary of the proposed WLC site, and 7 observations within 2.0 miles. Table 3 states the closest observation at 7.0 miles east of the study area. 17

Aimophila ruficeps canescens – The MSHCP database has the closest records of occurrence at 0.28, 0.31, and 046 miles of the nearest proposed WLC boundary, and 41 observations within 2.0 miles of it. Table 3 has the closet observation at 4 miles west of the study area. 18

Agelaius tricolor – The MSHCP database has the closest records of occurrence at 0.4 and 0.83 miles due south, and 7 observations within 2.0 miles of the closest proposed WLC boundary. Some of these observations were of foraging birds. Nesting colonies have been established as close as 1.28 miles south of the nearest proposed WLC boundary with others at 1.28, 2.01, 2.15, 2.88 and 3.12 miles south. All are within the current boundaries of the San Jacinto Wildlife Area. Table 3 states that there is no suitable nesting vegetation remaining within the study area. However, it fails to recognize the critical importance of off-nesting site foraging habitat for this species. Foraging for the purpose of provisioning nestlings is known to occur up to 5 miles from the nest site (Beedy and Hamilton 1999). The study area does support sufficient foraging habitat during years when insect production is high (Biological Monitoring Program 2011). 19

Spea hammondii – The MSHCP Database has the closest record of occurrence at 0.68 miles due south of the nearest proposed WLC boundary. Table 3 states that the closest occurrence in 2.0 miles south and west. 20

Plegadis chihi – The MSHCP database has 8 records of occurrence within 1.0 miles of the nearest proposed boundary of the WLC and 40 within 2.0 miles. Table 3 states the closest occurrence at 3.0 miles. 21

Elanus leucurus – The MSHCP database has 6 records of occurrence within 1.0 miles of the nearest proposed boundary of the WLC, and 64 within 2.0 miles. Table 3 states no records of occurrence within 7.0 miles. 22

The San Jacitno Valley is recognized by the Audubon Society as a Globally Important Bird Area, in large part because of the large diversity and abundance of raptors that over-winter in the area. Many species depend on the resources of the San Jacinto Wildlife Area and surrounding agriculture fields; many have been observed numerous times in the San Jacinto Wildlife Area just to the south of the proposed boundary of the WLC. The DEIR fails to recognize the importance of this area for over-wintering raptors. Information in Table 3 fails to represent both the local occurrence of several species as well as the sheer numbers of observations made within the very near vicinity of the WLC study site. Of particular mention include *Elanus leucurus* (White-tailed kite), *Falco peregrinus anatum* (Peregrine falcon), and *Falco columbarius* (Merlin), all of which Table 3 lists as having a Low Potential to Occur. Although the MSHCP database has numerous records of occurrence for these species within 2.0 miles of study site, the DEIR reports no observations within 7.0 miles of it. **23**

Table 3 also describes *Buteo regalis* (Ferruginous hawk) as a Low Potential to Occur, and states that the study area "contains open flat area that is considered marginally suitable foraging habitat, but not suitable nesting habitat." MSHCP database records include 45 observations of this species within 2.0 miles of the proposed WLC boundary, and several observations inside it. Most of these observations were made during the winter, non-breeding season. **24**

It is unclear whether any surveys conducted for raptors by Michael Brandman Associates occurred during the spring/early summer nesting period or in the fall/winter months when most species are present in the San Jacinto Valley. Regardless, it is clear that the lack of nesting substrate is not especially relevant to a species that uses the San Jacinto Valley primarily as over-wintering habitat. **25**

Other species with a substantially higher probability of occurrence within the study site than suggested by the DEIR include *Lepus californicus bennettii* (San Diego jack-tailed jackrabbit) and *Crotalus rubber rubber* (Northern red-diamond rattlesnake). Table 3 states no occurrence of either species within 7.0 miles of the proposed WCL site, while the MSHCP database contains numerous observations. **26**

Other species that occur at higher frequencies in the near vicinity of the proposed WCL site than suggested by the DEIR include *Athene cunicularia* (Burrowing Owl) and *Dipodomys stephensi* (Stephen's kangaroo rat). In total, the MSHCP database contains 18 records of occurrence of Burrowing Owl within 2.0 miles of the nearest proposed WLC boundary. Table 3 categorizes this species as a high probability of occurrence but that "focused surveys conducted in 2010 and 2012 found the study area and surroundings to be unoccupied." By contrast, the MSHCP database has two records of occurrence within 2.0 miles in 2011, one in 2012 and one in 2010. **27**

Table 3 describes Stephens kangaroo rat as Moderate Potential to Occur, and states that "the study area contains areas similar to grasslands with very sparse canopy, but is heavily disturbed. Recorded approximately adjacent to the general study area on the west and south." The MSHCP contains 239 recorded observations within 2.0 miles of the WLC study site and show a steady rate of occupancy during the years surveyed (2006, 2007, 2010, 2011). **28**

To reiterate, I believe the analysis above necessitates re-consideration of the potential impacts on these species by both the loss of habitat caused by development of the site as a WLC, but also the

impacts to species inhabiting the San Jacinto Wildlife Area and in close vicinity to the proposed boundaries of the WLC. At the least, a sufficient and effective buffer area should be created beyond the 1,086 acres of California Department of Fish and Wildlife lands and the San Diego Gas and Electric property, as these lands belong to those agencies and support foraging habitat for species including Ferruginous hawk, Merlin, Loggerhead Shrike, and White-face Ibis, all of which have been observed on these properties (MSHCP database).

Placing the largest logistics center in the country next to some of the most important wildlife habitat in Riverside County (one of only two Type A CDFW Wildlife Areas in southern California is, in my opinion, a grave mistake. Not only is this area of great importance to raptors but it is the largest staging area for waterfowl north of the California/Mexico border and a bird watching destination for thousands of people each year. I urge you to retain the original zoning and land use plans for this area as exist in the Moreno Valley General Plan. This would have much less of an impact on the wildlife area and all of the species that depend on it as well as the open space and foraging habitat around it.

References

Beedy EC, Hamilton WJ III. 1999. Tricolored Blackbird (*Agelaius tricolor*). In Poole A, Gill F, editors. The Birds of North America No. 611. The Birds of North America, Inc. Philadelphia, PA. Available online at: http://bna.birds.cornell.edu/bna/species/423.

Biological Monitoring Program. 2011. Western Riverside County MSHCP Biological Monitoring Program Tricolored Blackbird (*Agelaius tricolor*) Survey Report, 2011. Report prepared for the Western Riverside County Multiple Species Habitat Conservation Plan. Riverside, CA. Available online at: http://www.wrc-rca.org/library.asp.

Sincerely,

Rosamonde Cook
Biological Monitoring Program
Western Riverside Multi-Species Habitat Conservation Plan
4500 Glenwood Drive, Bldg C
Riverside, CA 92501
Ph: 951-320-2168

These statements reflect my own opinion, and not necessarily those of the Biological Monitoring Program.

RESPONSES TO LETTER G-64

Rosamonde Cook

Response to Comment G-64-1. While the California Natural Diversity Data Base (CNDDB) does not always supply the most accurate data available and that there is a lag with regard to entering the data into the database. On-site Biological resource surveys have been conducted for over eight years. The weaknesses of the CNDDB data was not considered a hindrance to identifying species that actually occurred within the project site.

Resource Conservation Authority (RCA) staff was contacted to obtain the most recent species occurrence data for the area around Mystic Lake, which also included the World Logistics Center Specific Plan (WLCSP). In addition, the California Native Plant Society Electronic Inventory was also queried to obtain a more comprehensive list of sensitive plant and wildlife species recorded within the vicinity of the WLCSP. This information was all included in the Draft Habitat Assessment and (Western Riverside County) Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis (FCS-MBA 2013) (hereafter MSHCP Consistency Analysis). The data from the BMP should have been included in updates to the CNDDB by either the California Department of Fish and Wildlife (CDFW) and/or RCA.

Response to Comment G-64-2. In June 2013, Michael Brandman Associates Senior Biologist Scott Crawford contacted Laurie Correa at the RCA to obtain Geographic Information Systems (GIS) information on the Biological Monitoring Program. This was after consultation in the RCA Annual Reports for various species monitored under the Best Management Practice (BMP) that could potentially occur within the study area.

No BMP surveys occurred directly within the WLCSP as these lands are privately held. Adjacent areas associated with the San Jacinto Wildlife Area and the Lake Perris State Recreation Area were included in the BMP survey areas for the various species.

In June 2013, the MSHCP Consistency Analysis (FCS-MBA 2013) was updated to include information from the 2013 survey season. Fieldwork was conducted for both burrowing owl and Los Angeles pocket mouse within the WLCSP and areas with proposed offsite facilities. An additional survey buffer of 500 feet was also included in compliance with recommendations for burrowing owl as provided by RCA. Surveys for sensitive plants were not conducted in 2013 due to limited rainfall for the season. There was a discussion with both RCA and CDFW with regard for the viability of sensitive plant surveys in 2013. The DEIR adequately represented species that have the potential to occur in the project area and accurate characterized what was found on the WLCSP. These data were not from a single year from over eight years of examination.

The GIS data for the BMP surveys has been incorporated into the 2013 MSHCP Consistency Analysis report with appropriate adjustments to Tables 3 and 4. The potential for occurrence of sensitive species within the WLCSP area is no higher than represented in the DEIR. Impact of the WLCSP on sensitive species is no greater than that indicated in the DEIR. While the BMP data may be more comprehensive, in most instances the 2012 report did indicate that the species were in the vicinity, in some instances at the same distance and in others much closer to the WLCSP. Due to space limitations, the tables do not provide information on every sighting of a species and generally, only whole numbers were given. Both Tables 2 and 3 also include a category on suitable habitat. That category, combined with location data, were used by the project biologist in determining the potential for the species to occur within the WLCSP.

Response to Comments G-64-3 through G-64-22. The GIS data for the BMP surveys has been incorporated into the MSHCP Consistency Analysis (FCS-MBA 2013) with appropriate adjustments to Tables 3 and 4. While the BMP data may be more comprehensive, in most instances the 2012 report

did indicate that the species were in the vicinity, in some instances at the same distance and in others much closer to the WLCSP. Tables 3 and 4 do not provide information on every sighting of a species, as this information could quickly become redundant. Generally, only whole mile numbers were given for sightings. Both Tables 3 and 4 also include a category on suitable habitat. That category, combined with location data, provide the assessment on the potential for the species to occur within the WLCSP.

Understanding that not all available data is entered into the CNDDB and BMP database, the City must make assumptions that species identified within 3 miles of the project site have a much higher potential to occur than those that are recorded to occur beyond a 3-mile radius. In determining the potential for a species occurrence within the WLCSP, there is no difference if a species was observed 0.5 miles or 3.0 miles from the project site, all of these species are regarded as being observed within the vicinity of the project site. As indicated in Tables 3 and 4 of the MSHCP Consistency Analysis (FCS-MBA 2013), the following criteria were used to determine potential for occurrence.

Not Likely to Occur - There are no present or historical records of the species occurring on or in the immediate vicinity (within 3 miles) of the WLCSP and the diagnostic habitats strongly associated with the species do not occur on or in the immediate vicinity of the site.

Low Potential to Occur - There is a historical record of the species in the vicinity of the WLCSP and potentially suitable habitat onsite, but existing conditions (e.g., density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, isolation) substantially reduce the possibility that the species may occur. The site is above or below the recognized elevation limits for this species.

Moderate Potential to Occur - The diagnostic habitats associated with the species occur on or in the immediate vicinity of the WLCSP, but there is not a recorded occurrence of the species within the immediate vicinity (within three miles). Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity.

High Potential to Occur - There is both suitable habitat associated with the species and a historical record of the species on or in the immediate vicinity of the WLCSP (within 3 miles).

Species Present - The species was observed in the WLCSP at the time of the survey or during a previous biological survey.

Response to Comment G-64-23. Specific surveys for raptors were not conducted, however, every observation in the field during all of the surveys conducted from 2005 through 2013 have been documented. These surveys were generally conducted in late winter through midsummer and not during the overwintering period (which is typically from November to February). The goal of the studies was to provide general biological information on the project site with a focus on sensitive species. Since the fields of the WLCSP were generally plowed in late summer/early fall thereby removing most burrows for small mammals and then covered in dryland grain crops throughout winter and into late spring, the area was not a prime area for raptors and thus wintering surveys were not conducted. The lack of survey data for overwintering species is not a significant issue since the project site contains low-quality habitat and a small prey-based based. Many sensitive raptor species occur within the vicinity of the WLCSP during the winter, based on data obtained from CDFW and RCA in 2013. The project biologist agrees that many off-site areas near the WLCSP provide high quality foraging habitat that contain both diverse vegetative cover and a large prey base, which are necessary components for significant raptor foraging habitat.

Table 4 of the MSHCP Consistency Analysis (FCS-MBA 2013) has been corrected to list white-tailed kite as present. It was observed foraging near the San Jacinto Wildlife Area (SJWA) during the 2013 surveys. There are no potential nesting sites.

While the distance listings for peregrine falcon, merlin and ferruginous hawk may not reflect the closest recorded occurrences, the fact remains that the continually plowed fields of the WLCSP and the immediately adjacent CDFW Conservation Buffer Area provide a marginal prey base for foraging raptors. As stated on pages 74-75, the foraging habitat within the WLCSP is marginal due to repeated agricultural disturbances. The SJWA, Lake Perris State Recreation Area (LPSRA) and the Badlands to the south, west and east respectively, provide ample foraging habitat for the limited number of raptors that appear to occupy the area. The WLCSP is not affecting any areas slated for conservation under the MSHCP and all of the sensitive raptor species that potentially occur within the WLCSP are amply covered species under the MSHCP. Although it is not anticipated that the loss of low-quality foraging habitat will result in a significant impact with regard to the loss of raptor foraging habitat, the white-tailed kite and golden eagle are both California fully protected species and any impact associated with these species is considered significant. Mitigation for impacts associated with these species is through payment of the MSHCP Development Fee. These fees may be used to purchase off-site land within a core conservation area, which is required for the long-term conservation of raptor foraging habitat.

Response To Comment G-64-24. Based on the revised DEIR and the MSHCP Consistency Analysis (FCS-MBA 2013), the loss of marginal quality foraging habitat is a potentially significant impact requiring mitigation. Although we do not discount the findings the McCrary et al and the Beckman et al reports, the WLCSP is dominated by routinely disked agricultural fields that are dry-land farmed and rely on natural rainfall for irrigation. This type of habitat does not provide moderate to high quality foraging habitat for ferruginous hawk. The majority of the suitable foraging habitat in the vicinity of the WLCSP includes artificially irrigated alfalfa fields, and dairy farms. Due to the close proximity of the SJWA, which contains moderate to high quality raptor foraging habitat, impacts to the WLCSP may be considered potentially significant and will require mitigation to off-set potentially significant impacts. Based on Development Mitigation Fees associated with the MSHCP, approximately 2610 acres of commercial development will generate approximately $14 million in fees. These fees will be used to purchase land to contribute to the core conservation areas established under the MSHCP. This land will be used to compensate for the loss of marginal quality raptor foraging habitat.

Response To Comment G-64-25. Specific surveys for raptors were not conducted, however, every observation in the field during all of the surveys conducted from 2005 through 2013 have been documented. These surveys were generally conducted in late winter through mid-summer and not during the overwintering period. We did not feel that winter surveys were necessary due to the poor condition of the foraging habitat within the WLCSP. As stated on pages 74-75, the foraging habitat within the WLCSP is marginal due to repeated agricultural disturbances. The SJWA, LPSRA and the Badlands to the south, west and east respectively, provide ample high-quality foraging habitat for the raptors that appear to occupy the area. The WLCSP is not impacting any areas slated for conservation under the MSHCP and all of the raptor species will maintain high-quality foraging areas within the Core H and Proposed Core 3 as protected under the MSHCP.

Response To Comment G-64-26. The MSHCP Consistency Analysis (FCS-MBA 2013) Table 3 has been revised to include the presence of the San Diego black-tailed jackrabbit. It was observed during the 2013 field surveys. Northern red diamond rattlesnake while potentially present in suitable habitat in the region and present within the survey areas associated with the BMP are not found in the primarily disturbed agricultural areas associated with the WLCSP. Again both species are covered under the MSHCP and take authorization is provided in the Implementing Agreement. Mitigation for the loss of habitat is through payment of the Development Fees as established in the MSHCP in Section 8.5.1. The original MSHCP was prepared with a proposed a $4,800/acre development fee for commercial development. Due to the change in the economic market, the development fee has also

changed and is currently $6,597 per acre. The development fee will be calculated at the time of the project-specific-development based on the most up-to-date fee schedule.

Response To Comment G-64-27. We acknowledge that burrowing owl are present within the WLCSP. Over the 8 years that surveys have been conducted, burrowing owls have been observed in 2005, 2008, 2012 and in 2013. Over the 2,610-acre WLCSP survey area, no more than one nesting pair has ever been recorded during any single survey season. We do not deny that owls have been found within 2 miles of the WLCSP lands, but the proof resides in the fact that the project site itself has limited occupancy of burrowing owls and a single pair does not trigger onsite habitat preservation efforts for owls. As the various developments of the Specific Plan are evaluated and approved, new surveys for burrowing owl will be required and any future nesting pairs will be protected under the MSHCP as appropriate. As discussed in Response G-4-2, the loss of foraging habitat is a potentially significant impact and mitigation is provided through the MSHCP by payment of fees.

Response To Comment G-64-28. Similarly, Stephens' kangaroo rat can be found adjacent to the WLCSP, but the agricultural nature of the site limits the potential for Stephens' kangaroo rat to occur within the WLCSP. The fact that it is present in the vicinity is not surprising as Core Areas for the species occur to the south, west and east as established by the Stephens' kangaroo rat HCP. Section 6.3 of the MSHCP Consistency Analysis (FCS-MBA 2013) document clearly spells out the procedures associated with Stephens' kangaroo rat outside of Core Areas. The project will comply with the HCP requirements and pay per acre mitigation fee. Table 4 of the revised MSHCP Consistency Analysis and HANS Review report was updated and lists the potential for SKR to occur within selective portions of the WLCSP as High. This does not change the required mitigation for development of the WLCSP.

Letter G-65: Ladona Jempson (email) (April 8, 2013)

Letter G-65

From: LaDonna Jempson [mailto:LJempson@flexsteel.com]
Sent: Monday, April 08, 2013 5:00 PM
To: Mark Gross
Subject: Draft EIR World Logistics Center

I wanted to comment on the DEIR.
This would be bad for Moreno Valley.
I work for a furniture manufacturer with 17 Class A drivers and over the road and
Daily trailer shipments full of product. It tears away the roads, increases traffic, and even with all the new regulations regarding idling in California and being CARB compliant, it adds to unhealthy air conditions for our community. Health issues specific to asthma and autism. 1
Listen to your community. Don't do this.

D. LaDonna Jempson
Human Resource Mgr.
Flexsteel Industries
7227 Central Avenue
Riverside, CA 92504
Direct Line-(951) 710-1823
Fax (951) 354-2316

RESPONSES TO LETTER G-65

Ladona Jempson

Response to Comment G-65-1. The commenter states concerns over impacts of the World Logistics Center (WLC) project on the impact of air quality and traffic. These impacts were addressed in the Draft Environmental Impact Report (DEIR) Sections 4.3 and 4.15, respectively. The DEIR concluded that air quality and traffic impacts would be significant even after implementation of mitigation, and the City Council would need to adopt a Statement of Overriding Considerations for the project that state what benefits of the project outweigh the identified significant impacts of the project, if it decides to approve the project. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

Letter G-66: Karyn Drennan (email) (April 8, 2013)

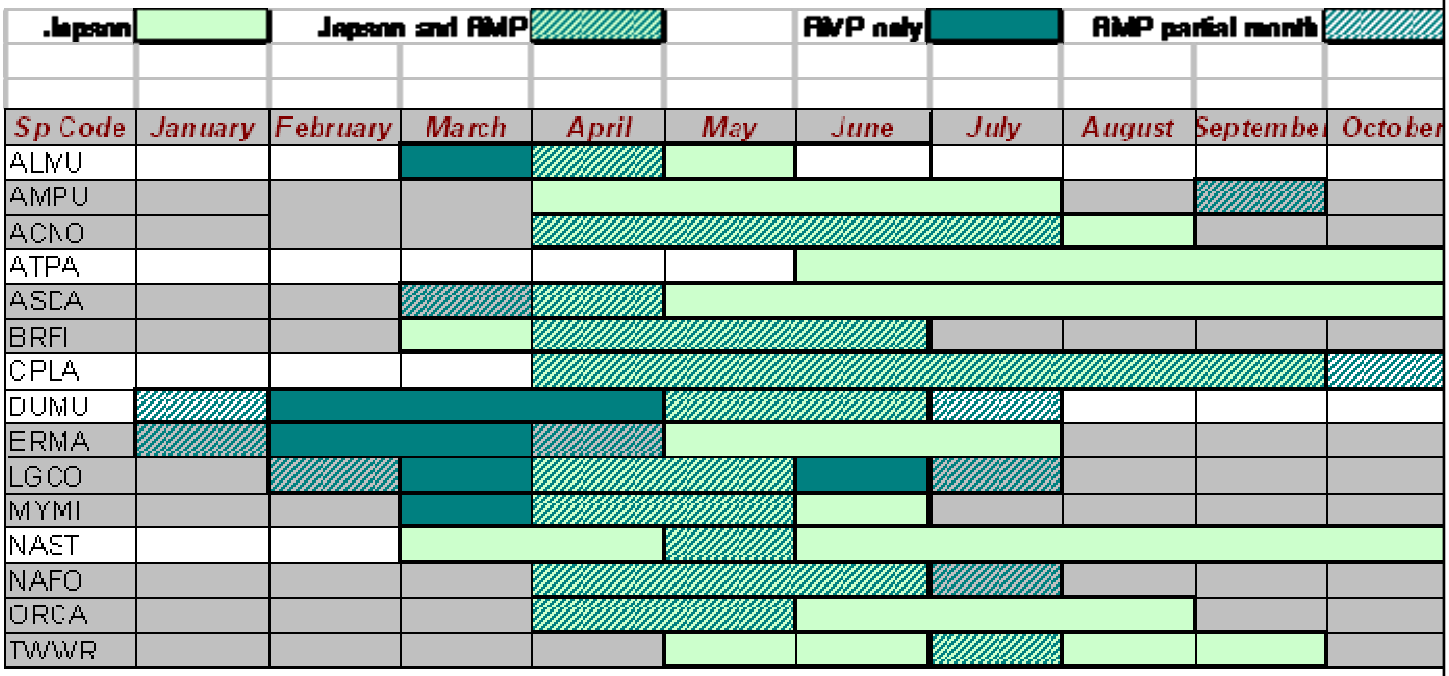
Letter G-66

From: Karyn L. Drennen [mailto:kdrennen@biomonitoringrca.org]
Sent: Monday, April 08, 2013 5:23 PM
To: Planning Email
Subject: Draft EIR Response

Comments on World Logistics Center (WLC) Draft Environmental Impact Statement

April 8, 2013
Karen L. Drennen
Plant Program Lead
Biological Monitoring Program
Western Riverside Multi-Species Habtiat Conservation Plan

Specifically regarding the Habitat Assessment, MSHCP Consistency Analysis and HANS Review, it is my opinion that results of the surveys conducted by Michael Brandman Associates for the DEIR may under-represent the occurrence of the species surveyed within the WLC study area. 1



Detectability ranges according to the Jepson manual and actual detections by the Biological Monitoring Program (BMP).

2

Jepson: Detectability range by month according to the Jepson manual
Jepson and BMP: Jepson detectability period and observation by the BMP
BMP only: Not within Jepson detectability period by observed by the BMP
BMP partial month:

Key to Sp Codes:
ACNO- San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior)*
ALMU- Munz's onion (*Allium munzii*)
AMPU- San Diego ambrosia (*Ambrosia pumila*)
ASDA- Davidson's saltscale (*Atriplex serenana* var. *davidsonii*)
ATPA- Parish's brittlescale (*Atriplex parishii*)
BRFI- Thread-leaved brodiaea (*Brodiaea filifolia*)
CPLA- Smooth tarplant (*Centromadia pungens* ssp. *laevis*)
DUMU- Many-stemmed dudleya (*Dudleya multicaulis*)
ERMA- Round-leafed filaree (*California macrophylla*)
LGCO- Coulter's goldfields (*Lasthenia glabrata* spp. *coulteri*)
MYMI- Little mousetail (*Myosurus minimus* ssp. *apus*)
NAFO- Spreading navarretia (*Navarretia fossalis*)
NAST- Mud nama (*Nama stenocarpum*)
ORCA_ California Orcutt grass (*Orcuttii californica*)
TWWR- Wright's trichocoronis (*Trichocoronis wrightii*)

Dates of surveys for these species, according to Section 3.1 Survey Protocol pg. 10 were June 9, 10, 11, 16, 22, 23, and 24, 2010 (page 338).

Letter G-66

The DEIR surveys were all conducted during June of 2010, which presents the following problems:

- The assumption is that species will always be identifiable in the full range of when it may be present, but this varies from year to year. If June is the beginning or tail end of a species' range, it may be long gone or not yet germinated.
- Early germinating species such as *Allium munzii* are usually not present at the same time as late germinating species such as *Centromadia pungens* ssp. *laevis*. Just because the potential ranges *appear* to overlap, does not mean they occur simultaneously. If weather conditions cause an early season, species will likely be present at the beginning of their respective ranges. Likewise, they may be present at the end of their ranges, or not at all, depending on conditions. 3
- Many of these species are particularly sensitive and have very specific germination requirements. They are not found every year. For example, *Trichocoronis wrightii* was not found by the Biological Monitoring Program until 2011, though surveys were repeatedly conducted in the same location beginning in 2005.
- Depending upon the weather conditions, the length of species presence can vary as well. Some species may only be detectable for a couple of weeks, if at all, in a dry year. 2010 was a relatively dry year.

In conclusion, surveys conducted in one month of one dry year are insufficient to determine species presence. Results of the surveys conducted by Michael Brandman Associates for the DEIR may under-represent the occurrence of the species surveyed within the WLC study area. 4

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Karyn L. Drennen
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Western Riverside County MSHCP
Biological Monitoring Program
4500 Glenwood Drive, bldg C
Riverside, CA 92501
(951) 320-2168
kdrennen@biomonitoringrca.org

RESPONSES TO LETTER G-66

Karyn Drennan

Response to Comment G-66-1. According to Section 15125 of the California Environmental Quality Act (CEQA) Guidelines, "An Environmental Impact Report (EIR) must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary to an understanding of the significant effects of the proposed project and its alternatives." The Notice of Preparation for the World Logistics Center (WLC) was February 21, 2012.

In support of the Draft Environmental Impact Report (DEIR), project biologists conducted biological resource field surveys for the World Logistics Center Specific Plan (WLCSP) and additional areas to characterize the biological resources present at the site and identify sensitive resources and communities that may be impacted by the proposed project. This assessment included a combination of California Natural Diversity Data Base (CNDDB) searches to establish what species could be potentially in the area and an assessment of habitat suitability. Biological surveys were conducted between 2005 and 2013 to provide base-line information within the WLCSP with regard to habitat suitability (refer to Table B-3.A in Response to Comment Letter B-3 CDFW)). The focus was on sensitive habitats and any areas with the potential to support sensitive flora or fauna species. These data are on both the CNDDB occurrences and information from the Biological monitoring Program of the MSHCP coupled with an assessment of habitat suitability are provided in Tables 4.4.B and 4.4.D of the DEIR for both plants and wildlife respectively.

In addition, project biologists conducted focused surveys for burrowing owl, Los Angeles pocket mouse, and a comprehensive sensitive plant survey. A delineation of jurisdictional waters and wetlands was also conducted. Table 1 in Response to Comment B-3-4 summarizes the survey dates, the type of survey, and FCS-MBA lead staff. Information on where the surveys were performed as the project evolved through time are presented in Exhibit 5 of the Draft Habitat Assessment and MSHCP Consistency Analysis (FCS-MBA 2013, FEIR Volume 3 Appendix E-1). In addition, project biologists contacted RCA staff to obtain recorded occurrence data for sensitive plant and wildlife species observed within and adjacent to the SJWA.

The DEIR identifies potentially significant impacts associated with the WLCSP and provides appropriate mitigation measures to reduce the impacts to levels that are less than significant with regard to sensitive biological resources. An updated Habitat Assessment and MSHCP Consistency Analysis (FCS-MBA 2013, FEIR Volume 3 Appendix E-1) was prepared to update existing conditions within the WLCSP area. The development of the WLCSP will potentially impact sensitive plants, nesting birds, six sensitive wildlife species (including burrowing owl) and jurisdictional drainage features. All feasible mitigation measures discussed in Section 4.4.6 of the DEIR will reduce project related impacts to a less than significant impact.

Prior to the approval of a Plot Plan for any development project, the project applicant shall submit a new biological analysis will be prepared by a qualified biologist to document the current existing conditions at a project-specific level. Mitigation measure will vary from project to project based on the sensitive biological resources that are located within a specific project area. The mitigation measures shall be implemented to the satisfaction of the City Planning Division prior to issuance of a grading permit.

Response to Comment G-66-2. Thank you for the information on the ranges of sensitive flowering plants that occur within the MSHCP. These data were taken into consideration on the timing of the sensitive plant surveys in June 2010.

Response to Comment G-66-3. Focused plant surveys were conducted for those species that were determined to have a moderate to low potential to occur within the project site. Although all plant species were considered during the plant survey in 2010, the surveys were conducted during the optimal flowering period for those species that had potential to occur within the project site. At the time, no sensitive plant species were identified. Surveys were not conducted in 2012 or 2013 due to a lack of sufficient rainfall.

Since this is a program-level document and individual projects within the specific plan will be subjected to additional surveys on the specific areas, the potentials for sensitive plants within each of these individual projects can be evaluated and if appropriate surveys for specific sensitive plant species within these areas can be completed before final siting approvals are given. MM 4.4.6.2B will be required to document the presence/absence of sensitive plant species on a project-by-project basis.

If any of the sensitive plant species that potentially occur within the project site including Thread-leafed brodiaea, smooth tarplant, Coulter's goldfields, and slender-horned spineflower, Parry's spineflower, Plummer's mariposa lily, and Robinson's peppergrass are observed within the project site during focused surveys for sensitive plant species, project-related impacts may be considered significant and require mitigation measures.

Thread-leafed brodiaea, smooth tarplant, Coulter's goldfields, Parry's spineflower, and slender-horned spineflower are all covered species under the MSHCP and if found within the project site during focused plant surveys, payment of the MSHCP fee will fully mitigate impacts to these species.

Plummer's mariposa lily (CNPS 4.2) and Parry's spineflower (CNPS 1B.1) are conditionally covered species under the MSHCP. These species will become completely covered under the MSHCP once they meet a specific conservation goal. Since the WLCSP has an extended build-out period, these two species may become covered prior to construction of individual projects, and payment of the MSHCP fee will fully mitigate impacts to these species. Until then, if these species are observed within the WLCSP during focused surveys before the conservation goals are met, then 90% of the occupied habitat must be avoided until the conservation goal is met. If the 90% cannot be avoided, then a Determination of a Biologically Equivalent or Superior Preservation (DBESP) for impacts to Plummer's mariposa lily will be required.

Robinson's pepper grass (CNPS 4.3) and San Bernardino aster (CNPS 1B.2) are not covered under the MSHCP and have no legal protection under the federal or state Endangered Species Act. If these species are identified within a project site during project-specific focused plant surveys, then an assessment must be conducted to determine the significance of the population that is found. The loss of a few individual plants would not be considered a significant impact, since it would not reduce the population of this plant to a level that is no longer self-sustaining. However, if a large population of these plants are observed with a project site, and the removal of those plants will likely cause the population to fall below a self-sustaining level, then avoid, minimization, and mitigation measures will be required. The preferred method of mitigation is to redesign the proposed project and avoid the plant population. If avoidance is not an option, then off-site purchase of land that contains occupied habitat may be required. Alternatively, an appropriate impact fee may be paid to the Western Riverside County Regional Conservation Authority (RCA) or other appropriate conservation organizations to offset for the loss of these species on the WLC project site. A third option is to relocate these plants to the proposed buffer area and placed into conservation. A plant relocation plan will be required prior to relocation. The CDFW does not recommend this option, since it is

extremely hard to relocate sensitive plant species and maintain a viable population, but is included as an option.

Response to Comment G-66-4. Focused plant surveys are often difficult to schedule in the arid southwest that often has multiple years of drought conditions. Due to the disturbed nature of the WLCSP, it is highly unlikely that sensitive plant species occur within the actively disked agricultural lands. The majority of the suitable habitat areas are contained in undeveloped areas. The project biologist agrees that weather conditions have a significant effect on acceptable survey results an although conducting current focused plant surveys was not feasible, the proposed avoidance, minimization, and MM 4.4.6.2A would reduce the impacts to sensitive plant species to a less than significant level. Focused plant surveys will be required during the environmental review process on a project-by-project basis within suitable habitat areas and is included in that measure.

Letter G-67: Michael Eberhard (April 8, 2013)

April 8, 2013

John Terell, Planning Official
Community & Economic Development Department
Planning Division
14177 Frederick Street
Post Office Box 88005
Moreno Valley CA 92552

Re: World Logistic center DEIR

Dear Mr. Terell,

I own property adjacent to the San Jacinto Wildlife Area in the San Jacinto Valley; I visit the San Jacinto Wildlife Area frequently and appreciate the sanctuary it provides to a broad spectrum of wildlife.

The Draft Environmental Impact Report (DEIR) incorrectly designates an area adjacent to the San Jacinto Wildlife Area (SJWA) and part of the World Logistic Center project as a "Conservation buffer". There is no such entity and the area described within this "Conservation buffer" is owned and maintained by the California Department of Fish and Wildlife as part of the San Jacinto Wildlife Area. This area was acquired by the Wildlife Conservation Board in 2001 for addition to the San Jacinto Wildlife Area for endangered and threatened species habitat along with conservation efforts for wildlife in the county of Riverside. This was never meant to be or considered anything other than part of the San Jacinto Wildlife Area. This designation is factually incorrect and misleading.

The area in question is also included in the Multi-Species Habitat Conservation Plan (MSHCP) developed in 2004 for Riverside County. It was not described as a buffer zone but as MSHCP Conservation habitat. 1

None of the direct and indirect impacts to the MSHCP and other species on the SJWA are properly analyzed in the DEIR.

The EIR must address these issues, correctly identify the false "CDFW Conservation Buffer" as part of the SJWA and properly analyze an appropriate buffer for the SJWA. Any buffer proposed must be justified by evidence-based research that supports the size of such buffer.

The people of the state of California have over 100 million dollars invested in the SJWA and any threat or compromise of that investment needs to be thoroughly evaluated.

The current DEIR does not meet that criteria and, in its current form, is woefully inadequate in its evaluation of the detrimental effects of this project on the San Jacinto Wildlife Area. 1

This is only one of many issues that I am concerned about with this project. The amount of increased traffic from cargo trucks, the increased diesel emissions and light pollution created will all have a tremendous detrimental effect on the wildlife area and the adjacent lands that the state partners with in their conservation easement program. 2

This project may create jobs but will do so at the expense of what little wildlife habitat is left in Southern California and is not in the best interest of the people of the State of California and the county of Riverside. There are alternative locations that would achieve the employment benefits desired without damaging forever a unique wildlife area. I urge you to explore alternative sites for your expansion plans. The San Jacinto Wildlife Area is a unique treasure that needs to be protected and preserved. The development plans proposed would compromise this unique area. 3

Yours truly,

Michael Eberhard

MikeEberhard@me.com

310-809-8253

RESPONSES TO LETTER G-67

Michael Eberhard

Response to Comment G-67-1. See Response to Comment G-20-1 of Letter G-20 for a more detailed response to this comment.

Response to Comment G-67-2. The Draft Environmental Impact Report (DEIR) Section 4.1.2.2 *City of Moreno Valley Municipal Code* notes that Section 9.08.100 of the code requires non-residential lighting to be fully shielded and directed away from surrounding residential uses. It also restricts non-residential lighting to not exceed 20 feet[52] in pole height or 0.25 foot-candles of light measured from within five feet of any residential property line. It should also be noted that since the Specific Plan and DEIR Mitigation Measure (MM) 4.1.6.1A both require a minimum 250-foot setback from residential properties, no WLC project light poles will be within located 100 feet of any existing residences.

In addition, the World Logistics Center Specific Plan (WLCSP) Section 5.5.2 *General On-Site Lighting Parameters* requires all exterior on-site lighting to be shielded and confined within the site boundaries. No direct rays or glare are permitted to shine onto public streets or adjacent lots, this includes wall mounted lighting. The WLCSP does limit the light poles to a maximum of 25 feet in height and both pole and wall mounted lighting must use cut-off fixtures.

While the WLCSP contains lighting guidelines for future development, ambient light level impacts will need to be calculated and reviewed for conformance with the DEIR mitigation measures and WLCSP, through the City's site plan review process for each specific building proposed.

Section 4.15 of the DEIR examines the traffic-related impacts of the WLC project. The EIR concluded that traffic impacts of the project would be significant even with implementation of recommended mitigation, largely because many of the improvements that would be needed to achieve level of service standards are located in other jurisdictions (including Caltrans) and are not under the control of the lead agency.

Section 4.3 of the DEIR, its supporting technical studies, the revised technical air study (FEIR Volume 2 Appendix D-1), and the revised DEIR section (FEIR Volume 2) all provide very detailed information on air pollutant impacts including health risks from diesel truck emissions. The EIR concludes that air quality impacts of the WLC project are significant, even with implementation of the recommended mitigation.

The City Council will consider all comments and responses on the project and EIR before making a decision on the WLC project. If the City Council decides to approve the project, a Statement of Overriding Considerations will be necessary to show what project benefits outweigh the significant project impacts (e.g., traffic, air quality, etc.).

The commenter also expresses concerns regarding the effects of diesel pollution and light pollution on the wildlife areas with which the state partners in its conservation easement program. The WLCSP provides for a number of project design features to address potential impacts to the San Jacinto Wildlife Area (SJWA) as discussed in Section 4.4.6.1 of the DEIR. A number of these features would also serve to reduce air pollutant levels that would be transported from the project to the SJWA. These features would include enhanced landscape features, restrictions on lighting, a 250-foot setback from the southern-most property line along the SJWA boundary., There is, however, no

[52] Specific Plan Section 5.5.3.1 indicates parking lot light poles at 20 feet and driveway poles at 25 feet most likely to prevent conflicts with trucks turning into parking areas.

accepted approach to measure or assess the impact of diesel emissions on wildlife. As a result, any discussion of impacts would be speculative.

Response to Comment G-67-3. The commenter states,

> *"This project may create jobs but will do so at the expense of what little wildlife habitat is left in Southern California and is not in the best interest of the people of the State of California and the county of Riverside. There are alternative locations that would achieve the employment benefits desired without damaging forever a unique wildlife area. I urge you to explore alternative sites for your expansion plans. The San Jacinto Wildlife Area is a unique treasure that needs to be protected and preserved. The development plans proposed would compromise this unique area."*

According to Section 6.3.9 of the DEIR: This alternative examines different sites in the surrounding region to determine if an alternative location would reduce or eliminate one or more significant impacts of the project. This analysis must be based on feasible sites that could realistically support the proposed project (i.e., a contiguous 2,635-acre site for 41 million square feet of high-cube logistics warehouse uses as envisioned by the WLCSP). The surrounding jurisdictions were contacted to identify potential alternative sites for the proposed project. Figure 6.1 shows the locations of the various jurisdictions that were contacted and/or analyzed in this evaluation and Table 6.R presents the results of that analysis.

Table 6.R indicates that there are no feasible alternative sites in the surrounding or nearby jurisdictions that could support the proposed project (i.e., that have enough vacant land zoned or available for logistics warehousing with good freeway and/or rail access). Therefore, none of these sites will be evaluated further.

Letter G-68: Craig and Joan Givens (email) (April 9, 2013)

Letter G-68

From: craiggenesis@cs.com [mailto:craiggenesis@cs.com]
Sent: Tuesday, April 09, 2013 7:38 AM
To: markg@moval.org.
Subject: World Logistics Center Project

To: Mark Gross
marg@moval.org
From: Craig R. Givens and Joan Givens
26961 Cimarron Canyon Drive
Moreno Valley 92555

I am against the World Logistics Center Project in our city. This project will have adverse health effects from the diesel particulate pollution caused by the trucks that will be coming from the 41 million square feet of warehousing project. The beautiful majestic mountains that surround our city will keep the pollution trapped here. 1

I moved to Moreno Valley in 2001. I was told by my fellow citizens that the far south eastside of the city near Mystic Lake would have a housing development called Moreno Valley Highlands according to the General Plan. I love the scenic beauty of this part of Moreno Valley. It appears that the World Logistics Center Project incompatible with the current general plan.I would not have bought a home in this part of Moreno Valley had

known the general plan was going to be changed without having a new general plan. How does the city plan to promote a sense of pride in the community when the people feel they have been deceived? How are the resident going to fill a sense of community when they know the city's plans are for warehouses. 2

Furthermore if the city was concerned about the welfare of its citizens and their quality, it would have developed the appropriate infrastructure (rail and airport) to accommodate the large volume of goods that would need to be moved to and from the warehouse complexes. Rail development through the canyon would have mitigate the pollution and traffic that the trucks will cause. The narrow 60 freeway cannot accommodate the commuter traffic that goes through this area every day. There are times in the day that you can walk on top of the cars because they have come to a complete stop. Trucks will make this freeway a death trap. 3

Also, the promises of jobs are false. The developer has been in the city since 1985 – 1987 time period. He had promised 30, 000 to 50,000 jobs from Moreno International Trade Center, a project that include a 10, 000 foot runway. This project did not happen. In addition, the previous project from this developer which is Sketchers promised 2500 jobs, but the building was only designed for 300 because it is so modern and electronically advanced. How can the City or the developer properly estimate the number of jobs? How can the residents trust the City or the developer when they continue to falsify employment numbers? 4

RESPONSES TO LETTER G-68

Craig and Joan Givens

Response to Comment G-68-1. The many potential environmental impacts of the proposed WLC project are fully evaluated in the Draft Environmental Impact Report (DEIR), including impacts to air quality from diesel pollution and substantial changes in views and land use on the site and for surrounding neighbors and neighborhoods. The City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed World Logistics Center (WLC) project

Response to Comment G-68-2. The proposed World Logistics Center (WLC) project includes a General Plan Amendment (GPA) that identifies those portions of the City's General Plan that will be revised if the WLC project is approved, and that GPA was evaluated in appropriate sections of the EIR (e.g., 4.10, *Land Use and Planning*). The City Council will consider all stated opinions and comments on the project and Environmental Impact Report (EIR) prior to making any decisions regarding the proposed WLC project.

Response to Comment G-68-3. The provision of a rail service to the project site has been studied to determine if it is an alternative which will reduce the number of trucks driving between ports and the site, and therefore reduce the number of significant impacts (Section 4.F of the Traffic Impact Assessment (TIA) appendix L). However, it has been determined that this alternative is not a viable option due to the following reasons. The WLC site is not currently served by rail and would need to be aligned to an existing branch. All possible alignments would cause impacts equal or greater than the projected truck traffic. It was also determined that for a rail service to be economical 50 percent of all shipments must be shipped 500 miles or greater on rail. Shipments to the WLC would only be travelling from the ports of Los Angeles and Long Beach, a distance of about 70 miles. Additionally, the existing rail system is already at or near maximum capacity. Therefore, shifting cargo from trucks on freeways to rail would transfer the congestion problem from stressed freeway systems to stressed rail networks. Finally, the reduction in truck traffic to the WLC is projected to be between 2 and 7 percent. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

Response to Comment G-68-4. The comment states, *"Also, the promises of jobs are false. The developer has been in the city since 1985 – 1987 time period. He had promised 30, 000 to 50,000 jobs from Moreno International Trade Center, a project that include a 10, 000 foot runway. This project did not happen. In addition, the previous project from this developer which is Skechers promised 2500 jobs, but the building was only designed for 300 because it is so modern and electronically advanced. How can the City or the developer properly estimate the number of jobs? How can the residents trust the City or the developer when they continue to falsify employment numbers?"*

The comment does not raise an issue with the adequacy of the DEIR. No response is required. The City Council will consider all comments prior to taking any action on the project.

Employment projections for the WLC project are contained in a 2013 report entitled, "Fiscal and Economic Impact Study, WLC, Moreno Valley, California" prepared by David Taussig & Associates, Inc. (DTA).This report is provided in Appendix O of the DEIR. In this report, an estimate of 0.50 employees per 1,000 square feet of building square feet was used to project the number of employees that could be located at the WLC project. Based on a the proposed land uses and building areas, this would equate to approximately 20,808 employees. The 0.50 employees per 1,000 square feet factor was based on data supplied by the Southern California Association of Governments (SCAG), the National Association of Industrial and Office Parks, and the U.S. Energy Information Administration. These projections are discussed at length in the David Taussig and Associates, Inc.

(DTA) report. Additional information regarding these employment projections can be found in the FEIR's responses to comment letter G-90, comments A-1 through A-4.

Letter G-69: Kathy Schmitt (April 9, 2013)

To John Terell, Community and Economic Development Department:

The following must be considered regarding the warehouse project:

1. Impact on highway 60 1
2. Toxic pollution drifting into the San Jacinto Valley and wildlife conservation area 2
3. Light pollution of the San Jacinto Valley and wildlife conservation area 3
4. Growth inducement and its effect on water supply 4
5. The effects on each endangered species and overall impact to the wildlife area 5
6. How this project impacts the mid county project 6
7. How this project impacts Gilman Springs Rd. 7
8. How this project interfaces with the developers project with the city of Banning, i.e. the Iddo Benzeevi exclusive agreement (Press Enterprise, 26 March 2013). 8
9. All areas within 50 miles of this project must be considered regarding the impacts on climate, growth and quality of life issues of this warehouse project. 9

Richard L. Schmitt

Kathy Schmitt

RESPONSES TO LETTER G-69

Kathy Schmitt (April 9, 2013)

Response to Comment G-69-1. The commenter is concerned about traffic on SR-60. The original and revised traffic impact assessments (TIAs) for the World Logistics Center (WLC) project both provided extensive discussion and analysis of potential impacts on SR-60 under various development scenarios (buildout plus baseline in 2012, Phase 1 plus baseline in 2022, buildout plus future baseline in 2030, and buildout in 2035).

Response to Comment G-69-2. The commenter is concerned about air pollution impacts on the San Jacinto Wildlife Area (SJWA). The issue of direct and indirect air quality impacts on the SJWA was evaluated in Section 4.4.6.1, *Biological Resources – Endangered Species*, in the Draft Environmental Impact Report (DEIR). It determined that project emissions with the proposed development and building setbacks and with recommended mitigation would have less than significant impacts on the resources of the SJWA.

Response to Comment G-69-3. The commenter is concerned about light pollution impacts on the San Jacinto Wildlife Area (SJWA). The issue of direct and indirect lighting impacts on the SJWA was evaluated in Section 4.4.6.1, *Biological Resources – Endangered Species*, in the Draft EIR. It determined that project lighting with the proposed development and building setbacks and with recommended mitigation would have less than significant impacts on the resources of the SJWA.

Response to Comment G-69-4. The commenter expressed concern about growth inducement and its effect on water supply. The growth-inducing impacts of the WLC project are examined in DEIR Section 5.3, *Growth-Inducing Impacts*, including water supply. Other water supply-related issues are addressed in DEIR Sections 4.9, *Hydrology and Water Quality*, and Section 4.16, *Utilities – Water*. DEIR Section 4.16.1.6.1, *Adequate Water Supply*, states … *"both the CH2M Hill figure of 450 AFY and the EMWD's worst-case estimate of 1,991 AFY figure will be used relative to water consumption."* These two figures are relatively far apart based on the assumptions for onsite water use, with the higher Eastern Municipal Water District (EMWD) figure resulting from extremely "worst case" assumptions while the lower CH2M Hill figure resulting from more reasonable and feasible water consumption estimates. According to the Water Supply Assessment prepared by the Eastern Municipal Water District, it can accommodate over the next 20 years even under multiple drought-year conditions (refer to FEIR Volume 2 Appendices J and N).

Response to Comment G-69-5. The commenter expressed concern about impacts to endangered species. DEIR Section 4.4.6.1, *Biological Resources – Endangered Species*, examines potential project impacts to endangered species and determines that, with the recommended mitigation measures, WLC project impacts will be less than significant.

Response to Comment G-69-6. The commenter questioned what impacts the WLC project would have on the Mid-County Parkway (MCP) project. The MCP project was not included in the analysis because only one or two hundred daily trips, equivalent to 10 or 20 peak hour trips, would be added at buildout of the proposed project, well below the 50 peak hour trip study area criteria. By definition, impacts to roadway segments or intersections affected by less than the 50 peak hour trip study area criteria are considered less than significant because such changes will have an insignificant effect on roadway and intersection operations.

Response to Comment G-69-7. The commenter wondered what impacts the project would have on Gilman Springs Road. The widening of Gilman Springs Road from a two-lane road to a six-lane road is included in the Southern California Association of Governments (SCAG) Federal Transportation Improvement Program (FTIP) (Project ID RIV080908 for the segment between SR-60 and Alessandro

Boulevard and Project ID RIV080909 for the segment between Alessandro Boulevard and Bridge Street) and the FTIP shows full funding of both of the Gilman Springs Road segments will be obtained in fiscal year 2016/2017. For this reason, the Traffic Impact Assessment (TIA) included the widening of Gilman Springs Road from a two-lane road to a six-lane road in the Year 2035 circulation network assumptions. The TIA further determined that Gilman Springs Road would need to be widened from a six-lane road to an eight-lane road (the segment between Alessandro and Bridge Street) in Year 2035 with buildout of the proposed project. In addition, the TIA determined that Gilman Springs Road would need to be widened from a two-lane road to a four-lane road in Year 2022 with or without Phase 1 of the proposed project. At project build out in Year 2035, the WLC project is expected to contribute up to 6,421 trips per day to Gilman Springs Road which would be approximately 11.4 percent of its six-lane road design capacity.

Response to Comment G-69-8. The commenter expressed concern about how another development project in Banning proposed by the developer of the WLC project might affect the impact analysis of the WLC EIR. There is no relationship to the referenced project due to the City of Banning choosing not to pursue the project.

Response to Comment G-69-9. The commenter stated that the cumulative analysis for project impacts must extend out to 50 miles. There is typically no set distance for the analysis of cumulative impacts, the potential affected area or universe for cumulative impacts always depends on the size and type of project, its location relative to other development and land uses, and a variety of other factors. This is why the universe for each cumulative impact issue may be different (e.g., South Coast Air Basin for air quality impacts, western Riverside County for biological impacts, etc.). The universe for each cumulative impact issue was identified at the outset of the discussion for each environmental topic (DEIR Sections 4.1 through 4.16).

Letter G-70: Amora Johnson (email) (April 9, 2013)

Letter G-70

From: amoraj@verizon.net
Date: Apr 8, 2013 2:27:02 PM
Subject: Official DEIR Comments for the World Logistic Center
To: markg@moval.org

"Official DEIR Comments forthe World Logistics Center"

I am opposed to this project becauseof Environment, Aesthetic, Safety, Health and Financial reasons.

It is incompatible with the currentgeneral plan which I read before I bought the property and built a house on it.The plan would be to sell the property as part of our portfolio for retirementfunds. Having the warehouses built will impact the environment, too, for the CaliforniaState wildlife sanctuary. 1

I would not have bought andbuilt on it if I had known the general plan was going to be changed.

I oppose this project because it is not environmentally sound aswhat had happened with the study at the Mira Loma warehousing location – this willbe worse as human beings and the wildlife area will both be affected. 2

To have the designation as awildlife area, the State of California must have studied the area prior to allthese proposed changes. With more pollution because of the diesel trucks' trafficas a result of the proposed warehouses, there won't be any more wildlife. 3

I oppose this project because theadverse health effects of diesel particulate pollution from 41 millionsquare feet of warehousing trucks are not fully known. Research has justbecome available that has linked pollution during pregnancy to increased autismrisk. The beautiful majestic mountains that surround our citykeep pollution trapped here. Why hasn't an alternative site that isnot surrounded by mountains been identified with a corresponding map? 4

I oppose this project because a 41million square foot warehousing complex is not economically feasible withoutfreight rail. Additionally the Lead Agency has not disclosed how many taxdollars that will be needed for this project. Without knowing that amountneither the public nor the Lead Agency can determine the economic feasibility.In a City that is threatening to turn off the streetlights because they arebroke, how can the Lead Agency determine whether the infrastructurecosts to the taxpayers are worth it if they aren't disclosed? How does theCity propose to pay for infrastructure when they claim they can't affordto pay for streetlights? 5

How does this City intend to keep a positive communityenvironment when they threaten to turn off public utilities needed forsafety but propose to pay for developer required infrastructure? 5

I oppose this project because Idon't think the employment numbers are correct. The previous project fromthis developer which is Sketchers promised 2500 jobs, but the building wasonly designed for 300 because it is so modern and electronically advanced.Warehouse electronics are just like computer technology, it's outdatedalmost as soon as it's finished. That means that each warehouse constructedwill have fewer employees than the one before. How can the City or thedeveloper properly estimate the number of jobs? How can the residents trust theCity or the developer when they continue to falsify employmentnumbers? 6

RESPONSES TO LETTER G-70

Amora Johnson

Response to Comment G-70-1. The proposed World Logistics Center (WLC) project includes a General Plan Amendment (GPA) that identifies those portions of the City's General Plan that will be revised if the WLC project is approved, and that GPA was evaluated in appropriate sections of the EIR (e.g., 4.10, Land Use and Planning). Also, Section 4.4, *Biological Resources*, of the Draft Environmental Impact Report (DEIR) examines potential impacts of the proposed project on existing vegetation and animals. It should be noted that the site generally lacks important biological resources (including wetlands) due to the historical and ongoing disturbance by agricultural activities. The DEIR also examined potential impacts on the nearby San Jacinto Wildlife Area and Mystic Lake, and determined that the project design, with proposed setbacks and landscaped buffers, and recommended mitigation measures would reduce potential impacts on these areas to less than significant levels. The City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

Response to Comment G-70-2. The commenter compares the project to the Mira Loma warehousing area and says wildlife and humans will both be affected. The potential environmental impacts of the WLC project on both the natural and man-made environment are evaluated in the Draft EIR Sections 4.1 through 4.16 with impacts to biological resources addressed in Section 4.4 of the DEIR. The DEIR determined there would be significant impacts related to views, agriculture, air quality, climate change, land use, noise, and traffic but that impacts to biological resources would be reduced to less than significant levels by project design implementation of recommended mitigation measures.

Response to Comment G-70-3. Section 4.4, *Biological Resources*, of the DEIR examines potential impacts of the proposed project on existing vegetation and animals. It should be noted that the site generally lacks important biological resources (including wetlands) due to the historical and ongoing disturbance by agricultural activities. The DEIR also examined potential impacts on the nearby San Jacinto Wildlife Area and Mystic Lake, and determined that the project design, with proposed setbacks and landscaped buffers, and recommended mitigation measures would reduce potential impacts on these areas to less than significant levels.

Response to Comment G-70-4. The commenter remarks about the adverse health effects of diesel pollution and research linking pollution during pregnancy to increased autism risk.

Please refer to Master Response-2: Health Effects of Diesel Particulate Matter. The statement regarding linkage between pollution during pregnancy and increased autism risk is not supported by any reference material in this comment letter.

Response to Comment G-70-5. Please reference Response to Comment G-57-1.

Response to Comment G-70-6. Please reference Responses to Comments G-57-1 and G-59-2.

Letter G-71: Lawrence Woodward (April 9, 2013)

Letter G-71

LW PROPERTIES LLC

John Terell, Planning Official
Community & Economic Development Department
Planning Division
14177 Frederick Street
Post Office Box 88005
Moreno Valley CA 92552

Re: World Logistic center DEIR

Dear Mr. Terell,

I am a frequent user of the San Jacinto Wildlife Area.

The Draft Environmental Impact Report (DEIR) incorrectly designates an area adjacent to the San Jacinto Wildlife Area (SJWA) and part of the World Logistic Center project as a "Conservation buffer". There is no such entity and the area described within this "Conservation buffer" is owned and maintained by the California Department of Fish and Wildlife as part of the San Jacinto Wildlife Area. This area was acquired by the Wildlife Conservation Board in 2001 for addition to the San Jacinto Wildlife Area for endangered and threatened species habitat along with conservation efforts for wildlife in the county of Riverside. This was never meant to be or considered anything other than part of the San Jacinto Wildlife Area. This designation is incorrect and misleading.

The area in question is also included in the Multi-Species Habitat Conservation Plan (MSHCP) developed in 2004 for Riverside County. It was not described as a buffer zone but as MSHCP Conservation habitat. 1

None of the direct and indirect impacts to the MSHCP and other species on the SJWA are properly analyzed in the DEIR.

The EIR must address these issues, correctly identify the false "CDFW Conservation Buffer" as part of the SJWA and properly analyze an appropriate buffer for the SJWA. Any buffer proposed must be justified by evidence-based research that supports the size of such buffer.

The people of the state of California have over 100 million dollars invested in the SJWA and any threat or compromise of that investment needs to be thoroughly evaluated.

9820 WILLOW CREEK ROAD, SUITE 400, SAN DIEGO, CALIFORNIA 92131-1115
TELEPHONE 858-271-7050 ■ FACSIMILE 858-578-4419

The current DEIR does not meet that criteria and, in its current form, is woefully inadequate in its evaluation of the detrimental effects of this project on the San Jacinto Wildlife Area. 1

This is only one of many issues that I am concerned about with this project. The amount of increased traffic from cargo trucks, the increased diesel emissions and light pollution created will all have a tremendous detrimental effect on the wildlife area and the adjacent lands that the state partners with in their conservation easement program. 2

This project may create jobs but will do so at the expense of what little wildlife habitat is left in Southern California and is not in the best interest of the people of the State of California. 3

Yours truly,

Lawrence Woodward
9820 Willow Creek Rd Suite 400
San Diego CA. 92131

RESPONSES TO LETTER G-71

Lawrence Woodward

NOTE: This letter is based on a template provided by J. Weleba in Letter G-20. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-71-1. See Response to Comment G-20-1 of Letter G-20 for a more detailed response to this comment.

The World Logistics Center Specific Plan (WLCSP) does not include any public lands, including any portion of the San Jacinto Wildlife Area (SJWA), as a form of mitigation. The Draft Environmental Impact Report (DEIR) has analyzed the impact of the development that will take place as part of the WLC project in the California Department of Fish and Wildlife (CDFW) Conservation Buffer Area. The 910–acre portion of the project area owned by the State is being rezoned to "open space." It is CDFW land acquired as a buffer (and for other reasons as well), between the high quality SJWA habitat and any proposed development to the north. Calling it the CDFW Conservation Buffer Area is not inaccurate or misleading.

The General Plan Amendment provides for the designation of this CDFW land and portions of the San Diego Gas and Electric (SDG&E) lands as permanent open space. The WLC project does not "take credit" for re-zoning this area as open space. The current zoning for the property is a mix of residential, public and open space designations that are proposed to be removed since those uses are no longer planned and will never be developed. There will be no direct impacts to any portion of the SJWA as part of the WLCSP and no mitigation measures are required. There will be no direct impacts to any portion of the SJWA as part of the WLCSP and no mitigation measures are required.

The CDFW land was incorporated into the San Jacinto Wildlife Area following a sale the subject lands to the State in 2001. The May 18, 2001 Wildlife Conservation Board Agenda (page 43) recommended that 5 separate parcels totaling approximately 1,000 acres (910 acres of which were part of the Moreno Highland Specific Plan) be purchased as expansions of the California Department of Fish and Game's San Jacinto Wildlife Area. "Acquisitions of the proposed expansions will allow for the protection of a portion of Mystic Lake and its associated upland habitat which is important to a number of sensitive plant and animal species." "The CDFW has identified the subject properties as being a Significant Natural Area and has recommended the purchase of the property as an addition to the existing WLA. The acquisition of the subject properties are important to the wildlife of the area as they will serve as a buffer from development north of the WLA and add significant wildlife benefits to the WLA. It is anticipated that the addition of these properties will enhance public recreational opportunities, as the upland habitat and wetland areas are restored."

These parcels within the CDFW Buffer Area have been incorrectly zoned for the past 12 years. The General Plan Amendment included as a part of the project corrects this discrepancy for the CDFW Buffer Area and designates the lands as permanent open space.

These lands, while a part of the SJWA are currently used by CDFW for the same agricultural pursuits as the Highland Fairview-owned properties and generally consists of disked fields with winter grain crops planted and harvested yearly. Based on the 2001 Wildlife Conservation Board Agenda, long-range plans of the 910 acres call for restoration to upland habitat suitable for supporting a number of sensitive plants and animals. Nothing in the WLC Specific Plan alters or degrades what was the stated purchase of the property. A buffer of 400 feet has been provided in the DEIR. This buffer would exclude buildings but would allow for roads, landscaping, water retention basins, and other infrastructure.

The lands within the CDFW Conservation Buffer Area are further protected by the (Western Riverside County) Multiple Species Habitat Conservation Plan (MSHCP) by a series of Criteria Cells (1364, 1370, 1377, 1386, 1389, 1390, 1483, 1482, 1477, and 1577) which require justification for any development within them. In addition to the Criteria Cell protections, they are also considered Public/Quasi Public Lands according to the MSHCP and would require amendments to the MSHCP to allow development.

The DEIR correctly spells out measures associated with the requirements of Section 6.1.4 of the MSHCP on the Urban/Wildlands Interface to protect adjacent resources. These include, light, noise, toxics, and water quality. Site-specific studies related to compliance the Urban/Wildlands Interface where appropriate will be conducted and compliance with Section 6.1.4 of the MSHCP completed.

There has never been an attempt to take credit for these lands as mitigation or compensation for habitat loss as that will be accomplished through the payment of fees in accordance with the MSHCP formula.

The updated Habitat Assessment and MSHCP consistency analysis (FCS-MBA 2013, FEIR Volume 3 Appendix E-1) fully analysis all WLCSP development related direct and indirect impacts associated with sensitive biological resources in the SJWA.

Response to Comment G-71-2. See Response to Comment G-20-2 for a more detailed response to this comment.

Response to Comment G-71-3. See Response to Comment G-20-3 for a more detailed response to this comment.

Letter G-72: Cris Lins (April 8, 2013)

Cris Lins
Mailing Address: 27062 Calle Esperanza, San Juan Capistrano, CA. 92675
Email: crisl@hcpnational.com Ph.: 949-230-6951

Letter G-72

RECEIVED
APR 0 8 2013
CITY OF MORENO VALLEY
Planning Division

John Terell, Planning Official
Community & Economic Development Department
Planning Division
14177 Frederick Street
Post Office Box 88005
Moreno Valley CA 92552

Re: World Logistic center DEIR

Dear Mr. Terell,

As a land owner in the San Jacinto Valley and a frequent user of the San Jacinto Wildlife Area, I am very concerned with the World Logistic center DEIR.

The Draft Environmental Impact Report (DEIR) incorrectly designates an area adjacent to the San Jacinto Wildlife Area (SJWA) and part of the World Logistic Center project as a "Conservation buffer". There is no such entity and the area described within this "Conservation buffer" is owned and maintained by the California Department of Fish and Wildlife as part of the San Jacinto Wildlife Area. This area was acquired by the Wildlife Conservation Board in 2001 for addition to the San Jacinto Wildlife Area for endangered and threatened species habitat along with conservation efforts for wildlife in the county of Riverside. This was never meant to be or considered anything other than part of the San Jacinto Wildlife Area. This designation is incorrect and misleading. 1

The area in question is also included in the Multi-Species Habitat Conservation Plan (MSHCP) developed in 2004 for Riverside County. It was not described as a buffer zone but as MSHCP Conservation habitat.

None of the direct and indirect impacts to the MSHCP and other species on the SJWA are properly analyzed in the DEIR.

The EIR must address these issues, correctly identify the false "CDFW Conservation Buffer" as part of the SJWA and properly analyze an appropriate buffer for the SJWA. Any buffer proposed must be justified by evidence-based research that supports the size of such buffer.

The people of the state of California have over 100 million dollars invested in the SJWA and any threat or compromise of that investment needs to be thoroughly evaluated.

Cris Lins
Mailing Address: 27062 Calle Esperanza, San Juan Capistrano, CA. 92675
Email: crisl@hcpnational.com Ph.: 949-230-6951

Letter G-72

The current DEIR does not meet that criteria and, in its current form, is woefully inadequate in its evaluation of the detrimental effects of this project on the San Jacinto Wildlife Area. 1

This is only one of many issues that I am concerned about with this project. The amount of increased traffic from cargo trucks, the increased diesel emissions and light pollution created will all have a tremendous detrimental effect on the wildlife area and the adjacent lands that the state partners with in their conservation easement program. 2

This project may create jobs but will do so at the expense of what little wildlife habitat is left in Southern California and is not in the best interest of the people of the State of California. Please protective this vital wildlife area. 3

All the best,

Cris Lins

RESPONSES TO LETTER G-72

Cris Lins

NOTE: This letter is based on a template provided by J. Weleba in Letter G-20. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-72-1. See Response to Comment G-20-1 of Letter G-20 for a more detailed response to this comment.

Response to Comment G-72-2. See Response to Comment G-20-2 of Letter G-20 for a more detailed response to this comment.

Response to Comment G-72-3. See Response to Comment G-20-3 of Letter G-20 for a more detailed response to this comment.

Letter G-73: Randolph Levin (April 8, 2013)

Letter G-73

RECEIVED
APR 08 2013
CITY OF MORENO VALLEY
Planning Division

March 27, 2013

John Terell, Planning Official
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Subject: World Logistics Center's Draft EIR (SCH#2012021045) and Planning Cases PA 12-0011, 0012, 0013, 0014 and 0015

I/we, the undersigned, are homeowners in the City of Moreno Valley at the address listed below. We want to make sure that the World Logistics Center has as little impact on our neighborhood as possible. We ask that you incorporate the following mitigation measures:

- Please move all truck traffic off Merwin Street. Relocate Streets D and E as shown on the World Logistics Center Site Plan 500 to 1000 feet east of Merwin Street. Remove all truck traffic from Merwin street. 1
- Please require all security lights to use cutoff luminaires and be located on buildings no higher than 25 feet off the ground. 2
- Please require a 100 foot wide greenbelt area between the residential neighborhoods and the World Logistics Center buildings or streets. 3
-

Sincerely,

(signature)

Property owner: Name RANDOLPH LEVIN

Address PO Box 784
Solana Beach Ca. 92075

APN# 478 165 021-0

RESPONSES TO LETTER G-73

Randolph Levin

NOTE: This letter is based on a template provided by C. Moothart in Letter G-9. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-73-1. See Response to Comment G-9-9 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-73-2. See Response to Comment G-9-10 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-73-3. See Response to Comment G-9-11 of Letter G-9 for a more detailed response to this comment.

Letter G-74: D. Moore (April 8, 2013)

Letter G-74

RECEIVED
APR 08 2013
CITY OF MORENO VALLEY
Planning Division

March 27, 2013

John Terell, Planning Official
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Subject: World Logistics Center's Draft EIR (SCH#2012021045) and Planning Cases PA 12-0011, 0012, 0013, 0014 and 0015

I/we, the undersigned, are homeowners in the City of Moreno Valley at the address listed below. We want to make sure that the World Logistics Center has as little impact on our neighborhood as possible. We ask that you incorporate the following mitigation measures:

- Please move all truck traffic off Merwin Street. Relocate Streets D and E as shown on the World Logistics Center Site Plan 500 to 1000 feet east of Merwin Street. Remove all truck traffic from Merwin street, and alessandro Blvd. 1
- Please require all security lights to use cutoff luminaires and be located on buildings no higher than 25 feet off the ground. 2
- Please require a 100 foot wide greenbelt area between the residential neighborhoods and the World Logistics Center buildings or streets. 3

• No Truck Traffic on Redland or Cactus Blvd 4
2) Jobs for Americans. 5
3) Eliminate all harmful effects. 6
4) Don't take away our peace + quietness. 7
5) Require more than a 100 foot greenbelt area 8

Sincerely,

D Moore
(signature)

Property owner: Name D. Moore

Address 28890 Rainier Way,
Mo. Vly., Ca. 92555

APN# 304-290-057

RESPONSES TO LETTER G-74

D. Moore

NOTE: This letter is based on a template provided by C. Moothart in Letter G-9. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-74-1. See Response to Comment G-9-9 for a more detailed response to this comment.

Response to Comment G-74-2. See Response to Comment G-9-10 for a more detailed response to this comment.

Response to Comment G-74-3. See Response to Comment G-9-11 for a more detailed response to this comment.

Response to Comment G-74-4. The comment is a form letter requesting that the project move all truck traffic off Merwin Street. The comment also requests that Streets D and E be relocated 500 to 1,000 feet east of Merwin Street. The commenter also requests that there be no truck traffic on Redlands or Cactus Blvd.

As explained in Traffic Impact Analysis (TIA) Chapter 4, Section B, Alessandro Blvd will be severed in the project site. This is being done specifically to prevent project traffic from entering the Old Moreno neighborhood. Project traffic will not use Merwin Street. Project-related car traffic heading west will be directed towards Cactus Blvd. Trucks will not be permitted to use the Cactus Blvd. access point and would instead be directed to SR-60.

The proposed on-site road network has been revised so that Street E is 400 ft. away from Merwin Street and Cactus is 1,270 ft. away from Merwin Street.

The Moreno Valley City Council rescinded Redlands Blvd.'s designation as a truck route south of Eucalyptus Avenue (the section cited) Previously trucks had been allowed south as far as Alessandro Blvd. Please refer to Ordinance No. 836 dated January 10, 2012. Trucks will be prohibited from using the Cactus Avenue Extension, and therefore World Logistics Center (WLC) trucks will not be using Cactus Avenue.

Response to Comment G-74-5. The commenter only states "Jobs for Americans" in this comment. This makes no direct reference to the WLC project. In response to comments, the Development Agreement includes a provision for a local hiring program that will encourage local (i.e., City of Moreno Valley) hiring within the WLC project as outlined in Response to Comment G-33-9. Even with the inclusion of a hiring program, there is no effective or legal way to guarantee that all companies within the WLCSP will fill short-term construction or long-term warehousing jobs with legal U.S. residents. As with other issues, the City Council will consider all comments and responses on the project and Environmental Impact Report (EIR) before making a decision on the WLC project.

Response to Comment G-74-6. The commenter wants the project to "eliminate all harmful effects." There is no way to eliminate all harmful effects and still satisfy the project objectives. The potential environmental impacts of the WLC project on both the natural and man-made environment are evaluated in the Draft EIR Sections 4.1 through 4.16 with impacts related to hazards and hazardous materials addressed in Section 4.8 of the DEIR. The DEIR determined there would be significant impacts related to views, agriculture, air quality, climate change, land use, noise, and traffic. The City Council will consider all comments and responses on the project and EIR before making a decision on the WLC project.

Response to Comment G-74-7. The commenter does not want to lose their "peace and quiet." The potential noise impacts of the project are examined in Section 4.12 of the DEIR which were determined to be significant even with mitigation. The City Council will consider all comments and responses on the project and EIR before making a decision on the WLC project. If the City Council decides to approve the project, a Statement of Overriding Considerations will be necessary to show what project benefits outweigh the significant project impacts.

Response to Comment G-74-8. The commenter stated the project required more than a 100-foot greenbelt area. The DEIR does provide a buffer area along Redlands Boulevard, Bay Avenue and Merwin Street through Mitigation Measure (MM) 4.1.6.1A which reads as follows:

4.1.6.1A ~~Prior to the issuance of any discretionary permit for development along the western boundary of the WLCSP, a minimum 250-foot setback shall be verified from closest residential property line along Redlands Boulevard, Bay Avenue, and Merwin Street to any truck access area of the WLC project.~~ Each Plot Plan application for development along the western, southwestern, and eastern boundaries of the project (i.e., adjacent to existing or planned residential zoned uses) shall include a minimum 250-foot setback measured from the City/County zoning boundary line and any building or truck parking/access area within the project. The setback area shall include landscaping, berms, ~~planted~~ and walls ~~and landscaping sufficient~~ to provide ~~effective~~ visual screening between the new development and existing residential areas upon maturity of the landscaping materials. ~~Prior to development of the portion of the WLC Specific Plan property adjacent to Redlands Boulevard, the~~ The existing olive trees along Redlands Blvd. shall remain in place as long as practical to help screen views of the project site. This measure shall be implemented to the satisfaction of the ~~City~~ Planning Official ~~Division~~.

In addition, the minimum setback from a residential zoning to a building along Redlands Boulevard, Bay Avenue and Merwin Street is 250 feet per the Specific Plan. Compliance with mitigation measure (MM) 4.1.6.1A and the minimum building setback, will provide for berms and landscaping that would exceed the suggested 100 foot wide greenbelt area in the comment letter.

Along Redlands Boulevard the future right of way is planned as 110 feet, subtracting this from the 250 foot setback would leave a 140 foot buffer area. Along Bay Avenue and Merwin Street the right of way is 60 feet, subtracting this from the 250 foot setback would leave a 190 foot buffer area.

Letter G-75: Donald A. Holt (April 8, 2013)

Letter G-75

RECEIVED
APR 0 8 2013
CITY OF MORENO VALLEY
Planning Division

March 27, 2013

John Terell, Planning Official
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Subject: World Logistics Center's Draft EIR (SCH#2012021045) and Planning Cases PA 12-0011, 0012, 0013, 0014 and 0015

I/we, the undersigned, are homeowners in the City of Moreno Valley at the address listed below. We want to make sure that the World Logistics Center has as little impact on our neighborhood as possible. We ask that you incorporate the following mitigation measures:

- Please move all truck traffic off Merwin Street. Relocate Streets D and E as shown on the World Logistics Center Site Plan 500 to 1000 feet east of Merwin Street. Remove all truck traffic from Merwin street. 1
- Please require all security lights to use cutoff luminaires and be located on buildings no higher than 25 feet off the ground. 2
- Please require a 100 foot wide greenbelt area between the residential neighborhoods and the World Logistics Center buildings or streets. 3
- Please require that they Provide Adequete Flood Control/Protection For Existing Current Property owners 4

Sincerely,

Donald A. Holt
(signature)

Property owner: Name Donald A. Holt

Address 14242 Redlands Blvd.
Moreno Valley, CA 92555

APN# 478 421012-3

RESPONSES TO LETTER G-75

Donald A. Holt

NOTE: This letter is based on a template provided by C. Moothart in Letter G-9. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-75-1. See Response to Comment G-9-9 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-75-2. See Response to Comment G-9-10 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-75-3. See Response to Comment G-9-11 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-75-4. The commenter wants the project to provide "more than a 100-foot greenbelt area." The World Logistics Center (WLC) project will be separated from existing residences by a 250-foot buffer which will include new landscaping and existing roadways.

Letter G-76: Gary Klann (April 8, 2013)

Letter G-76

RECEIVED
APR 0 8 2013
CITY OF MORENO VALLEY
Planning Division

APRIL 8-13

TO PLANNING COMMISSION
MARK GROSS AICP SENIOR PLANNER

RE SCH 201202-1045

I AM A 25 YEAR RESIDENT OF THE EAST END OF MORENO VALLEY LIVING OFF REDLANDS BLVD. OUR TOWN HAS GROWN FROM A COMMUNITY OF APPROXIMATELY 60,000 TO A CITY OF CLOSE TO 200,000 PEOPLE IN THE LAST 25 YEARS.

THERE HAS BEEN ALMOST ZERO IMPROVEMENT TO THE ROADS IN THIS AREA. HWY 60 EAST OF REDLAND BLVD IS STILL A 4 LANE HWY ROAD EAST WEST BOUND; GILLIAM SPRINGS IS THE SAME AS IT HAS BEEN, A DANGEROUS 2 LANE ROAD. SAN TIMATEO IS STILL A DANGEROUS 2 LANE ROAD. TRAFFIC IS DEAD GRIDLOCK ON THESE ROADS AT PEAK HOURS OF TRAVEL. 1

THE ROADS AND POLUTION ARE NEARLY TO THE POINT OF MAKING MORENO VALLEY ONE OF THE WORST CITIES IN CALIFORNIA TO LIVE. IF THIS WAREHOUSE PROJECT HAPPENS IT WILL BE INTOLERABLE

FROM THE ADDED POLUTION AND TRAFFIC.
ALONE; NOT EVEN CONSIDERING THE OTHER PROBLEMS.
THE SKETCHER'S WAREHOUSE WAS
ALLOWED TO BE BUILT AGAINST
THE PLANNING DEPARTMENT'S APPROVAL
AND I HOPE THAT REASON AND
COMMON SENSE WILL PREVAIL
AND THIS NEW PROJECT WILL BE
VOTED DOWN, AS IT IS WRONG ON
SO MANY LEVELS AND IS NOT
RIGHT FOR MYSELF AND MANY OF US
ON THE EAST END OF THE VALLEY
AND ADJOINING AREAS WHICH WILL BE IMPACTED. 1

GARY KLANN
P.O.BOX 6491
MV 92552

951-285-4272
APN 478-210-069

RESPONSES TO LETTER G-76

Gary Klann (April 8, 2013)

Response to Comment G-76-1. None of the comments apply to the Environmental Impact Report (EIR) analysis or conclusions, but are personal observations about the project and project review process. The Draft Environmental Impact Report (DEIR) concluded that a number of project impacts (e.g., air quality, traffic, etc.) would be significant even after implementation of mitigation, and the City Council would need to adopt a Statement of Overriding Considerations for the project that state what benefits of the project outweigh the identified significant impacts of the project, if it decides to approve the project. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed World Logistics Center (WLC) project.

Letter G-77: Efrain Rocha (April 8, 2013)

Letter G-77

RECEIVED
APR 08 2013
CITY OF MORENO VALLEY
Planning Division

March 27, 2013

John Terell, Planning Official
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Subject: World Logistics Center's Draft EIR (SCH#2012021045) and Planning Cases PA 12-0011, 0012, 0013, 0014 and 0015

I/we, the undersigned, are homeowners in the City of Moreno Valley at the address listed below. We want to make sure that the World Logistics Center has as little impact on our neighborhood as possible. We ask that you incorporate the following mitigation measures:

- Please move all truck traffic off Merwin Street. Relocate Streets D and E as shown on the World Logistics Center Site Plan 500 to 1000 feet east of Merwin Street. Remove all truck traffic from Merwin street. 1
- Please require all security lights to use cutoff luminaires and be located on buildings no higher than 25 feet off the ground. 2
- Please require a 100 foot wide greenbelt area between the residential neighborhoods and the World Logistics Center buildings or streets. 3
- STOP THE WAREHOUSES!!!

Sincerely,

Efrain
(signature)

Property owner: Name Efrain Rocha

Address 28620 Highpoint Ave.
Moreno Valley, CA 92555

APN# 304-070-007

RESPONSES TO LETTER G-77

Efrain Rocha

NOTE: This letter is based on a template provided by C. Moothart in Letter G-9. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-77-1. See Response to Comment G-9-9 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-77-2. See Response to Comment G-9-10 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-77-3. See Response to Comment G-9-11 of Letter G-9 for a more detailed response to this comment.

Letter G-78: Ingrid Tipton (April 4, 2013)

Letter G-78

RECEIVED
APR 0 8 2013
CITY OF MORENO VALLEY
Planning Division

April 4, 2013

John Terrell, Planning Official
City of Moreno Valley
14177 Frederick St
Moreno Valley, CA 92552

Re: World Logistics Center

Dear Mr. Terell:

I am writing this letter in response to the notice I received from you regarding the World Logistics Center.

I am unable to just sign the attached letter regarding Merwin St. due to the fact that I as well as most of my neighbors do not want the World Logistics Center coming to our neighborhood ***AT ALL***. The increase in traffic, pollution, etc. will happen whether or not there is an entrance on Merwin. Just changing the access road will not solve the problem. 1

My family and I have lived in this neighborhood since 1978. We moved out here for the rural, quiet atmosphere and for the most part that has been maintained for the last 35 years. The World Logistics Center will destroy the neighborhood we live in and drive the value of our property down to an all-time low! 2

There are so many other areas in Moreno Valley already zoned for that type of industry with plenty of space to build more. Many of the new warehouses are sitting empty already! 3

Why should we have to lose the peace that we have cherished in our neighborhood since before Moreno Valley ever became a city, so certain city officials can realize their own greedy dreams?

However, if the logistics center is allowed to be built out here, I definitely feel that Merwin should not be used as the access road. Thank you. 4

Sincerely,

Ingrid Tipton

Ingrid Tipton
14065 Wilmot St
Moreno Valley, CA 92555

RESPONSES TO LETTER G-78

Ingrid Tipton

Response to Comment G-78-1. The commenter wishes the City to deny the project, not modify it as some of his neighbors suggest. The City Council will consider all comments and responses before making a decision on the World Logistics Center (WLC) project and Environmental Impact Report (EIR).

Response to Comment G-78-2. None of the comments apply to the EIR analysis or conclusions, but are personal observations about the project. The Draft Environmental Impact Report (DEIR) concluded that a number of project impacts (e.g., air quality, traffic, etc.) would be significant even after implementation of mitigation, and the City Council would need to adopt a Statement of Overriding Considerations for the project that state what benefits of the project outweigh the identified significant impacts of the project, if it decides to approve the project. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed World Logistics Center (WLC) project.

Response to Comment G-78-3. The commenter says there are other areas to build warehouses and many existing ones are vacant. The economic study for the WLC project (DTA 2014)(DEIR Appendix O-1) indicates that logistics warehousing is and will continue to be a rapid growth sector of the Southern California economy for many years. The only location in the City where enough land is available for a regional logistics center of over 1,000 acres is in the Rancho Belago area (eastern Moreno Valley). The “alternative sites” analysis in DEIR Section 6.7 evaluated 16 different potential project sites in 12 different jurisdictions and determined there were no feasible alternative sites available in the surrounding area to house the proposed project.

Response to Comment G-78-4. The commenter states that if a logistics center is allowed to be built at this location, Merwin Street should not be used as the access road.

As explained in TIA Chapter 4, Section B, (FEIR, Volume 2, Appendix L) Alessandro Blvd will be severed in the project site. This is being done specifically to prevent project traffic from entering the Old Moreno neighborhood. Project traffic will not use Merwin Street. Project-related car traffic heading west will be directed towards Cactus Blvd. Trucks will not be permitted to use the Cactus Blvd. access point and would instead be directed to SR-60.

Letter G-79: William Dyer (April 8, 2013)

Letter G-79

William D. Dyer
Mailing Address: 16 A Journey, Ste. 150, Aliso Viejo, CA. 92656
Email: dyer5@aol.com Ph.: 949-302-2048

RECEIVED
APR 08 2013
CITY OF MORENO VALLEY
Planning Division

John Terell, Planning Official
Community & Economic Development Department
Planning Division
14177 Frederick Street
Post Office Box 88005
Moreno Valley CA 92552

Re: World Logistic center DEIR

Dear Mr. Terell,

As a land owner in the San Jacinto Valley and a frequent user of the San Jacinto Wildlife Area, I am very concerned with the World Logistic center DEIR.

The Draft Environmental Impact Report (DEIR) incorrectly designates an area adjacent to the San Jacinto Wildlife Area (SJWA) and part of the World Logistic Center project as a "Conservation buffer". There is no such entity and the area described within this "Conservation buffer" is owned and maintained by the California Department of Fish and Wildlife as part of the San Jacinto Wildlife Area. This area was acquired by the Wildlife Conservation Board in 2001 for addition to the San Jacinto Wildlife Area for endangered and threatened species habitat along with conservation efforts for wildlife in the county of Riverside. This was never meant to be or considered anything other than part of the San Jacinto Wildlife Area. This designation is incorrect and misleading. 1

The area in question is also included in the Multi-Species Habitat Conservation Plan (MSHCP) developed in 2004 for Riverside County. It was not described as a buffer zone but as MSHCP Conservation habitat.

None of the direct and indirect impacts to the MSHCP and other species on the SJWA are properly analyzed in the DEIR.

The EIR must address these issues, correctly identify the false "CDFW Conservation Buffer" as part of the SJWA and properly analyze an appropriate buffer for the SJWA. Any buffer proposed must be justified by evidence-based research that supports the size of such buffer.

The people of the state of California have over 100 million dollars invested in the SJWA and any threat or compromise of that investment needs to be thoroughly evaluated.

Letter G-79

William D. Dyer
Mailing Address: 16 A Journey, Ste. 150, Aliso Viejo, CA. 92656
Email: dyer5@aol.com Ph.: 949-302-2048

The current DEIR does not meet that criteria and, in its current form, is woefully inadequate in its evaluation of the detrimental effects of this project on the San Jacinto Wildlife Area. 1

This is only one of many issues that I am concerned about with this project. The amount of increased traffic from cargo trucks, the increased diesel emissions and light pollution created will all have a tremendous detrimental effect on the wildlife area and the adjacent lands that the state partners with in their conservation easement program. 2

This project may create jobs but will do so at the expense of what little wildlife habitat is left in Southern California and is not in the best interest of the people of the State of California. Please protective this vital wildlife area. 3

All the best,

William D. Dyer

RESPONSES TO LETTER G-79

William Dyer

NOTE: This letter is based on a template provided by J. Weleba in Letter G-20. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-79-1. See Response to Comment G-20-1 of Letter G-20 for a more detailed response to this comment.

Response to Comment G-79-2. See Response to Comment G-20-2 of Letter G-20 for a more detailed response to this comment.

Response to Comment G-79-3. See Response to Comment G-20-3 of Letter G-20 for a more detailed response to this comment.

Letter G-80: Stan Perry (April 8, 2013)

Letter G-80

RECEIVED
APR 0 8 2013
CITY OF MORENO VALLEY
Planning Division

John Terell, Planning Official
Community & Economic Development Department
Planning Division
14177 Frederick Street
Post Office Box 88005
Moreno Valley CA 92552

Re: World Logistic center DEIR

Dear Mr. Terell,

I am a land owner in the San Jacinto Valley and a frequent user of the San Jacinto Wildlife Area.

The Draft Environmental Impact Report (DEIR) incorrectly designates an area adjacent to the San Jacinto Wildlife Area (SJWA) and part of the World Logistic Center project as a "Conservation buffer". There is no such entity and the area described within this "Conservation buffer" is owned and maintained by the California Department of Fish and Wildlife as part of the San Jacinto Wildlife Area. This area was acquired by the Wildlife Conservation Board in 2001 for addition to the San Jacinto Wildlife Area for endangered and threatened species habitat along with conservation efforts for wildlife in the county of Riverside. This was never meant to be or considered anything other than part of the San Jacinto Wildlife Area. This designation is incorrect and misleading.

The area in question is also included in the Multi-Species Habitat Conservation Plan (MSHCP) developed in 2004 for Riverside County. It was not described as a buffer zone but as MSHCP Conservation habitat. 1

None of the direct and indirect impacts to the MSHCP and other species on the SJWA are properly analyzed in the DEIR.

The EIR must address these issues, correctly identify the false "CDFW Conservation Buffer" as part of the SJWA and properly analyze an appropriate buffer for the SJWA. Any buffer proposed must be justified by evidence-based research that supports the size of such buffer.

The people of the state of California have over 100 million dollars invested in the SJWA and any threat or compromise of that investment needs to be thoroughly evaluated.

The current DEIR does not meet that criteria and, in its current form, is woefully inadequate in its evaluation of the detrimental effects of this project on the San Jacinto Wildlife Area.

This is only one of many issues that I am concerned about with this project. The amount of increased traffic from cargo trucks, the increased diesel emissions and light pollution created will all have a tremendous detrimental effect on the wildlife area and the adjacent lands that the state partners with in their conservation easement program. 2

This project may create jobs but will do so at the expense of what little wildlife habitat is left in Southern California and is not in the best interest of the people of the State of California. 3

Yours truly,

Stan Perry

RHC, 12214 Heacock Street, Moreno Valley, CA 92557

RESPONSES TO LETTER G-80

Stan Perry

NOTE: This letter is based on a template provided by J. Weleba in Letter G-20. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-80-1. See Response to Comment G-20-1 of Letter G-20 for a more detailed response to this comment.

Response to Comment G-80-2. See Response to Comment G-20-2 of Letter G-20 for a more detailed response to this comment.

Response to Comment G-80-3. See Response to Comment G-20-3 of Letter G-20 for a more detailed response to this comment.

Letter G-81: William Crocker (April 8, 2013)

Letter G-81

RECEIVED
APR 0 8 2013
CITY OF MORENO VALLEY
Planning Division

March 27, 2013

John Terell, Planning Official
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Subject: World Logistics Center's Draft EIR (SCH#2012021045) and Planning Cases PA 12-0011, 0012, 0013, 0014 and 0015

I/we, the undersigned, are homeowners in the City of Moreno Valley at the address listed below. We want to make sure that the World Logistics Center has as little impact on our neighborhood as possible. We ask that you incorporate the following mitigation measures:

- Please move all truck traffic off Merwin Street. Relocate Streets D and E as shown on the World Logistics Center Site Plan 500 to 1000 feet east of Merwin Street. Remove all truck traffic from Merwin street. 1
- Please require all security lights to use cutoff luminaires and be located on buildings no higher than 25 feet off the ground. 2
- Please require a 100 foot wide greenbelt area between the residential neighborhoods and the World Logistics Center buildings or streets. 3
-

Sincerely,

(signature)

Property owner: Name WILLIAM E. CROCKER 4/4/2013

Address 28686 Highpoint Ave
Moreno Valley, CA 92555-7005

APN# 304070012

RESPONSES TO LETTER G-81

William Crocker

NOTE: This letter is based on a template provided by C. Moothart in Letter G-9. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-81-1. See Response to Comment G-9-9 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-81-2. See Response to Comment G-9-10 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-81-3. See Response to Comment G-9-11 of Letter G-9 for a more detailed response to this comment.

Letter G-82: John Cargasacchi (April 8, 2013)

Letter G-82

RECEIVED
APR 08 2013
CITY OF MORENO VALLEY
Planning Division

John Terell, Planning Official
Community & Economic Development Department
Planning Division
14177 Frederick Street
Post Office Box 88005
Moreno Valley CA 92552

Re: World Logistic center DEIR

Dear Mr. Terell,

My family and I are frequent users of the San Jacinto Wildlife Area.

The Draft Environmental Impact Report (DEIR) incorrectly designates an area adjacent to the San Jacinto Wildlife Area (SJWA) and part of the World Logistic Center project as a "Conservation buffer". There is no such entity and the area described within this "Conservation buffer" is owned and maintained by the California Department of Fish and Wildlife as part of the San Jacinto Wildlife Area. This area was acquired by the Wildlife Conservation Board in 2001 for addition to the San Jacinto Wildlife Area for endangered and threatened species habitat along with conservation efforts for wildlife in the county of Riverside. This was never meant to be or considered anything other than part of the San Jacinto Wildlife Area. This designation is incorrect and misleading. 1

The area in question is also included in the Multi-Species Habitat Conservation Plan (MSHCP) developed in 2004 for Riverside County. It was not described as a buffer zone but as MSHCP Conservation habitat.

None of the direct and indirect impacts to the MSHCP and other species on the SJWA are properly analyzed in the DEIR.

The EIR must address these issues, correctly identify the false "CDFW Conservation Buffer" as part of the SJWA and properly analyze an appropriate buffer for the SJWA. Any buffer proposed must be justified by evidence-based research that supports the size of such buffer.

The people of the state of California have over 100 million dollars invested in the SJWA and any threat or compromise of that investment needs to be thoroughly evaluated.

The current DEIR does not meet that criteria and, in its current form, is woefully inadequate in its evaluation of the detrimental effects of this project on the San Jacinto Wildlife Area. 1

This is only one of many issues that I am concerned about with this project. The amount of increased traffic from cargo trucks, the increased diesel emissions and light pollution created will all have a tremendous detrimental effect on the wildlife area and the adjacent lands that the state partners with in their conservation easement program. 2

This project may create jobs but will do so at the expense of what little wildlife habitat is left in Southern California and is not in the best interest of the people of the State of California. 3

Sincerely,

John M. Cargasacchi

RESPONSES TO LETTER G-82

John Cargasacchi

NOTE: This letter is based on a template provided by J. Weleba in Letter G-20. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-82-1. See Response to Comment G-20-1 of Letter G-20 for a more detailed response to this comment.

Response to Comment G-82-2. See Response to Comment G-20-2 of Letter G-20 for a more detailed response to this comment.

Response to Comment G-82-3. See Response to Comment G-20-3 of Letter G-20 for a more detailed response to this comment.

Letter G-83: Louis and Lavine LaBelle (March 28, 2013)

Letter G-83

March 28, 2013

City of Moreno Valley Economic Planning Department:

This letter is written in response to the proposed World Logistics Center project. It is apparent that the City Planning Commission and City Council have chosen to approve recommendation of this project without concern for the citizens of this community. The environmental impacts of this project should be considered before this project moves forward. First of all, the pollution generated from the amount of trucks that are estimated to be traveling through the area will have adverse effects on the health of the residents and will deteriorate the air quality in the area. This increase in truck traffic will also affect the gridlock on the 60 freeway and surrounding streets. This is already a problem as there is only one way into the city and one way out, it will only be compounded by the addition of hundreds of more trucks. 1

Also, these trucks bring additional noise that will affect the residents. This is all in contradiction to the general land use that was originally designated for this area. 2 Agriculture and wildlife in the area will also be adversely affected as will the open spaces and aesthetics of the community. As residents of this community we would like to voice our opposition to such a project. The proposed "benefits" do not outweigh the significant negative impacts. 3

Louis + Laurie LaBelle
28815 Kimberley Ave.
Moreno Valley, CA 92555

RESPONSES TO LETTER G-83

Louis and Lavine LaBelle

Response to Comment G-83-1. Many of the comments regarding impacts of the World Logistics Center (WLC) project on the overall quality of life, specifically air quality and traffic, were addressed in the Draft Environmental Impact Report (DEIR) Sections 4.4 and 4.15, respectively. The DEIR concluded that air quality and traffic impacts would be significant even after implementation of mitigation, and the City Council would need to adopt a Statement of Overriding Considerations for the project that state what benefits of the project outweigh the identified significant impacts of the project. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

Response to Comment G-83-2. Although trucks would bring additional noise to the surrounding areas, the proposed WLC project includes a General Plan Amendment (GPA) that identifies those portions of the City's General Plan that will be revised if the WLC project is approved, and that GPA was evaluated in appropriate sections of the EIR (e.g., 4.10, *Land Use and Planning*). The City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed WLC project.

Response to Comment G-83-3. The commenter is concerned about impacts to aesthetics (open space and views), agriculture, and wildlife. These issues are addressed in Sections 4.1, 4.2, and 4.4 of the DEIR, respectively. The DEIR determined the WLC project would have significant impacts on views and agriculture, even with mitigation, while impacts to wildlife were determined to be less than significant with mitigation. The City Council will consider all comments and responses on the project and EIR before making a decision on the WLC project. If the City Council decides to approve the project, a Statement of Overriding Considerations will be necessary to show what project benefits outweigh the significant project impacts.

Letter G-84: John Mamulski (April 8, 2013)

Letter G-84

March 27, 2013

RECEIVED
APR 0 8 2013
CITY OF MORENO VALLEY
Planning Division

John Terell, Planning Official
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Subject: World Logistics Center's Draft EIR (SCH#2012021045) and Planning Cases PA 12-0011, 0012, 0013, 0014 and 0015

I/we, the undersigned, are homeowners in the City of Moreno Valley at the address listed below. We want to make sure that the World Logistics Center has as little impact on our neighborhood as possible. We ask that you incorporate the following mitigation measures:

- Please move all truck traffic off Merwin Street. Relocate Streets D and E as shown on the World Logistics Center Site Plan 500 to 1000 feet east of Merwin Street. Remove all truck traffic from Merwin street. 1
- Please require all security lights to use cutoff luminaires and be located on buildings no higher than 25 feet off the ground. 2
- Please require a 100 foot wide greenbelt area between the residential neighborhoods and the World Logistics Center buildings or streets. 3
-

Sincerely,

John S. Mamulski
(signature)

Property owner: Name John Mamulski

Address 28868 Campbell Ave.
Moreno Valley CA. 92555

APN# 478131062

RESPONSES TO LETTER G-84

John Mamulski

NOTE: This letter is based on a template provided by C. Moothart in Letter G-9. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-84-1. See Response to Comment G-9-9 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-84-2. See Response to Comment G-9-10 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-84-3. See Response to Comment G-9-11 of Letter G-9 for a more detailed response to this comment.

Letter G-85: Ana Hernandez (email) (April 10, 2013)

Letter G-85

Sent: Wednesday, April 10, 2013 10:38 AM
To: Mark Gross
Subject: Re: The World Logistic Center in Moreno Valley

Mark:

Thank you for your letter and the information regarding the proposed WLC.
I live in the golf course community on Cactus and Moreno Beach Drive and am very concerned about this project and the way it will impact my (and my
family's) quality of life. I moved from LA 10 years ago for this same reason; to live better and in a nice community. I'll be sure to attend Saturday's meeting. In the interim, my question is. Can we, Moreno Valley residents, do anything about it? Do we have any say in whether this project flies or not? Or is it a done deal? Anyway, I'm sure I'll find that out on Saturday. Please send me more information or let me know what I can do to get more informed. I'm truly concerned. 1

Sincerely,

Ana Hernandez, Investigator
FEDERAL PUBLIC DEFENDER
Riverside Office
(951) 276-6940 - office
(626) 622-2746 - cell

RESPONSES TO LETTER G-85

Ana Hernandez

Response to Comment G- 85-1. The commenter expresses concern in general about the project. The commenter is encouraged to review the Draft Environmental Impact Report (DEIR) and this Final Environmental Impact Report (FEIR) with its revised technical studies and changes to the DEIR document. The DEIR determined there would be significant impacts related to views, agriculture, air quality, climate change, land use, noise, and traffic. The City Council will consider all comments and responses on the project and EIR before making a decision on the World Logistics Center (WLC) project. If the City Council decides to approve the project, a Statement of Overriding Considerations will be necessary to show what project benefits outweigh the significant project impacts.

Letter G-86: Eric Johnson (April 9, 2013)

Letter G-86

John Terell, Planning Official
Community & Economic Development Department
Planning Division
14177 Frederick Street
Post Office Box 88005
Moreno Valley CA 92552

RECEIVED
APR 1 0 2013
CITY OF MORENO VALLEY
Planning Division

Re: World Logistic center DEIR

Dear Mr. Terell,

I am a land owner in the San Jacinto Valley and a frequent user of the San Jacinto Wildlife Area.

The Draft Environmental Impact Report (DEIR) incorrectly designates an area adjacent to the San Jacinto Wildlife Area (SJWA) and part of the World Logistic Center project as a "Conservation buffer". There is no such entity and the area described within this "Conservation buffer" is owned and maintained by the California Department of Fish and Wildlife as part of the San Jacinto Wildlife Area. This area was acquired by the Wildlife Conservation Board in 2001 for addition to the San Jacinto Wildlife Area for endangered and threatened species habitat along with conservation efforts for wildlife in the county of Riverside. This was never meant to be or considered anything other than part of the San Jacinto Wildlife Area. This designation is incorrect and misleading. 1

The area in question is also included in the Multi-Species Habitat Conservation Plan (MSHCP) developed in 2004 for Riverside County. It was not described as a buffer zone but as MSHCP Conservation habitat.

None of the direct and indirect impacts to the MSHCP and other species on the SJWA are properly analyzed in the DEIR.

The EIR must address these issues, correctly identify the false "CDFW Conservation Buffer" as part of the SJWA and properly analyze an appropriate buffer for the SJWA. Any buffer proposed must be justified by evidence-based research that supports the size of such buffer.

The people of the state of California have over 100 million dollars invested in the SJWA and any threat or compromise of that investment needs to be thoroughly evaluated.

The current DEIR does not meet that criteria and, in its current form, is woefully inadequate in its evaluation of the detrimental effects of this project on the San Jacinto Wildlife Area.

This is only one of many issues that I am concerned about with this project. The amount of increased traffic from cargo trucks, the increased diesel emissions and light pollution created will all have a tremendous detrimental effect on the wildlife area and the adjacent lands that the state partners with in their conservation easement program. 2

This project may create jobs but will do so at the expense of what little wildlife habitat is left in Southern California and is not in the best interest of the people of the State of California. 3

Yours truly,

Eric Johnson

Eric Johnson
Johnson Machinery Company
Riverside, CA

April 9, 2013

RESPONSES TO LETTER G-86

Eric Johnson

NOTE: This letter is based on a template provided by J. Weleba in Letter G-20. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-86-1. See Response to Comment G-20-1 of Letter G-20 for a more detailed response to this comment.

Response to Comment G-86-2. See Response to Comment G-20-2 of Letter G-20 for a more detailed response to this comment.

Response to Comment G-86-3. See Response to Comment G-20-3 of Letter G-20 for a more detailed response to this comment.

Letter G-87: E. Madera (email) (April 10, 2013)

Letter G-87

Mark Gross

From: emade@earthlink.net
Sent: Monday, April 01, 2013 4:54 AM
To: Mark Gross
Subject: WLC

Hello:

As a long-time resident of Mo Val, I am extremely opposed to the WLC. Please put me on the distribution list to be notified of all meetings pertaining to, and where the WLC will be discussed. 1

Also is there a particular e-mail address where I can make comments as well?

Thank you.

E. Madera

No address

RESPONSES TO LETTER G-87

E. Madera

Response to Comment G-87-1. Most of the comments do not apply to the Environmental Impact Report (EIR) analysis or conclusions, but are personal observations about the project and project review process. The Draft Environmental Impact Report (DEIR) concluded that a number of project impacts (e.g., air quality, traffic, etc.) would be significant even after implementation of mitigation, and the City Council would need to adopt a Statement of Overriding Considerations for the project that state what benefits of the project outweigh the identified significant impacts of the project. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed World Logistics Center (WLC) project.

Letter G-88: Conchita Marusich (April 10, 2013) and Appendix 1 (on Flash Drive)

Letter G-88A

THE WOLFSKILL TRUST
P. O. BOX 3005
NAPA, CA 94558

Mr. Mark Gross
City of Moreno Valley
14177 Frederick Street,
Moreno Valley, CA 92553

Dear City of Moreno Valley,

We are the property owners of the 640 acres located directly east of the World Logistics Center project (Our property has Riverside County Assessor Parcel Numbers: 422-160-008, 009, and 010). We have concerns about some of the elements of the World Logistics Center project and have outlined them below:

(1) After reviewing map Figure 4.4.1, we noticed that there is a 1,000 foot buffer placed around the eastern, southern, and a portion of the northern boundaries of the World Logistics Center project area. This 1,000 foot buffer area is outside the project footprint and actually covers a portion of our property. We do not exactly know the purpose of this "buffer" area; however, we do not want any portion of our property having setbacks or restrictions as a result of this project. As such, we would like to ask that you make sure there are no new or additional restrictions placed on our property relating to this project or buffer area. 1

(2) We are concerned that the utilities for the project stops away from Gilman Springs Road. We would like to request that you make sure that the roads (or open space areas) where the utilities are located have easements allowing us to extend the utilities to our own property. Also, please make sure the developer of the World Logistics Center builds in enough extra capacity in each of the various utility lines (i.e. sewer, water, gas, telephone, electric, etc.) to handle our property and the surrounding area. 2

(3) We are also concerned about how the drainage control for the World Logistics Center is being handled. It appears that there may be one or more drainage basins on our property. I want to make sure that no one is putting the drainage control burden for the World Logistics Center project on our property. 3

I want to thank you for your time and consideration on this matter. If you have any questions, please let us know.

Best Regards,

Conchita Marusich

Conchita Marusich
Beneficial Owner
The Wolfskill Trust.

RESPONSES TO LETTER G-88

Conchita Marusich

Response to Comment G-88-1. The commenter stated,

> "*After reviewing Figure 4.4.1, we noticed that there is a 1,000 foot buffer placed around the eastern, southern, and a portion of the northern boundaries of the WLC project area. This 1,000 foot buffer area is outside the project footprint and actually covers a portion of our property. We do not exactly know the purpose of this "buffer" area, however, we do not want any portion of our property having setbacks or restrictions as a result of this project. As such, we would like to ask that you make sure there are no new or additional restrictions placed on our property relating to this project or buffer area."*

Figure 4.4.1 in the Draft Environmental Impact Report (DEIR) depicts the "Onsite Vegetation Communities" and includes an area labeled as a "1,000 ft. Buffer Area." This area is simply an area designating the limits outside the proposed project boundary that were studied to understand, in this case, what offsite vegetation exists around the project boundary. It does not establish any sort of a restriction on the properties within the "1,000 ft. Buffer Area." The figure uses this term of a 1,000 ft. buffer area, which has caused confusion. The revised DEIR Figure 4.4.1 indicates this area as the study area for biological resources.

When a project evaluates its environmental impacts it typically includes evaluation existing conditions outside the project area (offsite), to understand how the project will interface with adjacent areas.

Response to Comment G-88-2. All of the proposed utilities will be located within public rights of way, no easements will be necessary to allow offsite property owners to tie into the World Logistics Center's (WLC) utilities lines that will serve the WLC. Eastern Municipal Water District (EMWD) and other utilities require that facilities be sized to accommodate future development. EMWD and the other utilities are responsible for any upsizing of facilities and will seek reimbursement from future developers.

Response to Comment G- 88-3. No drainage basins are proposed on offsite property. The drainage conditions upstream of the WLC project area were evaluated because they contribute flows to the WLC project area. Flows from the WLC do not impact upstream properties. Upstream properties contribute runoff to the WLC project area. It is pointed out in the revised Appendix J of the Draft Environmental Impact Report (DEIR) Section 6.2 of *the Master Plan of Drainage Report* that sediment could be generated from these offsite tributary areas upstream of Gilman Springs Road. As stated in Section 6.2, in the existing condition, the majority of the sediment will deposit upstream of Gilman Springs Road. In the future, sediment basins could be constructed upstream of Gilman Springs Road to contain the existing sediment and minimize the total suspended solids in the runoff. However, because sediment basins upstream of Gilman Springs Road are not to be constructed as part of this project, it is expected that some of the offsite sediment will continue to be transported through the culverts along Gilman Springs Road. The proposed drainage facilities in the WLC project have been sized to convey the expected sediment load. As such, these sediment basins are not needed nor required for this project. The project onsite area will not generate significant amount of sediment due to the proposed logistics land use. The sediment that proceeds through the Gilman Springs Road culverts will be transported to the proposed detention basins on the WLC area. The proposed basins will settle the sediment before exiting the project boundary, similar to how the sediment settles in the existing channels and overland area in the existing condition.

Response to Comment Appendix 1. Appendix 1 identifies the property owned by the respondent. The property is located east of the WLC Project. No proposed drainage basins are proposed on this

property. The drainage conditions upstream of the WLC project area were evaluated because they contribute flows to the WLC project area. Flows from the WLC do not impact upstream properties. Upstream properties contribute runoff to the WLC project area. It is pointed out in the revised Appendix J of the DEIR Section 6.2 of the *Master Plan of Drainage Report* that sediment could be generated from these offsite tributary areas upstream of Gilman Springs Road. As stated in Section 6.2, in the existing condition, the majority of the sediment will deposit upstream of Gilman Springs Road. In the future, sediment basins could be constructed upstream of Gilman Springs Road to contain the existing sediment and minimize the total suspended solids in the runoff. However, because sediment basins upstream of Gilman Springs Road are not to be constructed as part of this project, it is expected that some of the offsite sediment will continue to be transported through the culverts along Gilman Springs Road. The proposed drainage facilities in the WLC project have been sized to convey the expected sediment load. As such, these sediment basins are not needed nor required for this project. The project onsite area will not generate significant amount of sediment due to the proposed logistics land use. The sediment that proceeds through the Gilman Springs Road culverts will be transported to the proposed detention basins on the WLC area. The proposed basins will settle the sediment before exiting the project boundary, similar to how the sediment settles in the existing channels and overland area in the existing condition.

Letter G-89: Tom Paulek and Susan Nash (April 5, 2013) and Appendices 1-7 (on Flash Drive)

Letter G-89

RECEIVED
APR 0 8 2013
CITY OF MORENO VALLEY
Planning Division

Tom Paulek and Susan Nash
P.O. Box 4036
Idyllwild CA 92549
atpaul44@earthlink.net
snash22@earthlink.net

April 5, 2013

John Terell, Planning Official
Community & Economic Development Department
Planning Division
14177 Frederick Street
Post Office Box 88005
Moreno Valley CA 92552

Re: Draft EIR World Logistics Center Project, City of Moreno Valley (SCH 2012021045)

Dear Mr. Terell,

We have reviewed the Draft Environmental Impact Report (DEIR) for the World Logistics Center (WLC). The project applicant is seeking entitlements to build 41.6 million square feet of warehouse and associated uses on 2710 acres of existing agricultural lands. The WLC southern project boundary will immediately abut the California Department of Fish and Wildlife (CDFW), San Jacinto Wildlife Area (SJWA), the principal Multiple Species Habitat Conservation Plan (MSHCP) Conservation Reserve and the most important biodiversity conservation site in western Riverside County. The City's election to prepare a Programmatic EIR for this project does not provide the necessary information and analysis for the public, lead, responsible and trustee agencies to make informed and well-reasoned decisions on this project. For that reason, the City's consideration of this environmentally harmful project must be deferred pending preparation and public review of a legally sufficient document. 1

I. The DEIR misrepresents the San Jacinto Wildlife Area/MSHCP Conservation Area lands as being a "CDFW Conservation Buffer Area".

A. An accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR. *County of Inyo v. City of Los Angeles* (1977) 21 Cal. App. 3d 185 (an enigmatic or unstable project description impedes public input). The DEIR reference to the SJWA/MSHCP Conservation lands is an intentional misrepresentation[1]: 2

4.4 BIOLOGICAL RESOURCES
For the purposes of analysis in this section of the EIR, the project area has been divided into three sections. The first includes the Specific Plan area and associated off-site facilities referred to as the Specific Plan Area.

The second section includes the California Department of Fish and Wildlife (CDFW) conservation area as well as the SDG&E-owned lands and will be referred to as the CDFW Buffer Area.[2]

The third includes a 1,000–foot wide area along the south and east boundaries of the site to examine possible indirect impacts on the San Jacinto Wildlife Area and referred to as the "Off-site Analysis Zone."[3] *(DEIR pg. 4.4-2 & Figure 4.4.1)*

4.4.1.10 WILDLIFE, SJWA AND MYSTIC LAKE
The SJWA is 20,000 acres of man-made wetlands and open water ponds and is the first state wildlife area to utilize reclaimed water to enhance its wetlands. It is located south of the project area and the CDFW Conservation Buffer Area.[4] *(DEIR pg. 4.4-15)*

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[1] Misrepresentation: to give an inaccurate or deliberately false account of the nature of somebody or something. An assertion or manifestation by words or conduct that is not in accord with the facts.

[2] With no explanation or justification, the SGD&E natural gas compression plant lands are also included in the alleged "CDFW Buffer area". 3

[3] See figure 4.4.1: For purposes of analyzing indirect impacts to the SJWA, the EIR moves the boundary of the SJWA to the mythical "conservation buffer" boundary. By analyzing impacts 1000 feet around the 1065 acres of the SJWA/MSHCP conservation lands, the EIR analyzes the direct and indirect impacts of the SJWA area on itself. 4

[4] The San Jacinto Wildlife Area is located immediately south of the Specific Plan Project Site. The mythical CDFW Conservation Buffer Area boundary is incorrectly imposed on the public lands of the SJWA. 5

...In 1995[5]the Board [Wildlife Conservation Board] acquired an additional 921 acres of upland farmland within the southern portion of the Moreno Highlands Specific Plan[6] property to incorporate into the SJWA. In 2001, the Board Acquired an additional 274 acres in this same area. This land was purchased to provide a buffer between the land surrounding Mystic Lake and the planned urban development within Moreno Valley.[7] (PG. 4.4-16)

CDFW CONSERVATION BUFFER AREA
The entirety of the state-owned land south of the project is referred to as the SJWA.[8] However, the land purchased out of the Moreno Highlands Specific Plan is referred to in this EIR as the CDFW Conservation Buffer Area to denote the reason for its original purpose. The 1195 acres acquired by the Wildlife Board during the past twenty years was intended to serve as an effective barrier between the SJWA and the development expected to occur north of the SJWA area (the present mixed use Moreno Highlands Specific Plan)....(DEIR pg. 4.4-16)
4.4.1.18 OTHER USES
a. Setbacks

In evaluating the potential impacts of project development on the SJWA and Mystic Lake, it will be important to consider that the CDFW Conservation Buffer was originally purchased by the state to provide a buffer between the SJWA/Mystic Lake and future development within the Moreno Highlands Specific Plan (now the proposed project area) (DEIR pg. 4.4-51).[9]

B. "[A]n accurate project description is necessary for an intelligent evaluation of the potential environmental effects of a proposed activity." (*San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal. App. 4th 713, 730.) The characterization of the May 18, 2001, Wildlife Conservation Board (WCB) land acquisition for the expansion of the San Jacinto Wildlife Area (SJWA) as the "CDFW Conservation Buffer Area" is in error. Neither are the DEIR statements recounted above 6

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[5] The WCB purchased these lands in 2001. 7

[6] The Moreno Highlands Specific Plan expired in 2011. 8

[7] In 2001 the WCB purchased, in fee, approximately 1,000 acres of land as an <u>expansion</u> of the SJWA. 9

[8] Because the DEIR defines the project as including 1195 acres of the SJWA, the SJWA is defined as being located south of itself. 10

[9] This is a misrepresentation. The lands were acquired in fee by the WCB in 2001 as an expansion to the SJWA and for the <u>restoration of habitat for threatened and endangered species and for the purpose of promoting the recovery of those species.</u> 11

or the project consideration and impact analysis as to these critically important wildlife conservation land in accord with the facts. 6

For inclusion in the Administrative Record, we have attached a copy of the Wildlife Conservation Board minutes of May 18, 2001, (Attachment # 1) Agenda Item # 31, San Jacinto Wildlife Area Expansions 15 through 19, Riverside County reports as follows"

"Mr. Wright reported that this proposal is to consider the acquisition of five separate ownerships consisting of approximately 1,000 acres of land as expansions of the Department of Fish and Game's (DFG) San Jacinto Wildlife Area (WLA), located in western Riverside County."

"Acquisition of the proposed expansions will allow for the protection of Mystic Lake and its associated upland habitat which is important to a number of sensitive plant and animal species. The upland areas and hills surrounding the lowland flood plain of Mystic Lake are dominated by Riversidian sage scrub and patches of grasslands are found on the uplands and alkali flats. Numerous sensitive plants endemic to the Mystic Lake area, including the thread-leaved brodiaea (state listed endangered and federally proposed threatened), San Jacinto saltbush (federally endangered) and spreading Navarretia (federally proposed threatened)[10] are found on site. The WLA and adjoining lands support 38 species of amphibians and reptiles. Mammal species are well-represented and range from the desert shrew to the southern mule deer. The Stephens' kangaroo rate (state listed threatened and federally listed endangered) is a resident mammal on the WLA." 12

"Since 1982, over 240 species of birds have been recorded on, or adjacent to the WLA. Twenty-two over-wintering raptor species are known to utilize the San Jacinto Valley, including osprey, ferruginous hawk, golden eagle and short-eared owl. The San Jacinto Valley consistently ranks in the top one to two percent in species diversity for the North American Christmas bird counts. Historically, the San Jacinto Valley

[10] These three plants species were subsequently listed by the US Fish and Wildlife Service as federal endangered or threatened plant species and are now included as covered endemic plant species in the MSHCP. 13

has consistently proved to be an important southern California wintering and nesting area for migratory shorebirds and waterfowl. Three federally or state listed endangered birds have been documented on the WLA, including bald eagle, peregrine falcon and the California brown pelican."

"The DFG has identified the subject properties as being within a Significant Natural Area and has recommended the purchase of the property as an addition to the existing WLA. The acquisition of the subject properties are important to the wildlife area as they will serve as a buffer from development north of the WLA and add significant wildlife benefits to the WLA. It is anticipated that the addition of these properties will enhance public recreational opportunities, as the upland habitat and wetland areas are restored. Therefore, consistent with long-range planning purposes, staff of the Board presents the following five proposals for Board consideration:" 12

The minutes of the May 18, 2001, WCB meeting indicates further the wildlife conservation board approved the acquisition of the San Jacinto Wildlife Area Expansions 15 through 19 as proposed and allocated $15,100,000.00 from the Safe Neighborhood Parks, Clean Water, Clean Air and Coastal Protection Bond Act (Proposition 12) sec. 5096.350(a)(3) T & E for the purchase price and associated costs. Excerpts from the text of Proposition 12 (Attachment #2) indicate Sec. 5096.350 made available for expenditure by the Wildlife Conservation Board funds "for the restoration, or acquisition from a willing seller, of habitat for threatened and endangered species or for the purpose of promoting the recovery of those species."

C. The Western Riverside County Regional Conservation Authority (RCA) was created in 2004 to implement the Multiple Species Habitat Conservation Plan (MSHCP) intending to protect 146 native species of plants and animals and preserved a half million acres of their habitat. Of the 1.26 million acres covered by the MSHCP, 500,000 acres, or 40% is designated for preservation. Of that, half a million acres, 347,000 acres or 69% is already conserved as public or quasi-public land. The acquisition of the remaining land (153,000 acres) to establish the ultimate MSHCP Conservation Area is now being implemented by the RCA and is its most important activity. (See attachment # 3—"About RCA" http://www.wrc-rca.org/about_rca.asp 14

The SJWA lands erroneously designated as the "CDFW Conservation Buffer Area" in the Draft EIR were recorded for inclusion in the MSHCP Conservation Area immediately after the creation of the RCA in 2004. Attachment #4 , the RCA "Interactive Map" (www.wrc-rca.org/interactive_map.asp depicts these SJWA lands acquired in fee by the Wildlife Conservation Board (WCB) in 2001 as "RCA Acquisitions" included in the then newly emerging (2004) MSHCP Conservation Area. Attachment # 5, the RCA "Area # 3 Detail 01 (03-01)" [click on interactive map, northern boundary of SJWA] also depicts the WCB lands acquired in 2001 for the expansion of the SJWA as being recorded for inclusion in the MSHCP Conservation Area having a "record date" of 11.2001-6/2003. In addition, the March 19, 2013 letter from Charles Landry, Executive Director of the RCA confirms the SJWA/MSHCP Conservation Area lands erroneously designated and evaluated in the draft EIR as "CDFW Conservation Buffer Area" are now counted and included in the MSHCP Conservation Area (see attachment # 6). 14

The Draft EIR has failed to provide an accurate description of the physical environmental conditions in the vicinity of the project, as they exist at the time the environmental analysis commenced. The environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. CEQA commands (Guidelines 15125) that knowledge of the regional setting is critical to the assessment of environmental impacts. Special emphasis should be placed on environmental resources that are rare or unique to that region and would be affected by the project. The EIR must demonstrate that the significant environmental impacts of the proposed project were adequately investigated and discussed and it must permit the significant effects of the project to be considered in the full environmental context. 15

CEQA commands (Guidelines 15125) further that the Draft EIR shall discuss any inconsistencies between the proposed project and applicable general plans, specific plans and regional plans. Such regional plans include, but are not limited to Wildlife Habitat Conservation Plans and Natural Community Conservation Plans. Because the project applicant's mythical "CDFW Conservation Buffer Area" does not exist, the Draft EIR has failed to meet this burden. 16

The EIR must be re-written with all references to the mythical "CDFW Conservation Buffer Area" removed. The actual environmental setting, with the SJWA/MSHCP Conservation Lands and the natural gas compression plant lands on the southern boundary of the Specific Plan, must be properly analyzed. All Biological Analysis must be based on impacts to the actual SJWA/MSHCP Conservation Lands without reference to the mythical "CDFW Conservation Buffer Area." 16

II. The Draft EIR Fails to Consider the Direct, Indirect and Cumulative Impacts of the World Logistics Center Project on the Stephens' kangaroo rat.

We have attached a copy of the California Department of Fish and Wildlife (formally DFG) **Management Authorization** (May 6, 1996) in order that it is included in the administrative record. We are also incorporating by this reference the *Final Joint Environmental Impact Statement and Environmental Impact Report regarding Authorization for Incidental Take and Implementation of a Long-Term Habitat Conservation Plan for the Stephens' Kangaroo Rat western Riverside County, California-February 1996 (http://www.skrplan.org/index.htm)* and request this document also be included in the CEQA administrative record for this project. 17

The state **Management Authorization** implementing the Stephens' kangaroo Rate Habitat Conservation Plan (SKRHCP) was issued to the Riverside County Habitat Conservation Authority (RCHCA) pursuant to the California Endangered Species Act.(Fish and Game Code: 2080-2085) and the Natural Community Conservation Planning Act. (Fish and Game Code: 2800-2835). The state NCCP Act does not exempt a project in a Natural Community Conservation Planning area from the California Environmental Quality Act (CEQA) or alters or affects the applicability of CEQA (Fish and Game Code 2826). In addition, the California Endangered Species Act (CEQA) specifies incidental take of endangered species **shall be minimized and fully mitigated** and the **mitigation** required for the incidental take **shall** be roughly proportional in extent to the authorized take. 18

Even though the World Logistics Center Specific Plan site and adjoining public lands (San Jacinto/Lake Perris SKR Reserve) is known occupied habitat for the Stephens' kangaroo rat (SKR), the Draft EIR fails to qualify and quantify direct and indirect incidental take this project will precipitate on the endangered SKR. 18
Nor does the CEQA analysis examine measures/alternatives to **minimize and fully mitigate** incidental take. The Draft EIR does not include a cumulative analysis of SKR take. A cumulative incidental take analysis is particularly important because the DFG **Management Authorization** allows the incidental take of one half of the extant SKR populations 15,000 occupied acres) at the time the incidental take permit was issued to the RCHCA. CEQA Guidelines 15065, Mandatory Findings of Significance, requires a lead agency shall find a project may have a significant effect on the environment if the project has the potential to: "threaten to eliminate a plant or animal community; substantially reduce the number or restrict the range of an endangered, rare or threatened species." 19

The Draft EIR consideration of significant project impacts to Biological Resources is just plain wrong. The Biological Resource impact analysis must be redone and recirculated for public comment. 20

Tom Paulek

Tom Paulek, Wildlife Biologist

Susan Nash

Susan Nash, Attorney at Law

RESPONSES TO LETTER G-89

Tom Paulek and Susan Nash (April 5, 2013)

Response to Comment G-89-1. The purpose of the Environmental Impact Report (EIR) is to identify conceptual project related impacts and appropriate mitigation measures at a programmatic level that will reduce the level of impacts to a less than significant level. The Draft Habitat Assessment and (Western Riverside County) Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis (FCS-MBA 2013) provides the necessary information and analysis for the public, lead, and responsible and trustee agencies to make a decision on this project. Project specific impacts and mitigation measures will be analyzed during a project-level California Environmental Quality Act (CEQA) analysis on a project-by-project basis. This EIR is a legally sufficient document to address the program level project as proposed.

Response to Comment G-89-2. The World Logistics Center Specific Plan (WLCSP) does not include any public lands, including any portion of the San Jacinto Wildlife Area (SJWA), as a form of mitigation. The Draft Environmental Impact Report (DEIR) has analyzed the impact of the development, which will take place as part of the WLC project in the California Department of Fish and Wildlife (CDFW) Conservation Buffer Area. The 910–acre portion of the project area owned by the State is being rezoned to "open space." It is CDFW land acquired as a buffer (and for other reasons as well), between the high quality SJWA habitat and any proposed development to the north. Calling it the CDFW Conservation Buffer Area is not inaccurate or misleading, nor is it an intentional misrepresentation. The commenter is referred to Response to Comment Letters G-20-1 and G-71-1 for further discussion.

Response to Comment G-89-3. The commenters are correct that these lands are not a part of the CDFW lands, but are considered a part of the General Plan Amendment. Since the San Diego Gas and Electric (SDG&E) lands are generally within the area outside of the specific plan boundaries and within the General Plan Amendment boundaries as single term was used. The revised Habitat Assessment MSHCP Consistency Analysis (2013) document has made the distinction clearer (see pages 5 and 6). The lands discussed as CDFW Conservation Buffer Area including the SDG&E lands are not a part of the WLC Specific Plan, but are a part of the General Plan Amendment and Zoning changes. There will be no direct impacts to these lands.

Response to Comment G-89-4. The MSHCP Consistency Analysis (FCS 2013) document has made the distinction clearer (see pages 5 and 6). The 1,000-foot Indirect Impact zone is now associated with the edge of the WLC Specific Plan boundaries and extends into proposed conservation areas in order to identify any indirect impacts of the development of the specific plan. Since the lands called the CDFW Conservation Buffer Area are a part of the General Plan Amendment and therefore addressed in the EIR related they fall within areas that require an Urban/Wildlands Analysis according to Section 6.2.4 of the MSHCP. There will be no direct impacts to these lands.

Response to Comment G-89-5. The comment specifically addresses the description of the CDFW Conservation Buffer Area. The CDFW land was incorporated into the San Jacinto Wildlife Area following a sale the subject lands to the State in 2001. The May 18, 2001 Wildlife Conservation Board Agenda (page 43) recommended that 5 separate parcels totaling approximately 1,000 acres (910 acres of which were part of the Moreno Highland Specific Plan) be purchased as expansions of the California Department of Fish and Game's San Jacinto Wildlife Area. "Acquisitions of the proposed expansions will allow for the protection of a portion of Mystic Lake and its associated upland habitat which is important to a number of sensitive plant and animal species." "The DFW has identified the subject properties as being a Significant Natural Area and has recommended the purchase of the property as an addition to the existing WLA. The acquisition of the subject properties are important to the wildlife of the area as they will serve as a buffer from development north of the WLA and add

significant wildlife benefits to the WLA. It is anticipated that the addition of these properties will enhance public recreational opportunities, as the upland habitat and wetland areas are restored."

These parcels, identified in the DEIR as the CDFW Conservation Buffer Area based on the statements from the May 18, 2001 Wildlife Conservation Board Agenda have incorrectly zoned for the past 12 years. The idea of the General Plan Amendment included as a part of the DEIR is to correct this discrepancy and place the lands a permanent open space. The commenter is referred to Response to Comment Letter G-89-2 for further discussion.

Response to Comment G-89-6. This comment calls into question why the CDFW Conservation Buffer Area was not described as being the SJWA and is similar to Comment G-89-2 and G-89-5. See Responses to Comments G-89-2 and G-89-5 for more information.

Response to Comments G-89-7. The commenters are correct that the CDFW Conservation Buffer Area was purchased by the State in 2001.

Response to Comment G-89-8. The Moreno Highlands Specific Plan did not expire in 2011. It remains the current zoning applicable for the majority of the project area, including the 910 acres of CDFW lands referred to as the CDFW Conservation Buffer Area.

Response to Comment G-89-9. The commenter says the state bought 1000 acres as an expansion of the San Jacinto Wildlife Area. While this statement is correct, it is also correct it was purchased from or out of the Moreno Highlands Specific Plan (MHSP) property and the Wildlife Conservation Board action in that regard specifically says it will act as a buffer from planned urban development (i.e., at that time the rest of the MHSP). Please refer to Response to Comment F-10-9 for more information in this regard.

Response to Comment G-89-10. The commenter says the SJWA cannot be south of itself. In Section 3.4.1, *Project Terms*, and at the beginning of each environmental analysis section DEIR (4.1 through 4.16), the relationship of the various properties involved in the WLC project was explained. One of those areas is the 1,086 acres of conservation land owned by the state that is south of the land planned for development as logistics warehousing. The reason the state conservation land is mentioned is that it is being rezoned as part of the discretionary actions requested by the WLC project because at present those lands are still zoned for a golf course and various residential uses under the Moreno Highlands Specific Plan (MHSP). It is unfortunate if the commenter was confused on this point. The DEIR Section 3.4.1 defines the CDFW Conservation Buffer Area as part of the SJWA.

Response to Comment G-89-11. The commenter is only partially correct, the lands were purchased for conservation but the DEIR clearly shows, from the minutes of the Wildlife Conservation Board action, that purchase of the 1,000 acres was not only for conservation but also as a buffer from planned urban development (i.e., at that time the rest of the MHSP)(DEIR Section 4.4.1.10). Please refer to Response to Comment F-10-9 for more information in this regard.

Response to Comment G-89-12. The EIR appropriately describes the purchase of the 910 acres by CDFW.

Response to Comment G-89-13. The DEIR acknowledges that thread-leaved brodiaea, San Jacinto saltbush (crownscale) and spreading Navarretia are now listed species and covered under the MSHCP (See Table 4.4.B of the DEIR). The DEIR and the revised Biological Resources Assessment/MSHCP Consistency document also clearly indicate that there is a low potential for these species to occur within the WLCSP as there is no suitable habitat.

Response to Comment G-89-14. The proposed project simply applies open space designation to lands to the 910 acres of CDFW lands that are currently zoned for mixed use residential designations. The project does not suggest any changes to the MSHCP, the CDFW, the SJWA or any other regulatory program.

Response to Comment G-89-15. Biological surveys were conducted on these lands and recent contact with CDFW on access to the CDFW Conservation Buffer Area for surveys in 2013 was denied. CDFW and the project proponent both acknowledge that no impacts will occur within the CDFW Conservation Buffer Area including the SDG&E lands and the SJWA area. The DEIR and supporting biological technical studies provide an adequate description of the existing environment for all of these areas.

Response to Comment G-89-16. The DEIR discusses consistency with the MSHCP and Stephens' kangaroo rat (SKR) Habitat Conservation Plan (HCP) in Section 4.4.2.3 and Section 4.4.6.2. Since there is no development planned for the CDFW Conservation Buffer Area, there is no consistency issues with the MSHCP and SKR HCP.

Response to Comment G-89-17. The document has been added to the record.

Response to Comment G-89-18. The MSHCP Consistency Analysis (FCS-MBA 2013, FEIR Volume 3 Appendix E-1) document acknowledge that Stephens' kangaroo rat has a high potential to occur within suitable habitat areas of the WLCSP and the WLCSP is within the Stephens' kangaroo rat HCP fee area. Since the project site is not within an SKR Core Area, the project will comply with the payment of fees established in the HCP.

Based on extensive studies of the project site over the past eight years, the WLCSP itself contains very little suitable habitat for Stephens' kangaroo rat and no trapping program is required, since the WLCSP is not within a core conservation area. Since there is little potential to impact SKR the idea of discussion of incidental take should not be necessary. Areas with suitable habitat, in particular the southwestern corner of the WLCSP with suitable habitat was placed as open space. The lands within the SJWA immediately south of the WLCSP have habitat similar to the WLCSP, e.g., disked and dryland farmed areas. Again the potential for Stephens' kangaroo rat is low within the majority of the WLCSP.

Response to Comment G-89-19. Cumulative impacts on all biological species were considered in the DEIR in Section 4.4.7. Since the WLCSP has limited suitable habitat for SKR and the CDFW Conservation Buffer Area lands have similar dryland farming activities, it is unlikely that impacts to SKR outside of those considered in the SKR HCP would occur. The project proponent will be required to pay all applicable fees, like any other group that falls within the SKR HCP and is under the signature of an authorized agency, e.g., the City of Moreno Valley.

Response to Comment G-89-20. The DEIR and the Biological Resources Assessment /MSHCP Consistency document (F FCS-MBA 2013, FEIR Volume 3 Appendix E-1) cover all aspects of the project as required by CEQA. Confusion with impacts to SJWA lands versus lands that have been under dryland agriculture for at least 80 years have been clarified. The WLCSP lands with its long history of agriculture has limited suitable habitat for most species that would be subject to CEQA review. The MSHCP has clear outlines for lands it wished to conserve and the vast majority of the WLCSP does not fall within those areas. Payment of substantial fees to purchase conservation lands to satisfy MSHCP conservation areas will be provided as projects are proposed and additional surveys conducted on each development parcel.

Response to Appendix 1 (Minutes from the State of California, Department of Fish and Game, and the Resource Agency Wildlife Conservation Board meeting on May 18th, 2001). The appendix was directly referenced in the comment letter. The project biologist assumes that the

appendix is intended to provide information regarding the San Jacinto Wildlife Area expansion, which includes the CDFW Conservation Buffer Area. The information was considered in preparing the response to comments.

Response to Appendix 2 (The text of Proposition 2 by the Safe Neighborhood Parks, Clean Water, Clean Air, and Coastal Protection Bond act of 2000). This appendix was directly referenced in the comment letter. The project biologist assumes that the appendix is intended to provide additional information with regard to the specific language in Article 5 –Wildlife Program of the Proposition 12. The proposition states that funds be available for expenditure by Wildlife Conservation Board for the acquisition of land for conservation purposes. The information was considered in preparing the response to comments.

Response to Appendix 3 (A document about the Western County Riverside Regional Conservation Authority). This appendix was not directly referenced in the comment letter. It is assumed that the appendix is intended to provide additional information related to the MSHCP and the Riverside County Regional Conservation Authority (RCA). The information was considered in preparing the response to comments.

Response to Appendix 4 (A document about the Western County Riverside Regional Conservation Authority). This appendix was not directly referenced in the comment letter. It is assumed that the appendix is intended to provide additional information related to the location of RCA Acquisition land as well as Public/Quasi-public lands. The information was considered in preparing the response to comments.

Response to Appendix 5 (A document and map about the Western County Riverside Regional Conservation Authority). This appendix was not directly referenced in the comment letter. It is assumed that the appendix is intended to provide additional information related to the areas already acquired by the RCA for conservation. The information was considered in preparing the response to comments.

Response to Appendix 6 (A reply to the Public Records Act Request for Western County Riverside Regional Conservation Authority by Tom Paulek). This appendix was not directly referenced in the comment letter. It is assumed that the appendix is intended to provide additional information related to the SJWA conservation area. The information was considered in preparing the response to comments.

Response to Appendix 7 (The California Endangered Species Act Management Authorization for Implementation of Stephens Kangaroo Rat Habitat Conservation Plan in Western Riverside County by the Riverside County Habitat Conservation Agency). This appendix was directly referenced in the comment letter. It is assumed that the appendix is intended to provide additional information related to the Stephens' kangaroo rat Habitat Conservation Plan with regard to meeting the requirements of the CDFW. Adherence to the approve SKR HCP Implementing Agreement and Management Authorization will not result in jeopardy to its continued existence. This information was considered in preparing the response to comments.

Letter G-90: Mr. and Mrs. H.W. Wolterbeek (April 8, 2013)

RECEIVED
APR 0 8 2013
CITY OF MORENO VALLEY
Planning Division

April 8, 2013

City of Moreno Valley Community and Economic Development Department
14177 Frederick St.
Moreno Valley, CA 92553

Gentlemen:

As directed by the Guidelines of the Draft Environment Impact Report for the World Logistics Center, persons wishing to make comments on the DEIR, must submit, their comments in writing to the City of Moreno Valley Community and Economic Development Department by no later than the conclusion of the 60-day review period, or by 5:30 pm on Monday, April 8, 2013. These pages are to be considered such a written response to the request for comments, and will address comments on the following topics:

A. Employee Density
B. Wages
C. Occupancy of the WLC
D. Build Out
E. Residency
F. Job-Housing Ratio
G. Trip Generation Rate
H. Cerrell Effect
I. Miscellaneous
J. DEIR

Each of these comments is presented in the corresponding section of this document; i.e. Comment A is presented and discussed in Section A, Comment B in Section B, and so forth. All comments are to be assumed as individual comments, and, as such, each should be considered and answered individually.

This document is our personal opinion on a matter of great importance to Moreno Valley. Any negative comments are not intended as slander or defamation of any person or any organization, but are our opinions of the facts.

Thanking you for the opportunity of commenting the Draft Environment Impact Report for the World Logistics Center to be located in Rancho Belago, Moreno Valley, Ca., we remain,

Sincerely Yours,

Mr. & Mrs. H.W. Wolterbeek
11521 Slawson Ave.
Moreno Valley, CA 92557

CC: Emailed to mvedcommunityforum@moval.org

A: **COMMENT: The number of employees/KSF quoted in the DEIR may be overstated by as much as 26%, and further employee/KSF information must be obtained before proceeding with Phase 2 of the WLC.**

A.1. In Appendix O of the DEIR, the *Fiscal & Economic Impact Study of the WLC document*, Table 4-A and Exhibit 3 of Appendix A , David Taussig & Associates (DTA) uses the employment metrics of **.50 employees/KSF** for Logistics (LD/LL) and **2.5 employees/KSF** for Retail. These amounts are given as sourced from the DTA Public Works Database, which, in turn, is said to be confirmed by *"Employment Density Study" SCAP (2001),* and *"Logistics Trends and Specific Industries," NAIOP Research Foundation (March 2010).*

A.1.a. The DTA Public Works Database seems to be a proprietary database, and its contents may not have been published for general research. If this is the case, then DTA must be faulted as using data which cannot be verified by the research of any person(s) wishing to comment of the validity of the information presented in the DEIR of WLC. Lack of access to this database prevented a validation of the assertion that the WLC would support .5 employees per KSF as stated in the DEIR.

A.1.b Table B-1 (Employment Densities (employees per acre) by Anderson Code) found in the SCAP source cited above (*"Employment Density Study" SCAP (2001))* gives the value of 16.32 employees/acre for the Anderson Code of 1340 (Wholesaling & Warehousing). This, then, is equivalent to **0.37 employees/KSF,** which is 26% less than the .5 employees/KSF used by DTA in its employment metric for the WLC. 1

A.1.c The NAIOP source cited above *("Logistic Trends and Specific Industries")* used inventory, employment and square feet per employee as identified through the Energy Information Administration Commercial Buildings Energy Consumption Survey for 1992, 1995, 1999, and 2003 (the most recent year available at the time of the survey).

A.1.c.(1) The NAIOP source qualified its research results by stating "the limitations of this research result from limited data availability for recent time periods and for more specific building types and characteristics." They continue by stating that "the uncertainty of employment projections, especially from the 2008 base year at the start of the recession, is also an important caveat."

A.1.c.(2). According to the research done for the NAIOP study, "the real estate inventory for logistics buildings (including refrigerated warehouses, non-refrigerated warehouses, distribution or shipping centers, self-storage and flex buildings of 50 percent or more

warehouse and storage activities) ranged from 11.4 billion to 10.1 billion square feet for the four available years of survey information between 1992 and 2003. Employment related to this inventory has ranged from 4.5 million to 6.2 million employees for the same years. The ratio of inventory to associated employment averaged 2,059 square feet per employee with no clear trend in direction, and was 2,241 square feet per employee in 2003, the most recent year." This converts to between **0.49 employees/KSF to 0.45 employees/KSF**.

A.1.c.(3) Attempts to verify this information in the NAIOP source document proved fruitless, since online access to the underlying Energy Information Administration Commercial Buildings Energy Consumption Survey for 1992, 1995, 1999, and 1003 database was unavailable. However, specific Tables and Summary Reports were accessible. Included below is a copy of Table 3 (Building Size Inventory and Employment for Logistics Buildings) from *"Logistics Trends and Specific Industries," NAIOP Research Foundation (March 2010).* 1

A.1.c.(3).a. Table 3 of the NAIOP study is listed below. Note that this table has building size, inventory size, and number of workers.

Table 3 of the NAIOP:

Building Size in Sq.Ft	Inventory in MSF	Number of Workers
1,001-5,000	905	491,362
5,001-10,000	912	493,605
10,001-2,5000	208	961,104
25,001-50,000	1,048	602,526
50,001-100,000	1,494	646,284
100,001-200,000	1,162	454,007
200,001-500,000	1,322	377,733
500,000-1000,000	684	364,879
1000,000+	552	142,317

A.1.c.(3).b. There is also a (Table B14, Part 2) in the EIA Summary Tables, (Floor space for Non-Mall Buildings, 2003) that included data for 10,078 buildings in the Principal Building Activity of Warehouse and Storage. This EIA Table is discussed in Section A.1.c.(4) below.

A.1.c.(4) Definitive data giving the number of workers per floorspace was not directly available in the EIA Summary Tables, however Table B14, Part 2 (Floorspace for Non-Mall Buildings, 2003) included the following data for 10,078 buildings in the Principal Building Activity of Warehouse and Storage:

EIA Summary Table B14, Part 2 , (Floor space for Non-Mall Buildings, 2003):

Building Size in Sq.Ft	Warehouse and Storage (MSF)
1,001-5,000	895
5,001-10,000	868
10,001-2,5000	2,064
25,001-50,000	1,043
50,001-100,000	1,494
100,001-200,000	1,162
200,001-500,000	1,322
Over 500,000	Q

1

A.1.c.(4).(a) These Tables allow direct verification that the information of the two tables probably came from the same source. In this case, the NAOIP Table probably came from an Energy Information Summary Table, or directly from the Energy Information Summary Data.

A.1.c.(4).(b). Note that this table does not include an estimate for the number of workers in these buildings, only the size of the building. (Note that the designation "Q" in the EIA table signifies that data was withheld either because the relative standard error was greater than 50%, or that fewer than 20 buildings were sampled.) Furthermore, even though verification of the number of workers in each

category of building, as stated in the NAIOP document, could not be obtained, it is possible that NAIOP had access to data not generally available to online researchers. However, the qualifier, "Q", above shows that for buildings over 500,000 Square Feet, the Energy Department considers its data "unreliable", and should not have been used by the NAIOP study.

1

A.1.c.(5) Attempts to verify the information regarding the number of employees in Table 3 of the NAIOP study(shown above) were unsuccessful because direct online access to the data for the Energy Information Administration (EIA) Commercial Buildings Energy Consumption Surveys of 1992,1995, 1999, and 2003 was unavailable, However, the EIA did provide some summary tables online, and Table B1, from the EIA, provided the following data for the Warehouse and Storage Subcategory of Principal Building Activity:

EIA Summary Table B1 , (Total and Means of Floorspace, Number of Workers, and Hours of Operation for Non-Mall Buildings, 2003):

Number of Buildings in Thousands	Total Floor Space in Millions Square Feet	Total Number of Workers in Thousands	Mean Square Foot Per Building in Thousands	Mean Square Foot per Worker
597	10,078	4,369	17,000	2,306

A.1.c.(6) The EIA Reports indicate that the **Mean Worker/KSF was .43** for buildings supporting warehouse and storage activities.

A.2. In summary, there exist several estimates for the number of warehouse workers per KSF for the Warehouse and Storage category. The DTA uses **0.5 employees/KSF** based on its apparently proprietary database. DTA supports this number by referencing *"Employment Density Study" SCAP (2001),* which states that the number is **0.37 employees/KSF**. DTA also states that its number is supported by referencing *"Logistics Trends and Specific Industries," NAIOP Research Foundation (March 2010),* which maintains that there are **0.45 employees/KSF**. There does not appear to be a solid, reliable number for the number of employees per KSF for buildings greater than 500,000 Square Feet, and **the number quoted in the DEIR may be may be overstated by as much as 26%.**

1

A3. A better determination of employees/KSF must be made to ensure that Moreno Valley managers can properly plan for the safety, security, and welfare of WLC employees, and for Moreno Valley citizens. It is imperative that more data be obtained before Moreno Valley proceeds with Phase 2. 1

B: **COMMENT: The annual wages/employee stated in the DEIR may be overstated by as much as 26%, and further information must be obtained before proceeding with Phase 2.**

B.1. In Appendix O of the DEIR, the Fiscal & Economic Impact Study of the WLC document, Table 4A states that the average wage of the WLC employees will be **$42,341**.

B.1.a. The wage assumptions are as follows: 90% of all employees will earn $41,229 annually, and 10% of all employees (the managers) will earn $52,346 annually, giving an annual average wage of $42,341.

B.1.b. Table 4A states that this data was obtained for warehouse and transportation workers from *U.S. Census Bureau, Longitudinal Employer-Household Dynamics Reports (California, 2010) for Riverside-San Bernardino-Ontario Metropolitan Area and Riverside County; confirmed by Bureau of Labor Statistics (May 2010*).

B.2. Since Appendix O did not provide adequate specificity of the sources from which the data was drawn, it was impossible to verify the wage numbers.

B.2.a. References to the Census Reports and/or Bureau of Labor Statistical documents, just name the document, without providing any information as to the search criteria used for analysis, nor any specific table numbers or report page which may have been utilized. Appendix O did not define either the various labor codes that were used to arrive at the wage numbers, nor the probable number of workers in each of the various labor codes. This information is crucial in determining an accurate estimate of the average wage earned by the employees, as well as in determining the probability those workers will be located in Moreno Valley, and the potential impact on such items as sales tax revenue to Moreno Valley. 2

B.2.b. Therefore it was necessary to review the entire sourced document and resulted in the conclusion that the Fiscal and Economic Study was either based on erroneous information, or that the study's conclusions were based on an improper data set.

B.2.b.(1). The Census Bureau and the Department of Labor use different codes for the various labor categories. The Census Bureau data base was studied for the Warehouse and Transportation Category Group (Census Bureau codes 48 and 49) for the metropolitan area for Riverside and San Bernardino County in 2010.

B.2.b.(1).(a). The average wage for this category is listed as **$38,463**.

B.2.b.(1).(b). Note that this value is lower by approximately 10% from the $42,341 value in Table 4A of Appendix O.

B.2.b.(1).(c). The decision to use Category Groups 48-49 in the Census Database is valid since these categories are called "Transportation and Warehouse" within that database and Appendix O, Table 4A states that the Census Data was used for the category group "Warehouse and Transportation."

B.2.b.(1).(d). The wage number $42,341 was not reproducible using Census Data for Category Groups 48-49, hence it would appear that DTA did not use these Category Groups. If DTA used other Category Groups for data, it should have specified which Category Groups they were using.

B.2.b.(2). However, note that the 48-49 Category Groups are, in reality, too broad for application to the WLC, since these categories include, for example, aircraft transportation workers, marine transportation workers, etc. The use of category groups in obtaining results from the Census database is too general. Consequently, it is assumed that DTA used more specific categories to obtain their results. 2

B.2.b.(3). In addition, by using various category data, Appendix O should have included an estimate of the number of employees expected to work in the WLC in each category in order to determine a valid estimate of the annual wage.

B.2.c. To determine a better estimate of the average annual wage for the WLC project, wage information from the 2010 Census (the same database used by DTA) for the metropolitan area of Riverside and San Bernardino County for the Census Code 4931 (the code specifically for warehousing and storage employees) was analyzed. This gave an average wage of **$33,504, approximately 21% lower than that stated in Appendix O.**"

B.3. Data was then obtained from the Bureau of Labor Statistics in May 2012 (not May 2010) for the Standard Occupational Classification (SOC) Codes 53-0000 and 43-0000. (The different date of the report is not relevant for the purpose of this wage study since the

wages did not change by 20% between 2010 and 2012). The information was used since the data is more recent and therefore more relevant to Moreno Valley managers.

B.3.a The code 53-0000 was included since this category includes freight and stock material movers. (However, note that while this category group includes truck drivers, it also includes commercial pilots and boat captains.) The code 43-0000 was included since this group includes billing clerks, stock clerks and order clerks. (However, note that this category group also includes postal mail carriers, brokerage clerks and order clerks.)

B.3.b. The annual wage for the code 53-0000 was **$33,940**. Observe that the wage quoted in this Bureau of Labor Statistics for heavy truck/tractor-trailer truck drivers (category 53-3032) was listed at $44,610. Further refinement was obtained for category 53-6099 (generic transportation workers with an average annual wage of $25,870), category 53-5071 (industrial truck and tractor operators with an annual wage of $32,450), category 53-7061 (laborers and material movers with an annual wage of $26,030, and category 53-7064 (packers and packagers with an annual wage $24,080).

B.3.c. Similarly, the annual wage for code 43-0000 was **$34,130**. Wages for this category were not refined since most of these wages average about $30,000 to $34,000, and are not sufficient to raise the average wages to the number quoted in the DEIR. 2

B.3.d. Note that most of the workers in the 43 and 53 labor standard category group classifications do not earn over $40,000. It was not possible to duplicate the stated average WLC wages of $42,341. Again, it must be stated that DTA must define the labor categories used in the WLC report and specifically should refine the data to include probable numbers of each category. If that cannot be done, than the data from the generic category groups 43 and 53 must stand as valid and that the estimate of $42,340 in Table 4A of the Fiscal Impact Study is wrong.

B.4. The quarterly Publication of the University of California, Riverside, Volume 5, Issue 2, Summer 2012, states that the warehouse industry in the Inland Empire, hired about 114,000 workers in Riverside and San Bernardino counties in 2010. The document continues that most of these workers are Latino, of which half are immigrants. It states that most of these warehouse workers are temporary workers who lack benefits and are paid low wages, without benefits, and work in an unsafe and unhealthy environment.

It also states that most of the region's warehouse workers are employed through temporary employments services. This study references information from Allen 2010, and Delara 2009. It further states that the median hourly wages (i.e. half of the workers earn less than this amount) in the Inland Empire range from $9.11 to $13.08. This implies an **annual wage of $17,500 to $25,000**. The UCR study also stated that

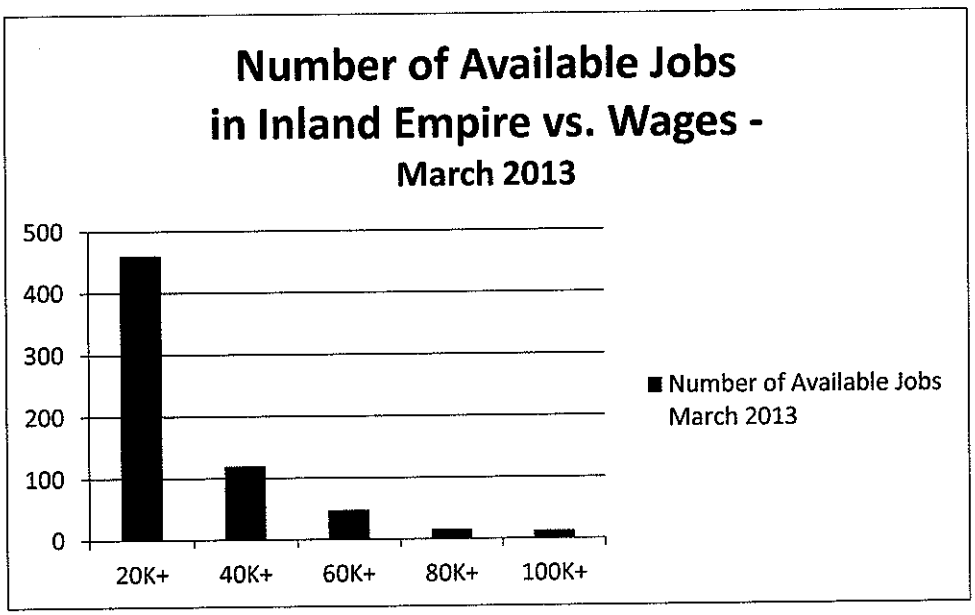
temporary workers are frequently paid less than this (41% of these blue-collar workers are paid less than $10.50 per hour (Bonacich and DeLara 2009)).

B.5. In an attempt to test the validity of the premise that most workers at WLC will be earning wages of approximately $20,000, an empirical data test (thought experiment) was performed on March 29, 2013, by the commentator. A data set of actual job openings in the warehouse/storage industry, within a radius of 25 miles of Moreno Valley, was obtained from the *Indeed.com* website.

B.5.a. The obtained data set resulted in 640 job openings with a wage distribution that included a typical wage distribution pattern that one might expect when setting up a warehouse. The data distribution should be considered typical of the WLC wage distribution in current dollars. The following table and chart summarize that data:

Wage Range	Number of Available Jobs March 2013
20K+	461
40K+	120
60K+	48
80K+	16
100K+	13

2



B.5.a.(1). The weighted average wage was calculated to be **$29,605**. Note that the total number of available positions was 658. This is a

sufficiently large statistical sample to be considered a valid forecaster of the anticipated wage pattern of the WLC in current dollars.

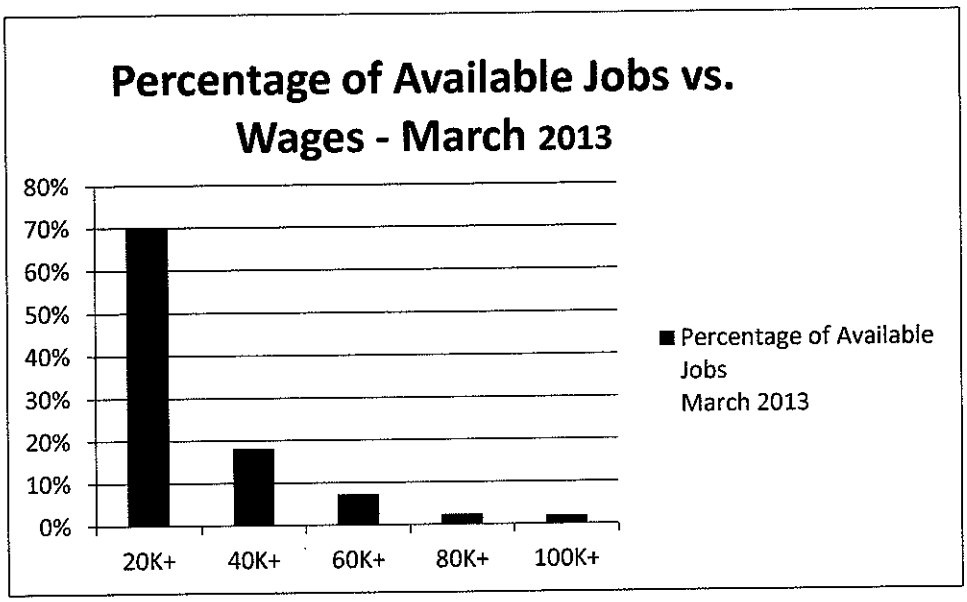
B.5.a.(2). A smaller subset was obtained from openings on that date in Moreno Valley. This is shown in the table below:

Wage Range	Number of Available Jobs March 2013
20K+	23
40K+	10
60K+	6
80K+	0
120K	1

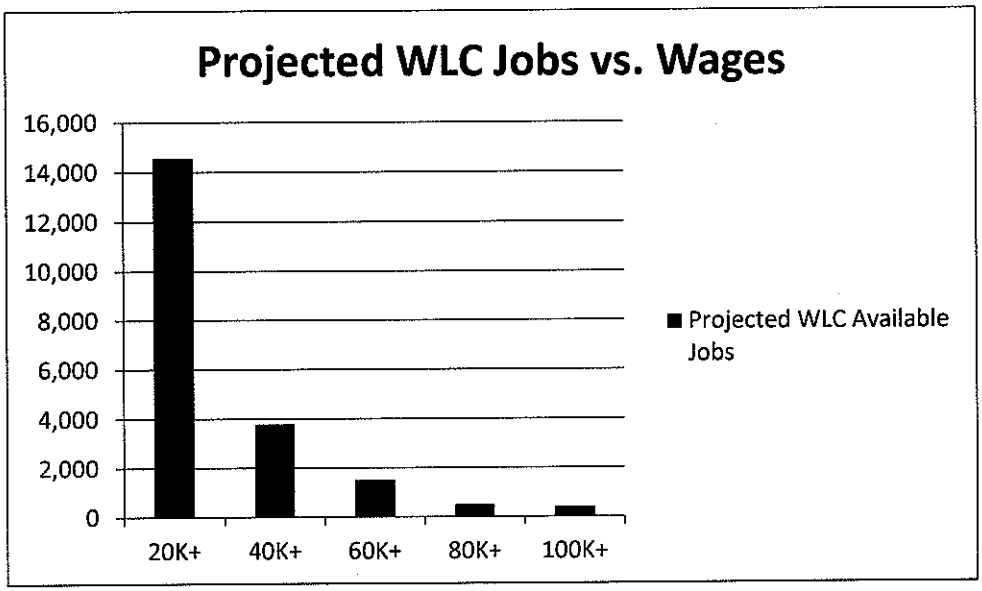
B.5.a.(3). Since it is very probable that most of this data was probably included in the data for openings within 25 miles, this data will not be counted separately, even though this data set has a higher mean wage of $33,500.

B.5.b. Continuing with the empirical test, the ratio of job numbers versus wages can be applied to the projected WLC employment. 2

B.5.b.(1). The following chart shows the empirical text percentage data:

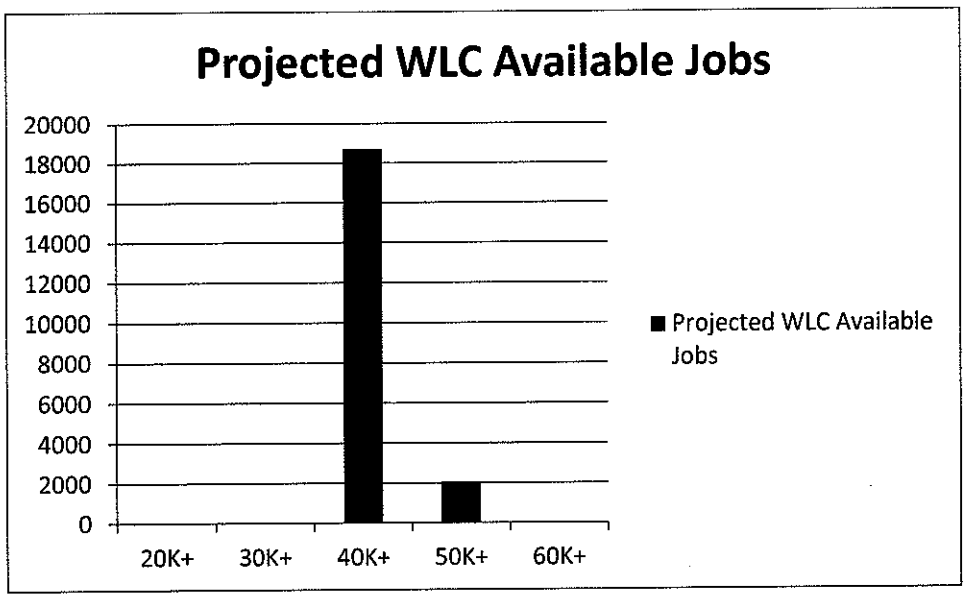


B.5.b.(2). Assuming that there are 20,808 actual jobs available in the WLC, and applying these percentages to the WLC employment projection, we have the following results:



B.5.b.(3). This gives an average projected wage for all WLC employees as **$39,407. However the majority of employees would be earning approximately $30,000 or less.**

B.5.b.(4). The DTA wage breakdown, as taken from *Appendix O of the DEIR, the Fiscal & Economic Impact Study of the WLC document, Table 4A*, is provided in the following chart. 2



B.6. In conclusion it appears that the wage numbers for WLC workers in 2013 dollars is much less than $42,341 as presented by Appendix O. Indeed, it appears from this analysis, as well as from the empirical experiment, and from extrapolation from the UCR study that

the **annual wages/employee stated in the DEIR may be may be overstated by as much as 26%.**

B7. In order for Moreno Valley to better understand the true economic impact of the WLC on Moreno Valley, better wage information must be obtained before proceeding to Phase 2.

2

C: **COMMENT: The DEIR must include realistic projections of occupancy of the WLC over time. The projection must include considerations of fluctuations in the economic conditions of Southern California.**

C.1. The DEIR Fiscal and Economic Impact Study (Appendix O) assumes full occupancy for its validity. This is unrealistic. The following discussion shows that full occupancy of the buildings of Phase 1 will probably not be completed until the ninth year after the first buildings of Phase 1 begin to be occupied. The discussion shows that occupancy of Phase 2 buildings is not needed until the ninth year after the first buildings begin to be occupied. It is imperative that the DEIR include a realistic projection of the probable occupancy over time. This projection must include assumptions of economic conditions of Southern California as they may affect the WLC.

C.1.a. No project as large as the WLC can be fully occupied from day one. This is unrealistic. In addition, the DEIR does not include anticipations of the reasonable effects on the WLC of variations from the probable economic fluctuating conditions for the next 15 years.

C.1.b. Because the DEIR states that the WLC is aimed at Southern California markets, which in turn depend heavily on the health of the rest of the United States, the DEIR must address the potential economic effects of the Southern California economy on the occupancy rate. 3

C.1.c. It is imperative that the Moreno Valley City Council require that the DEIR be modified to include a realistic determination of the probable occupancy of the WLC buildings over the next 15 years.

C.2. The DEIR states that the WLC in Moreno Valley will consist of 41.6 million square feet of warehouse buildings, of which 41.4 million square feet will be devoted to high cube industrial warehouses. The minimum size of these high cube buildings will be 500,000 square feet.

C.2.a. For lack of further definition of the specific size of individual high cube buildings, the following analysis assumed that the WLC will have 80 tenants of 500,000 square feet and one tenant of 1.6 million square feet. This analysis will only address the occupancy rate of the 500,000 square ft buildings, and will not address the occupancy rate of the 1.6 millions square feet building.

C.2.b. The DEIR states that the First Phase of the build out, consisting of about half of the project, will be completed by 2017. The Second Phase of the build out is scheduled to be completed by 2022.

C.2.b.(1). The city and the owner of the WLC property will need to aggressively market those 80 buildings to tenants who not only can

afford the operational cost of a 500,000 square foot building in Moreno Valley, but also can set up the necessary logistics to make the buildings economically profitable.

C.2.b.(2). Several assumptions were made for a reasonable occupancy profile for the WLC.

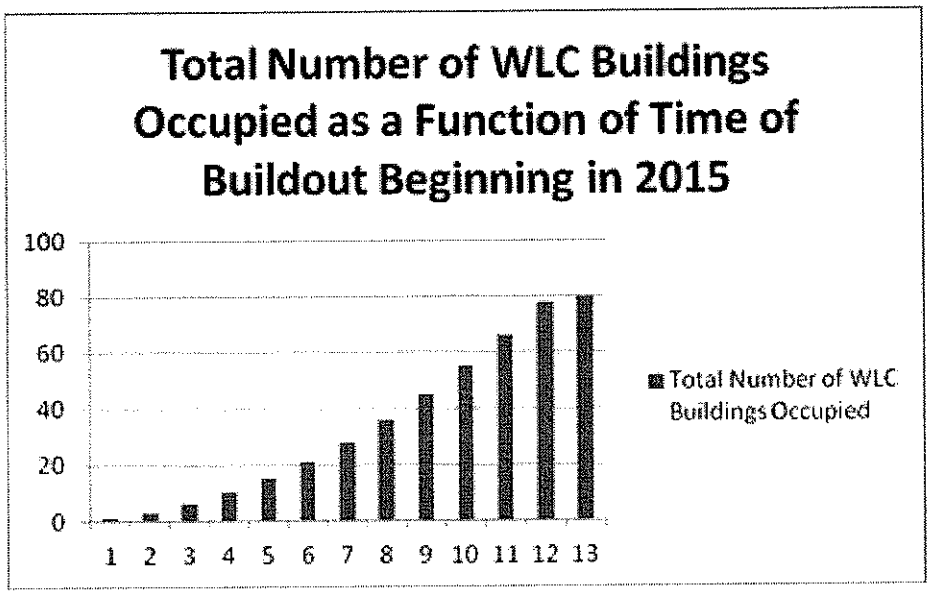
C.2.b.(2).(a). The first assumption made was that even though Phase 1 is not completed until 2017, the project can receive the first tenants in 2015.

C.2.b.(2).(b). The second assumption was an equation for the probably occupancy rate of the WLC over time.

C.2.b.(2).(b).1. Assumptions of quadratic or exponential occupancy curves, for the occupancy rate over time discussion, appear unreasonable. Even a linear occupancy curve, where the number of buildings occupied is equal to 5.5 times the number of years after 2015, is unrealistic, since it is logical that it will be easier to find tenants once the WLC has buildings already occupied. That is to say that it is not logical to assume that the same number of new buildings will be occupied in 2026 as will be newly occupied in 2016. — 3

C.2.b.(2).(b).2. Probably a more realistic assumption is a projection that the warehouse occupancy increases each year at a rate of [1+x] where x is 0 for the first year (2015), one for the second year (2016), etc., until full occupancy.

C.2.b.(2).(b).3. The following chart depicts such an occupancy rate.



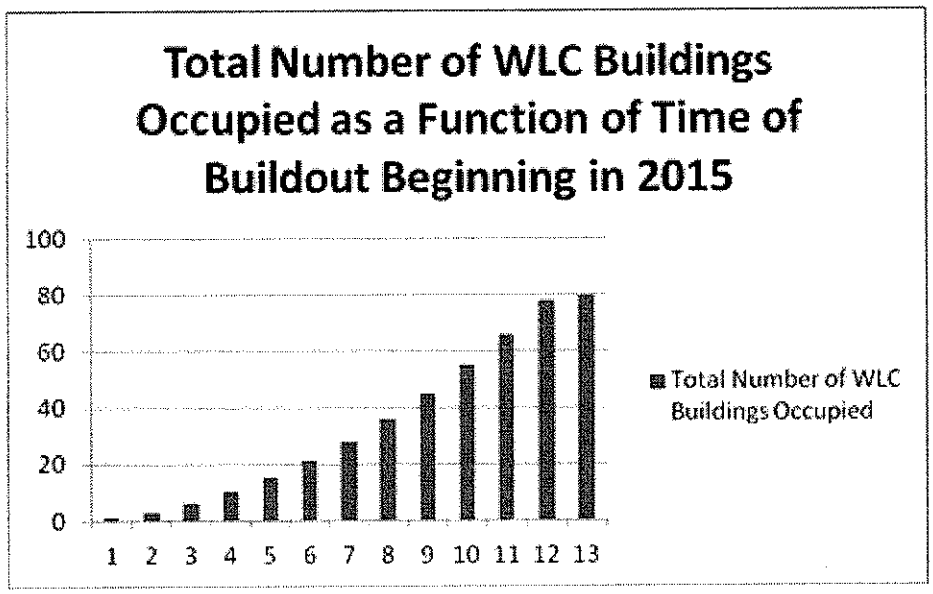
C.2.c. This graph shows the WLC build out as a function of time between 2015 and 2027, where 2015 is year 1, 2016 is year 2, etc.

C.2.c.(1). The graph shows that with this build out, the WLC will, assuming excellent economic conditions, be fully occupied in 2027. Note that this occupancy rate would be significantly affected if the nation's economy goes through one or more recessions. The effect of such recessions is not included in this analysis. The probability is very great that any economic slowdowns could extend the date of full occupancy well into the 2030's. This, therefore, implies that the WLC will probably have empty warehouse buildings well into the 2030's. 3

C.2.c.(2). The bar graph shows that the WLC will not reach full occupancy of the projected Phase 1 build out (40 buildings) until 2023. Note that in 2020, (year 6 in the above chart), approximately 20 buildings constructed in Phase 1 may be occupied. Or put another way, 20 buildings from Phase 1 may still be empty.

D: **COMMENT: Phase 2 build out does not need to start in 2017. The occupancy rate will be sufficiently low that Phase 2 can be delayed until 2021 or 2022.**

D.1. Comment C (above) discussed the projected occupancy of the WLC as:



D.2. This graph shows the WLC build out as a function of time between 2015 and 2027, where 2015 is year 1, 2016 is year 2, etc. 4

D.2.a. The graph shows that with this build out, the WLC will be fully occupied in 2027. Note that this occupancy rate would be significantly affected if the nation's economy goes through one or more recessions. The effect of such recessions is not included in this analysis. The probability is very great that any economic slowdowns could extend the date of full occupancy well into the 2030's. This, therefore, implies that the WLC will probably have empty warehouse buildings well into the 2030's.

D.2.b The bar graph shows that the WLC will not reach full occupancy of the projected Phase 1 build out (40 buildings) until 2023.

D.3. Furthermore, this graph shows that since full occupancy of the projected Phase 1 build out (40 buildings) won't be reached until 2023, buildings from Phase 2 won't be needed until 2024. Therefore the **Phase 2 build out does not need to start in 2017**, but, indeed, can be delayed until 2021, even 2022.

E. **COMMENT: Moreno Valley must make concessions to prospective WLC occupants to induce the hiring of existing Moreno Valley residents, since non-Moreno Valley residents will not relocate to Moreno Valley, and thus will not reduce commuting.**

E.1. According to the DEIR (Page 57, Appendix L, Traffic), "One consequence of the existing imbalance between jobs and housing is that a large majority (70%) of Moreno Valley workers commute to jobs outside the city, and in many cases far outside the city. According to the U.S. Census Bureau, 21.7% of Moreno Valley workers currently commute more than 50 miles one way to work, and another 20.8% drive 25 to 50 miles one way. Nearly four out of five Moreno Valley workers drive to work alone. Since other Inland Empire cities have similar commute characteristics, the resulting transportation pattern is one of heavy westbound flows in the morning and eastbound flows in the evening, overwhelming the freeway system during peak commuting hours. Another consequence is the high cost of commuting both in terms of out-of-pocket expenses and reduced quality of life for the commuters and their families."

E.1.a. The DEIR implies that one consequence of bringing 20,000+ jobs to Moreno Valley is the decrease in commuting distances, thereby alleviating congested freeway traffic patterns. 5

E.1.b. The *Claremont McKenna College – UCLA Inland Empire Forecast, October 2012*, study states that workers that are more than 50 miles away from the Los Angeles county line are not concerned about employment in Los Angeles; instead they are concerned about jobs within 50 miles of their residence.

E.1.b.(1). It can be inferred from this study that most people will not relocate to another residence (closer to their place of employment) if the job is located within 50 miles from their home. This implies that workers at WLC whose residence is within a reasonable driving range (say 25 to 50 miles) from the WLC will not relocate and will not become Moreno Valley residents. Hence those employees

will not have any direct effect on traffic pattern changes.

E.1.b.(2). The DEIR (Page 21, Appendix O, Fiscal/Economic Impact) states that "because the Center does not involve a residential component, the jobs generated by the Center do not need to support new households as a result of direct or indirect employment." This can be taken to imply that the DEIR agrees with the fact that most WLC employees will not relocate to Moreno Valley.

E.1.b.(3). It is necessary that Moreno Valley make concessions during discussions with potential occupants of the WLC, to induce those companies to hire Moreno Valley residents. This will help improve the Moreno Valley unemployment rate and help reduce traffic in Riverside County. 5

E.2. No evidence is given that simply by establishing 20,000+ new jobs in Moreno Valley at the WLC there will be any significant freeway traffic pattern changes due to commuting employees. In fact, the reverse is true, and there is a study (*Claremont McKenna College – UCLA Inland Empire Forecast, October 2012)*, which indicates **that employees will travel up to 50 miles one way for jobs.**

F. **COMMENT: The DEIR needs to state explicitly that even though the WLC may improve the Job-Housing Ratio, it may not improve the job situation for Moreno Valley residents.**

F.1. Many Moreno Valley residents are of the opinion that the WLC will bring jobs to current Moreno Valley residents. While it is possible that some Moreno Valley residents will have jobs at the WLC, it is highly probable that most WLC jobs will go to non residents of Moreno Valley.

F.1.a. The DEIR (Page 21, Appendix O, Fiscal/Economic Impact) states that "at build out, the Center will significantly affect the Jobs-Housing balance". It is true that if Moreno Valley gets more jobs and if no new housing is built, then the ratio of jobs to housing improves from its current value. However, this ratio is deceiving for Moreno Valley residents, many of whom assume that this means that Moreno Valley residents will get the new jobs.

F.1.b. This is validated by the fact that when Sketchers shuttered several places in the Inland Empire in order to relocate to Moreno Valley, the new facility, apparently, hired only one more Moreno Valley resident.

F.1.b.(1). Mayor Stewart is quoted in a Press Enterprise article of February 1, 2012 that "he knows of one Moreno Valley man who was hired for an engineering job". — 6

F.1.b.(2). In the same article, Moreno Valley's Economic Development Director Foster was quoted "that ...the last time I talked to them they said 600 jobs, and said a lot are coming from Ontario."

F.1.b.(3). The article also states that "Foster ... know[s] of no local recruitment events by the company".

F.1.b.(4). As discussed in Section D.1.a.(2) and D.1.a.(2).a,. given above, **employees will travel up to 50 miles, one way, for jobs, and the establishment of 20,000+ new jobs in Moreno Valley, in the WLC, does not imply that these new position will be filled by Moreno Valley residents.**

F.2. The DEIR needs to state explicitly that even though the WLC may improve the Job-Housing Ratio, it may not improve the job situation for Moreno Valley residents.

F.2.a. Moreno Valley residents need to be educated on this fact by the Moreno Valley City Council.

F.2.b. While the Moreno Valley City Council cannot force occupants of the WLC to hire Moreno Valley residents, the city needs to make concessions during discussions with potential occupants

that will entice them to hire Moreno Valley residents. As noted above, Sketchers, apparently, did not attempt to hire Moreno Valley residents via recruitment events. 6

G: **COMMENT: The Trip Generation Rate Parameter in the WLC is overly pessimistic for Traffic Data, and is questionable for Air Quality Data. The data from the DEIR is suspect and may result in improper mitigation measures. In order to evaluate the actual traffic impact and air quality impact, and thus determine the feasibility of implementing Phase 2, the developer should conduct Air Quality and Traffic Analysis Studies during, and after, build out of Phase 1, and continue while Phase 1 is being occupied.**

G.1. A study was performed by Urban Crossroads in response to a request by Moreno Valley on the *"NAIOP High Cube Warehouse Trip Generation Study", 2011*. This report can be found in *Appendix T, Urban Crossroads Peer Review of the NAIOP Study, 2011*, of the DEIR. It included an excellent summary of various attempts to determine the trip generation rate (trips/1000 sq ft of warehouse or trips/KSF).

G.1.a. Many studies have determined different values for the parameter "trips/KSF", but only a few have included data for facilities greater than 500,000 square ft.

G.1.b The following table summarizes some of these studies, and provides some of the individual characteristics of the data set in these studies. 7

Source of Trip Generation Rates	Reference Number (See Bottom of Section)	Daily Trips/KSF	General Comments
2003 Fontana Study	1	1.97	4 Buildings>200,000 SF and 1 Building>500,000 SF**
2005 NAIOP Study	2	1.096	1 Building>200,000 SF and Two Building Totaling 800,000 SF**
2007 NAIOP Study	3	1.11	4 Buildings >500,000 SF and 9 Buildings approximately 300,000 SF**
2008 ITE, 8th Ed.	4	1.44	11 Buildings >500,000 SF and Occupancy Rate and Rail Accommodations Unknown**
2011 SCAQMD Study	5	2.59	2 Sigma Estimate and Not All Buildings in South California**
2011 NAIOP Study	6	0.99	31 Buildings > 500,000 SF**
2012 ITE , 9th Ed.	7	1.68	National Average Not Related to Southern California and Were Not Automated*
*Comment on 2012 ITE			Source: WLC EIR
** Comment on other entries			Source: Urban Crossroads, 2012

G.2. All the data given in the table above was listed in a study by Urban Crossroads, 2012. In evaluating this data, it becomes clear that there is wide disagreement in the warehouse community regarding the selection of a valid trip generation value. All of the studies prior to 2011 used a very small statistical sample of buildings larger than 500,000 square feet. This is important since it appears to be self evident that buildings of that size have their own unique efficiencies and air quality generation characteristics. It appears that the older studies should be ignored.

G.2.a. The *2011 SCAQMD study* was meant to assess the greater pollution impact of the heavier trucks used by the larger warehouses. The study did include larger warehouses. The study is criticized by the Urban Crossroads study for presenting two sigma trip generation values.

G.2.b. The comment by the DEIR authors consider the *2012 ITE study* invalid for application to the WLC since the *2012 ITE study* included warehouses throughout the country, and because the study included non-automated warehouses. The unstated conclusion here is that the WLC is expected to contain only automated warehouses. 7

G.2.c The *2011 NAIOP study* included 31 buildings greater than 500,000 square feet, but no smaller buildings were included. Even though this study seems to be appropriate for the use of traffic analysis for the WLC, the applicability of the *2011 study* to air quality effects cannot be evaluated at this point.

G.3. Consequently, the fact remains as to which value should be used for air quality assessments and traffic analysis.

G.3.a. The DEIR states that "a decision was made to use the *ITE* rate as a "worst-case" scenario for the WLC project, even though the author disagreed with the *ITE* result. Consequently, the value of 1.68 was used to evaluate both traffic impacts and air quality degradation.

G.3.b. The use of the number 1.68 for trip generation, for traffic analysis, appears to be too high. The number .99 from the *2011 NAIOP study* seems to be more relevant to traffic studies in the Inland Empire, since this study included the

traffic impacts on Inland Empire traffic from 31 buildings greater than 500,000 square feet.

G.3.c. However, the use of the 1.68 parameter in air quality studies may or may not be sufficient. The question seems to be open as to whether the 1.68 value is appropriate or whether the 2.58 value (even though this seems to be a two sigma value) is better for Moreno Valley. Since the .99 value seems to be appropriate for traffic studies, which included heavy trucks, the value of .99 may be proper for air quality. More data is needed.

G.4. There currently is no data available to help the City Council determine a true cost/benefit analysis based on the fact that some of the "cost" drivers are not just financial, but also social in nature.

G.4.a. It is important that the dual "cost" drivers on the environment and the traffic degradation be fully understood because each of these can cause the City, County, and State, to perform costly mitigation measures that are either inadequate or are "overkill". 7

G.4.b. For example, one valid question is whether air filters are measures needed for Moreno Valley schools? Similarly, are all anticipated traffic mitigation efforts really necessary? Each of these components has a cost impact to the City, County, or State.

G.5. It is recommended that, as a condition for development, the WLC developer obtain and install appropriate traffic monitors at appropriate locations in Moreno Valley and Riverside County, and that the collected data be reviewed and used by proper government agencies to make appropriate decisions relating to traffic scenarios.

G.6. It is recommended that, as a condition for development, the WLC developer obtain and install appropriate air quality monitors in the Moreno Valley area for use by the SCAQMD for evaluation of air quality degradation due to the WLC project.

References:

1) *Trip Generation Study (August 2003), Page 1*

2) *San Bernardino/Riverside County Warehouse/Distribution Center Trip Generation Study (2005)*

3) *Riverside County Warehouse/Distribution Center Vehicle Trip Generation Study (2007)*

4) *Trip Generation Manual (8th Edition 2008), Page 272*

5) *NAIOP High-Cube Warehouse Trip Generation Analysis (2010)*

6) *Large Warehouse and Distribution Center Trip Rates (SCAQMD 2011)*

7) *Trip Generation Manual (9th Edition 2012)*

H. COMMENT: **The potential "Cerrell Effect" of the WLC will reduce the ability of Moreno Valley to attract high-paying jobs of the proposed Medical School of the University of California, Riverside, and will galvanize citizens to become politically active.**

H.1. According to the 1984 report *"Political Difficulties Facing Waste-to-Energy Conversion Plant Siting" by* Cerrell Associates, Inc., the California Waste Management Board commissioned the consulting firm of Cerrell Associates to define communities that won't resist siting of LULUs (Locally Undesirable Land Use). This was done to combat the offensiveness displayed by local citizens when a "trash dump site" was to be created in their neighborhood. Since then, the term "LULU" has evolved into an idiom connotating any land usage which the general populous considers as undesirable for the local community. And similarly, the "Cerrell Effect" describes the fact that proponents of some projects face the strong public opposition to these projects.

H.1.a. The Moreno Valley City Council, in conjunction with the WLC, is attempting to change the Moreno Valley Specific Plan to bring a LULU to this city. The added noise, pollution, and traffic which the WLC will bring to Moreno Valley is not in the interest of the citizens of Moreno Valley. 8

H.1.a.(1). By devoting a large portion of the city to warehouses, the City Council is condemning Moreno Valley to becoming a "lower class city", where new residents will think twice before relocating, and the current residents will be looking to move "up in the world" to other cities. The City Council is creating a LULU.

H.1.a.(1).(a). Instead of enticing the graduates of the proposed Medical School of the University of California, Riverside Campus, to live and work in Moreno Valley, the City Council is saying that we are more interested in bringing 20,000 low-paying "blue collar" jobs to the city, with no guarantee that any of our local

businesses will see a real increase in long-term revenue.

H.1.a.(1).(b). The city is touting its plans for a large bio-technical research development within its borders. This goal will not come to fruition if the WLC is built. These developments will seek sites in more prestigious locales, like Redlands, Corona, or even Orange County. Instead of helping Moreno Valley grow, the LULU will keep the city a "small, blue-collar, town" with bad air and bad traffic

H.1.a.(2). And while the Moreno City Officials are eyeing the projected $5 million in excess city revenue as a blessing which could be used to possibility increase city employee wages and benefits, and to build the city infrastructure, (i.e., a beautiful symphony hall or performing arts center, etc.), they are ignoring the fact that long-time residents want a respectful, safe, city, where their families can enjoy the good air and open environment. 8

H.1.b. Since the WLC will be offering jobs typically associated with low education, Moreno Valley runs the risk of seeing more homeless or poor immigrants coming to the city. This will increase the need of providing assistance in food and shelter for some. Charitable organizations, like the Salvation Army, currently are not getting donations to support the current need, let alone an increase caused by the LULU.

H.2. As the "Cerrell Effect" takes hold, more citizens of Moreno Valley will become vocal. Citizen Interest Groups will increase. More citizens will become politically active, and many will become motivated to seek election on the basis that they do not support the LULU. When the "Cerrell Effect" maximizes, current elected city officials may see their chances of re-election being minimized, and notice a real backlash from the voting public.

I: COMMENT: **If the Moreno Valley City Council elects to proceed with the build of Phase 1 of the WLC,**

a. **It is recommended that the Council only approve Phase 1,** 9

b. **It is recommended that the Moreno Valley City Council not commit to any changes to the Moreno Valley Planning Document that would prevent the City from not continuing with Phase 2,** 10

c. **It is recommended that there be a data collection period of environmental, traffic, economic, and social data during the build out of Phase 1 and after the completion of Phase 1 for approximately three years,** 11

d. **It is recommended that another EIR be developed and evaluated in 2020,** 12

e. **It is recommended that the Moreno Valley City Council then use this second EIR before deciding whether to continue with Phase 2.** 13

I.1. There are many different values that can be used to estimate the number of truck trips and car trips at the WLC facility. It was observed during recent analysis that even studies from 2011 and 2012 give conflicting information on the expected number of trips/Kilo Square Foot or trips/KSF of warehouse space.

Since this figure is used to estimate the impact on the WLC traffic, as well as on the Moreno Valley air quality, a reasonable man would conclude that additional information is needed for Moreno Valley officials to properly assess the impact of the WLC on both air quality and traffic conditions. Arbitrary use of the number 1.68 will probably result in an overestimate of traffic impact, while its use in estimating air quality is uncertain. 14

I.1.a. It is recommended that Moreno Valley require the developer of the WLC to obtain air quality sensors in Moreno Valley and traffic density evaluation sensors at appropriate locations around Moreno Valley beginning in 2013. It is further recommended that these sensors be operated by the developer for various government agencies, or that the developer turn these data sensors over to the appropriate government agencies.

I.1.b. It is recommended that Moreno Valley and other government agencies collect and evaluate this data beginning in 2013, in order to determine better estimates for trip generations at the WLC during the build out of Phase 1, as well as during the beginning of occupancy of Phase 1 buildings. Since only a few buildings will be occupied in 2017, insufficient trip rate data during occupancy will have been collected by 2017. It is imperative that the data collection period be extended past 2017. Section D3 shows that delays of the build out of Phase 2 until 2021 or 2022 will not materially affect the occupancy of the WLC. 14

I.1.c. It is recommended that another EIR be developed in 2020, in order to insure that Moreno Valley has good traffic data and environmental data from Phase 1 of the WLC, before continuing with Phase 2.

I.2. The DEIR lists the probable number of employees per thousand square feet (KSF) as .5 employees/KSF.

I.2.a. The David Taussig & Associates (DTA) study of the fiscal and economic impacts, lists the DTA Public Works database as a basic source for its estimate of .5 employees/KSF at the WLC. This database was inaccessible for online review by this author, and is probably a proprietary database. If the database is not proprietary, this database should be an online database. If the database is online, the DTA document should have indicated the website for that database.

I.2.b. Reviews of the reference data sources indicate that the DTA value could not be verified. It is possible that the number may be as low as .37, or as high as .49 15

I.2.b.(1). It appears that a reasonable man might conclude that the attained value in the DTA study in the DEIR cannot be relied upon for estimates of the number of employees in the WLC.

I.2.b.(2). It is imperative that employment data must be collected once buildings begin to be occupied, to help insure that Moreno Valley officials can adequately plan for WLC impacts relating to economic, safety, and welfare. The collected data should be included in a subsequent EIR for the WLC.

I.3. The DEIR is very optimistic in that all presented data in the document is based on a nearly 100 percent occupancy, without regard to the potential economic fluctuations in Southern California. This is unrealistic.

It is imperative that Moreno Valley obtain realistic estimates of the impact of economic fluctuations on the occupancy of the WLC. Recent history has shown that recessions can severely impact the economic health of Southern California, of the Inland Empire, and of Moreno Valley in particular. Even at this date, in 2013, the economic future of the Inland Empire is in question. It is imperative that any future EIR include an estimate of the probable effect on the WLC, and therefore, on Moreno Valley due to economic fluctuations. 16

I.4. Phase 1 build out will be completed in 2017. During this phase, about 40 buildings of 500,000 square feet will be built. It is planned that another 40 buildings be built during Phase 2. The planned start date of Phase 2 is 2017; the planned completion date of Phase 2 is 2022.

An estimate was made of the probable occupancy of the 80 buildings of the WLC. This estimate indicated that the 40 buildings of Phase 1 will probably not be occupied until sometime in 2023. This indicates that Phase 2 does not need to be available for occupancy until sometime in 2023. Consequently, a delay of Phase 2 will not materially affect the marketing of Phase 2o buildings. 17

I.5. It is recommended that there be a data collection period of environmental, economic, and social data both during the build out of Phase 1, as well as a period of approximately three years after the completion of the build out of Phase 1. It is important that such data be collected during the initial occupancy of the WLC buildings, and be included in the subsequent EIR. 18

I.6. It is recommended that another EIR be developed and evaluated in 2020. 19

I.7. It is recommended that the Moreno Valley City Council then use this second EIR before deciding whether to proceed with Phase 2. 20

J. COMMENT: **The DEIR was an excellent report. Specifically, the traffic analysis was thorough and well done. The major weakness of the report was that some major conclusions were made on some old or proprietary data.**

RESPONSES TO LETTER G-90

Mr. and Mrs. H.W. Wolterbeek

G-90-0 Summary

In summary, the 0.50 employees per 1,000 building square feet figure utilized in the Draft Environmental Impact Report (DEIR) is a conservative estimate that is supported by all of the available documentation, including data published by the Southern California Association of Governments ("SCAG") (Exhibit A see DTA Exhibits on Flash Drive), the National Association of Industrial and Office Parks ("NAIOP") (Table 12 of Exhibit B see DTA Exhibits on Flash Drive), and the U.S. Energy Information Administration (Exhibit D see DTA Exhibits on Flash Drive). Claims in the commenter's letter that the number of logistics employees per 1,000 building square feet should be 0.37, or 0.43 or 0.45 all involve the use of data that has been misinterpreted, either because (i) it refers to square footage of land rather than building square footage, (ii) it is based on an arithmetic miscalculation, or (iii) it reflects employee ratios for all non-mall commercial properties, of which warehouses are only a small portion (12.9%). Additional data is not needed to support the 0.50 employees per 1,000 building square feet.

In terms of World Logistics Center's (WLC) anticipated average employee incomes, David Taussig & Associates, Inc. (DTA) is confident that the $41,076 average income assessment (Exhibit F see DTA Exhibits on Flash Drive) for employees in the Transportation and Warehousing labor category for the Riverside-San Bernardino-Ontario Metropolitan Area (the "Metropolitan Area") according to the U.S. Census Bureau is a reasonable estimate. DTA has conducted additional research and has found similar data validating this average income estimate for Riverside County and for the Metropolitan Area as published by the State Economic Development Department ("EDD") and the U.S. Bureau of Labor Statistics ("BLS") (Exhibits H & G respectively see DTA Exhibits on Flash Drive). Both of these agencies list average incomes in 2012 for both the Warehousing and Storage labor category and the Transportation and Warehousing labor category in 2012 ranging from $40,123 to $41,709, all of which are within 2.3% of the $41,076 figure. These incomes match those for all current City residents, for whom the median income according to the BLS is $40,123. While it is certainly true that many WLC employees may fall into lower income categories, there is no justification for claiming that most jobs in the project are going to fall into the very low income categories cited in the commenter's letter. Furthermore, even these lower income jobs are an important component of the City's economy, as they meet the needs of students and other individuals who are new to the labor market and/or are seeking part-time work due to other obligations, as well as blue collar workers, family members from dual-income households, and other individuals who may be underemployed or unemployed. In any case, additional data is not needed to support an average project income of $41,076.

Response to Comments G-90-1. The analysis included in the DEIR asserts that the project will include 0.50 employees per 1,000 building square feet. These employees are Full Time Equivalent ("FTE") employees, meaning that part-time employees are only counted based on the percentage of 40 hours per week that they are working. It takes two 1/2 time employees to equal one FTE employee. While supporting data indicating the number of FTE employees per 1,000 square feet in a database prepared on behalf of a client is proprietary to that client, we are also basing our conclusion, as explained in the Fiscal and Economic Impact Study included in the DEIR Appendix O on data from the Employment Density Study prepared for the Southern California Council of Governments ("SCAG") in 2001 (Exhibit A see DTA Exhibits on Flash Drive), as well as on information provided in "Logistics Trends and Specific Industries," which was prepared by the National Association of Industrial and Office Parks ("NAIOP") in 2010 (Exhibit B see DTA Exhibits on Flash Drive). While the proprietary database cannot be made public, the point in the DEIR was to rely on the two public studies cited in the previous sentence, both of which are easily found on the Internet. In utilizing the 0.50 employees per 1,000 building square foot figure, the <u>lowest</u> ratio provided by these two public studies was used, thereby reflecting the minimal number of employees that will be generated by the

project. While the commenter's letter cites these same studies, it miscalculates or misinterprets the data to uphold its position that these documents only support 0.37 employees per square foot, thereby alleging that the DEIR figure overstates the actual employee density by as much as 26%. The commenter's conclusions are therefore incorrect, as explained below.

Incidentally, the actual occupancy at the project will likely vary depending on the economic conditions existing at different points in time, with some years providing a greater demand for warehousing than others. Because it is impossible to predict which market conditions will prevail at any given time, the economic impact analysis included in this response is based on the assumption that the project will operate at full capacity. For comparison purposes, the DEIR has been revised to include a discussion of occupancy.

1. Commenter Overlooks Conclusions of SCAG Report and then Misinterprets Building Square Footage with Land Square Footage

The commenter's analysis of the SCAG Report is problematic for several reasons. First, the commenter appears to ignore data in Tables 9A, 9B, 10A, and 10B of the SCAG Report (Exhibit A see DTA Exhibits on Flash Drive) which clearly state that the median building square footage for a logistics employee in Riverside County is 819 to 1,390 square feet, and that the average building square footage for a logistics employee in Riverside County is 581 to 953 square feet. Square footage per employee averages are stated as ranges because the SCAG Report employee density calculations are based on two separate Floor Area Ratio ("FAR") assumptions; the median building square footage (0.31) and the mean building square footage (0.50). However, no matter which assumptions are chosen, the employees per 1,000 building square feet reflected in the SCAG Report far exceeds the 0.50 projection, much less the commenter's proposed 0.37 ratio. For example, using average employees and the average FAR, the number of employees per 1,000 building square feet based on the SCAG Report ranges from 1.05 to 1.72. These figures are more than double the 0.50 assumption, thereby confirming that an extremely conservative position regarding the number of employees to be generated by the project was taken.

Second, the commenter proposes using a 0.37 logistics employees per 1,000 building square feet projection that it claims to have derived from data in the SCAG Report. However, this figure has no validity because it reflects a miscalculation on the part of the commenter. Instead of dividing the SCAG Report's 16.32 logistics employees per acre in Riverside County by the number of building square feet constructed on a typical acre, based on an appropriate FAR for a logistics parcel, the Letter's authors divided the 16.32 logistics employees per acre (Table 10B of Exhibit A see DTA Exhibits on Flash Drive) by all of the square footage in an acre (43,560 square feet). The commenter's 0.37 employee ratio is based on the total square footage of land within an acre, not the building square footage located on an acre, which was the metric that was utilized throughout the DEIR and is clearly shown on the four SCAG tables cited above. Applying a 0.31 or a 0.50 FAR to the 0.37 land-based ratio and employing the identical net acreage and building efficiency factors utilized in the SCAG Report would generate the same 1.05 to 1.72 employees per 1,000 building square feet ratio described above.

2. Commenter Overlooks 0.50 Employees Per 1,000 Building Square Feet Factor Recommended in NAIOP Report

The commenter also overlooks language in the NAIOP Report (Exhibit B see DTA Exhibits on Flash Drive) that directly states that 0.50 employees per 1,000 building square feet is an appropriate number to use for this type of analysis. First, the commenter initially misquotes the range of square footage inventory listed in Table 1 of the NAIOP Study for four measurement years between 1992 and 2003 (8.48 to 11.48 million square feet) and then incorrectly states that these figures convert to between 0.45 and 0.49 employees per 1,000 building square feet. A weighted average analysis of the

figures in Table 1 was prepared and came out with 0.50 employees per 1,000 building square feet, which was the ratio that was utilized in the DEIR. The validity of this calculation is further supported in Table 2 on the following page of the NAIOP Report, which breaks down the logistics employees per 1,000 building square feet by U.S. region, with the "West Region" (in which the project will be located) yielding a ratio of 0.63 employees per 1,000 building square feet, which is also higher than the 0.50 ratio employed in the DEIR.

The NAIOP Report then further validates the 0.50 ratio by stating: "Given the variation, and the lack of data post 2003, the most reasonable assumption for projecting space needs is to use the average of 2,000 for the four measurement years, with the understanding that the reality could cover a wide range." (Page 11, Exhibit B see DTA Exhibits on Flash Drive)

This concept of one employee per every 2,000 building square feet of warehouse is identical to the DEIR assumption of 0.50 employees per 1,000 building square feet.

3. NAIOP Data Sources Cited in DEIR Are Accessible

The commenter claims that the NAIOP support data for the 0.50 ratio could not be located. However NAIOP's main website (http://www.naiop.org) includes a research section that contains detailed reports on the characteristics of industrial warehouses constructed in recent years. There are separate reports entitled "How Office, Industrial and Retail Development and Construction Contributed to the U.S. Economy" in 2010 and 2011. For Table 12 in the reports for 2010 and 2011 from that site (see Exhibit C see DTA Exhibits on Flash Drive) reflect an average of 900 building square feet per employee for warehouses constructed in 2010 (equivalent to 1.11 employees per 1,000 building square feet) and 450 building square feet per employee for warehouse/flex buildings constructed in 2010 (equivalent to 2.22 employees per 1,000 building square feet). Again, these figures confirm that an extremely conservative estimate of logistics employee density was utilized in the DEIR. These figures also mitigate one of the commenter's concerns related to a NAIOP statement circa 2008 that "the uncertainty of employment projections, especially from the 2008 base year at the start of the recession, is also an important caveat." The attached NAIOP tables were prepared after this statement was released and indicate that, if anything, the number of employees per thousand building square feet have increased in new logistics buildings since the recession began.

4. Commenter Cites Non-Applicable Employee Density Data from the Energy Information Administration

Finally, the commenter cites employee per 1,000 building square feet data from an Energy Information Administration ("EIA") Commercial Buildings Survey published in 2003 as contradicting the logistics employee density ratios. However, the EIA data that the Letter cites applies to a whole range of commercial buildings, of which logistics buildings are only a small part. The commenter cites "EIA Summary Table B1, (Total and Means of Floorspace, Number of Workers, and Hours of Operation for Non-Mall Buildings, 2003"), and then claims that "The EIA Reports indicate that the Mean Worker/KSF[53] was 0.43 for buildings supporting warehouse and storage activities." But in actuality, the 0.43 figure in Table B1 reflects the number of employees per 1,000 building square feet for a large variety of types of commercial development, and excludes only retail mall facilities. As evidenced in Table B11 from this same EIA Report (attached as Exhibit D see DTA Exhibits on Flash Drive), out of 4,645 buildings surveyed to generate the 0.43 figure, only 597 (12.9%) were "warehouse and storage" buildings. Also included in the commenter's analysis were 824 office buildings, 443 retail buildings (other than those located in malls), 386 schools, 523 food sales and food service buildings, and many other commercial uses. As a result, the 0.43 employees per 1,000 building square feet estimate generated in the EIA Reports reflects employee density in a range of

[53] KSF= thousand square feet

commercial uses, not just warehouse and storage activities. Therefore, it does not contradict the 0.50 employee density for warehouse and other logistics uses cited in the DEIR.

Summary Response to Comment G-90-1

In summary, claims by the commenter that the number of logistics employees per 1,000 building square feet should be 0.37, or 0.43 or 0.45 are unsupported by any of the documentation provided, and are in fact contradicted by evidence from these same sources. The 0.50 estimate is the most conservative of any of the ratios provided by our documentation, and if anything, the logistics employees density that will ultimately be generated by the project may be higher, particularly with the increasing use of logistics projects for fulfillment facilities, which average higher numbers of employees per 1,000 building square feet. Additional data is not needed to support this conclusion.

Response to Comments G-90-2. The DEIR originally established an average income of $42,341 for warehousing/transportation employees in Riverside-San Bernardino-Ontario Metropolitan Area. This income figure was based on data published in the U.S. Census Bureau's Longitudinal Employer-Household Dynamics Reports and confirmed by the U.S. Labor Statistics in May 2010 (both attached as Exhibit E see DTA Exhibits on Flash Drive). The data available from these two sources was then increased slightly (approximately 3% over the Census income average) to reflect a salary bump for management staff anticipated to be working within the project. However, in deference to DTA's desire to include only conservative estimates, we are eliminating the salary bump from the DEIR, and have rerun our model assuming that the project's employees will earn an average salary of $41,076, as further explained below.

1. U.S. Census Data is Accessible and Supports an Average Warehouse Income of $41,076

While the commenter claims that the data confirming the DEIR average income estimates could not be found on the Internet, such data is actually accessible by entering in Google the title of the U.S. Census Bureau report cited in the Study. The website for "U.S. Census Bureau's Longitudinal Employer-Household Dynamics Reports" includes an LED Extraction Tool that allows the user to access the DEIR average income numbers. Specifically, using the Extraction Tool, a user would choose California, Metropolitan Area, Riverside-San Bernardino-Ontario, Transportation and Warehousing, Male and Female All Ages, Full Quarter Employment Earnings, 1st Quarter 2012. At that point, a spreadsheet appears indicating a monthly income of $3,423 per month over the past twelve months, or $41,076 per year (see Exhibit F see DTA Exhibits on Flash Drive). The $41,076 represents a 3.0% decrease in average salary from the DEIR's $42,341, and reflects the average income figures for the latest reported 12-month period.

2. 2012 BLS and EDD Income Data Support the $41,076 Average Income Estimate for WLC

As reflected in Table G-90.A, below, comparable County of Riverside and Riverside-San Bernardino-Ontario Metropolitan Area average income data for the Warehousing and Storage sector, as well as the larger Transportation and Warehousing sector, provided by BLS and EDD are consistent with the $41,076 average income estimate discussed above. The five average income projections provided by these public agencies range from a low of $40,123 to a high of $41,742, all of which are comparable to the Census' $41,076 average income estimate. As the U.S. Census, EDD and BLS are probably the three most credible sources of income information for the California workforce, to presume that the $41,076 average income figure overstates the anticipated average earnings of an FTE employee, based purely on anecdotal information, would be inappropriate.

Table G-90.A: 2012 Average Income Data For Warehousing Industry Categories From California Economic Development Department And U.S. Bureau Of Labor Statistics

JURISDICTION/INDUSTRY	EDD [1]	BLS [2]
County - Warehousing & Storage	$40,730	$41,709
County - Transportation & Warehousing	NA	$40,658
Metro - Warehousing & Storage	NA	$40,123
Metro - Transportation & Warehousing	NA	$41,742

***County**: County of Riverside* | ***Metro**: Riverside – San Bernardino – Ontario Metropolitan Area*

1. Source: Employment Development Department ("EDD"). 3rd Quarter - 2012 statistics for Riverside County.
2. Source: Bureau of Labor Statistics ("BLS"). 2nd Quarter - 2012 average annual wages for all occupations in each respective sector.

Notably, the greater likelihood is that the $41,076 average income figure understates the average income of future project employees. A typical logistics project does not include only warehousing and storage businesses. It also includes (i) wholesale trade, (ii) courier and messenger companies and (iii) truck and transportation businesses. While it is impossible to project the exact mix of industries likely to locate within the project, an estimate based on the current proportion of total employees that work in warehousing and storage in both Riverside County and in the Metropolitan Area, as compared with the total employees in each of these other three industries was prepared. An average employee income estimate for WLC using a weighted average of all four industries produced average incomes ranging between $44,283 and $49,753, as listed in Table G-90.B.

Table G-90.B: 2012 Average Income Data For All Projected Industries Likely To Locate In World Logistics Center, Based On Current Total County And Metro Employment Data

JURISDICTION/INDUSTRY	EDD [2]	BLS [3]
County - Four Categories (Blended) [1]	$44,283	$46,776
Metro - Four Categories (Blended) [1]	NA	$49,753

***County**: County of Riverside* | ***Metro**: Riverside – San Bernardino – Ontario Metropolitan Area* |

Notes:

1. Average of four applicable sectors defined by NAICS (#42-43 - Wholesale Trade, #492 - Couriers & Messengers, #484 - Truck & Transportation, and #493 - Warehousing & Storage), weighted by the number of employees in each sector.
2. Source: Employment Development Department ("EDD"). 3rd Quarter - 2012 statistics for Riverside County.
3. Source: Bureau of Labor Statistics ("BLS"). 2nd Quarter - 2012 average annual wages for all occupations in each respective sector.

While the FEIR will still utilize the $41,076 average income derived from Census data and further supported by the government data sources reflected in Table G-90.A, there is actually reasons to believe that the average incomes might be higher than $41,076, depending upon the mix of industries ultimately locating within the project.

3. Commenter's Survey of Available Jobs' Salary Levels Does Not Reflect Average Earnings Levels of Employees Working at WLC

The commenter collected salary information on warehouse/storage job offerings in the vicinity of the project by checking on indeed.com for new jobs that are located within 25 miles of Moreno Valley. The results of this salary search were average salaries between $29,605 and $39,407 per year. However, one only needs to review the same Census data previously reflected in Exhibit E (see DTA Exhibits on Flash Drive) and previously considered by the commenter to recognize that the salaries associated with job openings in the Inland Empire are consistently lower than those of permanent employees in that industry. As noted in Exhibit E (see DTA Exhibits on Flash Drive), while the average monthly earnings for the first quarter of 2012 were $3,423 for transportation and warehouse employees in Riverside and San Bernardino Counties, the average new hire earnings in these two counties were only $2,294. This means that the average worker in the transportation and warehouse sector earns almost 50% more than a new employee, which makes complete sense, since most new

employees have less experience and are hired in at lower entry level wages. Since the logistics sector does not only employ new hires, the fact that the commenter's survey of new hires generates a lower average wage than that which is earned by an average logistics employee should come as no surprise. Increasing commenter's survey results by 50% to get to the salary level of an average transportation and warehouse employee would further confirm the higher average salary level utilized in the DEIR.

4. The UC Riverside Publication Data Used by the Commenter to Justify Low Income Distributions for the Project are Not Reflective of the Entire Workforce to be Employed at the Project

The commenter further justifies its projected income distributions for WLC by quoting a UC Riverside publication that states that the hourly wages in the Inland Empire's warehouse industry are allegedly much lower than the figures suggested in the DEIR.

> "T*he median hourly wages (i.e. half of the workers earn less than this amount) in the Inland Empire range from $9.11 to $13.08. This implies an annual wage of $17,000 to $25,000. The UCR study also states that temporary workers are frequently paid less than this (41% of these blue collar workers are paid less than $10.50 per hour (Bonacich and DeLara 2009)."*

Unfortunately, the commenter does not explain how *Bonacich and DeLara* purposefully selected specific segments of warehouse employees for its study. In reality, the intent of the *Bonacich and DeLara* study was to analyze **a specific subset of occupations in warehousing that are categorized as "blue collar"** who in fact earn significantly less than other occupations within the warehousing industry. The occupational titles addressed in the *Bonacich and DeLara* study are: "Shipping, Receiving and Traffic Clerks", "Stock Clerks and Order Fillers", Industrial Truck and Tractor Operators", Laborers and Freight, Stock and Material Movers, Hand", and "Packers and Packagers, Hand." These titles were taken from the Occupational Employment Statistics ("OES") published by the California Employment Development Department ("EDD"). But within the OES, there are actually a total of 56 occupational titles that fall under the "warehouse" category, and the five categories utilized in the Bonacich and DeLara study, which represent 56.2% of the employees working in the Storage and Warehouse category nationally according to May, 2012 released by the Bureau of Labor Statistics[1], are among the lowest paying. Among the 51 positions not included on Bonacich and DeLara's list are skilled mechanics, electricians, plumbers or any white collar positions such as administrative personnel, sales staff, computer professionals, engineers and management, among dozens of others. The Bonacich and DeLara study, even assuming that its income data is accurate, was never intended to reflect the income distribution of all of the employees working in a logistics facility. For the commenter to use this data as a justification for stating that "most workers at WLC will be earning wages of approximately $20,000" is at best disingenuous. To further allege that "most of these workers are Latino, of which half are immigrants" is both irrelevant and inappropriate.

5. A Range of Job Opportunities at a Variety of Salary Levels Will Be Made Available Through the Project

The commenter includes a series of graphs that imply that the DEIR does not recognize that there will be a wide distribution of incomes among workers in the project. The concept of "average" income for an FTE WLC worker was used in the fiscal and economic impact studies for purposes of measuring the total sales tax revenues, economic output and other factors generated by the project, and was in no way intended to imply that every employee will earn the average income. The commenter includes a graph in Section B.5.B (4) that presents the DEIR salaries as two monolithic lines representing average non-management and management salaries, as compared with the commenter's own graph

which includes a distribution of incomes. The former graph misstates the DEIR's position, as we are in complete agreement that there will be a distribution of incomes around our average income figures.

However, the DEIR does not agree with the specific income levels listed and graphs provided by the commenter, as the sources utilized by the commenter to reflect income distributions significantly overstate the low incomes associated with logistics facilities. As explained above, the earnings indicative of new hires in Moreno Valley are much lower than those associated with average employees in a Moreno Valley logistics facility. In fact, the average earnings of a logistics employee are 50% more than the average earnings of a new hire. Therefore, the distribution of average incomes for all logistics employees will typically be 50% higher than the incomes shown in the commenter's income distribution graphs which are entirely based on new hire incomes.

6. Commenter's Average Income Estimate from Census Data Includes Employees Who Worked Only a Portion of the Quarter or Who Worked Part-time

The commenter apparently was able to find the Census Bureau table utilized in the DEIR, but identifies an average wage of $38,463. In reviewing that same table, an income average that was exactly identical to the Letter's $38,463 could not be identified, but was able to come up with a number that was close ($38,652). But that figure is misleading, as it includes the average monthly earnings for the quarter of **all** employees who worked on the last day of the reference quarter. This includes employees who were only employed for a portion of the quarter, as well as part-time workers, so their incomes are not representative of those who were employed full-time for the entire quarter, which is the projected average income used for the project. There are several reasons why the commenter's Census average income figure was not utilized. First, it is likely that some of the employees who only worked for part of the quarter are actually full-time workers and first started their jobs during the quarter, meaning their total earnings for this particular quarter are not representative of their future earnings on the job. The income figure used represents all employees who worked the entire quarter, which is clearly more representative of a FTE employee than the incomes of those who did not work the entire quarter. Second, including the total earnings of employees who worked only part-time over a three-month period leads to an understatement of both the average pay levels of FTE employees, and the average hourly salary paid to workers in the project, since these employees did not work the 520 hours commensurate with a standard quarter. All of the data provided in the DEIR, including the 0.5 employees per 1,000 building square feet assumptions discussed above, refer to FTE employees, which means either full-time employees, or combinations of part-time employees who, when combined, equal one full-time employee. Defining each part-time employee as a separate employee would increase the number of employees per building square foot, but would also be misleading in terms of measuring the actual numbers of employees generated. Similarly, including part-time employees' income in determining average annual incomes would produce average income data that is not reflective of the incomes of the FTE employees who will be working at the project.

Finally, while a certain portion of project employees will earn less than the average projected income because they work part-time or in jobs requiring lesser skills, any implied denigration of this type of work as it relates to the project underestimates its importance. Part-time jobs, for example, make a significant contribution to the local economy and the overall community. These jobs are often the only sources of income for students, working parents with childcare responsibilities, caregivers for elderly relatives, retired persons, employees with other part-time jobs, and individuals who just wish to work part-time for other reasons. In addition, in many cases a part-time job may be held by an individual in a two-income or even three-income household, so the income of the part-time employee is not in any way reflective of the overall economic status of the household to which the employee belongs.

7. Bureau of Labor Statistics Data Sources Cited in DEIR Are Accessible

The commenter asserts that its authors were unable to locate the BLS figures used to project the project's average income levels. This information is available through the main www.bls.com webpage. The main webpage includes a "Databases and Tools" option, and after choosing that option and selecting "State and County Salaries and Wages" and "One Screen Data Search," a Query Tool appears. Using this tool, one needs to select California, Riverside County, Transportation and Warehousing, Privately Owned, All Establishment Sizes, and Average Annual Pay, at which point a listing of average annual pay for this sector from 2001 through 2011 appears (see Exhibit G see DTA Exhibits on Flash Drive). The average salary listed for 2011 is $41,008, which is slightly lower than the $42,301 originally used in the DEIR as a result of the management income bump added. But as noted above, the management income bump has been removed, so that the EIR will now be using the Census' most recent four-quarter income average of $41,076 (see above). This is almost identical to the $41,008 average income figure for the Transportation and Warehouse labor category provided by the BLS, and is therefore a conservative estimate.

Summary Response to Comment G-90-2

The information compiled, as described in the DEIR and this response, is more than sufficient to justify a projected average income level of $41,076 for the project. The data provided by the commenter is not applicable to the broad spectrum of skill levels and experience anticipated for persons employed in the project, and the Census, EDD and BLS documentation discussed in the DEIR and this response clearly support the $41,076 projected average income.

Regarding the issue of WLC employee incomes, one key theme that appears consistently in this section is an inherent bias regarding the characteristics of the employees likely to work in the project. There is an implication throughout the comments that a typical project employee is somehow of lesser economic status than is appropriate for the City. Project employees are assumed to be overwhelmingly entry level, unskilled and/or temporary workers who will earn as little as $9.11 per hour and will be a burden to the existing community. This implication is ironic because, in point of fact, the current median income for a Moreno Valley resident is $40,124 according to the BLS 2007-2011 American Community Survey 5-Year Estimates. While this BLS figure is the median income rather than the average income and therefore is somewhat differently defined, it is informative on a comparative basis that the City's median income is actually slightly less than the $41,076 average income projected in the DEIR for the project. Contrary to the inference by the commenter that the WLC's jobs would somehow constitute a burden on the City, it appears that the incomes associated with these jobs are similar to the earnings of current Moreno Valley residents, many of whom are likely to be attracted to these work opportunities, especially when compared to the alternative of underemployment or unemployment. Furthermore, as previously stated, it is likely that a percentage of the jobs in the project will be held by individuals who belong to dual-income households or families, and in some cases even three-income households (e.g., students living a home). To imply that a two or three income family in which one family member earns $41,076 will have a negative impact on the City's economy is an unreasonable assumption.

This is not to say that some of the employees working in the project won't be single earner households receiving incomes below $41,076. For example, a recent study published in the August, 2010 edition of "Monthly Labor Review" noted that 19.4% of the employees in the "Transportation and Material Moving" sector nationwide were "temporary help service employees (see Exhibit G on Flash Drive). As noted in the study, "workers in the temporary help services industry, also referred to as contingent, contractual, seasonal, freelance, just-in-time, or “temp” employees, are those whose salaries are paid by a temporary help services agency that supplies them, upon request, to employers looking to fill a temporary full- or part-time staffing need." Clearly, many of these employees are likely to earn below the $41,076 mean income reflected in the documentation cited in this memo. However, this fact does nothing to invalidate the average income cited in the DEIR, as 80% of the employees in

the "Transportation and Material Moving" industry are not temporary workers hired through a help services agency.

Furthermore, even the lower paying jobs would constitute an asset for the City, as many of the residents of Moreno Valley and its environs are blue collar workers from a variety of ethnic groups for whom work in a logistics facility represents an outstanding economic opportunity. Similarly, unskilled laborers also require work, and some of the lesser skilled jobs are crucial to their subsistence. With the decline in manufacturing jobs throughout the Inland Empire due to the outsourcing of this work to other countries, the logistics sector is one of the few growing job sources for Moreno Valley and Inland Empire residents who do not have postsecondary degrees. These positions include not only opportunities for blue collar work related to trucking, dock work and freight handling, but also white collar occupations such as logistics and sales management and freight forwarding. The commenter's lack of recognition of the job opportunities associated with the project in the context of the qualifications of the available workforce residing in the Inland Empire, as opposed to the commenter's preoccupation with an alleged overabundance of lower income jobs, is indicative of its less than objective assessment of the project.

Response to Comments G-90-3. In response to comments prepared by the commenter, the Economic Impact Analysis (EIA) has been revised to include a discussion relating to occupancy and absorption rates. Per the applicant's projections, the project is expected to be built-out by 2031. Given current market conditions, the project is expected to achieve a high rate of occupancy during and after build-out, notwithstanding the cyclical impacts of the economy. For purposes of demonstrating the impacts of vacancies, a 10% vacancy rate has been incorporated into the EIA calculations for comparison purposes. While it is true that the market is cyclical in nature and changes in absorption are inevitable and difficult to predict, we do know that there is currently a substantial demand for logistics facilities within the Inland Empire, which is encouraging in terms of our expectations regarding the first phase of the project.

Furthermore, a study prepared by the Southern California Association of Governments ("SCAG") titled "*Industrial Space in Southern California: Future Supply and Demand for Warehousing and Intermodal Facilities."* (Exhibit O see DTA Exhibits on Flash Drive) supports the need for more warehousing space. The study's Executive Summary states the following:

- "According to assumed growth rates, the region will run out of suitably zoned vacant land in about the year 2028. At that time, forecasts show that the demand for warehousing space will be approximately 1,023 million square feet (Page ES-1; Exhibit O see DTA Exhibits on Flash Drive).

- During the year 2035, there will be a **projected shortfall of space of about 228 million square feet**, unless other land not currently zoned for warehousing becomes available." (Page ES-2; Exhibit O see DTA Exhibits on Flash Drive).

The WLC will contribute to the supply of warehouse space necessary to satisfy a portion of this demand. This SCAG Report supports other data presented by DTA in its responses to DEIR comments that there will be more than sufficient demand to support the WLC.

The commenter is also concerned about the projected mix of modern high-cubed and regular warehousing in the project. While it is impossible at this time to project the actual mix that will be constructed, future construction will reflect the specific future demands of the logistics marketplace during the buildout process. As a result, the applicant has sufficient confidence in the overall longevity and success of WLC that it has been and continues to invest millions of dollars to entitle the project and build the necessary upfront infrastructure.

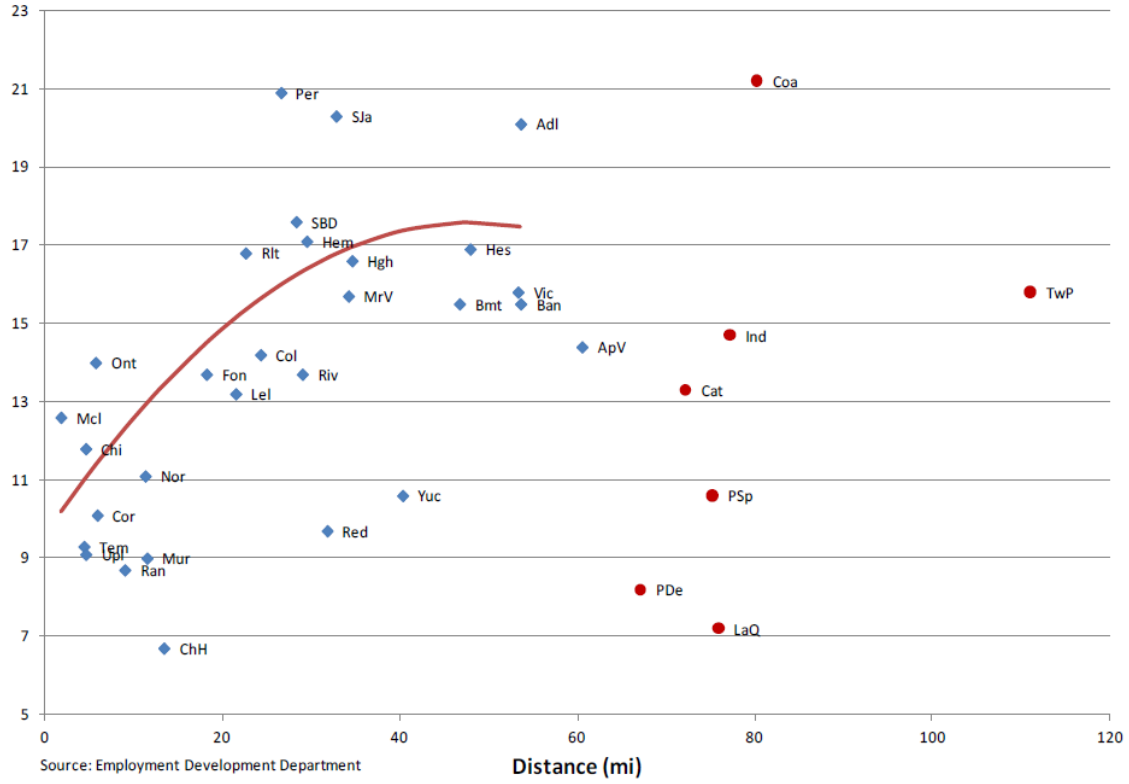
Response to Comments G-90-4. Please refer to Response to Comment G-90-3. While the applicant is confident regarding the projected build-out period, decisions relating to the ultimate construction time-line/schedule will be based on actual market conditions.

Response to Comments G-90-5. The commenter reiterates the Traffic Impact Analysis' (TIA) discussion of the existing commuting patterns of Moreno Valley residents and the TIA's claim that the WLC will shorten commute distances. He cites the *Claremont McKenna College – UCLA Inland Empire Forecasts, October 2012* which the commenter says states that workers that are more than 50 miles away from the Los Angeles county line are not concerned about employment in Los Angeles; instead they are concerned about jobs within 50 miles of their residence. Based on this the commenter states that workers will not relocate to live in Moreno Valley to work at WLC and that there is no evidence that there will be any significant change in freeway traffic pattern due to the WLC. He suggests that the City make concessions with potential occupants of the WLC to induce them to hire Moreno Valley residents.

The commenter appears to be misinterpreting the *Claremont McKenna College – UCLA Inland Empire Forecasts, October 2012* study. The passage of the report cited in the comment is shown below (from page 24 of the report):

> *"There is substantial variation across these cities, spanning from less than 7% in Chino Hills and La Quinta to greater than 18% in Adelanto, Coachella, Perris, and San Jacinto. Excluding the cities in the Coachella Valley, there appears to be a geographical pattern: cities bordering Los Angeles, Orange, and San Diego Counties tend to have lower unemployment rates. Note that unemployment rates are measured by residency, not by location of employment. For example, a resident of Rancho Cucamonga who commutes to Los Angeles County for employment and who loses her job will increase the unemployment rate of Rancho Cucamonga and San Bernardino County, but not the unemployment rate of Los Angeles County. This is true for many workers in the Inland Empire given that roughly one-third of the region's labor force commutes cross-county for employment.*
>
> *To test our hypothesis that the distance to the nearest coastal county line matters for city unemployment rates, we look at a cross plot of city unemployment rates and distance between the respective cities and their "point of entry" to the west and south. We exclude the six largest cities of the Coachella Valley from our analysis since very few workers from this area commute to Los Angeles or Orange County. Figure 4 supports our hypothesis that location matters in determining city unemployment rates: moving 20 miles into the Inland Empire increases city unemployment rates by approximately 5 percentage points (see, for example, Upland and Fontana). This effect becomes less significant when a worker commutes an additional 20 miles - Moreno Valley's unemployment rate is only another 2.5 percentage points higher than the previous 5 percentage points. Unsurprisingly, geographical distance to the county line ceases to display an effect after 50 miles: commuters from Victorville are more concerned about the job situation in Rancho Cucamonga than in Los Angeles."*

Figure 4 City Unemployment Rates in the Inland Empire and Distance to Greater Los Angeles/San Diego County Line, 2011



Source: Employment Development Department

The passage refers to the author's theory that distance from the job centers in Los Angeles and San Diego Counties affect the unemployment rate of cities in neighboring counties but that this effect appears to disappear for cities more than 50 miles from the Los Angeles County line (the cities are shown in red dots in the graph above, which was copied from the report). There is no connection between this theory and whether or not workers might relocate to Moreno Valley if the WLC were to be built.

The TIA's statement that building an employment center in an area with an existing large labor force but few jobs would enable some workers to obtain employment at WLC and thus make shorter commutes is supported by traffic modeling and everyday experience (TIA, Chapter 4, Section D).

Response to Comments G-90-6. The commenter questions the jobs/housing balance ratio in the City. While it is likely that some of the jobs may be filled by City residents who possess the skills and/or education required, it is expected that many project employees will be commuting to the project from other locations in the Inland Empire and may eventually move to the City to live closer to work, thereby increasing the population and ultimately the demand for homes within the City over a period of time. The impact of the project on the jobs/housing balance in both the City and throughout the Inland Empire cannot help but be improved by the potential 20,000 jobs to be generated by the WLC, especially because the project itself contains no residential development within a City that has one of the lowest jobs/housing balances in all of the Inland Empire. In fact, both the City and the Inland Empire have a surplus of homes versus jobs, which causes residents to drive to LA and Orange County for work, leading to traffic congestion, less family time and an overall lower quality of life. As noted in Section 4.3 of the DEIR, the City's Jobs-Housing Balance is currently 0.47, which is one of the lowest of any City in the Inland Empire. Riverside County as a whole only has a Jobs-Housing Balance of 0.74. As the norm throughout Southern California ranges between 1.0 and 1.29

jobs per household according to SCAG's landmark 2001 study *"The New Economy and the Jobs/Housing Balance in Southern California,"* both the City and the County are badly in need of jobs. As a result, the average commute distance for a Riverside County resident of 21.6 miles according to the study was higher than any other County in Southern California. Improving the jobs/housing balance is one of the many attributes of the WLC.

In addition, the Development Agreement includes a provision for a local Hiring Program that will help give hiring preference to Moreno Valley residents (see Response to Comment G-33-9).

Response to Comments G-90-7. The commenter states that the trip generation rate in the TIA (the ITE trip generation rate of 1.68) is too high for the traffic analysis and possibly too low for the air quality analysis. The commenter then goes through the trip generation rates found in different studies and concludes that the older studies are flawed and should be ignored. He states that trip generation rate of 0.99 from the NAIOP study seems to be appropriate for traffic studies in the Inland Empire. He also requests that air quality monitors be installed to enable South Coast Air Quality Management District (SCAQMD) to evaluate air quality degradation due to the WLC.

The City concurs that the trip generation rate used in the study for high-cube warehouses (1.68 vehicular trips per thousand square feet per day (VT/KSF/day)) is conservative, that the AQMD rate (2.58 VT/KSF/day) is not appropriate (the AQMD does not recommend its use when more than 10 warehouses are analyzed together) and that the rate found in the NAIOP study (0.99 VT/KSF/day) represents a more likely outcome. The City does not see the logic behind, and disagree with, the commenter's suggestion that an over-estimate of truck volumes might result in an under-estimate of truck emissions.

Ambient air quality monitors would not effectively monitor emissions from the WLC. Ambient air quality monitors are unable to monitor emissions from specific sources; instead they measure the contribution of all sources of air pollution to local air quality. Air quality surrounding the WLC site would be impacted by project-related trips, background trips in Moreno Valley (particularly from SR-60), and from upwind sources from Los Angeles County to Riverside. In addition, much of the air quality impact from the proposed project is disperse, spread out along arterial roadways and freeways some distance from the WLC. SCAQMD has already established a network of regional air quality monitors to provide air quality data for the South Coast Air Basin. As a result, the proposal for SCAQMD monitors at the WLC site would not effectively monitor project impacts.

Mitigation Measure Trans-1, described in Chapter 11 of the TIA (FEIR Volume 2) and included in the EIR as Mitigation Measure (MM) 4.15.7.A, requires the submittal to the City of a subsequent TIA with each Plot Plan application for subsequent projects within the WLCSP. This would include new traffic counts and LOS analyses to determine whether the existing or increases in the capacity of the road network has kept pace with the growth in traffic. The purpose of the subsequent TIAs is to determine if any of the traffic improvements listed in Tables 72 through 77 of the TIA prepared for the EIR are required to be completed prior to the issuance of a certificate of occupancy for each building in the Plot Plan. Based on the City approved subsequent TIA, improvements required to be constructed in order to ensure traffic impacts resulting from operation of the building shall be made a Condition of Approval of the Plot Plan and the improvements must be constructed prior to the issuance of a Certificate of Occupancy for the building.

The commenter recommended that as a condition for development, the WLC developer obtain and install appropriate air quality monitors in the Moreno Valley for use by the SCAQMD for evaluation of air quality degradation due to the WLC project. Installation of air quality monitors in the Moreno Valley area would not be able to uniquely distinguish any impacts from the project vis-à-vis impacts from the surrounding region. This is the reason why air dispersion modeling was used to isolate the specific impacts from the WLC project. The air dispersion modeling takes the project's specific emissions and

disperses these emissions by the prevailing meteorological data to derive project-specific impacts at both nearby and distant receptor locations.

Response to Comments G-90-8. The commenter states that the "potential Cerrell Effect of the WLC will reduce the ability of Moreno Valley to attract high paying jobs of the proposed Medical School of the University of California, Riverside and will galvanize citizens to become politically active." According to the commenter, the "Cerrell Effect" describes the fact that proponents of some projects face strong public opposition to projects that result in a locally undesirable land use; otherwise known as a "LULU." While the warehousing industry may not pay wages that are as high as those of a Medical School, the highest and best use for property is determined based on the economic demand for a particular land use for a site in a given location. As the current owner of the property, the applicant has determined that the comparative demand for various land uses for the WLC site is such that logistics is the highest and best use for the site. In particular, the need for logistics facilities in the area is immediate, while the location of a medical school on the site is speculative at best. Furthermore, the construction of the project is expected to attract additional non-residential development that is necessary to provide services to the WLC, which in turn will draw more businesses to the City. In addition, employees wanting to live near their place of work will increase demand for nearby residential communities, thereby driving up residential property values in other portions of the City. Finally, the WLC itself will increase the City's revenues. Per the DEIR, the assessed value (once the WLC is built-out) is expected to be approximately $3.7 billion, which will significantly increase the City's tax base. The City Council will decide if the project is a locally undesirable land use.

Response to Comments G-90-9. The commenter encourages the City to only approve Phase 1 (approx. 20 million square feet). It is up to the discretion of the City to determine what action should be taken on the project application. The City Council will consider all comments and responses on the project and EIR before making a decision on the WLC project.

Response to Comments G-90-10. The commenter encourages the City Council to not approve Phase 2 at this time relative to the "Moreno Valley Planning Document" (assume that means the General Plan). It is certainly up to the discretion of the City to approve the project as proposed, approve only a portion of the proposed development at this time with time restrictions, or to approve the entire development conditional on it achieving certain performance standards (e.g., trip generation). However, the WLCSP is the project submitted to the City for review and action, including the evaluation in this EIR. There would need to be legal justifications denial or for substantial modifications or delays other than what has been outlined in the project applications. The City Council will consider all comments and responses on the project and EIR before making a decision on the WLC project.

Response to Comments G-90-11. The commenter has asked the City to require actual data from Phase 1 before approving Phase 2. As outlined above in the Response to Comment G-90-10, the City has the discretion to approve the project as proposed, approve only a portion of the project with time restrictions, or to approve the project subject to certain performance standards.

Response to Comments G-90-12. The commenter has asked the City to prepare a second EIR after 2022 to see if the actual impacts match the predictions. As outlined above in the Response to Comment G-90-10, the City has the discretion to approve the project as proposed, approve only a portion of the project with time restrictions, or to approve the project subject to certain performance standards.

Response to Comments G-90-13. The commenter has asked the City to prepare a second EIR after Phase 1 has been completed to see if the actual impacts match the predictions. As outlined above in the Response to Comment G-90-12, the City has the discretion to determine what action should be taken on the project application.

Response to Comments G-90-14. The commenter repeats his statement that the trip generation rate in the TIA (the ITE trip generation rate of 1.68) will probably result in an over-estimation of traffic impact. He suggests that the project's impact on air quality is uncertain and repeats his request that air quality monitors be installed to enable SCAQMD to evaluation air quality degradation due to the WLC. He would like for this to occur during Phase 1 of the WLC before continuing to Phase 2.

The City concurs that the trip generation rate used in the study for high-cube warehouses (1.68 VT/KSF/day) is purposefully conservative to ensure that there would be no under-estimation of traffic impacts. With regard to air quality monitors, please see Response to Comment G-90-7.

The commenter also questions the use of the trip generation figures used in the EIR, and ties it back to only approving Phase 1 development now. The trip generation data used in the project traffic impact assessment (TIA) was based on data collected on many similar types of developments by the Institute of Transportation Engineers (ITE) in its latest Trip Generation Manual (2013). Further, as pointed out in the comment, the trip generation factor used may have overestimated the traffic and its impacts.

The commenter requested air monitoring for the project. However, the air quality in this area is complex based on the result of air movement and pollutants transported from the Los Angeles and Orange Counties, and would not yield results directly applicable to the WLC project. It would be much more appropriate to identify specific mitigation for individual developments within the WLCSP and monitor implementation of those measures, based on the comprehensive air quality analysis supporting the EIR and subsequent air studies for future development once specific development projects are proposed.

Response to Comments G-90-15. Please reference Response to Comment G-90-1

Response to Comments G-90-16. Please refer to Response to Comment G-90-3.

Response to Comments G-90-17. Please refer to Responses to Comments G-90-3 and G-90-4.

Response to Comments G-90-18. The commenter again wants the City to approve only Phase 1 and collect environmental data on that development to determine if Phase 2 should be built. As outlined above in the Response to Comment G-90-9, the City has the discretion to determine what action should be taken on the project application.

Response to Comments G-90-19. The commenter again recommends a second EIR in 2022 after Phase 1 has been built. The City has the discretion to add this into the project approvals, but it should be noted that Phase 1 of the WLC project has already been moved from 2017 to 2022 based on current market conditions and the pace of the CEQA process for the project. The technical studies have all been revised to address this new phasing plan. CEQA review will be required in connection with each plot plan application. A Supplemental EIR will be required if there are significant changes in the circumstances surrounding the project or if something new is learned. See CEQA Guidelines Section 15162. Also see DEIR Section 3.7.2.4.

Response to Comments G-90-20. The commenter asks the City to use the second EIR (in 2022) to decide if they want to proceed with Phase 2. This comment is addressed in the Responses to Comments G-90-19 and G-90-12. The City does have the discretion to identify sequential review points for the WLC project.

Letter G-91: Gary Matheny (March 27, 2013)

Letter G-91

March 27, 2013

RECEIVED
APR 1 1 2013
CITY OF MORENO VALLEY
Planning Division

John Terell, Planning Official
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Subject: World Logistics Center's Draft EIR (SCH#2012021045) and Planning Cases PA 12-0011, 0012, 0013, 0014 and 0015

I/we, the undersigned, are homeowners in the City of Moreno Valley at the address listed below. We want to make sure that the World Logistics Center has as little impact on our neighborhood as possible. We ask that you incorporate the following mitigation measures:

- Please move all truck traffic off Merwin Street. Relocate Streets D and E as shown on the World Logistics Center Site Plan 500 to 1000 feet east of Merwin Street. Remove all truck traffic from Merwin street. 1
- Please require all security lights to use cutoff luminaires and be located on buildings no higher than 25 feet off the ground. 2
- Please require a 100 foot wide greenbelt area between the residential neighborhoods and the World Logistics Center buildings or streets. 3
-

Sincerely,

Gary Mahony
(signature)

Property owner: Name GARY MAHONY

Address 28676 HIGHPOINT AVE
MORENO VALLEY, CA. 92555

APN# _____

RESPONSES TO LETTER G-91

Gary Matheny (March 27, 2103)

NOTE: This letter is based on a template provided by C. Moothart in Letter G-9. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-91-1. See Response to Comment G-9-9 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-91-2. See Response to Comment G-9-10 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-91-3. See Response to Comment G-9-11 of Letter G-9 for a more detailed response to this comment.

Letter G-92: Val and Marcella Garcia (April 11, 2013)

Letter G-92

RECEIVED
APR 1 1 2013
CITY OF MORENO VALLEY
Planning Division

March 27, 2013

John Terell, Planning Official
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Subject: World Logistics Center's Draft EIR (SCH#2012021045) and Planning Cases PA 12-0011, 0012, 0013, 0014 and 0015

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- Please require all security lights to use cutoff luminaires and be located on buildings no higher than 25 feet off the ground. 2
- Please require a 100 foot wide greenbelt area between the residential neighborhoods and the World Logistics Center buildings or streets. 3
- Mr. Terrell I have owned a home at this end of the valley since 1978. Please we do not any more logistics center warehouses over here. Please have well enough only to say no to the building of this center. If the city council is in the back pocket of the Benzeni person they are not doing their job they were elected to do and that is the to take into consideration the wishes of the citizens of Moreno Valley. Look at all the empty warehouses at the West end and then justify the building of this center. A simple NO is all we need from the City Council in its entirety. We need street repairs at this end of 4

Sincerely,

(signature) Marcella C. Garcia

Property owner: Name Val & Marcella Garcia

Address 14115 Wilmot St

Moreno Valley 92555

APN#

the valley not more foul air and traffic added to what we already have. The Mayor Tom Downing came to our house before the elections. We spoke for a good hour on different subjects, one being the Logistics Center. I expressed our feelings about this and he told me that would be his first priority if he was elected. The following week I read in the local paper were he had accepted a large donation ~~and~~ from Benzeevi and now is turning the other cheek. Between him, Co & Stewart they will send us here at the East end down the tubes. At sometime in life people have to say NO to companies like Highland Fairview & Benzeevi. Shouldn't we start by doing it now.

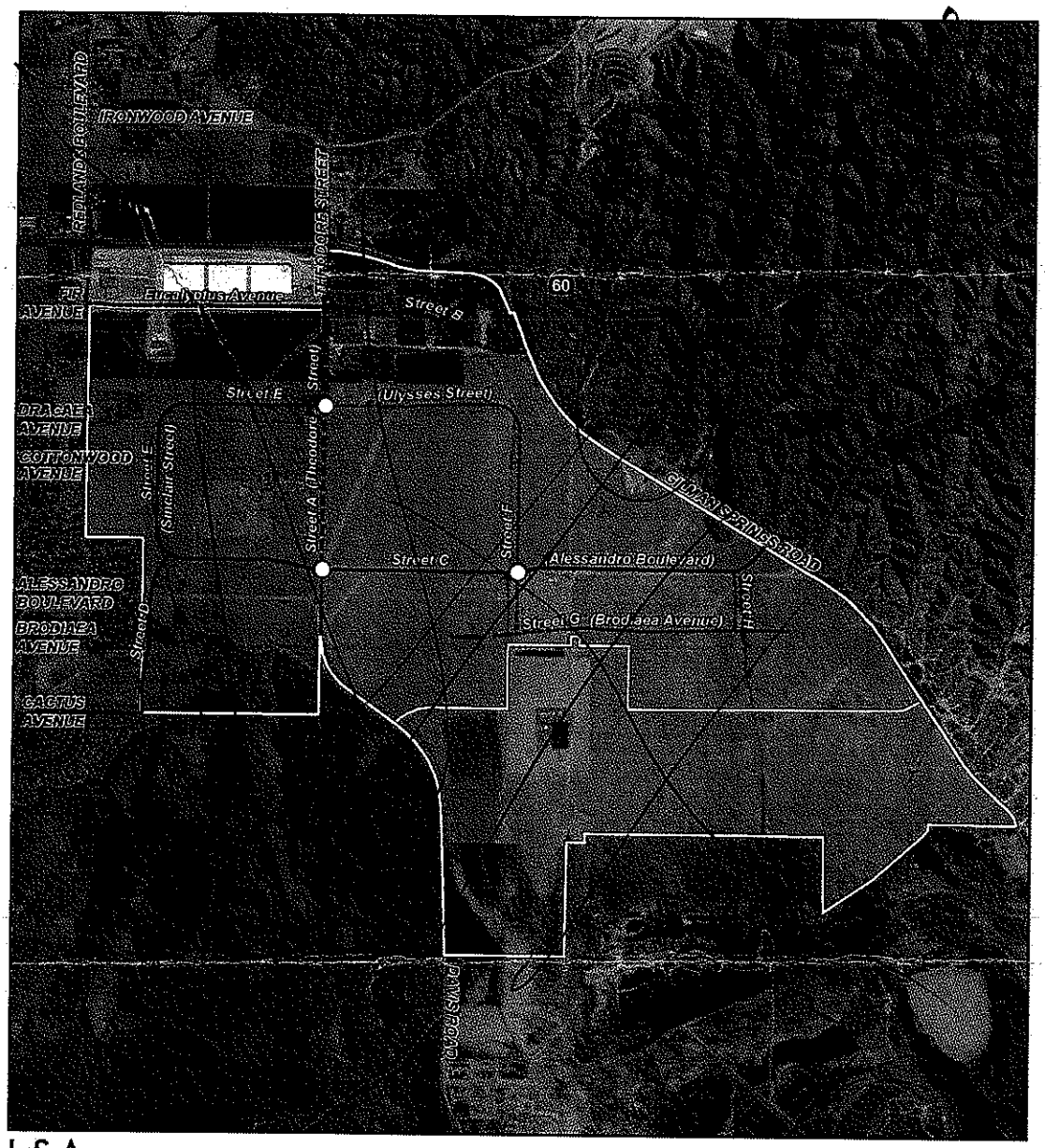
4

Letter G-92

No To THIS Project

World Logistics Center (outlined in yellow)

Sketchers Buildings at Eucalyptus Ave. (white buildings)



LSA

Project Boundary
Specific Plan Boundary
Traffic Circle

6-Lane Divided (Wide Median)
4-Lane Divided (Wide Median)
4-Lane Divided (Std. Median)
4-Lane Undivided
2-Lane

0 1,500 3,000
FEET

See figure 3.11 for typical roadway cross sections.

FIGURE 3.10

World Logistics Center Project Environmental Impact Report

Circulation Plan

SOURCE: ESRI World Imagery, 2010; Bing Maps, 2010; Google Maps, 2011.

E:\HFV1201\Reports\EIR\fig3-10_Circulation.mxd (12/26/2012)

RESPONSES TO LETTER G-92

Val and Marcella Garcia (April 11, 2013)

NOTE: This letter is based on a template provided by C. Moothart in Letter G-9. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-92-1. See Response to Comment G-9-9 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-92-2. See Response to Comment G-9-10 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-92-3. See Response to Comment G-9-11 of Letter G-9 for a more detailed response to this comment.

Response To Comment G-92-4. The commenter asks the City to not approve the project. The City Council will consider all comments and responses on the project and EIR before making a decision on the WLC project.

Letter G-93: Heather Walsh (April 15, 2013)

RECEIVED
APR 15 2013
CITY OF MORENO VALLEY
Planning Division

Letter G-93

March 28, 2013

City of Moreno Valley Economic Planning Department:

This letter is written in response to the proposed World Logistics Center project. It is apparent that the City Planning Commission and City Council have chosen to approve recommendation of this project without concern for the citizens of this community. The environmental impacts of this project should be considered before this project moves forward. First of all, the pollution generated from the amount of trucks that are estimated to be traveling through the area will have adverse effects on the health of the residents and will deteriorate the air quality in the area. This increase in truck traffic will also affect the gridlock on the 60 freeway and surrounding streets. This is already a problem as there is only one way into the city and one way out, it will only be compounded by the addition of hundreds of more trucks. 1

Also, these trucks bring additional noise that will affect the residents. This is all in contradiction to the general land use that was originally designated for this area. 2 Agriculture and wildlife in the area will also be adversely affected as will the open spaces and aesthetics of the community. As residents of this community we would like to voice our opposition to such a project. The proposed "benefits" do not outweigh the significant negative impacts. 3

Heather Walsh
4-12-13

Heather Walsh
28420 Kimberly Ave.
Moreno Valley CA 92555

RESPONSES TO LETTER G-93

Heather Walsh

Response to Comment G-93-1. The commenter is concerned about air pollution and additional truck traffic on the 60 freeway. Section 4.3 of the Draft Environmental Impact Report (DEIR) and the original and revised air quality technical studies, all evaluate the potential air pollution impacts of the World Logistics Center (WLC) project in considerable detail. The Environmental Impact Report (EIR) concluded that the WLC project would have significant air quality impacts that could not be mitigated to less than significant levels, even with the recommended mitigation, due to the size and nature of the WLC project. Section 4.15 of the DEIR examines the traffic-related impacts of the WLC project, including impacts along the SR-60 Freeway. The EIR concluded that traffic impacts of the project would be significant even with implementation of recommended mitigation, largely because many of the improvements that would be needed to achieve level of service standards are located in other jurisdictions (including Caltrans) and are not under the control of the lead agency.

Response to Comment G-93-2. The commenter is concerned about noise generated by project truck traffic. Section 4.12 of the DEIR examined the noise-related impacts of the WLC project and concluded that impacts would be significant even with implementation of recommended mitigation. The City Council will consider all comments and responses on the project and EIR before making a decision on the WLC project.

Response to Comment G-93-3. The commenter is concerned about impacts to aesthetics (open space and views), agriculture, and wildlife. These issues are addressed in Sections 4.1, 4.2, and 4.4 of the DEIR, respectively. The DEIR determined the WLC project would have significant impacts on views and agriculture, even with mitigation, while impacts to wildlife were determined to be less than significant with mitigation. The City Council will consider all comments and responses on the project and EIR before making a decision on the WLC project. If the City Council decides to approve the project, a Statement of Overriding Considerations will be necessary to show what project benefits outweigh the significant project impacts.

Letter G-94: Artie Melton (April 16, 2013)

RECEIVED
APR 16 2013
CITY OF MORENO VALLEY
Planning Division
Letter G-94

March 27, 2013

John Terell, Planning Official
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Subject: World Logistics Center's Draft EIR (SCH#2012021045) and Planning Cases PA 12-0011, 0012, 0013, 0014 and 0015

I/we, the undersigned, are homeowners in the City of Moreno Valley at the address listed below. We want to make sure that the World Logistics Center has as little impact on our neighborhood as possible. We ask that you incorporate the following mitigation measures:

- Please move all truck traffic off Merwin Street. Relocate Streets D and E as shown on the World Logistics Center Site Plan 500 to 1000 feet east of Merwin Street. Remove all truck traffic from Merwin street. 1
- Please require all security lights to use cutoff luminaires and be located on buildings no higher than 25 feet off the ground. 2
- Please require a 100 foot wide greenbelt area between the residential neighborhoods and the World Logistics Center buildings or streets. 3
-

Sincerely, Artie B. Menton

Artie B. Menton
(signature)

Property owner: Name Artie B. Menton

Address 28789 Campbell Ave
Moreno Valley CA 92555

APN#

RESPONSES TO LETTER G-94

Artie Melton

NOTE: This letter is based on a template provided by C. Moothart in Letter G-9. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-94-1. See Response to Comment G-9-9 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-94-2. See Response to Comment G-9-10 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-94-3. See Response to Comment G-9-11 of Letter G-9 for a more detailed response to this comment.

Letter G-95: Thomas Thornsley (email) (April 8, 2013)

Letter G-95

Thomas Thornsley
29177 Stevens Avenue, Moreno Valley, CA 92555

April 8, 2013

Mr. Mark Gross
City of Moreno Valley
14177 Frederick Street/P.O. Box 88005
Moreno Valley, California 92552

Via e-mail: MarkG@moval.org

Dear Mr. Gross:

Re: Comments to the Draft Environmental Impact Report for the World Logistics Center Specific Plan, SCH#: 2012021045

As a concerned resident, a land use planner, and a member of Residents for a Livable Moreno Valley, who lives on the east end I have great interest and concerns about development in our area. Therefore, I have taken and extensive amount of time to review the Draft Environmental Impact Report (DEIR) for the proposed World Logistics Center Specific Plan (WLCSP). I can not agree with some of the conclusions because this project goes so far beyond good planning as placement of land uses that it should never had been encourage by the City or the developer.

With a rewrite of the General Plan the City and the developer begin the process of justifying the project. And to date I have not hear any member of City's upper management, the planning department or the City Council say they question the logic of this proposal. It appears that most impacts are being written off because the City simply will not take a strong stand on potential development impacts or adopted stricter mitigation measure to assure that development impact are brought down to the lowest feasible point. It appear that this project has some significant impacts that could be mitigated to some extent but are being completely written off because even with some mitigation the impacts cannot be mitigated to below a level of significance. However, several impacts could be lessened with further mitigated than what is proposed; most notable with regard to Aesthetics, Agricultural, Air Quality, Land Use, and Traffic Impacts. In these instances it would be prudent to impose mitigation(s) to further lessen those impacts, thereby diminishing the intensity of impacts that will be overridden by the City Council.

I believe that the City will approve this project therefore additional tougher mitigation should be added to offset local and regional impacts to the fullest extent possible before overriding what cannot be achieved. If these mean reducing the size of the project to reduce environment impacts, as a suggested in the alternatives, then it should be seriously considered.

The follow should serve to explain any shorthand in this document:

Section page numbers or topic numbers are used as best possible for referenced comments.
WLCSP – World Logistics Center Specific Plan
SP – World Logistics Center Specific Plan
MHSP – Moreno Highlands Specific Plan
GP – General Plan

Section 3.0 Project Description

The Project Description is obligated to mention everything carried out with this one proposal. However, the portion of the Project dealing with the General Plan Amendment includes the GP land use change to properties not under the control of the Project developer nor is that property a part of the WLCSP. Throughout the document it repeatedly states the project will convert 1,000 plus acres to Open Space which is misleading to the true project which is the World Logistics Center. Additionally, those 1,000 plus acres are used in calculations and analysis through the document and the supporting studies which could/does change the data provided for analysis. The project description should make it very clear that these 1,000 acres are in no way related to the WLCSP and should not be referred to in any project analysis. 1

Pg. 3-19: Why is a debris basin proposed easterly of Gilman Springs Road and impacting property not associated with this project? Why is the basin not within the project boundary? There is no explanation here or in the section on hydrology. 2

Pg. 3-25: The GPA will not "establish logistic land uses on the 3,814-acre property," because there are two other categories of land uses for over 1,104 acres this figure will includes. 3

Pg. 3-26: Identify that the project site for high-cube warehouse facilities does not have multiple forms of transport available. 4

Pg. 3-72: Explain the appropriateness of adding a new land use category to the General Plan verses just modifying the uses under Business Park. What is written here is project an site specific and not proposed to be utilized anywhere else in the city. 5

Section 4.01 Aesthetics

Pg. 4.1-3: How is the rural northeast portion of the City issue discussed in the MHSP? Wasn't this area also considered the rural area of the City when the City incorporated and before this development came forward? 6

Fig 4.1.2: Photo locations are off, 2 and 3 need to be switched to be consistent with the photos in Fig. 4.1.3a. Several other markers and photos are incorrectly located and identified. 7

Objective 2.5 and Policy 2.5.1 should only be applied to locations where these designations currently exist. 8

Pg. 4.1-17: What will be done to lessen the significants of the aesthetic impacts? 9

Pg. 4.1-33: Based on Fig. 4.1.4G explain why there isn't a freeway landscape buffer (strip) as required in GP Policy 2.10.5, which states that "development projects adjacent to freeways shall provide landscaped buffer strips along the ultimate freeway right-of-way." 10

Fig 4.1.4H: Why is there not a level landscape strip between the maintenance road and the bank of the detention basin? Plantings on the banks and the basin bottom are more likely to damaged or stressed. 11

Fig. 4.1.41 - Explain why the uppermost cross section does not have a screen wall nor landscaping on the downward slope. 12

Fig. 4.1.4J - Please explain the distance between the R-O-W and the marked 20' min. landscape buffer. Also explain why such a small 20' landscape buffer is being proposed. This is not a significant buffer in those areas where screening for aesthetics reasons will be needed to screen the development. 13

Pg. 4.1-61: As stated white building will be more visible at longer distances thereby adding to the impact. Consideration should be made to utilize more earth-tone colors throughout the project area. If the change is color will so greatly affect the energy consumption or greatly increase the "heat island" effect then provide data to substantiate this claim to justify the color choice. 14

Pg. 4.1-62: The 250-foot setback as defined by the distance from residential property lines fails to address the true lack of adequate screening. Along Redlands Blvd. and Merwin Ave. where the roadway width alone could be greater than half the setback distance. Nothing precludes the remaining area from including parking lots, drive aisles, internal roads or storm drains. Residential property along Merwin lose the 250-foot to 66' of Merwin roadway, 125' flood control channel, 112' Street "D". Where does the buffer come in to the equation? You already have 303 feet of setback before a project site property line but very little of that area can create a visual barrier from the residential properties. 15

Explain what minimum level of buffering would be required with all these open area elements between a residential property line and the building. Explain what can go between the building and the project site property line when it is beyond the 250-foot setback.

Pg. 4.1-62: As described in paragraph 2 the landscape setback will far less than where it is adjacent to streets with narrower right-of-ways. Provide reasoning as to why the buffer is not measured from the right-of-way adjacent to the development. This would assure consistent perimeter landscape buffer setbacks. 16

Pg. 4.1-62: Indicate what building and/or screen wall characteristics will aid the aesthetics of the buffer zone. 17

Pg. 4.1-62: The lost views along SR-60 can be mitigated to a reasonable extent by limiting the height of those building nearest the highway to somewhere below the view line of the distant mountains. 18

Pg. 4.1-66 MM 4.1.6.1A - The 250-foot setback as defined by the distance from residential property lines fails to address the true lack of adequate screening. Along Redlands Blvd. and Merwin Ave. where the roadway width alone could be greater than half the setback distance. Nothing precludes the remaining area from including parking lots, drive aisles, internal roads or storm drains. Residential property along Merwin lose the 250-foot to 66' of Merwin roadway, 125' flood control channel, 112' Street "D". Where does the buffer come in to the equation? You already have 303 feet of setback before a project site property line. 19

Explain what minimum level of buffering would be required with all these elements between a residential property line and the building. Explain what can go between the building and the project site property line.

Pg. 4.1-66: With 4.1.6.1A better define the setback from residential property. Are you talking about any on-site improvements, parking areas, drive aisles, or pure landscaping until the buildings?

Provide additional options/mitigations that could be used to lessen this loss of these scenic vistas. Create a new foreground scenic vista along these thoroughfares. A proposed **Mitigation Measure should include the option for either extensive landscaping along all these roadways and a lower building height for the buildings along SR-60 to preserve the views of Mt. Russell and San Jacinto.** This is possible because the building pad elevation is likely to be 30 feet or more below the surface grade of SR-60, as it was with Sketchers. Full considerations should be given to this option. 20

Pg. 4.1-69: Identify the mitigation measure. Should it be MM 4.1.6.2? 21

Pg. 4.1-70: The facade accents described in the SP appear to provide minimal accent treatments that will not break-up the huge mass of the buildings in such a way as to provide substantial vertical and horizontal relief. Considering the size and length of these buildings, corner treatments will only be found at the extreme ends of what could be buildings hundreds of feet and beyond a 1,000 feet long building. **Include MM to provide more substantial relief.** 22

Pg. 4.1-70: The landscape standards do not define a minimum landscape buffering area between the right-of-way and the on-site development. Incorporating the street width and citing a 250-foot separation fails to define a consistent landscape buffer. 23

The landscape design standards provide no information that would guaranty that a sizable planting area will be provided at road grade to support sufficient landscaping to achieve screening.

Table 4.1.C:

Objective 2.5: It would not appear that this project's proposal for one type of use on such a large scale in the City could be conclude as being "consistent" given the City's current lack of other types of industrial uses. Since so much of the available Industrial land within the City is utilized for warehousing the City does not and has not created a diversified economic base or ample employment opportunities for its citizens outside of this on particular use. **24**

Policy 2.5.1: Should read, "Somewhat consistent" considering the scale of the project and the limited land use areas within the City that would remain to be available for the other Business Park/Industrial uses envisioned in the General Plan. **25**

Policy 2.5.2: Cannot consider a landscape buffer to be enough separation between residential and industrial uses to avoid adverse impacts. All well trained planner know that less impacting uses such as neighborhood commercial, commercial, office, parks and open space constitute a buffer between residential and industrial. This EIR consistently references the unavoidable impact this project will bring to the surrounding land uses yet a 250-foot setback that includes roadways, drainage channels and a few feet of landscaping seems to be consider an acceptable buffer to offset the impact. A proposed **Mitigation Measure would require that a least a 1,000-foot alternative land use buffer permitting offices, commercial, parks, open space and public uses be placed between all proposed warehouses uses and residential property.** With this type of buffer and mitigation you could say compliance with Policy 2.5.2 is consistent. **26**

Policy 2.5.3: Concluding the consistency of this policy is an assumption prior to seeing how the setback and screening methods will be implemented in a Plot Plan. **27**

Policy 2.10.3: The SP's design guidelines fall short of effectively achieving several of the listed criteria because of the minimal relief offering comparative to the size and mass of the proposed high-cube warehousing. **Mitigation should be included that defines the parameters for greater relief and facade treatments.** **28**

Policy 2.10.5: Nothing in the SP indicates that a landscape buffer strip will be provided along the freeway that can effectively provide for a landscape buffer. If parcels adjacent to SR-60 are graded similar to Sketchers to the east all of the landscaping will be planted on slopes below the grade of the highway. Additionally, the master developer had this condition waved on the neighboring project. Therefore you cannot conclude that this project is consistent with policy. **29**

Policy 2.10.7: An analysis of consistence can only be made after plot plans are actually reviewed. Defined standards and mitigation measures should be in place before making determination of consistency with this policy. **30**

Policy 2.10.9: Not entirely consistent because the WLCSP Section 5.2.12 states that “only minor changes of material and finishes are appropriate.” The wall standard should address wall plane off-sets to break up the long continuous expanse of walls near the street. Additionally, a greater land scape buffer area should be required between the sidewalk and the wall. In some areas the landscape buffer is proposed to be drainage swales or filtration basins limiting the landscapeable area and the density of the landscape plantings that can affectively screen and compliment the walls and on-site development. **31**

Policy 2.10.10: Again the evaluation of this policy states the freeway frontage will be fully landscaped but development of the site will dictate a downward slope from the freeway with no guarantee that screening landscape material will be place at roadway grade. **A Mitigation Measure needs to be included that requires a sizeable level area at or near grade with SR-60 in which sufficient landscaping can be planted to effectively screen the building and loading areas.** 32

Policy 2.10.11: See comment regarding more defined methods of assuring that this buffer area is effective. 33

Provide a Mitigation Measure that assures sufficient grade level landscaping adjacent to the roadways and SR-60 to accommodate landscape plantings that can effectively aid in the screening of the on-site improvements. 34

Provide a Mitigation Measure that guarantees a minimum 200-foot buffer area from right-of-way to on-site improvements. 35

Provide a Mitigation Measure that requires variations in the gradient of publicly visible slopes to avoid having continuous 2:1 slopes that would contribute to the monotony of the long expanse of the slope. Require this of slopes greater than 200 lineal feet. 36

Provide a Mitigations Measure that requires the landscape buffer facing the residential areas be designed in similar fashion to other streetscape landscaping in residential subdivisions. Installing this area with landscaping designed for the WLS will simply accentuate the fact that an industrial use is across the street and thus further degrading the residence's sense of well-being. Making this change with create a distinct variation between the industrial uses and the residential areas and aid in the appearance that these uses are separate. 37

Pg.4.1-73, MM 4.1.6.3A: **Provide additional mitigation measures that assure proper screening of the on-site improvements** as previously noted in the preceding comments.

Define the need to use light sources the produce "white" light for color rendition. This project area does not appear to need this source of light for viewing purposes like with outdoor auto sales or public activity area. Additionally, the use of "white" light when not necessary violates the Dark Skies requirements for Mt. Palomar Zone B. 38

Propose to amend the parking lot light standard for the WLCSP so lower light levels are considered acceptable to help mitigate the excess night glow.

Provide a Mitigation Measure that requires parking lot lights to go off after working hours or that they be activated my motion sensors where and when needed.

Pg. 4.1-74: **Include a mitigation measure that limits the height of all pole and wall mounted lights where located along residential areas. In no case shall wall-pack type security lighting be installed on buildings elevations facing towards residential neighborhoods.** 39

Pg. 4.1-75: Reference to the SP guidelines regarding lighting. – **Provide a mitigation measure limiting the height, number, and placement of street lights within the WLCSP area. Utilize lighting standard similar to rural lighting standard that only require street lights at roadway intersections and site access points.** Spillover lighting from on-site will likely cast enough ambient light onto the roadways. The streets within the WLC will not be utilized by the general public nor may they be heavily used at night. 40

Pg. 4.1-76: MM4.1.6.4A should also indicate the ambient night light levels at the project side of the right-of-ways. 41

MM 4.1.6.4B should permit solar panel use as shade covers in parking and storage areas following these same worst case conditions. 42

MM 4.1.6.4C: Since LPS is acceptable on the south side of buildings then it should the norm for all outdoor, uncovered lighting. 43

<u>Section 4.02 Agricultural and Forestry Resources</u>

Pg. 4.2-2: 4.2.1 Existing Setting – The 2,710 acres of the WLCSP are the only lands with that should be evaluated in the Agricultural Resources Assessment report Appendix C-2. The remaining area is not proposed for development nor is it a part of the WLCSP. It is only a part of the "project" because it requires change of land use on the General Plan Land Use Map. 44

Pg. 4.2-7: The 2,685 acres is the area that should have been assessed in the LESA Modeling. 45

Fig. 4.2.2: Why is this area in the middle of the project site eliminated from the calculations? 46

Pg. 4.2-14: Should only be assessing the WLCSP acreage. See Methodology. 47

Pg. 4.2-15: Agriculture is no longer a permitted use in any area of the proposed Specific Plan. The SP now only allows ag if it is established before project approval. 48

Pg. 4.2-16: The mitigation measure outlined in Section 4.1 cannot mitigate the loss of the most prominent existing natural resources; therefore this statement should reflect that it is inconsistent. 49

Pg. 4.2-16: The land discussed in the section is not a part of the specific plan and is only listed in the project because it is an administrative matter, therefore it cannot be used to credit Objective 4.1 for consistency. 50

Pg. 4.2-16: The right to farm only applies to those lands with legally established agricultural operations at the effective date of the WLCSP. 51

Pg. 4.2-17: Not acceptable to leave this to the City to implement. They will site lack of staff and resources to implement and monitor and therefore the mitigation will be lost. 52

Pg. 4.2-17: Are there State run agricultural land banks that can accept the mitigation funds? Can other entities involve with land preservation be used to mitigate this lost resource? 53

Pg. 4.2-18, last paragraph: The 1,000 acres being given the Open Space designation and part of the Wildlife area are currently being farm and cited previously in this document. The statement "little, if any, of the adjacent land" is incorrect and should reflect that use. 54

Pg. 4.2-19: The SA sub-score would likely be higher because of errors made in configuring the Zone of Influence area. See comment under the Ag Resources Assessment. 55

Pg. 4.2-20: This is MM that places a burden on the City and will likely never be implemented. 56

Under 4.2.7 Cumulative Impacts it states that it will remove 3,389 acres of designated farmland when the project will only remove the 2,710 acres within the WLCSP. 57

Why is there no analysis to assess localized farming options as means to limit greenhouse gas emissions due to the increasing need to ship food stuffs greater distances? **Consideration should be made to implement mitigation measures offset the negative affect of longer shipping distances.** 58

"Agricultural Resources Assessment for WLCSP DEIR" by Parsons-Brinckerhoff

Page numbering in this document did not covert correctly in the PDF file so the page numbers listed correspond to the actual page count in the file.

Pg. 4: Explain why the evaluated project area includes the entire 3,814 acres when the project area includes over 1,000 acres that are not a part of the development plan. This acreage was lumped into the "project" only for the purpose of changing the land use designation as part of the GPA. 59

Pg. 9: Limits of the SP are incorrect because they include the open space area which in only part of the GPA. 60

Pg. 10: Not the correct crop info for the Moreno Valley area. Citrus was not the primary crop in this area. 61

Pg. 11: Water cost associated with on-site wells has not been assessed. There is no mention of the availability of water from wells or the option to install wells within the project acreage of the WLCSP. Some properties in project area have wells and or water rights. 62

Pg. 12: Need to make mention of the egg production ranch that was on the project site and demolished in the past decade. 63

Pg. 13: Verify rainfall for our region. 64

Pg. 14: Describe them as man-made ponds and lakes. 65

Pg. 15: Elevation range is incorrect unless it is incorrect in the bulk of the other sections of the WLCSP DEIR. As noted elsewhere it should be 1,760 to 1,480 feet above sea level. 66

Pg. 26: The Lake Perris Recreation area comprises far less than 50% (see map) of the Zone of Influence Area. The boundary of the projects area's Zone of Influence is overstated because it includes land that is not part of the specific plan and therefore should not be counted because it falsely expands the influence area. Additionally, the geometric shape used to encompass the project area should be drawn on a diagonal to more tightly configure the area. You could also use a six-sided configuration to incorporate the project area to give you the zone of influence. 67

Pg. 28: The conclusion made is Section 3.4 is incorrect and needs to be reassessed. The area south of the WLCSP is owned by CDFG and is being used for agricultural purposes at this time. 68

Section 4.9 Hydrology

Pg. 4.9-21: Explain if any of the surrounding areas fall within the 100-year flood zone. The homes in the area west of Merwin Ave were flooded twice in the past six years, the most recent being in August of 2012. Verify impacts with the City's Public Works Department. This has a bearing on the drainage to the southwest of the project site. Should project flows exceed historic levels there would be need for further mitigation. 69

Pg. 4.9-25: The last paragraph identifies Line "F" but it should be Line "A". 70

4.13 Population, Housing and Employment

Pg. 4.13-2 & 3: In tables on these two pages are three different housing unit figures from various sources and the range is more than 4,000 units in a one year period. This is a 9% difference which will skew all calculations for housing to jobs ratios. These unit variations cannot be related to recent housing growth because the City has issued few home construction permits in the past three year. An accurate total should be used and the statistics in these sections revised to reflect a more accurate standing of the community characteristics. 71

Opening Comment: The job figures and revenue projections are not consistent within throughout or within Sections 4.13 Population and Housing, Section 5.0 Other CEQA Topics, and Appendix O-1 Fiscal and Economic Impact Study The number of inconsistencies are to numerous to note but they tend to taint the validity of the information or the results. It is likely these figures are also inconsistent throughout the other sections of the EIR. Please correct. 72

PG. 4.13-9: Why are 24,642 employees considered a "worst-case" estimate for environmental impacts when the GP goals and objectives encourage job creation thus besting the jobs to housing ratio. Using the larger figure appears to skew the reality of what may really happen - fewer jobs for the impacts incurred. Please explain how this benefits the community and aids the decision maker in assessing the value of the project against it impacts. 73

Pg. 4.13-10: Please explain how this calculates out based on the available workforce in the City and the number of residents that would desire these jobs.

Provide calculations based on the available workforce in the City, 2010 Census data on employment categories for the residents, and then figure how many residents would like have the talent or desire to work in the logistic industry. If this figure is less that the job produced then you can expect people to be drawn to the City thus inducing growth. **74**

Pg. 4.13-11: Recurring costs should be calculated over the life of the project and projected for 20-years after predicted build-out. Over time service cost typically out pace tax increment increase thus eliminating the surplus. Property taxes will only rise at the rate set by Proposition 13 while the police and fire services alone will be going up at a greater rate. In each of the next two fiscal years the City is obligated through public safety contracts to 5% annual pay raises. Additionally, other services and cost will rise at the rate of inflation or higher. Either way these rates will outpace the property tax increment rise. Discuss why this is not been addressed. See attached example of a fiscal impact analysis required by Riverside County for business park development. **75**

Pg. 4.13-12, Table 4.13.J: Please make note whether this annual salary is for permanent staff or all staff including temps needed for the operation. Most researched information on warehouse operations indicates that a large percentage of those working on-site are temporary hires not on the operating payroll thus not factored it the average salary shown. **76**

Pg. 4.13-13: Table and text for number of construction job is not consistent with the fiscal report Apdx. O-1.

Paragraph two states 16,395 full-time equivalent jobs but nowhere in the text does it say that this is the total job count over a 10 period. Explain why this is not addressed or have it incorporated into the analysis. How do you defend the assumption that a lot of these jobs are likely to be in the vicinity and therefore within the City? **77**

Based on the Fiscal and Economic Impact Study the potential jobs has a low range near 13,000 that should also be included in this discussion. Why is it not?

Pg. 4.13-14: Summary of Impacts use figures for surplus that are not consistent with the fiscal report Apex. O-1. **78**

Under 4.13.5.2 there should be a discussion about the job housing balance that it offered and the total jobs it would have created. The abandonment of MHSP not only changed the housing count it displaced the jobs it would have created. **79**

<u>Section 5.0 Other CEQA Topics</u>

Pg. 5.5, Paragraph 3: The new job figures are not consistent with those found in Section 4.13 or Appendix O-1 Fiscal and Economic Impact Study. **80**

The next paragraph again has job and revenue figures that cannot be found in either of the documents listed. In review of all three documents the figures used are not consistent throughout the EIR. 81

5.4 Urban Decay: Planning studies throughout America have analyzed the inherent condition of urban decay in neighborhood near industrial development. The typical finding are that the home value decline in neighborhoods next to industrial operations and over time decay and become blighted areas of those communities. The Fiscal and Economic Impact Study does not take into the secondary effect the WLC will have on the neighboring communities and how it will likely depress property values and thus lessen the anticipated property tax revenue the City receives. Why was this not addressed? 82

6.0 Alternatives to the Proposed Project

Did the Existing GP Alternative reduce the total dwelling unit count based on the land area lost to CDFW?

No Project, General Plan – Moreno Highland SP: Please explain the rational for the stated housing units expressed in this analysis. It appears to be very close to the number of dwelling units in the SP yet about half of the residential area was sold off to the CDFG in the year prior to MHSP's approval. This alternative could never have been built and therefore is not a valid alternative to assess. What should have been assessed was a modified version of the MHSP less the residential area removed from development. Based on the purchase date of over one quarter of the MHSP project area it would appear that the developer had no intention of ever developing this land when they entered into a development agreement with the City designating the land uses be in place for 20 years. See your project site history in the project summary. 83

Thank you for the opportunity to comment on the Draft EIR for this project. I request to be informed of all meetings and public hearings related to this project or other consideration in east end of Moreno Valley. Please let me know if it is possible to receive a copy of all comment to the DEIR as soon as they are available. I would also like to request copies of any follow-up documents related to this project (the Development Agreement, 2nd DEIR and/or Final EIR). Feel free to contact me if you have any questions regarding my comments.

Sincerely,

Thomas Thornsley
909-797-1397
e-mail: tomthornsley@msn.com

Attachment: Thomas Thornsley's Resume

RESPONSES TO LETTER G-95

Thomas Thornsley

Response to Comment G-95-1a. The commenter believes the City should adopt stronger mitigation, alternatives, or a much smaller project. The City has the discretion to determine what action should be taken on the project application. The City Council will consider all comments and responses on the project and Environmental Impact Report (EIR) before making a decision on the World Logistics Center (WLC) project.

Response to Comment G-95-1b. The commenter is concerned the 1000 acres of state conservation land south of the World Logistics Center Specific Plan (WLCSP) property is mentioned as part of the project. The commenter misunderstands the relationship of the state conservation land south of the WLCSP property. The 1000 acres south of the WLCSP property was purchased from or out of the Moreno Highlands Specific Plan (MHSP) property. The minutes from the Wildlife Conservation Board action at that time specifically says it will act as a buffer from planned urban development (i.e., at that time the rest of the MHSP)(DEIR Section 4.4.1.16). The existing state conservation land is being rezoned as part of the discretionary actions requested by the WLC project because at present those lands are still zoned for a golf course and various residential uses under the Moreno Highlands Specific Plan (MHSP). Refer to Response to Comment F-10-9 for further details.

Response to Comment G-95-2. The commenter asked why the debris basin east of Gilman Springs Road is not inside of the project. The potential debris basins depicted on the easterly side of Gilman Springs Road are a function of future improvements to Gilman Springs Road. The purpose of the debris basins are to trap the sediment and debris from storm water runoff coming from the Badlands before it reaches the culverts under Gilman Springs Road. Once debris reaches the culverts it will reduce the ability for storm water runoff to pass under the roadway, and in the worst case, plug the culverts completely. This situation exists today where the existing culverts are partially, and in some cases, completely plugged.

Placing debris basins downstream of the culverts, and within the project boundary, would not provide any benefit to prevent the culverts from becoming plugged. Excess flows that can't cross under Gilman Springs Road will cross over the road jeopardizing the roadway and public safety.

Response to Comment G-95-3. The commenter complained that the General Plan Amendment (GPA) would not establish logistics warehousing on the 3,814 acres of the WLC project because there are two other categories of land uses for over 1,104 acres of that total (DEIR page 3-25). The commenter is correct, the General Plan Amendment description on page 3-25 of the DEIR has been changed to clarify what areas of the project will have logistic land use designations.

Response to Comment G-95-4. The commenter wants text added in the EIR that multiple forms of transportation are not available to this site. Text will be added to DEIR page 3-26 in this regard.

Response to Comment G-95-5. The commenter asked for an explanation of why the project is adding a new land use category to the General Plan verses just modifying the uses under Business Park. The WLCSP is site specific and is not proposed to be utilized anywhere else in the City. The comment does not raise an issue with the adequacy of the Draft Environmental Impact Report (DEIR). In this case, no response is required because that is the project that was proposed by the applicant and duly reviewed in the DEIR. However, the City Council will consider all comments prior to taking any action on the project.

Response to Comment G-95-6. The commenter asks how the Moreno Highlands Specific Plan addresses the rural northeast portion of the City. How the MHSP dealt with this area is not at issue here, that land use plan is the currently approved General Plan and zoning for the WLC site. Section

4.1 of the DEIR addresses aesthetic issues of the WLC project relative to surrounding land uses and scenic routes, and concludes aesthetic impacts are significant. However, Mitigation Measure 4.1.6.3A has been revised to preserve the upper two thirds of views of Mt. Russell.

Response to Comment G-95-7. The commenter points out several labeling errors in the DEIR relative to the photographic renderings for the project. These have been corrected in the revised DEIR (Final EIR Volume 2, Section 4.1, Aesthetics).

Response to Comment G-95-8. The commenter says Objective 2.5 and Policy 2.5.1 should only apply where appropriate. The City Council will determine whether approval of the project is consistent with the objectives and policies of the General Plan.

Response to Comment G-95-9. The commenter asks what will be done to reduce aesthetic impacts. As outlined in Response to Comment G-95-6, MM 4.1.6.3A has been modified to preserve views of Mt. Russell.

Response to Comment G-95-10. The commenter is concerned about freeway landscaping buffers per General Plan Policy 2.10.5. That policy states that… "*Development projects adjacent to freeways shall provide landscaped buffer strips along the ultimate freeway right-of-way."* The policy does not mandate the landscape buffer be level, upslope, downslope, bermed or otherwise. It is the intent of the policy is to provide a soft buffer in addition to the minimum building setback along the freeway. As depicted in Figure 4.1.4G of the DEIR, a landscape buffer is proposed between the freeway and the development. It will be a down slope condition from the freeway, very similar to the existing condition along the south side of the freeway segment between Redlands Boulevard and Theodore Street.

Response to Comment G-95-11. The commenter asked why there is not a level landscaping strip between the maintenance road and the bank of the detention basin per Figure 4.1.4H. The City grading code requires and general practice is to provide a minimum 2 foot level area between a roadway and a top or toe of slope or bank. The depiction in Figure 4.1.4H is not at a scale that allows to depict such a level of detail nor was it intended too. This will be a detail incorporated during design level drawings and City review and plan check.

Response to Comment G-95-12. The commenter asked why there would not be landscaping or a screen wall on the downslope shown in Figure 4.1.4I. Figure 4.1.4I has been updated to depict landscaping on the downward slope. The section does not depict a screen wall as it is the intent to screen the view into the truck yard with a combination of landscaping and a screen wall in the 8-foot buffer adjacent to the sidewalk. The commenter is referred to the updated Specific Plan which shows enhanced landscaping and screening for the residential buffer treatment area (Special Edge Treatment Areas, WLCSP Section 2.5) along Redlands, Bay, and Merwin.

Response to Comment G-95-13. The cross sections in Figure 4.1.4J depict a minimum 20-foot landscape buffer along all streets, and outside of the street ROW. This is to control the development edge and ensure a continuous and uniform landscape treatment along all streets. The landscape buffer will actually be greater than 20 feet when you add in the additional 8 feet of level landscape area between the ROW. and the top or toe of the slope. From the perspective of a pedestrian there will be 28 feet of landscape buffer. From the perspective of the motorist, there is an additional 6 feet of parkway landscape between the sidewalk and the street curb, totaling 34 feet of landscape buffer. These allow room for extensive landscaping and plant maturity. Individual projects will likely provide additional landscaping on each building site. Those details will be reviewed and approved by the City during the required Plot Plan process.

Response to Comment G-95-14. The commenter recommend a color palette with more earth tones or justification why basically white is so important (e.g., heat island). The DEIR provides mitigation measures for substantial screening of buildings along the project boundaries (MM 4.1.6.1A). In

addition, a mitigation measure for buildings adjacent to California Fish and Wildlife area (southern boundary) is included requiring those buildings along the southern boundary be an earth tone color (Specific Plan Section 5.3.12). It is a project design feature for all remaining buildings and walls to be white in color to meet the WLCSP architectural goals of clean and simple architecture. White colors do reflect heat and it is a project goal to be LEEDs certified which provide points for use of white roofs and light colored pavement. This would also include walls. The building color is a detail included in the review of each proposed building. The specific building location, size, configuration and color and its potential impacts on adjacent uses will be reviewed at that time.

Response to Comment G-95-15. The commenter discusses topics including streets, flood control improvements, etc. within the 250-foot setback. The 250 foot setback is to provide a horizontal separation between existing sensitive land uses adjacent to the project and the proposed buildings and truck yards. The 250 foot setback is not necessarily for screening, but will allow for opportunities to provide screening. As the commenter notes where an existing roadway such as Redlands Boulevard, Bay Ave. or Merwin Street exist they are included in the 250 feet, but as the sections depict, screening will be accomplished with berms, landscaping and site walls in the area remaining. Within the 250-foot setback, vehicle parking (no trucks) and emergency access aisles are allowed, but will be screened as depicted in the DEIR, required in the WLCSP, and as provided for in the mitigation measures (Specific Plan Section 2.5). Future project level approvals such as site plans and plot plans will demonstrate adherence to these requirements and will be further conditioned to comply.

Response to Comment G-95-16. The commenter asked why the 250-foot buffer is not measured from the property lines. The reader is referred to the Response to Comment G-95-15. The 250-foot setback is consistent relative to the adjacent sensitive land uses. The project does propose a landscape buffer and it will vary in width, and will have substantial width to provide the necessary screening of the buildings as depicted in the DEIR, required in the WLCSP (Section 2.5), and as provided for in the mitigation measures (MM 4.1.6.1A).

Response to Comment G-95-17. The commenter asked what building and/or screen wall characteristics will “aid in the aesthetics of the buffer zone” per page 4.1-62 in the DEIR. The potential visibility of each proposed building will be one of the details reviewed in connection with each project-specific Plot Plan to be reviewed and approved by the City. Building architecture, landscaping, and walls will all contribute to providing a pleasing aesthetic treatment where buildings may be visible from perimeter streets. No buildings will be allowed in the 250 foot buffer zone, but screen walls may (Specific Plan Section 2.5). Walls of varying types are often incorporated into landscaped setbacks to provide architectural character and offer some diversity in the aesthetics of the landscape. Screen walls can be utilized as a trellis to support growth of vines, or offer wind breaks or shading to support a plant’s growth.

Response to Comment G-95-18. The loss of views along SR-60 has been mitigated to a reasonable extent by creating a building pad that is forty feet below SR-60 as depicted on the concept grading plan (see figure 4.1.5K). Additionally, MM 4.1.6.3A has been modified to limit the height of the building(s) along SR-60 in order to preserve 67% of the view to Mount Russell.

~~**4.1.6.3A**~~ ~~Prior to the issuance of any discretionary permit for development under the WLCSP, the developer shall provide a site plan, landscaping plan, and visual rendering(s) consistent with the WLCSP that demonstrate changes in views of Mount Russell, the Badlands, and/or Mystic Lake for travelers along SR-60 or Gilman Springs Road, as appropriate. The renderings shall be sufficient to demonstrate typical views based on proposed site and landscaping plans, but the location and number of view presentations shall be at the discretion of the City Planning Division. These views shall be simulated from a height of six feet from the edge of the roadway travel lane closest to the visual resource.~~

4.1.6.3A Each Plot Plan application for development shall include plans and visual rendering(s) illustrating any changes in views of Mount Russell and/or the Badlands, for travelers along SR-60, as determined necessary by the Planning Official. The plans and renderings shall illustrate typical views based on proposed project plans, with the location and number of view presentations to be determined by the Planning Official. These views shall be simulated from a height of six feet from the edge of the roadway travel lane closest to the visual resource. The renderings must demonstrate that the development will preserve at least the upper two thirds (67%) of the vertical view of Mt. Russell from SR-60.

Response to Comment G-95-19. The commenter asked why the 250-foot buffer is not measured from the property lines. The setback area will include improvements, non-truck parking, landscaping, drainage improvements, maintenance access, etc., no buildings or truck access areas are permitted (Specific Plan Section 2.5). The DEIR does provide for project by project review of all buildings within the WLC including details regarding site landscaping, screening and visual impacts from adjacent residential areas and SR-60. Refer to the Response to Comment G-95-15 for further detail.

Response to Comment G-95-20. The commenter wants the 250-foot buffer better defined, and wants more specificity in the aesthetic mitigation. The buffer is intended as a building setback, but walls, landscaping, and drive areas can be located within it as long as they are effectively screened from the adjacent residential areas (see revised MM 4.1.6.1B).

~~**4.1.6.1B** Prior to the issuance of any discretionary permit for development under the WLCSP adjacent to Redlands Boulevard, Bay Avenue, and Merwin Street, the developer shall provide a plot plan or site plan, landscaping plan, and visual rendering(s) consistent with the WLCSP that accurately illustrate the appearance of the proposed development. The renderings shall be sufficient to demonstrate that views of the buildings and trucks will be effectively screened from view by existing residents upon maturity of planned landscaping. The location and number of view presentations shall be at the discretion of the City Planning Division.~~

4.1.6.1B Each Plot Plan application for development adjacent to Redlands Boulevard, Bay Avenue, or Merwin Street, shall include a plot plan, landscaping plan, and visual rendering(s) illustrating the appearance of the proposed development. The renderings shall demonstrate that views of proposed buildings and trucks can be reasonably screened from view from existing residents upon maturity of planned landscaping and to ensure consistency with the General Plan Objective 7.7. "Effective" screening shall mean that no more than the upper quarter (25%) of a building is visible from existing residences, which shall be achieved through a combination of landscaping, berms, fencing, etc. The location and number of view presentations shall be at the discretion of the Planning Division.

Based on the requirements of the WLC Specific Plan (see Section 2.5), and with the mitigation proposed, only about a third of the tops of the warehouse buildings will be visible at most, and the planned berms, walls, and mature landscaping are expected to visually block views of the lower portions of the warehouse buildings. In addition, see Response to Comment G-95-18, which describes how MM 4.1.6.3A has been modified to preserve views of Mt. Russell.

Response to Comment G-95-21. The commenter believes the action listed on DEIR page 4.1-69 should be listed as Mitigation Measure 4.1.6.2A. See Response to Comment G-95-20 for changes to MM 4.1.6.1B related to views from the residential areas along Redlands Blvd. See also Response to Comment G-95-18 for changes to MM 4.1.6.3A related to views from SR-60.

Response to Comment G-95-22. It is the commenter's opinion the façade accents described in the Specific Plan will not provide "substantial vertical and horizontal relief" per page 4.1-70 of the DEIR. The Specific Plan establishes design standards and development guidelines to ensure a consistent and attractive appearance throughout the entire project. The WLCSP Section 5.3 sets forth architectural guidelines, and the City Council will decide whether they are sufficient and will consider the comment before making a decision on the project.

Response to Comment G-95-23. The commenter points out the landscape standards do not define a minimum landscape buffer area. The Specific Plan includes a series of exhibits that illustrate a variety of design treatments along adjacent streets. The details of these areas will be included in project specific plot plans, however in general terms there will be at least 40 feet of landscape area behind the closest street right of way.

Response to Comment G-95-24. The City's General Plan provides ample opportunities for all types of residential and non-residential development within the City limits. While there are other planned logistics facilities within the City, there is also a considerable amount of industrial zoned land available for other uses available within the City to create a further diversified economic base to boost employment opportunities. The City Council will decide whether the project is consistent with the General Plan and will consider the comments prior to deciding whether to approve the project.

Response to Comment G-95-25. The commenter says the project is only "partially consistent with Policy 2.5.1. The City Council will determine whether the project is consistent with the Policy.

Response to Comment G-95-26. The commenter believes a 1,000-foot wide buffer of non-industrial land uses is needed for the west side of the project, then it is consistent with General Plan Policy 2.5.2. General Plan Policy 2.5.2 requires that industrial land uses be located to avoid adverse impacts. The 250-foot buffer that has been proposed for west side of the project provides a buffer, which includes landscaping and a berm or wall, will reduce projects impacts on adjacent uses, The air quality analysis determined that extending the buffer to 1,000 feet would not substantially further reduce the impact over a 250-foot buffer. Specifically, the results for the maximum incremental cancer risk are essentially the same for the 250-foot buffer and the 1,000-foot buffer. The buffer would not substantially reduce air quality impacts.

As shown in Section 4.3 of the EIR, the locations of the 10 in one million cancer risk contour line for the project design and the 1,000-foot buffer under the 30-year exposure duration are mostly coincident and overlap each other. The standard for implementing mitigation under CEQA is not whether it would have any benefit. The standard, as described in CEQA statute, is whether the proposed mitigation would avoid or "substantially reduce" a significant impact. A 1,000 foot buffer does not meet that standard and therefore does not need to be implemented. The City's Municipal Code Section 9.05.040B(9) requires a 250-foot setback between residential and industrial uses, based on project specific noise and air quality studies. Therefore, there is no need for a 1000-foot wide buffer of non-industrial land uses to be consistent with General Plan Policy 2.5.2. In addition, a buffer analysis indicates that a 1,000-foot buffer does not substantially reduce the impact (please refer to Master Response 4).

Response to Comment G-95-27. The commenter says a plot plan is needed to determine consistency with Policy 2.5.3. Since this is a programmatic EIR, future discretionary approvals will require additional California Environmental Quality Act (CEQA) analysis based on more details such as building size, location, architecture, and landscaping. The City would then require the plot plan to be consistent with this policy during their discretionary review process.

Response to Comment G-95-28. The commenter believes the Specific Plan does not have enough detail regarding façade treatments and mitigation is needed. The WLCSP Section 5.3 sets forth

architectural guidelines, and the City Council will decide whether they are sufficient and will consider the comment before making a decision on the project.

Response to Comment G-95-29. The commenter expressed concern about landscaping along the SR-60 Freeway. The Specific Plan provides design guidelines for the SR-60 area. The Plot Plan process provides for the City to review and approve every building proposal to insure compatibility with these guidelines and the General Plan policy cited in the comment. The ultimate decision on consistency will be made by the City Council.

Response to Comment G-95-30. The commenter had several specific design suggestions. Nothing in the proposed project suggests that the cited General Plan policy will not be carried out in the development of the WLC project. The Plot Plan process required by the Specific Plan allows for the City to review each building proposal and evaluate its consistency with the General Plan policies. The ultimate decision on consistency will be made by the City Council. The commenter says consistency with Policy 2.10.7 can only be done at the plot plan level. As outlined in the Response to Comment G-95-27 above, this is a programmatic EIR, future discretionary approvals will require additional CEQA analysis, and the City would require plot plans to be consistent with this policy during their discretionary review process. In addition, restrictions on lighting are already required as outlined in DEIR Section 4.1.6.4.

Response to Comment G-95-31. Section 5.2.12 of the Specific Plan 'Walls and Fences' lists design features that may include varied heights, wall plane offsets and angles. This addresses the commenter's concern.

The landscape areas shown in various cross sections in Section 4.2.8 illustrate that there is a minimum 20 foot landscape buffer as well as an additional 8 foot landscape area as part of the streetscape. This provides a total of 28 feet of landscaping between the sidewalk and the edge of development which is where a wall could be built. Additionally, the bioswales are in front of the sidewalk and therefore will not affect the landscaping for the purposes of screening.

Response to Comment G-95-32. The commenter wants mitigation added for a flat area next to SR-60 to provide for landscaping to effectively shield the buildings from freeway views. As outlined in the Response to Comment G-95-27 above, this is a programmatic EIR, future discretionary approvals will require additional CEQA analysis, and the City would require landscaping plans to effectively screen buildings from the freeway during their discretionary review process. See Response to Comment F-8-3 for text of new MM 4.1.6.2B to assure views will be effectively shielded from existing residential (only top quarter of the buildings can be visible under the revised measure).

Response to Comment G-95-33. The commenter wants more specificity regarding the landscaping buffer to be consistent with Policy 2.10.11. As outlined in the Response to Comment G-95-27, this is a programmatic EIR, future discretionary approvals will require additional CEQA analysis, and the City would require landscaping plans to effectively screen buildings from adjacent uses, consistent with this policy, during their discretionary review process. The ultimate decision on consistency will be made by the City Council.

Response to Comment G-95-34. The commenter is concerned about landscaping along the SR-60 Freeway. The reader should see Response to Comment G-95-10 and G-95-32 on this issue.

Response to Comment G-95-35. The commenter wants mitigation for a 200-foot no improvements buffer. The established 250-foot setback is to provide a horizontal separation between existing sensitive land uses adjacent to the project and the proposed buildings and truck yards. In general terms there will be at least 40 feet of landscape area behind the closest street right of way. Future project level approvals such as plot plans will demonstrate adherence to these requirements and will be further conditioned to comply. MM 4.1.6.1A identifies the appropriate buffer for the project/residential interface which will have extensive landscaping, walls and berms to provide

effective visual screening. The commenter has not indicated why a different buffer definition is needed. See also Response to Comment G-95-15 for additional information in this regard.

Response to Comment G-95-36. The commenter was concerned about 2:1 slopes for landscaping. Once the landscaping is established, the variation in ground cover itself will provide relief to the topography of the 2:1 slopes.

Response to Comment G-95-37. The commenter said the special landscaping would simply highlight there were industrial buildings nearby. The special edge treatment discussed in the specific plan (2.5) illustrates a landscape treatment that is residential in nature as compared to the internal street treatments proposed within the WLC.

Response to Comment G-95-38. This comment raises several issues. Section 4.1.6.4 of the EIR discusses the potential light impact of the project, and MMs 4.1.6.4A and B contain specific requirements for lighting impacts to be measured, evaluated and mitigated to minimize light spillage into the San Jacinto Wildlife Area (SJWA). The plot plan process is the best possible measure to evaluate the specific impacts of specific buildings when they are proposed, particularly as it relates to the screening of buildings from adjacent land uses. The light levels proposed for projects within the WLCSP will be designed to specifically address the needs of each individual building, its users, its operating hours and operating characteristics. Lighting plans will be a required part of each plot plan application to allow these details to be evaluated.

The commenter asks for additional screening of onsite improvements under MM 4.1.6.3A, and also has several comments about night lighting. It must be remembered this is a programmatic EIR and additional discretionary review will occur when specific development plans are submitted in the future. The WLC Specific Plan already requires that onsite improvements be screened (WLCSP Section 5.2.12) and the City requires screening during its standard development review process. Therefore, additional mitigation is not necessary regarding onsite screening.

The commenter asked that “white light” on the project be restricted per the Mt. Palomar Zone B requirements. Relative to onsite lighting and dark sky requirements, future development will be required to comply with the City’s lighting ordinance. MM 4.1.6.3A requires the WLCSP will be consistent be consistent with the City's new lighting ordinance 851 (Moreno Valley Municipal Code Section 9.08.100). More information on “white light” spillage and low pressure sodium lighting along the SJWA boundary is provided in Responses to Comments F-1-21 and G-95-43.

The commenter asked that the Specific Plan standards be reduced for parking lot lighting and timers or motion sensors be added to switch off parking lights when not needed. The City has the discretion to require these types of controls under their revised lighting Ordinance 851, with which MM 4.1.6.4A requires compliance.

Response to Comment G-95-39. The commenter wanted the heights of light poles and wall mounted lights limited. Between the guidelines contained in the Specific Plan (Section 4.3), MM 4.1.6.4A and the requirement for building specific plot plan reviews, including lighting, the potential impacts on residential neighborhoods can be fully evaluated and addressed. See also Response to Comment G-95-38 for additional information.

Response to Comment G-95-40. The commenter wants the placement of street lights specified in the Specific Plan. The streets within the WLC are public streets and they may be used by anyone at any time. The City of Moreno Valley will determine the lighting necessary for these roadways and the project will be required to install said lighting at such time as development occurs.

Response to Comment G-95-41. The commenter wants light pole heights and building lights limited so they won’t affect nearby residents. Future development will be required to comply with the City’s

revised lighting ordinance (MM 4.1.6.4A) which limits industrial lighting impacts on adjacent residential uses, including light pole heights and building light placement, consistent with the commenter's direction. Therefore, no additional mitigation is needed.

Response to Comment G-95-42. The commenter said solar panels should be used as shade covers in project parking lots. It is most likely solar panels will be roof-mounted installations to minimize intrusion of panels into developable space. While no parking lot solar panel assemblies are proposed at this time, such installations would be in keeping with the sustainable nature of the WLC project. Therefore, they would be considered on a case-by-case basis on future submittals. In addition, Aesthetics MM 4.1.6.4B was modified as follows:

4.1.6.4B ~~Prior to the issuance of any building permits for development under the WLCSP, the developer shall provide an analysis of any solar panels to be installed on the roof of the new building. The analysis shall demonstrate that, under "worst case" annual conditions, glare from the proposed panels will not leave the confines of the roof, based on building roof parapet design, and affect adjacent residential uses or public travelers along perimeter roadways. Design or construction modifications necessary to meet these requirements shall be implemented to the satisfaction of the City Planning Division.~~

4.1.6.4B Each Plot Plan application for development shall include an analysis of all proposed solar panels demonstrating that glare from panels will not negatively affect adjacent residential uses or negatively affect motorists along perimeter roadways. Design details to meet these requirements shall be implemented to the satisfaction of the Planning Official.

Response to Comment G-95-43. The commenter recommends low pressure sodium (LPS) lighting throughout the WLCSP area. MM 4.1.6.4C in the original DEIR stated…"Prior to the issuance of any building permit for development under the WLCSP, low pressure sodium (LPS) lighting shall be installed on the south sides of any building adjacent to the San Jacinto Wildlife Area (SJWA) to minimize "white" light spillage into the SJWA. This measure shall be implemented to the satisfaction of the City Planning Division based on consultation with the SJWA manager." However, the measure was eliminated due to low pressure sodium lights being prohibited in the City's new Ordinance 851 which amends City Municipal Code Section 9.08.100. The project will still need to minimize white light spillage into the adjacent SJWA and will comply with Ordinance 851. Light intensity levels will be maintained at levels outlined in that ordinance (i.e., prohibit lighting in excess of 0.25 foot candles within 5 feet of adjacent property lines).The reader should also see Response F-1-21 regarding low pressure sodium lighting.

Response to Comment G-95-44. The commenter states only the Specific Plan area should be evaluated using the (California) Land Evaluation and Site Assessments (LESA) model. The LESA analysis in the PB agricultural report (DEIR Appendix C-2) was rerun using just the new 2,610-acre area of the Specific Plan, and the LESA score goes from significant to less than significant. A second agricultural report was prepared by Cushman-Wakefield (Final EIR Volume 2, Appendix C-4) that supported this conclusion of a less than significant impact relative to the loss of agricultural land. However, additional mitigation for loss of agricultural land in the form of a conservation easement on offsite agricultural land to compensate for the loss of onsite unique farmland. The commenter is referred to Response to Comment F-7A-39 for wording of addition MM 4.2.6.1A.

Response to Comment G-95-45. The commenter again indicates only the Specific Plan area should be included in the LESA calculation. The LESA model was re-run to do this as outlined in the Response to Comment G-95-44.

Response to Comment G-95-46. The commenter asks why middle of the property is excluded from the calculation as shown in Figure 4.2.2. The referenced map shows agricultural land as indicated by the State Farmland Mapping Program, it does not relate directly to the LESA calculation process, which did use the entire Specific Plan area, plus the state conservation land to the south in the original analysis (DEIR Appendix C-2). As outlined in the Response to Comment G-95-44, the LESA model was re-run using just the WLCSP property and determined loss of agricultural land was actually a less than significant impact – this conclusion was supported by a second independent report prepared by Cushman-Wakefield (Final EIR Volume 2 Appendix C-4).

Response to Comment G-95-47. The commenter again says the LESA model calculations should only apply to the specific plan area. The Response to Comment G-95-44 above addresses this concern, and the model has been re-run to address this concern.

Response to Comment G-95-48. The commenter states agriculture would no longer be an approved use under the Specific Plan. The commenter is correct, as the land transitions from agriculture to warehousing, those activities are not generally compatible due to dust, farm vehicles on local roads, etc. However, existing farming activities, which are currently on most of the project site, could continue until in an area until that area develops.

Response to Comment G-95-49. The commenter expresses concern about the visual mitigation in Section 4.2 of the DEIR. The commenter should note that MM 4.1.6.3A has been revised to allow for the preservation of two thirds of the vertical view of Mt. Russell, as outlined in Response to Comment F-8-3.

Response to Comment G-95-50. The commenter is concerned the project will take credit for existing state conservation land. The WLC project is not “taking credit” for the state conservation land included in the General Plan Amendment and Zone Change, the DEIR was trying to explain the relationship of the various areas within the WLC project. Section 4.4.1.16 explains the history of the state conservation areas south of the WLC development area.

Response to Comment G-95-51. The commenter mentions the right to farm ordinance only applies to existing agricultural uses on the property at present. That is correct, and the rationale for that is explained in the Response to Comment G-95-48 in this letter. The definition of the CDFW Conservation Buffer Area can be found in FEIR Volume 2 DEIR Section 4.4.

Response to Comment G-95-52. The commenter says MM 4.2.6.1A cannot be left to City staff to implement. However, this mitigation measure has been replaced with a new measure that requires the provision of an offsite agricultural conservation easement which is now considered the appropriate mitigation for the agricultural impacts of the WLC project (i.e., loss of 25 acres of Unique Farmland).

Response to Comment G-95-53. The commenter wonders if the state can run an agricultural mitigation bank. As outlined in the Response to Comment G-95-44, new MM 4.2.6.1A requires the developer to acquire a conservation easement on offsite farmland of equal productivity.

Response to Comment G-95-54. The commenter asks that a minor correction be made to page 4.2-18 in the DEIR regarding farming of the state conservation land to the south. This correction will be made in the revised DEIR (Final EIR Volume 2).

Response to Comment G-95-55. The commenter says the LESA Model SA score would be higher. In fact the LESA model was re-run per the commenter’s earlier suggestions and the score went from significant to less than significant as the SA score went below 20 (19.5 in one calculation, 18 in the other). For additional information, see the Response to Comment G-95-44.

Response to Comment G-95-56. The commenter says the heritage farm will place a burden on the City. This mitigation measure has been replaced with a new measure MM 4.2.6.1A that requires the provision of an offsite agricultural conservation easement which is now considered the appropriate mitigation for the agricultural impacts of the WLC project (i.e., loss of 25 acres of Unique Farmland).

Response to Comment G-95-57. The commenter asks that a number be corrected in the cumulative agricultural impacts section. That correction will be made in made in the revised DEIR (Final EIR Volume 2).

Response to Comment G-95-58. The commenter asks why local farming options were not explored that would reduce greenhouse gas emissions. As outlined in Section 4.2.7, *Agricultural Resources – Cumulative Impacts*, continued farming on the project site is not economically feasible given the high cost of water and property taxes on the vacant land. Local groundwater, which could be available via several onsite agricultural wells, cannot be used to irrigate crops due to its high nitrate and salinity levels based on irrigation limits established by the Regional Water Quality Control Board and the Eastern Municipal Water District. At present, dry farming with its low planting and maintenance costs is the only economical agricultural activity on the project site, so keeping a large portion of the project site in agriculture to offset greenhouse gas emissions from new warehouses is not feasible given current economic conditions. In addition, Response to Comment F-7A-45 explains why local groundwater cannot be used to irrigate onsite crops.

The developer has indicated the farmers that utilize the WLC property try to market their winter wheat as close as possible to the City to minimize transportation costs, which is one of the main reasons to dry farm compared to raising irrigated crops (i.e., low cost). In addition, the Greenhouse Gas (GHG) analysis for the WLC project assumed no existing emissions from onsite activities to provide a worst case estimate of WLC emissions (i.e., only from new development) and also did not claim any credit for reductions of GHG from onsite absorption from onsite vegetation of local sales of onsite dry farmed crops. Such emissions would be a miniscule portion of the estimated tons of GHG emissions from the WLC project that such minor contributions, positive or negative, would have demonstrable effect on the outcome of the analysis.

Response to Comment G-95-59. The commenter asks for clarification for why over 1,000 acres of area not included in the development plan were evaluated in the Agricultural Resource Assessment. In the Original Agriculture Resources Assessment, the State conservation area was included in the calculations in an attempt to overestimate and not minimize potential impacts to the surrounding area. The agricultural assessment has been revised to exclude the State conservation area and the LESA model calculations were reanalyzed based on this smaller acreage. The smaller acreage caused the results of the LESA model calculations to change the level of significance to less than significant.

Response to Comment G-95-60. The commenter states that the limits of the WLCSP are incorrectly shown in the Agricultural Resource Assessment due to the inclusion an open space area which is only part of the GPA. The area that the commenter refers to is the CDFW Conservation Buffer Area which has been taken out of the Agricultural Resource Assessment (Appendix C-2 of the FEIR Volume 2) and the agricultural analysis of the project site has been revised.

Response to Comment G-95-61. The commenter states that the crop information in regard to citrus growth in the project is incorrect. The project area has supported a wide variety of agriculture, over the years including citrus. The commenter is referred to the Revised Agricultural Resources Assessment page 6-7 in Appendix C-2 of FEIR Volume 2 for additional information and references. According to historical records, and as outlined in Section 4.2.1 of the DEIR, the Moreno Valley has supported a number of agricultural crops over the years, including citrus. In fact, until recently, there were over 50 acres of citrus growing on a nearby property northwest of the WLC property (the ProLogis site just east of the auto center off of Auto Center Drive and the 60 Freeway. However, to be

responsive to the comment, the cited text will be changed to say the following… Historically one of the important crops in the region was irrigated citrus fruit.

Response to Comment G-95-62. The commenter requests an evaluation of using onsite well water for crop irrigation. As outlined in Responses to Comments G-95-58 above and F-7A-45, onsite groundwater cannot be used because it is too expensive and does not meet the water quality limits established by Eastern Municipal Water District for crop irrigation.

Response to Comment G-95-63. The comment states that an egg production ranch that used to be on the project site needs to be described in the agricultural assessment. The requested update has been made and the commenter is referred to the Revised Agricultural Resources Assessment page 7 in Appendix C-2 of FEIR Volume 2.

Response to Comment G-95-64. The commenter requests that the rainfall for the proposed project area be verified. As published by the Moreno Valley city website the annual rainfall for Moreno Valley is approximately 9.9 inches. The commenter is referred to the Revised Agricultural Resources Assessment page 8 in Appendix C-2 of FEIR Volume 2 for references.

Response to Comment G-95-65. The commenter wants a term changed to "man-made ponds and lakes" on page 14 of the agricultural report prepared by Parsons Brinckerhoff (revised December 2013). However, the commenter did not state what term should change and it is not clear to what term he was referring. It should be noted the PB agricultural report was revised based on a number of comments and changes in the WLC project. The commenter is encouraged to read the revised version of that document.

Response to Comment G-95-66. The commenter points out an inconsistency between the site elevations given in the DEIR and the Agricultural Resources Assessment. In response to this comment, the elevation in the Revised Agricultural Resources Assessment has been updated to reflect the correct project site elevations. The commenter is referred to the Revised Agricultural Resources Assessment page 8 in Appendix C-2 of FEIR Volume 2 for changes.

Response to Comment G-95-67. The commenter states that the Lake Perris Recreation area comprises less than the 50% of the Zone of Influence Area. The agricultural assessment has been revised based on revisions to the WLCSP and this comment. The revised assessment lists the recreation area as comprising less than 25% of the revised Zone of Influence.

The commenter also states that a six sided geometric shape should be used instead of a rectangle when determining the Zone of Influence. According to the *California Agricultural Land Evaluation and Site Assessment Model,* a rectangle with a 0.25 mile buffer from the project boundary is the prescribed shape that must be used when determining the Zone of Influence for a project area.

Response to Comment G-95-68. The commenter states that Section 3.4 of the Agricultural Resources Assessment is incorrect and needs to be reassessed. The agricultural assessment has been revised based on revisions to the WLCSP and this comment. The revised Agricultural Resources Assessment concludes that there is not a significant impact on farmland of local importance. The commenter is referred to the Revised Agricultural Resources Assessment page iv and 25 in Appendix C-2 of FEIR Volume 2 to see specific changes.

Response to Comment G-95-69. As shown on the Federal Emergency Management Agency Flood Insurance Rate (FIRM) Maps 06065C0760G, 06065C0770G, and 06065C0790G; none of the surrounding residential areas fall in the Zone A, 100-year flood plain. This does not mean that localized flooding does not occur. Existing conditions for the project are documented in the Master Plan of Drainage, Appendix J of the DEIR. In the existing condition, localized flooding does occur at Gilman Springs Road and the southwest corner of the property near Merwin Avenue. Watershed Area

"A", shown in Figure 3, drains to this area. In a significant storm, runoff from Watershed Area "A" will sheet flow across the agricultural land to the southwest corner of the project at Alessandro Boulevard and Merwin Street. In the existing condition, flows leave the project boundary via a culvert under Alessandro Boulevard which outlets to an existing ditch. The capacity of the existing ditch south of Alessandro Blvd was evaluated and does not have the capacity to convey the 100-year storm in the existing conditions. In the proposed condition, flows leaving the project's boundary will be mitigated to less than the existing flow with the construction of Detention Basin A1 shown on Figure 1, Proposed Storm Drains and Basins. Also, the ultimate Moreno Master Drainage Plan open channel facility from the Basin to Redlands Avenue will be constructed. These facilities will be designed to convey the 100-year storm and will reduce the risk of flooding.

Response to Comment G-95-70. The commenter recommended changes to the text on page 4.9-25 of the DEIR. This change has been made in the revised DEIR.

Response to Comment G-95-71. The commenter questions an inconsistency in housing figures on pages 4.13-2 and 4.13-3 in the DEIR. These figures has been made consistent in the revised DEIR.

Response to Comment G-95-72. The commenter points out various inconsistencies in employment and fiscal benefit figures in several places in the DEIR. These inconsistencies has been resolved in the revised DEIR.

Response to Comment G-95-73. The 24,642 employees noted in the DEIR is not a "worst-case" estimate, and is not cited as such in the document. The projection is simply an estimate based on the successful construction of 40.6 million square feet of logistics facilities and the expected number of direct, indirect and induced jobs anticipated from this square footage. Regarding infrastructure needs, while the number of roads and sewer and water facilities required by the project may be relatively static and not be impacted by relatively small changes in the number of jobs actually created within the WLC (and in fact will be entirely funded by the project), the magnitude of many public services and maintenance costs will be a direct function of the number of employees generated by the project. For example, the number of calls for fire and police protection services, the need for road maintenance and the garbage and sanitation service requirements of the project will all correlate to some extent with the number of employees who are generated. The implication that the generation of "only" 20,000 or 22,000 jobs will mean that the project is no longer beneficial to the City is incorrect. In reality, the benefits associated with significantly increased employment opportunities in a City that is as "job-poor" as Moreno Valley are significant, and outweigh minor increases in public costs per new job, should such increases even exist.

Response to Comment G-95-74. According to the 2010 U.S. Census, of the 56,429 employed persons residing in Moreno Valley in 2010, 17.6% were employed in production, transportation and material moving occupations, 14.9% were employed in service occupations and 11.3% worked in construction, extraction and maintenance occupations. Many of these 24,609 employed residents will find suitable employment in WLC, especially those residents that currently commute to Los Angeles or Orange Counties, or other parts of the Inland Empire, for work.

OCCUPATION	No. of Residents By Occupation	Pct. of Residents By Occupation
Management, professional, and related occupations	14,206	25.2%
Service occupations	8,408	14.9%
Sales and office occupations	17,328	30.7%
Farming, fishing, and forestry occupations	205	0.4%
Construction, extraction, and maintenance occupations	6,377	11.3%
Production, transportation, and material moving occupations	9,905	17.6%
Total	56,429	100.0%

**Source: Census Bureau. See Exhibit Q.*

In addition, there will be a significant number of sales and office workers employed in the WLC, as well as management staff, engineers and computer professionals, many of whom also currently reside in Moreno Valley. There is therefore considerable opportunity for current residents of Moreno Valley to find work in WLC.

Furthermore, the concept of workers from outside of Moreno Valley being attracted to jobs in WLC is not a valid argument against the construction of the project. First, many of these employees might seriously consider moving closer to work, thereby enhancing property values within the City and drawing in more businesses and services jobs to meet the needs of these new residents. In addition, it is to the benefit of the entire Inland Empire to provide more jobs in locations within its borders, as employees driving to Moreno Valley from Riverside, Perris and other local communities will no longer be clogging the roads to LA and Orange County, and will have more family time and an overall improved quality of life. Please refer to Response to Comment G-51 for a more detailed response to this item.

Response to Comment G-95-75. Note: The commenter refers to an example analysis in the response, but neglected to attach the document.

The intent of the fiscal impact analysis is to analyze the "fiscal balance" at build-out of the WLC, in terms of how the project will affect the City General Fund. Notably, the study does not address any cost of living increases or inflation as these projections would be speculative at best and hard to predict over a 20-year span. Similarly, on the revenue side, the concept of increasing real estate taxes from property appreciation, increasing sales taxes due to price inflation, increasing user charges, etc. are also not accounted for. Again, it would be speculative to assign rates of increase in potential revenue streams over a 20-year span, so as is the case for most fiscal impact analyses, the DEIR uses costs and revenues based on constant (2013) dollars. Fiscal issues aren't CEQA issues, CEQA Guidelines Section 15131, but the City Council will consider all comments before deciding whether to approve the project.

Response to Comment G-95-76. The DEIR relied upon governmental sources (i.e. Bureau of Labor Statistics, Employment Development Department and the Census Bureau) for the applicable wage data within the logistics sector. Importantly, these numbers have been compiled from these data sources based on County and Metropolitan Statistical Area data pertinent to the WLC. Specifically, the analysis utilized a monthly wage for full-time equivalent employees working within the logistics industry taken from the U.S. Census Bureau and annualized that number. It would follow that even if employees are temporary, their monthly salary would be equivalent to that of a permanent worker, and as the Census figure represents full-time equivalent employees, a worker only employed for a portion of a month would only be counted within the Census data for the portion of the month that they were actually employed.

Response to Comment G-95-77. The economic impact report portion of the DEIR addresses the full-time equivalent job number of 16,395 one-time construction workers by acknowledging that since the actual construction will occur over a 10-year period, this figure is equivalent to approximately 1,700 jobs per year. The report also makes the assumption that half of the total indirect and induced jobs generated in the County will be realized within the City. In general, the impact realized within the City is determined using Impact Analysis for Planning (IMPLAN) zip code data that analyzes the economic activity allocated to each of the zip codes within the County.

Response to Comment G-95-78. The commenter states the revenue figure shown on page 4.13-14 of the DEIR is not consistent with the project economic report. The economic report has been revised based on changes to the Specific Plan, and this inconsistency will be corrected in the revised Draft EIR (Final EIR Volume 2).

Response to Comment G-95-79. The commenter says the "loss" of the Moreno Highlands Specific Plan (MHSP) would also result in a loss of jobs from that land plan. It must be remembered CEQA does not allow a "plan to plan" comparison for the purposes of determining significance, but can only be used for comparison to show what could happen if existing conditions continue, as was done under the No Project – Existing General Plan Alternative examined in Section 6.3.5 of the DEIR. The estimate of jobs for the WLC project should not be "masked" by the paper comparison of jobs that might have been introduced if that land plan was developed instead of the proposed WLC project. However, it is at least interesting to note that the MHSP would indeed have introduced some small amount of new employment into this area, but on the order of approximately 24,000 jobs with a mixture of office and retail workers, based on the current land plan (DEIR Table 3.A and Figures 3-4 and 4.10-2).

The commenter is correct and the Section 6.3.2 of the revised Draft EIR (Final EIR Volume 2) has been revised to remove the land uses proposed for the subsequently approved CDFW Conservation Buffer Area land. That analysis shows reduced development-related impacts (e.g., traffic, air quality still does not meet the project objectives to nearly the same degree as the proposed WLC project because it is still largely residential and does not introduce a large amount of employment-generating uses.

Response to Comment G-95-80. The commenter says the job figures on page 5-5 are not consistent with the project economic study. This inconsistency has been corrected in the revised Draft EIR (Final EIR Volume 2).

Response to Comment G-95-81. The commenter says there are additional job and revenue figures on page 5-5 that are not consistent with the project economic studies. These inconsistencies have been corrected in the revised Draft EIR (Final EIR Volume 2).

Response to Comment G-95-82. Home values are often affected by a myriad of circumstances that are hard to predict, however, the construction of the project is expected to attract additional non-residential development that will provide services to the WLC, which in turn will draw more business to the City. While there is a possibility that the proximity of a warehouse and potential truck traffic could negatively affect the price of a home, it is also likely that the addition of employees wanting to live near their place of work will increase demand to residential communities, thereby driving up residential property values in other portions of the City, albeit not directly adjacent to the WLC. Finally, the WLC itself will improve the City's tax base as described above. CEQA is concerned with physical impact of urban blight and not mere decreases in value.

Response to Comment G-95-83. The commenter asked of the No Project – Existing General Plan alternative took into account the loss of 1000 acres for the land purchased by the state as conservation land. No project would mean no change. There is no "loss" of 1,000 acres.

The commenter is correct and the Section 6.3.2 of the revised Draft EIR (Final EIR Volume 2) will be revised to remove the land uses proposed for the subsequently approved CDFW Conservation Buffer Area. That analysis shows reduced development-related impacts (e.g., traffic, air quality still does not meet the project objectives to nearly the same degree as the proposed WLC project because it is still largely residential and does not introduce a large amount of employment-generating uses.

Letter G-96: Margie Breikreuz (April 8, 2013)

TO: Mark Gross
City Planner

FROM: Margie Breitkreuz

DATE: April 8, 2013

RE: Response to DEIR – WLC Warehouse Project

This letter is written in response to the World Logistic Center warehouse project's draft EIR. I appreciate the opportunity to provide my concerns with the project.

Air Quality

How will issues of air quality and diesel soot be addressed when Southern California, specifically the Inland Empire, already has the worst air quality in the nation? Adding 41.6 million square feet of warehouse space and associated diesel truck pollution will only exacerbate our current poor air quality.

The Clean Air Task Force website based on the 92555 area code states: "The *lifetime* cancer risk from *diesel soot* in our community exceeds the risk of all other air toxics tracked by EPA combined.

- The average lifetime diesel soot cancer risk for a resident of Riverside County is 1 in 3,917.
- This risk is 255 times greater than EPA's acceptable cancer level of 1 in a million."

Pollution levels will greatly intensify with the WLC as our surrounding mountains act as a natural barrier and currently trap pollution blown in from Los Angeles County.

NRDC investigators found in a majority of cases the greatest concentration of diesel vehicles – at bus stops, distribution centers, and industrial facilities – were typically located in low-income communities. This pattern is consistent with numerous studies showing that a higher percentage of environmental hazards are concentrated in such areas.

The DEIR does not sufficiently address the airborne cancer risks of the number of diesel trucks servicing the WLC warehouse project. 1

Economic Impact

How will the financial burdens of the WLC are addressed in the following areas:

- The lack of mixed-use, diversified businesses; (many warehouses throughout the Inland Empire remain unoccupied). 2

- The impact of heavy truck traffic to our infrastructure.
- Low square footage to employment levels.
- The cost of monitoring unlawful truck parking, traffic patterns, and idling as currently exhibited in Mira Loma.
- The consensus that logistics/warehouses provide a relatively poor return on public investment and generally do not represent the highest and best use to which real-estate should be devoted. (O'Connell)
- The cost to the community for medical coverage for seasonal and part-time employees.
- The low tax base.

— 2

Traffic Issues

The DEIR does not address the traffic issues such as:

- The lack of access to rail, airport and freeway accommodations increasing the driving time for diesel trucks.
- The impact of 24-hour/seven day a week businesses to traffic patterns and freeway capacity.
- Inadequate lanes on the 60 freeway to handle increased truck traffic.
- Increased commuter time due to inadequate freeway ingress/egress. Current improvements only address current needs. How will current freeway exits handle the increased truck traffic?
- The cost of monitoring unlawful truck parking, traffic patterns, and idling as currently exhibited in Mira Loma.

— 3

Livable Communities

How will the DEIR for the WLC address livable community resources?

- Reduced quality of life issues impacting home sales in Moreno Valley.
- The need to build sound walls to protect current neighborhoods from noise levels destroying city views.
- Reduced home values caused by clustered, mega-scale warehouse complexes.
- The impact to homes surrounded and bordered by the WLC.
- The impact 24-hour truck traffic will have on resident commute time impacting their participation in school and community events, parental supervision of children, cost of extended day care, etc.
- The impact of truck traffic noise and lights.
- The lack of job opportunities that provide adequate salaries, job security, and promotion opportunities.
- Few if any jobs for local residents.

— 4

Nature

How will the WLC protect Moreno Valley residents and the resources of the San Jacinto Wildlife Area from diesel and noise pollution?

— 5

RESPONSES TO LETTER G-96

Margie Breikreuz

Response to Comment G-96-1. The commenter indicates that the Draft Environmental Impact Report (DEIR) does not sufficiently address cancer risks of the number of diesel trucks servicing the World Logistics Center (WLC) project.

The health risk assessment contained in both the DEIR and the revised analysis provided detailed estimates of the project's diesel truck emissions and their resulting health risk and non-cancer hazards to nearly 5,000 individual receptor locations. The diesel emissions were estimated for on-road diesel vehicles that would travel on nearly 500 individual roadway segments from Palm Springs to the ports of Los Angeles and Long Beach, as well as support equipment that would operate on the project site, including emergency standby diesel generators, yard hostlers, and forklifts. The resulting cancer risks and non-cancer hazards were fully discussed therein.

Response to Comment G-96-2. (bullet points 1-7),

1. Please reference the Response to Comment G-95-24.
2. Please reference the Response to Comment G-57-1.
3. Please reference the Response to Comment G-53-2.
4. The City will enforce existing traffic laws to assure compliance by WLC traffic with these laws. The Traffic Impact Analysis prepared as part of the DEIR discusses these issues in further detail in Section 12C. Costs are covered because of net benefit to City revenues.
5. The highest and best use for property is determined based on the economic demand for a particular land use for a site in a given location. Based on the current demand for logistics facilities versus other uses in this portion of Moreno Valley, Applicant has determined that logistics is the highest and best use for its property.
6. Please reference the Responses to Comments for F-9A-40, F-9A-41, and F-11-21.
7. Per the Final Environmental Impact Report (FEIR), the assessed value (once the WLC is built-out) is expected to be approximately $3.7 Billion, which will increase the City's tax base significantly. Please reference Response to Comment G-95-82.

Response to Comment G-96-3. The commenter requests that the Traffic Impact Assessment (TIA) analyze rail access, inadequate lanes on SR 60, and adequacy of the current freeway exits to handle increased truck traffic. Also the cost of monitoring unlawful truck parking, traffic patterns, and idling as currently exhibited in Mira Loma.

An additional section (Chapter 4, Section F) has been included in the TIA that analyzes the potential for serving project trips by rail. The analysis showed that rail service to the project site is not viable due to a range of factors, including high fixed costs, secondary impacts on the community, and capacity constraints within the rail system.

The adequacy of SR-60 to handle the WLC traffic was fully analyzed in the TIA and needed mitigation measures were identified. As discussed in Chapter 4, Section B of the TIA the current freeway exits at Theodore Street are inadequate for the forecast WLC traffic volumes. Improvements to the Theodore Street Interchange are currently being studied by the City and Caltrans. The WLC developers will be required to pay their fair share of these improvements, as they paid for the earlier

improvements done in conjunction with the Skechers warehouse. See MM Trans-5, Chapter 11, Section G.

The cost of enforcing traffic local laws is covered by taxes. The WLC will be one of the largest taxpayers in Moreno Valley. The adequacy of the taxes paid by the WLC to cover the costs incurred by the City, including police costs, is discussed in the financial analysis.

Response to Comment G-96-4. The commenter expressed a variety of concerns regarding the project, as outlined below:

(1) reduced quality of life and home sales – the term quality of life is somewhat vague but the potential environmental impacts of the WLC project on both the natural and man-made environment were evaluated in the Draft EIR Sections 4.1 through 4.16, some of which the commenter would probably agree constitute quality of life (traffic, noise, views, etc.). The DEIR determined there would be significant impacts related to views, agriculture, air quality, climate change, land use, noise and traffic. California Environmental Quality Act (CEQA) does not require an analysis of economic impacts such as home prices or sales. However, to date there has been no empirical evidence or case studies presented that would demonstrate the WLC would result in fewer homes sales or lower property values in the City.

(2) Sound walls and loss of views – Section 4.12 of the DEIR does recommend a variety of sound walls to help reduce noise impacts along a number of City streets as a result of WLC passenger vehicle traffic contributing to increased noise levels in the future. It is likely that installation of some of these sound walls will reduce views from the affected residential lots, however, installation of the sound wall would be at the discretion of the affected property owner, and the City Council will consider all comments and responses on the project and EIR before making a decision on the WLC project.

(3) decreased home prices – see response #1 above.

(4) 24-hour traffic affecting community activity – the revised traffic impact assessment (TIA) for the project indicated truck traffic from the WLC project would not have significant impacts on local schools, and there is no way to quantify or correlate project-related traffic to any changes in community activity participation, nor is there any reason to believe traffic in general affects decisions by parents or persons to participate in any activity outside of their residences.

(5) Trucks generating more noise and light – Section 4.12 of the DEIR examines potential noise impacts of the WLC project on local roadways, but it must be remembered that local traffic will be mainly passenger vehicles going to and from the project site because trucks will be limited to established truck routes and most project truck traffic will utilize Theodore, SR-60, and Gilman Springs Road. General lighting impacts of project development were evaluated in DEIR Section 4.1.6.5, however, lighting from vehicles traveling on roadways is not considered a significant impact. Onsite truck lighting is not considered significant due to the planned berms, landscaping, fencing, and other visual screening required of the project (see revised MM 4.1.6.2B related to project screening).

(6) lack of new jobs – the economic report (DTA 2014) indicates the WLC could generate over 20,000 new jobs in the community at a variety of income levels with both part-time and full-time conditions.

(7) few local jobs – As outlined in the Responses to Comments G-33-9 and G-74-5, a Local Hiring Program will provide City residents with information on construction or warehousing jobs within the World Logistics Center Specific Plan (WLCSP) before the information is advertised regionally.

Response to Comment G-96-5. The commenter asked how the WLC project would protect Moreno Valley residents and resources of the San Jacinto Wildlife Area from diesel and noise pollution.

The project will implement a number of project design features and mitigation measures to minimize its impacts to residents and the resources of the San Jacinto Wildlife Area. These measures and features include allowing only the cleanest diesel trucks to access the project, as well as several other measures discussed in Response to Comment Letter E-3-8. Other features include prohibition of truck travel along several roadways that are run through populated areas, such as Redlands Boulevard south of Eucalyptus Avenue and Cactus Avenue, minimum building setback of 250 feet from residentially occupied or zoned property, and special edge treatments along the Redlands/Bay/Merwin edge in the west and southwest portions of the project and along the San Jacinto Wildlife edge to the south that would prohibit buildings, truck courts, loading areas, truck circulation areas, or truck or trailer storage areas in these area (see the World Logistics Specific Plan for additional details).

Letter G-97: Otana Jakpor (April 8, 2013)

Mr. John Terell
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92553

Otana Jakpor
16941 Mockingbird Canyon Rd.
Riverside, CA 92504
April 8, 2013

Dear Mr. Terell:

I have long been concerned about air pollution, as I have grown up in Riverside and have seen firsthand how air pollution has affected people I care about. I am a volunteer for the American Lung Association and a student at the University of Southern California double-majoring in Global Health and Biology. I have previously interned with the USC-UCLA Southern California Environmental Health Sciences Center studying the goods movement industry and its impact on health. I received a Clean Air Award from the South Coast Air Quality Management District and was given the President's Environmental Youth Award for EPA Region 9 by President Bush in 2008 for my research and public policy advocacy concerning air pollution.

As we look at goods movement, it is readily apparent that the key to minimizing the health impacts of goods movement is strategic placement of intermodal facilities and the use of greener technologies. The proposed location of the World Logistics Center, with no access to railroad for the possibility of "clean trains," means a massive increase in diesel truck traffic. Please explain why such a massive warehouse complex with an associated massive increase in truck traffic would be situated in an area that is already in non-attainment according to federal and state air standards. The American Lung Association has given this region an "F" grade for air quality, and there could hardly be a worse area in the United States for situating a massive warehouse complex, as we already have some of the worst air quality in the country. I am glad that the World Lo 1 ics Center plans to use LED lights and become LEED certified, but I fail to understand how that will mitigate the effects of a massive increase in diesel truck traffic and its resulting pollution. — 1

In my own research studies, I found several people to have asthma that had not been previously diagnosed. Even if people fail to recognize the impact of air pollution on their health, it does not mean that the poor air quality is not having an impact. In fact, we just need to look at published scientific studies to see that air pollution is having a huge impact on the health and economy of our region.

I believe that the draft environmental impact report failed to sufficiently evaluate the impact of the resultant increase in air pollutants upon pulmonary health. There was much focus on cancer risk, but insufficient focus on asthma, COPD, and the pulmonary development of children. The draft environmental impact report failed to even reference the landmark USC Children's Health Study that found a stunted rate of lung function growth, particularly in Mira Loma—a nearby example of a "warehouse city." The report also failed to calculate the economic costs from rising health impacts of increased air pollution. There has not been a true cost-benefit analysis of this project. The increased health costs would off-set some of the economic benefits of new jobs in Moreno Valley. — 2

The draft environmental impact report also failed to address the impact of the increase in air pollutants on cardiovascular health. Particulate air pollution is associated with heart attacks and strokes. Please calculate this impact and the resulting economic cost of this impact. Such a large project as this could have a negatiev effect on life-expectancy in Moreno Valley. 3

I am strongly opposed to the building of the World Logistics Center which has a number of “significant and unavoidable impacts” on air pollution in this region, and therefore on the health and economy of this region.

Sincerely,

Otana Jakpor

RESPONSES TO LETTER G-97

Otana Jakpor

Response to Comment G-97-1. The entire South Coast Air Basin (SCAB) is in nonattainment. Air quality in the region has significantly improved in the past two decades, as discussed in the Draft Environmental Impact Report (DEIR) (Figure 4.3.1: Percent of Days Basin Exceeds Federal Ambient Air Quality Standards (AAQS); Figure 4.3.2: Exceedances of 1-Hour and 8-Hour Federal Standards; Figure 4.3.3: Number of Days per Month Federal Ozone Standard Exceeded, 1976–2000; Figure 4.3.4: NOx, VOC, and Ozone Trends in the South Coast Air Basin; and Figure 4.3.5: Particulate Matter Trends in the South Coast Air Basin).

Further, a review of $PM_{2.5}$ air quality trends in the Inland Empire including air monitoring data at Mira Loma, Fontana, San Bernardino, and Riverside Rubidoux have shown marked downward trends in the Inland Empire since 2001. PM2.5 is often used as a surrogate for airborne particulate matter such as diesel PM. These trends are evident despite the urban and logistics warehouse development during this time period. These trends are shown in Exhibit 2, Particulate Matter Trends and Emissions Forecast, contained in the revised analysis and shown in Master Responses in Letter C-3.

Section 4.F of the Traffic Impact Assessment (TIA) (FEIR Volume 2 Appendix L-1) analyzes the use of rail for the project. It is infeasible to ship cargo from the port to the WLC as it will actually have worse environmental impacts to the surrounding area, requires high fixed costs for handling rail cargo, and is physically impractical based on the topography of the area.

There is significant demand in Southern California for high-cube warehousing. In fact, the SCAG Warehouse forecast titled "Industrial Space in Southern California: Future Supply and Demand for Warehousing and Intermodal Facilities" estimates that the demand for warehousing in Southern California will exceed available land and that by 2035 there will be a shortfall of 228 million square feet in available warehouse facilities. If the project were not constructed at the proposed site, warehouses would likely be constructed elsewhere in the air basin. The policies of the region do not seek to attain compliance with ambient air quality standards through prohibiting growth. In fact, regional planning documents like the South Coast Air Quality Management Plans seek through the application of advanced emission control technology, which this project is implementing through measures such as requiring 2010-compliant trucks. All of the air quality improvements in the South Coast Air Basin over the 50 years have been achieved through the use of cleaner technologies, not prohibitions on development.
(http://www.valleyconnect.com/~valleyco/images/stories/Library/reports/SCAG_IndustrialSpaceInSouthernCalifornia.pdf)

The commenter wonders why there is no rail access for the project. An additional section (Chapter 4, Section F) has been included in the TIA that analyzes the potential for serving project trips by rail (FEIR Volume 2 Appendix L-1). The analysis showed that rail service to the project site is not viable due to a range of factors, including high fixed costs, secondary impacts on the community, and capacity constraints within the rail system.

The commenter also wonders why the project is situated in a nonattainment area. The entire South Coast Air Basin is in nonattainment. If the project were not constructed in the proposed site, warehouses would likely be constructed elsewhere in the air basin. The policies of the region do not seek to attain compliance with ambient air quality standards through prohibiting growth. In fact, regional planning documents like the South Coast Air Quality Management Plans seek to reduce air emissions through the application of advanced emission control technology, which this project is implementing through measures such as requiring 2010-compliant trucks. All of the air quality

improvements in the South Coast Air Basin over the 50 years have been achieved through the use of cleaner technologies, not prohibitions on development.

Response to Comment G-97-2. The commenter indicated that the DEIR failed to sufficiently evaluate the impacts of the resultant increase in air pollutants on pulmonary (lung) health.

The health risk assessment contained in the DEIR addressed health impacts associated with both cancer risk and chronic (long-term exposures) non-cancer hazards. The chronic non-cancer hazards include reproductive effects, respiratory effects, eye sensitivity, immune effects, kidney effects, blood effects, central nervous system, birth defects, or other adverse environmental effects. Each toxic chemical has a unique chronic toxicological profile. Chemicals may affect the body through different mechanisms and target organs, and cause different chronic health effects. The assessment of chronic non-cancer hazards due to the project were estimated using the methodology recommended by the South Coast Air Quality Management District (SCAQMD). Using this methodology, the maximum chronic non-cancer hazards resulting from the project's emissions of diesel particulate matter (PM) were found to be less than the SCAQMD's significance threshold of 1.0.

Potential acute (short-term exposure) non-cancer hazards was expanded in the revised analysis to examine potential non-cancer hazards associated with both the total organic gas (TOG) emissions from gasoline- and diesel-fueled vehicles. Acute risks are non-cancer adverse health impacts, commonly associated with exposures to high concentrations of toxic air contaminants over short periods of time, as in minutes or hours. Typical symptoms of acute exposure may include headaches; dizziness; nausea; eye, nose, or throat irritation; and/or skin rash. Each toxic chemical has a unique acute toxicological profile. Chemicals may affect the body through different mechanisms and target organs, and cause different acute health effects. To estimate the project's acute non-cancer hazards, detailed estimates were made of the project's TOG emissions for both gasoline and diesel vehicles. The TOG emissions were then broken down into their major chemical components from which an estimate of the acute non-cancer hazards was made at over 2,500 receptor locations surrounding the project. On the basis of this assessment, the maximum acute non-cancer hazard was found to be 0.05, substantially less than the SCAQMD's significance threshold of 1.0.

The discussion of health effects of air pollution contained in the revised analysis has also been expanded to include a summary of the University of Southern California (USC) Children's Health Study, as discussed in Master Response-2: Heath Effects of Diesel Particulate Matter.

Response to Comment G-97-3. The commenter claims the DEIR fails to address the impact of the increase in air pollutants and cardiovascular health.

Both the DEIR and revised assessment contain a comprehensive evaluation of the health impacts from the project. Health effects from diesel pollution, for example, are discussed in Master Response-2: Health Effects of Diesel Particulate Matter (refer to Responses to Comment Letter C-3). Response to Comment G-49-8 discusses methodology and results of an estimation of the additional rate of premature deaths from heart disease, chronic lower respiratory disease, and stroke from the project's diesel PM. The results of this estimation show that there would be no substantial increase in mortality and morbidity as a result of the project.

Letter G-98: Hans and Barbara Wolterbeek (email) (April 17, 2013)

Letter G-98

From: hww [mailto:hww@roadrunner.com]
Sent: Wednesday, April 17, 2013 10:22 AM
To: Mark Gross
Subject: Request

Dear Mr. Gross:

My wife and I recently had a chance to review the DEIR for the WLC. As a way of introduction, we are both long time residents of Moreno Valley and are now retired. We are both trained physicists and have spent our careers in technical and management areas in various industries. We feel that our background allowed us to make an objective and unbiased review of the document.

The DEIR is a good document, very well organized and written. The traffic analysis was very detailed. We were especially impressed by the fact that the trip generation rate was peer reviewed in Appendix T.

The WLC will have high cube warehouses. Very little data is available for such facilities. They tend to be efficient, require less employees, and may require fewer truck trips per KSF than smaller warehouses. The DEIR makes some very 1

Letter G-98

big conclusions on very small data samples, which are sometimes based on contradictory data, or even erroneous data. For example, the trip generation rate of 1.68 was used in the DEIR (ITE edition 9). However, I agree with the argument in Appendix T that the 2011 NAIOP study makes a good case for the use of the smaller number 0.99 for traffic analysis. The use of the 0.99 number would greatly reduce the estimate of truck trips which would help reduce the estimate for the impact of the WLC on traffic density. However, what number should be used for air quality? It appears to us that no proper engineering estimate can be made at this time, by anyone, for the impact on air quality for high cubes. There is just not enough data available for anyone or any organization to make an evaluation of this parameter. 1

We also reviewed the fiscal and economic analysis in the DEIR. We were unable to duplicate various important parameters in this section of the document including the number of employees for the WLC and the wage information. A detailed review by us appears to indicate that the presented information is wrong. (In scientific and engineering circles, data that cannot be verified is suspect). In other areas, the wrong source data was used in the analysis. In addition, the document assumes 100% occupancy from day one and gives the impression that the city income will be $5 million dollars by 2022; when in fact this is very unlikely, even in a positive economic cycle. 2

The discussion on construction is a self contradictory. For example, the label in Figure 3.19, seem to indicate that 20 MSF of warehouses will be built by 2017, and another 20 MSF will be built by 2022. The document elsewhere states that an average of 1700 FTEs will be employed to accomplish phases 1 and 2. These two data points give the impression that all 40 MSF will be completed by 2022. However, other sections of the document clearly indicate that the buildings will be customized, i.e. need to have a tenant before they will be built. There appears to be no probable and realistic schedule for building completion and building occupancy. 3

What is actually built, and when, pertains directly to the construction income to the city and fiscal responsibilities that come to the city when those buildings are completed. These statements will cause civic leaders to assume income from the WLC at an earlier date then can be reasonably expected, without having a clear understanding of the timeline for the city's future responsibilities. 4

No realistic cost/benefit analysis can be prepared by anyone at this time.

I believe that our findings in some of these areas are of definite interest to you before you make any recommendations to the city council on general plan modifications. We are not against the project at this time; but we have specific recommendations for you regarding modifications to planned changes to the General Plan.

We would appreciate the chance to meet with you to discuss some of these findings. I have a couple of suggestions that we feel you may be interested in.

Thank you for considering my request.

Sincerely , Hans and Barbara Wolterbeek
hww@roadrunner.com
951-488-1708
11521 Slawson Ave, Moreno Valley, 92557

RESPONSES TO LETTER G-98

Hans and Barbara Wolterbeek

Response to Comment G-98-1. See Response to Comment G-90-7. The commenter repeats the statement from Comment Letter G-90 that the trip generation rate in the (Traffic Impact Analysis (TIA) (the Institute of Transportation Engineers (ITE) trip generation rate of 1.68) will probably result in an over-estimation of traffic impact. The comment also repeats his earlier suggestion that there is insufficient data to analyze air quality impacts.

The trip generation rate used in the TIA study for high-cube warehouses (1.68 vehicular trips per thousand square feet per day (VT/KSF/day)) is purposefully conservative to ensure that there would be no under-estimation of the project traffic impacts.

The air quality analysis relied on the results of the TIA using the ITE trip generation rate of 1.68 VT/KSF/day. In providing a conservative estimate of project-related trips, it also provides a conservative basis for the calculation of air quality impacts. Since the majority of air quality impacts, particularly with regard to operation, is the result of mobile sources, therefore it can be assured that air quality impacts have also not been underestimated.

Mitigation Measure Trans-1, described in Chapter 11 of the TIA, includes successive analyses of traffic conditions as the project builds out. This would include new traffic counts and level of service (LOS) analyses to determine whether the increases in the capacity of the road network was kept pace with the growth in traffic.

Response to Comment G-98-2. See Responses to Comments G-90-0 (Summary), G-90-2, and G-90-3.

Response to Comment G-98-3. See Responses to Comments G-90-0 (Summary) and G-90-2.

Response to Comment G- 98-4. See Responses to Comments G-90-0 (Summary) and G-90-2.

Letter G-99: Loretta and William Kilday (April 19, 2013)

Letter G-99

RECEIVED
APR 24 2013
CITY OF MORENO VALLEY
Planning Division

14760 Big Bear Dr.
Moreno Valley, CA 92555

April 19, 2013

Mark Gross
Senior Planner
14177 Frederick St.
Moreno Valley, CA 92553

RE: World Logistics Center Project Draft Environmental Impact Report (SCH #2012021045)

Dear Mr. Gross:

My husband and I object to the City's approval of theWorld Logistics Center Specific Plan, General Plan, Amendments and Development Argeement because of the environmental and property value issues. There are three schools in our area where the children would be breathing the toxins from the trucks roaring down the streets. 1
We also have a lot of seniors in our area. We moved to Moreno Valley because it was a nice quiet place to live. It will not remain so if the warehouses that Mr. Benzeevi wants to build are allowed.

We would like to be placed on the mailing list for future notices regarding this project. (lbkilday@msn.com)

Loretta & William Kilday

RESPONSES TO LETTER G-99

Loretta and William Kilday (April 19, 2013)

Response to Comment G-99-1. None of the comments apply to the Environmental Impact Report (EIR) analysis or conclusions, but are personal observations about the project. The Draft Environmental Impact Report (DEIR) concluded that a number of project impacts (e.g., air quality, traffic, etc.) would be significant even after implementation of mitigation, and the City Council would need to adopt a Statement of Overriding Considerations for the project that state what benefits of the project outweigh the identified significant impacts of the project, if it decides to approve the project. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed World Logistics Center (WLC) project.

Letter G-100: Mary Coil (email) (May 13, 2013)

Letter G-100

From: Mary Coil [mailto:qualityservice@ymail.com]
Sent: Monday, May 13, 2013 3:55 PM
To: Mark Gross
Subject: In Favor of World Logistic Center Warehouse Proposal

Our family is in favor of the World Logistic Center Warehouse proposal. We live north of the 60 freeway between Moreno Redlands Boulevard and Moreno Beach Drive. There is no difference in our neighborhood with the arrival of the Skechers Warehouse than before it was built. And Skechers Warehouse is very tastefully situated and eye-catching as you drive along the freeway. In considering the alternatives - homes and or retail centers - the pollution and congestion probably outweigh the WLC proposal. The average person does not take into consideration the amount of cars and trips per day factored in to each proposed new house, or the congestion caused by the Walmart and Target Centers. 1

We were approached a few years ago by a lady who lives in our area and is against the warehousing at the City's 4th of July celebration. She had a declaration petition against the warehouse development which we declined to sign. She said she wanted to see a "Hospitality Lane" type development. This is not the area for that. I discussed the alternatives - housing and retail centers - along with the amount of trips per car per day for these and she said it gave her something to think about. I think the problem may lie in the fact that these people against the WLC do not like the developer for some reason. We are fairly new to Moreno Valley/Rancho

Belago, moving here 8 years ago from Orange County, but we specifically selected Moreno Valley and we love our area and our home. Our grown children have even moved here and live on the next street over from us. 1

There is a lot to be considered, but overall we are in favor of the World Logistic Center Warehouse proposal.

Mary Coil

RESPONSES TO LETTER G-100

Mary Coil

Response to Comment G- 100-1. The commenter made various comments about how well the Skechers project was done and her neighbor was fighting against the current project. This does not contain any comments on the World Logistics Center (WLC) project or Environmental Impact Report (EIR), and will not be responded to here. The City Council will consider all comments and responses on the project and EIR before taking action on the WLC project.

Letter G-101: Allan Smiley (May 20, 2013)

Letter G-101

RECEIVED
MAY 2 0 2013
CITY OF MORENO VALLEY
Planning Division

March 27, 2013

John Terell, Planning Official
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Subject: World Logistics Center's Draft EIR (SCH#2012021045) and Planning Cases PA 12-0011, 0012, 0013, 0014 and 0015

I/we, the undersigned, are homeowners in the City of Moreno Valley at the address listed below. We want to make sure that the World Logistics Center has as little impact on our neighborhood as possible. We ask that you incorporate the following mitigation measures:

- Please move all truck traffic off Merwin Street. Relocate Streets D and E as shown on the World Logistics Center Site Plan 500 to 1000 feet east of Merwin Street. Remove all truck traffic from Merwin street. 1
- Please require all security lights to use cutoff luminaires and be located on buildings no higher than 25 feet off the ground. 2
- Please require a 100 foot wide greenbelt area between the residential neighborhoods and the World Logistics Center buildings or streets. 3
-

Sincerely,

Allan Smiley
(signature)

Property owner: Name Allan Smiley

Address 28990 Avalon Ave
Moreno Valley CA 92555

APN#

RESPONSES TO LETTER G-101

Allan Smiley (May 20, 2013)

NOTE: This letter is based on a template provided by C. Moothart in Letter G-9. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-101-1. See Response to Comment G-9-9 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-101-2. See Response to Comment G-9-10 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-101-3. See Response to Comment G-9-11 of Letter G-9 for a more detailed response to this comment.

Letter G-102: Victoria Suiter (May 8, 2013)

Letter G-102

RECEIVED
MAY - 8 2013
CITY OF MORENO VALLEY
Planning Division

March 27, 2013

John Terell, Planning Official
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Subject: World Logistics Center's Draft EIR (SCH#2012021045) and Planning Cases PA 12-0011, 0012, 0013, 0014 and 0015

I/we, the undersigned, are homeowners in the City of Moreno Valley at the address listed below. We want to make sure that the World Logistics Center has as little impact on our neighborhood as possible. We ask that you incorporate the following mitigation measures:

- Please move all truck traffic off Merwin Street. Relocate Streets D and E as shown on the World Logistics Center Site Plan 500 to 1000 feet east of Merwin Street. Remove all truck traffic from Merwin street. 1
- Please require all security lights to use cutoff luminaires and be located on buildings no higher than 25 feet off the ground. 2
- Please require a 100 foot wide greenbelt area between the residential neighborhoods and the World Logistics Center buildings or streets. 3
-

Sincerely,

Victoria A Suiter
(signature)

Property owner: Name Victoria A Suiter
Address 28860 Malthy Ave
Moreno Valley CA 92555

APN# _____

RESPONSES TO LETTER G-102

Victoria Suiter (May 8, 2013)

NOTE: This letter is based on a template provided by C. Moothart in Letter G-9. Reviewers are referred to responses to that letter for more detailed discussion of these comments.

Response to Comment G-102-1. See Response to Comment G-9-9 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-102-2. See Response to Comment G-9-10 of Letter G-9 for a more detailed response to this comment.

Response to Comment G-102-3. See Response to Comment G-9-11 of Letter G-9 for a more detailed response to this comment.

Letter G-103: Robert Hewitt (April 5, 2013)

April 5, 2013

Letter G-103

Mark Gross & John Terell
City of Moreno Valley
Community and Economic Development Department
14177 Frederick Street
P.O. Box 88005
Moreno Valley, Ca. 92552

Subject: World Logistic Center DEIR

Dear Mr. Gross,

I would like to make the following comments concerning the DEIR for the World Logistic Center.

Agriculture :

The agriculture land that surrounds the San Jacinto Wildlife Area (SJWA) contributes enormously to the success of the SJWA. The loss of thousands of acres of farmland will have a significant negative effect on the SJWA. The DEIR does not adequately address this issue. The DEIR needs to study the effects of the loss of this agriculture land to the wildlife within and surrounding the SJWA. This existing agriculture land provides food and habitat which is different from that found in the SJWA. What effects will the loss of several thousand acres of Ag land have on the wildlife in this area? In fact, the DEIR has almost no designated open space within the project. It would be good to have a portion of this agriculture land used as an "open space" Ag buffer between the World Logistic Center and the SJWA. These agriculture open space areas should become conservation easements under the oversight of a local entity with authority to accept conservation easements. 1

Open Space:

It is totally unacceptable to designate land outside of the jurisdiction of the developer as open space. The 1000+ acres of the SJWA should in no way be discussed as open space for this development. The DEIR needs to be revised to discuss adequate open space areas within the development itself. 2

Biology:

There are several large, deep drainage channels located within this project. These areas have, over the years, become habitat for many species of plants and animals. The larger drainage channels should be preserved in their existing condition, and a vegetative buffer of 50 feet or more should be placed on each side of the channel to protect this habitat and prevent erosion. These buffer areas should be fenced and planted with native vegetation to attract wildlife and reduce irrigation requirements. Detention basins should be place near these channels to capture storm runoff and filter the water before it enters these channels. These channel/buffer areas could help this project meet its open space requirements, and serve as a visual screen to the numerous industrial buildings in the project. 3

Ownership:

How can this developer justify such a large project when a considerable amount of the property within the Specific Plan does not belong to the developer, and is not under his control? The DEIR map shows that close to have of the land within the proposed specific plan is not owned by the developer. Changing the zoning on the land not under the developers control should not be allowed without the permission of all of those property owners. The DEIR needs to explain how it can justify a project without either owning the property or having an option to buy on all of the property within the Specific plan. 4

Sincerely,

Robert S Hewitt

Robert S. Hewitt
42913 Johnston Ave.
Hemet, Ca. 92544

RESPONSES TO LETTER G-103

Robert Hewitt

Response to Comment G-103-1. The commenter is concerned about loss of agricultural land/open space and its impact on the San Jacinto Wildlife Area (SJWA). Section 4.4.6.4 of the Draft Environmental Impact Report (DEIR) determined that impacts to raptors and other avian resources of the SJWA would be potentially significant but that payment of the (Western Riverside County) Multiple Species Habitat Conservation Plan (MSHCP) fee and its eventual acquisition of conservation land in western Riverside County would help offset regional loss of raptor foraging habitat (additional information in DEIR Sections 4.4.1.13 and 4.4.1.17). In addition, a new mitigation measure has been added, in response to many similar comments, to acquire offsite farmland for the loss of unique farmland on the World Logistics Center (WLC) property.

Response to Comment G-103-2. The commenter says the 1,000 acres of SJWA property should not be designated open space under the proposed project. The commenter misunderstands the relationship of the state conservation land south of the WLCSP property. The 1,000 acres south of the World Logistics Center Specific Plan (WLCSP) property was purchased from or out of the Moreno Highlands Specific Plan (MHSP) property. The minutes from the Wildlife Conservation Board action at that time specifically says it will act as a buffer from planned urban development (i.e., at that time the rest of the MHSP)(DEIR Section 4.4.1.16). The existing state conservation land is being rezoned as part of the discretionary actions requested by the WLC project because at present those lands are still zoned for a golf course and various residential uses under the MHSP (refer to Response to Comment F-8-3).

Response to Comment G-103-3. Drainage 9 will be preserved and a 25-foot buffer area along each side of the drainage will be enhanced to promote local wildlife travel (see Section 4.4.6.3A of the DEIR). Portions of Drainage 12 will be realigned and enhanced for flood control purposes (See Section 4.4.6.3 of the DEIR and Section 1.3 in this FEIR Volume 1). An updated wetland delineation report (FCS-MBA 2013) was prepared to address concerns regarding regulatory agency jurisdiction over the drainage features within the WLCSP as outlined in the original DEIR in 2013.

All identifiable and potentially jurisdictional drainages on the site were mapped and included in the revised DEIR and the draft wetland delineation. The applicant shall secure a jurisdictional determination with the United States Army Corps of Engineers (USACE) and confirm with the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (CDFW) if drainage features mapped on the property are subject to jurisdictional authority and protection. If the features are subject to regulatory protection, the applicant will secure permit approvals with the appropriate agencies if needed prior to initiation of construction as discussed in MMs 4.4.6.3A and 4.4.6.3B.

Jurisdictional features will be avoided and unavoidable impacts will be mitigated through the construction of compensatory wetland. Compensatory wetland mitigation will be provided at an appropriate ratio (no less than 1:1 replacement wetland to impacted wetland) to ensure no net loss of wetlands or aquatic resources. Wetland mitigation will be provided concurrent with or prior to impacts and will be provided on-site, if feasible. Significant impacts to jurisdictional drainage features may also be compensated by off-site mitigation or purchase of habitat in an authorized in-lieu fee program, if necessary. For each individual project as it is designed, a Compensatory Mitigation Plan will be prepared for all unavoidable impacts and will be consistent with the USACE/USEPA's Compensatory Mitigation for Losses of Aquatic Resources; Final Rule and the USACE's Standard Operating Procedure for Determination of Mitigation Ratios as discussed in MM 4.4.6.3A.

Response to Comment G-103-4. The commenter points out that the developer does not own all of the property within the WLCSP boundary. Highland Fairview currently owns or controls development rights on 1,754 acres or 67 percent of the total 2,610 acres within the WLCSP. The remainder of the project area property is owned by private individuals or entities such as the San Diego Gas & Electric Company, Southern California Gas Company, Metropolitan Water District, and California Department of Fish and Wildlife. Figure 3.5 in the DEIR depicts the property ownership within the WLC project area (see FEIR Volume 2 Figure 3.5 in Section 3.3.1, Project Description).

State law allows a City to designate areas within their jurisdiction as a Specific Plan if that plan would provide a comprehensive land plan that may be different from but have advantages over the existing zoning on the property. In this case, the existing zoning is the Moreno Highlands Specific Plan which was a mixed residential master planned community. At this time, the economy would not support development of such a large residential project, and over the years the City of Moreno Valley has found it does not have enough land zoned for employment-generating uses (i.e., it is a housing rich but jobs poor area).

Letter G-104: Maureen Clemens (May 29, 2013)

Letter G-104

RECEIVED
JUN - 3 2013
CITY OF MORENO
Planning Division

May 29, 2013

Mark Gross
Senior Planner
14177 Frederick Street
Moreno Valley, CA 92553

Re: World Logistics Center Project

Dear Mr. Gross:

Please note that many of us who live in the Inland Empire object to the city's approval of the World Logistics Center Specific Plan, General Plan Amendments and Development Agreement because: The pollution factor alone makes us cringe along with the stress put on our freeways and streets caused by the multitude of trucks that will be drawn into our area should this project go forward. Shame on you if it does. 1

Sincerely,

Maureen Clemens

Maureen Clemens
6012 Abernathy Drive
Riverside, CA 92507

RESPONSES TO LETTER G-104

Maureen Clemens

Response to Comment G-104-1. None of the comments apply to the Environmental Impact Report (EIR) analysis or conclusions, but are personal observations about the project. The Draft Environmental Impact Report (DEIR) concluded that a number of project impacts (e.g., air quality, traffic, etc.) would be significant even after implementation of mitigation, and the City Council would need to adopt a Statement of Overriding Considerations for the project that state what benefits of the project outweigh the identified significant impacts of the project, if it decides to approve the project. It should be noted that the City Council will consider all stated opinions and comments on the project and EIR prior to making any decisions regarding the proposed World Logistics Center (WLC) project.

Letter G-105: Greg Brown (November 25, 2013)

G-105

RECEIVED
NOV 25 2013
CITY OF MORENO VALLEY
Planning Division

Greg Brown
4228 Brentwood Ave
Riverside, CA 92506

November 21, 2013

Mark Gross
Senior Planner
14177 Frederick Street
Moreno Valley CA 92553
planning@moval.org

Re: World Logistics Center Project Draft Environmental Impact Report
(SCH # 2012021045)

Dear Mr. Gross:
"I object to the City's approval of the proposed World Logistics Center Specific Plan, General Plan Amendments, Zone Changes and Development
Agreement because"

severe traffic complications will be the result, along with increased risk of Cancer from deadly air pollution. 1

"I wish to be placed on the mailing list for all future notices regarding this
project. Please mail all notices to me at the address listed above (via email)
at runnergreg@yahoo.com

Greg Brown

Greg Brown

RESPONSES TO LETTER G-105

Greg Brown

Response to Comment G-105-1. The commenter is concerned about traffic, cancer risks, and wants to be notified of future actions. Sections 4.3 and 4.15 of the Draft Environmental Impact Report (DEIR) addressed air quality and traffic, and determined project impacts were significant even with recommended mitigation. The Final Environmental Impact Report (FEIR) includes revised traffic and air studies, and the revised DEIR (FEIR Volume 2) includes revised analyses for all these topics. The reader is referred to those EIR sections and revised studies for additional information on these topics. Public notice will be given regarding future hearings by the Planning Commission and City Council regarding the World Logistics Center (WLC) project and EIR. The commenter will be notified as part of the City's California Environmental Quality Act (CEQA) process regarding action on this project as well.

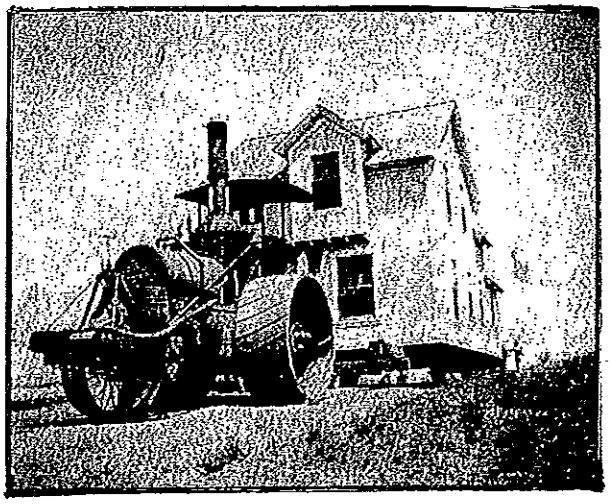
Item G-106: Oral Comment – Unknown Source

Excerpt from Viola Hamner's "In the Beginning", a history of life in Moreno Valley (Hamner 2003)

G-106

Moreno Valley, California
In The Beginning

"The glittering speculations which promised so much and performed so little brought disappointment to so many"
(*Moreno Valley Voice*, March 16, 1895)



By

VI0LA F. HAMNER

2003

Chapter 14

ORIGINAL STREET NAMES AND THEIR NAMESAKES

In 1890 the Bear Valley and Alessandro Development Company bought 25,000 acres in what is now Moreno Valley and went to work in a "vigorous, systematic and intelligent manner" to develop it into a "magnificent colony."

Working with a blank canvas, so to speak, the company plotted the undisturbed land into ten-acre parcels, carefully laid out the streets and avenues in a grid pattern and then named them in alphabetical order. They recorded their subdivision map in San Bernardino County on November 3, 1890 (SBC Map Bk. 11 p. 10).

On the original subdivision maps of our valley, two wide boulevards were dedicated—Alessandro and Redlands. Both with a width of 120 feet. Alessandro Boulevard, so named because it was the main thoroughfare from the railroad town of Alessandro to the new city of Moreno.

Redlands Boulevard was given that name as it was the main route between Redlands and the town of Moreno. Grading and clearing of vegetation for the two boulevards was the company's first intrusion into our pristine and peaceful valley.

1

Historic Alessandro Boulevard, our best known byway, has been extended over the years and now stretches seventeen miles from Gilman Springs Road westerly into the City of Riverside. On November 11, 1988, it was designated a City of Moreno Valley landmark (Resolution CPAB 88-2). It has been, over the years, a San Bernardino County road, a Riverside County road, a California State highway, part of the transcontinental U.S. Route 60, part of the old "Jack Rabbit Trail" and lastly, a city boulevard.

Another city resolution, CPAB 89-3 dated December 7, 1989, gave landmark status to the other historic avenue and street names. This was to protect them from change and thus preserve an important part of Moreno Valley history.

The tract was designed with a half mile between streets and a quarter mile between avenues. Residents and travelers, if they knew the system, could easily figure out how far it was from one point to another by knowing the alphabet. They could then calculate how long it would take to get to a destination if walking, riding a horse, traveling by horse and buggy, or peddling a bicycle.

Avenues north of Alessandro Boulevard were given tree names. Those south of Alessandro were given other botanical names.

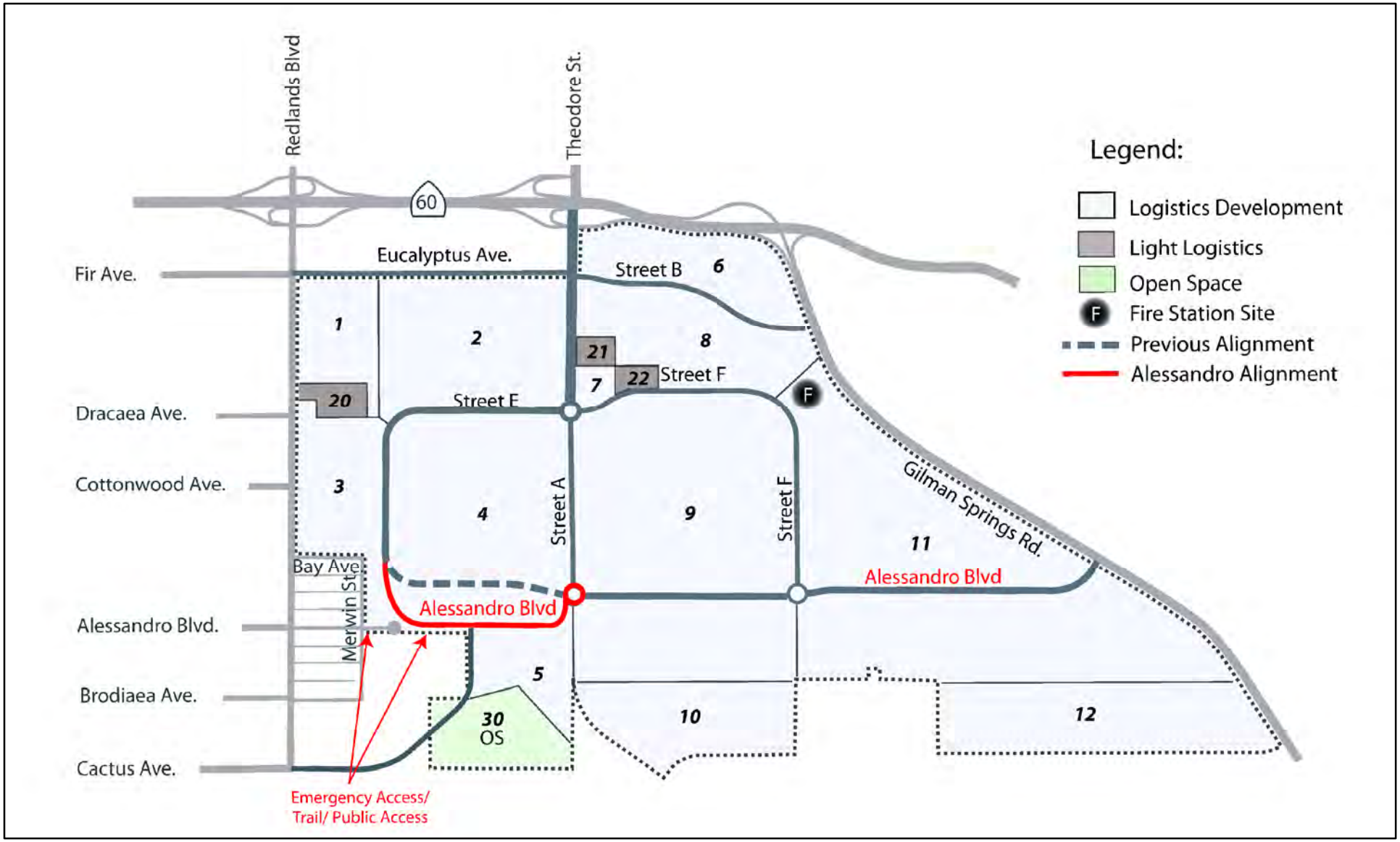
The avenues were dedicated as eighty feet in width, running east and west, and a quarter of a mile apart. Alessandro Boulevard was used as the "A" street in the alphabetical listing.

Avenues North of Alessandro	Avenues South of Alessandro
Bay	Brodiaea
Cottonwood	Cactus
*Dracaea	Delphinium
Eucalyptus	*Eschscholtzia
Fir	Filaree

RESPONSES TO ITEM G-106 ORAL INFORMATION

Unknown Source

Response to Information G-106. This information was provided subsequent to the circulation of the DEIR. Although not a written comment submitted on the DEIR, this information appropriately describes how in 1988 the Cultural Preservation Advisory Board (CPAB) of the City of Moreno Valley designated the entire length of Alessandro Boulevard as a City Historical Landmark (Resolution CPAB 88-2). At that time, the CPAB made the alignment, right-of-way, and name of Alessandro part of the historical designation. In response to this information, various portions of Section 4.05, Cultural Resources, in Volume 2 of the Final EIR (the Revised Draft EIR) have been revised. Additional background on the historic characteristics of Alessandro Boulevard has been provided in DEIR Section 4.5.3.1, Phase 1 Research. In addition, language has been added to DEIR Section 4.5.6.2, Historic Resources, describing how the revised project design accommodates the historic nature of Alessandro Boulevard. Based on this information, the alignment of Alessandro Boulevard (formerly referred to as Streets C and E) have been realigned to follow the historical alignment of Alessandro (see Figure G-106, and the east-west portion of this roadway will be called Alessandro Boulevard. It should be noted that a short segment of the historical alignment, just east of Merwin Street, will not be connected to Alessandro west of Merwin Street so that WLC project traffic, including trucks and passenger vehicles, will not travel through the existing residential neighborhoods east of Redlands Boulevard along Alessandro Boulevard. The eastern end of Alessandro Boulevard will also intersect Gilman Springs Road at approximately the same location and orientation as its historical alignment. With these project changes, the WLC project will not have a significant impact on the historical landmark designation of Alessandro Boulevard.



LSA

FIGURE G-106

N

0 1,300 2,600

FEET

World Logistics Center Specific Plan Project
Environmental Impact Report

Alessandro Historical Street Alignment

SOURCE: World Logistics Center Specific Plan, Highlandfairview, September, 2014.

I:\HFV1201\Reports\EIR\figG-106_AlessandroHistoricalStAlignment.mxd (9/25/2014)

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3.0 MITIGATION MONITORING AND REPORTING PROGRAM

3.1 INTRODUCTION

This Mitigation Monitoring and Reporting Program (MMRP) has been prepared for use in implementing mitigation for the:

World Logistics Center

The program has been prepared in compliance with State law and the Environmental Impact Report (EIR) (State Clearinghouse No. 2012021045) prepared for the project by the City of Moreno Valley.

The California Environmental Quality Act (CEQA) requires adoption of a reporting or monitoring program for those measures placed on a project to mitigate or avoid adverse effects on the environment (Public Resource Code Section 21081.6). The law states that the reporting or monitoring program shall be designed to ensure compliance during project implementation.

The monitoring program contains the following elements:

1) The mitigation measures are recorded with the action and procedure necessary to ensure compliance. In some instances, one action may be used to verify implementation of several mitigation measures.
2) A procedure for compliance and verification has been outlined for each action necessary. This procedure designates who will take action, what action will be taken and when, and to whom and when compliance will be reported.
3) The program has been designed to be flexible. As monitoring progresses, changes to compliance procedures may be necessary based upon recommendations by those responsible for the program. As changes are made, new monitoring compliance procedures and records will be developed and incorporated into the program.

This Mitigation Monitoring and Reporting Program includes mitigation identified in the FEIR.

3.2 MITIGATION MONITORING AND RESPONSIBILITIES

As the Lead Agency, the City of Moreno Valley is responsible for ensuring full compliance with the mitigation measures adopted for the proposed project. The City will monitor and report on all mitigation activities. Mitigation measures will be implemented at different stages of development throughout the project area. In this regard, the responsibilities for implementation have been assigned to the Applicant, Contractor, or a combination thereof. If during the course of project implementation, any of the mitigation measures identified herein cannot be successfully implemented, the City shall be immediately informed, and the City will then inform any affected responsible agencies. The City, in conjunction with any affected responsible agencies, will then determine if modification to the project is required and/or whether alternative mitigation is appropriate. The following table presents the MMRP.

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3.3 MITIGATION MONITORING AND REPORTING PROGRAM CHECKLIST

Project File Name: World Logistics Center Specific Plan **Applicant: Highland Fairview**

Date: May 2015

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
4.1 Aesthetics						
4.1.6.1A Each Plot Plan application for development along the western, southwestern, and eastern boundaries of the project (i.e., adjacent to existing or planned residential zoned uses) shall include a minimum 250-foot setback measured from the City/County zoning boundary line and any building or truck parking/access area within the project. The setback area shall include landscaping, berms, and walls to provide visual screening between the new development and existing residential areas upon maturity of the landscaping materials. The existing olive trees along Redlands Blvd. shall remain in place as long as practical to help screen views of the project site. This measure shall be implemented to the satisfaction of the Planning Official.	City Planning Division	Once before permitting Once before permitting Once before issuance of certificate of occupancy.	Prior to Plot Plan Approval Prior to issuance of Building permit. Prior to issuance of certificate of occupancy.	Plot Plan Review Building Permit On-site inspection		Withhold Building Permits Withhold Plot Plan Approval Withhold Certificate of Occupancy
4.1.6.1B Each Plot Plan application for development adjacent to Redlands Boulevard, Bay Avenue, or Merwin Street, shall include a plot plan, landscaping plan, and visual rendering(s) illustrating the appearance of the proposed development. The renderings shall demonstrate that views of proposed buildings and trucks can be reasonably screened from view from existing residents upon maturity of planned landscaping and to ensure consistency with the General Plan Objective 7.7. "Effective" screening shall mean that no more than the upper quarter (25%) of a building is visible from existing residences, which shall be achieved through a combination of landscaping, berms, fencing, etc. The location and number of view presentations shall be at the discretion of the Planning Division.	City Planning Division	Once before permitting Once before permitting Once before issuance of certificate of occupancy.	Prior to Plot Plan Approval Prior to issuance of Building permit. Prior to issuance of certificate of occupancy.	Plot Plan Review Building Permit On-site inspection		Withhold Building Permits Withhold Plot Plan Approval Withhold Certificate of Occupancy

3.3 MITIGATION MONITORING AND REPORTING PROGRAM CHECKLIST

Project File Name: World Logistics Center Specific Plan **Applicant: Highland Fairview**

Date: May 2015

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
4.1.6.1C Prior to the issuance of a certificate of occupancy for buildings adjacent to the western, southwestern, and eastern boundaries of the project (i.e., adjacent to existing residences at the time of application) the screening required in Mitigation Measure 4.1.6.1A shall be installed in substantial conformance with the approved plans to the satisfaction of the Planning Official	City Planning Division	Once before issuance of certificate of occupancy.	Prior to issuance of certificate of occupancy.	On-site inspection		Withhold Certificate of Occupancy
4.1.6.1D Prior to the issuance of permits for any development activity adjacent to Planning Area 30 (74.3 acres in the southwest portion of the Specific Plan), the entirety of Planning Area 30 shall be offered to the State of California for open space purposes. In the event that the State does not accept the dedication, the property shall be offered to Western Riverside County Regional Conservation Authority or an established non-profit land conservancy for open space purposes. In the event that none of these organizations accepts the dedication, the property may be dedicated to a property owners association or may remain in private ownership and may be fenced and access prohibited.	City Planning Division	Once before permitting of any development activity adjacent to Planning Area 30.	Prior to issuance before of any discretionary permit	Review and Approval of Site Plans		Withhold Discretionary Permit
4.1.6.3A Each Plot Plan application for development shall include plans and visual rendering(s) illustrating any changes in views of Mount Russell and/or the Badlands, for travelers along SR-60, as determined necessary by the Planning Official. The plans and renderings shall illustrate typical views based on proposed project plans, with the location and number of view presentations to be determined by the Planning Official. These views shall be simulated from a height of six feet from the edge of the roadway travel lane closest to the visual resource. The renderings must demonstrate that the	City Planning Division	Once before plot plan review.	Prior to issuance of building permit.	Review and Approval of Renderings		Withhold Building Permit

3.3 MITIGATION MONITORING AND REPORTING PROGRAM CHECKLIST

Project File Name: World Logistics Center Specific Plan **Applicant: Highland Fairview**

Date: May 2015

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
development will preserve at least the upper two thirds (67%) of the vertical view of Mt. Russell from SR-60.						
4.1.6.4A Each Plot Plan application for development adjacent to residential development shall include a photometric plot of all proposed exterior lighting demonstrating that the project is consistent with the requirements of Section 9.08.100 of the City Municipal Code. The lighting study shall indicate the expected increase in light levels at the property lines of adjacent residential uses. The study shall demonstrate that the proposed lighting fixtures and/or visual screening meet or exceed City standards regarding light impacts.	City Planning Division	Once before plot plan review for any building adjacent to residential development.	Prior to issuance of any building permit	Review and Approval of Lighting Study		Withhold Building Permit
4.1.6.4B Each Plot Plan application for development shall include an analysis of all proposed solar panels demonstrating that glare from panels will not negatively affect adjacent residential uses or negatively affect motorists along perimeter roadways. Design details to meet these requirements shall be implemented to the satisfaction of the Planning Official.	City Planning Division	Once before plot plan review Once before Building Permit	Prior to issuance of any building permit	Review and Approval of Building Plans for solar panels.		Withhold Building Permit
4.2 Agriculture						
4.2.6.1A Prior to the issuance of any grading permit affecting land designated as "Unique Farmland" (Figure 4.2.2 in the World Logistics Center Environmental Impact Report), an Agricultural Conservation Easement shall be recorded over land of equivalent or better agricultural economic productivity of the offsite easement property compared to the World Logistics Center property. The analysis will include a comparison of the project's "Unique Farmland" considering its relative economic	City Planning Division	Once before issuance of grading permits on lands that contain unique farmland.	Prior to issuance of any grading permits.	City review of form and content of agricultural easement proposed by the developer. And City receives written verification of an agricultural easement.		Withhold Grading Permit.

3.3 MITIGATION MONITORING AND REPORTING PROGRAM CHECKLIST

Project File Name: World Logistics Center Specific Plan **Applicant: Highland Fairview**

Date: May 2015

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
potential as the best measure of productivity (i.e., net profitability per acre or potential net rental income per acre). It will include a consideration of various important physical factors including location and accessibility, soils and topography, micro and macro climatic conditions, water availability and quality, as well as local practices, good farm management and cultural (growing) costs. The form and content of this easement, as well as the estimates of agricultural productivity, shall be reviewed and approved in advance by the Planning Official.						
4.3 Air Quality						
4.3.6.2A Construction equipment maintenance records (including the emission control tier of the equipment) shall be kept on site during construction and shall be available for inspection by the City of Moreno Valley. a) Off-road diesel-powered construction equipment greater than 50 horsepower shall meet United States Environmental Protection Agency Tier 4 off-road emissions standards. A copy of each unit's certified tier specification shall be available for inspection by the City at the time of mobilization of each applicable unit of equipment. b) During all construction activities, off-road diesel-powered equipment may be in the "on" position not more than 10 hours per day. c) Construction equipment shall be properly maintained according to manufacturer	City Planning Division	As need during construction	During construction	On-site Inspection of construction equipment maintenance records and data sheets.		Issuance of Stop Work Order

3.3 MITIGATION MONITORING AND REPORTING PROGRAM CHECKLIST

Project File Name: World Logistics Center Specific Plan **Applicant: Highland Fairview**

Date: May 2015

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
specifications. d) All diesel powered construction equipment, delivery vehicles, and delivery trucks shall be turned off when not in use. On-site idling shall be limited to three minutes in any one hour. e) Electrical hook ups to the power grid shall be provided for electric construction tools including saws, drills and compressors, where feasible, to reduce the need for diesel-powered electric generators. Where feasible and available, electric tools shall be used f) The project shall demonstrate compliance with South Coast Air Quality Management District Rule 403 concerning fugitive dust and provide appropriate documentation to the City of Moreno Valley. g) All construction contractors shall be provided information on the South Coast Air Quality Management District Surplus Off-road Opt-In "SOON" funds which provides funds to accelerate cleanup of off-road diesel vehicles. h) Construction on-road haul trucks shall be model year 2007 or newer. i) Information on ridesharing programs shall be made available to construction employees. j) During construction, lunch options shall be						

3.3 MITIGATION MONITORING AND REPORTING PROGRAM CHECKLIST

Project File Name: World Logistics Center Specific Plan **Applicant: Highland Fairview**

Date: May 2015

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
provided onsite. k) A publicly visible sign shall be posted with the telephone number and person to contact regarding dust complaints per AQMD Standards. l) Only non-diesel material handling equipment may be used in any logistics building in the WLC. m) Off-site construction shall be limited to the hours between 6 a.m. to 8 p.m. on weekdays only. Construction during City holidays shall not be permitted.						
4.3.6.2B Prior to issuance of any grading permits, a traffic control plan shall be submitted to and approved by the City of Moreno Valley that describes in detail the location of equipment staging areas, stockpiling/storage areas, construction parking areas, safe detours around the project construction site, as well as provide temporary traffic control (e.g., flag person) during construction-related truck hauling activities. Construction trucks shall be rerouted away from sensitive receptor areas. Trucks shall use State Route 60 using Theodore Street, Redlands Boulevard (north of Eucalyptus Avenue), and Gilman Springs Road. In addition to its traffic safety purpose, the traffic control plan can minimize traffic congestion and delays that increase idling emissions. A copy of the approved Traffic Control Plan shall be retained on site in the construction trailer.	Transportation Division	Once prior issuance of any grading permits to issuance of any grading permits.	Prior to issuance of any grading permits.	Review and Approval of Traffic Control Plan.		Withhold Grading Permit

3.3 MITIGATION MONITORING AND REPORTING PROGRAM CHECKLIST

Project File Name: World Logistics Center Specific Plan **Applicant: Highland Fairview**

Date: May 2015

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4.3.6.2C The following measures shall be applied during construction of the project to reduce volatile organic compounds (VOC): a) Non-VOC containing paints, sealants, adhesives, solvents, asphalt primer, and architectural coatings (where used), or pre-fabricated architectural panels shall be used in the construction of the project to the maximum extent practicable. If such products are not commercially available, products with a VOC content of 100 grams per Liter or lower for both interior and exterior surfaces shall be used. b) Leftover paint shall be taken to a designated hazardous waste center. c) Paint containers shall be closed when not in use d) Low VOC cleaning solvents shall be used to clean paint application equipment. e) Paint and solvent-laden rags shall be kept in sealed containers.	City Engineering and Building and Safety and Planning Division	Throughout construction	During Construction	On-site inspection		Issuance of a Stop Work Order
4.3.6.2D No grading shall occur on days with an Air Quality Index forecast greater than 150 for particulates or ozone as forecasted for the project area (Source Receptor Area 24).	Land Development Division/Public Works	As needed during construction	During construction	Review of Construction Documentation and On-site Inspection		Issuance of a Stop Work Order
4.3.6.3A Prior to issuance of occupancy permits for each warehouse building within the WLCSP, the developer shall demonstrate to the City that vehicles can access the building using paved roads and parking lots.	City Planning Division	Once Before Permitting	Prior to issuance of occupancy permits for each warehouse	Review and Approval of building plans.		Withhold Occupancy Permit

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			building			
4.3.6.3B The following shall be implemented as indicated: **Prior to Issuance of a Certificate of Occupancy** a) Signs shall be prominently displayed informing truck drivers about the California Air Resources Board diesel idling regulations and the prohibition of parking in residential areas. b) Signs shall be prominently displayed in all dock and delivery areas advising of the following: engines shall be turned off when not in use; trucks shall not idle for more than three consecutive minutes; telephone numbers of the building facilities manager and the California Air Resources Board to report air quality violations. c) Signs shall be installed at each exit driveway providing directional information to the City's truck route. Text on the sign shall read "To Truck Route" with a directional arrow. Truck routes shall be clearly marked per the City Municipal Code.	City Planning Division and Building and Safety	Once before issuance of any certificate of occupancy and ongoing basis.	Prior to issuance of Certificate of Occupancy	On-site Inspections Collection of VIN data will be identified as the primary method of verifying truck compliance for future project-specific approvals.		Withhold Certificate of Occupancy
On an Ongoing Basis d) Tenants shall maintain records on fleet equipment and vehicle engine maintenance to ensure that equipment and vehicles are maintained pursuant to manufacturer's specifications. The records shall be maintained on site and be made available for inspection by the City.	Public Works Inspector	On an ongoing basis	During on-site inspections	On-site Inspections Collection of VIN data will be identified as the primary method of verifying truck compliance for future project-		If a CUP has been issued, revocation of the CUP.

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e) Tenant's staff in charge of keeping vehicle records shall be trained/certified in diesel technologies, by attending California Air Resources Board approved courses (such as the free, one-day Course #512). Documentation of said training shall be maintained on-site and be available for inspection by the City. f) Tenants shall be encouraged to become a SmartWay Partner. g) Tenants shall be encouraged to utilize SmartWay 1.0 or greater carriers. h) Tenants' fleets shall be in compliance with all current air quality regulations for on-road trucks including but not limited to California Air Resources Board's Heavy-Duty Greenhouse Gas Regulation and Truck and Bus Regulation. i) Information shall be posted in a prominent location available to truck drivers regarding alternative fueling technologies and the availability of such fuels in the immediate area of the World Logistics Center. j) Tenants shall be encouraged to apply for incentive funding (such as the Voucher Incentive Program [VIP], Carl Moyer, etc.) to upgrade their fleet. k) All yard trucks (yard dogs/yard goats/yard jockeys/yard hostlers) shall be powered by electricity, natural gas, propane, or an equivalent non-diesel fuel. Any off-road engines in the yard trucks shall have emissions standards equal to				specific approvals		

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Tier 4 Interim or greater. Any on-road engines in the yard trucks shall have emissions standards that meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025. l) All diesel trucks entering logistics sites shall meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025 or be powered by natural gas, electricity, or other diesel alternative. Facility operators shall maintain a log of all trucks entering the facility to document that the truck usage meets these emission standards. This log shall be available for inspection by City staff at any time. m) All standby emergency generators shall be fueled by natural gas, propane, or any non-diesel fuel. n) Truck and vehicle idling shall be limited to three (3) minutes.						
4.3.6.3C Prior to the issuance of building permits for more than 25 million square feet of logistics warehousing within the Specific Plan area, a publically-accessible fueling station shall be operational within the Specific Plan area offering alternative fuels (natural gas, electricity, etc.) for purchase by the motoring public. Any fueling station shall be placed a minimum of 1000 feet from any off-site sensitive receptors or off-site zoned sensitive uses. This facility may be established in connection with the convenience store required in Mitigation Measure 4.3.6.3D.	City Building and Safety	Once before issuance of building permits	Prior to issuance of building permits for more than 25 million total square feet of logistics warehousing within the WLC Specific Plan	Review and Approval of Building Plans		Withhold Building Permit

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4.3.6.3D Prior to the issuance of building permits for more than 25 million square feet of logistics warehousing within the Specific Plan area a site shall be operational within the Specific Plan area offering food and convenience items for purchase by the motoring public. This facility may be established in connection with the fueling station required in Mitigation Measure 4.3.6.3C.	City Building and Safety	Before issuance of building permits	Prior to issuance of building permits	Review and Approval of Building Plans		Withhold Building Permit
4.3.6.3E Refrigerated warehouse space is prohibited unless it can be demonstrated that the environmental impacts resulting from the inclusion of refrigerated space and its associated facilities, including, but not limited to, refrigeration units in vehicles serving the logistics warehouse, do not exceed any environmental impact for the entire World Logistics Center identified in the program Environmental Impact Report. Such environmental analysis shall be provided with any warehouse plot plan proposing refrigerated space. Any such proposal shall include electrical hookups at dock doors to provide power for vehicles equipped with Transportation Refrigeration Units (TRUs).	City Planning Division	Once before plot plan review for any building.	Prior to issuance of any building permit	Review and Approval of Building Plans		Withhold Building Permit
4.3.6.4A The following measures shall be incorporated as conditions to any Plot Plan approval within the Specific Plan: a) All tenants shall be required to participate in Riverside County's Rideshare Program. b) Storage lockers shall be provided in each building for a minimum of three percent of the full-time equivalent employees based on a ratio of 0.50 employees per 1,000 square feet of building area. Lockers shall be located in proximity to required bicycle storage facilities.	City Building and Safety, City Planning Division, and Transportation Engineering Division/Public Works	Once before plot plan review for any building.	Prior to issuance of building permits	Review and Approval of Building Plans		Withhold Building Permit

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c) Class II bike lanes shall be incorporated into the design for all project streets. d) The project shall incorporate pedestrian pathways between on-site uses. e) Site design and building placement shall provide pedestrian connections between internal and external facilities. f) The project shall provide pedestrian connections to residential uses within 0.25 mile from the project site. g) A minimum of two electric vehicle-charging stations for automobiles or light-duty trucks shall be provided at each building. In addition, parking facilities with 100 parking spaces or more shall be designed and constructed so that at least three percent of the total parking spaces are capable of supporting future electric vehicle supply equipment (EVSE) charging locations. Only sufficient sizing of conduit and service capacity to install Level 2 Electric Vehicle Supply Equipment (EVSE) or greater are required to be installed at the time of construction. h) Each building shall provide indoor and/or outdoor - bicycle storage space consistent with the City Municipal Code and the California Green Building Standards Code.-Each building shall provide a minimum of two shower and changing facilities for employees. i) Each building shall provide preferred and designated parking for any combination of low-						

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emitting, fuel-efficient, and carpool/vanpool vehicles equivalent to the number identified in California Green Building Standards Code Section 5.106.5.2 or the Moreno Valley Municipal Code whichever requires the higher number of carpool/vanpool stalls. j) The following information shall be provided to tenants: onsite electric vehicle charging locations and instructions, bicycle parking, shower facilities, transit availability and the schedules, telecommunicating benefits, alternative work schedule benefits, and energy efficiency.						
4.4 Biological Resources						
4.4.6.1A All Plot Plan applications within Planning Areas 10 and 12 (i.e. adjacent to the San Jacinto Wildlife Area as shown in Final EIR Volume 2 Figure 4.1.6B) shall provide a 250-foot setback from the southerly property line. Permitted uses within this setback area include landscaping, drainage and water quality facilities, fences and walls, utilities and utility structures, maintenance access drives, and similar related uses. No logistics buildings or truck access/parking/maneuvering facilities are permitted in this setback area.	City Planning Division	Once before issuance of building permits and as needed during construction and operating	Prior to issuance of building permits	Planned Check and Review of Buffer Area		Withhold Building Permits
In addition, logistics buildings within Planning Areas 10 and 12 may not be located within 400 feet of the southerly property line. All development proposals in Planning Areas 10 and 12 shall include a minimum six-foot tall chain link fence or similar barrier to separate warehouse activity from the setback area. This fence/barrier shall have metal mesh installed below and above ground level to prevent animals from moving	City Planning Division	Once before issuance of building permits and as needed during construction and operating	Prior to issuance of building permits	On-site inspection of 250-foot minimum setback		Withhold Building Permits

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between the development area and the setback area.						
Within Planning Areas 10 and 12, all truck activity areas adjacent to the 250-foot buffer area along the southern property line shall be enclosed by minimum 11-foot tall solid walls to reduce noise and lighting impacts on the adjacent property. This measure shall be implemented to the satisfaction of the Planning Official.	City Land Development Division Manager	Once before issuance of building permits and as needed during construction and operating	Prior to issuance of building permits	On-site inspection of 250-foot minimum setback		Withhold Building Permits
A preliminary landscape plan for the 250-foot setback area shall be submitted with all Plot Plan applications for lots adjacent to the California Department of Fish and Wildlife property. Precise landscape plans shall be submitted with any grading permit for said lots and must be approved prior to the issuance of any building permit on said lots. The landscape plan shall be prepared by a licensed landscape architect in consultation with a qualified biologist and shall be consistent with the design standards contained in the World Logistics Center Specific Plan. No plant species listed in Section 6.1.4 of the Western Riverside County Multiple Species Habitat Conservation Plan shall be installed within the setback area. Cottonwood trees shall be planted within the setback area consistent with the World Logistics Center Specific Plan. This measure shall be implemented to the satisfaction of the Land Development Division Manager.	City Land Development Division Manager	Once before issuance of building permits and as needed during construction and operating	Prior to issuance of building permits	On-site inspection of 250-foot minimum setback		Withhold Building Permits
4.4.6.1B Each Plot Plan application in Planning Areas 10 and 12 shall provide runoff management and water quality facilities	City Engineering Division and City Land Development	Once upon submittal of plot plan	Prior to approval of Plot Plan	Review and Approval of plot plans within		Withhold Approval of Plot Plan

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adequate to minimize downstream erosion, maintain water quality standards and retain pre-development flows in a manner meeting the approval of the City Engineer. All drainage improvements shall be designed to minimize runoff and erosional impacts on adjacent property. This measure shall be implemented to the satisfaction of the Land Development Division Manager of Public Works.	Division Manager	application		Planning Areas 10 and 12		
4.4.6.2A Each Plot Plan application shall include a focused plant survey of the proposed development site prepared by a qualified biologist to identify if any of the following sensitive plants (i.e., Coulter's goldfields, smooth tarplant, Plummer's mariposa lily, or thread-leaved brodiaea) are present. If any of the listed plants are found, they may be relocated to the 250-foot setback area outlined in the Specific Plan and discussed in Mitigation Measure 4.4.6.1A. Alternatively, at the applicant's discretion, an impact fee may be paid to the Western Riverside County Regional Conservation Authority (RCA) or other appropriate conservation organizations to offset for the loss of these species. This measure shall be implemented to the satisfaction of the Planning Official.	City Planning Division	Once upon submittal of plot plan application	Prior to approval of Plot Plan	Review and Approval of biological assessment		Withhold Approval of Plot Plan
4.4.6.2B Prior to the approval of any tentative maps for development including or adjacent to any Criteria Cells identified in the Western Riverside County Multiple Species Habitat Conservation Plan, the applicant shall prepare and process a Joint Project Review (JPR) with the Riverside County Resource Conservation Agency (RCA). All criteria cells shall be identified on all such tentative maps. This measure shall be	City Planning Division	Once upon submittal of tentative maps	Prior to approval of any tentative maps	Review and Approval of biological assessment		Withhold Approval of Tentative Maps

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implemented to the satisfaction of the City Planning Division and Riverside County Resource Conservation Agency ("RCA").						
4.4.6.3A Prior to the issuance of grading permits the applicant shall secure a jurisdictional determination from the United States Army Corps of Engineers (USACE) and confirm with the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (CDFW) if drainage features mapped on the property to be developed are subject to jurisdictional authority. If the features are subject to regulatory protection, the applicant will secure permit approvals with the appropriate agencies prior to initiation of construction. Compensatory riparian habitat mitigation will be provided at a minimum ratio of 1:1 (replacement riparian habitat to impacted riparian habitat) to ensure no net loss of riparian habitat or aquatic resources. It should be noted that this is a minimum recommended ratio but the actual permitting ratio may be higher. These detention basins will be oversized to accommodate the provision of areas of riparian habitat. Maintenance of the basins will be limited to that necessary to ensure their drainage and water quality functions while encouraging habitat growth. Riparian habitat mitigation will be provided concurrent to or prior to impacts. A Compensatory Mitigation Plan will be prepared for all unavoidable impacts and will be consistent with the United States Army Corps of Engineers (USACE)/United States Environmental Protection Agency's Compensatory Mitigation for Losses of Aquatic Resources; Final Rule and the United States Army Corps of Engineers Standard Operating Procedure for Determination of Mitigation Ratios.	City Planning Division and Land Development Division Manager	Once prior to issuance of grading permits	Prior to the issuance of grading permits	Written verification of USACE approval of jurisdictional determination and Clean Water Act Section 404 permit.		Withhold Grading Permit

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The applicant shall consult with United States Army Corps of Engineers, California Department of Fish and Wildlife, and Regional Water Quality Control Board to establish the need for permits based on the results of a recent jurisdictional delineation and final design plans for each of the proposed the facilities. Consultation with the three agencies shall take place and appropriate permits obtained for project-level development. Compensation for losses associated with the altering of drainages on site shall be in agreement with the permit conditions and in coordination with compensation outlined below. Mitigation will consist of onsite creation, offsite creation, or purchase of mitigation credits from an approved mitigation bank. As outlined in the WLC programmatic DBESP report, onsite riparian habitat will be created at a minimum 1:1 ratio due to the poor quality of onsite habitat. New habitat will be created within the onsite detention/infiltration basins to the extent allowed by the resource agencies to reduce storm flows, improve water quality, and reduce sediment transport. Habitat creation will include the installation of mule fat scrub or similar riparian scrub habitat to promote higher quality riparian habitat, but still maintain the basins for their primary role as detention facilities. The use of these areas as conservation areas would require consent from CDFW and the City of Moreno Valley (MM BIO-2b and MM DBESP 1 through 3).						
4.4.6.3B As required by the Resource Conservation Agency (RCA), a program-level Determination of a Biological Equivalent or	City Planning Division	Once upon submittal of plot plan	Prior to the approval of any Plot Plans	Review and Approval of site specific DBESP and		Withhold Approval Plot Plans

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Superior Preservation (DBESP) for impacts to Riverine/Riparian habitat has been prepared and shall be approved by the Resource Conservation Agency prior to project approval. The Determination of a Biological Equivalent or Superior Preservation includes a general discussion of mitigation options for impacts to riverine/riparian areas as well as general location and size of the mitigation area and includes a monitoring program. If impacts to riparian habitat within the World Logistics Center Specific Plan (WLCSP) cannot be avoided at the time of specific development, then a separate project-level Determination of Biologically Equivalent or Superior Preservation (DBESP) shall be prepared to identify project-specific impacts to riparian habitat and incorporate mitigation options identified in Mitigation Measure 4.4.6.3A. A project-level Determination of a Biological Equivalent or Superior Preservation for each specific development shall be prepared to document measures to reduce impacts to riparian/riverine habitats in accordance with the Western Riverside County Multiple species Habitat Conservation Plan (MSHCP). The project-level Determination of a Biological Equivalent or Superior Preservation shall include specific measures to reduce impacts to riparian areas and provide mitigation in the form of onsite preservation of riparian areas and/or a combination of compensation through purchase and placement of lands with riparian/riverine habitat into permanent conservation through a conservation easement and/or restoration or		application		review and approval of plot plans.		

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enhancement efforts at offsite or onsite locations. Therefore, mitigation required for compensation for impacts to riparian/ riverine areas will require a minimum of 1:1 mitigation ratio of riparian/riverine mitigation land. As outlined in the WLC programmatic DBESP, erosion control improvements will be installed within Drainage 9 to reduce sediment transport, and additional riparian habitat will be enhanced within this drainage following the installation of the erosion control improvements (MM DBESP 4 and 5).						
4.4.6.3C Prior to issuance of any grading permit for any offsite improvements that support development within the World Logistics Center Specific Plan, the developer shall retain a qualified biologist to prepare a jurisdictional delineation (JD) for any drainage channels affected by construction of the offsite improvements. This jurisdictional delineation shall be submitted to the U.S. Army Corps of Engineers (USACE) and California Department of Fish and Wildlife (CDFW) for review and concurrence. If the offsite improvements will not affect any identified jurisdictional areas, no United States Army Corps of Engineers permitting is required. However, permitting through the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (i.e., Streambed Alternation Agreement) may still be required for these improvements. The applicant shall consult with United States Army Corps of Engineers, California Department of Fish and Wildlife and Regional Water Quality Control Board to establish the need for permits based on the	City Planning Division City Planning Division	Once before issuance of grading permit Once before issuance of grading permit	Prior to issuance of grading permit Prior to issuance of grading permit	Review and Approval of jurisdictional delineation Written verification of USACE approval of jurisdictional determination and Clean Water Act Section 404 permit.		Withhold Grading Permit Withhold Grading Permit

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results of the 2012 jurisdictional delineation and final design plans for each of the proposed the facilities. Consultation with the three agencies shall take place and appropriate permits obtained. Compensation for losses associated with any altered offsite drainages shall be in agreement with the permit conditions. Any landscaping associated with these offsite improvements shall use only native species to help protect biological resources residing within or traveling through these drainages per Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Table 6.1.2. This measure shall be implemented to the satisfaction of the City Planning Division in consultation with the U.S. Fish and Wildlife Service, U.S. Army Corps. of Engineers, and the California Department of Fish and Wildlife.						
4.4.6.4A Pursuant to the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code (CFGC), site preparation activities (removal of trees and vegetation) shall be avoided during the nesting season of potentially occurring native and migratory bird species (generally February 1 to August 31). If site preparation activities must occur during the nesting season, a pre-activity field survey shall be conducted by a qualified biologist prior to issuance of grading permits for such development. The survey shall determine if active nests of species protected by the Migratory Bird Treaty Act or California Fish and Game Code are present in the construction zone. If active nests of these species are found, the developer shall establish an appropriate buffer zone with no grading or heavy equipment activity within of 500 feet from an active listed species or raptor nest, 300 feet from other sensitive or	City Planning Division City Planning Division	Once before issuance of grading permit Onsite inspection	Prior to issuance of grading permit Prior to issuance of grading permit	If grading activities will take place within nesting season provide written evidence a qualified biologist has been retained by the applicant to conduct an onsite nesting survey prior to grading. If nesting birds are present biologist will establish a		Withhold Grading Permit Issuance of a Stop Work Order

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protected bird nests (non-listed), 250 feet from passerine birds, or 100 feet for sensitive or protected songbird nests. All construction activity within the vicinity of active nests must be conducted in the presence of a qualified biological monitor. Construction activity may encroach into the buffer area at the discretion of the biological monitor in consultation with CDFW. In the event no special status avian species are identified within the limits of disturbance, no further mitigation is required. In the event such species are identified within the limits of ground disturbance, mitigation measure 4.4.6.4B shall also apply. This measure shall be implemented to the satisfaction of the City Planning Division.				construction buffer zone of a minimum from an active listed species or raptor nest, 300 feet from other sensitive or protected bird nests (non-listed), or 100 feet for sensitive or protected songbird nests		
4.4.6.4B If it is determined that project-related grading or construction will affect nesting migratory bird species, no grading or heavy equipment activity shall take place within the limits established in Mitigation Measure 4.4.6.4A until it has been determined by a qualified biologist that the nest/burrow is no longer active, and all juveniles have fledged the nest/burrow. This measure shall be implemented to the satisfaction of the City Planning Division.	City Planning Division	Once Before Construction and onsite inspection	Prior to disturbance of site	On-site inspection		Issuance of a Stop Work Order
4.4.6.4C The loss of foraging habitat for golden eagle and white-tailed kite will be mitigated by payment of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) fee and the creation of a landscaped buffer area adjacent to the San Jacinto Wildlife Area property (SJWA). First, the payment of the Western Riverside County Multiple species Habitat Conservation Plan fee will be required on a project-by-project basis. Second, a 250-foot setback as described in Mitigation Measure	City Planning Division	Once before issuance of grading permits	Prior to disturbance of site	Written verification of payment of MSHCP fees		Withdraw Grading Permit

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4.4.6.1A will be established within the World Logistics Center Specific Plan area. This area will reduce impacts to raptor species foraging in the adjacent San Jacinto Wildlife Area open space areas.						
4.4.6. 4D A pre-construction clearance survey for burrowing owl shall be conducted by a qualified biologist no more than thirty (30) days prior to any grading or ground disturbing activities within the project area. In the event no burrowing owls are observed within the limits of ground disturbance, no further mitigation is required.	City Planning Division	Once 30-days prior to construction/ grading	Prior to issuance of any grading permits	Review of pre-construction survey for burrowing owls.		Withhold Grading Permits
If construction is to be initiated during the breeding season (February 1 through August 31) and burrowing owl is determined to occupy any portion of the disturbance area during the 30-day pre-construction survey, construction activity shall maintain a 500 foot buffer area around any active nest/burrow until it has been determined that the nest/burrow is no longer active, and all juveniles have fledged the nest/burrow. If this avoidance buffer cannot be maintained, consultation with the California Department of Fish and Wildlife (CDFW) shall take place and an appropriate avoidance distance established. No disturbance to active burrows shall occur without appropriate permitting through the Migratory Bird Treaty Act and/or California Department of Fish and Wildlife.	City Planning Division	Once 30-days prior to construction/ grading	Prior to issuance of any grading permits and during construction	If construction takes place between Feb 1- Aug 31 and nesting burrowing owl is present, a 500 ft. construction buffer shall be maintained from the nest until all juveniles have fledged.		Issuance of a Stop Work Order
If active burrowing owl burrows are detected outside the breeding season (September through January), or within the breeding season but owls are not nesting or in the process of nesting, active and/or passive relocation may be conducted following consultation with the	City Planning Division	Onsite inspection once 30-days prior to construction/ grading	Prior to issuance of any grading permits and during construction	If construction takes place between Sept 1- Jan 31 and burrowing owl outside the nesting season is present, a		Issuance of a Stop Work Order

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California Department of Fish and Wildlife. A relocation plan may be required by California Department of Fish and Wildlife if active and/or passive relocation is necessary. The relocation plan will outline the basic process and provides options for avoidance and mitigation. Artificial burrows -may be constructed within the buffer area south of the World Logistics Center Specific Plan. Construction activity may occur within 500 feet of the burrows at the discretion of the biological monitor in consultation with CDFW.				passive relocation plan shall be prepared by a qualified biologist and approved by the City.		
A relocation plan may be required by California Department of Fish and Wildlife if active or passive relocation is necessary. Artificial burrows may be constructed within appropriate burrowing owl habitat within the proposed open space/conservation area (Planning Area 30), a 74.3-acre area in the southwest portion of the Specific Plan. This area abuts the Lake Perris State Recreation Area (LPSRA) which is already in conservation. If suitable habitat is not present in Planning Area 30, owls may be relocated to the SJWA, the 250-foot buffer area or other suitable on-site or off-site areas. Construction activity may occur within 500 feet of the burrows at the discretion of the biological monitor.	City Planning Division	Onsite inspection once 30-days prior to construction/ grading	Prior to issuance of any grading permits and during construction	Written verification a relocation plan has been approved by the California Department of Fish and Wildlife		Issuance of a Stop Work Order
4.4.6.4E Prior to the approval of any Plot Plans proposing the development of land including or adjacent to Drainage 9, a protocol survey for the Los Angeles Pocket Mouse (LAPM), including 100 feet upstream and downstream of the affected reach shall be prepared by a qualified biologist and submitted to the City. If the affected drainage is not occupied, the area is considered not to be occupied and development can continue without further action. If the species is	City Planning Division	Once prior to plot plan approval for development of land including or adjacent to Drainage 9	Prior to plot plan approval	Submittal of a LAPM protocol survey report to the City.		Withhold Approval Plot Plans

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found within the specific survey area, no development shall occur until an appropriate mitigation fee is paid or appropriate amount of land set aside on the project site or off site to compensate for any loss of occupied Los Angeles Pocket Mouse habitat. Alternatively, individuals may be relocated to the 250-foot setback zone along the southern boundary of the property identified in Mitigation Measure 4.4.6.1A, or other appropriate areas as determined by the United States Fish and Wildlife Service. If necessary, this measure shall also be coordinated with Mitigation Measure 4.4.6.2B regarding preparation and processing of a Determination of a Biological Equivalent or Superior Preservation report. This measure shall be implemented to the satisfaction of the City Planning Division.						
4.4.6.4F Prior to approval of any discretionary permits for development within Planning Areas 10 and 12, a Biological Resource Management Plan (BRMP) shall be prepared to prescribe how the 250-foot setback area outlined in Mitigation Measure 4.4.6.1A will be developed and maintained This plan will identify frequent and infrequent vegetation management requirements (i.e., removal of invasive plants) and the planting and maintaining trees to provide roosting and nesting opportunities for raptors and other birds. The Biological Resource Management Plan will also describe how relocation of listed or sensitive species will occur from other locations as outlined in Mitigation Measures 4.4.6.2A, 4.4.6.4D, and 4.4.6.4E. The Biological Resource Management Plan shall be reviewed and approved by the Planning	City Planning Official	Once before approval of any discretionary permits within Planning Areas 10 & 12 Onsite inspection	Prior to approval of any discretionary permits within Planning Areas 10 & 12	Review and approval of a BRMP		Withhold Discretionary Permit

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Official in consultation with the San Jacinto Wildlife Area Manager. The Biological Resource Management Plan shall cover all the land within the 250-foot setback zone within Planning Areas 10 and 12 Implementation of the plan shall be supervised by a qualified biologist, to the satisfaction of the City Planning Division.						
4.4.6.4G Mitigation Measure 4.4.6.1A specifies that a landscape plan shall be submitted with any development proposal for lots adjacent to the California Department of Fish and Wildlife (CDFW) San Jacinto Wildlife Area (SJWA) property prior to issuance of a precise grading permit. The landscape plan shall be prepared by a licensed landscape architect in consultation with a qualified biologist and shall be consistent with the design standards contained in the Specific Plan. No plant species listed in Section 6.1.4 or Table 6.2 of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) shall be installed within the setback area. In conjunction with development adjacent to the San Jacinto Wildlife Area (SJWA), cottonwood trees shall be planted within the 250-foot setback area, consistent with the World Logistics Center Specific Plan plant palette (per DBESP MM 8). During construction, the runoff leaving construction areas will be directed to onsite detention basins and away from downstream drainage features located offsite. All projects within the WLCSP will be required to prepare a Storm Water Pollution Prevention Plan (as outlined in MM 4.9.6.2B). Regarding the 250-foot setback area, pedestrian and vehicular access to areas of riparian/riverine habitat will be prohibited	City Planning Division and Land Development Division Manager	Once before to issuance of a precise grading permit	Prior to issuance of a precise grading permit	Review and approval of landscape plan		Withhold Grading Permit

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except for controlled maintenance access. Finally, no grading shall be permitted within conserved riparian/riverine habitat areas except for grading necessary to established or enhance habitat areas (DBESP MM 6, 7, 9, and 10).						
4.4.6.4H As outlined in Mitigation Measure 4.4.6.1A, development adjacent to the 250-foot open space setback shall have a six-foot chain link fence or similar barrier to help separate human activity and the buffer area. Any chain link fencing installed on any properties adjacent to the 250-foot buffer area shall have metal mesh installed below and above ground level to prevent animals from accessing new development areas.	City Planning Division	Once before building permits	Prior to issuance of certificate of occupancy	Review and approval of fencing plan		Withhold Certificate of Occupancy
4.4.6.4I The individual property owner and/or Property Owners Association (POA) as appropriate shall be responsible for maintaining the various onsite landscaped areas, open improved or natural drainage channels, and detention or flood control basins in a manner that provide for fuel management and vector control pursuant to standards maintained by the City Fire Marshall and County Department of Environmental Health- Vector Control Group. This measure requires the individual owner or Property Owners Association (POA) to manage vegetation in and around these areas or improvements so as to not represent a fire hazard as defined by the City Fire Department through the substantial buildup of combustible materials. This measure also requires the individual owner or Property Owners Association to manage vegetation and standing water in drainage channels and basins such that they do not encourage or allow vectors to occur (primarily	City Fire Department Land Development Division and Stormwater Management Section of Public Works	As needed basis	Onsite Inspections during operations	Onsite Inspections		Issuance of Code Enforcement Citations

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rats and mosquitoes). Runoff shall not be allowed to stand in channels or basins for more than 72 hours without treatment or maintenance to prevent establishment of mosquitoes per published County vector control guidelines and "Best Management Practices for Mosquito Control on California State Properties" which is available from the California West Nile Virus website at http://www.westnile.ca.gov/resources. This measure shall be implemented by the Property Owners Association in consultation with the City Fire Department and Riverside County Department of Environmental Health – Vector Control Group.						
4.4.6.4J A Fuel Management Plan shall be prepared on a project-by-project basis for those Planning Areas adjacent to the south and east boundary of the World Logistics Center Specific Plan adjacent to Western Riverside County Multiple Species Habitat Conservation Plan Conservation Areas. The Fuel Management Plan shall be prepared by the project proponent and submitted for approval to the prior to plot plan approval for those projects on the southern and eastern Western Riverside County Multiple Species Habitat Conservation Plan boundary. Per the Western Riverside County Multiple Species Habitat Conservation Plan guidelines, the Fuel Management Plan shall include the following: • A plant palette of adequate plant species that may be planted within the Fuel Management Area, which will be approved by a biologist familiar with the plant requirements of the area. • A list of non-native invasive plants that are	City Planning Division	Prior to Issuance of Building Permit	Prior to Issuance of Building Permit	Review and Approval of Building Permit and Onsite Inspection		Withhold Building Permit

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prohibited from installation. • Maintenance activities and a maintenance schedule. Fuel modification zones shall be mapped and include an impact assessment as required under California Environmental Quality Act guidelines for a project-level analysis. The plan shall demonstrate that the adjacent Western Riverside County Multiple Species Habitat Conservation Plan Areas are adequately protected from expected fire risks.						
4.4.6.4K Prior to approval of any plot plans for development adjacent to the SJWA, the applicant shall demonstrate that direct light rays have been contained within the development area, per requirements of the MSHCP Section 6.0 which states, "Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting." This measure shall be implemented to the satisfaction of the City Planning Division.	City Planning Division	Prior to Issuance of Building Permit	Prior to Issuance of Building Permit	Review and Approval of Building Permit and Onsite Inspection		Withhold Building Permit
4.5 Cultural Resources						
4.5.6.1A Prior to the approval of any grading permit for any of the "Light Logistics" parcels, the parcels shall be evaluated for significance by a qualified archaeologist. A Phase 1 Cultural Resources Assessment shall be conducted by the project archaeologist and an appropriate tribal representative(s) on each of the "Light Logistics" parcel to determine if significant archaeological or historical resources are present. A Phase 2 significance evaluation shall be	Planning Division And Land Development Division/Public Works	Once Before Permitting	Prior to the approval of any grading or discretionary permit for any of the "Light Logistics"	Review and Approval of Phase I Cultural Resources Assessment		Withhold Grading or Discretionary Permits

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completed for any of these sites in order to determine if they contain significant archaeological or historical resources. Cultural resources include but are not limited to stone artifacts, bone, wood, shell, or features, including hearths, structural remains, or historic dumpsites. All resources determined to be prehistoric or historic shall be documented using DPR523 forms for archival research/storage in the Eastern Information Center (EIC). If the particular resource is determined to be not significant, no further documentation is required. If prehistoric resources are determined to be significant, they shall be considered for relocation or archival documentation. If any resource is determined to be significant, a Phase 3 recovery study shall be conducted to recover remaining significant cultural artifacts. If prehistoric archaeological/cultural resources are discovered during the Phase 1 survey and it is determined that they cannot be avoided through site design, they shall be subject to a Phase 2 testing program. The project archaeologist in consultation with appropriate tribal group(s) shall determine the significance of the resource(s) and determine the most appropriate disposition of the resource(s) in accordance with applicable laws, regulations and professional practices (per Cultural Report MM CR-1, MM CR-2, MM CR-7 Table 3, pg.74).						
4.5.6.1B Prior to the issuance of any grading or ground-disturbing permit for construction of off-site improvements a qualified archaeologist shall be retained to prepare a Phase I cultural resource assessment (CRA) of the project site if an up to date Phase I cultural resource assessment is not available for the site at the	City Planning Division	Once before issuance of grading permits for off-site improvement s and As	Prior to the approval of any grading or ground-disturbing permit	Review and Approval of Phase I Cultural Resources Assessment		Withhold Grading Permit or Issuance of Stop Work Order

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time of development per Cultural Report MM CR-5, Table 3, pg.74). Appropriate tribal representatives as identified by the City shall be invited by the Project Archeologist to participate in this assessment. If archaeological resources are discovered during construction activities, no further excavation or disturbance of the area where the resources were found shall occur until a qualified archaeologist evaluates the find. If the find is determined to be a unique archaeological resource, appropriate action shall be taken to (a) plan construction to avoid the archeological sites (the preferred alternative); (b) cap or cover archeological sites with a layer of soil before building on the affected project location; or (c) excavate the site to adequately recover the scientifically consequential information from and about the resource. At the discretion of the project archaeologist, work may continue on other parts of the project site while the unique archaeological resource mitigation takes place. This measure shall be implemented to the satisfaction of the Planning Official. If the project archaeologist, in consultation with the monitoring Tribe(s), determines that the find is a unique archaeological resource, the resource site shall be evaluated and recorded in accordance with requirements of the State Office of Historic Preservation (OHP). If the resource is determined to be significant, data shall be collected by the qualified archaeologist and the findings of the report shall be submitted to the City. If the find is determined to be not significant no mitigation is necessary.		Needed During Construction				

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Should a future project-level analysis show that cultural resource site CA-RIV-3346 will be directly or partially impacted by project-level construction, an Addendum cultural resource report must be prepared and include an analysis of the alternatives associated with mitigation for impacts to this resource following CEQA Guidelines Section 15126.4(b)(3). This information must be included in any project-level CEQA compliance documentation. It should be noted that Phase 3 data recovery is an acceptable mitigation action under CEQA Guidelines Section 15126.4(b)(3)(C) (per Cultural Report MM CR-3,Table 3, pg.74). Should it be determined through a future project-level EIR analysis that prehistoric cultural resource sites CA-RIV-2993 and/or CA-RIV-3347 shall be directly impacted by future construction, these sites must be Phase 2 tested for significance (per Cultural Report MM CR-4, Table 3, pg.74).						
4.5.6.1C Prior to the issuance of any grading permits a qualified archaeologist shall be retained to monitor all grading and shall invite tribal groups to participate in the monitoring. Project-related archaeological monitoring shall include the following requirements per Cultural Report MM CR-6, MM CR-8, Table 3, pg.74): 1. All earthmoving shall be monitored to a depth of ten (10) feet below grade by the Project Archaeologist or his/her designated representative. Once all areas of the development project that have been cut to 10 feet below existing grade have been inspected by	The City Planning Division	Once before issuance of grading permits and As Needed During Construction	Prior to any issuance of grading permits	Provide evidence to the City that a qualified archaeological monitor has been retained to oversee all ground altering activities		Withhold Grading Permit

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the monitor, the Project Archaeologist may, at his or her discretion, terminate monitoring if and only if no buried cultural resources have been detected; 2. If buried cultural resources are detected, monitoring shall continue until 100 percent of virgin earth within the specific project area has been disturbed and inspected by the Project Archaeologist or his/her designated representative. 3. Grading shall cease in the area of a cultural artifact or potential cultural artifact as delineated by the Project Archaeologist or his/her designated representative. A buffer of at a minimum 25 feet around the cultural item shall be established to allow for assessment of the resource. Grading may continue in other areas of the site while the particular find are investigated; and 4. If prehistoric cultural resources are uncovered during grading, they shall be Phase 2 tested by the Project Archaeologist, and evaluated for significance in accordance with §15064.5(f) of the CEQA Guidelines. Appropriate actions for significant resources as determined by the Phase 2 testing include but are not limited to avoidance or capping, incorporation of the site in green space, parks, or delineation into open space. If such measures are not feasible, Phase 3 data recovery of the significant resource will be required, and curation of recovered artifacts and/or reburial, shall be required. A report associated with Phase 2 testing or Phase 3 data recovery must be delivered to the City and, if						

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necessary, the museum where any recovered artifacts have been curated. 5. No further grading shall occur in the area of the discovery until the City approves specific actions to protect identified resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution approved by the City where they would be afforded long-term preservation to allow future scientific study. 6. The developer shall make reasonable efforts to avoid, minimize, or mitigate significant adverse impacts on cultural resources The State Historic Preservation Office (SHPO) and local Native American tribes will be consulted and the Advisory Council on Historic Preservation will be notified within 48 hours of the find in compliance with 36 CFR 800.13(b)(3). This measure shall be implemented to the satisfaction of the Planning Official.						
4.5.6.1D Prior to the issuance of any grading permit the project archaeologist shall invite interested Tribal Group(s) representatives to monitor grading activities. Qualified representatives of the Tribal Group(s) shall be granted access to the project site to monitor grading as long as they provide 48-hour notice to the developer of their desire to monitor, so the developer can make appropriate safety arrangements on the site. This measure shall be implemented to the satisfaction of the Planning Official.	City Planning Division	Once before issuance of grading permits and As Needed During Construction	Prior to the issuance of any grading permit within 3,750 feet of the southwest corner	Evidence of invitation to Tribal Group Representatives		Withhold Grading Permit
4.5.6.1E It is possible that ground-disturbing activities during construction may uncover	Grading Contractor, Land Development	As Needed During	During grading and/or ground	Verification to the City a qualified		Issuance a Stop Work

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previously unknown, buried cultural resources (archaeological or historical). In the event that buried cultural resources are discovered during grading and no Project Archaeologist or Historian is present, grading operations shall stop in the immediate vicinity of the find and a qualified archaeologist shall be retained to determine the most appropriate course of action regarding the resource. The Archeologist shall make recommendations to the City on the actions that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with §15064.5 of the *CEQA Guidelines*. Cultural resources could consist of, but are not limited to, stone artifacts, bone, wood, shell, or features, including hearths, structural remains, or historic dumpsites. Any previously undiscovered resources found during construction within the project area shall be recorded on appropriate California Department of Parks and Recreation forms and evaluated for significance in terms of CEQA criteria. If the resources are determined to be unique historic resources as defined under §15064.5 of the *CEQA Guidelines*, appropriate protective actions for significant resources such as avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds shall be implemented by the project archaeologist and the City. No further grading shall occur in the area of the discovery until the City and project archaeologist approve the measures to address these resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a	Division/Public Works, and Planning Division	Construction	disturbing activities	archaeologist been retained		Order

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qualified scientific institution approved by the City where they would be afforded long-term preservation to allow future scientific study.						
4.5.6.2A If any historic resources are found during implementation of Mitigation Measure 4.5.6.1A, the Project Archaeologist or Historian (as appropriate) shall offer any artifacts or resources to the Moreno Valley Historical Society (MVHS) or the Eastern Information Center/County Museum or the Western Science Center in Hemet as appropriate for archival storage. From the time any artifacts are turned over to the Moreno Valley Historical Society or other appropriate historical group, the developer shall have no further responsibility for their management or maintenance.	City Planning Division	As Needed During Construction	During grading	A qualified archaeologist or historian(s) shall be retained by the applicant. A report of findings shall be submitted to the City after the finalization of construction		Issuance of a Stop Work Order
4.5.6.2B As part of construction of the trail segment connecting Redlands Boulevard to the California Department of Fish and Wildlife property, the developer shall contribute $5,000 to the City for the installation of a historical marker acknowledging the passing of Juan Bautista de Anza through this area during his exploration of California. This measure shall be incorporated into trail plans for this segment which will be subject to review and approval by the City Park and Recreation Department in consultation with the Moreno Valley Historical Society.	City Park and Recreation Department	Once	Prior to approval of trail plans	Review and Approval of Trail Plans Written verification the $5,000 has been paid		Withhold Approval of Trail Plans
4.5.6.2C Streets C and E shall follow the historical alignment of Alessandro Boulevard and shall be named Alessandro Boulevard.	City Land Development/Public Works City Park and Recreation Department	Once prior to issuance of Plot Plan	Prior to issuance of approval of plot plans for Planning Areas along	Review and Approval of Plot Plans		Withhold Plot Plan approval

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			Alessandro Boulevard.			
4.5.6.3A Prior to the issuance of any grading permits, a City-approved Paleontologist shall be retained to conduct paleontological monitoring as needed for all grading related to development. Development monitoring shall include the following actions: 1. Monitoring must occur in areas where excavations are expected to exceed twenty (20) feet in depth, in areas where fossil-bearing formations are found during grading, and in all areas found to contain, or are suspected of containing, fossil-bearing formations. 2. To avoid construction delays, paleontological monitors shall be equipped to salvage fossils and remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates if they are unearthed. 3. Monitors shall be empowered to temporarily halt or divert equipment to allow removal of specimens. 4. Monitoring may be reduced if the potentially fossiliferous units described herein are not present, or, if present, are determined upon exposure and examination by the Project Paleontologist to have low potential to contain fossil resources. This measure shall be implemented to the satisfaction of the Planning Official. The Project Paleontologist and the Project Archaeologist described in Mitigation Measure 4.5.6.1C may be the same person if he/she meets the qualifications of both positions	City Planning Division	Once before issuance of grading permits and As Needed During Construction	Prior to issuance of any grading permits for development within the WLCSP	A qualified paleontologist(s) shall be retained by the applicant to monitor full time during the duration of ground disturbing activities. A report of findings shall be submitted to the City after the finalization of construction		Withhold Grading Permit Or Issuance of a Stop Work Order

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per Cultural Report MM PR-1, Table 4, pg.76).						
4.5.6.3B Prior to the issuance of any permits for the construction of off-site improvements, a qualified paleontologist shall conduct an assessment for paleontological resources on each off-site improvement location. If any site is determined to have a potential for exposing paleontological resources, the project paleontologist shall monitor off-site grading/excavation, subject to coordination with the City. Development monitoring shall include the following mitigation measures: 1. Monitoring must occur in areas where excavations are expected to reach fossil-bearing formations during grading. This monitoring must be conducted by the Project Paleontologist in all areas found to or suspected of containing fossil-bearing formations. 2. To avoid construction delays, the Project Paleontologist shall be equipped to salvage fossils and remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates as they are unearthed. 3. The Project Paleontologist shall be empowered to temporarily halt or divert equipment to allow removal of specimens. 4. Monitoring may be reduced if the potentially fossiliferous units described herein are not present, or, if present, are determined upon exposure and examination by the Project Paleontologist to have low potential to contain fossil resources.	City Planning Division	Once before issuance of grading permits and As Needed During Construction	Prior to issuance of grading permits for construction of any off-site improvements	A qualified paleontologist(s) shall be retained by the applicant to monitor full time during the duration of ground disturbing activities. A report of findings shall be submitted to the City after the finalization of construction.		Withhold Grading Permit Or Issuance of a Stop Work Order

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4.6 Geology and Soils						
4.6.6.1A Prior to approval of any projects for development between Redlands Boulevard and Theodore Street, south of Dracaea Avenue (projected east from Redlands Boulevard), and the area south of Alessandro from the western boundary along the Mount Russell toe of slope easterly into the site 1,500 feet, the City shall determine if a detailed fault study of the Casa Loma Fault Zone area is required based on available evidence. If necessary, any additional geotechnical investigations shall be prepared by a qualified geologist and determine if structural setbacks are needed, and shall identify specific remedial earthwork and/or foundation recommendations. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance	City Engineer and Project Geologist and Land Development/ Public Works	Once before project approvals	Prior to approval of any projects for future development between Redlands Boulevard and Theodore Street, south of Dracaea Avenue (projected east from Redlands Boulevard), and the area south of Alessandro from the western boundary along the Mount Russell toe of slope easterly into the site 1,500 feet.	Review and approval of geotechnical fault study.		Withhold Approval of Projects

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with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur. Structures intended for human occupancy shall not be located within any structural setback zone as determined by those studies. This measure shall be implemented to the satisfaction of the City Engineer in consultation with the Project Geologist.						
4.6.6.1B Prior to approval of any projects for development within or adjacent to the San Jacinto Alquist-Priolo Earthquake Fault Zone, the City shall review and approve a geotechnical fault study prepared by a qualified geologist to confirm the alignment and size of any required building setbacks related to the fault zone. If necessary, this study shall identify a "special foundation or grading remediation zone" for the areas supporting structures intended for human occupancy where coseismic deformation (fractures) is observed. This zone shall be determined after subsurface evaluation based on proposed building locations. Specific remedial earthwork and foundation recommendations shall be evaluated as necessary based on proposed building locations. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that	City Engineer and Project Geologist Land Development/Public Works	Once before approval of any development permits and Prior to Plot Plan Approval	Prior to approval of any projects for future development within or adjacent to the San Jacinto Alquist-Priolo Earthquake Fault Zone.	Review and approval of geotechnical fault study.		Withhold Approval of Projects

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all structural plans for the project meet current Building Code requirements. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur. This study may involve trenching to adequately identify the location of the Claremont segment of the San Jacinto Fault Zone that crosses the eastern portion of the World Logistics Center Specific Plan property. This measure shall be implemented to the satisfaction of the City Engineer in consultation with the Project Geologist.						
4.6.6.1C Prior to the approval of grading permits, or permits for construction of off-site improvements, the City shall review and approve plans confirming that the project has been designed to withstand anticipated ground shaking and other geotechnical and soil constraints (e.g., settlement). The project proponent shall submit plans to the City as appropriate for review and approval prior to issuance of grading permits or issuance of permits for the construction of any offsite improvements. This measure shall be	City Engineer and Land Development/ Public Works	Once before issuance of grading permits	Prior to the approval of project grading permits, or permits for construction of off-site improvements	Review and approve grading and construction plans		Withhold Issuance of Grading Permits

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implemented to the satisfaction of the City Engineer.						
4.6.6.2A Prior to issuance of building permits for any portion of the project site, a site-specific, design level geotechnical investigation for each parcel shall be submitted to the City , which would comply with all applicable state and local code requirements, and includes an analysis of the expected ground motions at the site from known active faults using accepted methodologies. The report shall determine structural design requirements as prescribed by the most current version of the California Building Code, including applicable City amendments, to ensure that structures can withstand ground accelerations expected from known active faults. The report shall also determine the final design parameters for walls, foundations, foundation slabs, utilities, roadways, parking lots, sidewalks, and other surrounding related improvements. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and	City Engineer and Land Development/Public Works	Once before issuance of any building permits	Prior to issuance of any building permits	Review and approval of a site-specific, design level geotechnical investigation for each parcel		Withhold Building Permits

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all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur.						
4.6.6.3A Each Plot Plan application for development shall include a site-specific, design level geotechnical investigation for each parcel, in compliance with all applicable state and local code requirements, and including an analysis of the expected soil hazards at the site. The report shall determine: 1. Structural design requirements as prescribed by the most current version of the California Building Code, including applicable City amendments, to ensure that structures can withstand ground accelerations expected from known active faults. 2. The final design parameters for walls, foundations, foundation slabs, utilities, roadways, parking lots, sidewalks, and other surrounding related improvements. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable	City Engineer and Land Development/Public Works	Once before plot plan approval	Prior to the approval of a Plot Plan for any development project or associated off-site improvements	Submittal and Approval of Geotechnical Report		Withhold Approval of Plot Plan

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mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. These investigations shall identify any site-specific impacts from compressible and expansive soils based on the actual location of individual pads proposed in the future, so that differential movement can be further verified or evaluated in view of the actual foundation plan and imposed fill or structural loads. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur. Compliance with this measure will ensure that future buildings are designed to protect the structure and occupants from on-site soil limitations, consistent with State Building Code requirements. This measure shall be implemented to the satisfaction of the City Engineer.						
4.6.6.3B Any cut slopes in excess of five (5) feet in vertical height shall be constructed as "replacement fill slopes" per the project	City Land Development Division and City	Once before issuance of any grading	Prior to issuance of any grading	Review and approval of grading plans		Withhold Grading Permit

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geotechnical report, due to the variable nature of the onsite alluvial soils. This measure shall be implemented to the satisfaction of the City Land Development Division and the City Engineer in consultation with the Project Geologist.	Engineer	permit	permit for development within the Specific Plan			
4.6.6.3C During all grading activities, a geotechnical engineer shall monitor site preparation, removal of unsuitable soils, mapping of all earthwork excavations, approval of imported earth materials, fill placement, foundation installation, and other geotechnical operations. Laboratory testing of subsurface materials to confirm compacted dry density and moisture content, consolidation potential, corrosion potential, expansion potential, and resistance value (R-value) shall be performed prior to and during grading as appropriate. This measure shall be implemented to the satisfaction of the City Engineer in consultation with the Project Geologist.	City Engineer and Land Development/Public Works	Once before permitting	Prior to issuance of any discretionary permit for development within the Specific Plan	Review of additional geotechnical and soils site investigations		Withhold Discretionary Permit
4.7 Greenhouse Gases and Global Climate Change						
4.7.6.1A The project shall implement the following requirements to reduce solid waste and greenhouse gas emissions from construction and operation of project development: a) Prior to January 1, 2020, divert a minimum of 50 percent of landfill waste generated by operation of the project. After January 1, 2020, development shall divert a minimum of 75 percent of landfill waste. In January of each calendar year after project approval the developer and/or Property Owners Association shall certify the percentage of landfill waste diverted on an annual basis.	Recycling Coordinator/Public Works and City Planning Division	Once each calendar year after project approval	January 1 of each year following project approval	Provide verification sheet to the Planning division. Property Owners Association or the property owner shall certify the percentage of landfill waste		Withholding Future Discretionary Approvals

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				diverted on an annual basis. Certification has been submitted to the City.		
b) Prior to January 1, 2020, recycle and/or salvage at least 50 percent of non-hazardous construction and demolition debris. After January 1, 2020, recycle and/or salvage at least 75 percent of non-hazardous construction and demolition debris. In January of each calendar year after project approval the developer and/or Property Owners Association shall certify the percentage of landfill waste diverted on an annual basis. Develop and implement a construction waste management plan that, at a minimum, identifies the materials to be diverted from disposal and whether the materials will be sorted on-site or co-mingled. Calculations can be done by weight or volume, but must be consistent throughout.	City Planning Division	Once each calendar year after project approval	January 1 of each year following project approval	Property Owners Association or the property owner shall certify the percentage of landfill waste diverted on an annual basis.		Implement Land Use and Enforcement Procedures
c) The applicant shall submit a Recyclables Collection and Loading Area Plan for construction related materials prior to issuance of a building permit with the Building Division and for operational aspects of the project prior to the issuance of the occupancy permit to the Public Works Department. The plan shall conform to the Riverside County Waste Management Department's Design Guidelines for Recyclable Collection and Loading Areas.	City Building and Safety Division	Once before issuance of building permits	Prior to issuance of building permits	Review and approval of a Recyclables Collection and Loading Area plan		Withhold Building Permit
d) Prior to issuance of certificate of occupancy, the recyclables collection and loading area shall	City Planning Division	Once before issuance of	Prior to issuance of	Review and Approval of		Withhold Certificate of

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be constructed in compliance with the Recyclables Collection and Loading Area plan.		occupancy permit	occupancy permit	building plans		Occupancy
e) Prior to issuance of certificate of occupancy, documentation shall be provided to the City confirming that recycling is available for each building.	City Planning Division	Once before issuance of occupancy permit	Prior to issuance of occupancy permit	Compliance with Recyclables Collection and Loading Area plan		Withhold Certificate of Occupancy
f) Within six months after occupancy of a building, the City shall confirm that all tenants have recycling procedures set in place to recycle all items that are recyclable, including but not limited to paper, cardboard, glass, plastics, and metals.	City Planning Division	Within six months of building occupancy	Within six months after occupancy of building	Review and approval of a Recyclables Collection and Loading Area plan.		Withhold Certificate of Occupancy
g) The property owner shall advise all tenants of the availability of community recycling and composting services.	City Planning Division	Once before issuance of a Certificate of Occupancy	Prior to issuance of a Certificate of Occupancy	Written verification will be submitted to the City that the property owner advised all tenants of the availability of community recycling and composting services.		Withhold the Certificate of Occupancy
h) Existing onsite street material shall be recycled for new project streets to the extent feasible.	City Engineer Land Development/ Public Works	Once before issuance of grading permits	Prior to issuance of grading permits	Review and approval of construction documents including street plans		Withhold Grading Permits

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4.8 Hazards and Hazardous Materials						
4.8.6.1A Prior to demolition of any existing structures on the project site, a qualified contractor shall be retained to determine if asbestos-containing materials (ACMs) and/or lead-based paint (LBP) are present. If asbestos-containing materials and/or lead-based paint are present, prior to commencement of demolition, these materials shall be removed and transported to an appropriate landfill by a licensed contractor. In addition, onsite soils shall be tested for contamination by agricultural chemicals. If present, these materials shall be removed and transported to an appropriate landfill by a licensed contractor. This measure shall be implemented to the satisfaction of the Building Division including written documentation of the disposal of any asbestos-containing materials, lead-based paint, or agricultural chemical residue in conformance with all applicable regulations.	City Building Division	Once Before Permitting and as Needed During Construction	Prior to demolition of any existing rural residences or associated structures	Evidence of qualified contractor provided		Holding and Not Approving Demolition Permits
4.8.6.1B Prior to the issuance of any discretionary permits associated with the proposed fueling facility ("logistic support" site in the LD zone), a risk assessment or safety study that identifies the potential public health and safety risks from accidents at the facility (e.g., fire, tank rupture, boiling liquid, or expanding vapor explosion) shall be submitted to the City for review and approval This study shall be prepared to industry standards and demonstrate that the facility will not create any significant public health or safety impacts or risks, to the satisfaction of the City Building and Safety Division and the Fire Prevention Bureau.	Fire Prevention Bureau and Building and Safety Division	Once Before Permitting	Prior to issuance of any discretionary permits associated with natural gas fueling facility	Review and Approval of Risk Assessment or Safety Study		Withhold Discretionary Permit
4.8.6.1C Prior to grading, for any discretionary	Building Official and	Once before	Prior to	Review and		Withhold

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permits for development in Planning Areas 9-12 adjacent to the natural gas compressor plant, the applicant shall prepare a risk assessment report analyzing safety conditions relative to the existing compressor plant and planned development. The report must be based on appropriate industry standards and identify the potential hazards from the compressor plant (e.g., fire, explosion) and determine that the distance from the plant to the closest planned buildings in Planning Areas 9-12 is sufficient to protect the safety of workers from accidents that could occur (see Final EIR Volume 2 Figure 4.1.6B) at the compressor plant. This measure shall be implemented to the satisfaction of the City Building and Safety Division and the Fire Prevention Bureau.	Fire Marshal	issuance of discretionary permits for development within Planning Areas 9-12	issuance of discretionary permits for development within Planning Areas 9-12	approval of a risk assessment		Discretionary Permit
4.8.6.1D Prior to the issuance of any grading permit, the developer shall inform the City of any existing solid waste materials within the development area. In conjunction with grading activities, all solid waste matter within the development area shall be removed by a licensed contractor and disposed of in an approved landfill. A record of the removal and disposal of any waste materials, in compliance with applicable laws and regulations, shall be submitted to the City prior to the issuance of any building permits.	Recycling Coordinator/Public Works	Once before issuance of grading permits	Prior to issuance of grading permits	Applicant will inform the City in writing of any existing solid waste materials within the development area		Withhold Grading Permit
4.9 Hydrology and Water Quality						
4.9.6.1A Prior to issuance of any building permit within the Specific Plan area, the developer shall construct storm drain pipes and conveyances, as well as, combined detention and infiltration basin(s), bioretention areas, and spreading area(s) within each proposed watershed, as outlined in the project hydrology plan, to mitigate	Land Development/Public Works	Prior to Occupancy	Prior to issuance of any development permit	Review and approval of construction documents Field Inspection		Withhold Building Permit

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the impacts of increased peak flow rate, velocity, flow volume and reduce the time of concentration by storing and infiltrating increased runoff for a limited period of time and release the outflow at a rate that does not exceed the pre-development peak flows and velocities for the 2, 5, 10, 25, and 100-year storms and volumes as assessed in the water balance model for historical conditions. For the purpose of this mitigation measure, the term "construct" shall mean to substantially complete construction so as to function for its intended purpose during construction with complete construction prior to occupancy. Field investigations will be conducted to determine the infiltration rate of soils underlying the proposed locations of bioretention areas and detention basins. The infiltration rate of the underlying soils will be used to properly size the bioretention areas and detention basins/infiltration basins to ensure that adequate volumes of runoff, in cumulative total for all bioretention areas and detention basins are captured and infiltrated. The water balance model will be updated and rerun for the site-specific conditions encountered to confirm the water balance. This measure shall be implemented to the satisfaction of the City Engineer. Energy dissipaters shall be used as the spillways of basins to reduce the runoff velocity and dissipate the flow energy. Drainage weir structures shall be constructed at the downstream end of the watersheds flowing to the San Jacinto Wildlife Area to control the runoff and spread the flow such that the flows exiting the project boundary will return to the sheet flow pattern similar to the existing condition. Detention basins and spreading areas shall be designed to account for the amount of the sediment						

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transported through the project boundary so that the existing sediment carrying capacity is maintained.						
4.9.6.1B The bioretention areas and detention/infiltration basins shall be designed to assure infiltrations rates. The monitoring plan will follow the guidelines presented by the California Storm Water Quality Association (CASQA) in the California Storm Water Best Management Program (BMP) Handbook, Municipal, January 2003 Section 4, Treatment Control Best Management Programs Fact Sheets TC-11 Infiltration Basin and TC-30 Vegetated Swale). For the Bioretention areas, as needed maintenance activities shall be conducted to remove accumulated sediment that may obstruct flow through the swale. Bioretention areas shall be monitored at the beginning and end of each wet season to assess any degradation in infiltration rates. The maintenance activities should occur when sediment on channels and culverts builds up to more than 3 inches (CASQA 2003). The swales will need to be cultivated or rototilled if drawdown takes more than 72 hours.	City Engineer	Once before issuance of grading permits	Prior to issuance of grading permits	Review and approval of a monitoring plan for the detention/ infiltration basins		Withhold Grading Permit
For the detention/infiltration basins, a 3-5 year maintenance program shall be implemented mainly to keep infiltration rates close to original values since sediment accumulation could reduce original infiltration rate by 25-50%. Infiltration rates in detention basins will be monitored at the beginning and end of each wet season to assess any degradation in infiltration rates. If cumulative infiltration rates of all detention basins drops below the minimum required rates, then the detention basins will be reconditioned to improve infiltration capacity by	Land Development/Public Works	Ongoing during occupancy	Ongoing during occupancy	On-Site Inspection		Notice of Violation

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scraping the bottom of the detention basin, seed or sod to restore groundcover, aerate bottom and dethatch basin bottom (CASQA 2003).						
4.9.6.2A Prior to issuance of any grading permit for development in the World Logistics Center Specific Plan, the project developer shall file a Notice of Intent (NOI) with the Santa Ana Regional Water Quality Control Board to be covered under the National Pollutant Discharge Elimination System (NPDES) General Construction Permit for discharge of storm water associated with construction activities. The project developer shall submit to the City the Waste Discharge Identification Number issued by the State Water Quality Control Board (SWQCB) as proof that the project's Notice of Intent is to be covered by the General Construction Permit has been filed with the State Water Quality Control Board. This measure shall be implemented to the satisfaction of the City Engineer.	City Engineer, Land Development/ Public Works, and Stormwater Management	Once before issuance of any grading permit	Prior to issuance of any grading permit	Proof of NOI submittal		Withhold Grading Permit
4.9.6.2B Prior to issuance of any grading permit for development in the World Logistics Center Specific Plan, the project developer shall submit to the State Water Quality Control Board (SWQCB) a project-specific Storm Water Pollution Prevention Plan (SWPPP). The Storm Water Pollution Prevention Plan shall include a surface water control plan and erosion control plan citing specific measures to control on-site and off-site erosion during the entire grading and construction period. In addition, the Storm Water Pollution Prevention Plan shall emphasize structural and nonstructural best management practices (BMPs) to control sediment and non-visible discharges from the site. Best Management Practices to be implemented may	City of Moreno Valley and the Regional Water Quality Control Board and Land Development/ Public Works	Once before issuance of any grading permit	Prior to issuance of any grading permit	Written verification of filing a SWPPP by the RWQCB		Withhold Grading Permit

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include (but shall not be limited to) the following: • Sediment discharges from the site may be controlled by the following: sandbags, silt fences, straw wattles and temporary debris basins (if deemed necessary), and other discharge control devices. The construction and condition of the Best Management Practices are to be periodically inspected by the Regional Water Quality Control Board during construction, and repairs would be made as required. • Materials that have the potential to contribute non-visible pollutants to storm water must not be placed in drainage ways and must be placed in temporary storage containment areas. • All loose soil, silt, clay, sand, debris, and other earthen material shall be controlled to eliminate discharge from the site. Temporary soil stabilization measures to be considered include: covering disturbed areas with mulch, temporary seeding, soil stabilizing binders, fiber rolls or blankets, temporary vegetation, and permanent seeding. Stockpiles shall be surrounded by silt fences and covered with plastic tarps. • The Storm Water Pollution Prevention Plan shall include inspection forms for routine monitoring of the site during the construction phase. • Additional required Best Management Practices and erosion control measures shall be documented in the Storm Water Pollution Prevention Plan.						

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• The Storm Water Pollution Prevention Plan would be kept on site for the duration of project construction and shall be available to the local Regional Water Quality Control Board for inspection at any time. The developer and/or construction contractor for each development area shall be responsible for performing and documenting the application of Best Management Practices identified in the project-specific Storm Water Pollution Prevention Plan. Regular inspections shall be performed on sediment control measures called for in the Storm Water Pollution Prevention Plan. Monthly reports shall be maintained and available for City inspection. An inspection log shall be maintained for the project and shall be available at the site for review by the City of Moreno Valley and the Regional Water Quality Control Board.						
4.9.6.3A Prior to discretionary permit approval for individual plot plans, a site-specific Water Quality Management Plan (WQMP) shall be submitted to the City Land Development Division for review and approval. The Water Quality Management Plan shall specifically identify site design, source control, and treatment control Best Management Practices that shall be used on site to control pollutant runoff and to reduce impacts to water quality to the maximum extent practicable. The Water Quality Management Plan shall be consistent with the Water Quality Management Plan approved for the overall World Logistics Center Specific Plan project. At a minimum, the site developer shall implement the following site design, source control, and treatment control Best Management Practices as	City Land Development Division	Once before issuance of any grading or building permits	Prior to issuance of discretionary permit approval for individual plot plans	Review and Approval of WQMP		Withhold Grading or Building Permit

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appropriate: **Site Design Best Management Practices** • Minimize urban runoff. • Maximize the permeable area.\ • Incorporate landscaped buffer areas between sidewalks and streets. • Maximize canopy interception and water conservation by planting native or drought-tolerant trees and large shrubs. • Use natural drainage systems. • Where soil conditions are suitable, use perforated pipe or gravel filtration pits for low flow infiltration. • Construct on-site ponding areas or retention facilities to increase opportunities for infiltration consistent with vector control objectives. • Minimize impervious footprint. • Construct streets, sidewalks and parking lot aisles to the minimum widths necessary, provided that public safety and a walkable environment for pedestrians are not compromised. • Reduce widths of street where off-street parking is available.						

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• Minimize the use of impervious surfaces such as decorative concrete, in the landscape design. • Conserve natural areas. • Minimize Directly Connected Impervious Areas (DCIAs). • Runoff from impervious areas will sheet flow or be directed to treatment control Best Management Practices. • Streets, sidewalks, and parking lots will sheet flow to landscaping/bioretention areas that are planted with native or drought tolerant trees and large shrubs. **Source Control Best Management Practices** Source control Best Management Practices are implemented to eliminate the presence of pollutants through prevention. Such measures can be both non-structural and structural: Non-structural source control Best Management Practices include: (a) Education for property owners, operator, tenants, occupants, or employees; (b) Activity restrictions; (c) Irrigation system and landscape maintenance; (d) Common area litter control;						

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(e) Street sweeping private streets and parking lots; and (f) Drainage facility inspection and maintenance. Structural source control Best Management Practices include: (g) MS4 stenciling and signage; (h) Landscape and irrigation system design; (i) Protect slopes and channels; and (j) Properly design fueling areas, trash storage areas, loading docks, and outdoor material storage areas. **Treatment Control Best Management Practices** Treatment control Best Management Practices supplement the pollution prevention and source control measures by treating the water to remove pollutants before it is released from the project site. The treatment control Best Management Practice strategy for the project is to select Low Impact Development (LID) Best Management Practices that promote infiltration and evapotranspiration, including the construction of infiltration basins, bioretention facilities, and extended detention basins. Where infiltration Best Management Practices are not appropriate, bioretention and/or biotreatment Best Management Practices (including extended detention basins, bioswales, and constructed wetlands) that provide opportunity for evapotranspiration and incidental infiltration may be utilized. Harvest and Reuse Best Management Practice will be used to store						

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runoff for later non-potable uses. Site-specific Water Quality Management Plans have not been prepared at this time as no site-specific development project has been submitted to the City for approval. When specific projects within the project are developed, Best Management Practices will be implemented consistent with the goals contained in the Master Water Quality Management Plan. All development within the project will be required to incorporate on-site water quality features to meet or exceed the approved Master Water Quality Management Plan's water quality requirements identified previously.						
4.9.6.3B The Property Owners Association (POA) and all property owners shall be responsible to maintain all onsite water quality basins according to requirements in the guidance Water Quality Management Plan and/or subsequent site-specific Water Quality Management Plans, and established guidelines of the Regional Water Quality Control Board. Failure to properly maintain such basins shall be grounds for suspension or revocation of discretionary operating permits, and/or referral to the Regional Water Quality Control Board for review and possible action. This measure shall be implemented to the satisfaction of the City Land Development Division, in consultation with the City Engineer, and Regional Water Quality Control Board.	City Land Development Division	As Needed	Ongoing	Onsite inspections		Revocation of Discretionary or Operating Permits
4.9.6.3C Prior to issuance of future discretionary permits for any development along the southern boundary of the World Logistics Center Specific Plan (WLCSP), the project developer of such	Land Development Division	Annually	Prior to issuance of discretionary permits for any	Evidence of Annual Water Quality Monitoring Plan fund		Withhold Discretionary Permit

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sites, in cooperation with the Property Owners Association (POA), shall establish and annually fund a Water Quality Mitigation Monitoring Plan (WQMMP) to confirm that project runoff will not have deleterious effects on the adjacent San Jacinto Wildlife Area (SJWA). This program shall include at least quarterly sampling along the southern boundary of the site (i.e., at the identified outlet structures of the project detention basins) during wet season flows and/or when water is present, as well as sampling of any dry-season flows that are observed entering the San Jacinto Wildlife Area property from the project property, including Drainage 9, which is planned to convey only clean off-site flows from north of the World Logistics Center Specific Plan site across Gilman Springs Road. The program shall also include at least twice yearly sampling after completion of construction, and a pre-construction survey must be completed to determine general water quality baseline conditions prior to and during development of the southern portion of the World Logistics Center Specific Plan. This sampling shall be consistent with and/or comply with the requirements of applicable Storm Water Pollution Prevention Plans (SWPPPs) for the development site. The project developer of sites along the southern border of the World Logistics Center Specific Plan shall be responsible for preventing or eliminating any toxic pollutant (not including sediment) found to exceed applicable established public health standards. In addition, the discharge from the project shall not cause or contribute to an exceedance of Receiving Water Quality Objectives for the potential pollutants			development along the southern boundary of the WLCSP			

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associated with the project as identified in Table 4.9.J. Once development is complete, the developer shall retain qualified personnel to conduct regular (i.e., at least quarterly) water sampling/testing of any basins and their outfalls to ensure the San Jacinto Wildlife Area will not be affected by water pollution from the project site. This measure shall be implemented to the satisfaction of the City Land Development Division Manager based on consultation with the project developer, Eastern Municipal Water District, the Regional Water Quality Control Board-Santa Ana Region, and the Mystic Lake Manager.						
4.12 Noise						
4.12.6.1A Prior to issuance of any discretionary project approvals, a Noise Reduction Compliance Plan (NRCP) shall be submitted to and approved by the City. The Noise Reduction Compliance Plan shall show the limits of nighttime construction in relation to any then-occupied residential dwellings and shall be in conformance with City standards. Conditions shall be added to any discretionary projects requiring that the limits of nighttime grading be shown on the Noise Reduction Compliance Plan and all grading plans submitted to the City (per Noise Study MM N-2, pg. 51).	City Planning Division	Once Before Permitting	Prior to issuance of any building or grading permits	Review and Approval of a Noise Reduction Compliance Plan		Withhold Building and Grading Permit
4.12.6.1B All construction equipment, fixed or mobile, shall be equipped with operating and maintained mufflers consistent with manufacturers' standards.	City Planning Division	As Needed During Grading	During site grading and construction	Review of Construction Documents and On-site Inspection		Issuance of a Stop Work Order
4.12.6.1C Construction vehicles shall be prohibited from using Redlands Boulevard south of Eucalyptus Avenue to access on-site construction for all phases of development of the	City Planning Division Transportations	Once before issuance of grading permits or	Prior to any issuance of grading permits or	Review and Approval of Construction Documents		Withhold Grading Permits or approval of

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Specific Plan (per Noise Study MM N-1, pg. 51).	Division/Public Works	approval of roadway and utility improvement plans	approval of roadway and utility improvement plans			roadway and utility improvement plans
4.12.6.1D No grading shall occur within 2,800 feet of residences south of State Route-60 between 8 p.m. and 6 a.m. on weekdays and between 8 p.m. and 7 a.m. on weekends. These restrictions shall be included as part of the Noise Reduction Compliance Plan per Mitigation Measure 4.12.6.1A (per Noise Study MM N-2, pg. 51)	City Planning Division and Land Development/Public Works	Once Before Permitting and On-going during grading	Prior to any discretionary approvals for development in the WLCSP	Review and Approval of Noise Reduction Compliance Plan		Issuance of a Stop Work Order
4.12.6.1E As an alternative to Mitigation Measure 4.12.6.1D, a 12-foot tall temporary construction sound barrier may be installed for residences within 1,580 feet of active nighttime construction areas. The temporary sound barrier shall be constructed of plywood with a total thickness of 15 inches, or a sound blanket wall may be used. If sound blankets are used, they must have a Sound Transmission Class (STC) rating of 27 or greater. This shall be included as part of the Noise Reduction Compliance Plan required in Mitigation Measure 4.12.6.1A, which shall be reviewed and approved by the City prior to implementation (per Noise Study MM N-2 and N-3, pg. 51 and pg. 52).	City Planning Division	Once Before Permitting	Prior to grading	Review and Approval of Noise Reduction Compliance Plan		Withhold Grading and Building Permits
4.12.6.1F As an alternative to Mitigation Measure 4.12.6.1D and 4.12.6.1E, on-site noise measurements of construction areas may be taken by qualified personnel and specific buffer distances between construction activities and existing residences may be proposed based on actual noise levels. These measurements will be incorporated into the Noise Reduction	City Planning Division	Once Before Permitting	Prior to grading	Review and Approval of Noise Reduction Compliance Plan		Withhold Grading and Building Permits

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Compliance Plan required in Mitigation Measure 4.12.6.1A, which shall be reviewed and approved by the City prior to implementation (per Noise Study MM N-2, pg. 51).						
4.12.6.1G Any discretionary approvals for development that proposes grading within 1,580 feet of occupied residential units shall require that all grading equipment be equipped with residential grade mufflers (or better). All stationary construction equipment shall be placed so that emitted noise is directed away from noise-sensitive receptors nearest the site. Additionally, stationary construction equipment shall have all standard acoustic covers in place during operation (per Noise Study MM N-4, pg. 52).	City Planning Division	As Needed During Grading	Prior to any discretionary approvals for development that proposes grading within 1,580 feet of occupied residential units	Review and Approval of Construction Documents. Require Written Materials from the Applicant or Operator		Issuance of a Stop Work Order
4.12.6.1H All material stockpiles in connection with any grading operations shall be located at least 1,200 feet from existing residences (per Noise Study MM N-5, pg. 52).	City Planning Division and Land Development/Public Works	As Needed During Grading	During Grading	On-site Inspection		Issuance of a Stop Work Order
4.12.6.1I All project-related off-site construction shall be limited to 6 a.m. and 8 p.m. on weekdays only. Construction during weekends and City holidays shall not be permitted (per Noise Study MM N-6, pg. 53) to the satisfaction of the Land Development Division/Public Works.	City Land Development Division/Public Works	On-going as needed	During construction	Review and Approval of Construction Documents		Issuance of a Stop Work Order
4.12.6.1J Prior to issuance/approval of any grading permits, off-site construction activities adjacent to residential uses shall provide for installation of 12-foot temporary sound barriers for construction activities lasting more than one month. The sound barrier will reduce noise levels by approximately 10 dB. The temporary sound barrier may be constructed of plywood with a total thickness of 1.5 inches, or a sound blanket	City Planning Division	Once before issuance of grading permits	Prior to the issuance of grading permits	Evidence of off-site 12-foot temporary sound barrier during construction activities lasting more than 1 month		Withhold Grading Permit

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wall may be used. If sound blankets are used, the curtains must have a Sound Transmission Class (STC) rating of 27 or greater. No off-site construction is permitted during weekday nighttime hours (8 p.m. to 6 a.m.) or during weekends and City holidays except for emergencies (per Noise Study MM N-7, pg. 53).						
4.12.6.2A When processing future individual buildings under the World Logistics Center Specific Plan, as part of the City's approval process, the City shall require the Applicant to take the following three actions for each building prior to approval of discretionary permits for individual plot plans for the requested development: Action 1: Perform a building-specific noise study to ensure that the assumptions set forth in the FEIR prepared for the programmatic level entitlement remain valid. These procedure used to conduct these noise analyses shall be consistent with the noise analysis conducted in the programmatic FEIR and shall be used to impose building-specific mitigation on the individually-proposed buildings. Action 2: If the building-specific analyses identify that the proposed development triggers the need for mitigation from the proposed building, including all preceding developments in the specific plan area, the Applicant shall implement the mitigation identified in the WLC FEIR. Prior to implementing the mitigation, the Applicant shall send letters by registered mail to all property owners and non-owner occupants of properties that would benefit from the proposed mitigation asking them to provide a position either in favor	City Planning Division	Once before issuance of a certificate of occupancy	Prior to issuance of discretionary permits for Action 1. Prior to issuance of certificate of occupancy for actions 2 and 3	Review and approval of a noise study		Withhold Certificate of Occupancy

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of or in opposition to the proposed noise abatement mitigation within 45 days. Each property shall be entitled to one vote on behalf of owners and one vote per dwelling on behalf of non-owner occupants. If more than 50% of the votes from responding benefited receptors oppose the abatement, the abatement will not be considered reasonable. Additionally, for noise abatement to be located on private property, 100% of owners of property upon which the abatement is to be placed must support the proposed abatement. In the case of proposed noise abatement on private property, no response from a property owner, after three attempts by registered mail, is considered a *no* vote. At the completion of the vote at the end of the 45 day period, the Applicant shall provide the tentative results of the vote to all property owners by registered mail. During the next 15 calendar days following the date of the mailing, property owners may change their vote. Following the 15-day period, the results of the vote will be finalized and made public. Action 3: Upon consent from benefited receptors and property owners, the Applicant shall post a bond for the cost of the construction of the necessary mitigation as estimated by the City Engineer to ensure completion of the mitigation. The certificate of occupancy permits shall be issued upon posting of the bond or demonstration that 50% of the votes from responding benefited receptors oppose the abatement or, if the abatement is located on						

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private property, any property owners oppose the abatement (per Noise Study MM N-8, pg.53).						
4.12.6.2B Prior to issuance/approval of any building permits, the centerline of Cactus Avenue Extension will be located no closer than 114 feet to the residential property lines along Merwin Street. An alternative is to locate the roadway closer to the residences and provide a soundwall along Cactus Avenue Extension. The soundwall location and height should be determined by a Registered Engineer, and the soundwall shall be designed to reduce noise levels to less than 65 CNEL at the residences. The Engineer shall provide calculations and supporting information in a report that will be required to be submitted to and approved by the City prior to issuing permits to construct the road (per Noise Study, pg. 51, Cactus Avenue Extension, ID #50).	City Planning Division	Prior to the approval of a building permit	Prior to the issuance of any discretionary approvals for development in the WLCSP	Review and Approval of discretionary permits		Withhold Discretionary Permits
4.12.6.2C Prior to the approval of any discretionary permits, cumulative impact areas shown in the WLC EIR Noise Study shall be included in the soundwall mitigation program outlined in Mitigation Measures 4.12.6.2A and 4.12.6.2D (per Noise Study MM N-9, pg. 62).	City Planning Division	Once before issuance of building permits	Prior to issuance of building permits	Review and approval of soundwall mitigation program		Withhold Building Permit
4.12.6.2D Prior to issuance of a building permit, the applicant shall demonstrate that the development maintains a buffer with soundwall for noise attenuation at residential/warehousing interface (i.e., western and southwestern boundaries of the project site). To keep the noise levels at nearby residential areas less than typical ambient conditions, the warehousing property line shall be located a minimum of 250 feet from the residential zone boundary , and a 12-foot noise barrier shall be located along the	City Planning Division	Once before issuance of building permits	Prior to issuance of building permits	Review and approval of building plans		Withhold Building Permit

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perimeter of the property that faces any residential areas. The 12 foot noise barrier may be a soundwall, berm, or combination of the two. The height shall be measured relative to the pad of the warehouse. This requirement shall be implemented anytime residential areas are within 600 feet of the warehousing property line to insure that a noise level of 45 dBA (Leq) will not be exceeded at the residential zone. This requirement is consistent with Item 10 of Municipal Code Section 9.16.160 Business park/industrial that states, "All manufacturing and industrial uses adjacent to residential land uses shall include a buffer zone and/or noise attenuation wall to reduce outside noise levels" (per Noise Study MM N-10, pg.62).						
4.12.6.4A Prior to the issuance of building permits for projects within 1,300 feet of the Southern California Gas Company (SCGC) and San Diego Gas and Electric (SDG&E) blow-down facilities, documentation shall be submitted to the City confirming that sound attenuation devices and/or improvements for the blow-down facilities providing at least a 40 dB reduction in noise levels during blow-down events are available and will be installed for all planned blow-down events. It shall be the responsibility of the developer to fund all sound attenuation improvements to the blow-down facilities required by this measure. It shall also be the responsibility of the developer to coordinate with San Diego Gas and Electric and/or Southern California Gas Company regarding the installation of any sound attenuation devices or improvements on the blow-down facilities at either the San Diego Gas and Electric compressor station or the Southern California Gas Company pipelines. This measure	City Land Development Division	Once before Permitting	Prior to the issuance of building permits for projects within 1,300 feet of the SCGC and SDG&E facilities	Review and Approval of documentation confirming sound attenuation device		Withhold Building Permits

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shall be implemented to the satisfaction of the City Land Management Division (per Noise Study MM N-11, pg.65).						
4.15 Traffic and Circulation						
4.15.7.4A A traffic impact analysis ("TIA") conforming to the guidelines for traffic impact analysis adopted by the City shall be submitted in conjunction with each Plot Plan application within the World Logistics Center Specific Plan. Prior to the approval of the Plot Plan, the City shall review the traffic impact analysis to determine if any of the traffic improvements listed in Final EIR Volume 2 Tables 4.15.AV through 4.15.BA (TIA Tables 74 through 79) of the traffic impact analysis prepared for the Program Environmental Impact Report are required to be completed prior to the issuance of a certificate of occupancy for each building. If the City determines that any of the improvements within Moreno Valley are required to be constructed in order to ensure that the traffic impacts which will result from the construction and operation of the building will be mitigated into insignificance, then the completion of construction of the improvements prior to the issuance of a Certificate of Occupancy for the building shall be made a Condition of Approval of the Plot Plan. Construction of improvements within the City shall be subject to credit/reimbursement agreement for those DIF and/or TUMF eligible costs. If the City determines that any of the improvements outside Moreno Valley are required to be constructed in order to ensure that the traffic impacts which will result from the construction and operation of the building will be mitigated to a less than significant level, then the payment of any necessary fair	City Engineer	Once before plot plan approval	Prior to plot plan approval	Review and Approval of sight specific TIAs		Withhold Building Permits

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share contribution as prescribed in Mitigation Measure 4.15.7.4G prior to the issuance of a Certificate of Occupancy for the building shall be made a Condition of Approval of the Plot Plan. If the City determines that the traffic impacts which will result from the construction or operation of a building will be significantly more adverse than those shown in the Program Environmental Impact Report, further environmental review shall be conducted prior to the approval of the Plot Plan pursuant to Public Resources Code § 21166 and CEQA Guidelines § 15162 to determine what additional mitigation measures, if any, will be required in order to maintain the appropriate levels of service.						
4.15.7.4B As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require the dedication of appropriate right-of-way consistent with the Subdivision Map Act for frontage street improvements contained within the World Logistics Center Specific Plan Circulation Map, as shown in this Program EIR Figure 3-10 (or Figure 22 in the TIA prepared for this Program EIR). Required dedications shall be made prior to the issuance of occupancy permits for the requested development.	City Engineer	Once before issuance of occupancy permits	Prior to issuance of occupancy permits	Evidence of dedication of right-of-way in compliance with Subdivision Map Act		Withhold Occupancy Permits
4.15.7.4C As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require each project to pay the Development Impact Fee (DIF) as set forth in Municipal Code Chapter 3.42. Required DIF payments shall be made prior to the issuance of occupancy permits for the requested	City Engineer	Once before to issuance of occupancy permits	Prior to issuance of occupancy permits	Written verification of payment of DIF		Withhold Occupancy Permits

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development.						
4.15.7.4D As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require each project to pay the requisite Transportation Uniform Mitigation Fee (TUMF) as set forth in Municipal Code Sections 3.55.050 and 3.55.060. Required TUMF payments shall be made prior to the issuance of occupancy permits for the requested development.	City Engineer	Once before to issuance of occupancy permits	Prior to issuance of occupancy permits	Written verification of payment of TUMF		Withhold Occupancy Permits
4.15.7.4E In order to ensure that all of the Project's traffic impacts are mitigated to the greatest extent feasible, the Applicant shall contribute its fair share of the cost of the needed traffic improvements that are not within the City as identified in the World Logistic Center Specific Plan Traffic Impact Analysis (i.e., under the jurisdiction of other cities, the County of Riverside or Caltrans, pursuant to Mitigation Measure 4.15.7.4F). As used in this mitigation measure, the Applicant's "fair share" has been determined in compliance with the requirements of the Fee Mitigation Act, Government Code § 66000 et seq., and, pursuant to § 66001(g), does not require that the Applicant be responsible for making up for any existing deficiencies. For example, the intersection of Martin Luther King Blvd. and the I-215 northbound ramps (Intersection 85) in the City of Riverside was identified as a place where the World Logistic Center contributes to cumulatively significant impacts, and where the fair share contribution of the World Logistic Center project as a whole was	City Engineer	Once before to issuance of occupancy permits	Prior to issuance of occupancy permits	Written verification of payment of DIF or TUMF		Withhold Occupancy Permits

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computed to be 6.2%. If the City of Riverside establishes a fair share contribution program consistent with this Mitigation Measure 4.15.7.4F to improve that intersection, then when a certificate of occupancy is to be issued for a 2-million square feet high-cube warehouse in the World Logistic Center (approximately 5% of the entire World Logistic Center project) the amount of the fair share payment due from the Applicant to the City of Riverside would be computed as follows: Amount Due = Total cost of Improvement X Total World Logistics Center fair share (6.2%) as determined by Traffic Impact Analysis X % attributable to the building that is subject to the certificate of occupancy (5%) A x B x C = D A= % attributable to the building that is subject to the certificate of occupancy (5%) B= Total World Logistics Center fair share (6.2%) as determined by Traffic Impact Analysis C= Total cost of Improvement D= Amount Due A similar calculation would be done for each						

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subsequent building, with payments for each due at the time of issuance of the certificate of occupancy. As a result, while each building individually would not produce a significant impact, and therefore would not be required to pay any mitigation fees if considered by itself, the total amount of the payments for all of the buildings would be equal to the fair share payment for the entire World Logistic Center to the extent that the responsible jurisdiction has chosen to adopt a fair share contribution funding program consistent with Mitigation Measure 4.15.7.4F.						
4.15.7.4F The Applicant shall pay a portion of the fair share of the cost of traffic improvements identified in the Transportation Impact Analysis for those significantly impacted road segments and intersections for each warehouse building within the World Logistics Center if the impacted jurisdiction has established a fair share contribution program prior to the approval of a building-specific plot plan. The City shall determine whether a fair share program exists in the impacted jurisdiction and, if one does exist, require that the appropriate fees are paid by the Applicant, consistent with the requirements below, prior to the issuance of a certificate of occupancy for the building in question. If no fair share program exists or if the existing programs are not consistent with the requirements below, then no payment of fees shall be required. The impacts are to be determined on a road segment or intersection basis. Nothing in this condition requires the payment of a traffic impact fee imposed by another jurisdiction which covers improvement to facilities where the project does not have a significant impact. Fair-share	City Engineer	Once prior to issuance of building permits for individual buildings.	Prior to issuance of occupancy permits	Written verification of payment of fair-share fees		Withhold Occupancy Permits

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contributions will be determined on a building-by-building basis as a share of the impact of the Project as a whole (for each segment or intersection where the World Logistics Center project as a whole has a significant impact identified in the Programmatic Environmental Impact Report) as determined by the Traffic Impact Analysis and will be due as each certificate of occupancy is issued. The fair share payments for the significantly impacted road segments and intersections identified in the Programmatic Environmental Impact Report will be required even though the impact resulting from a specific building does not, by itself, cause a significant impact.						
4.15.7.4G City shall work directly with Western Riverside Council of Governments to request that Transportation Uniform Mitigation Fee funding priorities be shifted to align with the needs of the City, including improvements identified in the World Logistics Center Specific Plan traffic impact analysis. Toward this end, City shall meet regularly with Western Riverside Council of Governments.	City Engineer	On-going	Yearly starting with project up and ending with project buildout.	City Engineer provides quarterly updates to the City Council regarding TUMF funding priorities as it relates to the improvements identified in the traffic impact analysis.		None
4.16 Utilities and Services Systems						
4.16.1.6.1A Prior to approval of a precise grading permit for each plot plan for development within the World Logistics Center Specific Plan (WLCSP), the developer shall submit landscape plans that demonstrate compliance with the World Logistics Center Specific Plan, the State of California Model Water Efficient Landscape Ordinance (AB 1881), and Conservation in Landscaping Act (AB 325). This measure shall	Land Development Division/Public Works	Prior to the approval of a building permit	Prior recordation of Final Map	Review and Approval of Landscape Plans		Withhold Grading Permit

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be implemented to the satisfaction of the Planning Division. Said landscape plans shall incorporate the following: • Use of xeriscape, drought-tolerant, and water-conserving landscape plant materials wherever feasible and as outlined in Section 6.0 of the World Logistics Center Specific Plan; • Use of vacuums, sweepers, and other "dry" cleaning equipment to reduce the use of water for wash down of exterior areas; • Weather-based automatic irrigation controllers for outdoor irrigation (i.e., use moisture sensors); • Use of irrigation systems primarily at night or early morning, when evaporation rates are lowest; • Use of recirculation systems in any outdoor water features, fountains, etc.; • Use of low-flow sprinkler heads in irrigation system; • Provide information to the public in conspicuous places regarding outdoor water conservation; and • Use of reclaimed water for irrigation if it becomes available.						

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4.16.1.6.1B All buildings shall include water-efficient design features outlined in Section 4.0 of the World Logistics Center Specific Plan. This measure shall be implemented to the satisfaction of the Land Development Division/Public Works. These design features shall include, but not be limited to the following: • Instantaneous (flash) or solar water heaters; • Automatic on and off water facets; • Water-efficient appliances; • Low-flow fittings, fixtures and equipment; • Use of high efficiency toilets (1.28 gallons per flush [gpf] or less); • Use of waterless or very low water use urinals (0.0 gpf to 0.25 gpf); • Use of self-closing valves for drinking fountains; • Infrared sensors on drinking fountains, sinks, toilets and urinals; • Low-flow showerheads; • Water-efficient ice machines, dishwashers, clothes washers, and other water-using appliances; • Cooling tower recirculating system where applicable; • Provide information to the public in conspicuous places regarding indoor water conservation; and • Use of reclaimed water for wash down if it	Land Development Division/Public Works	Once before issuance of Building Permit	Prior to issuance of any building permit	Review and Approval of Building Plans		Withhold Building Permit

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becomes available.						
4.16.1.6.1C Prior to approval of a precise grading permit for each plot plan, irrigation plans shall be submitted to and approved by the City demonstrating that the development will have separate irrigation lines for recycled water. All irrigation systems shall be designed so that they will function properly with recycled water if it becomes available. This measure shall be implemented to the satisfaction of the City Planning Division and Land Development Division/Public Works.	City Planning Division Land Development Division/Public Works	Prior to the approval of a building permit	Prior recordation of Final Map	Review and Approval of Irrigation Plans		Withhold Grading Permit
4.16.1.6.2A Each Plot Plan application for development shall include a concept grading and drainage plan, with supporting engineering calculations. The plans shall be designed such that the existing sediment carrying capacity of the drainage courses exiting the project area is similar to the existing condition. The runoff leaving the project site shall be comparable to the sheet flow of the existing condition to maintain the sediment carrying capacity and amount of available sediment for transport so that no increased erosion will occur downstream. This measure shall be implemented to the satisfaction of the City Land Development Division/Public Works.	Land Development Division/Public Works	Once Concurrent with Plot Plan review and approval.	Prior to issuance of grading permit.	Review and Approval of Grading and Drainage Plans		Withhold Grading Permit.
4.16.4.6.1A Each application for a building permit shall include energy calculations to demonstrate compliance with the California Energy Efficiency Standards confirming that each new structure meets applicable Building and Energy Efficiency Standards. The plans shall also ensure that buildings are in conformance with the State Energy Conservation Efficiency	City Building and Safety Division and Planning Division	Once prior to issuance of building permit. Once during on-site inspection	Prior to issuance of building permit.	Review of construction documents and on-site inspection		Withhold Building Permit. Or Withhold Occupancy Permit

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Date: May 2015

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
Standards for Nonresidential buildings (Title 24, Part 6, Article 2, California Administrative Code). This measure shall be implemented to the satisfaction of the Building and Safety and Planning Divisions. Plans shall show the following: Energy-efficient roofing systems, such as "cool" roofs, that reduce roof temperatures significantly during the summer and therefore reduce the energy requirement for air conditioning. Cool pavement materials such as lighter-colored pavement materials, porous materials, or permeable or porous pavement, for all roadways and walkways not within the public right-of-way, to minimize the absorption of solar heat and subsequent transfer of heat to its surrounding environment. Energy-efficient appliances that achieve the 2008 Appliance Energy Efficiency Standards (e.g., EnergyStar Appliances) and use of sunlight-filtering window coatings or double-paned windows.						
4.16.4.6.1B Prior to the issuance of any building permits within the World Logistics Center Specific Plan, each project developer shall submit energy calculations used to demonstrate compliance with the performance approach to the California Energy Efficiency Standards to the Building and Safety and Planning Divisions that shows each new structure meets the applicable Building and Energy Efficiency Standards. Plans may include but are not necessarily limited to implementing the following as appropriate:	City Building and Safety Division and Planning Division	Once prior to issuance of building permit.	Prior to issuance of building permit.	Review of construction documents and on-site inspection		Withhold Building Permit.

3.3 MITIGATION MONITORING AND REPORTING PROGRAM CHECKLIST

Project File Name: World Logistics Center Specific Plan **Applicant: Highland Fairview**

Date: May 2015

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
High-efficiency air-conditioning with electronic management system (computer) control.						
Variable Air Volume air distribution.						
Outside air (100 percent) economizer cycle.						
Staged compressors or variable speed drives to flow varying thermal loads.						
Isolated High-efficiency air-conditioning zone control by floors/separable activity areas.						
Specification of premium-efficiency electric motors (i.e., compressor motors, air handling units, and fan-coil units).						
Use of occupancy sensors in appropriate spaces.						
Use of compact fluorescent lamps in place of incandescent lamps.						
Use of cold cathode fluorescent lamps.						
Use of Energy Star exit lighting or exit signage.						
Use of T-8 lamps and electronic ballasts where applications of standard fluorescent fixtures are identified.						
se of lighting power controllers in association with metal-halide or high-pressure sodium (high intensity discharge) lamps for outdoor lighting and parking lots.						
Use of skylights (may conflict with installation of solar panels in some instances).						

3.3 MITIGATION MONITORING AND REPORTING PROGRAM CHECKLIST

Project File Name: World Logistics Center Specific Plan **Applicant: Highland Fairview**

Date: May 2015

Mitigation Measure No. / Implementing Action	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/ Initials	Sanctions for Non-Compliance
Consideration of thermal energy storage air conditioning for spaces or hotel buildings, meeting facilities, theaters, or other intermittent-use spaces or facilities that may require air-conditioning during summer, day-peak periods.						
4.16.4.6.1C Prior to the issuance of a building permit, new development shall demonstrate that each building has implemented the following: 1) Install solar panels with a capacity equal to the peak daily demand for the ancillary office uses in each warehouse building; 2) Increase efficiency for buildings by implementing either 10 percent over the 2008 Title 24's energy saving requirements or the Title 24 requirements in place at the time the building permit is approved, whichever is more strict; and 3) Require the equivalent of "Leadership in Energy and Environmental Design Certified" for the buildings constructed at the World Logistics Center based on Leadership in Energy and Environmental Design Certified standards in effect at the time of project approval. This measure shall be implemented to the satisfaction of the Building and Safety and Planning Divisions.	Building and Safety Division and Planning Division	Once before issuance of building permit.	Prior to the issuance of any building permits	Submittal of energy calculations that show compliance with the California Energy Efficiency Standards		Withhold Building Permit

THE WORLD LOGISTICS CENTER™ ®

Final Programmatic Environmental Impact Report

Volume 2 - Revised Draft Environmental Impact Report

State Clearinghouse No. 2012021045

City of Moreno Valley
Riverside County, California

May 2015

LSA

FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT REPORT VOLUME 2

REVISED DRAFT ENVIRONMENTAL IMPACT REPORT (TRACK CHANGES)

STATE CLEARINGHOUSE NO. 2012021045

WORLD LOGISTICS CENTER PROJECT

CITY OF MORENO VALLEY

RIVERSIDE COUNTY, CALIFORNIA

LSA

May 2015

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FINAL ENVIRONMENTAL IMPACT REPORT

VOLUME 2

REVISED DRAFT ENVIRONMENTAL IMPACT REPORT (TRACK CHANGES) STATE CLEARINGHOUSE NO. 2012021045

WORLD LOGISTICS CENTER PROJECT
CITY OF MORENO VALLEY
RIVERSIDE COUNTY, CALIFORNIA

General Plan Amendment
Specific Plan
Zone Change
Tentative Parcel Map
Development Agreement
Annexation

Prepared for:

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Moreno Valley, California 92552
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LSA

May 2015

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1.0 EXECUTIVE SUMMARY

1.1 INTRODUCTION

The Draft Environmental Impact Report (EIR) ~~(State of California Clearinghouse No. 2012021045)~~ for the World Logistics Center Project (proposed project) has been prepared to inform the decision-makers and the public of the environmental effects associated with implementation of the proposed project.

The Draft EIR was circulated for public review and comment on February 4, 2013. The comment period on the Draft EIR closed on April 8, 2013, however the City has continued to receive and accept letters and comments through April 2014. The comments and written responses are contained in Volume 1 of this document.

This EIR is a program EIR. A program EIR is an EIR that may be prepared on a series of actions that can be characterized as one large project, and are related either:

- Geographically,
- As logical parts in the chain of contemplated actions,
- In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or
- As individual activities carried out under the same authorizing statutory or regulatory authority, and having generally similar environmental effects which can be mitigated in similar ways.

The use of a program EIR can provide the following advantages. The program EIR can:

- Provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action,
- Ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis,
- Avoid duplicative reconsideration of basic policy considerations,
- Allow the lead agency to consider broad policy alternatives and program wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts.

The project is considered regionally significant according to criteria set forth in CEQA Guidelines Section 15206(b). The EIR was prepared in accordance with the California Environmental Quality Act[1] (CEQA) and Sections 15120 through 15131 and 15161 of the *Guidelines for California Environmental Quality Act,*[2] which regulate the preparation of EIRs. The DEIR (State of California Clearinghouse No. 2012021045) has been prepared by LSA Associates, Inc. on behalf of the City of Moreno Valley (City) to: 1) identify the proposed project's impacts on the environment; 2) to discuss alternatives to the proposed project; and 3) to propose mitigation measures that will offset, minimize or otherwise avoid significant environmental impacts. ~~This EIR has been prepared in accordance with~~

[1] *California Environmental Quality Act*, as of January 1, 2014~~1~~, §§21000–~~21178~~21189.3, Public Resources Code, State of California.

[2] *Guidelines for California Environmental Quality Act*, as ~~amended~~ of January 1, 2014~~08~~, §§15000–15387, California Code of Regulations, Title 14, Chapter 3, State of California.

~~the California Environmental Quality Act[1] (CEQA) and Sections 15120 through 15131 and 15161 of the *Guidelines for California Environmental Quality Act,*[2] both of which regulate the preparation of EIRs.~~ Based on the potential impacts of the proposed project, including cumulative impacts, the City determined that an EIR should be prepared to analyze potential impacts of the proposed project with respect to the following environmental issues. The referenced environmental issues below are individually addressed in the *Environmental Analysis* Section 4.0, of this report:

- ~~Aesthetics;~~
- ~~Agricultural and Forest Resources;~~
- ~~Air Quality;~~
- ~~Biological Resources;~~
- ~~Cultural Resources;~~
- ~~Geology and Soils;~~
- ~~Greenhouse Gas Emissions and Global Climate Change;~~
- ~~Hazards and Hazardous Materials;~~
- ~~Hydrology and Water Quality;~~
- ~~Land Use and Planning;~~
- ~~Mineral Resources;~~
- ~~Noise;~~
- ~~Population, Housing, and Employment;~~
- ~~Public Services including Recreation;~~
- ~~Traffic and Circulation; and~~
- ~~Utilities and Service Systems.~~

- Aesthetics;
- Agricultural and Forest Resources;
- Air Quality;
- Biological Resources;
- Cultural Resources;
- Geology and Soils;
- Greenhouse Gas Emissions and Global Climate Change;
- Hazards and Hazardous Materials;
- Hydrology and Water Quality;
- Land Use and Planning;
- Mineral Resources;
- Noise;
- Population, Housing, and Employment;
- Public Services including Recreation;
- Traffic and Circulation; and
- Utilities and Service Systems.

[1] ~~*California Environmental Quality Act*, as of January 1, 2011, §§21000–21178, Public Resources Code, State of California.~~

[2] ~~*Guidelines for California Environmental Quality Act*, as amended January 1, 2008, §§15000–15387, California Code of Regulations, Title 14, Chapter 3, State of California.~~

1.2 PROJECT LOCATION AND SETTING

1.2.1 Project Site

The World Logistics Center Specific Plan~~, it does not have a site plan showing actual building locations, so the EIR will be programmatic rather than project-level. In addition, this project is considered regionally significant according to criteria established by the Southern California Association of Governments (SCAG).~~ ~~The proposed project site~~ is located in Rancho Belago, the eastern portion of the City of Moreno Valley, in northwestern Riverside County. As shown in Figure 1.1, the project site is immediately south of State Route 60 (SR-60), ~~east of~~ between Redlands Boulevard ~~west of~~ and Gilman Springs Road (the easterly city limit), extending to the southerly city limit. The major roads that currently provide access to the project site are Redlands Boulevard, Theodore Street, Alessandro Boulevard, and Gilman Springs Road. The project site slopes gently (approximately 2%) from north ~~of the San Jacinto Wildlife Area~~ to south, with elevations ranging from approximately 1,760 feet above mean sea level (amsl) at the northeast corner to 1,480 feet amsl at the southeast corner.

1.2.2 City of Moreno Valley

Moreno Valley is Riverside County's second largest city with a population of nearly 200,000 people encompassing more than 46 square miles. Over the years, Moreno Valley has remained overwhelmingly residential in character with only 9 percent of its land allocated for job-producing uses. Today, Moreno Valley has one of the lowest jobs-to-housing ratios in the region (0.47), representing about one-third of the rate of its neighboring City of Riverside (1.41). As a result of limited job opportunities in the City, a large number of Moreno Valley's residents commute great distances to jobs outside the City, with an average daily commute of 76 minutes. Long commutes result in more time in traffic, more time breathing polluted air, more stress, less time at home, and less time with families.

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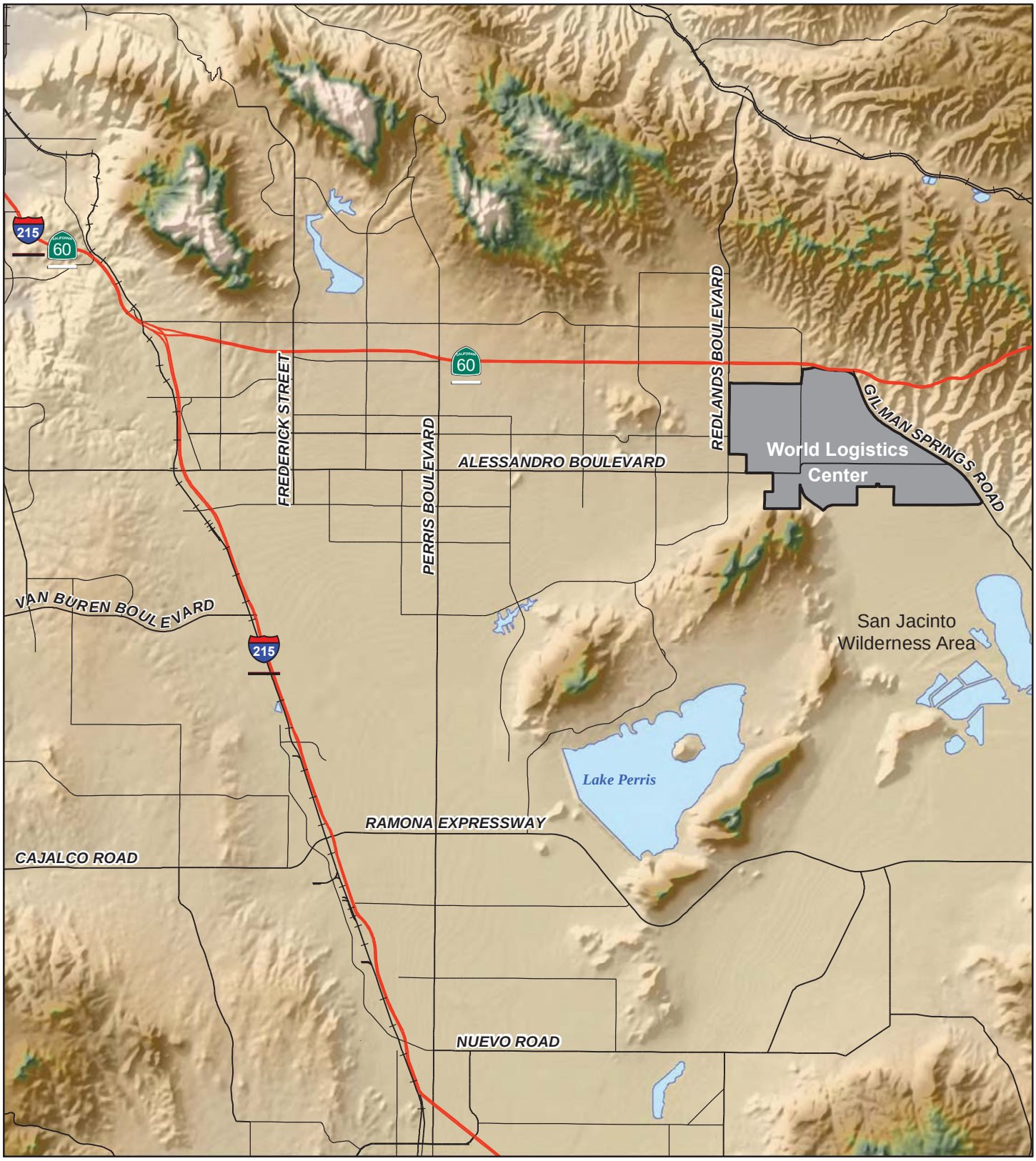

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FIGURE 1.1

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SOURCE: USGS DEM; Thomas Bros, 2009

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World Logistics Center Specific Plan Project
Environmental Impact Report

Regional Location

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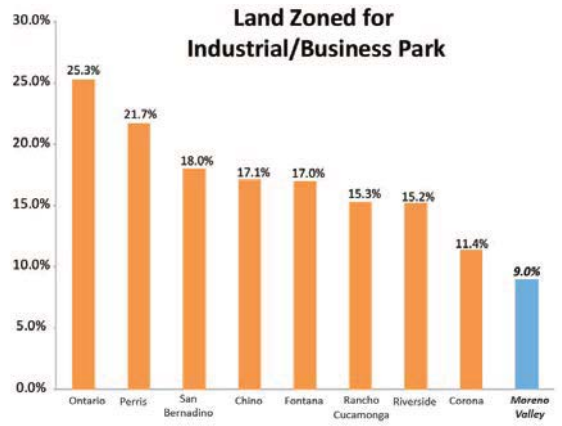
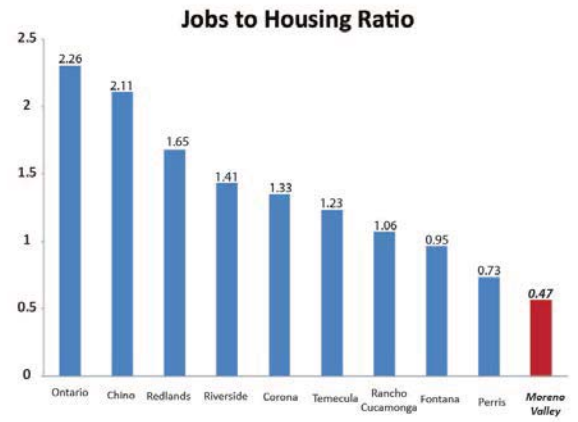
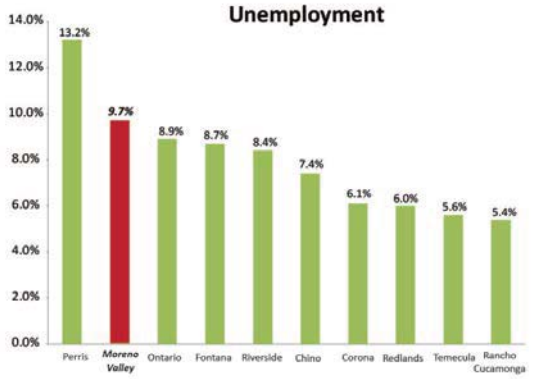
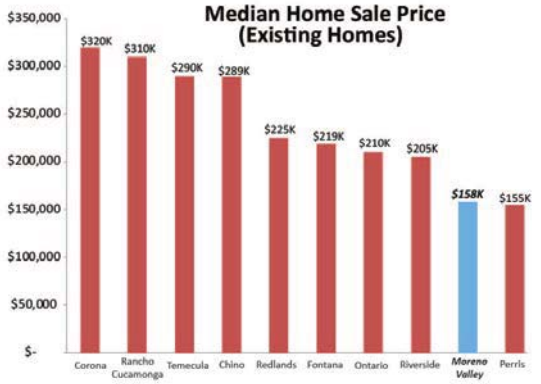




Under current municipal financial conditions, residential development does not "pay its way" in that property taxes and other revenues generated by residences do not cover the costs of municipal services for those residences. During times of rapid residential development, the City relied mainly on residential development fees to support its operations. In the early 1990s, when residential development slowed, revenues from development fees declined dramatically. This decline was exacerbated by reduced assessed valuations and property taxes, and Sacramento's decision to take a greater share of property tax revenues from cities. These factors resulted in the City becoming financially overextended. To provide the funds necessary for the City to continue to meet its obligations, a temporary Utility Users Tax was enacted by the voters in 1991. With no significant improvement to its financial condition, this tax was made permanent in 1996. The City has become dependent on this tax which now represents approximately $16 million or 20 percent of the City's budgeted revenue. The City does not currently have a sufficient tax base to fully fund its operations and provide the levels of service expected by its citizens. This has been a recurring challenge in the City for more than 20 years.

According to the U.S. Census Bureau, the per capita income in Moreno Valley is nearly 40 percent below the State of California average. Nearly 20 percent of the population in Moreno Valley is living below the national poverty level. Moreno Valley has one of the highest high-school drop-out rates in the County with over 50 percent having a high school education or less. Only 15 percent of the residents have completed a Bachelor's Degree or higher. The majority of the population, 77 percent, does not have a college degree. Unemployment in Moreno Valley remains among the highest in the region at 9.7 percent and median house prices are among the lowest in the Inland Empire.





To address these conditions, in 2010 the City of Moreno Valley developed an Economic Development Strategy focused on creating job opportunities in the City, which are responsive to the education and skill level of its residents. The logistics and healthcare industries were identified as the two primary areas of opportunity. In April 2011, the City held public hearings on its proposed Economic Development Action Plan which was then adopted by the Moreno Valley City Council. The Action Plan focused on five geographic areas within the City and established key initiatives for each. The eastern portion of the city was identified in the Action Plan as being a prime area for logistics development. In April 2012 an application was filed for the development of the World Logistics Center which was developed consistent with the City's Economic Development Action Plan. A Notice of Preparation was filed in February 2012 for The World Logistics Center project. In 2013, the City adopted a 3-year Economic Development Action Plan based upon the adopted 2011 Economic Development Strategy. See DEIR Section 3.6.1 for 2011 and 2013 Economic Development Action Plan Objectives related to the WLC.

According to the Inland Empire Economic Partnership January 2014 Quarterly Economic Report, "Logistics has been the fastest growing sector in the Inland Empire's economic base." The logistics industry offers an opportunity for upper mobility for workers providing access to skill ladders leading to the middle class. With 84 percent of its jobs not requiring a college degree and opportunities of an annual median income level of $43,583 the logistics industry is the number one contributor to job growth and upward mobility for the area's workers at this education level.

1.3 EXISTING SITE DESCRIPTION

The project area is largely vacant agricultural land, with seven occupied single-family homes and associated ranch/farm buildings in various locations on the property. In the 1920s, several farm buildings and related houses were constructed on the property and, in the 1940s, a stock farm operated on a portion of the site that was later expanded into a commercial horse farm and training facility that operated until the mid-1990s. The overall project site has been farmed by a variety of owners since the early 1900s and has supported dry (non-irrigated) farming, livestock grazing, and limited citrus groves. Much of the site continues to be used for dry farming today.

San Diego Gas & Electric (SDG&E) operates a natural gas compressor plant, known as the Moreno Compressor Station, on 19 acres in the south-central portion of the site. The Southern California Gas Company (SCGC) operates a metering and pipe cleaning station on two separate parcels (totaling 1.5 acres) in the south-central portion of the site south of Alessandro Boulevard along existing Virginia Street. The site contains a variety of overhead and underground utility lines associated with oil, natural gas, and electrical service. At present, the project site contains a number of unimproved drainage features, but it does not contain any improved flood control facilities.

1.4 PROJECT DESCRIPTION

The proposed project is a master planned business park designed to support the logistics operations of large global companies that will be implemented through the adoption of the World Logistics Center Specific Plan. Although it is called a Specific Plan, it is not intended to depict individual building projects, but rather, provide a guide for the development of infrastructure and building projects within the Project area. The Specific Plan will establish the zoning for the project site and include a land use plan, designation of planning areas, design and landscaping guidelines, and development standards for the development. As shown in Figure 3.8 – *Specific Plan Land Use* and reflected in Table 1.A, *Land Use Summary* below, the World Logistics Center Specific Plan will consist of the following land uses:

- **Logistics Development (LD):** Approximately 2,382.8 acres of the Specific Plan Area are planned for development of logistics-oriented land uses to provide high-cube logistics warehouse uses consisting of buildings of 500,000 square feet or greater. Warehousing and logistics activities consistent with the storage and processing of manufactured goods and materials prior to their distribution to other facilities are permitted within this category along with facilities for the outdoor storage of trucks, trailers and shipping containers. Ancillary office, employee services and property management facilities are permitted in connection with primary uses. A permitted use within the LD category will include "logistics support" to provide fueling facilities and limited service commercial uses in support of the World Logistics Center.
- **Light Logistics (LL):** Approximately 37.1 acres of the project site are planned for development of Light Logistics land uses to provide warehouse uses less than 500,000 square feet in size, including self-storage and vehicle storage uses.
- **Open Space (OS):** Approximately 74.3 acres of the project site are planned for permanent open space to preserve the southwestern portion of the site, which is a portion of Mt. Russell.

Table 1.A: WLCSP Land Use Summary

Area/Land Use	Acres	Building Square Footage
Logistics Development (LD)	2,382.8	40,400,000
Light Logistics (LL)	37.1	200,000
Open Space (OS)	74.3	—
Right-Of-Way (ROW)[1]	115.8	—
TOTAL	**2,610.0**	**40,600,000**
Floor Area Ratio (FAR)[2]		**0.357**

1 Right-of-Way included in each land use category
2 Gross building area (sf) divided by gross site area (sf)

1.5 ACTIONS COVERED BY THE EIR

The proposed project covers 3,~~918~~818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,~~814~~714 acres of land which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering 3,~~814~~714 acres, which redesignates approximately ~~71~~70 percent of the area (2,~~710~~610 acres) for logistics warehousing and the remaining ~~29~~30 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use), Circulation, Parks, Recreation, and Open Space, Safety, Conservation, and the General Plan Goals and Objectives

A new Specific Plan will be adopted to govern development of the 2,610-acre World Logistics Center ~~(WLC) for the 2,710 acres that will be governed by the Specific Plan~~. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering a 1,539-acre site (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project ~~area~~.

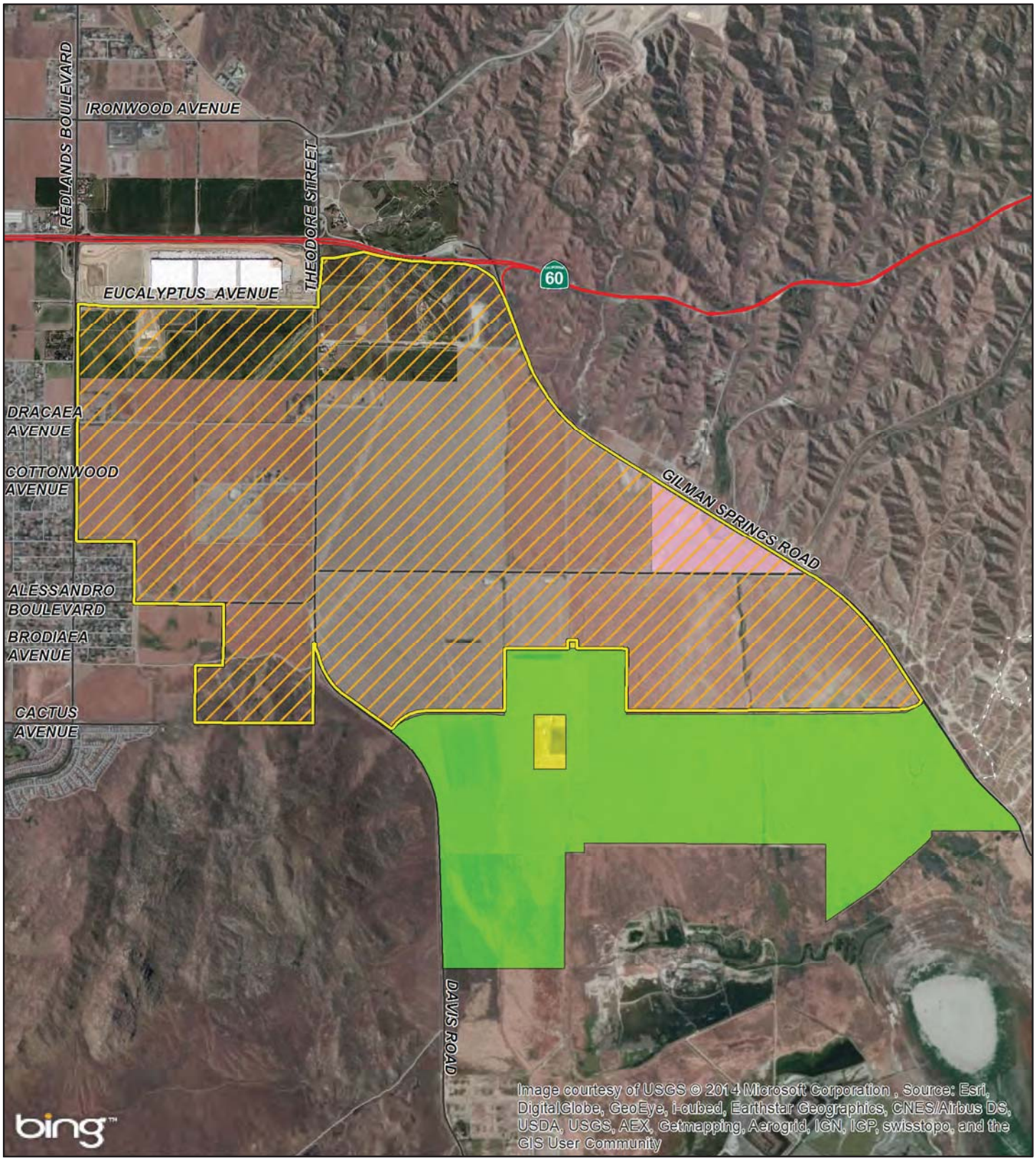


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FIGURE 1,2

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- Project Boundary
- Specific Plan
- CDFW Land - Open Space
- Public Utility
- Annexation Area

World Logistics Center Specific Plan Project
Environmental Impact Report

Component Areas

SOURCE: ESRI World Imagery, 2010; Bing Maps, 2010; Google Maps, 2011.

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Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*. The environmental impacts of all of these entitlements on the entire project area are addressed in this EIR and the accompanying technical reports and analyses.

~~1.3~~1.6 SUMMARY OF ENVIRONMENTAL ISSUES

The following presents a short summary of the analysis conducted as part of this environmental assessment. It is intended to give the reader an easy to read summary of the analytical approach and results. It is not intended to be a comprehensive listing of project impacts or mitigation measures. For complete accounting of any analysis, please refer to the appropriate section of Chapter 4 of this EIR.

The EIR also includes an analysis of alternatives to the proposed project and found that no other reasonable alternative could feasibly achieve the basic objectives of the project. A detailed comparison of Alternatives and a comparison of the Environmentally Superior Alternative to the Project Objectives can be found in Tables 1.C and 1.D later in this section.

1.6.1 Aesthetics

The EIR evaluated potential impacts to Aesthetics (Section 4.1). Potential impacts to Scenic Vistas, Scenic Resources and Scenic Highways, Existing Visual Character and Surroundings, and Cumulative Aesthetics Impacts were analyzed and found that the proposed project has the potential to result in substantial adverse effects in these areas even after all feasible mitigation is applied. Conversely, it was found that the project's impact to light and glare could be mitigated to a level of less than significant. Mitigation Measures to address aesthetics impacts include a 250-foot setback from residential property lines, landscaping, berms and or fencing to screen views of the project from existing residents, the dedication of 74.3 acres of open space, restriction on building heights to preserve views of Mt. Russell from SR-60, and restrictions on lighting and solar panels to protect existing resident from excess light and glare. Mitigation measures for each of these areas are listed in Table 1.B.

The Specific Plan contains extensive design guidelines to ensure a uniform architectural theme throughout the project. Similarly, landscape design standards are established project-wide. A process for the discretionary review of each proposed building is included in the Specific Plan which requires staff to evaluate all aesthetic aspects of each proposed building prior to its approval by the City. The Plot Plan review process is described in Section 11.3.2 of the Specific Plan. A related process regarding Administrative Variances is contained in Section 11.3.3.1 of the Specific Plan. These reviews are subject to public review and comment including provisions for appeals to the Planning Commission and City Council. The Specific Plan also provides for the preparation and approval of Concept Plans for the western, southern and eastern edges of the project to ensure that those edges are designed to be compatible with adjacent residential and open space uses.

1.6.2 Agriculture and Forestry Resources

The EIR evaluated potential impacts to Agricultural and Forestry Resources (Section 4.2) and found that impact to forest land zoning, loss or conversion of forest land, and existing zoning for agricultural use or a Williamson Act contract were less than significant and do not require mitigation. Mitigation is required for the loss of 25 acres of land designated as "Unique Farmland" through the provision of a conservation easement over comparably productive land.

The EIR contains an analysis of the state of the agriculture industry in the Inland Empire in Appendix C which concluded that the agriculture industry will continue to decline in the Inland Empire for three main reasons: 1) the more affordable housing market in the region compared to Los Angeles and Orange Counties, 2) the competition for cheaper farm labor from areas like the South Central Valley, and 3) lower water allocations to agriculture because of the growing urban population that receives priority for the water. The combination of the small size of the Inland Empire's agricultural industry and the three key economic constraints caused this study to conclude that the agriculture industry in the Inland Empire is in decline and that the agriculture industry within the Inland Empire will become less competitive and continue to decline regardless of whether or not this project is developed.

An additional study was prepared focusing specifically on the World Logistics Center property by Cushman & Wakefield in 2013 which concluded the project impact was not considered significant based on the results of the LESA Model.

1.6.3 Air Quality

An air quality and health effects assessment examined emissions from construction and operation of the World Logistics Center from both mobile and stationary sources. Broadly, the analysis of project-related emissions examined the (1) total amount of emissions generated, (2) the resulting concentrations of criteria (regulated) pollutants in the vicinity of the project area, and (3) the health effects of project-related emissions over a sub-regional area. A detailed discussion of the methodology approach can be found in Section 4.3.3 of the EIR.

1.6.3.1 Emissions

The total daily emissions from the project were analyzed in the air quality assessment. The analysis considered emissions of volatile organic compounds (VOCs), oxides of nitrogen (NO_X), carbon monoxide (CO), particulate matter (PM_{10} and $PM_{2.5}$), and oxides of sulfur (SOx). Emissions from construction and operation of the proposed project were compared to South Coast Air Quality Management District's (SCAQMD) significance threshold separately and combined for those years that construction and operation overlap. For all pollutants, with the exception of SOx, the daily emissions exceeded SCAQMD's significance thresholds after mitigation.

1.6.3.2 Localized Concentrations of Criteria (Regulated) Pollutants

Consistent with SCAQMD guidelines, localized concentrations of certain criteria pollutants in the vicinity of the project were also analyzed. The analysis considered the project's impacts on ambient concentrations of CO, NO_X, PM_{10}, and $PM_{2.5}$. The analysis considered multiple scenarios, including conservative assumptions that all work would be completed in 2012 and in multiple years when construction and operation overlap. After mitigation, the proposed project would exceed the localized significance thresholds at the existing residences located within the project boundaries for PM_{10} in five different analysis scenarios that are described in detail in Section 4.3.6.3. After mitigation, the proposed project would exceed the localized significance thresholds at the existing residences located within the project boundaries for $PM_{2.5}$ in an analysis scenario that is described in detail in Section 4.3.6.3. The project's localized impacts would not exceed any significance thresholds for receptors located outside of the project boundaries.

1.6.3.3 Health Effects

CEQA requires public disclosure of reasonably foreseeable impacts. Six metrics were used to evaluate the project's air quality health impacts: 70-year exposure residential cancer risk; 40-year exposure

occupational cancer risk; 9-year exposure school cancer risk; acute non-cancer hazard index; chronic hazard index; and cancer burden.

Although it is not representative of reasonable or foreseeable impacts, a 70-year exposure period has been utilized in this EIR to evaluate residential cancer risk. A 70-year exposure for residential cancer risk assumes that a person will be continually exposed to a project at the location of their residence but outdoors, for 24-hours a day, 350 days a year for 70 continuous years. According to the U.S. EPA, the majority of people are indoors for 18–20 hours a day (at their place of employment or home) and people do not stay outdoors of their residence in the same location for a 70 continuous years, 24 hours a day, 350 days a year.

According to U.S. Census American Community Survey 2011, only 9% percent of the U.S. population resides at the same home for 30 years or more, while 63% of the population stays in the same residence for 9 years or less. Thus, the health risk assessments utilizing a 70 year exposure duration overestimates the risk of cancer associated with diesel PM exposure. These are assumptions that are not replicated or reflected in the real world. While it is not reasonable or foreseeable to assume a typical person would remain stationary at their residence and be continuously exposed to this project for 24 hours per day, 350 days per year for 70 years, nevertheless, the cancer risk assessment in this EIR ~~t~~ uses the 70-year exposure duration to determine significance.

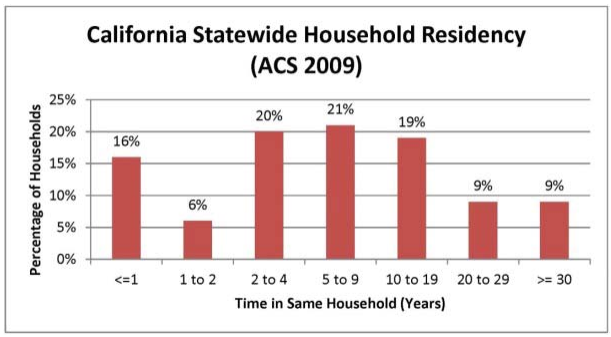
For informational purposes, data on the 30-year exposure residential cancer risk and the 25-year exposure occupational cancer risk are provided in Section 4.3.

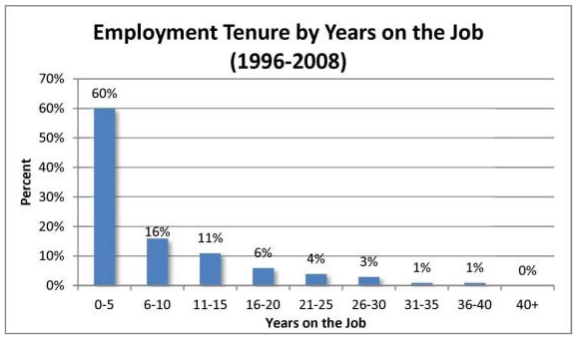
An additional analysis of exposure duration of 30 years is added to the EIR for informational comparative purposes. The 30-year exposure period is based on data that found that 91 percent of Californians live in their home for 29 years or less (see figure below). Since a 30-year exposure scenario assumes that a person will remain outdoors at their home continuously for 24 hours per day, 350 days per year over those 30 years, the scenario is also unlikely but is more realistic than the assumptions of 70 year exposure duration.

Based on a continuous 70 year exposure scenario, the cancer risk would exceed the threshold of 10 in a million on site, areas immediately adjacent to the project and along State Route 60. When utilizing a 30-year exposure period, the maximum cancer risks for existing sensitive/residential receptors outside of the project boundaries would not exceed the cancer risk significance threshold.

The cancer burden calculation attempts to estimate the number of cancers a given population would experience at a specified exposure level. Cancer burden is calculated by multiplying the number of people within a defined area of influence by the cancer risk. The cancer burden for the proposed project is 5.1 persons based on the 70-year exposure scenario and a defined area of influence, which encompasses 1,800,000 people. The cancer burden for the proposed project would exceed SCAQMD's significance threshold of 0.5 persons. The cancer burden for the proposed project represents an increase of 0.00069 percent in the background cancer burden in the area.

Analyses for 40-year and 25-year worker exposure durations are provided, and the more conservative 40-year exposure duration is used to determine significance in this analysis. The estimation of cancer risk for both durations assumes that the individual is exposed in an outdoor work setting 245 days per year, 8 hours per day. Studies for both California and the United States demonstrate that over 95 percent of all workers remain on the same job for 25 years or less, let alone at the same job location. Less than 1 percent of employees remain at their job for 40 years or more. A 25-year exposure period has been used over the last several years in various reports and studies prepared by the United States Environmental Protection Agency, the California Environmental Protection Agency, Department of Toxic Substances Control and the California Office of Environmental Health Hazard Assessment.





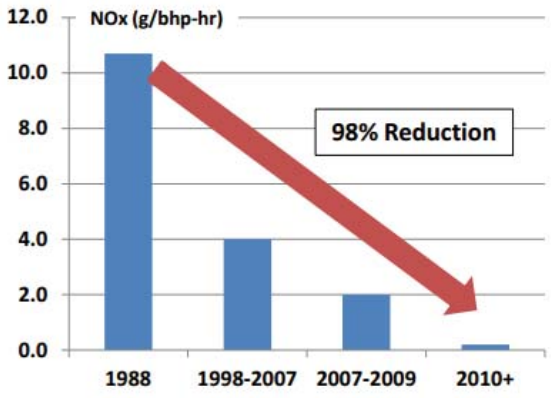
As shown above, there is substantial evidence to support the use of a 25-year exposure duration. This project, however, uses a 40-year exposure duration to determine significance. Based on exposure duration of 40 years, impacts for off-site workers are less than the 10 in one million significance threshold and are less than significant. Additionally, the cancer risk impacts are less than the threshold of 10 in a million for school children under the 9-year exposure scenario.

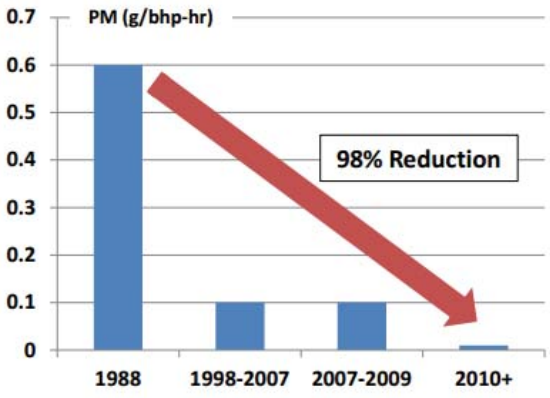
No significant impacts were found for occupational cancer risk, acute non-cancer impacts, or chronic impacts.

1.6.3.4 Mitigation

The proposed project would incorporate a number of mitigation measures to reduce the project's impacts on air quality. Those mitigation measures are detailed in Table 1.B in the Executive Summary and throughout Section 4.3 in this EIR. Among the many mitigation measures (MM) is MM 4.3.6.3B, which requires that all trucks using the World Logistics Center meet U.S. EPA 2010 emissions standards, the most stringent heavy-duty truck emissions standards ever imposed by the U.S. or California. The trucks that would serve the proposed project would be 90 percent cleaner than the typical truck on the road today.

U.S. Emission Standards – Heavy Duty Trucks





In addition to requiring clean trucks, the proposed project would require low emission construction equipment, limit vehicle idling to three minutes or less, prohibit trucks from residential areas, require that all on-site equipment will be powered by non-diesel fuels, provide electrical hook-ups for the future use of electric vehicles, and require the development of an alternative fuel station to encourage the use of non-diesel vehicles at the World Logistics Center.

1.6.4 Biological Resources

The project area has been the subject of numerous professional biological studies since 2005, with the most recent evaluations conducted in 2012 and 2013 in connection with the preparation of this EIR. These reports are included in the appendices of this EIR and are discussed in detail in Section 4.4 in this EIR. The biological studies show that the vast majority of the project area (97.4%) is disturbed by human activity, mostly dry-land farming, with less than 3 percent of the area consisting of native plant communities. These conditions are discussed in depth in Section 4.4 of this EIR.

The biological studies evaluated the project area for the presence of wildlife and specifically any threatened or endangered species. The reports conclude that the project area is not located within any United States Fish and Wildlife Service (USFWS) designated Critical Habitat area and no threatened or endangered species were observed within the project site during any of the field surveys. Further, no evidence of any California State endangered, threatened or protected wildlife species was found in the project area.

Suitable habitat was identified in the project area for the burrowing owl and the Los Angeles Pocket Mouse (both species of special concern) and mitigation measures are included to require site-specific biological evaluations to address these species prior to any site grading.

Impacts to jurisdictional waters/wetlands and to habitat fragmentation/wildlife movement were found to be less than significant. Impacts to endangered and threatened species may be significant and mitigation is included. The project has the potential to result in significant impacts to riparian habitat and sensitive natural communities and may require subsequent permits from various resource agencies depending on the details of each site-specific development proposal.

Other mitigation measures require the establishment of building setbacks along the boundary with the San Jacinto Wildlife Area (SJWA), a runoff management plan and a Biological Resources Management Plan for the SJWA edge, payment of MSHCP fees, prohibition of invasive plant species, and compensation for riparian habitat. A complete list of mitigation measures is included in Table 1.B in this Executive Summary.

More than 900 acres of the SJWA was purchased by the state in 2001 to serve as a buffer from future development to the north. This development area is being planned as the World Logistics Center and the 900+ acres will continue to serve that buffer purpose. Additionally, the WLC property is more than 4,000 feet (more than ¾ of a mile) from the closest sensitive habitat on SJWA property with the intervening property being used for disked farmland as it has for many decades.

The Specific Plan provides for a continuous buffer along the SJWA property that will include native landscaping, an extensive network of landscaped drainage facilities, trees and shrubs specifically selected to accommodate and support local wildlife, all of which will contribute to an environmentally-sensitive interface between the WLC and the SJWA property.

1.6.5 Cultural and Paleontological Resources

A thorough cultural resources study was conducted for the project area in connection with the project EIR and is discussed in Section 4.6. The area includes several known cultural (Native American) resources as well and other potential historical resources. This topic is discussed in Section 4.6.

The project has been designed to avoid any of the known Native American resources; designating sensitive areas as Open Space, realigning a proposed trail around the existing resources, and protecting the resources from disturbance. Further evaluations will be conducted in connection with site-specific project proposals prior to the issuance of any grading permits.

Consultations between Native American tribal groups and the City have been initiated pursuant to SB 18 and are ongoing.

Impacts to archaeological resources were determined to be potentially significant and mitigation measures are included to reduce the impacts. Mitigation measures include historical evaluations of all project sites, archaeological/paleontological monitoring of all project grading. Native American representatives will be invited to monitor all grading activities.

1.6.6 Geology and Soils

A detailed geotechnical evaluation was conducted for the project area in connection with the preparation of this EIR. The report evaluated faulting and seismicity, soils and geologic and seismic hazards affecting the property. Impacts due to landslides and rockfalls, soil erosion or loss of topsoil, septic tanks, and seismic-related ground failure were considered less than significant and no mitigation is required. Impacts due to fault rupture, ground shaking and unstable soils were considered to be potentially significant and mitigation measures are included to reduce the significance of the identified impacts. Mitigation measures include preparation of site-specific design-level geotechnical investigations and application of all applicable code standards and requirements prior to the issuance of any grading or building permits.

1.6.7 Greenhouse Gas Emissions, Climate Change and Sustainability

An evaluation of the World Logistics Center's greenhouse gas impact and contribution to global climate change was conducted and is presented in Section 4.7. Greenhouse gas emissions were quantified for both direct emissions (e.g., motor vehicles) and indirect emissions (e.g., electricity generation and water delivery). In the past few years, the State of California has changed the way it regulates greenhouse gases. Under Assembly Bill 32, the Global Warming Solutions Act of 2006, the California Air Resources Board (CARB) has established a cap-and-trade program which. The cap-and-trade program differentiates between emissions that fall under the AB 32 restrictions and those that do not. Those emissions that fall under the restrictions of the cap include those emissions that derive from electricity generation, transportation fuels, natural gas use, and large industrial sources. This differentiation, explained in more detail in Section 4.7 and Appendix D, was used as part of the greenhouse gas analysis.

Greenhouse gas emissions were segregated between capped and uncapped emissions. The state has created a comprehensive regulatory program that determines the future allowable emissions that fall under the cap-and-trade cap. Significance was determined by comparing uncapped emissions to SCAQMD's significance threshold of 10,000 metric tons of CO_2 equivalent (CO_2e, or carbon dioxide equivalent, is a standard unit for measuring carbon footprints. It expresses the impact of each different greenhouse gas in terms of the amount of CO_2 that would create the same amount of warming). Examples of project emissions that fall under the cap include greenhouse gas emissions from transportation sources (trucks and cars), electricity use (from offsite power generation), and water use (from off-site power generation to convey water). Examples of project emissions that fall outside the cap include waste generation from landfill emissions caused by waste generated onsite and the use of refrigerants.

Mitigation for the proposed project includes increased waste diversion requiring 75 percent of all waste to be diverted to landfills and increased energy efficiency by exceeding California's Title 24 requirements (California's energy efficiency standards) by at least 10 percent. Additionally, the Specific Plan requires that on-site solar systems be provided to offset the demand of office space in the WLC, estimated at 13 megawatts of power at buildout. This is the equivalent amount of power used by over 1,700 homes. After mitigation, the remaining emissions from the proposed project have

a less than significant impact. A complete listing of mitigation measures can be found in Section 4.7 and Table 1.B in this Executive Summary.

1.6.8 Hazards and Hazardous Materials

An evaluation of Hazards and Hazardous Materials are further discussed in Section 4.8 of the EIR. Historic land uses for the project area have included agricultural activities, two dairies, a chicken ranch, and scattered residential uses. Currently, nearly the entire site is used for dryland farming, which typically does not apply pesticides or other agricultural chemicals. The Phase 1 reports did not find significant residual pesticides in the project area and revealed no evidence of recognized environmental conditions on, at, in, or to the project area.

Sempra Energy operates a natural gas compressor facility near the WLC project. The EIR assessed the potential impacts of the facility on the future development of WLC property and found that compliance with existing safety regulations applicable to the Sempra plant plus the Specific Plan's requirement for a 1,000-foot setback between Sempra buildings and future WLC buildings reduced any potential impact to a less than significant level and no mitigation is required.

In addition, a fueling station is required to be constructed within the WLC project area. The EIR assessed the potential impacts of such a facility and found that with the application of a mitigation measure requiring preparation of a risk assessment prior to any project approvals, potential impacts would be reduced to a less than significant level.

1.6.9 Hydrology, Drainage, and Water Quality

The EIR evaluated potential impacts to hydrology, drainage, and water quality (Section 4.9) and found that environmental impacts in these areas were less than significant and do not require mitigation. Potential impacts from construction-related water quality impacts, operation-related water quality impacts, and drainage capacity-related impacts could be mitigated to a level of less than significant. The proposed project would incorporate a number of mitigation measures to reduce these impacts which are detailed in Table 1.B. Among the mitigation measures is MM 4.9.6.1A, which requires the management of flow rates, velocities, and volumes at pre-project levels and the maintenance of historic groundwater recharge (water balance) rates. The proposed project would also be required to implement a Storm Water Pollution Prevention Plan (SWPPP), a Water Quality Management Plan (WQMP), and development of an ongoing Water Quality Sampling Program (WQSP) to protect the San Jacinto Wildlife Area.

1.6.10 Land Use and Planning

The EIR evaluates the WLC project's impact on current on-site and adjacent land uses as well at the project's impacts on existing City land use policies (Section 4.10). The WLC project will replace the present Moreno Highlands Specific Plan, a largely residential, mixed-use project that included 7,700 residential units and 600+ acres of business park and mixed-use designations, with a project proposing 40.6 million square feet of logistics uses.

The EIR concludes that the WLC project is consistent with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) and is generally consistent with SCAG's Regional Comprehensive Plan, Compass Plan and Regional Transportation Plan.

The WLC project would incorporate a number of mitigation measures to reduce the project's impacts on the existing residents. Those mitigation measures are detailed in Table 1.B of the Executive Summary. Among the many mitigation measures is MM 4.3.6.3B, which requires that all trucks using

the World Logistics Center meet U.S. EPA 2010 emissions standards, the most stringent heavy-duty truck emissions standards ever imposed by the U.S. or California.

Additional requirements include clean construction equipment, limited vehicle idling to three minutes, non-diesel powered on-site equipment, electrical hook-ups for the future use of electric vehicles, and development of an alternative fuel station to encourage the use of non-diesel vehicles at the World Logistics Center.

The project is consistent with the City's Economic Development Action Plan which encourages the development of job-producing land uses in the eastern portion of the City. See DEIR Section 3.6.1 for 2011 and 2013 Economic Development Action Plan Objectives related to the WLC.

1.6.11 Mineral Resources

The EIR evaluated whether the project site contained any significant mineral resource areas, defined by the State as Mineral Resources Zone 2 areas. See Section 4.11 for the detailed analysis.

Lands within the City of Moreno Valley are designated MRZ-3 and MRZ-4, pursuant to the Surface Mining and Reclamation Act of 1975. These zones are not defined as significant mineral resource areas. No sites have been designated as locally-important mineral resource recovery sites on any local plan.

The EIR concluded that the development of the WLC project would not result in a loss of statewide, regional or locally important mineral resources and will not have any significant impact regarding such resources. No mitigation is required.

1.6.12 Noise

Project noise impacts were analyzed and the results are described in Section 4.12. As part of the analysis, existing noise levels were measured. Estimates of future noise levels as a result of the project and increases in background noise levels were assessed to determine where significant noise impacts would occur. Generally, project-related noise impacts occur as a result of two types of activity: construction noise and traffic noise occurring as a result of increased project-related vehicle trips. Several measures have been identified that impose operational controls during construction activities to reduce noise impacts or require noise abatement, such as sound walls to reduce impacts from project operation. Examples of operational controls to reduce noise impacts include maintaining minimum distances from homes during nighttime grading activities and limiting the hours of offsite construction.

Examples of noise abatement mitigation measures include the construction of sound walls at various locations and the requirement for noise barriers located along the perimeter of property that faces any residential areas. While most noise impacts were able to be mitigated to a less than significant level, there are a few areas where significant impacts remain, either as a result of construction activities or the infeasibility of mitigation such as sound walls in specific locations, such as where residential access would be blocked. Section 4.12 details the location specific noise impacts and mitigation measures that have been identified for the proposed project. The majority of noise impacts from the WLC in residential areas are the result of passenger vehicles, not trucks. The WLC design directs all truck traffic away from residential areas. Other potential land uses for the project site could generate similar or greater noise impacts. For instance, the current Moreno Highlands Specific Plan would result in significantly more vehicle trips than the proposed World Logistics Center. As a result, Noise impacts would be expected to be higher under that scenario.

1.6.13 Population, Housing and Employment

The EIR evaluated potential impacts to Population, Housing and Employment (Section 4.13) and found impacts to population growth, displacement of housing/people, and cumulative impacts to population and housing were less than significant and did not require mitigation.

An economic study of the Project prepared by David Taussig and Associates (DTA) concluded that the WLC Project could generate approximately 20,307 new on-site jobs within the City. In addition to the projected on-site job creation, the DTA study estimates the WLC Project could generate new off-site jobs (i.e., indirect/induced employment) in all industries of the economy. The DTA study estimated that an additional 7,386 indirect/induced jobs could be created in the County, of which 3,693 jobs were projected to be within the City as a result of Project implementation. While the specific location of the potential additional indirect/induced jobs created within the County cannot be specifically determined, it is reasonable to assume that some percentage of these jobs will be support service jobs and are likely to be located in the WLC Project vicinity, and therefore the City. A stronger jobs base can support improved property values and the general economic well-being of the City.

The WLC project is directly consistent with the City's adopted Economic Development Action Plan, which calls for focused efforts to create more jobs-related land uses, specifically logistics uses in the eastern portion of the City. See DEIR Section 3.6.1 for 2011 and 2013 Economic Development Action Plan Objectives related to the WLC.

The Fiscal and Economic Impact Study prepared by DTA concluded that the WLC project could generate approximately $11,257,000 in annual revenues while causing the City to annually incur approximately $5,557,000 in costs resulting in an annual surplus of almost $5,700,000 once the project is fully built out. These surplus funds could be used to fund police, fire, heath and senior programs and services throughout the City. Additional funding surpluses were identified relative to the Moreno Valley Fire Tax which is estimated to generate an additional $1,800,000 from WLC development for other fire-related needs elsewhere in the City. Including the projected Fire Tax surplus, the build out of the WLC is expected to raise the projected tax surplus to the City of approximately $7,500,000.

1.6.14 Public Services and Facilities

The EIR evaluated the project's impact on police services, fire protection, schools and parks. See Section 4.14 for the complete analysis. The EIR concluded that as a result of the project's obligation to pay all applicable City development impact fees and the project's commitment to provide a fire station site within the project area, that the WLC project will not have a significant impact on the City's ability to provide these public services and facilities.

The EIR's Fiscal and Economic Impact Study (Appendix O) shows that the projected build out of 40.6 million square feet of building will generate more than $4.7 million for police facilities and more than $10 million for fire facilities from the Development Impact Fee (DIF) program (using 2013 rates) and more than $19 million in school fees. In addition, the study estimates that the WLC will generate more than $11 million every year in taxes, fees, licenses, etc. while requiring $5.7 million in services, resulting in an annual surplus of nearly $6 million to the General Fund. A complete analysis is included in the Fiscal and Economic Impact Study.

Notably, the WLC will generate additional funding for fire services through the Moreno Valley Fire property tax that is separate from General Fund revenue sources. The Moreno Valley Fire property tax averages 5.54 percent of the total property taxes levied in the Center, which yields a total of $1.8 million in recurring annually surplus that can be spent on fire services in other parts of the City.

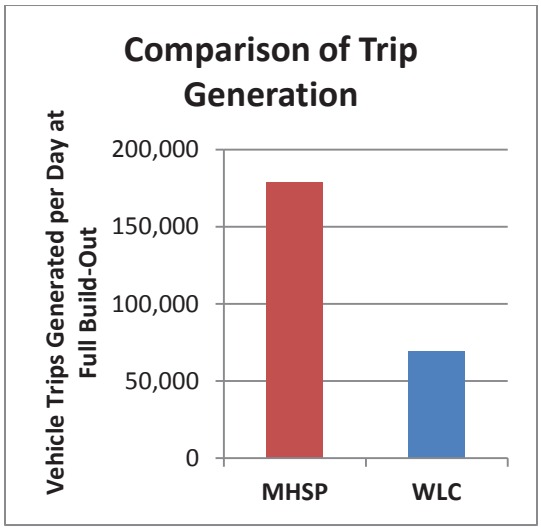
Adding this $1.8 million in Moreno Valley Fire property tax surplus to the $5.7 million General Fund surplus is estimated to yield a total annual recurring surplus of $7.5 million generated by the WLC.

The EIR concluded that the project will not have a significant impact to Public Services and Facilities. No mitigation measures are proposed.

1.6.15 Traffic and Circulation

A comprehensive Traffic Impact Analysis (TIA) was prepared to evaluate the WLC's impacts within Moreno Valley and throughout the region and is discussed in Section 4.15. The traffic analysis encompasses road segments spanning from the project site 75 miles to the west, all the way to the Ports of Los Angeles and Long Beach, 30 miles to the east beyond the City of Banning, 20 miles to the south and 15 miles to the north.

As indicated in the table to the right below, 80 percent of the traffic would be generated from Passenger Cars, 12 percent of the traffic generated by the project would be classified as Heavy-duty Trucks, and about 8 percent of the traffic would be generated by Light and Medium Duty Trucks.



Type of Vehicle	Number of Daily Trips
Passenger Cars	54,714
Light-duty Trucks (2-axle)	2,385
Medium-duty Trucks (3-axle)	3,181
Heavy-duty Trucks (4-axle)	8,440
Total Daily Trips	**68,720**

The total number of daily trips generated by the project is 68,720. As shown in the chart above to the left, this represents a **61% reduction**, or 100,000 less daily trips generated, compared to the City's General Plan/zoning designations for the project area (i.e., the Moreno Highlands Specific Plan).

Located at the eastern end of the City, the WLC will result in a reverse commute travel pattern. The traffic analysis indicates that many residents currently head west out of Moreno Valley for jobs. With thousands of job opportunities created as a result of the project in the eastern portion of the city, future employees may travel east where there is much less traffic. Those who remain in the morning westbound commute will have less traffic to deal with as some that are now or would be headed westbound would be diverted in the eastbound direction.

1.6.16 Utilities and Service Systems

The EIR evaluated potential impacts to Utilities and Service Systems (Section 4.16) and found that impacts to these systems were generally less than significant and do not require mitigation. Potential

impacts to storm water drainage requirements, adequate water supply, and electrical and natural gas facilities were able to be mitigated to a level of less than significant.

The World Logistics Center emphasizes water conservation, and the landscape program is designed to achieve the project's landscape goals while consuming as little water as possible. This approach represents a significant departure from conventional development strategies, particularly in a large-scale master-planned logistics campus setting. Most of the project will be designed without mechanical irrigation, relying instead on maximizing the collection and harvesting of runoff to be directed to landscape areas. Mitigation measures include use of drought tolerant landscaping, using "dry" cleaning equipment, use of weather-based automatic irrigation controllers, use of irrigation systems primarily at night or early morning, use of recirculation system for any outdoor water feature, use of low-flow sprinkler heads, use of reclaimed water for irrigation if it becomes available. Additional mitigation measures include use of flash water heaters, automatic on/off water facets, water efficient appliances, exceedance of the energy-conservation requirements of title 24 (2008) by 10 percent, LEED Certification, and solar panels to offset the power demand for office space in each building. Mitigation Measures for each of the affected areas are listed in Table 1.B.

1.7 PUBLIC INVOLVEMENT

The EIR process for the proposed project has involved input from the public and affected agencies at several steps. A Notice of Preparation (NOP) was issued on February 26, 2012, to notify state agencies and the public that an EIR was going to be prepared for the WLC project. The NOP was circulated for 30 days as required by CEQA. The distribution list, Notice of Public Scoping Meeting, and response letters are included in Appendix A of the Draft EIR. As of the close of the 30-day NOP public review period, ten responses to the NOP had been received from public agencies, four from conservation organizations, and 14 responses from members of the public.

On March 12, 2012, the City held a public scoping meeting to solicit input on concerns the public had about the project and issues that should be addressed in the EIR. There were 33 individual speakers including one agency (SCAQMD); 33 letters and comment cards were submitted during or subsequent to the scoping meeting.

The Draft EIR ~~will be~~was circulated for a ~~minimum~~ 60-day public review period, at which time agencies and the public ~~can~~were invited to comment on the technical studies and analysis of environmental issues in the EIR. The Draft EIR was circulated between February 5 and April 8, 2013;, a total of 63 days. All written comments on the Draft EIR ~~will~~ received written responses, and the City ~~will~~ carefully evaluated all available information on the project ~~prior to taking action~~. A more thorough discussion of input from the public and affected agencies is presented in Section 2.0, *Introduction.* Table 2.A, in the next section, summarizes the comments received regarding the NOP.

1.8 AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

The EIR discusses impacts that would occur to on-site and off-site uses as a result of implementation of the proposed project. This EIR also includes proposed mitigation measures that have been identified to reduce or avoid significant effects that would result from the construction and operation of the proposed on-site uses. *CEQA Guidelines* Section 15123(b)(2) requires that areas of controversy known to the Lead Agency (City of Moreno Valley) be stated in the EIR summary. The following discussion identifies issues raised by other agencies and the public during the 30-day public comment period of the NOP, as well as comments received during the public scoping meeting for the proposed project.

Local residents indicated they understood the desire of the City to add employment during these economic times, but also expressed concerns about the following potential impacts associated with the industrial warehouse uses proposed by the WLC project:

- Loss of views from SR-60 and Gilman Springs Road. This issue is discussed in Section 4.1, *Aesthetics,* of this EIR.
- Short-term and long-term air pollutant emissions including dust, diesel particulates, and health risks from truck exhaust that could negatively affect nearby residential uses. These issues are discussed in Section 4.3, *Air Quality,* of this EIR.
- Indirect impacts on wildlife utilizing the San Jacinto Wildlife Area south of the site. This issue is discussed in Section 4.4, *Biological Resources*, of this EIR.
- Potential loss of cultural (archaeological) resources by grading and development of the site, and suggestions to consult with local Native American tribes per SB 18. These issues are discussed in Section 4.4, *Biological Resources*, and 4.5, *Cultural Resources*, of this EIR.
- Concerns about several geologic faults that cross the project site. This issue is discussed in Section 4.6, *Geology and Soils*, in this EIR.
- In addition to air quality impacts, concerns were expressed about the project emitting large quantities of greenhouse gases and their influence on global climate change. These impacts are addressed in Section 4.7, *Greenhouse Gases and Global Climate Change*, in the EIR.
- Potential water-related impacts (drainage and water quality of runoff from the project) are addressed in Section 4.9, *Hydrology and Water Quality*, in the EIR.
- Loss of affordable housing once identified ~~on~~ in the Moreno Highlands Specific Plan currently approved for the project site. This issue is discussed in Section 4.10, *Land Use and Planning*, and Section 4.13, *Population, Housing, and Employment*, of this EIR.
- Short-term and long-term noise impacts that could affect nearby residential uses. These issues are discussed in Section 4.12, *Noise,* of this EIR.
- Project truck traffic causing congestion on local roads, intersections, and freeway ramps, primarily on Redlands Boulevard, and impacts to vehicular, bicycle, and pedestrian safety. These issues are discussed in Section 4.15, *Traffic and Transportation,* of this EIR.

1.~~5~~9 SIGNIFICANT IMPACTS

The project will have significant adverse impacts even following adoption of all feasible mitigation measures. The following significant environmental impacts have been identified in the EIR and will require mitigation but cannot be mitigated to a level of insignificance. Sections 4.1 through 4.16 of the EIR identify the following significant impacts of the WLC project after mitigation:

- Aesthetics: ~~Loss of views, scenic highways, and~~ Scenic Vistas.
- Aesthetics: Scenic Resources and Scenic Highways.
- Aesthetics: Substantial degradation of the existing visual character or quality of the site and its surroundings.
- ~~Agriculture: Loss of unique and locally important farmland;~~
- ~~Air Quality: Short-term emissions of NO_2, PM_{10}, and $PM_{2.5}$ in excess of SCAQMD daily limits during construction;~~
- ~~Air Quality: Long-term emissions of CO, VOC, NO_x, PM_{10}, and $PM_{2.5}$ resulting from increased vehicular trips and operation of the proposed on-site uses;~~

- Aesthetics: Cumulative Aesthetic Impacts.
- Air Quality: Construction Air Pollutant Emissions.
- Air Quality: Architectural Coating Emissions.
- Air Quality: ~~Inconsistent with AQMP due to change in land uses from existing General Plan;~~ Operational Air Pollutant Emissions.
- ~~Air Quality: Health risks in excess of 10 in 1 million for both on-site uses and on a cumulative basis in the surrounding region;~~
- ~~Climate Change: Project contributions to cumulatively considerable greenhouse gas emissions in excess of recommended SCAQMD standard;~~
- Air Quality: Consistency with Air Quality Management Plan (AQMP).
- Air Quality: Cumulative Air Pollutant Emissions.
- Air Quality: Cancer Burden.
- Land Use ~~: Impacts to onsite~~ and Planning: Divide an Existing Neighborhood (impacts on existing residences). ~~from adjacent warehouse development that cannot be effectively mitigated;~~
- Noise: Short-Term Construction Noise.
- Noise: Long-Term Traffic Noise.
- Noise: Cumulative Noise Levels.
- Transportation: ~~Project contributions to cumulatively considerable impacts to local facilities (outside~~Off-Site Impacts to TUMF Facilities.
- Transportation: Off-Site Improvements to Roads Outside the Jurisdiction of the City ~~of Moreno Valley) and state-controlled transportation facilities~~ and Not Part of the TUMF Program.

~~1.6 ALTERNATIVES TO THE PROPOSED PROJECT~~

~~In compliance with *CEQA Guidelines* (Section 15126.6), an EIR must describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the project objectives, and would avoid or substantially lessen significant effects of the project. The EIR need not consider every conceivable alternative; rather it must consider a reasonable range of potentially feasible alternatives. This EIR evaluates a "No Project/No Build" as well as a "No Project" alternative (i.e., development according to the General Plan and zoning) in order to allow decision-makers to compare the effect of approving the project to the effect of not approving the project. A more detailed description of each project alternative as well as an analysis of the potential environmental impacts associated with the construction and operation of each is provided in Section 6.0. It should be noted that, for all of the alternatives, the 1,085 acres owned by the California Department of Fish and Wildlife and San Diego Gas & Electric would be designated as Open Space in the City's General Plan, similar to the proposed project.~~

~~1.6.1 No Project/No Development~~

~~CEQA requires an analysis of the environmental effects of not developing the proposed project. This allows the reviewer to see what the results of not developing the project site would be and also outlines existing or baseline conditions on the site. With the No Development Alternative, no development would occur and the majority of the site would remain in dry farming, with a small amount in rural residential uses.~~

~~1.6.2 No Project/Existing General Plan Alternative~~

~~Pursuant to CEQA (§15126.6[e][2]), this No Project Alternative discusses what would reasonably be expected to occur on the site based on current plans and consistent with available infrastructure and community services in the foreseeable future. This alternative would result in development of the project with the land uses currently shown in the City's General Plan (i.e., the Moreno Highlands Specific Plan or MHSP). The approved 3,038-acre MHSP is a master planned, mixed-use community, consisting of up to 7,763 residential dwelling units on approximately 2,435 acres and approximately 603 acres of business, retail, institutional, and other uses. The 1,085 acres owned by the CDFW are currently designated as Residential, Public Facilities, and Open Space in the City's General Plan and would be designated as permanent Open Space under this alternative, similar to the proposed project.~~

~~1.6.3 Alternative 1: Reduced Density~~

~~This alternative would develop approximately 29 million square feet of logistics warehousing (approximately 30% less than under the proposed project) on the 2,710 acres of land under the Specific Plan, including 75 acres for open space. The 1,085 acres owned by the CDFW would be designated as Open Space in the City's General Plan, similar to the proposed project.~~

~~1.6.4 Alternative 2: Mixed Use A Alternative~~

~~This alternative would result in development of the entire property with a mix of 1,410 acres of logistics warehousing (22 million square feet), 1,000 acres of light manufacturing, assembly, or business park uses (20 million square feet), 50 acres of retail commercial uses (500,000 square feet), 100 acres of professional or medical office uses (1 million square feet), and 150 acres of open space. The 1,085 acres owned by the CDFW would be designated as Open Space in the City's General Plan, similar to the proposed project.~~

~~1.6.5 Alternative 3: Mixed Use B Alternative~~

~~This alternative would develop the project site similar to the land use plan of the MHSP but with 10 million square feet of logistics warehousing on the 603 acres proposed for business, retail, institutional, and other uses under the MHSP.~~

~~1.6.6 Alternative Sites~~

~~This alternative would relocate development under the proposed project to another site in the surrounding region. This analysis included potential sites in nearby cities and several unincorporated sites in the general project area. Due to the size and nature of the project, no feasible alternative sites were found in any of the eleven (11) jurisdictions evaluated.~~

1.10 IMPACTS, MITIGATION, AND LEVEL OF IMPACTS SUMMARY TABLE

Table 1.~~A~~B provides a summary of the proposed project impacts, proposed mitigation measures, and the level of significance of each impact following the application of identified mitigation measures. ~~While Table 1.A provides a summary of the mitigation measures, Table 1.B includes the complete text for each mitigation measure recommended in Sections 4.1 through 4.16 of the EIR.~~

NOTE TO READER: The mitigation measure summaries have been removed from Revised DEIR Table 1.B World Logistics Center Project Environmental Impact Summary and replaced with the revised mitigation measures in their entirety. For this reason, Original DEIR Table 1.B List of All Mitigation Measures has also been deleted.

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
4.1 Aesthetics		
LESS THAN SIGNIFICANT IMPACTS		
None	Not applicable	Not applicable
SIGNIFICANT IMPACTS		
Impact 4.1.6.1 Scenic Vistas		
The WLC project will significantly impact viewsheds in the area, including views of the Mt. Russell Range and the Badlands ~~and Mystic Lake~~.	**4.1.6.1A** Each Plot Plan application for development along the western, southwestern, and eastern boundaries of the project (i.e., adjacent to existing or planned residential zoned uses) shall include a minimum 250-foot setback measured from the City/County zoning boundary line and any building or truck parking/access area within the project. The setback area shall include landscaping, berms, and walls to provide visual screening between the new development and existing residential areas upon maturity of the landscaping materials. The existing olive trees along Redlands Blvd. shall remain in place as long as practical to help screen views of the project site. This measure shall be implemented to the satisfaction of the Planning Official. **4.1.6.1B** Each Plot Plan application for development adjacent to Redlands Boulevard, Bay Avenue, or Merwin Street, shall include a plot plan, landscaping plan, and visual rendering(s) illustrating the appearance of the proposed development. The renderings shall demonstrate that views of proposed buildings and trucks can be reasonably screened from view from existing residents upon maturity of planned landscaping and to ensure consistency with the General Plan Objective 7.7. "Effective" screening shall mean that no more than the upper quarter (25%) of a building is visible from existing residences, which shall be achieved through a combination of landscaping, berms, fencing, etc. The location and number of view presentations shall be at the discretion of the Planning Division. **4.1.6.1C** Prior to the issuance of a certificate of occupancy for buildings adjacent to the western, southwestern, and eastern boundaries of the project (i.e., adjacent to existing residences at the time of application) the screening required in Mitigation Measure 4.1.6.1A shall be installed in substantial conformance with	Significant and Unavoidable

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	the approved plans to the satisfaction of the Planning Official. **4.1.6.1D** Prior to the issuance of permits for any development activity adjacent to Planning Area 30 (74.3 acres in the southwest portion of the Specific Plan), the entirety of Planning Area 30 shall be offered to the State of California for open space purposes. In the event that the State does not accept the dedication, the property shall be offered to Western Riverside County Regional Conservation Authority or an established non-profit land conservancy for open space purposes. In the event that none of these organizations accepts the dedication, the property may be dedicated to a property owners association or may remain in private ownership and may be fenced and access prohibited.	
Impact 4.1.6.2 Scenic Resources and Scenic Highways		
The WLC project will significantly impact existing viewsheds from SR-60 ~~and Gilman Springs Road~~ which ~~are~~is a locally designated scenic route.	Previously referenced Mitigation Measures 4.1.1.6A ~~and~~ through 4.1. ~~16B~~ 16D	Significant and Unavoidable
Impact 4.1.6.3 Existing Visual Character and its Surroundings		
The WLC project will fundamentally change views of the area from agriculture to large warehouses.	**4.1.6.3A** Each Plot Plan application for development shall include plans and visual rendering(s) illustrating any changes in views of Mount Russell and/or the Badlands, for travelers along SR-60, as determined necessary by the Planning Official. The plans and renderings shall illustrate typical views based on proposed project plans, with the location and number of view presentations to be determined by the Planning Official. These views shall be simulated from a height of six feet from the edge of the roadway travel lane closest to the visual resource. The renderings must demonstrate that the development will preserve at least the upper two thirds (67%) of the vertical view of Mt. Russell from SR-60.	Significant and Unavoidable
Impact 4.1.6.4 Light and Glare		
The WLC project will significantly impact the area by substantially increasing lighting and glare in the area.	**4.1.6.4A** Each Plot Plan application for development adjacent to residential development shall include a photometric plot of all proposed exterior lighting demonstrating that the project is consistent with the requirements of Section 9.08.100 of the City Municipal Code. The lighting study shall indicate the expected increase in light levels at the property lines of adjacent residential uses. The study shall demonstrate that the proposed lighting fixtures and/or visual screening meet or exceed City standards regarding light impacts. **4.1.6.4B** Each Plot Plan application for development shall include an analysis of all proposed solar panels demonstrating that glare from panels will not negatively affect adjacent	Less than Significant with Mitigation

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	residential uses or negatively affect motorists along perimeter roadways. Design details to meet these requirements shall be implemented to the satisfaction of the Planning Official.	
Cumulative Aesthetic Impacts		
The cumulative effect of development in the region will continue to modify existing viewsheds, especially along SR-60 ~~and Gilman Springs Road~~. Cumulative impacts would remain significant and unavoidable.	Previously referenced Mitigation Measures 4.1.6.1A through 4.1.6.1D, 4.1.6.3A, ~~and~~ 4.1.6.4A ~~through~~ and 4.1.6.4~~C~~B	Significant and Unavoidable
4.2 Agriculture		
LESS THAN SIGNIFICANT IMPACTS		
Forest Land Zoning		
There are no significant impacts because there are no areas designated as forest land or timberland on the project site,	No mitigation is required.	No Impact
Loss or Conversion of Forest Land		
There are no forest lands on the project site or in the surrounding area.	No mitigation is required.	No Impact
Existing Zoning and Williamson Act		
There are no Williamson Act Contracts on or adjacent to the project site.	No mitigation is required.	~~No Impact~~ Less than Significant
SIGNIFICANT IMPACTS		
Impact 4.2.6.1 Farmland Conversion		
The project will convert 25 acres of land designated Unique Farmland by the state to urban uses.	**4.2.6.1A** Prior to the issuance of any grading permit affecting land designated as "Unique Farmland" (Figure 4.2.2 in the World Logistics Center Environmental Impact Report), an Agricultural Conservation Easement shall be recorded over land of equivalent or better agricultural economic productivity of the offsite easement property compared to the World Logistics Center property. The analysis will include a comparison of the project's "Unique Farmland" considering its relative economic potential as the best measure of productivity (i.e., net profitability per acre or potential net rental income per acre). It will include a consideration of various important physical factors	Less than Significant ~~and Unavoidable~~ with Mitigation

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	including location and accessibility, soils and topography, micro and macro climatic conditions, water availability and quality, as well as local practices, good farm management and cultural (growing) costs. The form and content of this easement, as well as the estimates of agricultural productivity, shall be reviewed and approved in advance by the Planning Official.	
Impact 4.2.6.2 Conversion of Farmland to Non-Agricultural Uses		
The project will convert 2,610 acres of Farmland of Local Importance to urban uses.	Previously referenced Mitigation Measures 4.2.6.1A and 4.2.6.1B	Less than Significant ~~and Unavoidable~~ with Mitigation
Cumulative Agricultural Impacts		
As urban development continues in the City and surrounding areas, there will be a cumulative loss of agricultural land through conversion to urban uses. This conversion is a long-established historical process based on local and regional economic conditions, resulting in the eventual relocation of farming to more rural and outlying areas (e.g., Coachella Valley, kern County, etc.).	No feasible mitigation is available.	Less than Significant ~~and Unavoidable~~ with Mitigation
4.3 Air Quality		
LESS THAN SIGNIFICANT IMPACTS		
Odors		
The proposed project involves large warehouses and no uses that would generate substantial odors. The natural gas facilities on site sometimes generate temporary odors from natural gas blow-offs, but these are not considered significant impacts.	No mitigation is required.	Less than Significant.
Long-Term Microscale (CO Hot Spot) Emissions		
The project air quality study determined that project-related traffic would not create	No mitigation is required.	Less than Significant

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
any CO hot spots on local roadways through project buildout.		
SIGNIFICANT IMPACTS		
Impact 4.3.6.1 Air Quality Management Plan Consistency		
The land uses of the proposed project are not consistent with those used to prepare the most current AQMP. Although the project would substantially improve the jobs/housing balance of the City by introducing more employment-generating uses than new housing, it would exceed applicable thresholds for all criteria pollutants, with the exception of SO_X. Despite the implementation of mitigation measures for both construction and operation, emissions associated with the proposed project cannot be reduced below applicable SCAQMD thresholds.	Implementation of Mitigation Measures 4.3.6.2A through 4.3.6.2D, 4.3.6.3A through 4.3.6.3E, and 4.3.6.4A ~~2B, 4.3.6.4A, and 4.3.6.4B~~ will help reduce air pollutant emissions of the project, but it will still be inconsistent with the AQMP.	Significant and Unavoidable
Impact 4.3.6.2 Construction Equipment Exhaust Emissions		
Future development within the WLCSP will exceed daily air pollutant significance criteria established by the SCAMQD for construction-related activities.	**4.3.6.2A** Construction equipment maintenance records (including the emission control tier of the equipment) shall be kept on site during construction and shall be available for inspection by the City of Moreno Valley. a) Off-road diesel-powered construction equipment greater than 50 horsepower shall meet United States Environmental Protection Agency Tier 4 off-road emissions standards. Before the year 2027, if a good faith effort to rent Tier 4 equipment in quantities consistent to meet the construction schedule within 200 miles of project has been conducted but has been unsuccessful, then Tier 3 equipment can be used. In the year 2027 and later, Tier 4 equipment shall be used for all equipment greater than 50 horsepower with the exception of scrapers, which shall be Tier 3 or higher. Written verification of the Tier 4 equipment search of three or more qualified rental companies shall be provided to the City verifying the results of the search. A copy of each unit's certified tier specification shall be available for inspection by the City at the time of mobilization of each applicable unit of equipment.	Significant and Unavoidable

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	b) During all construction activities, off-road diesel-powered equipment may be in the "on" position not more than 10 hours per day. c) Construction equipment shall be properly maintained according to manufacturer specifications. d) All diesel powered construction equipment, delivery vehicles, and delivery trucks shall be turned off when not in use. On-site idling shall be limited to three minutes in any one hour. e) Electrical hook ups to the power grid shall be provided for electric construction tools including saws, drills and compressors, where feasible, to reduce the need for diesel-powered electric generators. Where feasible and available, electric tools shall be used f) The project shall demonstrate compliance with South Coast Air Quality Management District Rule 403 concerning fugitive dust and provide appropriate documentation to the City of Moreno Valley. g) All construction contractors shall be provided information on the South Coast Air Quality Management District Surplus Off-road Opt-In "SOON" funds which provides funds to accelerate cleanup of off-road diesel vehicles. h) Construction on-road haul trucks shall be model year 2007 or newer. i) Information on ridesharing programs shall be made available to construction employees. j) During construction, lunch options shall be provided onsite. k) A publicly visible sign shall be posted with the telephone number and person to contact regarding dust complaints per AQMD Standards. l) Only non-diesel material handling equipment may be used in any logistics building in the WLC. m) Off-site construction shall be limited to the hours between 6 a.m. to 8 p.m. on weekdays only. Construction during City holidays shall not be permitted.	
	4.3.6.2B Prior to issuance of any grading permits, a traffic control plan shall be submitted to and approved by the City of Moreno Valley that describes in detail the location of equipment staging areas, stockpiling/storage areas, construction parking areas, safe detours around the project construction site, as well as provide temporary traffic control (e.g., flag person) during construction-related truck	

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	hauling activities. Construction trucks shall be rerouted away from sensitive receptor areas. Trucks shall use State Route 60 using Theodore Street, Redlands Boulevard (north of Eucalyptus Avenue), and Gilman Springs Road. In addition to its traffic safety purpose, the traffic control plan can minimize traffic congestion and delays that increase idling emissions. A copy of the approved Traffic Control Plan shall be retained on site in the construction trailer. **4.3.6.2C** The following measures shall be applied during construction of the project to reduce volatile organic compounds (VOC): a) Non-VOC containing paints, sealants, adhesives, solvents, asphalt primer, and architectural coatings (where used), or pre-fabricated architectural panels shall be used in the construction of the project to the maximum extent practicable. If such products are not commercially available, products with a VOC content of 100 grams per Liter or lower for both interior and exterior surfaces shall be used. b) Leftover paint shall be taken to a designated hazardous waste center. c) Paint containers shall be closed when not in use d) Low VOC cleaning solvents shall be used to clean paint application equipment. e) Paint and solvent-laden rags shall be kept in sealed containers. **4.3.6.2D** No grading shall occur on days with an Air Quality Index forecast greater than 150 for particulates or ozone as forecasted for the project area (Source Receptor Area 24).	
Impact 4.3.6.3 Localized Construction and Operation Emissions		
Future development within the WLCSP will exceed local significance thresholds of the SCAMQD for trucks and other operational activities.	**4.3.6.3A** Prior to issuance of occupancy permits for each warehouse building within the WLCSP, the developer shall demonstrate to the City that vehicles can access the building using paved roads and parking lots. **4.3.6.3B** The following shall be implemented as indicated: **Prior to Issuance of a Certificate of Occupancy** a) Signs shall be prominently displayed informing truck drivers about the health effects of diesel particulates, the California Air Resources Board diesel idling regulations, and the prohibition of parking in residential areas.	Significant and Unavoidable

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	b) Signs shall be prominently displayed in all dock and delivery areas advising of the following: engines shall be turned off when not in use; trucks shall not idle for more than three consecutive minutes; telephone numbers of the building facilities manager and the California Air Resources Board to report air quality violations. c) Signs shall be installed at each exit driveway providing directional information to the City's truck route. Text on the sign shall read "To Truck Route" with a directional arrow. Truck routes shall be clearly marked per the City Municipal Code. **On an Ongoing Basis** d) Tenants shall maintain records on fleet equipment and vehicle engine maintenance to ensure that equipment and vehicles are maintained pursuant to manufacturer's specifications. The records shall be maintained on site and be made available for inspection by the City. e) Tenant's staff in charge of keeping vehicle records shall be trained/certified in diesel health effects and technologies, by attending California Air Resources Board approved courses (such as the free, one-day Course #512). Documentation of said training shall be maintained on-site and be available for inspection by the City. f) Tenants shall be encouraged to become a SmartWay Partner. g) Tenants shall be encouraged to utilize SmartWay 1.0 or greater carriers. h) Tenants' fleets shall be in compliance with all current air quality regulations for on-road trucks including but not limited to California Air Resources Board's Heavy-Duty Greenhouse Gas Regulation and Truck and Bus Regulation. i) Information shall be posted in a prominent location available to truck drivers regarding alternative fueling technologies and the availability of such fuels in the immediate area of the World Logistics Center. j) Tenants shall be encouraged to apply for incentive funding (such as the Voucher Incentive Program [VIP], Carl Moyer, etc.) to upgrade their fleet. k) All yard trucks (yard dogs/yard goats/yard jockeys/yard hostlers) shall be powered by electricity, natural gas, propane, or an equivalent non-diesel fuel.	

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	Any off-road engines in the yard trucks shall have emissions standards equal to Tier 4 Interim or greater. Any on-road engines in the yard trucks shall have emissions standards that meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025. l) All medium and heavy duty diesel trucks entering logistics sites shall meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025 or be powered by natural gas, electricity, or other diesel alternative. Facility operators shall maintain a log of all trucks entering the facility to document that the truck usage meets these emission standards. This log shall be available for inspection by City staff at any time. m) All standby emergency generators shall be fueled by natural gas, propane, or any non-diesel fuel. n) Truck and vehicle idling shall be limited to three (3) minutes. **4.3.6.3C** Prior to the issuance of building permits for more than 25 million square feet of logistics warehousing within the Specific Plan area, a publically-accessible fueling station shall be operational within the Specific Plan area offering alternative fuels (natural gas, electricity, etc.) for purchase by the motoring public. Any fueling station shall be placed a minimum of 1000 feet from any off-site sensitive receptors or off-site zoned sensitive uses. This facility may be established in connection with the convenience store required in Mitigation Measure 4.3.6.3D. **4.3.6.3D** Prior to the issuance of building permits for more than 25 million square feet of logistics warehousing within the Specific Plan area a site shall be operational within the Specific Plan area offering food and convenience items for purchase by the motoring public. This facility may be established in connection with the fueling station required in Mitigation Measure 4.3.6.3C. **4.3.6.3E** Refrigerated warehouse space is prohibited unless it can be demonstrated that the environmental impacts resulting from the inclusion of refrigerated space and its associated facilities, including, but not limited to, refrigeration units in vehicles serving the logistics warehouse, do not exceed any environmental impact for the entire World Logistics Center identified in the program Environmental Impact Report. Such environmental analysis shall be provided with any warehouse plot plan proposing refrigerated space. Any such proposal shall include electrical hookups at	

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	dock doors to provide power for vehicles equipped with Transportation Refrigeration Units (TRUs).	
Impact 4.3.6.4 Long-Term Operational Emissions		
Future development within the WLCSP will exceed daily air pollutant significance criteria established by the SCAMQD for trucks and other operational activities.	**4.3.6.4A** The following measures shall be incorporated as conditions to any Plot Plan approval within the Specific Plan: a) All tenants shall be required to participate in Riverside County's Rideshare Program. b) Storage lockers shall be provided in each building for a minimum of three percent of the full-time equivalent employees based on a ratio of 0.50 employees per 1,000 square feet of building area. Lockers shall be located in proximity to required bicycle storage facilities. c) Class II bike lanes shall be incorporated into the design for all project streets. d) The project shall incorporate pedestrian pathways between on-site uses. e) Site design and building placement shall provide pedestrian connections between internal and external facilities. f) The project shall provide pedestrian connections to residential uses within 0.25 mile from the project site. g) A minimum of two electric vehicle-charging stations for automobiles or light-duty trucks shall be provided at each building. In addition, parking facilities with 100 parking spaces or more shall be designed and constructed so that at least three percent of the total parking spaces are capable of supporting future electric vehicle supply equipment (EVSE) charging locations. Only sufficient sizing of conduit and service capacity to install Level 2 Electric Vehicle Supply Equipment (EVSE) or greater are required to be installed at the time of construction. h) Each building shall provide indoor and/or outdoor - bicycle storage space consistent with the City Municipal Code and the California Green Building Standards Code.-Each building shall provide a minimum of two shower and changing facilities for employees. i) Each building shall provide preferred and designated parking for any combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles	Significant and Unavoidable

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	equivalent to the number identified in California Green Building Standards Code Section 5.106.5.2 or the Moreno Valley Municipal Code whichever requires the higher number of carpool/vanpool stalls. The following information shall be provided to tenants: onsite electric vehicle charging locations and instructions, bicycle parking, shower facilities, transit availability and the schedules, telecommunicating benefits, alternative work schedule benefits, and energy efficiency.	
~~Impact 4.3.6.5 Operational-Acute Health Risk Impacts~~		
~~Truck-related air pollutant emission of the project may cause short-term acute health risks to nearby residents and in the regional population.~~	~~The identified Mitigation Measures 4.3.6.2A through 4.3.6.2D, 4.3.6.3A and 4.3.6.2B, 4.3.6.4A, and 4.3.6.4B will help reduce potential acute health risks to less than significant levels~~	~~Less than Significant~~
Impact 4.3.6.5 Impacts to Sensitive Receptors		
The construction and operation of the project would result in the emissions of several toxic air contaminants, the most ubiquitous being diesel particulate matter (diesel PM). The projects estimated cancer risk for sensitive receptors onsite would exceed the maximum cancer risk thresholds.	Implementation of the previously identified Mitigation Measures 4.1.6.1A, 4.3.6.2A through 4.3.6.2D, and 4.3.6.3A through 4.3.6.3E will help reduce short- and long-term project emissions and health risks to sensitive receptors, but not to less than significant levels.	Significant and Unavoidable
Cumulative Air Quality Impacts		
The project will increase short-term local and long-term regional air pollutant emissions and chronic health risks.	Implementation of the previously identified Mitigation Measures 4.3.6.2A through 4.3.6.2D, 4.3.6.3A through 4.3.6.3E, and 4.3.6.4A ~~4.3.6.5A~~ will help reduce short- and long-term project emissions and health risks, but not to less than significant levels.	Significant and Unavoidable
4.4 Biological Resources		
LESS THAN SIGNIFICANT IMPACTS		
~~**Jurisdictional Waters/Wetlands**~~		
~~The project site does not contain any drainages subject to the jurisdiction of the USACE and/or RWQCB, and no jurisdictional wetlands or isolated wetlands were identified.~~	~~No mitigation required~~	~~Less than Significant~~

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
Adopted Policies and/or Ordinances		
There are no local policies or ordinances regarding the protection of biological resources.	No mitigation required	No Impact
Habitat Fragmentation/Wildlife Movement		
The project will not restrict the movement of wildlife to and from the Badlands and the SJWA/Mystic Lake area, and will protect Drainage 9 through the project area as a natural drainage channel.	No mitigation required	Less than Significant
SIGNIFICANT IMPACTS		
Impact 4.4.6.1 Endangered and Threatened Species		
There are 17 plant and animal species designated as endangered or threatened by state and/or federal authorizes that have the potential to occur within the general vicinity of the WLC project area. Development will remove agricultural land which provides minimal habitat value for most species present.	**4.4.6.1A** All Plot Plan applications within Planning Areas 10 and 12 (i.e. adjacent to the San Jacinto Wildlife Area as shown in Final EIR Volume 2 Figure 4.1.6B) shall provide a 250-foot setback from the southerly property line. Permitted uses within this setback area include landscaping, drainage and water quality facilities, fences and walls, utilities and utility structures, maintenance access drives, and similar related uses. No logistics buildings or truck access/parking/maneuvering facilities are permitted in this setback area. In addition, logistics buildings within Planning Areas 10 and 12 may not be located within 400 feet of the southerly property line. All development proposals in Planning Areas 10 and 12 shall include a minimum six-foot tall chain link fence or similar barrier to separate warehouse activity from the setback area. This fence/barrier shall have metal mesh installed below and above ground level to prevent animals from moving between the development area and the setback area. Within Planning Areas 10 and 12, all truck activity areas adjacent to the 250-foot buffer area along the southern property line shall be enclosed by minimum 11-foot tall solid walls to reduce noise and lighting impacts on the adjacent property. This measure shall be implemented to the satisfaction of the Planning Official. A preliminary landscape plan for the 250-foot setback area shall be submitted with all Plot Plan applications for lots adjacent to the California Department of Fish and Wildlife property. Precise landscape plans shall be submitted with any grading permit for said lots and must be approved prior to the issuance of any	Less than Significant

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	building permit on said lots. The landscape plan shall be prepared by a licensed landscape architect in consultation with a qualified biologist and shall be consistent with the design standards contained in the World Logistics Center Specific Plan. No plant species listed in Section 6.1.4 of the Western Riverside County Multiple Species Habitat Conservation Plan shall be installed within the setback area. Cottonwood trees shall be planted within the setback area consistent with the World Logistics Center Specific Plan. This measure shall be implemented to the satisfaction of the Land Development Division Manager. **4.4.6.1B** Each Plot Plan application in Planning Areas 10 and 12 shall provide runoff management and water quality facilities adequate to minimize downstream erosion, maintain water quality standards and retain pre-development flows in a manner meeting the approval of the City Engineer. All drainage improvements shall be designed to minimize runoff and erosional impacts on adjacent property. This measure shall be implemented to the satisfaction of the Land Development Division Manager of Public Works.	
Impact 4.4.6.2 Adopted Habitat Conservation Plans		
The project site is subject to the provisions of SKR HCCP and the MSHCP.	**4.4.6.2A** Each Plot Plan application shall include a focused plant survey of the proposed development site prepared by a qualified biologist to identify if any of the following sensitive plants (i.e., Coulter's goldfields, smooth tarplant, Plummers' mariposa lily, or thread-leaved brodiaea) are present. If any of the listed plants are found, they may be relocated to the 250-foot setback area outlined in the Specific Plan and discussed in Mitigation Measure 4.4.6.1A. Alternatively, at the applicant's discretion, an impact fee may be paid to the Western Riverside County Regional Conservation Authority (RCA) or other appropriate conservation organizations to offset for the loss of these species. This measure shall be implemented to the satisfaction of the Planning Official. **4.4.6.2B** Prior to the approval of any tentative maps for development including or adjacent to any Criteria Cells identified in the Western Riverside County Multiple Species Habitat Conservation Plan, the applicant shall prepare and process a Joint Project Review (JPR) with the Riverside County Resource Conservation Agency (RCA). All criteria cells shall be identified on all such tentative maps. This measure shall be implemented to the satisfaction of the City Planning Division and Riverside County Resource Conservation Agency ("RCA").	Less than Significant
Impact 4.4.6.3 Jurisdictional Delineation, Riparian Habitat or Other Sensitive Natural Communities		
Drainage Features 7, 8, 9, 12, and 15 within the project area are considered	**4.4.6.3A** Prior to the issuance of grading permits the applicant shall secure a jurisdictional determination from the United States Army Corps of Engineers (USACE) and	Less than Significant

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
riparian/riverine areas.	confirm with the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (CDFW) if drainage features mapped on the property to be developed are subject to jurisdictional authority. If the features are subject to regulatory protection, the applicant will secure permit approvals with the appropriate agencies prior to initiation of construction. Compensatory riparian habitat mitigation will be provided at a minimum ratio of 1:1 (replacement riparian habitat to impacted riparian habitat) to ensure no net loss of riparian habitat or aquatic resources. It should be noted that this is a minimum recommended ratio but the actual permitting ratio may be higher. These detention basins will be oversized to accommodate the provision of areas of riparian habitat. Maintenance of the basins will be limited to that necessary to ensure their drainage and water quality functions while encouraging habitat growth. Riparian habitat mitigation will be provided concurrent to or prior to impacts. A Compensatory Mitigation Plan will be prepared for all unavoidable impacts and will be consistent with the United States Army Corps of Engineers (USACE)/United States Environmental Protection Agency's Compensatory Mitigation for Losses of Aquatic Resources; Final Rule and the United States Army Corps of Engineers Standard Operating Procedure for Determination of Mitigation Ratios. The applicant shall consult with United States Army Corps of Engineers, California Department of Fish and Wildlife, and Regional Water Quality Control Board to establish the need for permits based on the results of a recent jurisdictional delineation and final design plans for each of the proposed the facilities. Consultation with the three agencies shall take place and appropriate permits obtained for project-level development. Compensation for losses associated with the altering of drainages on site shall be in agreement with the permit conditions and in coordination with compensation outlined below. Mitigation will consist of onsite creation, offsite creation, or purchase of mitigation credits from an approved mitigation bank. As outlined in the WLC programmatic DBESP report, onsite riparian habitat will be created at a minimum 1:1 ratio due to the poor quality of onsite habitat. New habitat will be created within the onsite detention/infiltration basins to the extent allowed by the resource agencies to reduce storm flows, improve water quality, and reduce sediment transport. Habitat creation will include the installation of mule fat scrub or similar riparian scrub habitat to promote higher quality riparian habitat, but still maintain the basins for their primary role as detention facilities. The use of these areas as conservation areas would require consent from CDFW and the City of	

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Issues/Impacts	Mitigation Measures	Level of Significance
	Moreno Valley (MM BIO-2b and MM DBESP 1 through 3). **4.4.6.3B** As required by the Resource Conservation Agency (RCA), a program-level Determination of a Biological Equivalent or Superior Preservation (DBESP) for impacts to Riverine/Riparian habitat has been prepared and shall be approved by the Resource Conservation Agency prior to project approval. The Determination of a Biological Equivalent or Superior Preservation includes a general discussion of mitigation options for impacts to riverine/riparian areas as well as general location and size of the mitigation area and includes a monitoring program. If impacts to riparian habitat within the World Logistics Center Specific Plan (WLCSP) cannot be avoided at the time of specific development, then a separate project-level Determination of Biologically Equivalent or Superior Preservation (DBESP) shall be prepared to identify project-specific impacts to riparian habitat and incorporate mitigation options identified in Mitigation Measure 4.4.6.3A. A project-level Determination of a Biological Equivalent or Superior Preservation for each specific development shall be prepared to document measures to reduce impacts to riparian/riverine habitats in accordance with the Western Riverside County Multiple species Habitat Conservation Plan (MSHCP). The project-level Determination of a Biological Equivalent or Superior Preservation shall include specific measures to reduce impacts to riparian areas and provide mitigation in the form of onsite preservation of riparian areas and/or a combination of compensation through purchase and placement of lands with riparian/riverine habitat into permanent conservation through a conservation easement and/or restoration or enhancement efforts at offsite or onsite locations. Therefore, mitigation required for compensation for impacts to riparian/ riverine areas will require a minimum of 1:1 mitigation ratio of riparian/riverine mitigation land. As outlined in the WLC programmatic DBESP, erosion control improvements will be installed within Drainage 9 to reduce sediment transport, and additional riparian habitat will be enhanced within this drainage following the installation of the erosion control improvements (MM DBESP 4 and 5). **4.4.6.3C** Prior to issuance of any grading permit for any offsite improvements that support development within the World Logistics Center Specific Plan, the developer shall retain a qualified biologist to prepare a jurisdictional delineation (JD) for any	

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Issues/Impacts	Mitigation Measures	Level of Significance
	drainage channels affected by construction of the offsite improvements. This jurisdictional delineation shall be submitted to the U.S. Army Corps of Engineers (USACE) and California Department of Fish and Wildlife (CDFW) for review and concurrence. If the offsite improvements will not affect any identified jurisdictional areas, no United States Army Corps of Engineers permitting is required. However, permitting through the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (i.e., Streambed Alternation Agreement) may still be required for these improvements. The applicant shall consult with United States Army Corps of Engineers, California Department of Fish and Wildlife and Regional Water Quality Control Board to establish the need for permits based on the results of the 2012 jurisdictional delineation and final design plans for each of the proposed the facilities. Consultation with the three agencies shall take place and appropriate permits obtained. Compensation for losses associated with any altered offsite drainages shall be in agreement with the permit conditions. Any landscaping associated with these offsite improvements shall use only native species to help protect biological resources residing within or traveling through these drainages per Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Table 6.1.2. This measure shall be implemented to the satisfaction of the City Planning Division in consultation with the U.S. Fish and Wildlife Service, U.S. Army Corps. of Engineers, and the California Department of Fish and Wildlife.	
Impact 4.4.6.4 Candidate, Non-listed Sensitive, or Special-Status Species		
The project area contains suitable habitat for sensitive species, including a variety of nesting birds, including burrowing owl, and Los Angeles pocket mouse.	**4.4.6.4A** Pursuant to the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code (CFGC), site preparation activities (removal of trees and vegetation) shall be avoided during the nesting season of potentially occurring native and migratory bird species (generally February 1 to August 31). If site preparation activities must occur during the nesting season, a pre-activity field survey shall be conducted by a qualified biologist prior to issuance of grading permits for such development. The survey shall determine if active nests of species protected by the Migratory Bird Treaty Act orCalifornia Fish and Game Code are present in the construction zone. If active nests of these species are found, the developer shall establish an appropriate buffer zone with no grading or heavy equipment activity within of 500 feet from an active listed species or raptor nest, 300 feet from other sensitive or protected bird nests (non-listed), 250 feet from passerine birds, or 100 feet for sensitive or protected songbird nests. All construction activity within the vicinity of active nests must be conducted in the presence of a qualified biological monitor. Construction activity	Less than Significant

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Issues/Impacts	Mitigation Measures	Level of Significance
	may encroach into the buffer area at the discretion of the biological monitor in consultation with CDFW. In the event no special status avian species are identified within the limits of disturbance, no further mitigation is required. In the event such species are identified within the limits of ground disturbance, mitigation measure 4.4.6.4B shall also apply. This measure shall be implemented to the satisfaction of the City Planning Division. **4.4.6.4B** If it is determined that project-related grading or construction will affect nesting migratory bird species, no grading or heavy equipment activity shall take place within the limits established in Mitigation Measure 4.4.6.4A until it has been determined by a qualified biologist that the nest/burrow is no longer active, and all juveniles have fledged the nest/burrow. This measure shall be implemented to the satisfaction of the City Planning Division. **4.4.6.4C** The loss of foraging habitat for golden eagle and white-tailed kite will be mitigated by payment of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) fee and the creation of a landscaped buffer area adjacent to the San Jacinto Wildlife Area property (SJWA). First, the payment of the Western Riverside County Multiple species Habitat Conservation Plan fee will be required on a project-by-project basis. Second, a 250-foot setback as described in Mitigation Measure 4.4.6.1A will be established within the World Logistics Center Specific Plan area. This area will reduce impacts to raptor species foraging in the adjacent San Jacinto Wildlife Area open space areas. ***Burrowing Owl*** **4.4.6. 4D** A pre-construction clearance survey for burrowing owl shall be conducted by a qualified biologist no more than thirty (30) days prior to any grading or ground disturbing activities within the project area. In the event no burrowing owls are observed within the limits of ground disturbance, no further mitigation is required. If construction is to be initiated during the breeding season (February 1 through August 31) and burrowing owl is determined to occupy any portion of the disturbance area during the 30-day pre-construction survey, construction activity shall maintain a 500-foot buffer area around any active nest/burrow until it has been determined that the nest/burrow is no longer active, and all juveniles have fledged the nest/burrow. If this avoidance buffer cannot be maintained, consultation with the California Department of Fish and Wildlife (CDFW) shall take place and an appropriate avoidance distance established. No disturbance	

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Issues/Impacts	Mitigation Measures	Level of Significance
	to active burrows shall occur without appropriate permitting through the Migratory Bird Treaty Act and/or California Department of Fish and Wildlife. If active burrowing owl burrows are detected outside the breeding season (September through January), or within the breeding season but owls are not nesting or in the process of nesting, active and/or passive relocation may be conducted following consultation with the California Department of Fish and Wildlife. A relocation plan may be required by California Department of Fish and Wildlife if active and/or passive relocation is necessary. The relocation plan will outline the basic process and provides options for avoidance and mitigation. Artificial burrows -may be constructed within the buffer area south of the World Logistics Center Specific Plan. Construction activity may occur within 500 feet of the burrows at the discretion of the biological monitor in consultation with CDFW. A relocation plan may be required by California Department of Fish and Wildlife if active or passive relocation is necessary. Artificial burrows may be constructed within appropriate burrowing owl habitat within the proposed open space/conservation area (Planning Area 30), a 74.3-acre area in the southwest portion of the Specific Plan. This area abuts the Lake Perris State Recreation Area (LPSRA) which is already in conservation. If suitable habitat is not present in Planning Area 30, owls may be relocated to the SJWA, the 250-foot buffer area or other suitable on-site or off-site areas. Construction activity may occur within 500 feet of the burrows at the discretion of the biological monitor. ***Los Angeles Pocket Mouse*** **4.4.6.4E** Prior to the approval of any Plot Plans proposing the development of land including or adjacent to Drainage 9, a protocol survey for the Los Angeles Pocket Mouse (LAPM), including 100 feet upstream and downstream of the affected reach shall be prepared by a qualified biologist and submitted to the City. If the affected drainage is not occupied, the area is considered not to be occupied and development can continue without further action. If the species is found within the specific survey area, no development shall occur until an appropriate mitigation fee is paid or appropriate amount of land set aside on the project site or off site to compensate for any loss of occupied Los Angeles Pocket Mouse habitat. Alternatively, individuals may be relocated to the 250-foot setback zone along the southern boundary of the property identified in Mitigation Measure 4.4.6.1A, or other appropriate areas as determined by the United States Fish and Wildlife Service. If necessary, this measure shall also be	

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Issues/Impacts	Mitigation Measures	Level of Significance
	coordinated with Mitigation Measure 4.4.6.2B regarding preparation and processing of a Determination of a Biological Equivalent or Superior Preservation report. This measure shall be implemented to the satisfaction of the City Planning Division. ***Resource Management*** **4.4.6.4F** Prior to approval of any discretionary permits for development within Planning Areas 10 and 12, a Biological Resource Management Plan (BRMP) shall be prepared to prescribe how the 250-foot setback area outlined in Mitigation Measure 4.4.6.1A will be developed and maintained This plan will identify frequent and infrequent vegetation management requirements (i.e., removal of invasive plants) and the planting and maintaining trees to provide roosting and nesting opportunities for raptors and other birds. The Biological Resource Management Plan will also describe how relocation of listed or sensitive species will occur from other locations as outlined in Mitigation Measures 4.4.6.2A, 4.4.6.4D, and 4.4.6.4E. The Biological Resource Management Plan shall be reviewed and approved by the Planning Official in consultation with theSan Jacinto Wildlife Area Manager. The Biological Resource Management Plan shall cover all the land within the 250-foot setback zone within Planning Areas 10 and 12 Implementation of the plan shall be supervised by a qualified biologist, to the satisfaction of the City Planning Division. **4.4.6.4G** Mitigation Measure 4.4.6.1A specifies that a landscape plan shall be submitted with any development proposal for lots adjacent to the California Department of Fish and Wildlife (CDFW) San Jacinto Wildlife Area (SJWA) property prior to issuance of a precise grading permit. The landscape plan shall be prepared by a licensed landscape architect in consultation with a qualified biologist and shall be consistent with the design standards contained in the Specific Plan. No plant species listed in Section 6.1.4 or Table 6.2 of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) shall be installed within the setback area. In conjunction with development adjacent to the San Jacinto Wildlife Area (SJWA), cottonwood trees shall be planted within the 250-foot " setback area, consistent with the World Logistics Center Specific Plan plant palette (per DBESP MM 8). During construction, the runoff leaving construction areas will be directed to onsite detention basins and away from downstream drainage features located	

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Issues/Impacts	Mitigation Measures	Level of Significance
	offsite. All projects within the WLCSP will be required to prepare a Storm Water Pollution Prevention Plan (as outlined in MM 4.9.6.2B). Regarding the 250-foot setback area, pedestrian and vehicular access to areas of riparian/riverine habitat will be prohibited except for controlled maintenance access. Finally, no grading shall be permitted within conserved riparian/riverine habitat areas except for grading necessary to established or enhance habitat areas (DBESP MM 6, 7, 9, and 10).	
	4.4.6.4H As outlined in Mitigation Measure 4.4.6.1A, development adjacent to the 250-foot open space setback shall have a six-foot chain link fence or similar barrier to help separate human activity and the buffer area. Any chain link fencing installed on any properties adjacent to the 250-foot buffer area shall have metal mesh installed below and above ground level to prevent animals from accessing new development areas.	
	4.4.6.4I The individual property owner and/or Property Owners Association (POA) as appropriate shall be responsible for maintaining the various onsite landscaped areas, open improved or natural drainage channels, and detention or flood control basins in a manner that provide for fuel management and vector control pursuant to standards maintained by the City Fire Marshall and County Department of Environmental Health- Vector Control Group. This measure requires the individual owner or Property Owners Association (POA) to manage vegetation in and around these areas or improvements so as to not represent a fire hazard as defined by the City Fire Department through the substantial buildup of combustible materials. This measure also requires the individual owner or Property Owners Association to manage vegetation and standing water in drainage channels and basins such that they do not encourage or allow vectors to occur (primarily rats and mosquitoes). Runoff shall not be allowed to stand in channels or basins for more than 72 hours without treatment or maintenance to prevent establishment of mosquitoes per published County vector control guidelines and "Best Management Practices for Mosquito Control on California State Properties" which is available from the California West Nile Virus website at http://www.westnile.ca.gov/resources. This measure shall be implemented by the Property Owners Association in consultation with the City Fire Department and Riverside County Department of Environmental Health – Vector Control Group.	
	4.4.6.4J A Fuel Management Plan shall be prepared on a project-by-project basis for those Planning Areas adjacent to the south and east boundary of the World	

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Issues/Impacts	Mitigation Measures	Level of Significance
	Logistics Center Specific Plan adjacent to Western Riverside County Multiple Species Habitat Conservation Plan Conservation Areas. The Fuel Management Plan shall be prepared by the project proponent and submitted for approval to the prior to plot plan approval for those projects on the southern and eastern Western Riverside County Multiple Species Habitat Conservation Plan boundary. Per the Western Riverside County Multiple Species Habitat Conservation Plan guidelines, the Fuel Management Plan shall include the following: • A plant palette of adequate plant species that may be planted within the Fuel Management Area, which will be approved by a biologist familiar with the plant requirements of the area. • A list of non-native invasive plants that are prohibited from installation. • Maintenance activities and a maintenance schedule. Fuel modification zones shall be mapped and include an impact assessment as required under California Environmental Quality Act guidelines for a project-level analysis. The plan shall demonstrate that the adjacent Western Riverside County Multiple Species Habitat Conservation Plan Areas are adequately protected from expected fire risks. **4.4.6.4K** Prior to approval of any plot plans for development adjacent to the SJWA, the applicant shall demonstrate that direct light rays have been contained within the development area, per requirements of the MSHCP Section 6.0 which states, "Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting." This measure shall be implemented to the satisfaction of the City Planning Division.	
Cumulative Biological Impacts		
With implementation of the stated project-specific mitigation and payment of required MSHCP fees, no significant cumulative effect on biological resources would result from development of the WLC project.	Previously referenced Mitigation Measures 4.4.6.1A through 4.4.6.1C, 4.4.6.2A and 4.4.6.2B, 4.4.6.3A and 4.4.6.3B, and 4.4.6.4A through 4.4.6.4~~F~~K.	Less than Significant

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Issues/Impacts	Mitigation Measures	Level of Significance
4.5 Cultural Resources		
LESS THAN SIGNIFICANT IMPACTS		
Human Remains		
There is no evidence that the site has been utilized for human burials, and there is state law dealing with human remains that are found during grading or excavation.	No mitigation required.	Less than Significant
SIGNIFICANT IMPACTS		
Impact 4.5.6.1 Archaeological Resources		
Most of the site has been previously surveyed, and previously identified resources have been surveyed and retrieved according to required protocols. Nine on-site rural residential properties (designated "Light Logistics") have not been previously surveyed and would need to be surveyed prior to development. The City has conducted SB 18 Consultation with local Native American tribes and the Pechanga and Soboba tribes have expressed a desire to consult.	**4.5.6.1A** Prior to the approval of any grading permit for any of the "Light Logistics" parcels, the parcels shall be evaluated for significance by a qualified archaeologist. A Phase 1 Cultural Resources Assessment shall be conducted by the project archaeologist and an appropriate tribal representative(s) on each of the "Light Logistics" parcel to determine if significant archaeological or historical resources are present. A Phase 2 significance evaluation shall be completed for any of these sites in order to determine if they contain significant archaeological or historical resources. Cultural resources include but are not limited to stone artifacts, bone, wood, shell, or features, including hearths, structural remains, or historic dumpsites. All resources determined to be prehistoric or historic shall be documented using DPR523 forms for archival research/storage in the Eastern Information Center (EIC). If the particular resource is determined to be not significant, no further documentation is required. If prehistoric resources are determined to be significant, they shall be considered for relocation or archival documentation. If any resource is determined to be significant, a Phase 3 recovery study shall be conducted to recover remaining significant cultural artifacts. If prehistoric archaeological/cultural resources are discovered during the Phase 1 survey and it is determined that they cannot be avoided through site design, they shall be subject to a Phase 2 testing program. The project archaeologist in consultation with appropriate tribal group(s) shall determine the significance of the resource(s) and determine the most appropriate disposition of the resource(s) in accordance with applicable laws, regulations and professional	Less than Significant ~~and Unavoidable~~ with Mitigation

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Issues/Impacts	Mitigation Measures	Level of Significance
	practices (per Cultural Report MM CR-1, MM CR-2, MM CR-7 Table 3, pg.74). **4.5.6.1B** Prior to the issuance of any grading or ground-disturbing permit for construction of off-site improvements a qualified archaeologist shall be retained to prepare a Phase I cultural resource assessment (CRA) of the project site if an up to date Phase I cultural resource assessment is not available for the site at the time of development per Cultural Report MM CR-5, Table 3, pg.74). Appropriate tribal representatives as identified by the City shall be invited by the Project Archeologist to participate in this assessment. If archaeological resources are discovered during construction activities, no further excavation or disturbance of the area where the resources were found shall occur until a qualified archaeologist evaluates the find. If the find is determined to be a unique archaeological resource, appropriate action shall be taken to (a) plan construction to avoid the archeological sites (the preferred alternative); (b) cap or cover archeological sites with a layer of soil before building on the affected project location; or (c) excavate the site to adequately recover the scientifically consequential information from and about the resource. At the discretion of the project archaeologist, work may continue on other parts of the project site while the unique archaeological resource mitigation takes place. This measure shall be implemented to the satisfaction of the Planning Official. If the project archaeologist, in consultation with the monitoring Tribe(s), determines that the find is a unique archaeological resource, the resource site shall be evaluated and recorded in accordance with requirements of the State Office of Historic Preservation (OHP). If the resource is determined to be significant, data shall be collected by the qualified archaeologist and the findings of the report shall be submitted to the City. If the find is determined to be not significant no mitigation is necessary. Should a future project-level analysis show that cultural resource site CA-RIV-3346 will be directly or partially impacted by project-level construction, an Addendum cultural resource report must be prepared and include an analysis of the alternatives associated with mitigation for impacts to this resource following CEQA Guidelines Section 15126.4(b)(3). This information must be included in any project-level CEQA compliance documentation. It should be noted that Phase 3 data recovery is an acceptable mitigation action under CEQA Guidelines Section 15126.4(b)(3)(C) (per Cultural Report MM CR-3,Table 3,	

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Issues/Impacts	Mitigation Measures	Level of Significance
	pg.74). Should it be determined through a future project-level EIR analysis that prehistoric cultural resource sites CA-RIV-2993 and/or CA-RIV-3347 shall be directly impacted by future construction, these sites must be Phase 2 tested for significance (per Cultural Report MM CR-4, Table 3, pg.74). **4.5.6.1C** Prior to the issuance of any grading permits a qualified archaeologist shall be retained to monitor all grading and shall invite tribal groups to participate in the monitoring. Project-related archaeological monitoring shall include the following requirements per Cultural Report MM CR-6, MM CR-8, Table 3, pg.74): 1. All earthmoving shall be monitored to a depth of ten (10) feet below grade by the Project Archaeologist or his/her designated representative. Once all areas of the development project that have been cut to 10 feet below existing grade have been inspected by the monitor, the Project Archaeologist may, at his or her discretion, terminate monitoring if and only if no buried cultural resources have been detected; 2. If buried cultural resources are detected, monitoring shall continue until 100 percent of virgin earth within the specific project area has been disturbed and inspected by the Project Archaeologist or his/her designated representative. 3. Grading shall cease in the area of a cultural artifact or potential cultural artifact as delineated by the Project Archaeologist or his/her designated representative. A buffer of at a minimum 25 feet around the cultural item shall be established to allow for assessment of the resource. Grading may continue in other areas of the site while the particular find are investigated; and 4. If prehistoric cultural resources are uncovered during grading, they shall be Phase 2 tested by the Project Archaeologist, and evaluated for significance in accordance with §15064.5(f) of the CEQA Guidelines. Appropriate actions for significant resources as determined by the Phase 2 testing include but are not limited to avoidance or capping, incorporation of the site in green space, parks, or delineation into open space. If such measures are not feasible, Phase 3 data recovery of the significant resource will be required, and curation of recovered artifacts and/or reburial, shall be required. A report associated with Phase 2 testing or Phase 3 data recovery must be delivered to the City and, if necessary, the museum	

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Issues/Impacts	Mitigation Measures	Level of Significance
	where any recovered artifacts have been curated. 5. No further grading shall occur in the area of the discovery until the City approves specific actions to protect identified resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution approved by the City where they would be afforded long-term preservation to allow future scientific study. 6. The developer shall make reasonable efforts to avoid, minimize, or mitigate significant adverse impacts on cultural resources The State Historic Preservation Office (SHPO) and local Native American tribes will be consulted and the Advisory Council on Historic Preservation will be notified within 48 hours of the find in compliance with 36 CFR 800.13(b)(3). This measure shall be implemented to the satisfaction of the Planning Official. **4.5.6.1D** Prior to the issuance of any grading permit the project archaeologist shall invite interested Tribal Group(s) representatives to monitor grading activities. Qualified representatives of the Tribal Group(s) shall be granted access to the project site to monitor grading as long as they provide 48-hour notice to the developer of their desire to monitor, so the developer can make appropriate safety arrangements on the site. This measure shall be implemented to the satisfaction of the Planning Official. **4.5.6.1E** It is possible that ground-disturbing activities during construction may uncover previously unknown, buried cultural resources (archaeological or historical). In the event that buried cultural resources are discovered during grading and no Project Archaeologist or Historian is present, grading operations shall stop in the immediate vicinity of the find and a qualified archaeologist shall be retained to determine the most appropriate course of action regarding the resource. The Archeologist shall make recommendations to the City on the actions that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with §15064.5 of the *CEQA Guidelines*. Cultural resources could consist of, but are not limited to, stone artifacts, bone, wood, shell, or features, including hearths, structural remains, or historic dumpsites. Any previously undiscovered resources found during construction within the project area shall be recorded on appropriate California Department of Parks and Recreation forms and evaluated for significance in terms of CEQA criteria. If the resources are determined to be unique historic resources as defined under §15064.5 of the *CEQA Guidelines*, appropriate protective actions for significant resources such as avoidance or	

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Issues/Impacts	Mitigation Measures	Level of Significance
	capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds shall be implemented by the project archaeologist and the City. No further grading shall occur in the area of the discovery until the City and project archaeologist approve the measures to address these resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution approved by the City where they would be afforded long-term preservation to allow future scientific study.	
Impact 4.5.6.2 Historic Resources		
Seven on-site rural residential properties (designated "Light Logistics") have not been previously surveyed for historical resources, and would need to be surveyed prior to development. Juan Bautista de Anza crossed the southern portion of the site while exploring California in 1774.	**4.5.6.2A** If any historic resources are found during implementation of Mitigation Measure 4.5.6.1A, the Project Archaeologist or Historian (as appropriate) shall offer any artifacts or resources to the Moreno Valley Historical Society (MVHS) or the Eastern Information Center/County Museum or the Western Science Center in Hemet as appropriate for archival storage. From the time any artifacts are turned over to the Moreno Valley Historical Society or other appropriate historical group, the developer shall have no further responsibility for their management or maintenance. **4.5.6.2B** As part of construction of the trail segment connecting Redlands Boulevard to the California Department of Fish and Wildlife property, the developer shall contribute $5,000 to the City for the installation of a historical marker acknowledging the passing of Juan Bautista de Anza through this area during his exploration of California. This measure shall be incorporated into trail plans for this segment which will be subject to review and approval by the City Park and Recreation Department in consultation with the Moreno Valley Historical Society. **4.5.6.2C** Streets C and E shall follow the historical alignment of Alessandro Boulevard and shall be named Alessandro Boulevard.	Less than Significant ~~and Unavoidable~~ with Mitigation
Impact 4.5.6.3 Paleontological Resources		
The project area is considered moderately sensitive regarding paleontological resources, and fossiliferous materials have been found in the surrounding region in the past.	**4.5.6.3A** Prior to the issuance of any grading permits, a City-approved Paleontologist shall be retained to conduct paleontological monitoring as needed for all grading related to development. Development monitoring shall include the following actions: 1. Monitoring must occur in areas where excavations are expected to exceed twenty (20) feet in depth, in areas where fossil-bearing formations are	Less than Significant with Mitigation

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	found during grading, and in all areas found to contain, or are suspected of containing, fossil-bearing formations. 2. To avoid construction delays, paleontological monitors shall be equipped to salvage fossils and remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates if they are unearthed. 3. Monitors shall be empowered to temporarily halt or divert equipment to allow removal of specimens. 4. Monitoring may be reduced if the potentially fossiliferous units described herein are not present, or, if present, are determined upon exposure and examination by the Project Paleontologist to have low potential to contain fossil resources . This measure shall be implemented to the satisfaction of the Planning Official. The Project Paleontologist and the Project Archaeologist described in Mitigation Measure 4.5.6.1C may be the same person if he/she meets the qualifications of both positions per Cultural Report MM PR-1, Table 4, pg.76).	
	4.5.6.3B Prior to the issuance of any permits for the construction of off-site improvements, a qualified paleontologist shall conduct an assessment for paleontological resources on each off-site improvement location. If any site is determined to have a potential for exposing paleontological resources, the project paleontologist shall monitor off-site grading/excavation, subject to coordination with the City. Development monitoring shall include the following mitigation measures: 1. Monitoring must occur in areas where excavations are expected to reach fossil-bearing formations during grading. This monitoring must be conducted by the Project Paleontologist in all areas found to or suspected of containing fossil-bearing formations. 2. To avoid construction delays, the Project Paleontologist shall be equipped to salvage fossils and remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates as they are unearthed. 3. The Project Paleontologist shall be empowered to temporarily halt or divert equipment to allow removal of specimens. 4. Monitoring may be reduced if the potentially fossiliferous units described	

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Issues/Impacts	Mitigation Measures	Level of Significance
	herein are not present, or, if present, are determined upon exposure and examination by the Project Paleontologist to have low potential to contain fossil resources.	
Cumulative Cultural Impacts		
The project site and surrounding area, especially the uplands associated with Mt. Russell, have yielded cultural resources in the past. As this area develops, there is a potential for impacts to or loss of archaeological, historical, or paleontological resources.	Previously referenced Mitigation Measures 4.5.6.1A through 4.5.6.1E, 4.5.6.2A and 4.5.6.2B, and 4.5.6.3A and 4.4.6.3B.	Less than Significant
4.6 Geology and Soils		
LESS THAN SIGNIFICANT IMPACTS		
Landslides or Rockfalls		
A large older landslide has been mapped primarily off site on the north easterly flanks of Mount Russell, near the southwest portion of the property. The Specific Plan designates ~~75~~ 74.3 acres in the southwest corner of the site as open space.	No development will occur in the potential landslide zone, so no mitigation is needed.	Less than Significant
Soil Erosion or Loss of Topsoil		
On-site soils have a slight erosion hazard, and uncontrolled runoff could result in erosion or loss of topsoil.	The project would be required to adhere to the City's Grading Ordinance, obtain an NPDES Permit, prepare an SWPPP and a WQMP, construction and operational impacts associated with soil erosion hazards are considered to be less than significant, and no mitigation is required.	Less than Significant
Septic Tanks		
The project would not involve the installation of septic tanks or alternative wastewater disposal systems, no impacts would occur.	No mitigation is required.	No Impact
Seismic-Related Ground Failure		
The City's General Plan and project geotechnical report indicates the site has	No mitigation is required.	Less than Significant

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Issues/Impacts	Mitigation Measures	Level of Significance
little or no potential for seismically-induced failure or liquefaction.		
SIGNIFICANT IMPACTS		
Impact 4.6.6.1 Fault Rupture		
The eastern portion of the site contains one or more splays of the San Jacinto Fault, and the Casa Loma Fault may be in in the general vicinity of the western portion of the site.	**4.6.6.1A** Prior to approval of any projects for development between Redlands Boulevard and Theodore Street, south of Dracaea Avenue (projected east from Redlands Boulevard), and the area south of Alessandro from the western boundary along the Mount Russell toe of slope easterly into the site 1,500 feet, the City shall determine if a detailed fault study of the Casa Loma Fault Zone area is required based on available evidence. If necessary, any additional geotechnical investigations shall be prepared by a qualified geologist and determine if structural setbacks are needed, and shall identify specific remedial earthwork and/or foundation recommendations. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur. Structures intended for human occupancy shall not be located within any structural setback zone as determined by those studies. This measure shall be implemented to the satisfaction of the City Engineer in consultation with the Project Geologist. **4.6.6.1B** Prior to approval of any projects for development within or adjacent to the San Jacinto Alquist-Priolo Earthquake Fault Zone, the City shall review and approve a geotechnical fault study prepared by a qualified geologist to confirm the alignment and size of any required building setbacks related to the fault zone. If	Less than Significant with Mitigation

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	necessary, this study shall identify a "special foundation or grading remediation zone" for the areas supporting structures intended for human occupancy where coseismic deformation (fractures) is observed. This zone shall be determined after subsurface evaluation based on proposed building locations. Specific remedial earthwork and foundation recommendations shall be evaluated as necessary based on proposed building locations. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur. This study may involve trenching to adequately identify the location of the Claremont segment of the San Jacinto Fault Zone that crosses the eastern portion of the World Logistics Center Specific Plan property. This measure shall be implemented to the satisfaction of the City Engineer in consultation with the Project Geologist. **4.6.6.1C** Prior to the approval of grading permits, or permits for construction of off-site improvements, the City shall review and approve plans confirming that the project has been designed to withstand anticipated ground shaking and other geotechnical and soil constraints (e.g., settlement). The project proponent shall submit plans to the City as appropriate for review and approval prior to issuance of grading permits or issuance of permits for the construction of any offsite improvements. This measure shall be implemented to the satisfaction of the City Engineer.	

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Issues/Impacts	Mitigation Measures	Level of Significance
Impact 4.6.6.2 Ground Shaking		
Southern California is located in a seismically active area and will continue to be subject to ground shaking resulting from seismic activity on regional and local faults.	**4.6.6.2A** Prior to issuance of building permits for any portion of the project site, a site-specific, design level geotechnical investigation for each parcel shall be submitted to the City , which would comply with all applicable state and local code requirements, and includes an analysis of the expected ground motions at the site from known active faults using accepted methodologies. The report shall determine: Structural design requirements as prescribed by the most current version of the California Building Code, including applicable City amendments, to ensure that structures can withstand ground accelerations expected from known active faults. The final design parameters for walls, foundations, foundation slabs, utilities, roadways, parking lots, sidewalks, and other surrounding related improvements. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur.	Less than Significant with Mitigation
Impact 4.6.6.3 Unstable Soils		
On-site soils have a moderate to low shrink-swell potential, and there are some moderately expansive soils on site as well.	**4.6.6.3A** Each Plot Plan application for development shall include a site-specific, design level geotechnical investigation for each parcel, in compliance with all applicable state and local code requirements, and including an analysis of the expected soil hazards at the site. The report shall determine: 1. Structural design requirements as prescribed by the most current version of the California Building Code, including applicable City	Less than Significant with Mitigation

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	amendments, to ensure that structures can withstand ground accelerations expected from known active faults. 2. The final design parameters for walls, foundations, foundation slabs, utilities, roadways, parking lots, sidewalks, and other surrounding related improvements. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. These investigations shall identify any site-specific impacts from compressible and expansive soils based on the actual location of individual pads proposed in the future, so that differential movement can be further verified or evaluated in view of the actual foundation plan and imposed fill or structural loads. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur. Compliance with this measure will ensure that future buildings are designed to protect the structure and occupants from on-site soil limitations, consistent with State Building Code requirements. This measure shall be implemented to the satisfaction of the City Engineer. **4.6.6.3B** Any cut slopes in excess of five (5) feet in vertical height shall be constructed as "replacement fill slopes" per the project geotechnical report, due to the variable nature of the onsite alluvial soils. This measure shall be implemented to the satisfaction of the City Land Development Division and the City Engineer in consultation with the Project Geologist.	

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	4.6.6.3C During all grading activities , a geotechnical engineer shall monitor site preparation, removal of unsuitable soils, mapping of all earthwork excavations, approval of imported earth materials, fill placement, foundation installation, and other geotechnical operations. Laboratory testing of subsurface materials to confirm compacted dry density and moisture content, consolidation potential, corrosion potential, expansion potential, and resistance value (R-value) shall be performed prior to and during grading as appropriate. This measure shall be implemented to the satisfaction of the City Engineer in consultation with the Project Geologist.	
Cumulative Geology and Soils Impacts		
It is reasonable to conclude that all development within this seismically active area will be required to adhere to applicable State regulations, CBC standards, and the design and siting standards required by local agencies.	Previously referenced Mitigation Measures 4.6.6.1A through 4.6.6.1C, 4.6.6.2A, and 4.6.6.3A through 4.6.6.3C ~~3D~~.	Less than Significant
4.7 Greenhouse Gases and Global Climate Change		
LESS THAN SIGNIFICANT IMPACTS		
~~Greenhouse Gas Plan, Policy, Regulation Consistency~~		
~~The proposed project is consistent with federal and state GHG reduction strategies, the CARB Scoping Plan, the City's General Plan, and the City's Climate Action Strategy.~~ None	~~No mitigation is required~~ Not applicable	~~Less than Significant~~ Not applicable
SIGNIFICANT IMPACTS		
Impact 4.7.6.1 Greenhouse Gas Emissions		
The proposed project will emit substantial quantities of greenhouse gases during construction and operation, mainly related to truck emissions, that will exceed recommended SCAQMD thresholds for greenhouse gases. These emissions, while generated by this project, are	**4.7.6.1A** The project shall implement the following requirements to reduce solid waste and greenhouse gas emissions from construction and operation of project development: a) Prior to January 1, 2020, divert a minimum of 50 percent of landfill waste generated by operation of the project. After January 1, 2020, development shall divert a minimum of 75 percent of landfill waste. In January of each calendar year after project approval the developer	Less than Significant ~~and Unavoidable~~ with mitigation

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
nonetheless considered cumulative impacts (see below).	and/or Property Owners Association shall certify the percentage of landfill waste diverted on an annual basis. b) Prior to January 1, 2020, recycle and/or salvage at least 50 percent of non-hazardous construction and demolition debris. After January 1, 2020, recycle and/or salvage at least 75 percent of non-hazardous construction and demolition debris. In January of each calendar year after project approval the developer and/or Property Owners Association shall certify the percentage of landfill waste diverted on an annual basis. Develop and implement a construction waste management plan that, at a minimum, identifies the materials to be diverted from disposal and whether the materials will be sorted on-site or co-mingled. Calculations can be done by weight or volume, but must be consistent throughout. c) The applicant shall submit a Recyclables Collection and Loading Area Plan for construction related materials prior to issuance of a building permit with the Building Division and for operational aspects of the project prior to the issuance of the occupancy permit to the Public Works Department. The plan shall conform to the Riverside County Waste Management Department's Design Guidelines for Recyclable Collection and Loading Areas. d) Prior to issuance of certificate of occupancy, the recyclables collection and loading area shall be constructed in compliance with the Recyclables Collection and Loading Area plan. e) Prior to issuance of certificate of occupancy, documentation shall be provided to the City confirming that recycling is available for each building. f) Within six months after occupancy of a building, the City shall confirm that all tenants have recycling procedures set in place to recycle all items that are recyclable, including but not limited to paper, cardboard, glass, plastics, and metals. g) The property owner shall advise all tenants of the availability of community recycling and composting services. h) Existing onsite street material shall be recycled for new project streets to the extent feasible.	

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Issues/Impacts	Mitigation Measures	Level of Significance
Impact 4.7.6.2 Greenhouse Gas Plan, Policy, Regulation Consistency		
The proposed project could be potentially inconsistent with established Greenhouse Gas plans, policies, or regulations.	Implementation of previously referenced Mitigation Measures 4.3.6.3B, 4.3.6.4A, 4.3.6.3C, 4.3.6.3D, 4.7.6.1A, 4.16.1.6.1A, 4.16.1.6.1B, 4.16.1.6.1C, 4.16.4.6.1A, 4.16.4.6.1B, and 4.16.4.6.1C will help reduce project-related GHG emissions	Less than Significant with Mitigation
Cumulative Greenhouse Gas Impacts		
The proposed project will emit substantial quantities of greenhouse gases during project operation, mainly related to truck emissions, that will exceed recommended SCAQMD thresholds for greenhouse gases. These emissions are considered cumulative in terms of global climate change.	Project-specific energy conservation, air quality, and greenhouse gas Mitigation Measure 4.7.6.1A will help reduce project greenhouse gas emissions, ~~but~~ the project will ~~still~~ not make a significant cumulative contribution to greenhouse gas emissions.	Less than Significant ~~and Unavoidable~~
4.8 Hazards and Hazardous Materials		
LESS THAN SIGNIFICANT IMPACTS		
Within Two Miles of a Private Airport, Airport Land Use Plan, or Public Airport		
The nearest airport is 7 miles away so, the development of the WLC project area as proposed would not result in airport safety hazards for people working in the WLC project area.	No mitigation is required.	No Impact
Existing or Proposed School		
There are no existing planned schools on or within a quarter mile of the project site.	No mitigation is required.	Less than Significant
Routine Transport, Use, or Disposal of Hazardous Materials and Reasonable Foreseeable Upset and Accident Conditions		
The transport, use, handling, or disposal of hazardous materials is regulated by various local, state, and federal standards, ordinances, and regulations that would ensure that potential impacts associated with environmental and health hazards related to an accidental release of hazardous materials are less than	No mitigation is required.	Less than Significant

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
significant, and no mitigation is required. Compliance with established safety laws and regulations regarding natural gas plants is expected to reduce this potential impact to a less than significant level, and no mitigation is required. Local soils would be extensively disturbed during grading, and would employ relatively stringent dust control measures including regular watering, and revegetation as soon as possible after grading. Under these conditions, it is unlikely that *Coccidioides immitis* spores ("Valley Fever") would survive in the soil. This potential impact appears minimal and no mitigation is recommended.		
Located on a List of Hazardous Materials Sites		
The project site and surrounding areas are not on any list of the hazardous materials sites as defined by Government Code Section 65962.5. In addition, a number of Phase 1 Environmental Site Assessments (ESAs) prepared for various portions of the site indicate that the site does not contain pesticides or other hazardous materials.	No mitigation is required.	Less than Significant
Conflict with Emergency Response Plans		
Compliance with existing regulations for emergency access and evacuation would ensure that impacts related to this issue are less than significant, and no mitigation is required.	No mitigation is required.	Less than Significant
Wildlands Fire Risk		
The Badlands to the east, across Gilman Springs Road, is considered a Very High	The WLC Specific Plan identifies a new on-site fire station, and payment of DIF and increased property taxes will fund future fire services. No other mitigation is required.	Less than Significant

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Issues/Impacts	Mitigation Measures	Level of Significance
Fire Hazard Area. The project allows the construction of warehouse buildings which have a low fire potential, and the project will add a new roadway network to facilitate access for fire protection vehicles and services. Fire Station #58 is relatively close to the project site, but future development will generate a need for an additional fire station on the site. New structures will have to comply with current Fire and Building Code regulations.		
SIGNIFICANT IMPACTS		
On-site Conditions Involving Hazardous Materials		
A number of Phase 1 Environmental Site Assessments (ESAs) prepared for various portions of the site indicate that the site does not contain pesticides or other hazardous materials. However, the existing rural residences on site have not been surveyed as yet for hazardous materials.	**4.8.6.1A** Prior to demolition of any existing structures on the project site, a qualified contractor shall be retained to determine if asbestos-containing materials (ACMs) and/or lead-based paint (LBP) are present. If asbestos-containing materials and/or lead-based paint are present, prior to commencement of demolition, these materials shall be removed and transported to an appropriate landfill by a licensed contractor. In addition, onsite soils shall be tested for contamination by agricultural chemicals. If present, these materials shall be removed and transported to an appropriate landfill by a licensed contractor. This measure shall be implemented to the satisfaction of the Building Division including written documentation of the disposal of any asbestos-containing materials, lead-based paint, or agricultural chemical residue in conformance with all applicable regulations. **4.8.6.1B** Prior to the issuance of any discretionary permits associated with the proposed fueling facility (“logistic support” site in the LD zone), a risk assessment or safety study that identifies the potential public health and safety risks from accidents at the facility (e.g., fire, tank rupture, boiling liquid, or expanding vapor explosion) shall be submitted to the City for review and approval This study shall be prepared to industry standards and demonstrate that the facility will not create any significant public health or safety impacts or risks, to the satisfaction of the	Less than Significant with Mitigation

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Issues/Impacts	Mitigation Measures	Level of Significance
	City Building and Safety Division and the Fire Prevention Bureau. **4.8.6.1C** Prior to grading, for any discretionary permits for development in Planning Areas 9-12 adjacent to the natural gas compressor plant, the applicant shall prepare a risk assessment report analyzing safety conditions relative to the existing compressor plant and planned development. The report must be based on appropriate industry standards and identify the potential hazards from the compressor plant (e.g., fire, explosion) and determine that the distance from the plant to the closest planned buildings in Planning Areas 9-12 is sufficient to protect the safety of workers from accidents that could occur (see Final EIR Volume 2 Figure 4.1.6B) at the compressor plant. This measure shall be implemented to the satisfaction of the City Building and Safety Division and the Fire Prevention Bureau. **4.8.6.1D** Prior to the issuance of any grading permit, the developer shall inform the City of any existing solid waste materials within the development area. In conjunction with grading activities, all solid waste matter within the development area shall be removed by a licensed contractor and disposed of in an approved landfill. A record of the removal and disposal of any waste materials, in compliance with applicable laws and regulations, shall be submitted to the City prior to the issuance of any building permits.	
Cumulative Hazards and Hazmat Impacts		
The risk to each future project is based on the location and interface between urbanized area and wildland areas. Potential risks associated with development in this area can be effectively reduced through conformance with Fire and Building Code regulations.	The WLC Specific Plan identifies a new on-site fire station, and increased property taxes will fund future police and fire services. No other mitigation is required.	Less than Significant
4.9 Hydrology and Water Quality		
LESS THAN SIGNIFICANT IMPACTS		
Seismic Flooding-Related Impacts		
The WLC project area is not identified as being located within the City's mapped inundation area.	No mitigation required	Less than Significant

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Issues/Impacts	Mitigation Measures	Level of Significance
Seismic-Related Impacts		
The southwest corner of the site has slopes associated with Mt. Russell, but this area is designated as open space and the rest of the WLC area gently sloping and landslides or mudslides would not occur here.	No mitigation is required	Less than Significant
Groundwater		
The proposed WLC project would not interfere with groundwater recharge as the project site is not identified as a groundwater recharge area and it will utilize water supplies from EMWD.	No mitigation is required	Less than Significant
100-Year Flooding-Related Impacts		
The project site does not lie within a 100-year floodplain and does not include housing, so impacts related to this issue are less than significant.	No mitigation is required	Less than Significant
SIGNIFICANT IMPACTS		
Impact 4.9.6.1 Drainage Pattern and Capacity-Related Impacts		
The project will modify local drainage patterns, increase impervious surfaces (roofs, hardscape, etc.), and add landscaped areas with irrigation.	**4.9.6.1A** Prior to issuance of any building permit within the Specific Plan area, the developer shall construct storm drain pipes and conveyances, as well as, combined detention and infiltration basin(s), bioretention areas, and spreading area(s) within each proposed watershed, as outlined in the project hydrology plan, to mitigate the impacts of increased peak flow rate, velocity, flow volume and reduce the time of concentration by storing and infiltrating increased runoff for a limited period of time and release the outflow at a rate that does not exceed the pre-development peak flows and velocities for the 2, 5, 10, 25, and 100-year storms and volumes as assessed in the water balance model for historical conditions. For the purpose of this mitigation measure, the term "construct" shall mean to substantially complete construction so as to function for its intended purpose during construction with complete construction prior to occupancy. Field investigations will be conducted to determine the infiltration rate of soils underlying the proposed locations of bioretention areas and detention basins. The infiltration rate of the underlying soils will be used to	Less than Significant with Mitigation

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Issues/Impacts	Mitigation Measures	Level of Significance
	properly size the bioretention areas and detention basins/infiltration basins to ensure that adequate volumes of runoff, in cumulative total for all bioretention areas and detention basins are captured and infiltrated. The water balance model will be updated and rerun for the site-specific conditions encountered to confirm the water balance. This measure shall be implemented to the satisfaction of the City Engineer. Energy dissipaters shall be used as the spillways of basins to reduce the runoff velocity and dissipate the flow energy. Drainage weir structures shall be constructed at the downstream end of the watersheds flowing to the San Jacinto Wildlife Area to control the runoff and spread the flow such that the flows exiting the project boundary will return to the sheet flow pattern similar to the existing condition. Detention basins and spreading areas shall be designed to account for the amount of the sediment transported through the project boundary so that the existing sediment carrying capacity is maintained. **4.9.6.1B** The bioretention areas and detention/infiltration basins shall be designed to assure infiltrations rates. The monitoring plan will follow the guidelines presented by the California Storm Water Quality Association (CASQA) in the California Storm Water Best Management Program (BMP) Handbook, Municipal, January 2003 Section 4, Treatment Control Best Management Programs Fact Sheets TC-11 Infiltration Basin and TC-30 Vegetated Swale). For the Bioretention areas, as needed maintenance activities shall be conducted to remove accumulated sediment that may obstruct flow through the swale. Bioretention areas shall be monitored at the beginning and end of each wet season to assess any degradation in infiltration rates. The maintenance activities should occur when sediment on channels and culverts builds up to more than 3 inches (CASQA 2003). The swales will need to be cultivated or rototilled if drawdown takes more than 72 hours. For the detention/infiltration basins, a 3-5 year maintenance program shall be implemented mainly to keep infiltration rates close to original values since sediment accumulation could reduce original infiltration rate by 25-50%. Infiltration rates in detention basins will be monitored at the beginning and end of each wet season to assess any degradation in infiltration rates. If cumulative infiltration rates of all detention basins drops below the minimum required rates, then the detention basins will be reconditioned to improve infiltration capacity by scraping the bottom of the detention basin, seed or sod to restore groundcover, aerate bottom and dethatch basin bottom (CASQA 2003).	

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Issues/Impacts	Mitigation Measures	Level of Significance
Impact 4.9.6.2 Construction-Related Water Quality		
The construction and grading phases of the WLC Specific Plan area would temporarily disturb surface soils and removal of vegetative cover, which could potentially result in erosion and sedimentation within the WLCSP area.	**4.9.6.2A** Prior to issuance of any grading permit for development in the World Logistics Center Specific Plan, the project developer shall file a Notice of Intent (NOI) with the Santa Ana Regional Water Quality Control Board to be covered under the National Pollutant Discharge Elimination System (NPDES) General Construction Permit for discharge of storm water associated with construction activities. The project developer shall submit to the City the Waste Discharge Identification Number issued by the State Water Quality Control Board (SWQCB) as proof that the project's Notice of Intent is to be covered by the General Construction Permit has been filed with the State Water Quality Control Board. This measure shall be implemented to the satisfaction of the City Engineer. **4.9.6.2B** Prior to issuance of any grading permit for development in the World Logistics Center Specific Plan, the project developer shall submit to the State Water Quality Control Board (SWQCB) a project-specific Storm Water Pollution Prevention Plan (SWPPP). The Storm Water Pollution Prevention Plan shall include a surface water control plan and erosion control plan citing specific measures to control on-site and off-site erosion during the entire grading and construction period. In addition, the Storm Water Pollution Prevention Plan shall emphasize structural and nonstructural best management practices (BMPs) to control sediment and non-visible discharges from the site. Best Management Practices to be implemented may include (but shall not be limited to) the following: • Sediment discharges from the site may be controlled by the following: sandbags, silt fences, straw wattles and temporary debris basins (if deemed necessary), and other discharge control devices. The construction and condition of the Best Management Practices are to be periodically inspected by the Regional Water Quality Control Board during construction, and repairs would be made as required. • Materials that have the potential to contribute non-visible pollutants to storm water must not be placed in drainage ways and must be placed in temporary storage containment areas. • All loose soil, silt, clay, sand, debris, and other earthen material shall be controlled to eliminate discharge from the site. Temporary soil stabilization measures to be considered include: covering disturbed areas with mulch, temporary seeding, soil stabilizing binders, fiber rolls or blankets, temporary	Less than Significant with Mitigation

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	vegetation, and permanent seeding. Stockpiles shall be surrounded by silt fences and covered with plastic tarps. • The Storm Water Pollution Prevention Plan shall include inspection forms for routine monitoring of the site during the construction phase. • Additional required Best Management Practices and erosion control measures shall be documented in the Storm Water Pollution Prevention Plan. • The Storm Water Pollution Prevention Plan would be kept on site for the duration of project construction and shall be available to the local Regional Water Quality Control Board for inspection at any time. The developer and/or construction contractor for each development area shall be responsible for performing and documenting the application of Best Management Practices identified in the project-specific Storm Water Pollution Prevention Plan. Regular inspections shall be performed on sediment control measures called for in the Storm Water Pollution Prevention Plan. Monthly reports shall be maintained and available for City inspection. An inspection log shall be maintained for the project and shall be available at the site for review by the City of Moreno Valley and the Regional Water Quality Control Board.	
Impact 4.9.6.3 Operational-Related Water Quality		
During the operational phase of the WLC the major source of pollution in storm water runoff would be contaminants such as, a variety of pollutants such as sediment, petroleum products, commonly utilized construction materials, landscaping chemicals, and (to a lesser extent) trace metals such as zinc, copper, lead, cadmium, and iron that have accumulated on the land surface over which runoff passes. These contaminants may lead to the degradation of storm water in downstream channels and require mitigation to reduce impacts to less than significant.	**4.9.6.3A** Prior to discretionary permit approval for individual plot plans, a site-specific Water Quality Management Plan (WQMP) shall be submitted to the City Land Development Division for review and approval. The Water Quality Management Plan shall specifically identify site design, source control, and treatment control Best Management Practices that shall be used on site to control pollutant runoff and to reduce impacts to water quality to the maximum extent practicable. The Water Quality Management Plan shall be consistent with the Water Quality Management Plan approved for the overall World Logistics Center Specific Plan project. At a minimum, the site developer shall implement the following site design, source control, and treatment control Best Management Practices as appropriate: **Site Design Best Management Practices** (a) Minimize urban runoff. (b) Maximize the permeable area.	Less than Significant with Mitigation

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Issues/Impacts	Mitigation Measures	Level of Significance
	(c) Incorporate landscaped buffer areas between sidewalks and streets. (d) Maximize canopy interception and water conservation by planting native or drought-tolerant trees and large shrubs. (e) Use natural drainage systems. (f) Where soil conditions are suitable, use perforated pipe or gravel filtration pits for low flow infiltration. (g) Construct on-site ponding areas or retention facilities to increase opportunities for infiltration consistent with vector control objectives. (h) Minimize impervious footprint. (i) Construct streets, sidewalks and parking lot aisles to the minimum widths necessary, provided that public safety and a walkable environment for pedestrians are not compromised. (j) Reduce widths of street where off-street parking is available. (k) Minimize the use of impervious surfaces such as decorative concrete, in the landscape design. (l) Conserve natural areas. (m) Minimize Directly Connected Impervious Areas (DCIAs). (n) Runoff from impervious areas will sheet flow or be directed to treatment control Best Management Practices. (o) Streets, sidewalks, and parking lots will sheet flow to landscaping/ bioretention areas that are planted with native or drought-tolerant trees and large shrubs. **Source Control Best Management Practices** Source control Best Management Practices are implemented to eliminate the presence of pollutants through prevention. Such measures can be both non-structural and structural: Non-structural source control Best Management Practices include: (a) Education for property owners, operator, tenants, occupants, or	

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	employees; (b) Activity restrictions; (c) Irrigation system and landscape maintenance; (d) Common area litter control; (e) Street sweeping private streets and parking lots; and (f) Drainage facility inspection and maintenance. Structural source control Best Management Practices include: (g) MS4 stenciling and signage; (h) Landscape and irrigation system design; (i) Protect slopes and channels; and (j) Properly design fueling areas, trash storage areas, loading docks, and outdoor material storage areas. **Treatment Control Best Management Practices** Treatment control Best Management Practices supplement the pollution prevention and source control measures by treating the water to remove pollutants before it is released from the project site. The treatment control Best Management Practice strategy for the project is to select Low Impact Development (LID) Best Management Practices that promote infiltration and evapotranspiration, including the construction of infiltration basins, bioretention facilities, and extended detention basins. Where infiltration Best Management Practices are not appropriate, bioretention and/or biotreatment Best Management Practices (including extended detention basins, bioswales, and constructed wetlands) that provide opportunity for evapotranspiration and incidental infiltration may be utilized. Harvest and Reuse Best Management Practice will be used to store runoff for later non-potable uses. Site-specific Water Quality Management Plans have not been prepared at this time as no site-specific development project has been submitted to the City for approval. When specific projects within the project are developed, Best Management Practices will be implemented consistent with the goals contained in the Master Water Quality Management Plan. All development within the project will be required to incorporate on-site water quality features to meet or	

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	exceed the approved Master Water Quality Management Plan's water quality requirements identified previously.	
	4.9.6.3B The Property Owners Association (POA) and all property owners shall be responsible to maintain all onsite water quality basins according to requirements in the guidance Water Quality Management Plan and/or subsequent site-specific Water Quality Management Plans, and established guidelines of the Regional Water Quality Control Board. Failure to properly maintain such basins shall be grounds for suspension or revocation of discretionary operating permits, and/or referral to the Regional Water Quality Control Board for review and possible action. This measure shall be implemented to the satisfaction of the City Land Development Division, in consultation with the City Engineer, and Regional Water Quality Control Board.	
	4.9.6.3C Prior to issuance of future discretionary permits for any development along the southern boundary of the World Logistics Center Specific Plan (WLCSP), the project developer of such sites, in cooperation with the Property Owners Association (POA), shall establish and annually fund a Water Quality Mitigation Monitoring Plan (WQMMP) to confirm that project runoff will not have deleterious effects on the adjacent San Jacinto Wildlife Area (SJWA). This program shall include at least quarterly sampling along the southern boundary of the site (i.e., at the identified outlet structures of the project detention basins) during wet season flows and/or when water is present, as well as sampling of any dry-season flows that are observed entering the San Jacinto Wildlife Area property from the project property, including Drainage 9, which is planned to convey only clean off-site flows from north of the World Logistics Center Specific Plan site across Gilman Springs Road. The program shall also include at least twice yearly sampling after completion of construction, and a pre-construction survey must be completed to determine general water quality baseline conditions prior to and during development of the southern portion of the World Logistics Center Specific Plan. This sampling shall be consistent with and/or comply with the requirements of applicable Storm Water Pollution Prevention Plans (SWPPPs) for the development site. The project developer of sites along the southern border of the World Logistics Center Specific Plan shall be responsible for preventing or eliminating any toxic pollutant (not including sediment) found to exceed applicable established public health standards. In addition, the discharge from the project shall not cause or contribute to an exceedance of Receiving Water Quality Objectives for the	

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	potential pollutants associated with the project as identified in Table 4.9.J. Once development is complete, the developer shall retain qualified personnel to conduct regular (i.e., at least quarterly) water sampling/testing of any basins and their outfalls to ensure the San Jacinto Wildlife Area will not be affected by water pollution from the project site. This measure shall be implemented to the satisfaction of the City Land Development Division Manager based on consultation with the project developer, Eastern Municipal Water District, the Regional Water Quality Control Board-Santa Ana Region, and the Mystic Lake Manager.	
Cumulative Hydrology and Water Quality		
The drainage system for the proposed WLC project would maintain post-development runoff at pre-development levels for off-site downstream properties. Therefore, the proposed WLC project will not make a significant contribution to any cumulatively considerable impacts related to drainage or water quality.	Previously referenced Mitigation Measures 4.9.6.1A, 4.9.6.1B, 4.9.6.2A and 4.9.6.2B, and 4.9.6.3A through 4.9.6.3C. No additional mitigation is required.	Less than Significant
4.10 Land Use and Planning		
LESS THAN SIGNIFICANT IMPACTS		
Conflict with Applicable Land Use Plans, Policies, or Regulations		
The land uses per se of the project are not consistent with SCAG growth projections and some Compass Plan policies because they are not residential in nature. However, the project will substantially improve the City's job/housing balance which is consistent with these regional plans. The WLC project is consistent with the City General Plan upon approval of the requested General Plan Amendment. The project is consistent with the City's Housing Element. Therefore, the project is consistent with both regional and local land use plans, policies, and regulations.	No mitigation is required.	Less than Significant

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
Conflict with any Applicable Habitat or Natural Community Conservation Plan		
The project will be required to comply with the requirements of the County's MSHCP and pay its development impact fee.	Previously referenced Mitigation Measures 4.4.6.1A through 4.4.6.1C, 4.4.6.2A and 4.4.6.2B, 4.4.6.3A and 4.4.6.3B, and 4.4.6.4A through 4.4.6.4F related to Biological Resources will be implemented, and no additional mitigation is required.	Less than Significant
Cumulative Land Use and Planning Impacts		
The WLC project would not have significant project-related impacts related to dividing an established community, conflicting with applicable land use plans, policies, or regulations, or conflicting with an approved habitat conservation plan. While the WLC project would represent a shift in land use policy, this policy shift does not represent a significant CEQA impact.	No mitigation is required.	Less than Significant
SIGNIFICANT IMPACTS		
Physically Divide an Established Community		
The WLC is located in the eastern end of the City, so its development would not physically divide an established community. However, development could adversely affect seven existing rural residences onsite, and the land plan cannot accommodate residences within logistics warehousing areas.	No feasible mitigation is available.	Significant and Unavoidable
4.11 Mineral Resources		
LESS THAN SIGNIFICANT IMPACTS		
Loss of Statewide, Regional, or Locally Important Mineral Resources		
The project site and surrounding area do not contain any identified regional or local mineral resources, nor are there any ongoing mineral resource extraction activities in the project area.	No mitigation is required.	No impact

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
Cumulative Mineral Resources		
The WLC project site does not contain significant forest resources, so it will not make a significant contribution to cumulatively considerable impacts relative to any forest resources.	No mitigation is required.	Less than Significant
SIGNIFICANT IMPACTS		
None	Not applicable	Less than Significant
4.12 Noise		
LESS THAN SIGNIFICANT IMPACTS		
Groundborne Vibration		
Project-related earthwork will create groundborne vibration, but the project noise study determined it would not exceed significance criteria for adjacent residential uses.	No mitigation is required.	Less than Significant
Airport Noise		
There are no public airports or private airstrips within two miles of the project site, so there will be no significant airport-related noise.	No mitigation is required.	~~Less than Significant~~ No Impact
SIGNIFICANT IMPACTS		
Impact 4.12.6.1 Short-Term Construction Noise		
Project construction will create significant noise levels for on-site uses and off site away from the project site due to construction vehicle travel.	**4.12.6.1A** Prior to issuance of any discretionary project approvals, a Noise Reduction Compliance Plan (NRCP) shall be submitted to and approved by the City. The Noise Reduction Compliance Plan shall show the limits of nighttime construction in relation to any then-occupied residential dwellings and shall be in conformance with City standards. Conditions shall be added to any discretionary projects requiring that the limits of nighttime grading be shown on the Noise Reduction Compliance Plan and all grading plans submitted to the City (per	Significant and Unavoidable

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	Noise Study MM N-2, pg. 51). **4.12.6.1B** All construction equipment, fixed or mobile, shall be equipped with operating and maintained mufflers consistent with manufacturers' standards. **4.12.6.1C** Construction vehicles shall be prohibited from using Redlands Boulevard south of Eucalyptus Avenue to access on-site construction for all phases of development of the Specific Plan (per Noise Study MM N-1, pg. 51). **4.12.6.1D** No grading shall occur within 2,800 feet of residences south of State Route-60 between 8 p.m. and 6 a.m. on weekdays and between 8 p.m. and 7 a.m. on weekends. These restrictions shall be included as part of the Noise Reduction Compliance Plan per Mitigation Measure 4.12.6.1A (per Noise Study MM N-2, pg. 51) **4.12.6.1E** As an alternative to Mitigation Measure 4.12.6.1D, a 12-foot tall temporary construction sound barrier may be installed for residences within 1,580 feet of active nighttime construction areas. The temporary sound barrier shall be constructed of plywood with a total thickness of 15 inches, or a sound blanket wall may be used. If sound blankets are used, they must have a Sound Transmission Class (STC) rating of 27 or greater. This shall be included as part of the Noise Reduction Compliance Plan required in Mitigation Measure 4.12.6.1A, which shall be reviewed and approved by the City prior to implementation (per Noise Study MM N-2 and N-3, pg. 51 and pg. 52). **4.12.6.1F** As an alternative to Mitigation Measure 4.12.6.1D and 4.12.6.1E, on-site noise measurements of construction areas may be taken by qualified personnel and specific buffer distances between construction activities and existing residences may be proposed based on actual noise levels. These measurements will be incorporated into the Noise Reduction Compliance Plan required in Mitigation Measure 4.12.6.1A, which shall be reviewed and approved by the City prior to implementation (per Noise Study MM N-2, pg. 51). **4.12.6.1G** Any discretionary approvals for development that proposes grading within 1,580 feet of occupied residential units shall require that all grading equipment be equipped with residential grade mufflers (or better). All stationary construction equipment shall be placed so that emitted noise is directed away from noise-sensitive receptors nearest the site. Additionally, stationary construction equipment shall have all standard acoustic covers in place during operation (per Noise Study MM N-4, pg. 52).	

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	4.12.6.1H All material stockpiles in connection with any grading operations shall be located at least 1,200 feet from existing residences (per Noise Study MM N-5, pg. 52). **4.12.6.1I** All project-related off-site construction shall be limited to 6 a.m. and 8 p.m. on weekdays only. Construction during weekends and City holidays shall not be permitted (per Noise Study MM N-6, pg. 53) to the satisfaction of the Land Development Division/Public Works. **4.12.6.1J** Prior to issuance/approval of any grading permits, off-site construction activities adjacent to residential uses shall provide for installation of 12-foot temporary sound barriers for construction activities lasting more than one month. The sound barrier will reduce noise levels by approximately 10 dB. The temporary sound barrier may be constructed of plywood with a total thickness of 1.5 inches, or a sound blanket wall may be used. If sound blankets are used, the curtains must have a Sound Transmission Class (STC) rating of 27 or greater. No off-site construction is permitted during weekday nighttime hours (8 p.m. to 6 a.m.) or during weekends and City holidays except for emergencies (per Noise Study MM N-7, pg. 53).	
Impact 4.12.6.2 Long-Term Traffic Noise		
Project operations will create significant long-term noise impacts on site and along a number of off-site roadways. Not all off-site impacts can be mitigated to less than significant levels by installing sound-attenuation improvements.	**4.12.6.2A** When processing future individual buildings under the World Logistics Center Specific Plan, as part of the City's approval process, the City shall require the Applicant to take the following three actions for each building prior to approval of discretionary permits for individual plot plans for the requested development: Action 1: Perform a building-specific noise study to ensure that the assumptions set forth in the FEIR prepared for the programmatic level entitlement remain valid. These procedure used to conduct these noise analyses shall be consistent with the noise analysis conducted in the programmatic FEIR and shall be used to impose building-specific mitigation on the individually-proposed buildings. Action 2: If the building-specific analyses identify that the proposed development triggers the need for mitigation from the proposed building, including all preceding developments in the specific plan area, the Applicant shall implement the mitigation identified in the WLC FEIR. Prior to implementing the mitigation, the Applicant shall send letters by registered mail to all property owners and non-owner occupants of properties that would benefit from the proposed mitigation asking them to provide a position either in favor of or in opposition to the proposed noise abatement mitigation within 45 days. Each property shall be entitled to one vote on behalf of owners and one vote per dwelling on behalf of	Significant and Unavoidable

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	non-owner occupants. If more than 50% of the votes from responding benefited receptors oppose the abatement, the abatement will not be considered reasonable. Additionally, for noise abatement to be located on private property, 100% of owners of property upon which the abatement is to be placed must support the proposed abatement. In the case of proposed noise abatement on private property, no response from a property owner, after three attempts by registered mail, is considered a *no* vote. At the completion of the vote at the end of the 45 day period, the Applicant shall provide the tentative results of the vote to all property owners by registered mail. During the next 15 calendar days following the date of the mailing, property owners may change their vote. Following the 15-day period, the results of the vote will be finalized and made public. Action 3: Upon consent from benefited receptors and property owners, the Applicant shall post a bond for the cost of the construction of the necessary mitigation as estimated by the City Engineer to ensure completion of the mitigation. The certificate of occupancy permits shall be issued upon posting of the bond or demonstration that 50% of the votes from responding benefited receptors oppose the abatement or, if the abatement is located on private property, any property owners oppose the abatement (per Noise Study MM N-8, pg.53). **4.12.6.2B** Prior to issuance/approval of any building permits, the centerline of Cactus Avenue Extension will be located no closer than 114 feet to the residential property lines along Merwin Street. An alternative is to locate the roadway closer to the residences and provide a soundwall along Cactus Avenue Extension. The soundwall location and height should be determined by a Registered Engineer, and the soundwall shall be designed to reduce noise levels to less than 65 CNEL at the residences. The Engineer shall provide calculations and supporting information in a report that will be required to be submitted to and approved by the City prior to issuing permits to construct the road (per Noise Study, pg. 51, Cactus Avenue Extension, ID #50). **4.12.6.2C** Prior to the approval of any discretionary permits, cumulative impact areas shown in the WLC EIR Noise Study shall be included in the soundwall mitigation program outlined in Mitigation Measures 4.12.6.2A and 4.12.6.2D (per Noise Study MM N-9, pg. 62).	

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	4.12.6.2D Prior to issuance of a building permit, the applicant shall demonstrate that the development maintains a buffer with soundwall for noise attenuation at residential/warehousing interface (i.e., western and southwestern boundaries of the project site). To keep the noise levels at nearby residential areas less than typical ambient conditions, the warehousing property line shall be located a minimum of 250 feet from the residential zone boundary , and a 12-foot noise barrier shall be located along the perimeter of the property that faces any residential areas. The 12 foot noise barrier may be a soundwall, berm, or combination of the two. The height shall be measured relative to the pad of the warehouse. This requirement shall be implemented anytime residential areas are within 600 feet of the warehousing property line to insure that a noise level of 45 dBA (Leq) will not be exceeded at the residential zone. This requirement is consistent with Item 10 of Municipal Code Section 9.16.160 Business park/industrial that states, "All manufacturing and industrial uses adjacent to residential land uses shall include a buffer zone and/or noise attenuation wall to reduce outside noise levels" (per Noise Study MM N-10, pg.62).	
Impact 4.12.6.3 Long-Term Operational Noise		
Potential long-term stationary noise impacts would primarily be associated with operations at logistics facilities within the WLCSP area. With implementation of a minimum 250-foot setback from residential uses, potential long-term operational noise impacts would be less than significant.	The project noise assessment determined that operational noise impacts from warehouse activities would not exceed City standards at nearby residential areas with implementation of the 250-foot setback requirement.	Less than Significant with Mitigation
Impact 4.12.6.4 Long-Term Utility Noise		
Noise generated by SCGC blow-down events has the potential to cause permanent hearing loss in persons in the developed area of the project. This is a significant impact and mitigation is required.	**4.12.6.4A** Prior to the issuance of building permits for projects within 1,300 feet of the Southern California Gas Company (SCGC) and San Diego Gas and Electric (SDG&E) blow-down facilities, documentation shall be submitted to the City confirming that sound attenuation devices and/or improvements for the blow-down facilities providing at least a 40 dB reduction in noise levels during blow-down events are available and will be installed for all planned blow-down events. It shall be the responsibility of the developer to fund all sound attenuation improvements to the blow-down facilities required by this measure. It shall also be the responsibility of the developer to coordinate with San Diego Gas and Electric and/or Southern California Gas Company regarding the installation of any sound attenuation devices or improvements on the blow-down facilities at either the San Diego Gas and Electric	Less than Significant with Mitigation

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	compressor station or the Southern California Gas Company pipelines. This measure shall be implemented to the satisfaction of the City Land Management Division (per Noise Study MM N-11, pg.65).	
Impact 4.12.6.5 Cumulative Noise Impacts		
Traffic noise level increases from the existing baseline condition and the future (2022 and 2035) time horizons are attributable to the intermingled effects of both the cumulative development projects in the project vicinity and region as well as the proposed project. This is a significant impact and mitigation is required.	Previously referenced Mitigation Measures 4.12.6.1A through 4.12.6.1I, 4.~~4~~.12.6.2A through 4.12.6.2C, 4.12.6.3A, and 4.12.6.4A will be implemented, but cumulative noise impacts will still be significant.	Significant and Unavoidable
4.13 Population, Housing, and Employment		
LESS THAN SIGNIFICANT IMPACTS		
Population Growth		
The project proposes to develop logistics warehouses which will result in minimal direct population increase in the City, although some workers may move to the City to work at this project, and some local residents will also work at this project. The project will not necessitate extension of major infrastructure and the project will not remove obstacles that will result in substantial population growth.	No mitigation is required.	Less than Significant
Displace Substantial Housing/People		
The existing seven rural residences on the site will eventually convert to “Light Logistics” uses. The project will eliminate the potential for the site to provide 388 units of affordable housing that were proposed under the Moreno Highlands Specific Plan. However, the City can meet its regional housing goals without these	No mitigation required.	Less than Significant

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
units, and the project is consistent with the City's current Housing Element.		
SIGNIFICANT IMPACTS		
None	Not applicable	Not applicable
Cumulative Population, Housing, and Employment Impacts		
Implementation of the proposed WLC project would improve the City's jobs/ housing ratio by creating thousands of new construction and permanent jobs in the City. Therefore, it will not result in cumulatively considerable impacts to population or housing.	No mitigation is required.	Less than Significant
4.14 Public Services and Facilities		
LESS THAN SIGNIFICANT IMPACTS		
Police Protection		
As development under the WLCSP, the need for police services will increase. Future projects will pay applicable development impact fees and contribute property taxes to fund needed police services.	No mitigation is required.	Less than Significant
Fire Protection		
As development under the WLCSP, the need for fire services will increase. Under the WLCSP, a new fire station site will be contributed to the City. Future projects will pay applicable development impact fees and contribute property taxes to fund needed police services.	No mitigation is required.	Less than Significant
Schools		
Future industrial development will contribute no new students to local	No mitigation is required.	Less than Significant

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
schools. Payment of the school impact fees to the MVUSD and SJUSD will reduce potential impacts to school services and facilities to less than significant levels.		
Parks, Recreation, Trails		
Development under the WLCSP is logistics warehousing which will not generate new City residents who require additional parks and trails. The WLCSP proposes trail connections to Redlands Boulevard, Cactus Avenue, and the State-owned land to the south, plus a loop trail through the WLCSP site.	No mitigation is required.	Less than Significant
New or Physically Altered Recreation and Park Facilities		
Development under the WLCSP is logistics warehousing which will not generate new City residents who require additional or altered parks.	No mitigation is required.	Less than Significant
Cumulative Public Services and Facilities Impacts		
As development occurs, the need for public services will incrementally increase. Anticipated property tax increases and payment of DIF fees to the City will effectively mitigation potential cumulative impacts to public services.	No mitigation is required.	Less than Significant
SIGNIFICANT IMPACTS		
None	Not applicable	Less than Significant

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
4.15 Traffic and Circulation		
LESS THAN SIGNIFICANT IMPACTS		
Air Traffic Patterns		
The project site is not within two miles of a public airport or private airstrip, and there are no major air traffic patterns over or in the immediate vicinity of the project site.	No mitigation is required.	Less than Significant
Design Hazard Features		
The project site is currently vacant agricultural land with only two major roadways (Theodore Street and Alessandro Boulevard). Under the WLCSP, a complete arterial circulation network will eventually be constructed that will allow full truck access and minimize road-related hazards.	No mitigation is required.	Less than Significant
Emergency Access		
The project site is currently vacant agricultural land with only two major roadways and minimal need for emergency services. Development under the WLCSP will eventually result in the construction of a complete arterial circulation network which will allow full access for emergency vehicles and services.	No mitigation is required.	Less than Significant
Alternative Transportation Policies, Plans, or Programs		
The proposed project will create a complete roadway circulation network, install a loop trail system, have Class II bikeways and sidewalks on all internal arterial streets, and streets can accommodate bus turnouts when needed by the local transit agency.	Carpooling is required under Air Quality Mitigation Measure 4.3.6.4A. No additional mitigation is required.	Less than Significant

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
SIGNIFICANT IMPACTS		
Impact 4.15.6.1 Existing (2012) With Phase 1 Conditions Traffic and Level of Service		
Existing baseline (year 2012) with Phase 1 intersection levels of service for the study area intersections include 15 study intersections where Phase 1 of the project would have a significant impact. Twelve of these intersections already exceed the threshold of significance under existing conditions and would therefore be considered cumulative impacts and mitigation is required. Phase 1 of the project would cause a direct project impact at the other three intersections and mitigation is required.	**4.15.7.4A** A traffic impact analysis ("TIA") conforming to the guidelines for traffic impact analysis adopted by the City shall be submitted in conjunction with each Plot Plan application within the World Logistics Center Specific Plan. Prior to the approval of the Plot Plan, the City shall review the traffic impact analysis to determine if any of the traffic improvements listed in Final EIR Volume 2 Tables 4.15.AV through 4.15.BA (TIA Tables 74 through 79) of the traffic impact analysis prepared for the Program Environmental Impact Report are required to be completed prior to the issuance of a certificate of occupancy for each building. If the City determines that any of the improvements within Moreno Valley are required to be constructed in order to ensure that the traffic impacts which will result from the construction and operation of the building will be mitigated into insignificance, then the completion of construction of the improvements prior to the issuance of a Certificate of Occupancy for the building shall be made a Condition of Approval of the Plot Plan. Construction of improvements within the City shall be subject to credit/reimbursement agreement for those DIF and/or TUMF eligible costs. If the City determines that any of the improvements outside Moreno Valley are required to be constructed in order to ensure that the traffic impacts which will result from the construction and operation of the building will be mitigated to a less than significant level, then the payment of any necessary fair share contribution as prescribed in Mitigation Measure 4.15.7.4G prior to the issuance of a Certificate of Occupancy for the building shall be made a Condition of Approval of the Plot Plan. If the City determines that the traffic impacts which will result from the construction or operation of a building will be significantly more adverse than those shown in the Program Environmental Impact Report, further environmental review shall be conducted prior to the approval of the Plot Plan pursuant to Public Resources Code § 21166 and CEQA Guidelines § 15162 to determine what additional mitigation measures, if any, will be required in order to maintain the appropriate levels of service. **4.15.7.4B** As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require the dedication of appropriate right-of-way consistent with the Subdivision Map Act for frontage street improvements contained within the World Logistics Center Specific Plan Circulation Map, as shown in this Program EIR Figure 3-10 (or	Significant and Unavoidable

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	Figure 22 in the TIA prepared for this Program EIR). Required dedications shall be made prior to the issuance of occupancy permits for the requested development. **4.15.7.4C** As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require each project to pay the Development Impact Fee (DIF) as set forth in Municipal Code Chapter 3.42. Required DIF payments shall be made prior to the issuance of occupancy permits for the requested development. **4.15.7.4D** As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require each project to pay the requisite Transportation Uniform Mitigation Fee (TUMF) as set forth in Municipal Code Sections 3.55.050 and 3.55.060. Required TUMF payments shall be made prior to the issuance of occupancy permits for the requested development. **4.15.7.4E** In order to ensure that all of the Project's traffic impacts are mitigated to the greatest extent feasible, the Applicant shall contribute its fair share of the cost of the needed traffic improvements that are not within the City as identified in the World Logistic Center Specific Plan Traffic Impact Analysis (i.e., under the jurisdiction of other cities, the County of Riverside or Caltrans, pursuant to Mitigation Measure 4.15.7.4F). As used in this mitigation measure, the Applicant's "fair share" has been determined in compliance with the requirements of the Fee Mitigation Act, Government Code § 66000 et seq., and, pursuant to § 66001(g), does not require that the Applicant be responsible for making up for any existing deficiencies. For example, the intersection of Martin Luther King Blvd. and the I-215 northbound ramps (Intersection 85) in the City of Riverside was identified as a place where the World Logistic Center contributes to cumulatively significant impacts, and where the fair share contribution of the World Logistic Center project as a whole was computed to be 6.2%. If the City of Riverside establishes a fair share contribution program consistent with this Mitigation Measure 4.15.7.4F to improve that intersection, then when a certificate of occupancy is to be issued for a 2-million square feet high-cube warehouse in the World Logistic Center (approximately 5% of the entire World Logistic Center project) the amount of the fair share payment due from the Applicant to the City of Riverside would be computed as follows:	

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	Amount Due = Total cost of Improvement × Total World Logistics Center fair share (6.2%) as determined by Traffic Impact Analysis × % attributable to the building that is subject to the certificate of occupancy (5%) A × B × C = D A= % attributable to the building that is subject to the certificate of occupancy (5%) B= Total World Logistics Center fair share (6.2%) as determined by Traffic Impact Analysis C= Total cost of Improvement D= Amount Due A similar calculation would be done for each subsequent building, with payments for each due at the time of issuance of the certificate of occupancy. As a result, while each building individually would not produce a significant impact, and therefore would not be required to pay any mitigation fees if considered by itself, the total amount of the payments for all of the buildings would be equal to the fair share payment for the entire World Logistic Center to the extent that the responsible jurisdiction has chosen to adopt a fair share contribution funding program consistent with Mitigation Measure 4.15.7.4F. **4.15.7.4F** The Applicant shall pay a portion of the fair share of the cost of traffic improvements identified in the Transportation Impact Analysis for those significantly impacted road segments and intersections for each warehouse building within the World Logistics Center if the impacted jurisdiction has established a fair share contribution program prior to the approval of a building-specific plot plan. The City shall determine whether a fair share program exists	

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	in the impacted jurisdiction and, if one does exist, require that the appropriate fees are paid by the Applicant, consistent with the requirements below, prior to the issuance of a certificate of occupancy for the building in question. If no fair share program exists or if the existing programs are not consistent with the requirements below, then no payment of fees shall be required. The impacts are to be determined on a road segment or intersection basis. Nothing in this condition requires the payment of a traffic impact fee imposed by another jurisdiction which covers improvement to facilities where the project does not have a significant impact. Fair-share contributions will be determined on a building-by-building basis as a share of the impact of the Project as a whole (for each segment or intersection where the World Logistics Center project as a whole has a significant impact identified in the Programmatic Environmental Impact Report) as determined by the Traffic Impact Analysis and will be due as each certificate of occupancy is issued. The fair share payments for the significantly impacted road segments and intersections identified in the Programmatic Environmental Impact Report will be required even though the impact resulting from a specific building does not, by itself, cause a significant impact. **4.15.7.4G** City shall work directly with Western Riverside Council of Governments to request that Transportation Uniform Mitigation Fee funding priorities be shifted to align with the needs of the City, including improvements identified in the World Logistics Center Specific Plan traffic impact analysis. Toward this end, City shall meet regularly with Western Riverside Council of Governments.	
Impact 4.15.6.2 Existing (2012) With Project (Buildout) Conditions Traffic and Level of Service Impacts		
When project traffic under buildout conditions is overlaid on existing roadway and freeway conditions, significant project-specific and cumulative traffic impacts will occur. Local and regional roadway and intersection impacts can be effectively mitigated, as outlined in the project TIA and described in the mitigation measures to the right. At this time, there is no effective mitigation for anticipated project impacts on local freeways. In addition, the City cannot	Implementation of previously identified Measures 4.15.7.4A through 4.15.7.4G as they apply to development that occurs from project opening until Buildout.	Significant and Unavoidable (see Cumulative Impacts)

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
control the timing of improvements required at locations outside of the City of Moreno Valley.		
Impact 4.15.6.3 Year ~~2017~~2022 with Project (Phase 1) Conditions Traffic and Level of Service Impacts		
The project will contribute significant amounts of traffic onto roadways and at intersections in the City of Moreno Valley and other cities, and area freeways, during Phase 1 development (approx. 2013 to ~~2017~~2022).	Implementation of previously identified Measures 4.15.7.4A through 4.15.7.4G as they apply to development that occurs from project opening until Year 2022 (considered to be Phase 1).	Significant and Unavoidable
~~**Impact 4.15.6.3 Year 2022 Cumulative With Project Conditions Traffic and Level of Service Impacts**~~		
~~The project will contribute significant amounts of traffic onto roadways and at intersections in the City of Moreno Valley and other cities, and area freeways, during Phase 2 development (approx. 2017 to 2022).~~	~~Implementation of previously identified Measures 4.15.7.4A through 4.15.7.4H as they apply to development that occurs from 2017 to 2022 (considered to be Phase 2).~~	~~Significant and Unavoidable~~
Impact 4.15.6.4 Cumulative Impacts - General Plan Buildout (Year 2035) With Project Conditions Traffic and Level of Service Impacts		
The project will contribute significant amounts of traffic onto roadways and at intersections in the City of Moreno Valley and other cities, and area freeways, after completion of development under the WLCSP (i.e., after 2022).	Implementation of previously identified Measures 4.15.7.4A through 4.15.7.4G ~~H~~for development as it occurs during development under the WLCSP.	Significant and Unavoidable
4.16 Utilities and Service Systems		
LESS THAN SIGNIFICANT IMPACTS		
Construction or Expansion of Water Treatment Facilities		
The project can connect to the existing water supply and will not require the construction of any new water storage or treatment facilities.	No mitigation is required.	Less than Significant

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
Cumulative Water Supply		
The EMWD has determined that it will be able to provide adequate water supply to meet the potable water demand for the project area, including existing and future users, when planned groundwater storage improvements are completed.	No mitigation is required.	Less than Significant
Wastewater Treatment Requirements		
Expected wastewater flows from the proposed WLC project will not exceed the capabilities of the serving treatment plant.	No mitigation is required.	~~Less than Significant~~ No Impact
Wastewater Treatment Capacity and/or New or Expanded Wastewater Facilities		
The proposed WLC project would not require the construction of new wastewater treatment facilities or expansion of existing facilities, which could cause significant environmental effects.	No mitigation is required.	Less than Significant
Cumulative Wastewater Treatment		
The proposed project, in conjunction with planned and future development within the service area, will incrementally increase the need for wastewater treatment over the long-term. However, the project itself would not require the construction of new wastewater treatment facilities or expansion of existing facilities.	No mitigation is required.	Less than Significant
Solid Waste Facilities		
Adequate daily surplus capacity exists at the receiving landfill, so project development would not significantly impact current operations or the expected lifetime of the landfill serving the project area.	No mitigation is required.	Less than Significant

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
Solid Waste Reduction		
The project would be required to comply with applicable elements of AB 1327, Chapter 18 (California Solid Waste Reuse and Recycling Access Act of 1991) and other applicable local, state, and federal solid waste disposal standards, thereby ensuring that the solid waste stream to the Badlands Sanitary Landfill is reduced in accordance with existing regulations.	Implementation of previously identified Air Quality Mitigation Measure 4.3.6.4B will help reduce long-term production of solid waste from the site, and no additional mitigation is required.	Less than Significant
Cumulative Solid Waste		
The proposed project, in conjunction with planned development in the surrounding region, will contribute increased volumes of solid waste to local landfills. However, these volumes will not exceed the capabilities of the County's waste management system. Consequently, cumulative impacts associated with solid waste within the City would be considered less than significant.	Implementation of previously identified Air Quality Mitigation Measure 4.3.6.4B will help reduce long-term production of solid waste from the site.	Less than Significant
Cumulative Energy Facilities and Consumption		
The WLC project, in conjunction with planned development in the region, will increase energy consumption as development occurs. The project will adhere to Title 24 and the California Green Building Code, and will exceed Title 24 energy consumption guidelines by at least 10 percent. Therefore, the project will not make a significant contribution to energy facilities or consumption.	Implementation of project as designed (i.e., with sustainability outlined in WLCSP) and allowance for future "solar ready" buildings (PV installations), plus implementation of Mitigation Measures 4.16.4.6.1A and 4.16.4.6. .~~1B~~1C will reduce project's contribution to cumulative energy consumption to less than significant levels.	Less than Significant
SIGNIFICANT IMPACTS		
Impact 4.16.1.6.1 Adequate Water Supply		
The Water Supply Assessment prepared	**4.16.1.6.1A** Prior to approval of a precise grading permit for each plot plan for development	Less than

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
for the project by Eastern Municipal Water District determined there were sufficient supplies of water to serve the proposed project. However, the supply of water imported from the State is not currently guaranteed, so there may be significant impacts related to long-term water supply.	within the World Logistics Center Specific Plan (WLCSP), the developer shall submit landscape plans that demonstrate compliance with the World Logistics Center Specific Plan, the State of California Model Water Efficient Landscape Ordinance (AB 1881), and Conservation in Landscaping Act (AB 325). This measure shall be implemented to the satisfaction of the Planning Division. Said landscape plans shall incorporate the following: • Use of xeriscape, drought-tolerant, and water-conserving landscape plant materials wherever feasible and as outlined in Section 6.0 of the World Logistics Center Specific Plan; • Use of vacuums, sweepers, and other "dry" cleaning equipment to reduce the use of water for wash down of exterior areas; • Weather-based automatic irrigation controllers for outdoor irrigation (i.e., use moisture sensors); • Use of irrigation systems primarily at night or early morning, when evaporation rates are lowest; • Use of recirculation systems in any outdoor water features, fountains, etc.; • Use of low-flow sprinkler heads in irrigation system; • Provide information to the public in conspicuous places regarding outdoor water conservation; and • Use of reclaimed water for irrigation if it becomes available. **4.16.1.6.1B** All buildings shall include water-efficient design features outlined in Section 4.0 of the World Logistics Center Specific Plan. This measure shall be implemented to the satisfaction of the Land Development Division/Public Works. These design features shall include, but not be limited to the following: • Instantaneous (flash) or solar water heaters; • Automatic on and off water facets; • Water-efficient appliances;	Significant with Mitigation

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	• Low-flow fittings, fixtures and equipment; • Use of high efficiency toilets (1.28 gallons per flush [gpf] or less); • Use of waterless or very low water use urinals (0.0 gpf to 0.25 gpf); • Use of self-closing valves for drinking fountains; • Infrared sensors on drinking fountains, sinks, toilets and urinals; • Low-flow showerheads; • Water-efficient ice machines, dishwashers, clothes washers, and other water-using appliances; • Cooling tower recirculating system where applicable; • Provide information to the public in conspicuous places regarding indoor water conservation; and • Use of reclaimed water for wash down if it becomes available. **4.16.1.6.1C** Prior to approval of a precise grading permit for each plot plan, irrigation plans shall be submitted to and approved by the City demonstrating that the development will have separate irrigation lines for recycled water. All irrigation systems shall be designed so that they will function properly with recycled water if it becomes available. This measure shall be implemented to the satisfaction of the City Planning Division and Land Development Division/Public Works.	
Impact 4.16.1.6.2 Storm Water Drainage Requirements		
The development of the proposed WLC project would introduce a substantial amount of impervious surfaces on the site, which could result in significant increases in off-site runoff.	**4.16.1.6.2A** Each Plot Plan application for development shall include a concept grading and drainage plan, with supporting engineering calculations. The plans shall be designed such that the existing sediment carrying capacity of the drainage courses exiting the project area is similar to the existing condition. The runoff leaving the project site shall be comparable to the sheet flow of the existing condition to maintain the sediment carrying capacity and amount of available sediment for transport so that no increased erosion will occur downstream. This measure shall be implemented to the satisfaction of the City Land Development Division/Public Works.	Less than Significant with Mitigation
Cumulative Impacts to Water Supply Services		
The proposed WLC project would connect to existing conveyance infrastructure and	Mitigation not required	Less than Significant with

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
adequate treatment capacity is available, so the proposed WLC project would not make a significant contribution to any cumulatively considerable impacts on water supply or infrastructure.		Mitigation
~~Cumulative Impacts to Wastewater Facilities~~		
~~As the wastewater from all development within the service area of the MVRW RF would be similarly treated under the NPDES, no cumulatively significant exceedance of Santa Ana RWQCB wastewater treatment requirements would occur.~~	~~Mitigation not required~~	~~Less than Significant~~
Impact 4.16.4.6.1 Construction or Expansion of Electrical and Natural Gas Facilities		
Based on calculations contained Tables 4.16.I and 4.16.J, the proposed WLC project would consume approximately 376,426 megawatt-hours (MWh) of electricity and almost 14.6 million cubic feet of natural gas per year. Therefore, the proposed project may induce the need to construct new electrical and natural gas facilities. This is a significant impact that requires mitigation.	**4.16.4.6.1A** Each application for a building permit shall include energy calculations to demonstrate compliance with the California Energy Efficiency Standards confirming that each new structure meets applicable Building and Energy Efficiency Standards. The plans shall also ensure that buildings are in conformance with the State Energy Conservation Efficiency Standards for Nonresidential buildings (Title 24, Part 6, Article 2, California Administrative Code). This measure shall be implemented to the satisfaction of the Building and Safety and Planning Divisions. Plans shall show the following: Energy-efficient roofing systems, such as “cool” roofs, that reduce roof temperatures significantly during the summer and therefore reduce the energy requirement for air conditioning. Cool pavement materials such as lighter-colored pavement materials, porous materials, or permeable or porous pavement, for all roadways and walkways not within the public right-of-way, to minimize the absorption of solar heat and subsequent transfer of heat to its surrounding environment. Energy-efficient appliances that achieve the 2008 Appliance Energy Efficiency Standards (e.g., EnergyStar Appliances) and use of sunlight-filtering window coatings or double-paned windows. **4.16.4.6.1B** Prior to the issuance of any building permits within the World Logistics Center Specific Plan, each project developer shall submit energy calculations used to	Less than Significant with Mitigation

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	demonstrate compliance with the performance approach to the California Energy Efficiency Standards to the Building and Safety and Planning Divisions that shows each new structure meets the applicable Building and Energy Efficiency Standards. Plans may include but are not necessarily limited to implementing the following as appropriate: High-efficiency air-conditioning with electronic management system (computer) control. Variable Air Volume air distribution. Outside air (100 percent) economizer cycle. Staged compressors or variable speed drives to flow varying thermal loads. Isolated High-efficiency air-conditioning zone control by floors/separable activity areas. Specification of premium-efficiency electric motors (i.e., compressor motors, air handling units, and fan-coil units). Use of occupancy sensors in appropriate spaces. Use of compact fluorescent lamps in place of incandescent lamps. Use of cold cathode fluorescent lamps. Use of Energy Star exit lighting or exit signage. Use of T-8 lamps and electronic ballasts where applications of standard fluorescent fixtures are identified. Use of lighting power controllers in association with metal-halide or high-pressure sodium (high intensity discharge) lamps for outdoor lighting and parking lots. Use of skylights (may conflict with installation of solar panels in some instances). Consideration of thermal energy storage air conditioning for spaces or hotel buildings, meeting facilities, theaters, or other intermittent-use spaces or facilities that may require air-conditioning during summer, day-peak periods. **4.16.4.6.1C** Prior to the issuance of a building permit, new development shall demonstrate	

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	that each building has implemented the following: 1) Install solar panels with a capacity equal to the peak daily demand for the ancillary office uses in each warehouse building; 2) Increase efficiency for buildings by implementing either 10 percent over the 2008 Title 24's energy saving requirements or the Title 24 requirements in place at the time the building permit is approved, whichever is more strict; and 3) Require the equivalent of "Leadership in Energy and Environmental Design Certified" for the buildings constructed at the World Logistics Center based on Leadership in Energy and Environmental Design Certified standards in effect at the time of project approval. This measure shall be implemented to the satisfaction of the Building and Safety and Planning Divisions.	

1.11 ALTERNATIVES TO THE PROPOSED PROJECT

In compliance with *CEQA Guidelines* (Section 15126.6), an EIR must describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the project objectives as listed in Table 1.C and would avoid or substantially lessen significant effects of the project. The EIR need not consider every conceivable alternative; rather it must consider a reasonable range of potentially feasible alternatives. This EIR evaluates a "No Project/No Build" as well as a "No Project" alternative (i.e., development according to the General Plan and zoning) in order to allow decision-makers to compare the effect of approving the project to the effect of not approving the project. A more detailed description of each project alternative as well as an analysis of the potential environmental impacts associated with the construction and operation of each is provided in Section 6.0 *Alternatives*, It should be noted that, for all of the alternatives, the 1,084 acres owned by the California Department of Fish and Wildlife (CDFW) and San Diego Gas & Electric (SDG&E) would be designated as Open Space in the City's General Plan, similar to the proposed project.

1.~~6~~11.1 No Project/No Development

CEQA requires an analysis of the environmental effects of not developing the proposed project. This allows the reviewer to see what the results of not developing the project site would be and also outlines existing or baseline conditions on the site. With the No Development Alternative, no development would occur and the majority of the site would remain in dry farming, with a small amount in rural residential uses.

1.~~6~~11.2 No Project/Existing General Plan Alternative

Pursuant to CEQA (§15126.6[e][2]), this No Project Alternative discusses what would reasonably be expected to occur on the site based on current plans and consistent with available infrastructure and community services in the foreseeable future. This alternative would result in development of the project with the land uses currently shown in the City's General Plan (i.e., the Moreno Highlands Specific Plan or MHSP). The approved 3,038-acre MHSP is a master planned, mixed-use community, consisting of up to 7,763 residential dwelling units on approximately 2,435 acres and approximately 603 acres of business, retail, institutional, and other uses. The 1,084 acres owned by the CDFW and SDG&E are currently designated as Residential, Public Facilities, and Open Space in the City's General Plan and would be designated as permanent Open Space under this alternative, similar to the proposed project.

1.11.3 Alternative 1: Reduced Density

This alternative would develop approximately 29 million square feet of logistics warehousing (approximately 30% less than under the proposed project) on the 2,610 acres of land under the Specific Plan, including 74.3 acres for open space. The 1,084 acres owned by the CDFW and SDG&E would be designated as Open Space in the City's General Plan, similar to the proposed project.

1.11~~6~~.4 Alternative 2: Mixed Use A Alternative

This alternative would result in development of the entire property with a mix of 1,410 acres of logistics warehousing (22 million square feet), 1,000 acres of light manufacturing, assembly, or business park uses (20 million square feet), 50 acres of retail commercial uses (500,000 square feet), 100 acres of professional or medical office uses (1 million square feet), and 150 acres of open space.

The 1,084 acres owned by the CDFW and SDG&E would be designated as Open Space in the City's General Plan, similar to the proposed project.

1.11~~6~~.5 Alternative 3: Mixed Use B Alternative

This alternative would develop the project site similar to the land use plan of the MHSP but with 10 million square feet of logistics warehousing on the 603 acres proposed for business, retail, institutional, and other uses under the MHSP.

1.11~~6~~.6 Alternative Sites

This alternative would relocate development under the proposed project to another site in the surrounding region. This analysis included potential sites in nearby cities and several unincorporated sites in the general project area. Due to the size and nature of the project, no feasible alternative sites were found in any of the eleven (11) jurisdictions evaluated.

1.11.7 Comparison of Project Alternatives

The following discussion compares the impacts of each alternative with the impacts of the proposed project, as detailed in Section 4.0 of this EIR. Table 1.C compares the impacts of the alternatives with those of the proposed project. This table identifies whether the alternative results in (1) a reduction of the impact; (2) a greater impact than the project; or (3) the same impact as the project.

Table 1.C: Comparison of Alternatives to the Proposed Project

Environmental Issue	Proposed Project	No Project/ No Build	No Project/ Existing General Plan	Alt. 1 Reduced Density	Alt. 2 Mixed Use A	Alt. 3 Mixed Use B
Aesthetics	SIG	NI	←LTS	=	=	←LTS
Agricultural and Forest Resources	LTS/mit	NI	=	=	=	=
Air Quality	SIG	NI	SIG	←SIG	→SIG/+	SIG
Biological Resources	LTS/mit	NI	=	=	=	=
Cultural Resources	LTS/mit	NI	=	=	=	=
Geology and Soils	LTS/mit	NI	=	=	=	=
Global Climate Change	LTS/mit	NI	LTS	LTS/mit	LTS/mit	LTS/mit
Hazards and Hazardous Materials	LTS/mit	NI	=	=	=	=
Hydrology and Water Quality	LTS/mit	NI	=	=	=	=
Land Use and Planning	SIG	NI	LTS	=	=	=
Mineral Resources	NI	=	=	=	=	=
Noise	SIG	NI	←SIG	←SIG	←SIG	←SIG
Population, Housing, and Employment	LTS	NI	±	=	=	±
Public Services (police, fire, schools, parks)	LTS/mit	NI	=	=	=	=
Transportation and Traffic	SIG	NI	→SIG	←SIG	→SIG+	→SIG

Table 1.C: Comparison of Alternatives to the Proposed Project

Environmental Issue	Proposed Project	No Project/ No Build	No Project/ Existing General Plan	Alt. 1 Reduced Density	Alt. 2 Mixed Use A	Alt. 3 Mixed Use B
Utilities and Service Systems (water, wastewater, etc.)	LTS/mit	NI	=	=	=	=

Proposed Project
NI: No Impact LTS: Less than Significant Impact
LTS/mit: Less than Significant Impact with Mitigation SIG: Significant Impact with or without Mitigation

Project Alternatives
= Compared with the proposed project, no change in the significance of impact will occur.
➔ Compared with the proposed project, the significance of the impact is increased.
🡐 Compared with the proposed project, the significance of the impact is reduced.
+ Compared with the proposed project, a new impact has been identified.
🡐SIG Compared with the proposed project, the volume or extent of the impact is reduced, yet still significant.

1.11.8 Environmentally Superior Alternative

As shown above in Table 1.C, the No Project/Existing General Plan Alternative has mixed impacts relative to the proposed project; it reduces aesthetic impacts to less than significant levels but worsens the jobs/housing ratio by introducing more housing than employment-generating uses. The Reduced Density Alternative incrementally reduces a number of impacts of the proposed project (e.g., traffic, air quality, and noise) but cannot reduce them to less than significant levels even with mitigation. The Mixed Use A Alternative substantially increases traffic and related impacts compared to the project impacts, but it does not create any additional significant impacts. The Mixed Use B Alternative would incrementally increase traffic and would not improve the jobs/housing balance. It would incrementally reduce health risks to existing residents along Redlands Boulevard (i.e., approximately 30 percent less warehousing), but could create health risks for new residents depending on the ultimate location of warehouses and new residences. In addition, this alternative would also worsen the jobs/housing ratio of the City by allowing the construction of many more homes than job-creating land uses. Regarding air quality impacts (criteria pollutants), development of any land uses would likely exceed SCAQMD thresholds mainly due to the size of the proposed project site.

The *CEQA Guidelines* (Section 15126.6 (e[2]) requires that an environmentally superior alternative be identified in the EIR. Based on the analysis in Section 6.0 *Alternatives* and the summary contained in Table 1.C, Alternative 1 – Reduced Density – is the only alternative that reduces traffic, air quality, and related impacts by reducing the total square footage of warehousing by approximately 30 percent. Alternative 3 - Mixed Use B - is the only alternative that would reduce a significant impact of the proposed project (i.e., aesthetics – views). However, it could create health risks for future residents of the project, and would worsen the jobs/housing balance of the City over the long term. For these reasons, Alternative 1 – Reduced Density - has been deemed to be environmentally superior to the proposed project. However, none of the alternatives achieves the objectives of the project to nearly the same degree as the proposed project.

Table 1.D compares Alternative 1 to the project objectives and indicates that Alternative 1 does not meet most of the major goals of the proposed project mainly because of the reduced total square footage by 30 percent, which also reduces the amount of new employment and property tax revenues generated to the City.

Note: *The objectives outlined in this table did not correspond to the Project Objectives outlined in the Project Description of the DEIR, therefore, they are being corrected at this time. In addition, some numerical changes result from the changes to the Specific Plan area.*

Table 1.D: Comparison of the Environmentally Superior Alternative to the Project Objectives

Project Objectives	Degree to Which Alternative 1 Satisfies the Project Objectives
Create substantial employment opportunities for the citizens of Moreno Valley and surrounding communities.	**Not to the Same Degree as the Proposed Project.** This alternative would provide only 16,797 new employees compared to 24,000 from the proposed project (30% less).
Provide the land use designation and infrastructure plan necessary to meet current market demands and to support the City's Economic Development Action Plan.	**Not to the Same Degree as the Proposed Project.** The alternative introduces substantially less employment-generating uses on the site which is not consistent with the City's Economic Strategic Plan.
Create a major logistics center with good regional and freeway access.	**Not to the Same Degree as the Proposed Project.** The alternative would allow 28 MSF of logistics warehousing near the SR-60 Freeway but it would less attractive as a major regional logistics center compared to the proposed project.
Establish design standards and development guidelines to ensure a consistent and attractive appearance throughout the entire project.	**Meets Objective.** Development of the project area under this alternative would most likely proceed under some form of specific plan, which would help ensure future development was consistent with a comprehensive plan for the area.
Establish a master plan for the entire project area to ensure that the project is efficient and business-friendly, accommodating the next-generation of logistics buildings.	**Meets Objective.** The alternative would develop a smaller amount of logistics warehousing compared to the proposed project, but it would still be master planned, most likely under a specific plan.
Provide a major logistics center to accommodate a portion of the ever-expanding trade volumes at the Ports of Los Angeles and Long Beach.	**Not to the Same Degree as the Proposed Project.** The alternative would allow 28 MSF of logistics warehousing vs. 40.6 MSF for the proposed project.
Create a project that will provide a balanced approach to the City's fiscal viability, economic expansion, and environmental integrity.	**Not to the Same Degree as the Proposed Project.** The alternative would not provide nearly as much new warehouse capacity to form a regional port-oriented logistics center compared to the proposed project.
Provide the infrastructure improvements required to meet project needs in an efficient and cost-effective manner.	**Not to the Same Degree as the Proposed Project.** The alternative would produce 30% less employment than under the proposed project, and would also provide less property tax revenue and be able to pay for less public improvements and infrastructure compared to the proposed project.
Encourage new development consistent with regional and municipal service capabilities.	**Not to the Same Degree as the Proposed Project.** It is unclear if a substantially reduced logistics warehousing project could afford to provide the necessary infrastructure to support the planned development compared to the proposed project.
Significantly improve the jobs/housing balance and help reduce unemployment within the City.	**Not to the Same Degree as the Proposed Project.** This alternative would provide only 16,797 new employees compared to 24,000 from the proposed project (30% less).
Provide thousands of construction job opportunities during the project's buildout phase.	**Not to the Same Degree as the Proposed Project.** The alternative would not provide as much work for as many construction workers compared to the proposed project
Provide appropriate transitions or setbacks between on-site and off-site uses.	**Meets Objective.** A smaller logistics warehouse project may be able to provide equal or greater transitions and buffers from existing off-site residential uses compared to the proposed project.

2.0 INTRODUCTION AND PURPOSE: TABLE OF CONTENTS

TABLES

NOTE TO READERS

The Programmatic Draft Environmental Impact Report (DEIR) for the World Logistics Center Specific Plan (WLCSP) was originally circulated for public review from February 4 to April 8, 2013. Since that time, a number of changes have been made to the WLCSP. The original DEIR has also been revised to account for the changes to the WLCSP and to respond to the many comments received on the DEIR.

The primary change in the WLC Project is the total Specific Plan area has been reduced from 2,710 acres to 2,610 acres and the proposed development reduced from 41.6 million to 40.6 million square feet (both a 3.7 percent reduction) due to the removal of 100 acres in the southwest corner of the Specific Plan. In addition, the Specific Plan land use plan was divided into sixteen (16) Planning Areas based on traffic impact zones which allows for more accurate estimates of potential traffic and air quality impacts of the WLC Project. The revised Specific Plan (September 2014) also now shows a specific location for a "Clean Fueling" facility in Planning Area (PA) 7 at the northeast corner of Theodore Street and Eucalyptus Avenue. In the original WLCSP, a trail was proposed along the edge of the Open Space area in the southwestern portion of the site to connect to existing trails along Redlands Boulevard and Cactus Avenue to the west and planned trails within the San Jacinto Wildlife Area and Mystic Lake to the south. In response to changes to the proposed project and concerns expressed by Native Americans, the trail in the revised WLCSP has been moved away from the northern boundary of the Open Space area (now Planning Area 30) to reduce potential impacts to the Mt. Russell foothills. The WLCSP phasing plan or schedule was also revised or extended from 10 to 15 years, so that Phase 1 runs from 2015 to 2022 and Phase 2 runs from 2023 to 2030. Please refer to FEIR Volume 1 Section 1.4 and Section 3.0, Project Description, in this revised DEIR for a more detailed description of changes to the WLC project.

The technical studies that supported the analysis of environmental impacts in the DEIR were also modified to address changes in the WLCSP and in response to the many comments on the EIR and technical studies. The following studies were revised: agriculture, air quality, biology, cultural resources, greenhouse gases, hydrology/water quality, noise, economic and fiscal impacts, traffic, and utilities. An additional study on agricultural resources was prepared as an independent assessment of onsite resources using the state LESA model (see Section 4.2 in this document). For details on the changes to the technical studies, please refer to FEIR Volume 1 Section 1.6 and the introductory paragraphs of each environmental analysis section of this revised DEIR (Sections 4.1 through 4.16).

In summary, the WLCSP DEIR has been revised based on changes to the WLC project, technical studies, and the many comments received on the DEIR and its related technical studies. Changes to the DEIR document are shown in double underline if they are additions to the original text, and shown as ~~strikeout~~ if they are deletions to the original text.

2.0 INTRODUCTION AND PURPOSE

This Programmatic Environmental Impact Report (EIR) has been prepared to evaluate the environmental impacts associated with the proposed World Logistics Center Project ("proposed project" or "project") in Rancho Belago, the eastern portion of the City of Moreno Valley ("City"), and to identify mitigation measures to avoid or minimize significant environmental impacts. The City is the "public agency which has the principal responsibility for carrying out or approving the project" and, as such, is the "Lead Agency" for this project under the California Environmental Quality Act (CEQA) of 1970 (*CEQA Guidelines* section 15367). CEQA requires the Lead Agency to consider the information contained in the EIR prior to taking any discretionary action. The EIR is also a public disclosure document available to agencies and the public for review and comment prior to the consideration of the proposed project by the City, and is intended to serve as an informational document to be considered by the City, Responsible Agencies, and Trustee Agencies during deliberations on the proposed project. The project approvals associated with the proposed project are described in Section 3.0.

This section of the EIR outlines the document's format; describes the purpose of the EIR; summarizes public review of the EIR; describes the Mitigation Monitoring and Reporting Program (MMRP); identifies the environmental issues discussed in the EIR; and defines the parameters and data to be used in the analysis of cumulative impacts.

2.1 DOCUMENT FORMAT

To assist the reader's review of the document, the following describes the format of this EIR.

Section 1.0 *Executive Summary* provides a summary of the EIR document and (in Table 1.B) identifies potentially significant impacts, mitigation measures, and the level of significance of each impact following mitigation.

Section 2.0 *Introduction and Purpose* outlines the EIR document's format including technical appendices; describes the purpose of the EIR including the legal purpose of CEQA, the intended use of EIR, and the EIR's incorporated documents and referenced technical reports; summarizes the public review of the EIR to date; describes the role of the MMRP to be provided in the Final EIR; identifies the sixteen environmental issues that are discussed; and defines the cumulative analysis provided in the EIR.

Section 3.0 *Project Description* provides a detailed description of the geographical setting, project location, project setting, City of Moreno Valley General Plan designations, World Logistics Center Specific Plan land use designations, zoning designations, project characteristics, project objectives, and discretionary actions required to implement the proposed project. This section also explains the other areas in addition to the Specific Plan that are part of the proposed project (i.e., off-site improvement areas, California Department of Fish and Wildlife property, and public facilities lands).

Section 4.0 *Existing Setting, Impacts, and Mitigation Measures* evaluates the impacts associated with the proposed project. This section is organized by sixteen issue areas with each following the framework:

- *Existing Setting*. Information in the existing setting contains a discussion of the local and regional environment conditions (environmental and man-made) in existence at the time this EIR was prepared. Existing setting information provides the reader with the "baseline" from which future impacts are analyzed, and provides a standard against which to measure these impacts.

- *Existing Policies and Regulations.* Regulatory requirements and policies (federal, state, and local) applicable to the issue area are summarized.
- *Methodology*. A brief summary of the methods and resources utilized in the preparation of the environmental analysis.
- *Thresholds of Significance*. Determinations regarding the significance of potential impacts resulting from implementation of the proposed project are provided. These thresholds represent the criteria used in this programmatic EIR to determine whether identified impacts are significant.
- *Less than Significant Impacts*. Potential issues for which the proposed project was determined to have no impact or a less than significant impact are identified. For these issues, either no mitigation would be required or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level.
- *Significant Impacts*. Potential impacts from implementation of the proposed project are identified. Each of these issues contains an impact analysis, mitigation measures, and significance after mitigation discussion.
    - *Impact Analysis.* An analysis of potential programmatic impacts of the proposed project is presented in this section. This discussion focuses on the impacts of implementation of the proposed project, and includes potential short-term/long-term and direct/indirect project impacts, and consistency with applicable planning documents or regulations.
    - *Project Design Features.* Characteristics of the WLC Specific Plan or other aspects of the WLC project that help reduce potential environmental impacts.
    - *Mitigation Measures*. The measures proposed to mitigate any potential impacts of the proposed project are identified.
    - *Level of Significance after Mitigation* provides a conclusion as to whether implementation of the proposed project will reduce the project-related and cumulative impacts to a level that is less than significant.
- *Cumulative Impacts.* This discussion focuses on the potential environmental effect of the proposed project combined with the effects of reasonably foreseeable cumulative projects within the project study area.

Section 5.0 *Other CEQA Topics* contains discussions of additional topics required by CEQA, including effects found not to be significant, unavoidable effects of the proposed project, and significant irreversible environmental changes. The proposed project's consistency with regional plans (discussed in Section 4.10) and potential to induce growth (discussed in Sections 4.13) are summarized in this section.

Section 6.0 *Alternatives* contains discussion of alternatives to development of the proposed project. As allowed by CEQA, the impacts of these alternatives are evaluated at a more general level than the analyses of the proposed project that is contained in Section 4.0. This section also evaluates the proposed effects of the No Project Alternative and identifies the environmentally superior alternative.

Section 7.0 This section lists the organizations and persons consulted in preparation of the EIR.

Section 8.0 This section contains all the references cited in the EIR, acronyms and abbreviations used in the document, and definitions of terms used, including those specific to the proposed WLC project.

Appendices The Appendices contain a copy of the NOP, NOP mailing list, NOP comment letters and responses, public scoping meeting information, all of the various technical studies that support the EIR analysis, referenced materials, and other relevant correspondence received during the course of the analysis of the proposed project.

2.2 PURPOSE OF CEQA AND THE ENVIRONMENTAL IMPACT REPORT

According to Section 15002 of *CEQA Guidelines*, the basic purposes of CEQA are to:

- Inform government decision-makers and the public about the potential significant environmental effects of proposed activities;
- Identify ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governing agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

CEQA requires that a project be reviewed to determine the environmental effects that would result if the project were approved and implemented. The City has the responsibility for preparing, processing, and determining whether to approve the proposed project and certify this EIR. As Lead Agency, the City has the authority to make decisions regarding discretionary actions relating to implementation of the proposed project.

2.2.1 Program EIR

This EIR will serve as a Program EIR pursuant to the *State CEQA Guidelines* Section 15168, which states that a Program EIR is appropriate for a project that involves "… a series of actions that can be characterized as one large project and are related either:

(1) Geographically;

(2) A logical parts in the chain of contemplated action;

(3) In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or

(4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways."

Section 15168 of the *CEQA Guidelines* explains how a Program EIR relates to future activities within the project area:

"(c) Use with Later Activities. Subsequent activities in the program must be examined in the light of the program EIR to determine whether an additional environmental document must be prepared.

(1) If a later activity would have effects that were not examined in the program EIR, a new Initial Study would need to be prepared leading to either an EIR or a Negative Declaration.

(2) If the agency finds that pursuant to Section 15162, no new effects could occur or no new mitigation measures would be required, the agency can approve the activity as being within the scope of the project covered by the program EIR, and no new environmental document would be required.

(3) An agency shall incorporate feasible mitigation measures and alternatives developed in the program EIR into subsequent actions in the program.

(4) Where the subsequent activities involve site-specific operations, the agency should use a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were covered in the program EIR.

(5) A program EIR will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible. With a good and detailed analysis of the program, many subsequent activities could be found to be within the scope of the project described in the program EIR, and no further environmental documents would be required.

(d) Use with Subsequent EIRs and Negative Declarations. A program EIR can be used to simplify the task of preparing environmental documents on later parts of the program. The program EIR can:

(1) Provide the basis in an Initial Study for determining whether the later activity may have any significant effects.

(2) Be incorporated by reference to deal with regional influences, secondary effects, cumulative impacts, broad alternatives, and other factors that apply to the program as a whole.

(3) Focus an EIR on a subsequent project to permit discussion solely of new effects which had not been considered before.

(e) Notice with Later Activities. When a law other than CEQA requires public notice when the agency later proposes to carry out or approve an activity within the program and to rely on the program EIR for CEQA compliance, the notice for the activity shall include a statement that:

(1) This activity is within the scope of the program approved earlier, and

(2) The program EIR adequately describes the activity for the purposes of CEQA."

2.2.2 World Logistics Center EIR

As previously noted, CEQA requires the Lead Agency to consider the information contained in the EIR prior to taking any discretionary action on a project. This EIR provides information to the Lead Agency and other public agencies, the general public, and decision-makers regarding the potential environmental impacts from the construction and operation of the proposed project. The purpose of the public review of the EIR is to evaluate the adequacy of the environmental analysis in terms of compliance with CEQA. Section 15151 of the *CEQA Guidelines* states the following regarding standards from which adequacy is judged:

> "An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the

> EIR should summarize the main points of disagreement among experts. The courts have not looked for perfection but for adequacy, completeness, and a good faith effort at full disclosure."

An EIR is the most comprehensive form of environmental documentation identified in CEQA and the *CEQA Guidelines*, and provides the information needed to assess the environmental consequences of a proposed project. EIRs are intended to provide an objective, factually supported, full-disclosure analysis of the environmental consequences associated with a proposed project that has the potential to result in significant, adverse environmental impacts.

Under CEQA (PRC Section 21002.1[a]):

> "The purpose of an environmental impact report is to identify the significant effects on the environment of a project, to identify alternatives to the proposed project, and to indicate the manner in which those significant effects can be mitigated or avoided."

Note: The following revisions are based on project changes outlined in the WLC Specific Plan.

This programmatic EIR has been prepared to evaluate the potential environmental impacts associated with the entitlement, construction and operation of the proposed ~~41.6~~ 40.4 million square feet of logistics warehouse facilities (i.e., the World Logistics Center), as well as its associated infrastructure, designation of the CDFW property as permanent open space, and designation of the Natural Gas Compressor Plant as Public Facility, along with related entitlements. As permitted under the *CEQA Guidelines* (Section 15084[d-e]), LSA Associates, Inc. (LSA) has prepared the EIR under the direction of professional City planning staff. However, prior to certification, the Planning Commission and the City Council must independently review the methodologies used, and conclusions reached in the EIR. The City is undertaking an independent review of this EIR by having City planning staff work with LSA on the EIR, and by employing a third-party consultant to independently review the EIR. If certified by the City, the information included in and the conclusions reached in the EIR will therefore represent the City's independent judgment.

This programmatic EIR has been prepared utilizing information from City planning and environmental documents, applicant-provided technical studies, and other publicly-available data. Alternatives to the proposed project are also discussed and mitigation measures that would offset, minimize, or otherwise avoid significant environmental impacts from the proposed project have been identified. This EIR has been prepared in accordance with CEQA, California Public Resources Code §21000 *et seq.*; the *Guidelines for California Environmental Quality Act* (California Code of Regulations, Title 14, Chapter 3); and the rules, regulations, and procedures for implementing CEQA as adopted by the City. The objective of the EIR is to inform City decision-makers, representatives of other affected/ responsible agencies, the public, and other interested parties of the potential environmental consequences that may be associated with the approval and implementation of the proposed project.

2.3 REGIONALLY SIGNIFICANT PROJECT

When an EIR is prepared for any project that is considered to be of statewide, regional, or area-wide significance, as defined by *CEQA Guidelines* Section 15206, then the Draft EIR must be submitted to the State Clearinghouse and the appropriate metropolitan area council of governments for review and comment. A project is considered to be of statewide, regional, or area-wide significance if it meets any of the following criteria:

(1) A proposed local general plan, element, or amendment thereof for which an EIR was prepared.

(2) A project has the potential for causing significant effects on the environment extending beyond the city or county in which the project would be located. Projects of this nature would include:

   (a) A proposed residential development of more than 500 dwelling units.

   (b) A proposed shopping center or business establishment employing more than 1,000 persons or encompassing more than 500,000 square feet of floor space.

   (c) A proposed commercial office building employing more than 1,000 persons or encompassing more than 250,000 square feet of floor space.

   (d) A proposed hotel/motel development of more than 500 rooms.

   (e) A proposed industrial, manufacturing, processing plant, or industrial park planned to employ more than 1,000 persons, occupying more than 40 acres of land, or encompassing more than 650,000 square feet of floor area.

(3) A project which would result in cancellation of an open space contract made pursuant to the California Land Conservation Act of 1965 (Williamson Act) for any parcel of 100 or more acres.

(4) A project for which an EIR has been prepared that is located in and would substantially affect areas of critical environmental sensitivity.

(5) A project which would substantially affect sensitive wildlife habitats and habitats for endangered, rare, or threatened species.

(6) A project that would interfere with the attainment of regional water quality control standards as stated in the approved area-wide waste treatment management plan.

(7) A project that would provide housing, jobs, or occupancy for 500 or more persons within 10 miles of a nuclear power plant.

The World Logistics Center Project, as proposed, would be considered a “project of statewide, regional or area-wide significance” per criteria 2(e). In addition, the Southern California Association of Governments (SCAG) indicated in its NOP letter that this project was regionally significant. Therefore, the NOP, Draft EIR, and NOC will be transmitted to the State Clearinghouse and the appropriate metropolitan area council of governments, which in this case is the Western Riverside Council of Governments (WRCOG), for review and comment.

2.4 INCORPORATED DOCUMENTS

CEQA (§15150) permits the incorporation by reference of all or portions of other documents that are generally available to the public. Any document incorporated by reference shall be made available to the public for inspection at a public place or public building and requires that the EIR state where the incorporated documents will be made available for public inspection. The following documents have been incorporated by reference:

- *City of Moreno Valley General Plan, various elements,* adopted by City Council Resolution No. 2006-83, July 11, 2006, and last updated October 2006.
- City of Moreno Valley General Plan Final Environmental Impact Report, certified July 2006.
- City of Moreno Valley General Plan Land Use Map, last updated August 2010.
- City of Moreno Valley Zoning Atlas, last updated November 2011.
- City of Moreno Valley Municipal Code (various chapters), last updated February 2012.
- Moreno Highlands Specific Plan EIR, adopted 1992.

2.5 TECHNICAL REPORTS

Various technical or project-related reports have been prepared to assess specific issues that may result from the construction and operation of the proposed project. As relevant, information from the following documents and technical reports has been integrated into the EIR as appendices.

- **"**The World Logistics Center Specific Plan" (Highland Fairview) original dated January 30, 2013, revised dated September 2014.
- "An Agricultural Industry Analysis of the Inland Empire" (Andrew Chang & Co.), original dated March 2012, revised September 2014.
- "Agricultural Resources Assessment for the WLCSP" (Parsons Brinckerhoff), original dated March 2012, revised December 2013.
- "Agricultural Assessment for the WLCSP" (Cushman and Wakefield) new report dated December 20, 2013 (prepared for Final EIR in response to comments).
- "Air Quality, Greenhouse Gas, and Health Risk Assessment for the WLCSP" (MBA), original dated January 2013, revised April 2015.
- "Habitat Assessment, MSHCP Consistency Analysis, and JPR Review" (MBA), original dated December 20, 2012, revised September 2014.
- "Delineation of Jurisdictional Waters and Wetlands" (MBA), original dated November 2012, revised September 2014.
- "Phase I and Phase II Cultural Resources Assessment" (MBA), original dated May 2012, revised September, 2014.
- "Preliminary Geotechnical Investigation" (Leighton), original dated March 23, 2012, revised September 2014.
- "Supplemental Geotech Assessment for Offsite Improvements Related to the WLCSP" (Leighton), original dated March 23, 2013, revised September 2014.
- "Phase 1 Environmental Site Assessments" (various dates, LOR Geotechnical) (not revised).
- **"**Draft Master Plan of Drainage Study" (CH2MHill) original dated November 2012, revised dated September 2014.
- "Preliminary Water Quality Management Plan" (CH2MHill) original dated November 2012, revised September 2014.
- **"**Noise Assessment for the WLCSP" (Mestre Greve Associates) original dated January 2013, revised September 2014.
- "Traffic Impact Assessment (TIA) for the WLCSP" (Parsons Brinckerhoff) original dated January 2013, revised September 2014.
- "NAIOP Assessment of Available High-Cube Trip Generation Rates" (Kunzman Associates), December 20, 2011.
- "Water Supply Assessment for the WLCSP" (Eastern Municipal Water District), March 21, 2012.
- "Highlands Water Budget" (CH2MHill), original dated December 2012, revised September 2014.
- "Water System Modeling Results" (CH2MHill), original dated December 2012, revised dated October 22, 2013.
- "Sewer and Reclaimed Wastewater Memorandum" (CH2MHill), original dated April 25, 2012, revised September 2014.

- "Dry Utilities – Technical Memorandum" (Utility Specialists), original dated December 20, 2012, revised September 2014.
- "Electrical System Forecast of Utility Infrastructure" (MVU Engineering), original dated December 2012, revised September 2014.
- "Fiscal and Economic Impact Study for the World Logistics Center" (David Taussig and Associates), original dated January 15, 2013, revised September 2014.

In addition to their inclusion in their entireties as appendices to this EIR, these documents are available for review at the following location:

Moreno Valley City Hall
Community & Economic Development Department
Planning Division
14177 Frederick Street
Post Office Box 88005
Moreno Valley, California 92552
Phone: (951) 413-3238
Monday~~–Friday~~ Thursday 7:30 a.m.– 5:30 p.m.
Friday 7:30 a.m. – 4:30 p.m.

2.6 PUBLIC REVIEW OF THE DRAFT ENVIRONMENTAL IMPACT REPORT

This EIR was distributed to responsible and trustee agencies, other affected agencies, and interested parties. Additionally, in accordance with Public Resources Code Section 21092(b)(3), the EIR ~~has been~~ was provided to all parties who ~~have~~ previously requested copies. The Notice of Completion (NOC) and Notice of Availability (NOA) of the EIR ~~have been~~ was distributed as required by CEQA ~~During the 45~~ for a 63-day public review period in excess of the 45 days typically suggested by CEQA. During the public review period, the EIR and technical appendices ~~have been~~ were made available for review.

Written comments regarding this EIR were addressed to:

~~John Terell,~~ Richard Sandzimier, Planning Official
and
Mark Gross, Senior Planner
~~Community & Economic Development Department~~
~~Planning Division~~
14177 Frederick Street
Post Office Box 88005
Moreno Valley, California 92552
Phone: (951) 413-3206
Email: ~~JohnT@moval.org~~ RichardSa@moval.org
Markg@moval.org

After the ~~45-day~~ public review period, written responses to all significant environmental issues raised ~~will be~~ were prepared and included in the Final EIR Volume 1 – Response to Comments. These responses will be available for review for a minimum of 10 days prior to the public hearings before the City of Moreno Valley Planning Commission and City Council, at which time the certification of the Final EIR will be considered. The Final EIR (which includes the Draft EIR, the public comments and

responses to the Draft EIR, and findings) will be included as part of the environmental record for consideration by the City decision-makers. The City will respond as appropriate to comments made at public hearings on the WLC Project and EIR.

2.6.1 Notice of Preparation

The City initiated the environmental process without completion of an Initial Study. The City determined that, due to the nature and size of the proposed project, all environmental topics warranted further environmental review in an EIR. The City circulated over 40 copies of the Notice of Preparation (NOP) for the World Logistics Center EIR to state, regional, and local agencies, and nine copies to owners of adjacent properties on February 26, 2012, for a 30-day review period.[1] The NOP was distributed to the State Clearinghouse, as well as agencies and organizations that may provide comment on the proposed project as well as the potential environmental impacts that may result from the construction and operation of the proposed on-site uses.

Comments received regarding the NOP were used to help identify impacts that could result from implementation of the proposed project. The City received 27 comment letters to the NOP and six comment cards from the public Scoping Meeting. In addition, 30 individuals spoke at the Scoping Meeting. The NOP and comment letters received regarding the NOP are included in Appendix A of the EIR. Table 2.A provides a brief summary of NOP comment letters, Table 2.B lists City-identified issues from the scoping process, and Table 2.C lists Senate Bill (SB) 18 Native American consultation contacts.

Table 2.A: Notice of Preparation Comments Received

Agency/ Organization/ Individual	Date	Comments*	Addressed in Section(s) of the EIR
Governor's Office of Planning and Research	2/22	Scott Morgan. This letter acknowledges receipt of the NOP and identified the 30-day review period (2/22–3/22). OPR issued State Clearinghouse No. 2012021045	(2.0) Introduction
California Department of Transportation (Caltrans)	2/29	Daniel Kopulsky. Must prepare a traffic impact study according to the Caltrans' Guide for the Preparation of Traffic Impact Studies. Also must prepare a drainage study and identify impacts to state drainage facilities. Existing capacity of the state drainage systems cannot be exceeded.	(4.15) Traffic
California Native American Heritage Commission (NAHC)	3/7	Dave Singleton. NAHC Sacred Lands File did not identify any resources within project area, but did list the following local tribes: Pechanga Band; Ramona Band; Santa Rosa Band; Morongo Band; San Manuel Band; Serrano Nation; Cahuilla Band; and Soboba Band (see Table 2.C).	(4.5) Cultural
Morongo Band	2/22	Franklin Dancy. Tribe indicated site was in its traditional use area and requested to be notified if human remains are found and the Morongo Band is determined to be the Most Likely Descendant, or if Native American artifacts are found during excavation/grading. They also requested that they be consulted if a Treatment Plan is needed for significant cultural resources on site.	(4.5) Cultural
Pala Tribe	3/8	Shasta Gaughen, Ph.D. Determined project was outside of traditional tribal area.	(4.5) Cultural
California	3/22	Jeff Brandt. EIR should address County's MSHCP, the San	(4.4) Biology

[1] The Notice of Preparation 30-day public review period was from February 25 to March 26, 2012. City of Moreno Valley.

Table 2.A: Notice of Preparation Comments Received

Agency/ Organization/ Individual	Date	Comments*	Addressed in Section(s) of the EIR
Department of Fish and Wildlife (CDFW)		Jacinto Wildlife Preserve (SJWP), State jurisdictional areas and permitting, water resources, greenhouse gases, direct, indirect, and cumulative biological impacts.	(4.9) Hydrology
California Department of Parks and Recreation	3/21	Ron Krueper. Concerned about impacts to Lake Perris State Recreational Area to southwest. Also must evaluate MSHCP and keeping Davis Road closed to traffic.	(4.4) Biology (4.14) Services
Southern California Association of Governments (SCAG)	3/19	Jacob Lieb. Encouraged EIR to use data from Regional Transportation Plan (RTP) for jobs, housing, and employment. Project is regionally significant.	(4.10) Land Use (4.13) Population & Housing
South Coast Air Quality Management District (SCAQMD)	3/23	Ian MacMillan. All air quality studies need to provide actual CalEEMod files, and evaluate construction and occupancy impacts for criteria pollutants, LSTs, Health Risk Assessment, dust (PM_{10} and $PM_{2.5}$), and use Western Riverside Council of Governments (WRCOG) "Good Neighbors" guidelines for distribution centers.	(4.3) Air Quality
Eastern Municipal Water District (EMWD)	3/22	Joseph Lewis. Need to address water resources.	(4.9) Hydrology (4.16) Utilities
Sierra Club, San Gorgonio Chapter, Moreno Valley Group	3/26	George Hague. EIR needs to address environmental justice and notices should be in Spanish. Also NOP insufficient and public needs more time to review. Need to evaluate SJWP, MSHCP, loss or transfer of 7,700 housing units elsewhere in the City from loss of Moreno Highlands project, local and regional traffic impacts, air quality impacts on wildlife, especially diesel particulates. Trails, LEED certification, transit, alternative access, rail, March Inland Port, infrastructure, loss of logistics from Panama Canal expansion, impacts to existing onsite homes, possible truck stop, "toxic" runoff, groundwater, Water Supply Assessment, green-solar design, 90% offsets with Tier III trucks, loss of agricultural land, raptors and foraging land, parking, alternative fuels, truck routes through the City, noise barriers during construction, burrowing owls, greenhouse gases, global climate change effects, and reasonable range of alternatives. Suggested references.	(2.0) Introduction (3.0) Project Description (4.1) Aesthetics (4.2) Agriculture (4.3) Air Quality (4.4) Biology (4.5) Cultural (4.6) Geology (4.7) Greenhouse Gases (4.8) Hazards (4.9) Hydrology (4.10) Land Use (4.12) Noise (4.13) Population & Housing (4.14) Services (4.15) Traffic (4.16) Utilities (5.0) Other Topics (6.0) Alternatives
Friends of San Jacinto Valley	3/22	Tom Paulek. Concerned about CDFW land and impacts to SJWP and MSHCP analysis.	(4.4) Biology (4.9) Hydrology

Table 2.A: Notice of Preparation Comments Received

Agency/ Organization/ Individual	Date	Comments*	Addressed in Section(s) of the EIR
San Jacinto Valley Wetlands Foundation	3/19	Michael Marshall. Impact of lights and diesel pollutants on SJWP, also noise and human disturbance too. Traffic, runoff and water quality, groundwater supplies, water use, and MSHCP analysis.	(4.1) Aesthetics (4.3) Air Quality (4.4) Biology (4.9) Hydrology (4.15) Traffic (4.16) Utilities (water)
Residents for a Livable Moreno Valley	3/26	Susan Gilchrist. Impacts to employment and income in the City, loss of 7,700 homes, overall EIR process, biology impacts with CDFW land, SJWP, runoff, lighting, buffers for SJWP and Lake Perris, impacts on biology excess runoff, views, traffic, glut of warehouses in the City and region, need jobs diversity, actual number of employees, will it have a truck stop, alternative fuels, and building setbacks.	(2.0) Introduction (3.0) Project Description (4.1) Aesthetics (4.3) Air Quality (4.4) Biology (4.7) Greenhouse Gases (4.9) Hydrology (4.10) Land Use (4.13) Population & Housing (4.15) Traffic (4.16) Utilities (5.0) Other Topics
James Devlin	3/15	Devlin Eng. Representing Multivac (local property owners). Concerned about truck traffic through residential areas, concentrate trucks onto Theodore Street, use block walls to reduce noise impacts where houses are adjacent, need landscape buffers along Merwin Street and Redlands Boulevard, add lower intensity land uses along west side of project.	(4.1) Aesthetics (4.10) Land Use (4.12) Noise
Michael McCoy	3/21	Need site plan details, not Specific Plan; too vague, need accurate employment projections, seismic impacts, traffic, air quality, rail access, biological resources, drainage, and definition of high cube.	(3.0) Project Description (4.3) Air Quality (4.4) Biology (4.6) Geology (4.9) Hydrology (4.13) Population & Housing
Michael McKibben	3/25	NOP too short. Geologic and seismic constraints (San Jacinto, Casa Loma, and Farm Road Faults), Alquist Priolo earthquake zones, hazards, FEMA flooding, suggested references.	(4.6) Geology and Soils (4.9) Hydrology
Thomas Ketcham	3/12	Supports creation of new local jobs but not at expense of residents and environment. Skechers mainly transferred jobs from Ontario warehouse and Cabazon Outlet Mall. Also concerned that previous project by Highland Fairview (HF), called Aquabella, has cost the City a lot in terms of improvements while HF has not made its required	(3.0) Project Description (4.13) Population & Housing (4.14) Services

Table 2.A: Notice of Preparation Comments Received

Agency/ Organization/ Individual	Date	Comments*	Addressed in Section(s) of the EIR
		improvements, and commenter is worried HF might do the same thing on this project. City does not need more debt. Project will generate jobs but does not need or want 100% warehouse jobs, need a mix. Already adequate of space and land for more warehouses in southern end of town where they are more appropriate. Also March JPA has space for warehouses too. City services, police, fire, street maintenance, and street landscaping should not be sacrificed "chasing" new jobs and more growth.	(4.15) Traffic (4.16) Utilities (5.0) Other Topics
Ann McKibben	3/26	Aesthetics, open space, lighting on SJWP, Dark Skies, loss of agricultural land, air quality, biology, MSHCP, open space, energy and conservation, greenhouse gas emissions, water quality, land use and planning, noise, recreation, traffic, cumulative, and alternatives.	(4.1) Aesthetics (4.2) Agriculture (4.3) Air Quality (4.4) Biology (4.7) Greenhouse Gases (4.8) Hazards (4.9) Hydrology (4.10) Land Use (4.12) Noise (4.14) Services (4.15) Traffic (5.0) Other Topics (6.0) Alternatives
Gerald Budlong	3/22	Aesthetics, views, geology and soils, Casa Loma Fault, land use and planning, population and housing, widening of Panama Canal, public services, biology (SJWP), transportation, rail alternatives, and utilities (water and gas lines).	(4.1) Aesthetics (4.3) Air Quality (4.4) Biology (4.10) Land Use (4.14) Services (4.15) Traffic (4.16) Utilities (5.0) Other Topics (6.0) Alternatives
Duncan Bush	3/13	On-site property owner, concerned about local and regional traffic impacts, public services, and cumulative impacts.	(4.13) Population & Housing (4.14) Services
Dave Simpson	3/13	Panama Canal to be expanded so west coast logistics will decline, new warehouses only transfer jobs from other cities (e.g., Skechers project and Ontario).	(3.0) Project Description (4.13) Population & Housing
Joshua Freeman	3/27	Quality of jobs and impacts on schools.	(3.0) Project Description (4.13) Population &

Table 2.A: Notice of Preparation Comments Received

Agency/ Organization/ Individual	Date	Comments*	Addressed in Section(s) of the EIR
			Housing (4.14) Services
Ned and Dawn Newkirk	3/21	What will happen to existing homes on site and what will be the traffic impacts?	(4.10) Land Use (4.15) Traffic
Scott Simpson	3/26	Concerned about water use, loss of views, air quality, increased lighting, recreation, biological impacts on SJWP, and economics to City.	(4.1) Aesthetics (4.3) Air Quality (4.4) Biology (4.10) Land Use (4.13) Population & Housing (4.14) Services (4.16) Utilities
Ron Roy	ND	Actual jobs (Skechers did not provide the jobs promised). Lease terms, amount of automation, no rail available for logistics, City mostly residential—do we need so much of one kind of employment? Gas costs for freight, traffic impacts (SR-60), changes to job base, visual impacts and loss of open space, and change in City identity.	(3.0) Project Description (4.1) Aesthetics (4.10) Land Use (4.13) Population & Housing (4.15) Traffic
Tom Thornsley	3/25	Air quality, aesthetics, drainage into SJWP, energy and conservation, water quality, land use, population, housing, employment changes, recreation, transportation, utilities, alternatives, and economic impacts.	(4.1) Aesthetics (4.3) Air Quality (4.4) Biology (4.9) Hydrology (4.10) Land Use (4.13) Population & Housing (4.14) Services (4.15) Traffic (4.16) Utilities (6.0) Alternatives
D. and M. Moreno	3/21	Fix local roads, project will reduce property values, air quality, and noise impacts.	(3.0) Project Description (4.1) Aesthetics (4.3) Air Quality (4.12) Noise (4.15) Traffic
Scoping Meeting Comment Cards			
Jaeger Jones	3/12	HF track record proves this project will not benefit City.	
Sandra Williams	3/12	Should consider less polluting projects within the City that still bring jobs; should not count on only warehouses.	(4.3) Air Quality (4.10) Land Use (6.0) Alternatives

Table 2.A: Notice of Preparation Comments Received

Agency/ Organization/ Individual	Date	Comments*	Addressed in Section(s) of the EIR
Amber Reilly	3/12	Concerned about traffic, air quality, and local owls	(4.3) Air Quality (4.4) Biology (4.15) Traffic
Peggy Hadaway	3/12	Concerned about actual number of new jobs that will be created and air pollution. Need more variety of new jobs, not just warehousing.	(4.3) Air Quality (4.10) Land Use
George Hague (local Sierra Club representative)	3/12	EIR must look at viable alternatives that reduce impacts on SR-60. What will be transitional uses along the project boundaries to minimize impacts on adjacent residents? Need to clearly define "high cube" and project objectives. Scoping meeting is premature before Specific Plan is ready for the public to review. Does developer control all the land within the SP area? Will there be a truck stop and what would be the impacts of that facility? What level of LEED will be achieved? Project will displace not replace 7,700 housing units so this must be analyzed in EIR (i.e., where those units will be transferred to within the City). EIR must look at toxic diesel particulates in addition to "diesel vapors" (term undefined).	(3.0) Project Description (4.1) Aesthetics (4.3) Air Quality (4.10) Land Use (4.15) Traffic (6.0) Alternatives
"Residents for a Livable Moreno Valley" Scoping handout from local residents (at meeting)	3/12	Concerned about relocation of existing jobs rather than creating new jobs here, and not very many new jobs as compared to other uses. Existing zoning would generate more jobs, more sales, and higher property taxes. Displacement vs. replacement of 7,700 housing units. East end of Moreno Valley does not have infrastructure to support this amount of new warehouses. Air pollutant impacts to sensitive receptors. Why change zoning here when General Plan and regional planners anticipates new warehouses in southwest portion of City near I-215?	(4.3) Air Quality (4.10) Land Use (4.13) Population & Housing
Arturo Benitez	3/14	Very concerned about the process and that everything be transparent and "published" so all can participate.	(2.0) Introduction
Charles Robinson	3/15	Need to make provisions to hire local employees (i.e., City residents) on a prioritized basis.	(3.0) Project Description (4.13) Population & Housing
Scoping Meeting Comments (in order of presentation)			
Kenny Bell	3/12	EIR needs to show accurate estimate of job creation, not like the Skechers project.	(4.13) Population & Housing
Susan Nash	3/12	State land south of site must be protected. CDFW open space land within project should not count toward open space requirements for project.	(4.4) Biology
Mike McCoy	3/12	Concerned about seismic safety (Casa Loma and San Jacinto Faults nearby). Impacts of warehouses vs. housing vastly higher, global reductions in logistics due to Panama Canal widening and railroad expansions.	(4.6) Geology
Tom Thornsley (2×)	3/12	Should bring railroad spur into site, should not just rely on trucks, no plans to widen SR-60, would take 10–20 years to complete such a widening. Need accurate economic assessment. Localized flooding and project needs buffers for existing residents.	(4.1) Aesthetics (4.9) Hydrology (4.13) Population & Housing

Table 2.A: Notice of Preparation Comments Received

Agency/ Organization/ Individual	Date	Comments*	Addressed in Section(s) of the EIR
			(4.15) Traffic
Cathy Godfree	3/12	Need buffers, open space, zero runoff, reduce flooding, so much more asphalt, Skechers did not take care of flooding on Redlands Boulevard as promised. Trucks get off at Redlands Boulevard and try to enter at Eucalyptus Avenue. Trucks park on Redlands Boulevard waiting to enter project block traffic. Will there be a truck stop? Will need big setbacks to not block views off Merwin Street and Bay Avenue	(4.1) Aesthetics (4.9) Hydrology (4.15) Traffic
Andrew Jones	3/12	Skechers is a nice project, new ones should also be attractive, low water use and runoff.	(4.1) Aesthetics (4.9) Hydrology
Nanette Bartenee	3/12	On board of "Friends of San Jacinto Valley" SJWP is world-famous raptor habitat. Need good alternatives analysis for regional impacts.	(4.4) Biology (6.0) Alternatives
Frank Wright	3/12	Need more jobs but this project will generate a lot of traffic and will need to widen freeways.	(4.13) Population & Housing (4.15) Traffic
Ian McMillian (SCAQMD)	3/12	Works for SCAQMD. Project represents 25% of all planned warehouse space in region, big concern about diesel particulates and other pollutants. He would like to work with developer regarding alternative fuels for trucks.	(4.3) Air Quality (4.7) Greenhouse Gases
Rick Tendell (2x)	3/12	Need environmental design studies (compressed natural gas, hydrogen fuel cells, solar, etc.). Maybe even fuel trucks.	(4.7) Greenhouse Gases
Jim Randondoth	3/12	Skechers laid off 600 people in Ontario when it opened, what will all these projects do to regional employment?	(4.13) Population & Housing
Peggy Hadaway	3/12	Our Quality of Life will deteriorate from more warehouses. Need to bring in more varied employment and is concerned about air pollution.	(4.3) Air Quality (4.13) Population & Housing
Dave Slawson	3/12	Air quality, traffic, groundwater, noise	(4.3) Air Quality (4.9) Hydrology (4.12) Noise (4.15) Traffic
John Escobell	3/12	Need to offer some program for local hiring first.	(4.13) Population & Housing
Cody Muser	3/12	Project needs to be Gold LEED certified.	(4.7) Greenhouse Gases
Tom Thornsley	3/12	SP needs to come out with EIR. Need building plans to be able to estimate impacts to local residents.	(2.0) Introduction
Deanna Reader	3/12	Need an unbiased evaluation of impacts. Traffic will be massive, Skechers was poor first example. Keep traffic on Theodore. Panama Canal expansion will change west coast logistics needs, port at capacity.	(2.0) Introduction (4.13) Population & Housing (4.15) Traffic

Table 2.A: Notice of Preparation Comments Received

Agency/ Organization/ Individual	Date	Comments*	Addressed in Section(s) of the EIR
George Hague (4×)	3/12	EIR must look at viable alternatives that reduce impacts on SR-60. What will be transitional uses along the project boundaries to minimize impacts on adjacent residents? Need to clearly define "high cube" and project objectives. Scoping meeting is premature before Specific Plan is ready. Does developer control all the land within the SP area? Will there be a truck stop and what would be the impacts of that facility? What level of LEED will be achieved? Project will displace not replace 7,700 housing units so this must be analyzed in EIR (i.e., where those units will be transferred to within the City). EIR must look at toxic diesel particulates in addition to "diesel vapors" (term undefined).	(3.0) Project Description (4.1) Aesthetics (4.3) Air Quality (4.10) Land Use (4.15) Traffic (6.0) Alternatives
Lorenzo Fiero	3/12	Alessandro already has lots of trucks and is half destroyed. Other streets have lots of potholes, flooding; this end of the City has poor public services. What will happen with construction and (even worse) project trucks operating on local streets?	(4.9) Hydrology (4.15) Traffic
Dawn Luoker	3/12	Local employment, traffic impacts on local streets to west, must involve Caltrans, need to see plans, also what about the results of the "community survey?" (Note: did not identify what survey.)	(2.0) Introduction (4.13) Population & Housing (4.15) Traffic
Dan Newkirk	3/12	Must identify impacts on properties within the project (houses).	(3.0) Project Description (4.10) Land Use (4.13) Population & Housing
Brad Singer	3/12	With SoCal Audubon Club. Need to look at short- and long-term impacts of project, especially for local wildlife and SJWP, with gyre falcons and other raptors.	(4.4) Biology
Chris[1] (no last name provided)	3/12	City needs growth and project will have to comply with all the various state environmental laws. Need to plan for our kids and grandkids.	(2.0) Introduction (5.0) Other Topics
Craig Gibbons	3/12	Need 1 mile buffer between project and habitat. Need to plan well because this is the last largest undeveloped part of City.	(4.4) Biology
Raul Wilson	3/12	14.5% unemployment, City needs jobs. Skechers took 3 years to approve, 18 months to build, need what's good for local residents and workers.	(4.13) Population & Housing
Lori Nickels	3/12	Area has historical significance. In 1775 Juan Bautista de Anza came by Mystic Lake and Juan Bautista National Trail runs nearby. Need to contact National Park Service. Served 13 years on RCTC, no way you will get a rail spur out here.	(4.5) Cultural (4.14) Services (4.15) Traffic
Tom Gerald	3/12	Was on original General Plan committee, SJWP is a national treasure and project needs to be compatible.	(4.4) Biology

Table 2.A: Notice of Preparation Comments Received

Agency/ Organization/ Individual	Date	Comments*	Addressed in Section(s) of the EIR
Chris Bauk	3/12	Project will provide jobs; maybe now can take Davis Road south to Ramona Parkway.	(4.4) Biology (4.15) Traffic
Lacy Sikes	3/12	Unemployment equals crime so this project will help.	(4.14) Services
Marshall Scott	3/12	Wants to see more detailed plans; sad to see whole area agriculture lost since early days.	(4.2) Agriculture
Lewis Miramontes	3/12	Need to protect Old Moreno, houses along Redlands Boulevard, on Merwin Street, and Bay Avenue, etc. Need to keep employment local.	(4.10) Land Use (4.13) Population & Housing

* Notes: All NOP response letters are included in Appendix A of the EIR.
GHG = greenhouse gases
HF = Highland Fairview (project applicant)
LEED = Leadership in Energy and Environmental Design
MSHCP = Western Riverside County Multiple Species Habitat Conservation Plan
ND = No Date
NOP = Notice of Preparation
RTP = Regional Transportation Plan (SCAG)
SJWP = San Jacinto Wildlife Preserve
WSA = water supply assessment

Table 2.B: City-Identified Issues from Scoping Process

Issue	Addressed in Section(s) of the EIR
1. Number of jobs anticipated by the project; provide an independent analysis.	(4.13) Population & Housing
2. Identify impacts on local unemployment, including skill levels required.	(4.13) Population & Housing
3. Seismic safety related to the Casa Loma and San Jacinto fault lines.	(4.6) Geology
4. Impacts of current land use plan versus the proposal.	(4.10) Land Use
5. Potential impact of railroad and Panama Canal expansions on local demand for logistics.	(3.0) Project Description
6. Clear explanation of “high cube warehouse.”	(3.0) Project Description
7. Identify potential for rail spur to serve project.	(4.15) Traffic
8. Provide an economic assessment of the project (fiscal/cost benefit analysis)	(4.13) Population & Housing
9. Identify flooding impacts before and after project.	(4.9) Hydrology
10. Provide buffers to adjacent housing and wildlife areas.	(4.4) Biology
11. Do not use existing permanent open space as buffer.	(4.4) Biology
12. Identify impact on viability of adjacent residential areas with logistics adjacency.	(4.10) Land Use
13. Include list of other uses allowed in addition to logistics, and their impacts.	(4.10) Land Use
14. Include manufacturing and high tech as permitted uses.	(3.0) Project Description (4.10) Land Use
15. Impacts on views from Moreno neighborhood.	(4.1) Aesthetics
16. Include description of “net zero storm water treatment” and	(4.9) Hydrology

Table 2.B: City-Identified Issues from Scoping Process

Issue	Addressed in Section(s) of the EIR
implementation.	
17. Potential for trucks to exit onto Redlands and need to turn around to access project.	(4.15) Traffic
18. Provide alternatives for waiting trucks rather than parking on off ramps and local streets.	(4.15) Traffic
19. Provide “solid” alternatives analysis to provide viable options.	(6.0) Alternatives
20. Include requirement for solar panels on building roofs.	(4.7) Greenhouse Gases
21. Include assessment on regional air quality including criteria pollutants.	(4.3) Air Quality
22. Work with SCAQMD on implementation of new truck technologies to reduce emissions.	(4.3) Air Quality
23. Identify air quality impacts specifically on children, elderly residents, and wildlife.	(4.3) Air Quality
24. Identify diesel emission impacts on workers in project area.	(4.3) Air Quality
25. Provide impact on wildlife by species.	(4.4) Biology
26. Identify light and noise impacts on wildlife area.	(4.4) Biology
27. Identify impact on groundwater.	(4.9) Hydrology
28. Identify noise impacts.	(4.12) Noise
29. Identify specific green technologies to be included in project.	(3.0) Project Description (4.7) Greenhouse Gases
30. Include potential for use of CNG, hydrogen fuel cell, solar electricity to supply trucks.	(4.7) Greenhouse Gases
31. Identify amount of traffic on local roads, specifically truck traffic.	(4.15) Traffic
32. Identify impacts on Alessandro pavement quality.	(4.15) Traffic
33. Include potential diversion of truck traffic from Alessandro.	(4.15) Traffic
34. Identify impacts on wildlife, including owls and other raptors.	(4.4) Biology
35. Identify globally significant raptor habitat & impacts on grazing areas within project area.	(4.4) Biology
36. Identify impact on public services and funding.	(4.14) Services
37. Provide a comprehensive plan for review prior to completing environmental.	(3.0) Project Description
38. Identify all public improvements, including parks, to be provided by project.	(4.14) Services
39. Identify all impacts on current residents within project area.	(4.10) Land Use
40. Identify any use of roadways through the adjacent wildlife area.	(4.4) Biology
41. Identify where 7,700 housing units currently planned for project area will be replaced.	(4.13) Population & Housing
42. Identify traffic impact of relocated planned housing units.	(4.13) Population & Housing (4.15) Traffic
43. Impacts on route and historic views from Juan Bautista de Anza 1775 exploration.	(4.14) Services (trails)
44. Contact National Park Service related to Juan Bautista de Anza trail impacts.	(4.14) Services (trails)
45. Identify impact on crime rates.	(4.14) Services (police)

Source: Memo from John Terell, March 13, 2012

Table 2.C: SB 18 Native American Consultation Contacts

Agency/Tribe	Date[1]	Comments	Desire to Consult?
California Native American Heritage Commission (NAHC)	2/28	City notified NAHC that they would be contacting local tribes that may have an interest in this project. City has contacted these tribes and awaits reply during the SB 18 consultation period (90 days – ends May 30 - see Appendix A).	—
	3/7	NAHC sent letter requesting City contact local tribes and provided tribal contacts.	
	4/9	NAHC sent a second letter with a list of tribes and tribal representatives to contact.	
Cahuilla Tribe	2/29	City letter asking if tribe wished to consult on the WLC project.	No
	4/19	Tribe sent letter requesting consultation.	
Los Coyotes office	2/29	City letter asking if tribe wished to consult on the WLC project.	No
	—	No response from tribe within the 90-day noticing period.	
Morongo	2/29	City letter asking if tribe wished to consult on the WLC project.	No
	2/22	Tribe sent letter providing information to be included in the EIR but did not request consultation.	
	10/2	City sends additional letter regarding consultation.	
Pala Band	2/29	City letter asking if tribe wished to consult on the WLC project.	No
	3/8	Tribe sent letter indicating site was outside of Traditional Tribal Area and deferred to tribes in closer proximity.	
Pechanga	2/29	City letter asking if tribe wished to consult on the WLC project.	**Yes**
	3/16	Tribe sent letter providing information on cultural resources in the area, suggested mitigation language for EIR, and requested consultation on the project.	
	5/30	City met on site with tribe to consult regarding project activities.	
	10/2	City sends additional letter on consultation and EIR process.	
Ramona Band	2/29	City letter asking if tribe wished to consult on the WLC project.	No
	4/19	City sent consultation notification reminder to tribe. No response received from tribe within the 90-day noticing period.	
Rincon Band of Luiseño Indians	2/29	City letter asking if tribe wished to consult on the WLC project.	No
	3/23	Tribe sent letter indicating site was not within the historic boundaries of the tribe, and referred the City to the Soboba Band of Luiseno Indians for further comment.	
San Manuel	2/29	City letter asking if tribe wished to consult on the WLC project.	No
	4/19	City sent consultation notification reminder to tribe. No response received from tribe within the 90-day noticing period.	
Santa Rosa	2/29	City letter asking if tribe wished to consult on the WLC project.	No
	4/19	City sent consultation notification reminder to tribe. No response received from tribe within the 90-day noticing period.	
Serrano Nation	2/29	City letter asking if tribe wished to consult on the WLC project.	No
	4/19	City sent consultation notification reminder to tribe. No response received from tribe within the 90-day noticing period.	
Soboba	2/29	City letter asking if tribe wished to consult on the WLC project.	**Yes**
	4/16	Tribe sent letter with input on EIR regarding cultural resources.	

Table 2.C: SB 18 Native American Consultation Contacts

Agency/Tribe	Date[1]	Comments	Desire to Consult?
	4/19	City sent follow-up letter again to verify tribe's desire to consult.	
	4/30	Tribe sent follow-up letter again requesting consultation.	
	10/2	City sends letter discussing consultation and EIR process.	
	10/8	Tribe wants to be present during ground disturbing activities.	
	11/27	City met on site with tribe consult regarding project activities.	

Source: City Planning Department 2012 records on tribal correspondence (see DEIR Appendix A)
[1] NOP notices mailed February 21 so some tribes were responding to that notice before they received official SB 18 notice.

SB 18 Consultation. It should be noted that the city met with the Pechanga Tribe on May 30, 2012, and with the Soboba Tribe on November 27, 2012. No other Native American entities requested a government-to-government consultation meeting.

2.6.2 Public Scoping Meeting

A public Scoping Meeting was held at the City of Moreno Valley City Hall in the City Council Chambers on March 12, 2012, 6:00 p.m. There was one agency staff representative (from the Air Quality Management District) and over 150 individual members of the public in attendance. City staff and the developer briefly described the project, and then comments from the public were solicited. Local residents brought up essentially every major environmental concern, including traffic, truck traffic, air quality, noise, loss of views, and impacts to the nearby wildlife area. Copies of the written scoping comment forms are included in Appendix A and a list of commenters is provided as part of previously referenced Table 2.A.

2.7 MITIGATION MONITORING AND REPORTING PROGRAM

A Mitigation Monitoring and Reporting Program (MMRP) will be prepared for this EIR to comply with the requirements of State law (Public Resources Code Section 21081.6). When mitigation measures are required to avoid or reduce the severity of significant impacts, State law requires the adoption of an MMRP. The monitoring program is intended to ensure compliance during implementation of the program. An MMRP will be adopted by the City Council concurrent with certification of the Final EIR for the proposed WLCSP project. A copy of the MMRP, revised to reflect all changes in the DEIR that resulted from changes in the project description, technical studies, and response to comments on the DEIR, is included in the Final EIR Volume 1 Response to Comments.

2.8 POTENTIAL IMPACTS OF THE PROJECT DISCUSSED IN THE EIR

This EIR focuses on the areas of concern identified in the NOP and comments submitted regarding the NOP. The following sixteen environmental topics are addressed in this EIR:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality, including Human Health
- Hydrology, and Water Quality
- Land Use and Planning
- Mineral Resources

- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions, Energy Conservation, and Global Climate Change
- Hazards and Hazardous Materials
- Noise
- Population, Housing, and Employment
- Public Services and Facilities
- Transportation and Traffic
- Utilities and Service Systems

2.9 EFFECTS FOUND NOT TO BE SIGNIFICANT

As required under CEQA (Section 15128), an EIR is to contain a statement supporting the Lead Agency's determination that some of the possible effects of a project are not significant and, therefore, are not discussed in detail in the EIR. In this case, the proposed project is not consistent with the City's General Plan or the currently approved Moreno Highlands Specific Plan and the respective EIRs prepared for each. Due to the size and scope of the project, the City determined that all potential environmental issues outlined above would be evaluated in this EIR. Section 4.0 of the EIR determined that only mineral resources and forest resources would not be significantly affected by the proposed project.

2.10 CUMULATIVE IMPACTS

2.10.1 Definition of Cumulative Impact

CEQA defines cumulative effects as "two or more individual effects that, when considered together, are considerable or which compound or increase other environmental impacts." (*State CEQA Guidelines* Section 15130). The *Guidelines* further state that the individual effects can be the various changes related to a single project or the changes involved in a number of other closely related past, present, and reasonably foreseeable future projects (Section 15335). Substantial changes are anticipated to occur as the result of warehousing and employment growth of the proposed project, as well as growth in population, housing, and employment from development of other projects in the City of Moreno Valley and the surrounding region. Section 15130 of the *State CEQA Guidelines* requires that an EIR include a discussion of the potential cumulative impacts of a proposed project. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the development when added to the impacts of other closely related past, present, and reasonably foreseeable or probable future developments. Cumulative impacts can result from individually minor, but collectively significant, developments taking place over a period of time.

With respect to the analysis of cumulative impacts, CEQA generally requires the following:

(a) Cumulative impacts shall be discussed when the project's incremental effect is cumulatively considerable.

(b) The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided of the effects attributable to the project. The discussion should be guided by the standards of practicality and reasonableness.

Pursuant to *CEQA Guidelines*, Section 15130, the assessment of cumulative impacts contained in EIRs is typically based on either: (i) past, present, and probable future projects, which are either approved or being considered for approval by the City or other municipalities (or anticipated to be

submitted for consideration, including projects in the design phase or under construction); or (ii) growth projections set forth in regional plans, including regional modeling plans.

Due to the size of the proposed project and its potential future new land use and employment implications for the City, the cumulative analysis for this EIR will use the City's General Plan growth projections. It is expected that the cumulative impact analysis set forth in this EIR will be conservative and would tend to overstate (rather than understate) cumulative impacts.

The significance of a cumulative impact may be greater than the effects resulting from the individual actions if the effects of more than one action are additive. Thus, as set forth above, this section evaluates the proposed project together with (i) the reasonably foreseeable potential effects of other closely related past, present, and reasonably foreseeable or probable future development in the area of the project, and (ii) growth projections set forth in regional plans.

Criteria for evaluating the significance of adverse effects are identified for each environmental issue in Section 4.0. These criteria, which are based on resource sensitivity, quality, and quantity, are also instructive when evaluating whether the environmental effect resulting from implementation of a particular project is cumulatively considerable. The timing and duration of each activity is also an important consideration for evaluating the potential cumulative effects of activities that may occur only for a limited period. In such cases, a cumulative effect may occur only when two or more of the activities are occurring simultaneously.

Because of the nature of individual environmental factors, the cumulative "universe" for every issue addressed in this EIR will not be identical. For example, the cumulative universe for air quality impacts is reasonably assumed to be the entire South Coast Air Basin, which is much larger than the cumulative universe for public service impacts (i.e., the service area of the various service providers.) The individual cumulative areas for the issues addressed in this EIR are provided within the cumulative impacts discussion in the respective impact sections, but range from the City of Moreno Valley to the County to the entire SCAG region when necessary.

To summarize, in determining the cumulative impacts of a proposed project with other area projects, the *CEQA Guidelines* provide that an EIR may either consider a list of past, present, and probable future projects, or it may consider a summary of projections method. This EIR utilizes the summary of projections method due to the size of the project and its growth implications for the City as a whole.

2.10.2 City of Moreno Valley Growth Projections

The Moreno Valley General Plan establishes policies to guide future development within the City and its implementation is long-term in nature. The Regional Growth Projections Method is the appropriate methodology in evaluating cumulative impacts because it provides general growth projections for the region and considers long-term growth. Table 2.D summarizes the cumulative growth information from the Final Program EIR for the City General Plan Update from July 2006 (Section 7, *Cumulative Impacts*). Table 2.D shows that the City expects to grow at an average annual rate of 2–3 percent from 2000 to 2030, with a population at that point of 238,703 persons and 71,619 households. The City will comprise approximately 7 percent of the County's population and housing stock at that time.

Table 2.D: General Plan Growth Projections for Moreno Valley (2000–2030)

Jurisdiction	Population		Households	
	2000	2030	2000	2030
City of Moreno Valley	142,655	238,703	39,264	71,619
Average Annual Increase	—	+2.24%	—	+2.75%

Table 2.D: General Plan Growth Projections for Moreno Valley (2000–2030)

Jurisdiction	Population		Households	
	2000	2030	2000	2030
Riverside County	1,850,231	3,143,468	509,311	1,127,780
Average Annual Increase	—	+2.33%	—	+4.05%
City (Percent of County)	7.7%	7.6%	7.7%	6.4%

Sources: SCAG, 2008 RTP Growth Forecast, Table 7-1, General Plan Final EIR, Section 7.0, Cumulative Impacts.

2.10.3 Regional Growth Projections

The SCAG estimates regional growth for the Riverside County area for the purposes of planning and public policy development. The most recent set of growth projections are provided in the most recent *Regional Transportation Plan (RTP) Growth Forecast*, based on extensive analyses of the regional economic and demographic conditions. The *Draft 2012 RTP Growth Forecast* provides estimates and forecasts of employment, population, and housing for the period between 2011 and 2035. Consistent with the projections shown in previously referenced Table 2.D, Table 2.E shows that the population, housing, and employment of the City are expected to increase consistent with overall regional trends for that period (i.e., approximately 2–3% per year).

According to SCAG projections, the population of Moreno Valley is expected to increase by about ~~59,984~~ 60,749 persons or approximately ~~30.7~~ 31.2 percent between 2011 and 2035 to approximately 255,200 persons. By comparison, the population of Riverside County is projected to increase by 1.1 million persons or approximately 50 percent between 2011 and 2035 to approximately 3,324,000 persons. The number of households is estimated to increase approximately 30.9 percent in Moreno Valley and 35.7 percent in Riverside County over this same time period.

The number of jobs in Moreno Valley is estimated to increase by approximately ~~115~~156 percent from 2011 to 2035. Over this same time period, jobs in Riverside County are expected to increase by ~~112~~125 percent. At present, Moreno Valley has a relatively low jobs-to-housing ratio of ~~0.54~~ 0.45 compared to the overall regional ratio of 1.14 (i.e., 1.14 jobs for each 1 housing unit). SCAG's Compass Blueprint Plan and the Regional Transportation Plan encourages "bedroom" communities (i.e., those with more housing than jobs) to encourage jobs growth instead of housing growth, which will eventually help balance these factors across the region and help reduce commuter traffic. These plans forecast that the City's ratio of jobs to housing will increase in the future but will still be less than 1.0 (estimated 0.89 by 2035), compared to a projected ratio of 1.14 for the County and 1.29 for the entire SCAG area. The City's jobs/housing ratio is expected to still be less than 1.0 by 2035, but to achieve that ratio, the City would need to attract over 34,000 jobs in the next 20 years, compared to attracting 17,000 new houses during that same period.

Table 2.E: Regional Population, Housing, and Employment Forecasts through 2035

Forecast Category	2011	2020	2035
Population			
City of Moreno Valley	194,451[6]	213,700	255,200
Riverside County	2,205,731[6]	2,592,000	3,324,000
SCAG	18,163,664	19,663,000	22,091,000
Housing Units			
City of Moreno Valley	55,635	60,000	72,800
Riverside County	804,913	834,000	1,092,000

Table 2.E: Regional Population, Housing, and Employment Forecasts through 2035

Forecast Category	2011	2020	2035
SCAG	6,348,741	6,458,000	7,325,000
Employment			
City of Moreno Valley	25,120[5]	48,000	64,400
Riverside County	551,492[5]	939,000	1,243,000
SCAG	7,224,670	8,414,000	9,441,000
Jobs/Housing Ratio			
City of Moreno Valley	0.45	0.80	0.89
Riverside County	0.69	1.13	1.14
SCAG	1.14	1.30	1.29

Sources:
(1) 2010 Employment is based on 2010 data presented in *Profile of the City of Moreno Valley,* Southern California Association of Governments, May 2011.
(2) *Draft 2012 RTP Growth Forecast*, Southern California Association of Governments, http://www.scag.ca.gov/forecast/index.htm, date accessed March 15, 2012.
(3) *Table 2: City/County Population and Housing Estimates, 1/1/2011,* State of California Department of Finance.
(4) *Table 1: Population, Age and Sex Characteristics, April 1, 2010, Incorporated Cities and Census Designated Places (CDP) by County in California.* State of California, Department of Finance, Sacramento, California, May 19, 2011.
(5) 2011 Employment data for the City and County is based on the California Employment Development Department, Labor Market Information Division, as reported by *Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California*, December 11, 2013.
(6) *2011 Employment and Housing data for City and County based on the E-5 Population and Housing Estimates, for Cities, Counties, and the State, 2011–2013, with 2010 Benchmark, State of California Department of Finance, http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php, website accessed February 7, 2014.*

2.10.4 Analysis of Cumulative Impacts

The analysis of each environmental issue or topic (EIR Sections 4.1 through 4.16) also discusses the cumulative impacts of the proposed project. Implementation of the mitigation measures identified in each specific section of this EIR will reduce the cumulative impact of the project to the extent feasible. In many cases, the mitigation measures result in reducing the project's cumulative impact to a less than significant level. For other impacts, the implementation of the identified mitigation measures will not avoid a significant cumulative impact. The sixteen subsections of Section 4.0 (i.e., 4.1 through 4.16) identify those significant, unavoidable cumulative impacts that will not be reduced to a less than significant level by implementation of the identified mitigation measures presented in each of those sections. In addition, the analyses indicate to what degree the project makes a significant contribution to cumulatively considerable impacts for each environmental issue (air quality, biological resources, etc.).

It should be noted that the project Traffic Impact Assessment developed an extensive list of cumulative projects to more accurately estimate potential traffic impacts over time on local roadways and intersections (see Section 4.15, *Transportation*).

NOTE TO READERS. *A number of comments were raised on the Draft EIR about the validity of the growth projections used as the basis for the assessment of cumulative impacts of the WLC project. Some comments referred to a number of General Plan Amendments the City had approved since the last General Plan Update. In addition, some comments stated that the General Plan did not account for recent approvals of several warehouse projects, both within the City and in other nearby jurisdictions. However, the City's General Plan was updated in 2006, and SCAG's Regional*

Transportation Plan (RTP) was last updated in May 2008, although the Growth Forecasts that accompany the RTP were last updated in 2012 (Draft 2012 RTP Growth Forecast, Southern California Association of Governments, March 15, 2012). Both of these do constitute current applicable local and regional planning documents upon which to base the analysis of cumulative impacts in the programmatic WLCSP EIR. Therefore, there are no changes to the growth projections that are the basis for the cumulative impact analysis in this EIR.

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3.0 PROJECT DESCRIPTION: TABLE OF CONTENTS

FIGURES

TABLES

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NOTE TO READERS: *The original Specific Plan was prepared in December 2012 and was analyzed in the Programmatic Draft EIR that was circulated for public review from February 4 to April 8, 2013. In response to comments received on the public review of the DEIR, the Specific Plan was revised to change the Specific Plan boundary resulting in a loss of 100 acres and 1 million square feet of potential development. In addition, the phasing was extended from ten to fifteen years so Phase 1 is from 2015 to 2022 and Phase 2 is 2023 to 2030 instead of the project completing development in 2022 as analyzed in the original DEIR. Changes to the Project Description are shown in double underline for added text and in strikeout for text to be deleted, plus notes about the reasons for the various changes. The revised figures are included in this section rather than the original figures to provide the most accurate project information for the reader.*

3.0 PROJECT DESCRIPTION

The project description is provided in this section of the EIR in conformance with *CEQA Guidelines* Section 15124. It discusses the geographic setting, project location, project setting, City of Moreno Valley General Plan designations, World Logistics Center (WLC) Specific Plan designations, zoning designations, project characteristics, project objectives, and discretionary actions required to implement the proposed project. The project description is used as the basis for analyzing the proposed project's impacts on the existing physical environment in Section 4.0 of the EIR.

The term "World Logistics Center Project" refers to all related development and planning activities currently proposed by Highland Fairview in the Rancho Belago area of the eastern end of the City of Moreno Valley. The WLC property is generally located south of SR-60, east of Redlands Boulevard, west of Gilman Springs Road, and north of Mystic Lake and the San Jacinto Wildlife Area. The terms "Project Site" or "Project Area" refer to the entire ~~3,918-acre~~ 3,714-acre area covered by the project entitlements, which encompasses: (a) the General Plan Amendment and the Zone Change (including the revised WLC Specific Plan Area (~~2,710~~ 2,610 acres); (b) the CDFW Conservation Buffer Area (910 acres); and (c) the Public Facilities Lands area (194 aces). Additional acreage that was evaluated in the EIR but that is not in the Project Area is the Off-site Improvement Area of 104 acres. See Section 3.4 for more details on these specific areas.

3.1 PROJECT LOCATION

The project is located in "Rancho Belago," the eastern portion of the City of Moreno Valley, in northwestern Riverside County. The project site is immediately south of SR-60, between Redlands Boulevard and Gilman Springs Road (the easterly city limit), extending to the southerly city limit. Figure 3.1 depicts the location of the proposed project within the region and the City of Moreno Valley. The major roads that currently provide access to the project site are Redlands Boulevard, Theodore Street, Alessandro Boulevard, and Gilman Springs Road.

The WLC project area is located in portions of Sections 1, 12, and 13 of Township 3 South, Range 3 West; and portions of Sections 6, 7, 8, 9, 16, 17, 18, 19, 20, and 21 of Township 3 South, Range 2 West, as depicted on the U.S. Geological Survey (USGS) 7.5-minute series *Sunnymead* and *El Casco, California* quadrangles. Figure 3.2 depicts the proposed project boundary on the applicable USGS quad sheets.

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FIGURE 3.1

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World Logistics Center Specific Plan Project
Environmental Impact Report

Regional Location

SOURCE: USGS DEM; Thomas Bros, 2009

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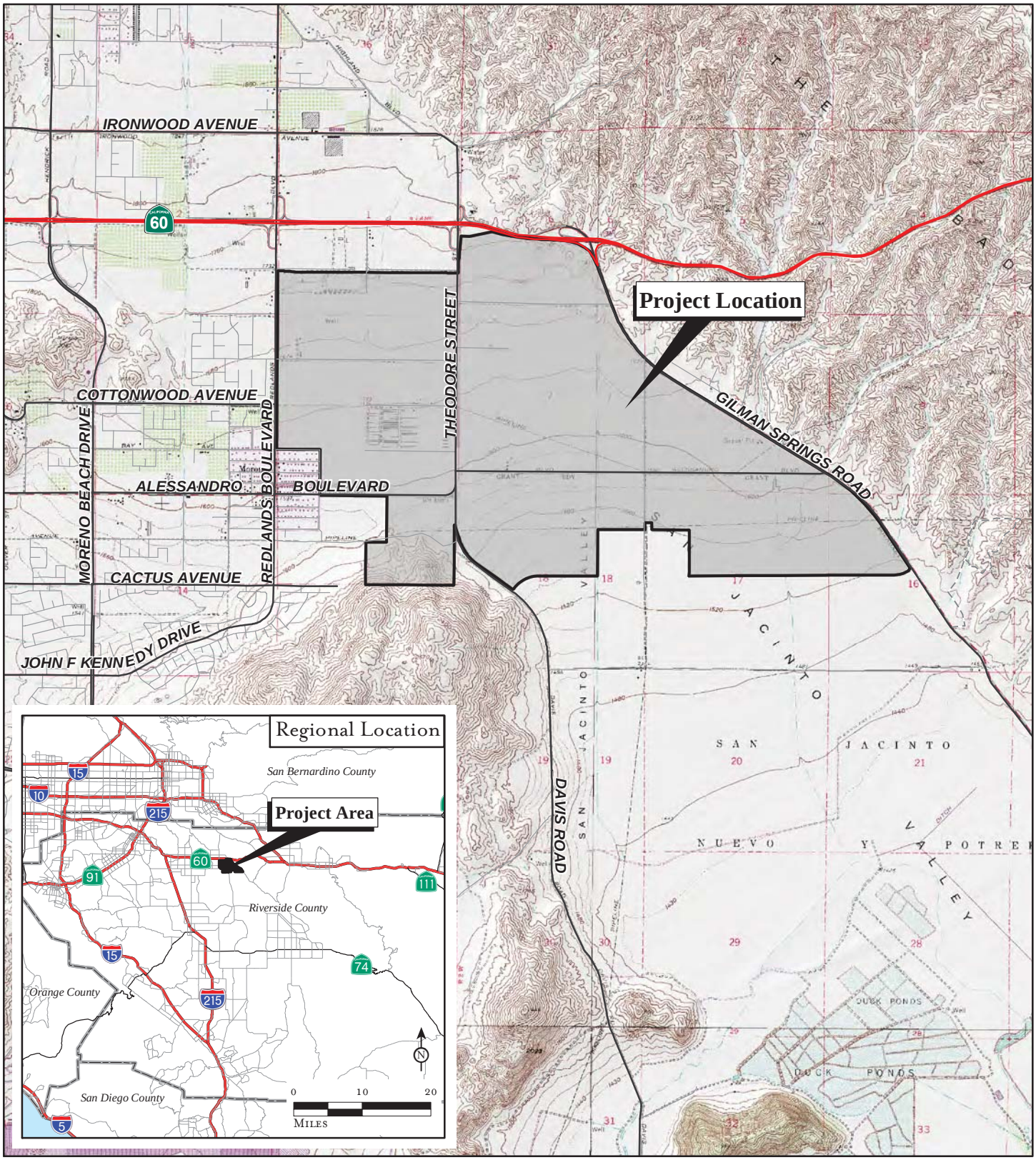

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FIGURE 3.2

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SOURCE: USGS 7.5' Quads: El Casco, Lakeview and Perris (1979), Sunnymead (1980), CA; Riverside County, 2011.

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World Logistics Center Specific Plan Project
Environmental Impact Report

Regional and Project Location

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3.2 PROJECT SETTING AND HISTORY

3.2.1 Project Setting

The project site slopes gently (approximately 2%) from north to south, with elevations ranging from approximately 1,760 feet above mean sea level (amsl) at the northeast corner to 1,480 feet amsl at the southeast corner. Soils within the proposed project consist of disturbed top soil and natural soils, with a mixture of various silty clays, sandy silts, silty sands, and sands.

3.2.2 On-site Land Uses

The project area is largely vacant undeveloped marginal agricultural land, with seven occupied single-family homes and associated ranch/farm buildings in various locations on the property. In the 1920s, several farm buildings and related houses were constructed on the property and, in the 1940s, a stock farm operated on a portion of the site that was later expanded into a commercial horse farm and training facility that operated until the mid-1990s. The overall project site has been farmed by a variety of owners since the early 1900s and has supported dry (non-irrigated) farming, livestock grazing, and limited citrus groves. Much of the site continues to be used for dry farming today.

San Diego Gas & Electric (SDG&E) operates a natural gas compressor plant, known as the Moreno Compressor Station, on 19 acres in the south-central portion of the site. The Southern California Gas Company (SCGC) operates a metering and pipe cleaning station on two separate parcels (totalling1.5 acres) in the south-central portion of the site south of Alessandro Boulevard along existing Virginia Street. The site contains a variety of overhead and underground utility lines associated with oil, natural gas, and electrical service.

At present, the project site contains a number of unimproved drainage features, but it does not contain any improved flood control facilities. As Figure 3.3 illustrates, the project vicinity is largely vacant agricultural land with scattered utility facilities and seven rural residential properties.

3.2.3 Surrounding Land Uses

Developed properties in the vicinity include a logistics building to the northwest (Skechers) and several residential neighborhoods along Redlands Boulevard along the western boundary of the project site. An area of the City known as “Old Moreno” is situated near the southwest portion of the project site, around the intersection of Redlands and Alessandro Boulevards. The homes along Bay Avenue, Merwin Street, and Redlands Boulevard constitute the closest off-site “sensitive receptors” to the project site (i.e., they are across the street from the property). Figure 3.3 shows the ~~seven on- site residences as well as other~~ land uses on and around the project site.

The major roadways that currently provide access to the project area are SR-60 to the north, Redlands Boulevard to the west, Alessandro Boulevard (which traverses the site east-west), Gilman Springs Road to the east, and Theodore Street (which traverses the site north-south). Redlands Boulevard and Theodore Street are north-south arterial roadways that intersect with SR-60. Alessandro Boulevard is an east-west thoroughfare that runs through Moreno Valley from Interstate 215 (I-215) on the west to Gilman Springs Road on the east. Gilman Springs Road runs northwesterly-southeasterly connecting SR-60 to the Hemet-San Jacinto area.

Highland Fairview Corporate Park (HFCP) is located northwest of the project area between Redlands Boulevard and Theodore Street. It is currently under development and the first phase was completed in late 2011 (i.e., the Skechers logistics warehouse). The area north of SR-60 is largely undeveloped with clusters of low-density residential development.

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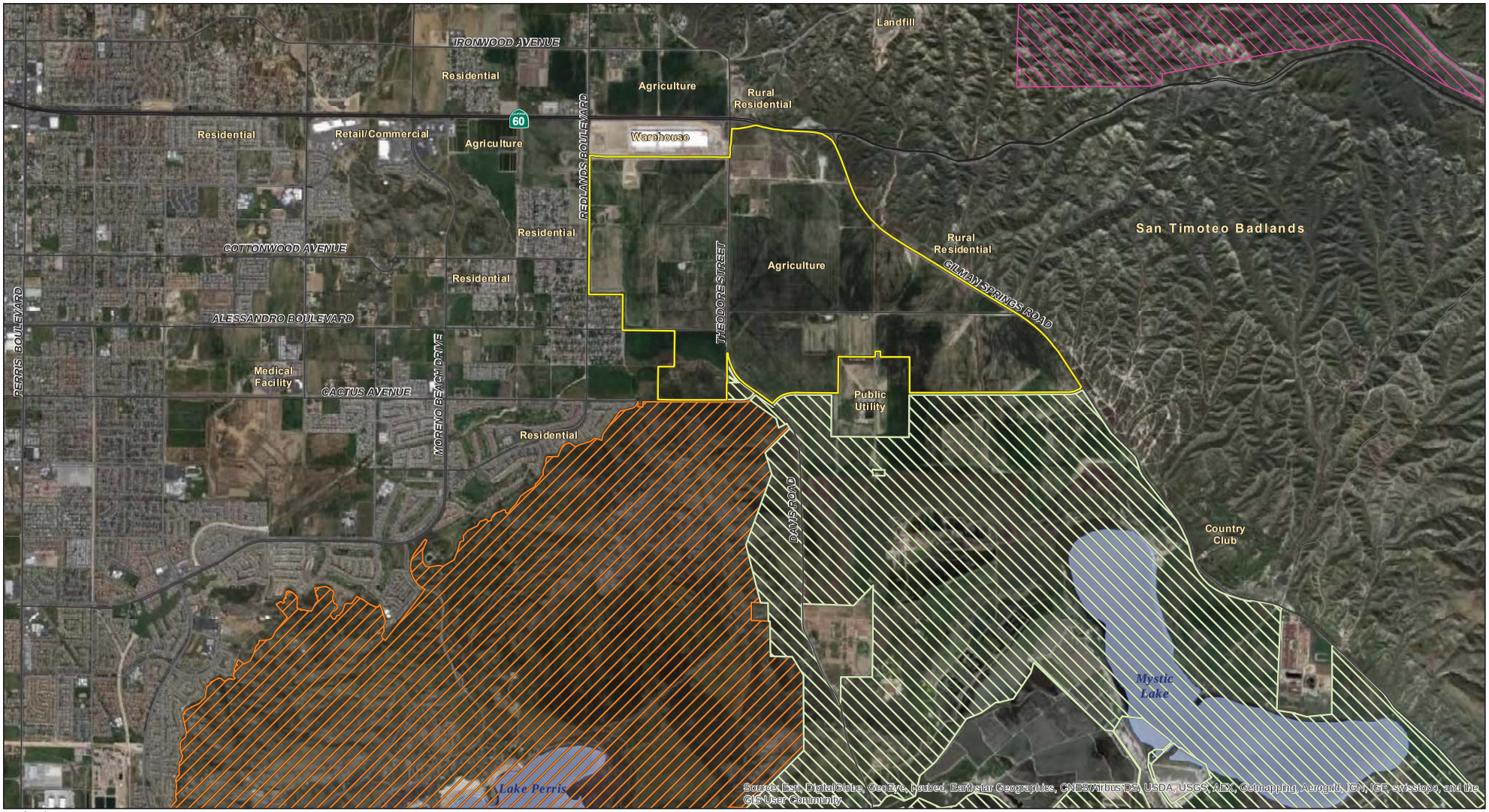

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- Project Boundary
- San Jacinto Wildlife Area (CDFW)
- Lake Perris State Recreation Area
- Norton Younglove Reserve
- Waterbody

SOURCE: County of Riverside, 2003 & 2011; California Dept. of Fish and Game, 2011; Google Earth, 2011

I:\HFV120\Reports\EIR\fig3-3_ExistingLandUse.mxd (2/17/2014)

FIGURE 3.3

World Logistics Center Specific Plan Project
Environmental Impact Report

Existing Land Use

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Near the southwest boundary of the project site is an existing residential neighborhood at the intersection of Redlands Boulevard and Alessandro Boulevard; a small market and a post office are also located near this intersection. This area is referred to as "Old Moreno." The Moreno Valley Ranch and Golf Club residential community is approximately one mile southwest of the project area.

There is little development adjacent to the east and south boundaries of the project area. The area east of the project site across Gilman Springs Road is commonly referred to as the Badlands, a rugged area that separates the City of Moreno Valley from San Timoteo Canyon and the City of Beaumont. Due to its steep slopes and canyons, the Badlands area has experienced little development; however, there are approximately ten single-family homes in the area east of Gilman Springs Road near the project site. The Badlands Sanitary Landfill, operated by the County of Riverside Waste Management Department, is located approximately 1.5 miles northeast of the project area.

Immediately south of the proposed project is the San Jacinto Wildlife Area (SJWA), which includes an "Upland Game Hunting Area," and Mystic Lake~~, and the Lake Perris State Recreation Area~~. These lands are state-owned and access to these areas is restricted. The Lake Perris State Recreation Area is west of the SJWA ~~is owned~~ and ~~operated by the California Department of Fish and Wildlife (CDFW) and contains approximately 20,000 acres of restored wetland and ponds. The Lake Perris State Recreation Area~~ is owned and operated by the California State Parks Department and contains approximately 6,000 acres of open space land, which is used both for recreation and preservation of the natural southern California landscape.

The closest large-scale commercial development is located on the south side of SR-60 at Moreno Beach Drive, approximately 1.25 miles to the west of the proposed project. This shopping complex includes a Walmart and Target along with restaurants and ancillary commercial and service uses, and the Moreno Valley Auto Center. The central core of Moreno Valley, which includes residential neighborhoods and more extensive commercial activity, is located approximately three miles west of the project area.

March Air Reserve Base (MARB) is located approximately seven miles southwesterly of the proposed project. The MARB is under the authority of the March Joint Powers Authority (MJPA), which acts as the land use authority as well as the March Inland Port Airport Authority for reuse of the former March Air Force Base.

3.2.4 Local History

In 1774, the Spanish explorer Juan Bautista de Anza traveled through this area, passing by Mystic Lake and traveling around the Mount Russell Range on his exploration of Alta California.

The project area was first developed in the late 1890s; prior to this, the property had been part of the *San Jacinto Nuevo y Potrero Rancho*. This Rancho, a subdivision of the massive San Jacinto Rancho (originally 8 square leagues in size or more than 50 square miles) lay vacant during the Spanish era and was not part of any rancho until 1842. Once defined, the old road from Temecula to San Jacinto was expanded such that a road was established between San Jacinto and the Box Springs area of the City of Riverside and points beyond. This road probably ran along the track now covered by Gilman Springs Road, headed to Box Springs across what is now Moreno Valley, thence to Riverside and points west. Because of the lack of reliable water, it is unlikely that the project area was used during the early historic period for anything except springtime grazing of sheep and cattle.

During the historic era, most of the parcels in the project area have been used sporadically for dry-land crops and the occasional irrigated farming plots. Horses were raised on one farm in the northwest corner of the site. Although plans were made to bring water from Big Bear to the project

area as part of a regional California land boom scheme (circa 1891), the plan was never completed because the issue of water rights was adjudicated in favor of the City of Redlands.

The Moreno Valley area supported numerous military facilities from the early 1900s to today, with the March Air Reserve Base still functioning near I-215 on the west side of town. From the 1970s through the 1990s, Moreno Valley was one of the fastest-growing residential communities in the nation, and incorporated in 1984. In 1992, the City approved a master planned, mixed-use community called "Moreno Highlands Specific Plan" on most of the project site, but no uses within this community were ever built.

3.3 GENERAL PLAN AND ZONING DESIGNATIONS

3.3.1 Designations on the Project Site

The Community Development Element of the City's General Plan currently designates the project area as a mix of residential, commercial, business park, and open space land uses. The currently approved 3,038-acre Moreno Highlands Specific Pan (MHSP) proposes a master planned, mixed-use community consisting of up to 7,763 residential dwelling units on approximately 2,435 acres and approximately 603 acres of business, retail, institutional, and other uses. Table 3.A is a summary of land uses of the MHSP. Figure 3.4 depicts the City General Plan land use designations for the area.

Table 3.A: Moreno Highlands Specific Plan (Current Land Use Designations)

Land Use	Acreage
Residential Community	
Residential (7,~~283~~763 du)	1,359.3
Parks and Open Space	701.9
Neighborhood Commercial	10.0
Cemetery	16.5
Public Facilities	347.7
Planned Business Center	
Business Park	360.8
Mixed Use	80.5
Community Commercial	16.0
Parks and Open Space	77.9
Public Facilities	67.4
Project Total	**3,038.0**

Adopted by City Council March 17, 1992

As a result of a variety of factors, the Moreno Highlands Specific Plan has not been implemented.

The City's 2006 Housing Element identified the Moreno Highlands Specific Plan as a potential source of vacant land that could accommodate possible future residential growth in the City. In 2011, the City updated its Housing Element and anticipated possible land use changes from mixed use and residential to jobs producing warehouses in the eastern part of the City. The 2011 Housing Element concluded that redesignating the entire land area east of Redlands to the eastern City border for warehouse uses would not impede the City's Housing Element Objectives. The State Department of Housing and Community Development certified the City's Housing Element as being in compliance with State law on February 22, 2011. The proposed project is consistent with the City's current Housing Element.

Highland Fairview currently owns or controls development rights on 1,754 acres or 46 percent of the total ~~3,814~~ 3,714 acres within the WLC project area and 67 percent of the WLCSP area. The remainder

of the project area property is owned by private individuals or entities such as the San Diego Gas & Electric Company, Southern California Gas Company, Metropolitan Water District, and California Department of Fish and Wildlife. Figure 3.5 depicts the property ownership within the WLC project area.

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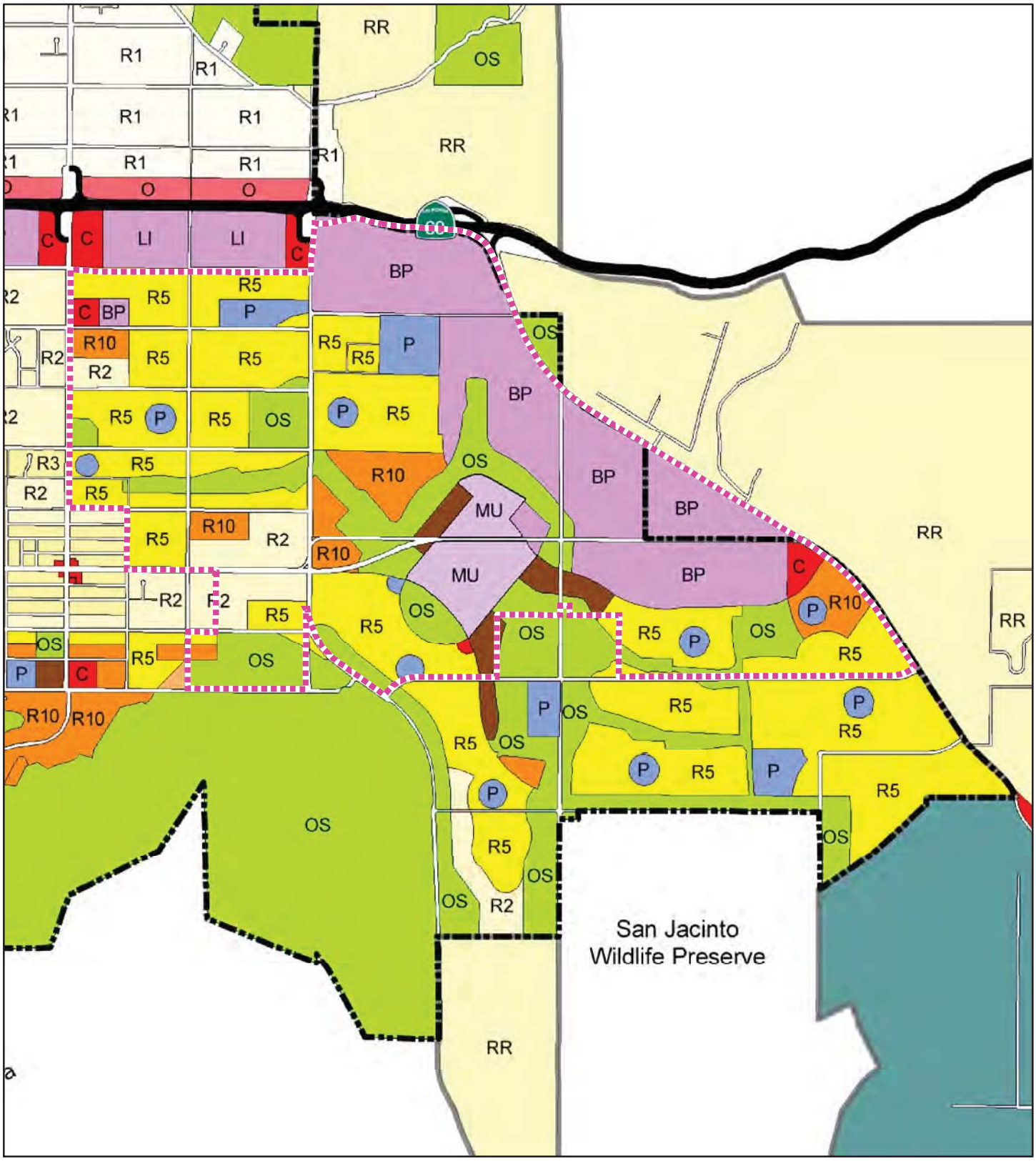

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FIGURE 3.4

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Project Boundary

Highways

City Boundary

Sphere of Influence

Land Use

Residential: Max. 1 du/ac

Mixed Use

Residential: Max. 2 du/ac

Residential: Max. 3 du/ac

Residential: Max. 5 du/ac

Residential: Max. 10 du/ac

Residential: Max. 20 du/ac

Office

Commercial

Business Park/Light Industrial

Open Space

Public Facilities

Floodplain

World Logistics Center Specific Plan Project
Environmental Impact Report

General Plan Land Uses

SOURCE: Riverside County and City of Moreno Valley, August, 2010.

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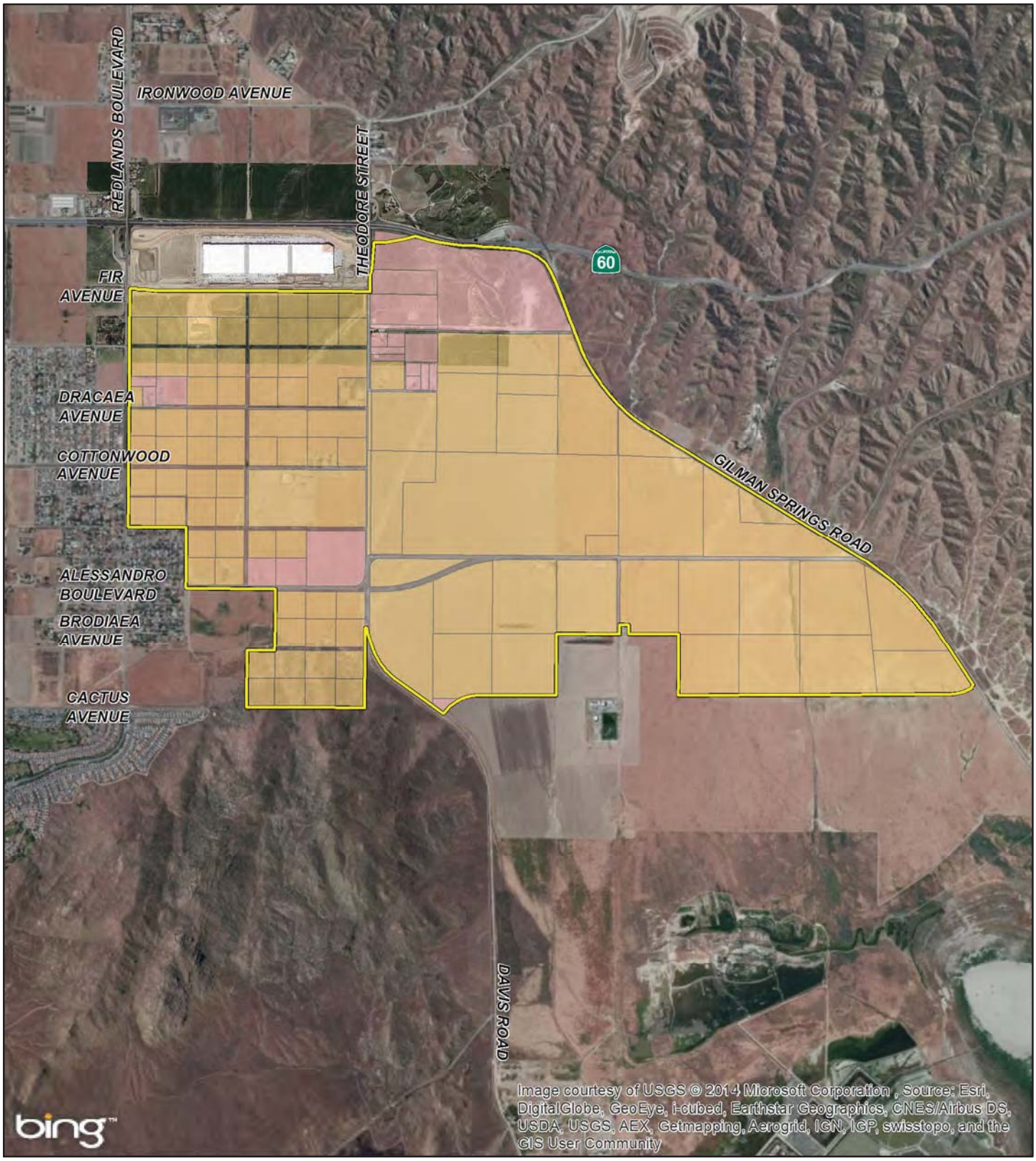

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FIGURE 3.5

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Project Boundary

Area Not Held by Highland Fairview

Area Held by Highland Fairveiw

World Logistics Center Specific Plan Project
Environmental Impact Report

Property Ownership

SOURCE: ESRI World Imagery, 2010; Bing Maps, 2010; Google Maps, 2011.

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An 85-acre parcel located on the west side of Gilman Springs Road near Alessandro Boulevard is within an unincorporated area of Riverside County and within the City Sphere of Influence adopted in 1985. The project will request a pre-annexation General Plan land use designation and zoning of Logistics Development (LD) within a Specific Plan for this parcel, and this EIR will be the environmental documentation used by the Local Agency Formation Commission (LAFCO) to complete the annexation action. The County's land use designation currently applicable to this parcel is W-2-2½. The W-2 area allows single-family residential and light agriculture (the suffix indicates minimum parcel size in acres) and the City's current General Plan land use designation for the site is Business Park (BP) under the MHSP.

The ~~MHSP~~ General Plan Amendment and Zone Change includes approximately 910 acres of land owned by the CDFW that are part of the San Jacinto Wildlife Area (SJWA). Much of this property is designated for residential development in the MHSP. The CDFW parcels were acquired by the State beginning in 1992 to act as a buffer from future development to the north (the MHSP) and to further the CDFW goal of eventually preserving approximately 20,000 acres of restored wetlands and ponds. The land around Mystic Lake was originally purchased as mitigation for habitat loss as a result of construction of the state water project.

The SJWA was the first state wildlife area to utilize reclaimed water to create and enhance wetlands, and improvements are ongoing. Waterfowl, wading birds, and quail are among the many animals found in this area. It also supports a number of private hunting clubs around its northwestern perimeter.

The following information was added at the request of the Metropolitan Water District of Southern California (Letter C-2) regarding the Inland Feeder.

The figure showing the location of the Inland Feeder can be found at the end of comment Letter C-2 from the Metropolitan Water District of Southern California.

> "Metropolitan owns property and owns and operates facilities on and adjacent to the site of the proposed project. As shown on the attached map, Metropolitan's irregularly shaped fee-owned property (APN 422-040-009 and 422-040-015), Inland Feeder Tunnel, and appurtenant tunnel access structure are located within the proposed specific plan area. In addition, Metropolitan's 145-inch-inside-diameter Inland Feeder pipeline and appurtenant structures extend through the specific plan area in the street rights-of-way for Eucalyptus Avenue, Theodore Street, and Davis Road. Metropolitan also has a 110-foot-wide easement along Davis Road."

3.3.2 Existing Conditions and Land Use Designations in Surrounding Areas

3.3.2.1 South of SR-60/East of Redlands Boulevard

Existing Conditions. This area is currently used mainly for dry farming, with several scattered rural residences. The only major improvements are several natural gas facilities and two local roadways (Alessandro Boulevard and Theodore Street).

Existing Land Use Designations. The Highland Fairview Corporate Park (HFCP) project is currently under development and Phase 1 (Skechers' North American Operational Headquarters) was completed in late 2011. HFCP is located immediately northwest of the project area, on the north side of Eucalyptus Avenue between Redlands Boulevard and Theodore Street. The HFCP project was

approved by the City of Moreno Valley in 2009. The City General Plan land use designation for the site is a mixture of Commercial (C) and Business Park/Light Industrial (LI).

3.3.2.2 North of SR-60

Existing Conditions. This area is relatively rural at present with mixed light industrial uses along the freeway and scattered residences farther away from the freeway.

Existing Land Use Designations. The land located on the north side of SR-60 and westerly of Theodore Street is within the City of Moreno Valley and has a land use designation of Office (O) and Residential (R1—density of one dwelling unit per acre). The area easterly of Theodore Street is in an unincorporated area of Riverside County with land use designations of Scenic Highway Commercial (C-P-S) and Controlled Development Area (W-2). The W-2 area allows single-family residential and light agriculture (the suffix indicates a 2-acre minimum parcel size); and the C-P-S district allows certain wholesale and retail commercial uses. This county territory is within the City's Sphere of Influence; the City land use designation for the area is Rural Residential (RR) and Residential (R1).

3.3.2.3 East of Gilman Springs Road

Existing Conditions. This area currently contains scattered rural residences east and a golf course southeast of the WLC project area.

Existing Land Use Designations. The Badlands area, lying easterly of Gilman Springs Road, is within the jurisdiction of the County of Riverside and has a land use designation of Controlled Development Area (W-2, W-2-1, and W-2-20). Allowed uses include single-family residential and light agriculture (the suffix indicates minimum parcel size in acres). A portion of this county territory is within the City's Sphere of Influence. The City land use designation for the area is Rural Residential (RR).

3.3.2.4 Southern Boundary

Existing Conditions. All the land south of the WLC project site is part of the Mystic Lake/San Jacinto Wildlife Area property, and currently provides various open space uses related to the presence of wildlife around the lake.

Existing Land Use Designations. The lands south of the project are within the San Jacinto Wildlife Area and the Lake Perris State Recreation Area, and are designated either Open Space (OS) or public facilities (PF).

3.3.2.5 West of Redlands Boulevard

NOTE: The following change has been made to update the DEIR with the most current information.

Existing Conditions. The land north of Eucalyptus Avenue (currently Fir Avenue) was recently approved for industrial warehousing (West Ridge Project) but the City approval of an EIR for that project had been challenged in court~~; a decision is still pending as~~. As of the printing of this EIR the court challenge has been settled and the project sold. The new owners are currently processing a plot plan with the City. The land south of Fir Avenue is planned for suburban residential uses. There are

residential neighborhoods along the west boundary of the project site, west of Redlands Boulevard south of Eucalyptus Avenue, and east of Redlands Boulevard south of Cottonwood Avenue.

Existing Land Use Designations. The City land use designations for the residential areas west of Redlands Boulevard are Residential R2 and R3 (maximum density of 2 and 3 dwelling units per acre, respectively). Residential areas southerly of the site along Alessandro Boulevard are subject to City land use designations of R2 and R5 (maximum density of 2 and 5 dwelling units per acre respectively).

Table 3.B summarizes on-site and adjacent land uses for the project site.

Table 3.B: On-site and Adjacent Land Use Designations

Location	Jurisdiction	Current Land Uses	General Plan Land Uses	Zoning Designations
On site	City of Moreno Valley	Agriculture/dry farming, rural residential	Moreno Highlands Specific Plan	Moreno Highlands Specific Plan
North	County and City of Moreno Valley	SR-60, rural residential north of freeway	County W-2, C-P-S City RR, R1	County W-2, C-P-S City O, R1
South	County and State of California	Agriculture, San Jacinto Valley Wildlife Area	MHSP and OS (City and County)	MHSP and OS (City and County)
East	Riverside County	Gilman Springs Road, rural residential	RR (City)	W-2, W-2-1 and W-2-20 (County)
West	City of Moreno Valley	Residential, Industrial [1]	R2, R3, R5, and LI	R2, R3, R5, and LI

Sources: City of Moreno Valley General Plan Land Use Map, adopted August 2010; City of Moreno Valley Zoning, online data accessed March 2012. County of Sphere of Influence, data from Transportation Land Management Agency (TLMA), County website accessed March 2012.

[1] approved Westridge project

3.4 PROJECT CHARACTERISTICS

The ~~project~~ Specific Plan being evaluated in this EIR covers ~~3,918~~ 2,610 acres and proposes a maximum of ~~41.4~~ 40.4 million square feet of “high-cube logistics” warehouse distribution uses classified as “Logistics Development” (LD) and 200,000 square feet (approximately 0.5%) of warehousing-related uses classified as “Light Logistics” (LL). The lands within the WLC Specific Plan that are designated LL are existing rural lots, some containing residential uses, that will become “legal, non-conforming uses” once the WLC Specific Plan is approved. In addition, the LD designation includes ~~20,000 square feet of land for Logistics Support (LS) for vehicle fueling~~ land for two special use areas; a fire station and a “logistics support” facility for vehicle fueling and sale of convenience goods (3,000 square feet is assumed for planning purposes for the “logistics support”). The components of the proposed project are discussed below and are shown in Figure 3.6.

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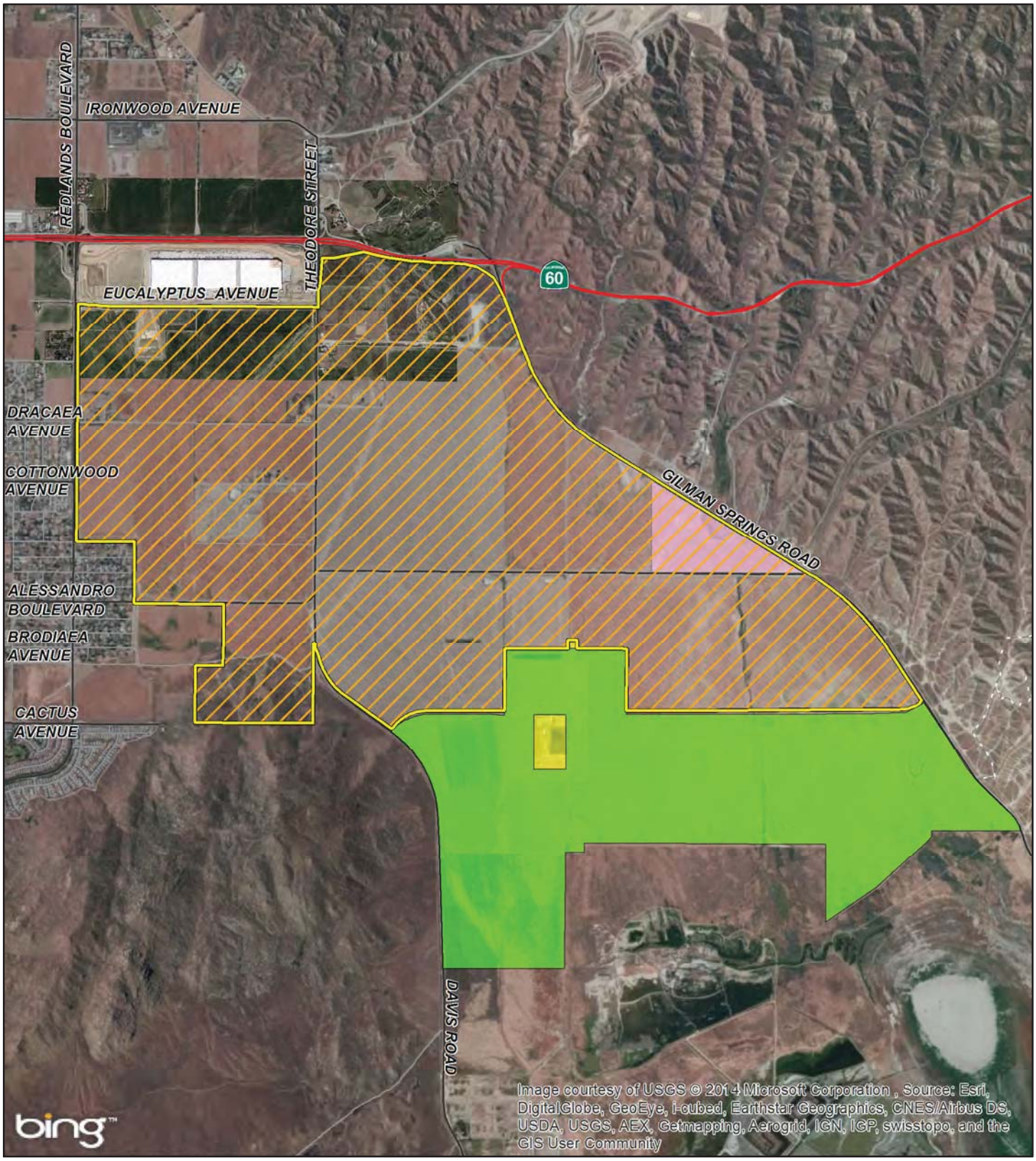

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FIGURE 3.6

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- Project Boundary
- Specific Plan
- CDFW Land - Open Space
- Public Utility
- Annexation Area

World Logistics Center Specific Plan Project
Environmental Impact Report

Component Areas

SOURCE: ESRI World Imagery, 2010; Bing Maps, 2010; Google Maps, 2011.

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3.4.1 Project Terms

The following terms and areas are defined here for the purposes of analysis in the EIR:

- **World Logistics Center Project:** The term refers to all related development and planning activities currently proposed by Highland Fairview in the Rancho Belago area of the eastern end of the City of Moreno Valley. The WLC property is generally located south of SR-60, east of Redlands Boulevard, west of Gilman Springs Road, and north of Mystic Lake and the San Jacinto Wildlife Area.
- **Project Site or Project Area:** This term refers to the entire ~~3,918~~ 3,818 acre area covered by the EIR encompassed by: (a) the Specific Plan Area (~~2,710~~ 2,610 acres); (b) the CDFW Conservation Buffer Area (910 acres); c) the Public Facilities area (194 aces); and (d) the Off-site Improvement Area on 104 acres.
- **CDFW Conservation[1] Buffer Area:** This term refers to a 910-acre parcel owned by the State of California as part of the San Jacinto Wildlife Area (SJWA). This land is within the City of Moreno Valley and is included in the approved Moreno Highlands Specific Plan. That plan designates this property for a broad mix of urban uses including suburban residential, schools, parks, and roads. This land was purchased by the State in 1991 as additional upland habitat for the SJWA and also to act as a buffer between the sensitive biological resources of the SJWA and the future urban development under the Moreno Highlands Specific Plan. This land has been actively farmed for many decades and most of it remains in active production. The southwestern portion contains areas of non-native grasslands, although aerial photographs show that this area has been intermittently tilled over the last 80 years. This property is included in the General Plan Amendment and the Zone Change to replace the current urban land uses that are permitted and to replace them with Open Space and Public Facility designations. This property is **not** within the proposed World Logistics Center Specific Plan (i.e., not in the area planned for development). This Conservation Buffer Area is a large part of the "Other Project Areas" described herein.
- **Other Project Areas:** The San Diego Gas & Electric Company (SDG&E) and the Southern California Gas Company (SCGC) own a total of 194 acres of land immediately south of the Specific Plan site. These properties are included in the proposed General Plan Amendment and the Zone Change to designate them for Open Space and Public Facilities uses. These designations are consistent with present uses. These properties are not within the proposed World Logistics Specific Plan. Approximately 174 acres of the land owned by SDG&E will be designated as Open Space. Nineteen acres of SDG&E land and one acre of SCGC land will be designated as Public Facilities.
- **Off-site Improvement Areas:** Development under the Specific Plan will require construction of a number of off-site infrastructure improvements covering approximately 104 acres of land adjacent to the Specific Plan Site including, but not limited, to the following facilities (see Figure 3.7):
  - Debris basins easterly of Gilman Springs Road;
  - Water reservoirs and access roads located northeast, north, and west of the project site;
  - SR-60 interchange improvements; and
  - Roadway, water, sewer, drainage, and utility improvements extending north and west from the project.

[1] Although there were many comments suggesting the term "buffer" be removed from the name of this area, it accurately reflects the purpose of its purchase by the State Conservation Board. However, it should be noted that this land **is**, and will remain, part of the SJWA.

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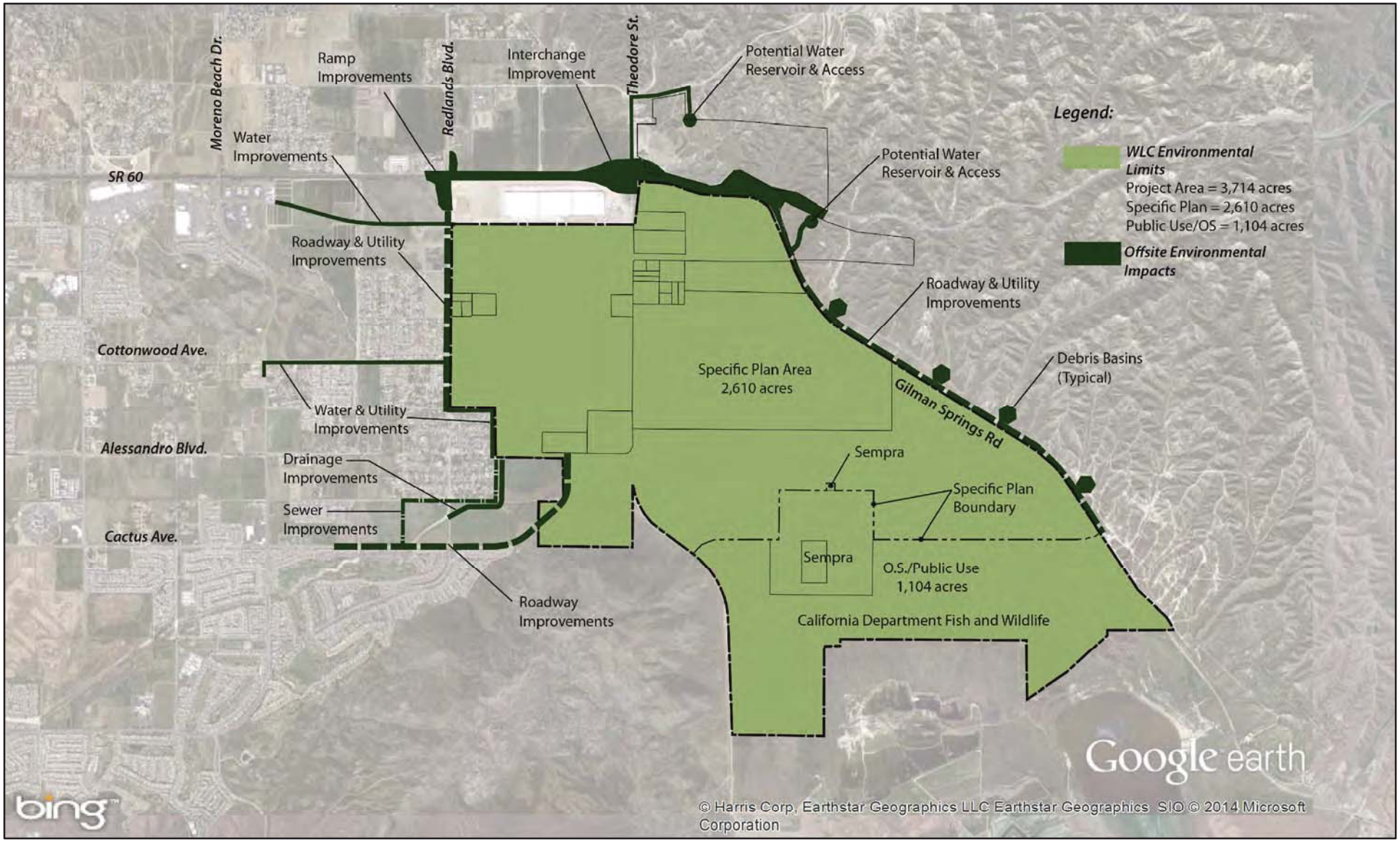

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FIGURE 3.7

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World Logistics Center Specific Plan Project
Environmental Impact Report

Offsite Improvements

SOURCE: HF, 2014.

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- **Specific Plan Site:** Approximately ~~2,710~~ 2,610 acres of the project area are included in the proposed WLC Specific Plan, located generally south of SR-60, east of Redlands Boulevard, west of Gilman Springs Road, and north of the San Jacinto Wildlife Area.
- **WLC Specific Plan:** The revised WLC Specific Plan proposes a master-planned logistics campus to include up to ~~41~~40.4 million square feet of high-cube logistics warehousing, up to 200,000 square feet of light logistics uses, ~~a site for "logistics support" uses (LS designation~~ and ~~75~~74.3 acres of Open Space in the southwest corner of the site. The Specific Plan includes extensive development standards, design guidelines, and review procedures for all development within the project.
- **Annexation Area:** This term refers to an 85-acre parcel located adjacent to Gilman Springs Road that is to be annexed into the City of Moreno Valley. The parcel is already within the City's Sphere of Influence, adopted on November 21, 1985.
- **Tentative Parcel Map Area:** A Tentative Parcel Map is being processed to subdivide 1,539 acres of the project for financing purposes only. This property is owned by the project applicant. Approval of the map will confer no development rights to the property.
- **General Plan Amendment:** One of the proposed entitlements is a General Plan Amendment (GPA) that will permit the establishment of logistics land uses on ~~3,814~~ 3,487 acres of property located east of Redlands Boulevard and south of SR-60. The following General Plan Elements will be amended: Community Development; Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and General Plan Goals and Objectives. The GPA will replace the current Moreno Highland Specific Plan/General Plan Designations with the following land use designations: (a) 2,383~~606~~ acres for high cube logistics development; (b) 1,084 acres of Open Space; and (c) 20 acres for Public Facilities. The General Plan land use designation for the site would become Business Park/Light Industrial (BP).
- **Zone Change:** The project includes a Zone Change covering, 3,714~~814~~ acres, which will designate 1,084 acres of land for Open Space (CDFW and SDG&E properties), 20 acres for Public Facilities (SDG&E and SCGC properties), and 2,610~~710~~ acres for the World Logistics Center Specific Plan. The specific land use zones would be Logistics Development (LD) and Light Logistics (LL).
- **State Lands:** Refers to lands owned by the State of California and includes the San Jacinto Wildlife Area (SJWA) located south of the Specific Plan Site, and the Lake Perris State Recreation Area (LPSRA) located southwesterly of the Specific Plan Site.
- ~~**Off-site Analysis Zone:** This term refers to an approximately 1,000-foot wide zone adjacent to the south and east boundaries of the Specific Plan area that was studied by Michael Brandman Associates (MBA) as part of the assessment of potential impacts on biological resources. It covers approximately 1,637.5 acres.~~
- **Moreno Highlands Specific Plan (MHSP):** This term refers to the currently approved Specific Plan that covers 3,038 acres of the project area. This Specific Plan permits the development of a master planned, mixed-use community consisting of up to 7,763 residential dwelling units and approximately 603 acres of business, retail, institutional, and other uses. ~~This development will be replaced with the World Logistics Center Specific Plan and 1,104 acres of Open Space and Public Facilities uses.~~

NOTE: Several commenters indicated that any mention of the current MHSP land plan should include the loss of 1,000 acres of land in the south end of that property that was purchased by the state for conservation as part of the SJWA, which is referred to in this document as the State Conservation Buffer Area.

- **Proposed Project or World Logistics Center Project:** General term applied to all of the entitlements outlined above that are addressed in this EIR, including:
  - WLC Specific Plan ..... ~~2,710~~ 2,610 acres
  - General Plan Amendment..... ~~3,814~~ 3,714 acres
  - Zone Change ..... ~~3.814~~ 3,714 acres
  - Tentative Parcel Map .....1,539 acres
  - Annexation .....85 acres
  - Off-site improvements.....104 acres

3.4.2 Logistics Warehousing Development

Logistics warehouses are used primarily for the storage and/or consolidation of manufactured goods (with no manufacturing) prior to their distribution to secondary retail outlets. These facilities consist of large buildings typically larger than 500,000 square feet in size, often subdivided for multiple tenants, with typical ceiling heights of 24 feet or more, and can be characterized by highly automated material handling systems supported by truck activities frequently during off-peak hours, and good freeway access. Goods imported through the Ports of Long Beach and Los Angeles as well as other locations are delivered via truck to the proposed distribution centers and distributed via truck to both in and out of state locations, thus benefiting both local and interstate commerce.

High-cube warehouse and logistics facilities include ancillary office and maintenance space along with the outdoor storage of trucks, trailers, and shipping containers. High cube-logistics warehouses provide businesses with a centralized location to sort, organize, and often transfer products from one shipping process to another where multiple forms of transport are available.

High-cube logistics warehouses are generally constructed with vertical-lift dock-high roll up doors to allow access for the loading and unloading of products from truck/trailers. Building interiors are typically large and open to accommodate the temporary storage and consolidation of the products to be distributed. Parking is provided for trucks and trailers in addition to parking for passenger vehicles in accordance with local standards.

3.4.3 Open Space Properties

The California Department of Fish and Wildlife (CDFW) owns 910 acres of vacant open space land within the project area. This area is the most northerly end of the ~~6,000-acre~~ San Jacinto Wildlife Area and all of it is being actively farmed. Section 4.4, *Biological Resources*, explains the importance of the SJWA in more detail, but generally supports a diversity of birds and other wildlife in and around Mystic Lake. This land was purchased by the State as a “buffer” between Mystic Lake and approved development under the Moreno Highlands Specific Plan within the City of Moreno Valley. This land is currently actively farmed and provides raptor foraging habitat in the northern portion of the SJWA. This land is designated as permanent open space on the proposed General Plan Amendment and Zone Change.

SDG&E owns and maintains 174 acres of open space around its 19-acre Moreno Compressor Station plant. The WLC project proposes this land be designated as permanent Open Space under the City General Plan and zoning.

The Specific Plan includes~~75~~74.3 acres of land designated as open space in the southwest corner of the property. It should be noted that Mount Russell and the Mount Russell Range are immediately southwest of the project area, along with the Lake Perris State Recreational Area. No development is proposed for the ~~75~~74.3 acres designated as Open Space within the Specific Plan.

3.4.4 Moreno Compressor Plant and Public Facilities

SDG&E operates a regional natural gas compression-transmission facility on 19 acres in the south-central portion of the site. This site is bounded on three sides by the CDFW property identified in Specific Section 3.4.3. The project proposes to designate this facility as “Public Facility” under the City General Plan and zoning, and does not propose or anticipate any further development of this site. Any proposal to expand the existing facilities at the site would require separate evaluation under CEQA.

A one-acre natural gas facility operated by SCGC is located just north of the Moreno Compressor Facility. It is also proposed to be designated as “Public Facility” as part of the project.

3.4.5 Annexation Area

Approximately 85 acres of land within the project area are within an unincorporated area of Riverside County and within the City’s Sphere of Influence. The proposed project includes the completion of the annexation process for this land. This property is located just west of Gilman Springs Road and north of Alessandro Boulevard and is currently dry farmed similar to the land surrounding it. The project includes approval of a pre-annexation General Plan and zoning land use designations of Logistics Development (LD) within the Specific Plan for this parcel. This EIR will be the environmental documentation used by the LAFCO to complete the annexation action, which commenced when the property was included in the City’s Sphere of Influence in 1985. The County’s land use designation currently applicable to this parcel is W-2-2½, which allows single-family residential and light agriculture, while the City’s current General Plan land use designation for the site under the MHSP is Business Park (BP).

3.4.6 World Logistics Center Specific Plan

The proposed project includes a Specific Plan to implement the new General Plan Amendment and to set forth comprehensive land use regulations governing the proposed project. The Specific Plan is a master plan for the future development of up to ~~41~~40.6_million square feet of building area on 2, ,~~710~~610 acres, providing for mainly high-cube logistics and distribution facilities. This programmatic EIR provides a streamlined environmental review process for future development projects in the WLC Specific Plan area, including site-specific subdivisions and development entitlements that are consistent with the overall plan. Subsequent projects that the City determines to be within the scope of the EIR may be approved pursuant to the procedures set forth in *CEQA Guidelines* Sections 15162 and 15177.

The following sections provide a summary of key elements of the Specific Plan, and Table 3.C provides a summary of the land uses of the Specific Plan and other areas addressed by the project.

Table 3.C: WLC Project Characteristics (updated September 2014)

Area/Land Use	Original Project		Revised Project	
	Acres	Square Footage	Acres	Square Footage
World Logistics Center Specific Plan (WLCSP)				
LD Logistics Development[1]	2,606	41,400,000	2,382.8	40,400,000
LL Light Logistics	29	200,000	37.1	200,000
OS Open Space	75	—	74.3	—
ROW[2]	—	—	115.8	
WLCSP Total	**2,710**	**41,600,000**	**2,610.0**	**40,600,000**
Other Project Areas				
California Department of Fish and Wildlife	910	—	910	—
San Diego Gas and Electric – Open Space	174	—	174	—
San Diego Gas and Electric – Facility	19	—	19	—
Southern California Gas Company – Facility	1	—	1	—
Other Areas Total	**1,104**	**—**	**1,104**	**—**
Off-site Improvement Areas	**104**	**—**	**104**	**—**
TOTAL WLC PROJECT AREA **Floor Area Ratio (FAR)[3]**	**3,918** **NA**	**41,600,000** **0.352**	**3,818** **NA**	**40,600,000** **0.357**

1 Included in LD zone ~~is 0.5 acres and 20,000~~ 3,000 square feet of "logistics support" ~~(LS)~~ in Planning Area 22 at northeast corner of Theodore and Eucalyptus.
2 Right-of-Way included in each land use category
3 Floor Area Ratio (FAR) is gross building area divided by gross site area

NOTE: The following changes are due to revisions to the Specific Plan size, land plan, and phasing.

3.4.6.1 Land Use Plan/Planning Areas

The WLC Specific Plan is a master plan for the development of up to ~~41~~40.6 million square feet of development emphasizing modern high-cube logistics distribution facilities. The following information summarizes Section 2.0, *Land Use Plan*, of the WLC Specific Plan (see Appendix B), including three proposed land use designations, as shown in Figure 3.8.

High Cube-Logistics Development (LD). The WLC Specific Plan project proposes to develop approximately ~~2,606~~ 2,383 acres with up to ~~41.4~~ 40.4 million square feet of high cube logistics warehouse space. This represents approximately 99.5 percent of the total building area of the WLC Specific Plan project. Land uses allowed under this classification include high cube logistics warehouse buildings of 500,000 square feet or greater. High cube logistics warehouses are characterized by a high level of automated material handling systems and typical truck activities outside of the peak hour. High cube logistics warehouses are generally used for the storage of manufactured goods prior to their distribution to retail outlets (see Section 4.15 and Appendix J of this EIR). Warehouses permitted in the LD portion of the WLC would be no smaller than 500,000 square feet, with a maximum height of 80 feet. The Specific Plan prohibits buildings over 60 feet in height along the western, northern, and southern boundaries of the site (see Figure 3.9).

Warehousing and logistics activities consistent with the storage and processing of manufactured goods and materials prior to their distribution to other facilities and retail outlets will be permitted throughout the Specific Plan. Refrigerated warehouse space is not an allowed use within the Specific

Plan area (see Mitigation Measure 4.3.6.3E). Ancillary office and maintenance space is included along with the outdoor storage of trucks, trailers, and shipping containers. LD land uses provide a location for businesses to sort, organize, and transfer products from one shipping process to another.

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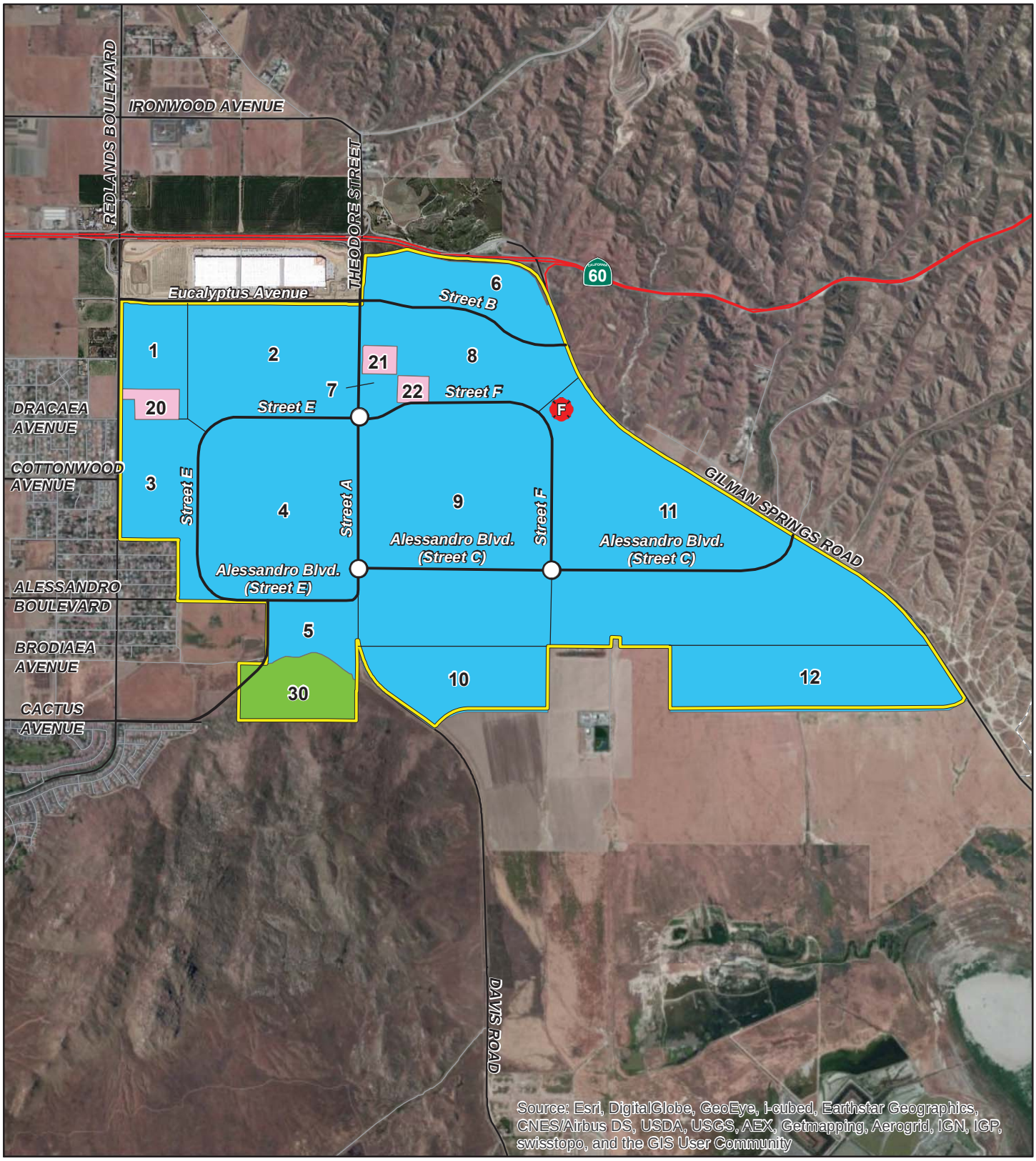

LSA

FIGURE 3.8

Project Boundary
Light Logistics
Logistics Development
Open Space
Fire Station Site
1 Planning Area Number

N

0 1,500 3,000
Feet

World Logistics Center Specific Plan Project Environmental Impact Report

Specific Plan Land Uses

SOURCE: ESRI World Imagery, 2010; Bing Maps, 2010; Google Maps, 2011.

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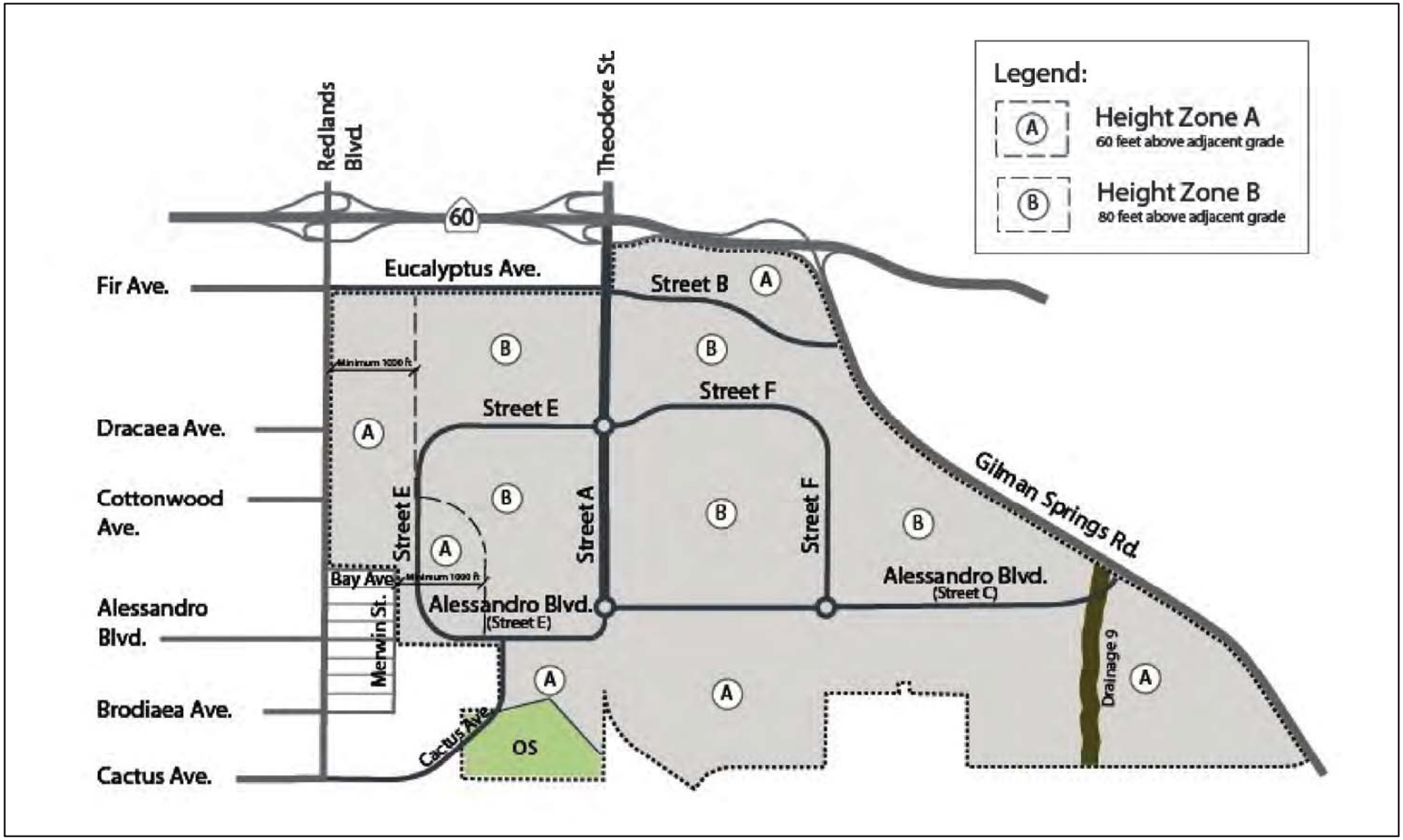

LSA

FIGURE 3.9

N

0 1,300 2,600

FEET

SOURCE: HF, September, 2014.

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World Logistics Center Specific Plan Project
Environmental Impact Report

Building Height Plans

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Special Uses ~~**Alternative Fueling**~~**.** Two "special use" areas are proposed within the land designated LD within the WLCSP. The first special use is at least one City fire station in Planning Area 11 east of Street F and west of Gilman Springs Road, although the City Fire Chief has not determined the specific site yet. The second special use area is for "logistics support" which will provide alternative fueling services for onsite users. The WLCSP encourages the development of warehousing that uses trucks powered by non-diesel fuels such as natural gas. The Specific Plan requires that smaller on-site service vehicles associated with these same buildings will use non-diesel fuels such as compressed natural gas (CNG) (WLCSP Section ~~1.2.2~~12.3). The use of LNG/CNG will substantially reduce vehicular emissions from the WLC project, including diesel particulate matter (DPM) and other diesel-related pollutants. ~~**Logistics Support Uses (LS).** An alternative fueling station is proposed at the northeast corner of Theodore Boulevard and Eucalyptus Avenue in Planning Area 22.~~ This facility will include a maximum of ~~approximately 20,000~~ 3,000 square feet of building area for diesel and LNG/CNG fuel sales, and for a small convenience store on a minimum of a 1 acre plot. This facility will be located a minimum of 250 feet away from any residential uses (see Specific Plan Section ~~2.4.3~~2.2.5 ~~and Specific Plan Figure 2-1~~, Land Use Plan for more information on this facility). Other permitted uses within the "logistics support" area include construction yards within, or immediately adjacent to approved construction sites, cellular transmission facilities and structures and public utility uses and structures,

NOTE: Diesel Emissions and Project Operation Restrictions. All medium-heavy duty trucks and heavy-heavy duty trucks entering logistics sites will be required to meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025 or be powered by natural gas, electricity, or other diesel alternative. Year 2010 diesel engines are generally considered to be as "clean" in terms of emissions compared to natural gas engines. Facility operators must maintain a log of all trucks entering the facility to document that on average, the daily truck fleet meets the emission standards contained in this mitigation. This log shall be available for inspection by City staff at any time. All service yard trucks (hostlers, yard goats, etc.), pallet jacks, forklifts, and other on-site equipment used during operation shall be powered by electricity, natural gas, and/or propane ~~and/or 100 percent biodiesel fuel~~. Electrical power sources shall be provided for service equipment.

Light Logistics Uses (LL). This category provides for the storage of materials such as general warehouse, self-storage, or vehicle storage uses, and would also include related office and/or maintenance areas. The WLC Specific Plan applies this designation to approximately ~~29~~ 37 acres of existing lots that are not large enough for LD buildings (minimum 500,000 square feet). Buildout of these areas could support up to 200,000 square feet of building area or 0.5 percent of the planned development of the site. Some of these lots are currently improved with residential uses and/or agricultural uses. Under the Specific Plan, the residential and agricultural uses would become legal, non-conforming uses.

Open Space (OS). Approximately ~~75~~ 74.3 acres in the southwest corner of the project area is designated for open space use in the Specific Plan. This property is adjacent to Mount Russell and the Lake Perris State Recreational Area. The Specific Plan restricts this property to passive open space and recreation uses. According to the WLC Specific Plan Section 2.4 the entire Open Space in Planning Area 30 will be offered for dedication in fee to the State of California for expansion of its adjacent ownership, or other public or private conservation organizations (see DEIR Section 4.1.6.1 for details). It should be noted that the only improvement planned for this area is the extension of Cactus Avenue.

Planning Areas. The Specific Plan land use plan is divided into sixteen (16) Planning Areas based on traffic impact zones which allows for more accurate estimates of potential traffic and air quality impacts of the WLC Project. The specific land use of each planning area is outlined in Table 3.D. Planning Areas (PA) 1-12 are designated as Logistic Development (LD), PA 20-22 are designated as

Light Logistics (LL), PA 7 has been specified as an alternative fueling station (refer to DEIR Section 3.4.7.5 for more information), and PA 30 is Open Space (OS). The previous Figure 3.8 shows the locations of the new planning areas for the WLCSP on the revised land use plan.

NOTE: The following table and figure have been added to show planning areas in the Specific Plan.

Table 3.D: WLC Project Land Uses by Planning Areas (all new from original DEIR)

Planning Area (PA)	Land Use Designation	Area (acres)	Building (square feet)
Logistics Development (LD)			
1	LD	77.8	1,100,000
2	LD	193.5	4,200,000
3	LD	120.3	1,600,000
4	LD	301.5	5,600,000
5	LD	64.2	600,000
6	LD	115.3	500,000
7	LD	10.3	50,000
8	LD	142.9	2,150,000
9	LD	485.8	10,400,000
10	LD	139.9	2,200,000
11	LD	500.0	8,000,000
12	LD	231.3	3,500,000
Subtotal		**2,382.8**	**40,400,000**
Light Logistics (LL)			
20	LL	16.1	45,500
21	LL	10.5	77,250
22	LL ~~LS~~	10.5 ~~5.5~~ ~~5.0~~	77,250 ~~57,250~~ ~~20,000~~
Subtotal		**37.1**	**200,000**
Open Space (OS)			
30	OS	74.3	—
Other			
ROW		115.8	—
Total		**2,610.0**	**40,600,000**

Source: WLCSP September 2014

3.4.6.2 Circulation System

The revised General Plan Circulation Element (as amended by the proposed WLC project) and the Specific Plan's Circulation Plan (Specific Plan Section 3.1) provides for the movement of vehicles in and around the World Logistics Center area. It provides the details of the road/street designations, right-of-way design, and road improvement thresholds. This section addresses the interface of the planning area with existing roadways as defined in the City General Plan.

Four key roadways will provide access to the proposed project: Theodore Street, Eucalyptus Avenue (between Redlands Boulevard and Theodore Street), Gilman Springs Road, and Alessandro

Boulevard (between Gilman Springs and the proposed extension of Cactus Avenue), as depicted in previously referenced Figure 3.6. The Specific Plan identifies five points of access for project traffic: (1) Eucalyptus Avenue at Redlands Boulevard; (2) Theodore Street at SR-60; (3) Street B at Gilman Springs Road; (4) Street C at Gilman Springs Road; and (5) ~~Street D~~ Cactus Avenue Extension extended to Cactus Avenue (no trucks, passenger vehicles only). Primary vehicular access to the project would be from SR-60 at Theodore Street and interchange improvements are planned to accommodate the increase in traffic volumes.

The ~~Specific Plan~~ Traffic Section of the DEIR provides that Transportation Management Plans (TMPs) may be included with each future building-specific project proposal in order to address project parking requirements in order to support "green building" or sustainable concepts. The number of required parking spaces may be modified subject to the approval of a TMP based on the provision of carpooling, van pools, staggered work hours or other facilities and programs. TMP applications would be processed in connection with future project-specific development applications.

Street Improvements. The following roadways lie on the project perimeter. Future improvements to project-affected roadways will be completed in accordance with City General Plan standards. Figure 3.10 provides the WLCSP Circulation Plan and Figure 3.11 shows the typical street cross-sections.

- **State Route 60.** SR-60 is a State freeway that currently has two mixed-flow lanes in each direction. Future improvements are planned by Caltrans to add a separate truck lane eastbound on the freeway through the Badlands including a dedicated truck lane in the future. SR-60 provides primary access to the project area.
- **Redlands Boulevard.** Redlands Boulevard is a designated truck route between SR-60 and Eucalyptus Avenue only; therefore, truck travel would be prohibited on Redlands Boulevard south of Eucalyptus Avenue. The ultimate street section is a 4-lane Divided Arterial.
- **Eucalyptus Avenue (west of Theodore Street).** Eucalyptus Avenue is a 4-lane Divided Arterial within an ultimate right-of-way of 110 feet. Improvements on the north side of the street (two westbound lanes, a raised median, and one eastbound lane) were recently completed by the HFCP project.
- **Cactus Avenue (extension east of Redlands Boulevard).** This is proposed to be a 4-lane undivided north-south roadway connecting existing Cactus Avenue with the westerly internal loop street (Street "E"). The intersection with Street "E" and would be designed to prohibit large trucks from using Cactus Avenue Extension to prevent their travel through adjacent residential neighborhoods. Special design features and signage will reinforce this restriction.
- **Gilman Springs Road.** At project opening year 2013, Gilman Springs Road will remain in its current condition (i.e., a two-lane undivided roadway) and future improvements would occur based on demand. The ultimate street section is a Divided Major Arterial with six through lanes and a raised median. Gilman Springs Road is a City-designated truck route. However, because Gilman Springs Road is partially a Riverside County facility and is thus partially outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made outside of its jurisdiction.

The following roadways within the Specific Plan are classified as Arterials (see Figure 3.11). Access rights and intersections with other streets or highways are limited:

- **Theodore Street (Street A).** Theodore Street is a north/south Arterial and is the primary truck route to and from SR-60. The ultimate street section is a four- to six-lane Divided Arterial within a 144-foot right-of-way including a landscaped median. Traffic roundabouts are proposed at the two key intersections along Theodore Street within the project.

- **Street B (Eucalyptus Avenue east of Theodore Street)**. This roadway will ultimately extend through the project from Theodore Street to Gilman Springs Road. The proposed street section is currently a four-lane Divided Arterial with a 122-foot right-of-way and a standard median.
- **Streets C and E.** The WLCSP circulated for public review with the Draft EIR showed these roadways would be four-lane Minor Arterials each within a 112-foot right-of-way with no median. Traffic roundabouts were proposed at key intersections within the project to facilitate efficient movement of trucks. However, these streets have been realigned northward to maintain the local historical landmark designation of Alessandro Boulevard (see below).

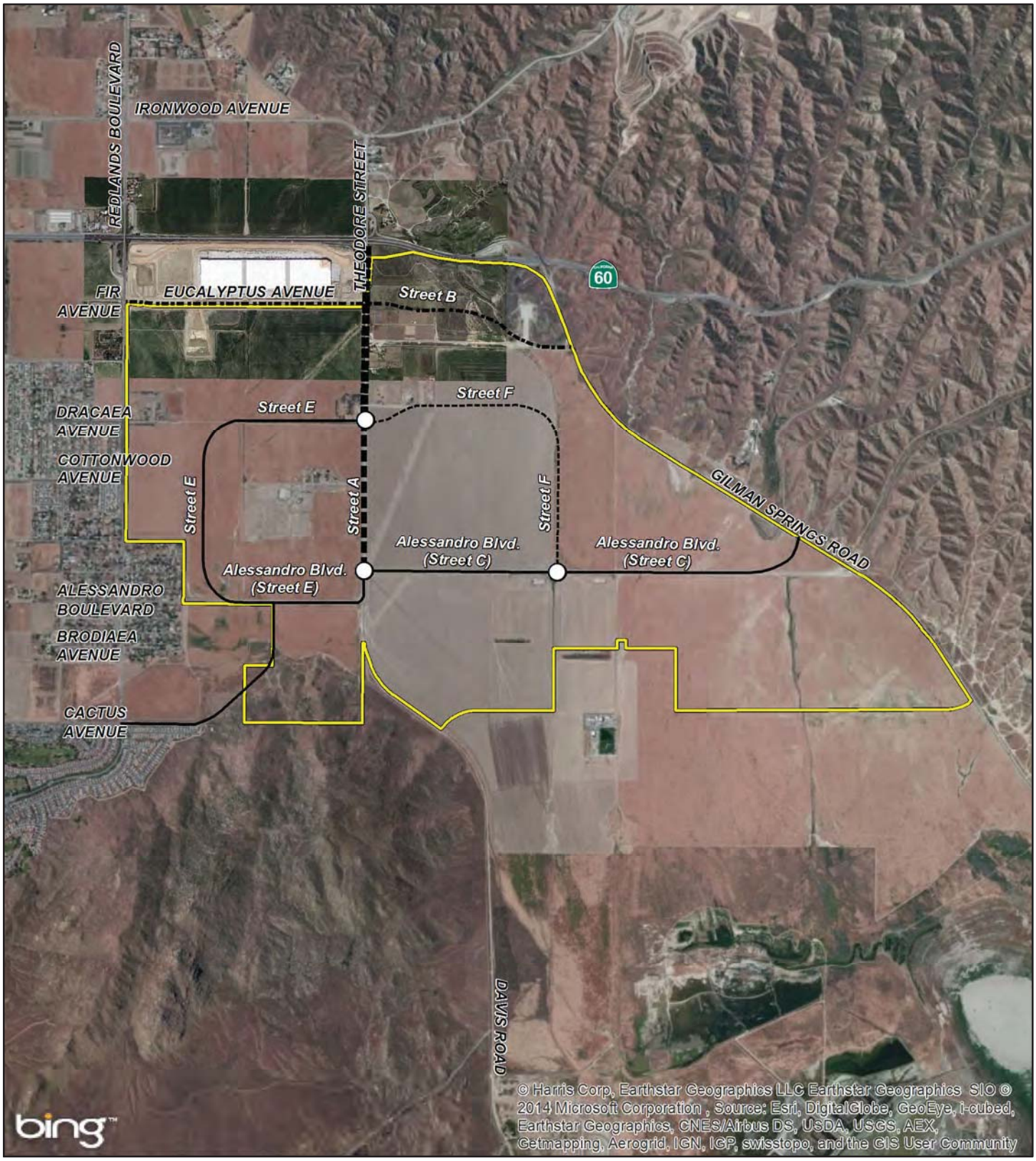
- **Alessandro Boulevard.** Alessandro Boulevard currently runs through the WLC site in an east-west direction, connecting to Gilman Springs Road on the east and traveling through Moreno Valley to the west. The WLCSP circulated for public review with the Draft EIR showed Alessandro Boulevard realigned as Streets C and E (see below). However, this roadway has been designated a City historical landmark, so the WLCSP circulation plan has been modified to retain the name, ROW width, and current alignment of Alessandro Boulevard as an undivided roadway running east-west through the World Logistics Center, still intersecting with Gilman Springs Road on the east and the Cactus Avenue Extension on the west. An existing section of Alessandro Boulevard between Merwin Street and the Cactus Avenue Extension will be closed to vehicular traffic except for emergency vehicles and bicycles and pedestrians access. This is to prevent project traffic, both trucks and passenger vehicles, from traveling through the existing residential neighborhoods to the west.

The smaller roadways within the Specific Plan (Streets F through H) would convey truck and other vehicle traffic in and around the project site. These two-lane roadways will have an ultimate right-of-way of 88 feet.

As Figure 3.10 shows, the Specific Plan proposes traffic roundabouts at the three internal intersections (Theodore Street/Streets E & F, Theodore Street/Alessandro Boulevard ~~Streets E & C~~, and Street C/Street F.

Planned Improvements. As part of the analysis of project traffic impacts, it is important to note that development within the WLCSP will make a number of roadway and intersection improvements that are within or adjacent to project property (i.e. onsite improvements). As outlined in the project TIA, these improvements include but are not limited to:

- Gilman Springs/Alessandro Boulevard Intersection;
- Gilman Springs/Eucalyptus Avenue Intersection;
- SR-60 Westbound Ramp/Theodore Street Intersection;
- Redlands Boulevard/Eucalyptus Avenue Intersection;
- Theodore Street/Eucalyptus Avenue Intersection;
- Eucalyptus Avenue from Redlands Boulevard to Theodore Street (south side);
- Extension of Cactus Avenue east onto the WLC property; and
- Internal Streets A through F shown on WLCSP Circulation Plan (DEIR Figure 3-10).



LSA

Project Boundary

Traffic Circle

6-Lane Divided (Wide Median)

4-Lane Divided (Wide Median)

4-Lane Divided (Std. Median)

4-Lane Undivided

2-Lane

See figure 3.11 for typical roadway cross sections.

N

0 1,500 3,000

Feet

FIGURE 3.10

World Logistics Center Specific Plan Project Environmental Impact Report

Circulation Plan

SOURCE: ESRI World Imagery, 2010; Bing Maps, 2010; Google Maps, 2011.

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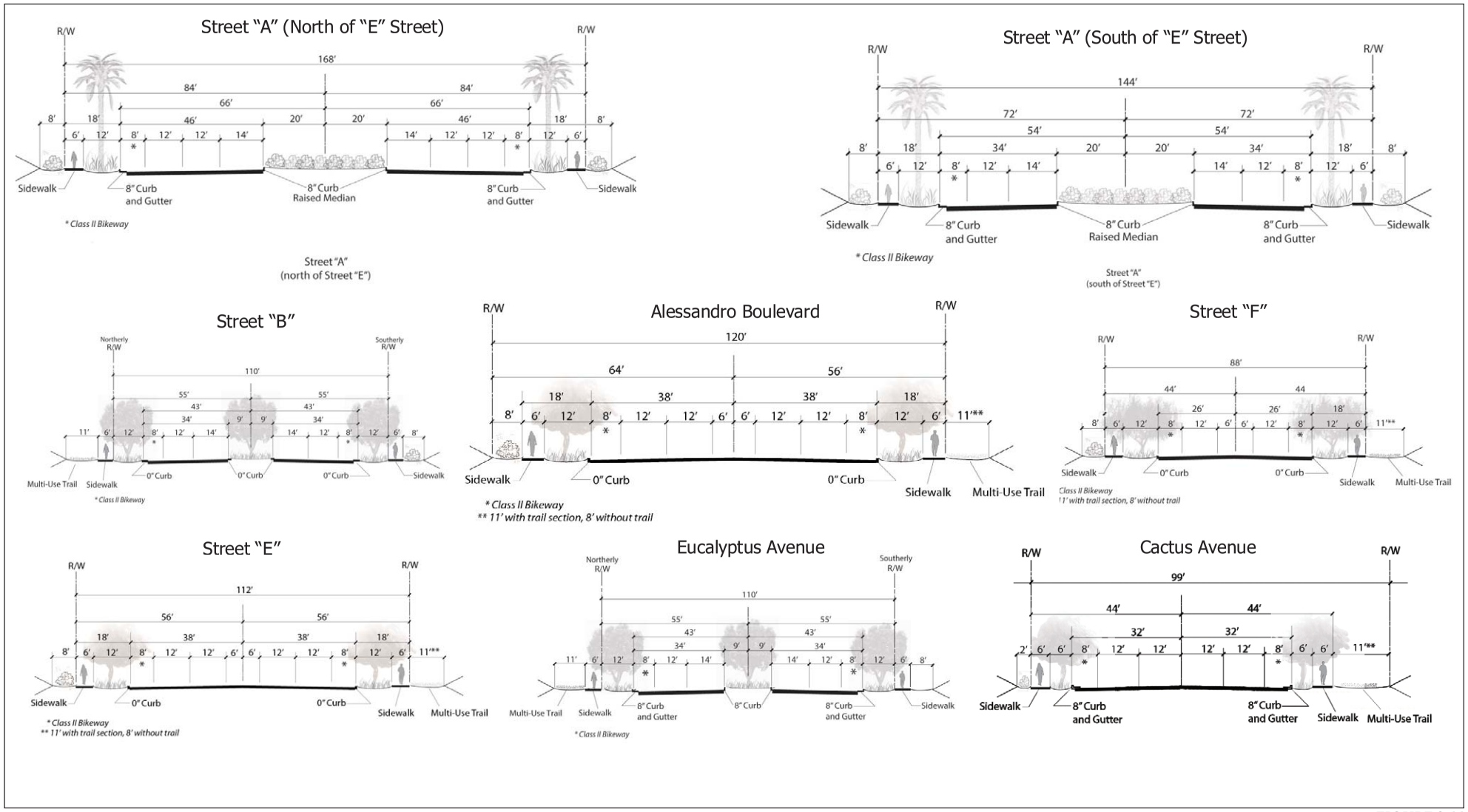

LSA

FIGURE 3.11

World Logistics Center Specific Plan Project
Environmental Impact Report

Typical Street Cross Sections

SOURCE: World Logistics Center Specific Plan, HF, September, 2014.

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Mobility. Section 3.4, *Non-Vehicular Circulation*, of the Specific Plan indicates that the intent of the mobility, transit, and pedestrian movement section is to ensure that people are able to move from one destination to another with minimal delays, either by walking or using other means of non-motorized travel. This means separating vehicles from pedestrian pathways and incorporating shared modes of travel such as trucks, autos, and bikes in the same right-of-way area where feasible. Bicycles would be able to use the street right-of-way throughout the project area. The Specific Plan states that project site development will support alternative transportation options for employees through implementation of on-site bicycle storage, preferred parking for low-emitting and fuel-efficient cars, carpool high-occupancy vehicles, and access to public transit.

According to Section 3.4.3, *Bicycle Circulation*, the Specific Plan will provide Class II (on-street) bicycle access along all connecting project roadways (i.e., not cul-de-sac streets), as shown in Figure 3.12. These Class II bicycle lanes will be integrated into the City's Bikeway Plan as well as the WRCOG Non-Motorized Transportation Plan, with connectivity to Class II bicycle lanes in the City that are adjacent to the WLC project site.

The Specific Plan requires sidewalks along all project streets (Specific Plan Section 5.2.8). Pedestrian movement relies on sidewalks providing direct access from the street to entry points for properties and buildings. Sidewalks are required to be shown on project-specific plot plans submitted for review by the City. All public street improvement shall meet the standards set forth in Title 24.

Local bus service to the area is provided by the Riverside Transit Agency (RTA). Local bus routes will be extended into the project area when adequate demand is generated as determined by the RTA. All roadways within the WLC area will be designed to accommodate bus access. The need for bus stops, turnouts, etc. will be determined by the RTA during the review of subsequent project-specific applications.

In addition to public sidewalks provided adjacent to project streets, Section 3.~~3.1~~4.2 of the Specific Plan, ~~*Pedestrian Circulation and*~~*Multi-Use Trails*, requires the construction of a trail connection between the Redlands Boulevard/Cottonwood Avenue intersection and the existing Cactus Avenue trail connection to the Lake Perris Recreational Area. This new trail will continue along Street E avoiding the Open Space area and connect to a new trail head and a potential trail (by others) to the San Jacinto Wildlife Area at the former Davis Road alignment (see Figure 3.12). Engineering details of the new trail will be provided with project-specific development applications in this portion of the project area.

3.4.6.3 Utilities and Services

The Utilities section of the Specific Plan (Section 3.5) describes the infrastructure systems needed to support the development of the project. This section identifies facilities for potable water, reclaimed water, wastewater, storm drain systems, power, natural gas, and telecommunications. This section also addresses the demand for general City services.

Potable Water. The Eastern Municipal Water District (EMWD) provides water service to the project area. EMWD obtains its water from Metropolitan Water District (MWD) and local groundwater wells.

The 2009 EMWD Water Facilities Master Plan (Master Plan) in conjunction with the Moreno Valley Water Pressure Zone Realignment Study (Realignment Study) evaluated the existing and future water needs and facilities required for the Moreno Valley water system. The Master Plan and Realignment Study analyzed the existing water system operating pressures and flows and recommended improvements to the system including realignment of the 1764 and 1900 pressure zones to 1764, 1860, and 1967 pressure zones. The area is currently served by existing pipelines in the 1764 and 1900 pressure zones that range in size from 8-inch to 21-inch diameter pipes (see Figure 3.13). The Master

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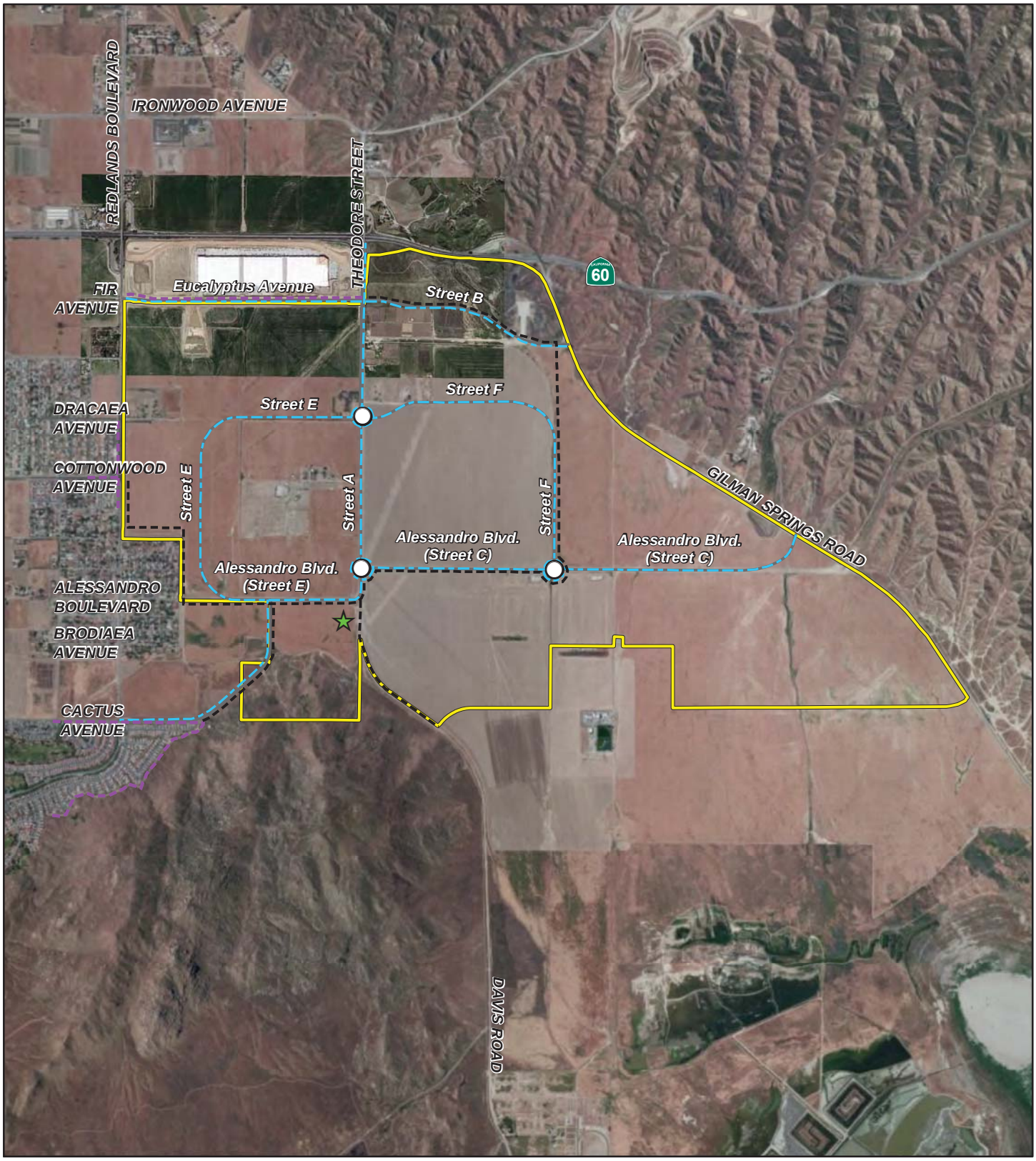

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FIGURE 3.12

Project Boundary

Class III Bikeway

Conceptual Trail Alignment

Existing Trail Alignment

Staging Area

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World Logistics Center Specific Plan Project
Environmental Impact Report

Non-Vehicular Circulation

SOURCE: ESRI World Imagery, 2010; Google Maps, 2011.

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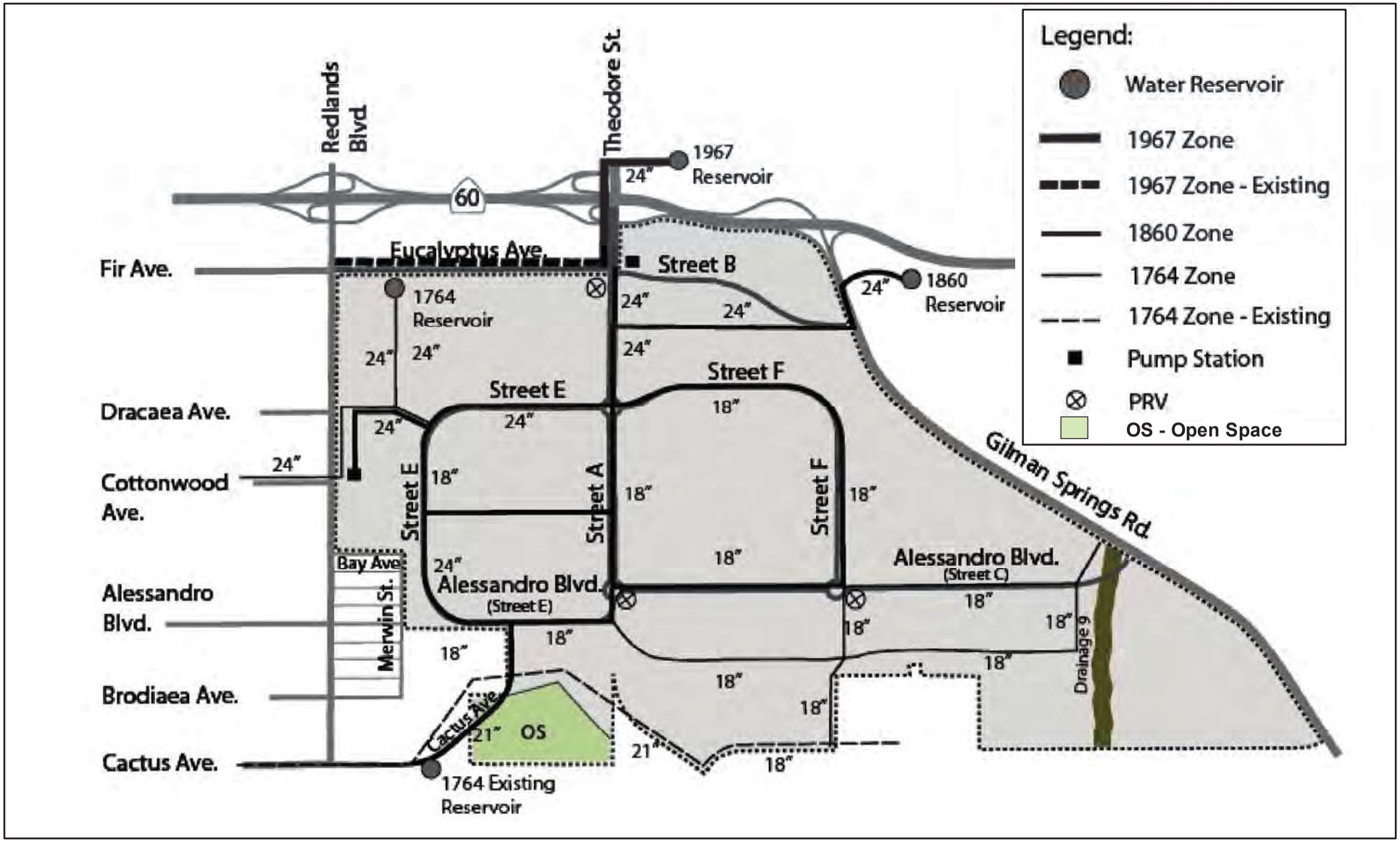

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FIGURE 3.13

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World Logistics Center Specific Plan Project
Environmental Impact Report

Water System

SOURCE: World Logistics Center Specific Plan, HF, September, 2014.

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Plan is included in Appendix M of this EIR. The Master Plan indicates that sufficient water is available for potable use and landscaping under expected conditions over a 20-year period.

The MWD owns and operates a 108-inch transmission line that runs north-south through the project area in Theodore Street, and then east-west in Eucalyptus Avenue, east of Theodore Street. Build-out of the proposed project site will require the construction of new water reservoirs to serve each of three water pressure zones (1967, 1860, and 1764). All three reservoir sites are located outside of the Specific Plan boundary. As development proceeds within the project area, new waterlines, ranging in size from 12 to 24 inches, will be constructed in the existing and future street rights-of-way to connect the future water tanks to the development area. The water system will require a new pump station at the 1764 reservoir and an upgrade to the existing EMWD pump station near Cottonwood Avenue and Redlands Boulevard.

All water facilities will be constructed to EMWD standards and will be subject to a Plan of Service approval by EMWD (Specific Plan Section 3.5.1). Previously referenced Figure 3.13 shows the new water system proposed for the project. The EIR will examine potential impacts of onsite and offsite water improvements including these reservoirs as outlined in Appendix M.

Reclaimed/Recycled Water. As stated in EMWD's Water Supply Assessment (Appendix M), EMWD policy recognizes recycled water as the preferred source of supply for all non-potable water demands, including irrigation of recreation areas, greenbelts, open space common areas, commercial landscaping, and aesthetic impoundment or other water features. The proposed project is near an existing recycled water line and EMWD has indicated that in the future, recycled water may be available for the project. If EMWD determines adequate recycled water supply is available, recycled water will be used on the proposed project to the greatest extent practical. The availability, feasibility, and reliability of recycled water use will be included in EMWD's evaluation of the Plan of Service for the project. Landscape irrigation may use potable water until recycled water facilities are in place. Information on reclaimed water is provided in Appendix N. "Purple" reclaimed water irrigation piping will be installed to certain landscaped areas as needed. "Purple" reclaimed water irrigation piping will be installed to certain landscaped areas as needed.

Wastewater. EMWD provides wastewater service to the project area at EMWD's Moreno Valley Regional Water Reclamation Facility (WRF) located in the southwestern portion of the City near Kitching Street and Mariposa Avenue. The WRF has the capacity to treat 16 million gallons per day (mgd) of wastewater. The analysis provided in Section 4.16, *Utilities and Service Systems*, indicates the WRF has a current excess capacity of 4.5 mgd and the proposed WLCSP would consume 0.3 mgd (6% of excess), so the WLC project does not by itself generate a need for new wastewater treatment facilities.

The primary trunk sewer line serving the project area is located within Redlands Boulevard. This trunk sewer line continues in a southerly direction within Cactus Avenue, JFK Drive, Iris Avenue, and Lasselle Streets conveying wastewater to the WRF (Specific Plan Section 3.5.2). The proposed sewer in Street A and all lines to the west of Theodore (Street A) are a gravity system and run generally southwest to a point of connection at Brodiaea Avenue and Redlands Boulevard. As demand requires, the segment of sewer line within Brodiaea Avenue that is west of Redlands Boulevard will be upsized from a 15-inch to a 21-inch line. The sewer system east of Theodore Street (Street A) will flow by gravity to a future sewer lift station at the southerly project boundary. From there, a force main will carry wastewater in a northwest direction, where it will join the gravity system west of Street A described above. Sewer lines will be located within public street rights-of-way to the greatest degree possible. Some of the buildings may require individual (private) lift stations due to

building lengths, location of buildings, and phasing of improvements. Future sewer lines will range in size between 8 and 21 inches, and will be constructed to EMWD standards and will be subject to a plan of service approval. Figure 3.14 shows the proposed sewer/wastewater system for the Specific Plan. Technical studies related to wastewater services are provided in Appendix N.

Storm Water Drainage. The project area is within the San Jacinto River watershed, which is part of the larger Santa Ana River watershed. The storm water runoff from the project generally flows in a southerly direction to the San Jacinto River at an average gradient of 1 to 2 percent. A topographic divide located west of Theodore Street (Street A) separates storm water flows to the San Jacinto River into two subareas. Runoff east of the divide flows through the San Jacinto Valley to the San Jacinto Wildlife Area and ultimately to the Gilman Hot Springs hydro-subarea. Runoff west of the divide flows to the Perris Valley Storm Drain and ultimately the Perris Valley hydro-subarea. Both hydro-subareas eventually flow to the San Jacinto River, approximately 10 miles south of the project site (Specific Plan Section 3.5.4).

The Riverside County Flood Control and Water Conservation District (RCFCWCD) is the responsible agency for the project area's regional flood control system. The westerly portion of the project site is located within the Moreno Master Drainage Plan (MMDP). An existing 12-foot by 8-foot reinforced concrete box (RCB) owned and maintained by RCFCWCD is located east of Redlands Boulevard. This facility collects storm water passing under SR-60 and outlets south of Eucalyptus Avenue where it flows through a spreading basin then across agricultural land. Farther south, the agricultural land drains to an RCFCWCD earthen channel at Redlands Boulevard flows to a greenbelt channel located south of Cactus Avenue and east of Redlands Boulevard and ultimately drains to the Perris Valley Storm Channel.

There is no master plan of drainage on the east side of the project site. The existing drainage facilities consist of open ditches along Theodore Street that convey runoff from adjacent areas and lands northerly of SR-60. A series of existing drainage culverts crosses Gilman Springs Road conveying the off-site runoff from the Badlands through the project site. Four of these culverts drain into natural drainage courses which drain to the south. Based on the latest Flood Insurance Rate Map (FIRM) published by the Federal Emergency Management Agency (FEMA), the project site is not located within a 100-year floodplain.

Development according to the Specific Plan will result in the placement of impervious surfaces on the project site, which would substantially increase the potential for runoff from the site. Post-development flows are required to be equal or less than pre-development flows, so the on-site storm water flows will be routed through a new system of underground drainage lines to a series of on-site detention basins. While the increase in impervious surfaces attributable to the proposed project would contribute to a greater volume and higher velocity of storm water flows, the hydrology report for the project indicates that the proposed detention basins would be designed to accommodate runoff and maintain off-site flows at pre-project conditions. Drainage improvements will be phased as needed to ensure that the peak flows at downstream discharge points at the southerly project boundary will not exceed the peak flows for the existing condition (Specific Plan Section 3.5.4). Figure 3.15 shows the proposed drainage system for the Specific Plan area. The drainage study is included in Appendix J.

Drainage from east of Gilman Springs Road flows southwest and south out of the Badlands and flows under Gilman Springs Road through corrugated steel pipe culverts. These culverts are relatively small, and during times of high flow, runoff often causes repeated localized flooding along the roadway. When Gilman Springs Road is improved to its ultimate width by the County, improvements will include the installation of larger culverts where needed to eliminate flooding along the roadway.

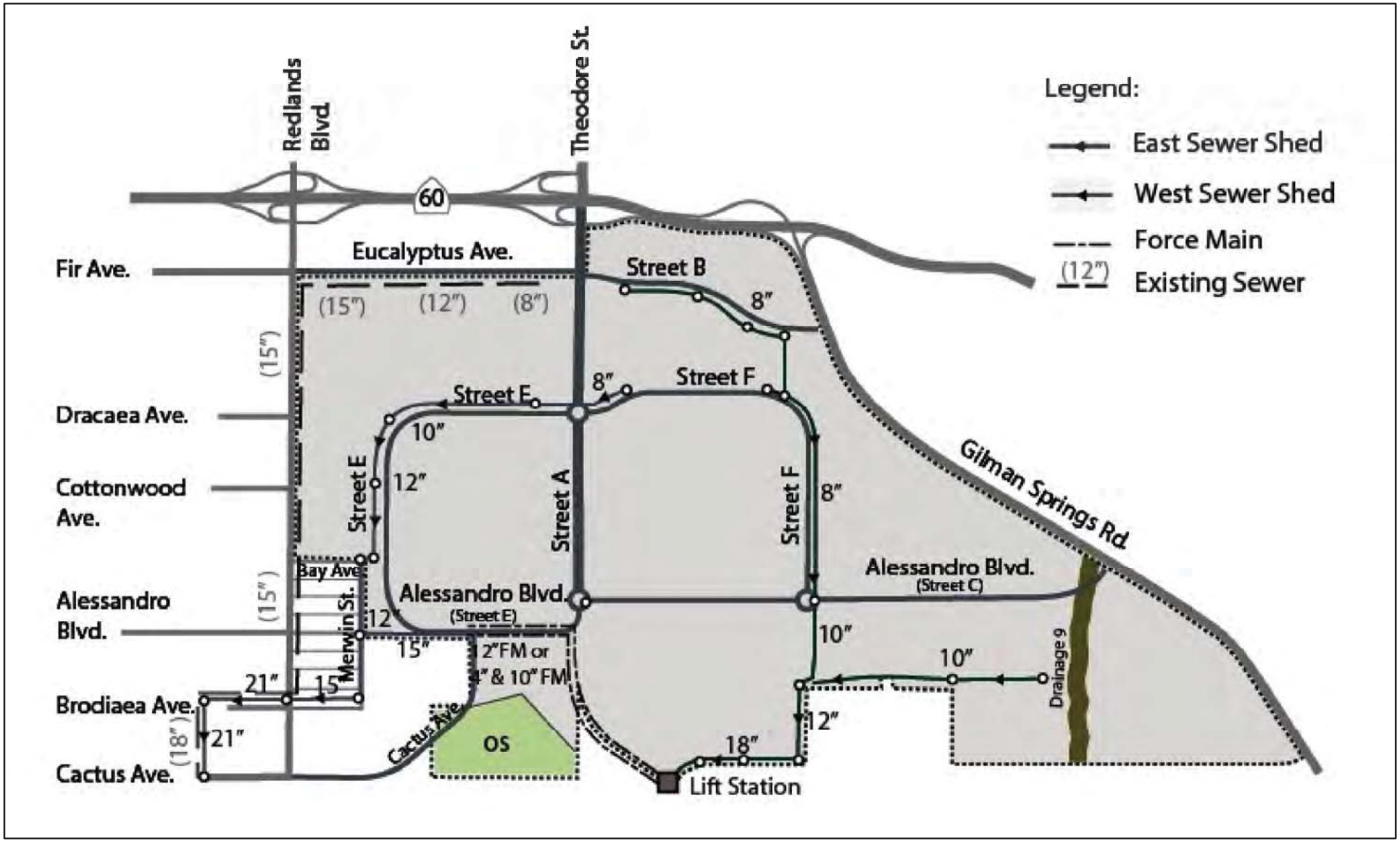

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FIGURE 3.14

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World Logistics Center Specific Plan Project
Environmental Impact Report

Wastewater System

SOURCE: HF, September, 2014.

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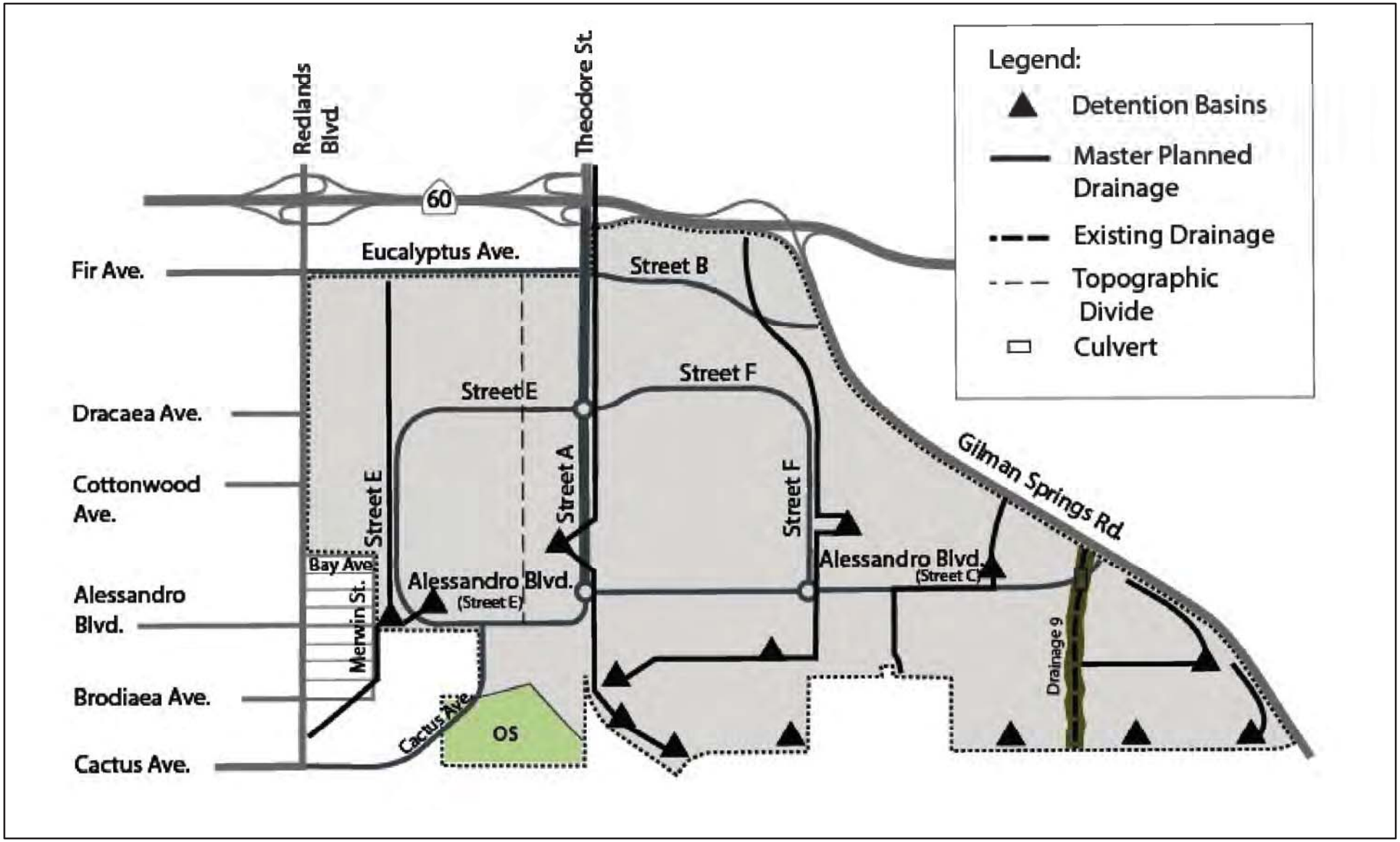

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FIGURE 3.15

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SOURCE: HF, September, 2014.

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World Logistics Center Specific Plan Project
Environmental Impact Report

Master Drainage System

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Solid Waste. The Specific Plan encourages recycling and reducing waste generation. Examples of the recycling processes identified by the Specific Plan include:

- Support recycling programs to sort and store materials destined for landfills;
- Reuse and recycle construction and demolition waste as much as feasible during building construction;
- Encourage the City of Moreno Valley to support by either implementing or expanding recycling and composting programs for businesses;
- Extend the types of recycling services offered (e.g., to include food and green waste recycling);
- Provide public education and publicity about recycling services conducted at the World Logistics Center; and
- Promote recycling programs aimed at supporting sustainable certification programs such as LEED, CalGreen, or similar sustainability programs.

Energy. Moreno Valley Electric Utility (MVEU) is the electricity provider for the World Logistics Center. While it will not provide service within the Specific Plan area, Southern California Edison (SCE) has existing 12 kV and 115 kV overhead power lines throughout the project area. There are SCE 115 kV power lines along Gilman Springs Road, Eucalyptus Avenue east of Theodore Street, Theodore Street north of Eucalyptus Street, and along Brodiaea Avenue/Davis Road to the south. There are also SCE 12 kV power lines along Gilman Springs Road, Theodore Street, Alessandro Boulevard, Eucalyptus Avenue east of Theodore Street, and Redlands Boulevard. MVEU has an existing underground electrical system at the intersection of Dracaea Avenue and Redlands Boulevard. As the project builds out, the Moreno Beach Substation will be expanded to 112 MW and a new 60 MW substation will be constructed to serve the project. Many of the existing 115 kV and 12 kV lines will be relocated as the Specific Plan is built out. Electrical facilities are shown in Figure 3.16.

~~*Important Note:* The Specific Plan allows solar photovoltaic (PV) arrays to be installed on the project buildings to help offset the electrical power requirements of the proposed project (i.e., WLCSP buildings will be "solar ready"). It is possible the WLC project could become "energy neutral" and eventually generate all of the electricity needed for developed uses within the WLCSP project during daylight hours. If the project becomes energy neutral, some or all of the electrical utility improvements identified in the previous paragraph may not be needed, but there would still need to be a redundant supply system to supplement any solar systems during cloudy times or at night.~~

Solar Energy. The Specific Plan requires solar photovoltaic (PV) arrays to be installed on the project buildings to offset the electrical power requirements of the office portion of each proposed warehouse building (WLCSP Section 12.7, Solar Commitment).

The SCGC is the natural gas provider for the project. An existing 4-inch medium pressure service line is located within Redlands Boulevard. Low-pressure facilities serve the residential area located west of Redlands Boulevard and southwest of Merwin Street and Bay Avenue. Throughout the project, natural gas is transmitted through existing SDG&E underground pipelines serving the Southern California region that range in size from 16 inches to 36 inches. Two 30-inch diameter transmission pipelines run in an east-west direction north and south of Alessandro Boulevard. Three transmission pipelines, 16, 24, and 36-inch diameters run in a north-south direction along Virginia Street, south of Alessandro Boulevard. The 36-inch diameter line also extends east from Virginia Street parallel with the 30-inch line that runs south of Alessandro Boulevard. Figure 3.17 shows planned natural gas facilities.

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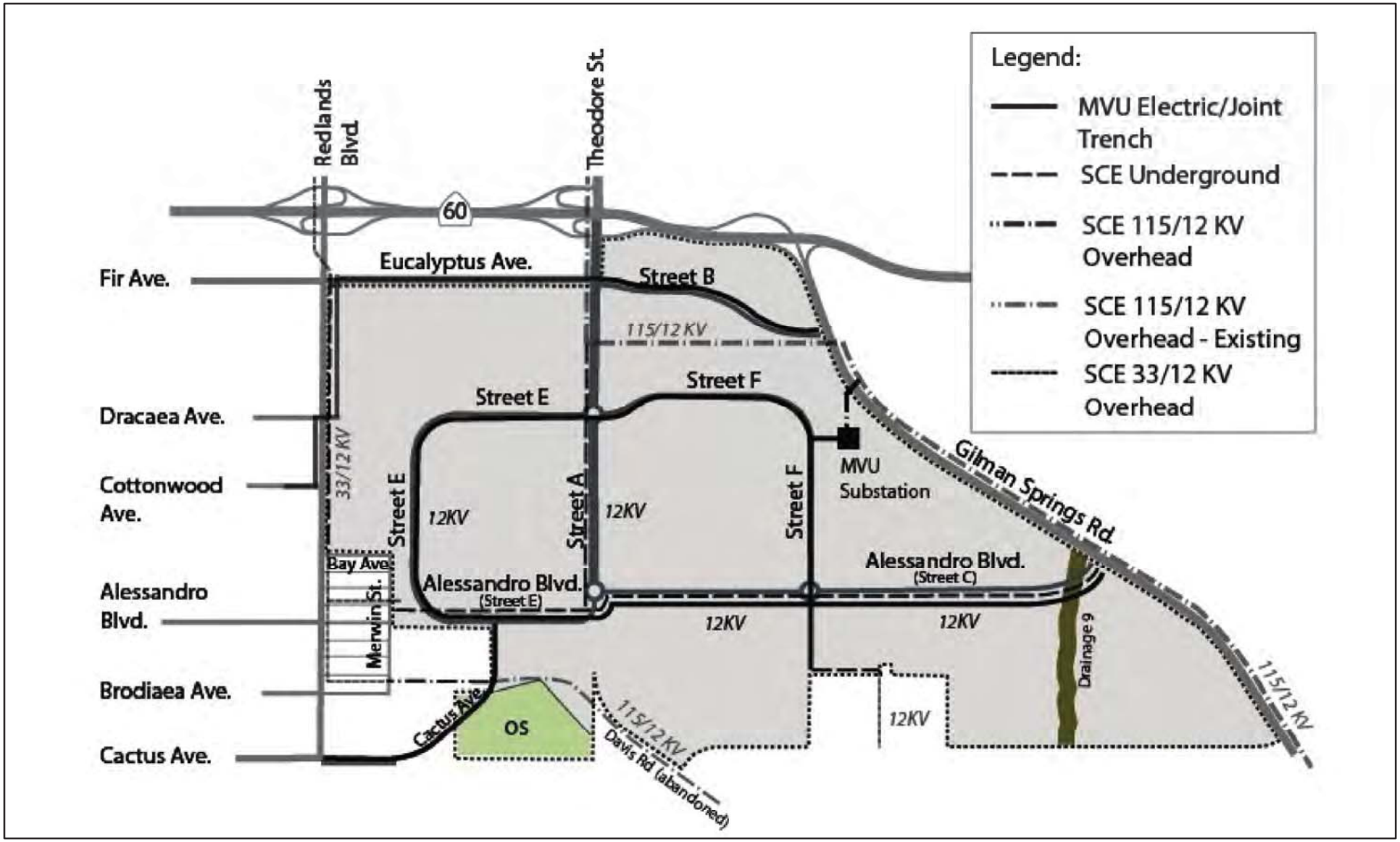

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FIGURE 3.16

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World Logistics Center Specific Plan Project
Environmental Impact Report

Electrical Facilities

SOURCE: World Logistics Center Specific Plan, HF, September, 2014.

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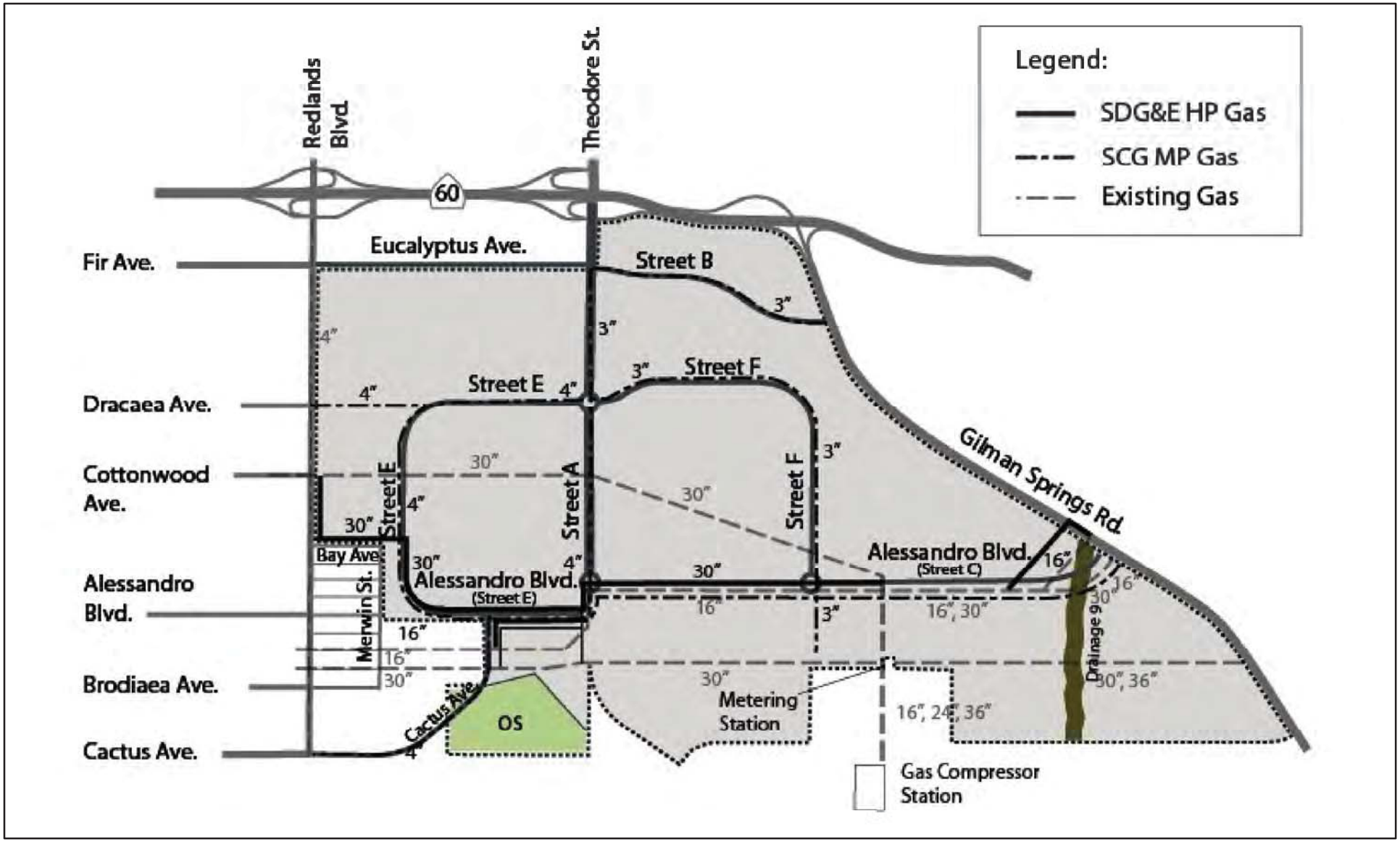

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FIGURE 3.17

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World Logistics Center Specific Plan Project
Environmental Impact Report

Natural Gas Facilities

SOURCE: World Logistics Center Specific Plan,HF, September, 2014.

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SCGC transmission facilities in the Specific Plan area include a gas line blow-down facility and flow metering station at Alessandro Boulevard and Virginia Street. Farther south on Virginia Street, SDG&E operates the Moreno Compressor Station, which supplies gas to San Diego via 16, 30, and 36-inch transmission pipelines. In addition, Questar, a private utility company, has a 16-inch natural gas transmission line that runs within Alessandro Boulevard from Gilman Springs Road to Theodore Street, where it turns south to Maltby Avenue, and then turns west to Redlands Boulevard.

SCGC has indicated the 4-inch medium-pressure service line that runs in Redlands Boulevard will be extended into the area to service the development. Gas service will be installed in the public street right-of-way or easements as a joint trench with telephone, cable TV, and electrical services. In connection with the development of the property, relocation of some natural gas transmission lines into public street right-of-way or easements will be necessary. SDG&E's Moreno Compressor Station will remain in place.

3.4.6.4 Public Services

Fire protection services in the project area are provided by the Riverside County Fire Department under contract to the City of Moreno Valley. The Fire Department has an existing fire station located on Eucalyptus Avenue just east of Moreno Beach Boulevard. Response times to the project site from this station are approximately five (5) minutes. ~~The Fire Department has indicated it is considering future station locations near Redlands Boulevard. As development progresses, fire protection services within the Specific Plan area will continue to be evaluated through the plan development process, and additional facilities and/or services may be needed in the future.~~ The Specific Plan indicates a new fire station will be located in the LD zone in the northeast portion of the site. At present, it is proposed in the north end of Planning Area 11, and the Specific Plan requires it to be built during Phase I. Placement of the fire station is subject to review and approval by the Fire Chief (Specific Plan Section 2.2.4 First Station Site). As development progresses, fire protection services within the Specific Plan area will continue to be evaluated through the plan development process, and additional facilities and/or services may be needed in the future.

Police service is provided to the project area by the Riverside County Sheriff's Department under contract to the City of Moreno Valley. At present, the City's main police station is at its design capacity, and additional capacity may be needed in the future. No new police facilities are planned on the project site at this time. ~~, but the applicant and the City are discussing the need for future facilities~~.

Park facilities and programs are provided by the City of Moreno Valley. There are no local parks in or adjacent to the project site at present and none are planned with the project. The Lake Perris State Recreation Area is located southwest of the project site.

School facilities and services are provided by the Moreno Valley Unified School District. No school sites are existing in or adjacent to the project site and none are planned.

Library facilities and services are provided to local residents by the City of Moreno Valley. No library facilities are proposed to be included in the Specific Plan area.

3.4.7 Sustainability

Site and building design within the Specific Plan area will incorporate many sustainability and green building concepts. Green building is the practice of increasing building efficiency through site planning, water and energy management, material use, control of indoor air quality, and the use of

innovative design concepts. These practices help to improve building operational efficiency, conserve water, reduce waste, and lessen the heat island effect of development.

All buildings within the project will comply with the Title 24 California Building Code. Adopted in 1978 in response to the energy crisis of the 1970s and updated every five years by the California Energy Commission (CEC), California's Title 24 contains the strictest and most energy-efficient building code in the nation. The Title 24 Building Codes are called California's "Green Building" codes because they create energy efficiencies of up to 30 percent in some categories above and beyond the energy efficiencies achieved under the previous versions of Title 24.

The 2013 version of standards went into effect January 1, 2014. The CEC adopted ~~the 2008~~these changes to the Building Energy Efficiency Standards for ~~a number of compelling~~the following reasons ~~as follows~~:

1. To provide California with an adequate, reasonably-priced, and environmentally-sound supply of energy.
2. To respond to Assembly Bill 32, the Global Warming Solutions Act of 2006, which mandates California reduce its greenhouse gas emissions to 1990 levels by 2020.
3. To pursue California policy that energy efficiency is the resource of first choice for meeting California's energy needs.
4. To act on California's Integrated Energy Policy Report (IEPR) findings that Standards are the most cost-effective means to achieve energy efficiency, that the Building Energy Efficiency Standards will continue to be upgraded over time to reduce electricity and peak demand, and that the Standards will play a role in reducing energy related to meeting California's water needs and in reducing greenhouse gas emissions.
5. To meet the Executive Order in the Green Building Initiative to improve the energy efficiency of nonresidential buildings through aggressive standards.

The Specific Plan requires sustainable development standards so that new development within the project area minimizes energy consumption, conserves water, and uses recycled or sustainable building materials, where feasible. It provides developers with a specific framework for identifying and implementing a variety of practicable and measurable green building design, construction, operations, and maintenance. All new development within the project area will be required to be designed to meet the CEC standards in effect at the time construction commences (WLCSP Section 1.3.2). In addition, buildings within the Specific Plan will be designed to be "solar ready" (i.e., allow the installation of solar photovoltaic systems on the roof of each building) (WLCSP Section ~~12.7 Solar Commitment~~ 1.2.2, Green Building – Sustainable Development).

The sustainability guidelines for the World Logistics Center serve the following functions to:

- Assist in meeting California's greenhouse gas reduction targets as set forth through Executive Order S-3-05 and Assembly Bill 32 (also known as the Global Warming Solutions Act of 2006);
- Assist in the region's development of a sustainable communities strategy pursuant to Senate Bill 375;
- Assist in meeting other state and local goals and requirements, including Assembly Bill 1385, The Complete Streets Act;
- Establish practical and innovative solutions for the developer, business, and residential community to improve resource efficiency and reduce consumption of energy, water, and raw materials; and

- Support waste management reduction identified in AB 341.

3.4.7.1 Building Design and Construction

The Specific Plan requires sophisticated construction techniques that will provide pollution prevention and control such as noise, air quality, erosion, and sediment controls. Both site planning and future building design will require best practices for use of recycled materials and products, such as recycled steel, and crushed concrete and pavement materials.

Low-emitting volatile organic compound (VOC) building materials will be required to be used on site. Project design will allow the incorporation of alternative energy sources such as rooftop solar systems (i.e., “solar ready” buildings) or other technologies reasonably available at the time of development. Project design and construction techniques will be employed to reduce the heat island effect, which creates thermal gradient differences between developed and undeveloped areas. Such techniques will include the use of materials that have a low solar reflectance index such as white roofs and light-colored pavements.

All development within the Specific Plan will require the preparation of a waste management plan requiring the diversion of at least 50 percent of waste from landfill. This goal will be achieved through a comprehensive recycling and management program including storage and collection of recyclables, building and material reuse, and careful construction waste management.

The Specific Plan will incorporate the use of passive heating and cooling into the design or modification of the high-cube warehouse development (e.g., white building colors and roof insulation to minimize heat gain, and landscaping to help shade buildings).

Electrical power sources will be provided both indoors and outdoors to accommodate the use of electrical property maintenance equipment (Section 12.4 of the WLCSP).

3.4.7.2 Landscaping

The Specific Plan requires development to install xeriscape or drought-tolerant landscaping that requires minimal irrigation and to utilize on-site runoff into landscaped areas as much as possible for landscape irrigation.

3.4.7.3 Water Usage

Under the requirements of the Specific Plan, the project will employ water reduction and conservation principles, which will include advanced irrigation systems, drought-tolerant plants, the use of mulch, recycled and other permissible alternative sources of water, and turfless plantings with alternative landscaping materials such as rock and other materials that do not require potable water sources. The final design will be used to calculate the site’s water demand. The annual maximum allowable water budget (AMAWB) will be compared to the estimated annual water use (EAWU) to ensure that the design meets EMWD guidelines.

3.4.7.4 Storm Water Quality

Through implementation of the design standards in the Specific Plan, the project will incorporate storm water quality measures including infiltration basins, bioretention facilities, and extended detention basins to reduce pollutants in storm water (Specific Plan Section ~~4.9~~5.1.8.5). Future

development projects will be required to implement a Water Quality Management Plan (WQMP) in accordance with the National Pollutant Discharge Elimination System (NPDES) Permit Board Order R8-2010-0033. The current approved Riverside County WQMP for Urban Runoff addresses the Municipal Separate Storm Sewer Systems (MS4) NPDES permit. The most recent WQMP for the Santa Ana Region of Riverside County addresses the latest MS4 NPDES permit requirements. Projects identified as a "Priority Development Project" will be required to prepare a project-specific WQMP. The MS4 Permit mandates a Low Impact Development (LID) approach to storm water treatment and management of runoff discharges. Site-specific projects will be designed to minimize imperviousness, detain runoff, and infiltrate, reuse, or evapotranspirate runoff where feasible. LID design will be used to infiltrate, evapotranspirate, harvest and use, or treat runoff from impervious surfaces, in accordance with the *Design Handbook for Low Impact Development Practices*.

The project should also ensure that runoff does not create any hydrologic conditions of concern. The Regional Water Quality Control Board (RWQCB) continuously updates impairments as studies are completed. The most current version of impairment data should be reviewed prior to preparation of the Preliminary and Final Project-Specific WQMP (WLC Specific Plan Section ~~4.9~~5.1.8, *Water Quality Site Design*).

The WLC Specific Plan contains extensive site design, source control, and treatment control Best Management Practices (BMPs) that will be analyzed in detail in Section 4.9, *Hydrology and Water Quality* of this EIR.

3.4.8 Architectural Design Guidelines

Sections 4.1 and 5.3 of the Specific Plan contain the architectural and building design standards that will be applicable to all future off-site conditions and specific on-site development proposals. The design standards provide for attractive, functional, compatible contemporary designs, which can also minimize energy consumption and the production of greenhouse gases, helping to reduce the project's contribution to global climate change. These Specific Plan sections include typical building elevations, cross-sections, and photographic renderings that illustrate how future development will appear. The architectural guidelines also address project details such as building setbacks, walls, fences, building materials, and colors.

Section 2.0 of the Specific Plan establishes building height limitations throughout the project, as shown in previously referenced Figure 3.9. Building heights are limited to 60 feet ~~at the perimeter of the project~~ for buildings located along the north, west, and southern boundaries of the project and 80 feet ~~on the interior~~ ~~For buildings over 60 feet~~ along Gilman Springs Road and in ~~height only 20 percent of the building may exceed 60 feet~~ the interior. The WLC Specific Plan contains a provision that portions of buildings could be raised an additional 10 ~~feet~~ percent to accommodate interior facilities (i.e., elevator shafts) and architectural design elements, which may be approved through the administrative variance process.

3.4.9 Landscaping Design Guidelines

Sections 2.5, 4.2, and 5.~~3~~4 of the Specific Plan provide landscaping guidelines for the project. The intent of these guidelines is to develop a landscape program that reduces the use of mechanical irrigation systems, maximizing the collection and use of rainfall to irrigate carefully designed landscape areas. The Specific Plan includes a plant palette specifically designed for the project site to consume significantly less water than conventional landscaping concepts. The Specific Plan contains an extensive palette of drought-tolerant plants.

The Specific Plan calls for a more substantial landscape treatment to be installed along the ~~western boundary~~ perimeter of the site. These special edge treatment areas will be along the western boundary of the project site, north along SR-60, east along Gilman Springs Road, and along the southern boundary of the project adjacent to the SJWA. ~~near existing residences,~~ These areas have been designed to provide an aesthetic buffer and soften views between the ~~housing~~ surrounding land uses and the planned warehouse buildings and truck activity areas. Further description of the special edge treatment areas can be found in the Section 2.5 of the WLCSP and DEIR Section 4.1.6 and in DEIR Figure 4.1.6A. For areas not along the ~~western boundary~~ perimeter, landscaped areas would be grouped by water needs ~~and only utilize drip irrigation systems along Theodore Street and the perimeter of the project~~. Irrigation systems would be designed to irrigate at no more than 70 percent[2] of the plant groups' reference evapotranspiration rate (minimum required water for the plant groups' survival), and would be designed to minimize water runoff onto sidewalks or streets. The project will direct runoff to landscaped areas and employ techniques to promote percolation and water capture at the root zone, reducing the need for mechanical irrigation.

Section 5.~~3~~4.2 of the WLCSP requires future development to consider the following water conservation measures: macro and micro climates, solar exposure, prevailing wind conditions; site analysis of, seasonal temperature patterns, soils and drainage, grades, and slopes; use of historical evapotranspiration rates and weather station (CIMIS) data; use of planting zones coordinated according to plant type, climatic exposure, soil condition and slope to facilitate use of zoned irrigation systems; use of low water or drought-tolerant plant species in landscape areas served by potable water; audit of water use and certification by a licensed landscape architect that the irrigation system was installed and operates as designed; use of reclaimed water systems if available and practical, use of best available irrigation technology to maximize efficient use of water, including moisture sensors, multi-program electronic timers, rain shutoff devices, remote control valves, drip systems, backflow preventers, pressure reducing valves and matched output sprinkler heads; use of gate valves to isolate and shut down mainline breaks; design to meet peak moisture demand of all plant materials within design zones, while avoiding flow rates that exceed infiltration rate of soil; design to prevent overspray or discharge onto roadways, non-landscaped areas or adjacent properties; and timing of irrigation cycles to operate at night when wind, evaporation, and human activities are at a minimum.

3.4.10 Lighting Design Guidelines

Section ~~7.0~~5.5 of the Specific Plan contains guidelines for site lighting within the Specific Plan. The regulations prohibit direct light spillage onto adjacent properties, especially the San Jacinto Wildlife Area to the south (Specific Plan Sections 4.3 and 5.5), while providing sufficient light for nighttime activities and project security. The project will incorporate the design standards adopted by Ordinance 851 which established stricter controls on outdoor lighting.

3.4.11 Off-site Improvements

Development within the Specific Plan will require various infrastructure improvements, some of them located off site. Local roadways and intersections affected by project traffic will be improved as outlined in the project Traffic Impact Analysis (TIA). Electrical service will be extended from the Moreno Beach substation to the project. Electric power lines along Gilman Springs Road will be relocated when that road is widened. Providing potable water to the site will require the construction of three new reservoirs, one north of SR-60 off of Theodore Street, one east of Gilman Springs Road near the northeast corner of the site~~, and one west of the project site off of Cottonwood Avenue~~ one

[2] Per the California Code of Regulations, Title 23 Waters Division, Department of Water Resources, Ch. 2.7 Model Water Efficient Landscape Ordinance, the County of Riverside Water Efficient Landscape Requirements Ordinance No. 859, and the Eastern Municipal Water District (EMWD) 2010 Urban Water Management Plan, or current Urban Water Management Plan.

in the northwestern portion of the project (see Figure 3.13). ~~Street D will be extended off-site to the south to connect with the eastern end of Cactus Avenue~~ The Cactus extension will extend east through a portion of the Open Space area, then turn north to intersect with Alessandro Boulevard (see Figure ~~3.16~~3.10), and a four-inch gas line will be constructed within this street extension (see Figure ~~3.16~~3.10). A 21-inch sewer line will be extended to the west from the southwest corner of the site (see Figure ~~3.17~~3.14) from ~~D Street~~ Cactus Avenue. The existing County drainage channel near the southwest corner of the site will be improved to handle increased flows from project runoff. At such time as traffic demand dictates, the Theodore Street interchange on SR-60 will be reconstructed to accommodate project traffic. All of the off-site improvements needed to support development of the Specific Plan are shown in previously referenced Figure 3.7. This EIR examines the impacts of these off-site improvements on approximately 104 acres of off-site land that they affect.

NOTE: The analysis of environmental impacts from the project, including biological resources, cultural resources, geotechnical constraints, air quality, greenhouse gases, noise, etc., also address development of these offsite improvement areas as well as development of the WLCSP property.

3.4.12 Grading and Excavation

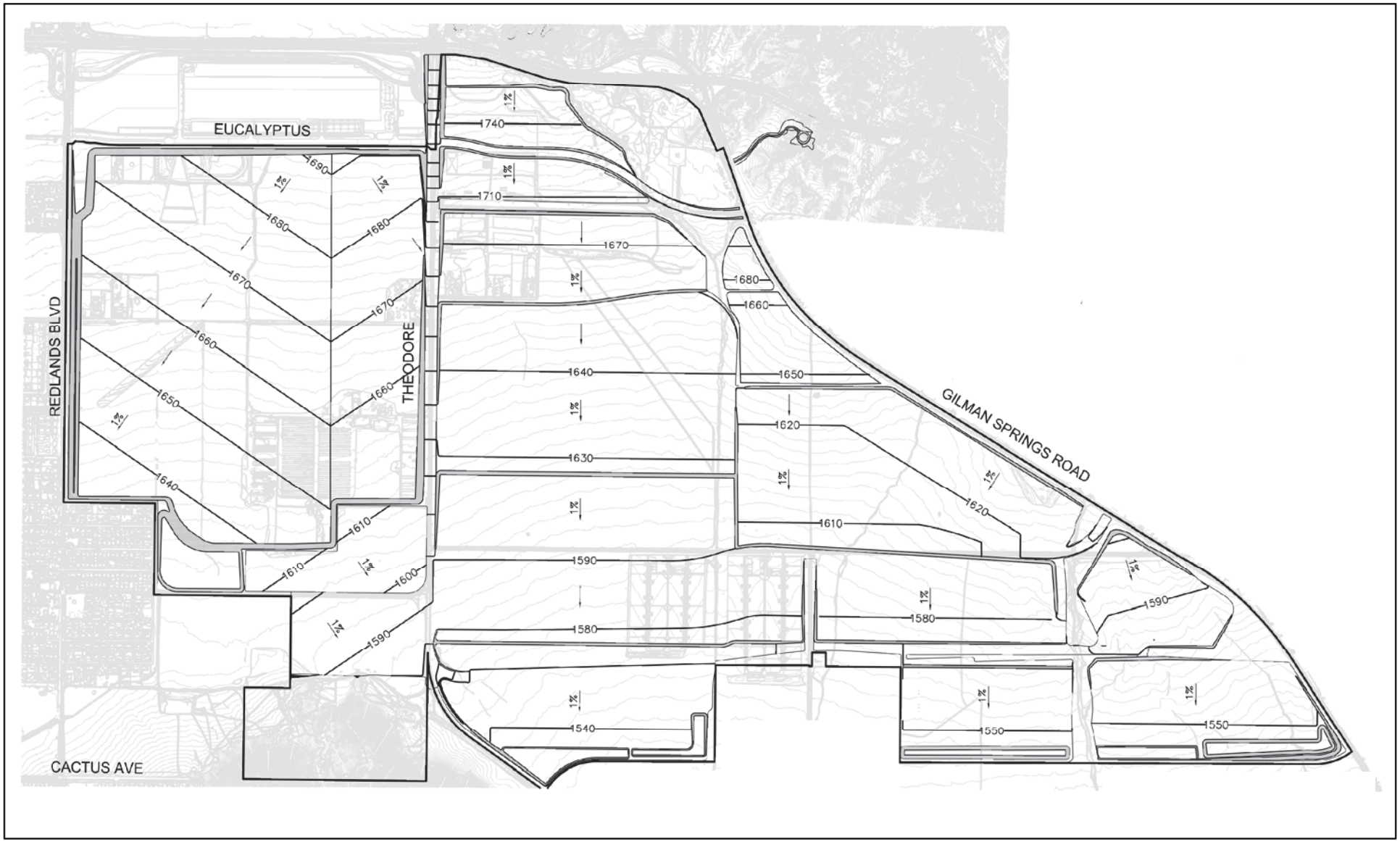
Approximately 42 million cubic yards (cy) of cut and fill will be required to rough/mass grade the entire project site, including remedial grading and overexcavation. Earthwork will balance on site within the Specific Plan, eliminating the need to import or export dirt for the project. See Figure 3.18 for the conceptual grading plan.

3.4.13 Phasing

~~Development of the Specific Plan is planned over a period of ten years, from 2013 through 2022. Under this projected development schedule, the project will absorb an average of approximately 4 million square feet of new development each year from 2013 to 2022, with actual development phasing based on future market conditions. Section 2.2 of the Specific Plan, *Project Phasing*, suggests that development will likely occur in two large phases, starting in the western portion of the site south of Eucalyptus Avenue This phasing concept is based on beginning construction where infrastructure presently exists and expanding southerly and easterly. Figure 3.19 shows the proposed phasing plan.~~

Development of the Specific Plan is planned over a period of fifteen years, from 2015 through 2030. Under this projected development schedule, the project will absorb an average of approximately 2.7 million square feet of new development each year from 2015 to 2030, with actual development phasing based on future market conditions. Section 8.0 of the Specific Plan, *Project Phasing*, suggests that development will likely occur in two large phases, starting in the western portion of the site south of Eucalyptus Avenue This phasing concept is based on beginning construction where infrastructure presently exists and expanding southerly and easterly. It is anticipated that Phase 1 would be completed by 2022 and would contain approximately 50% of development or approximately 20,300,000 square feet of logistics warehouse uses. Phase 2 anticipates full development build-out by 2030. Figure 3.19 shows the proposed phasing plan.

As stated in the Specific Plan, project phasing predictions are conceptual. The actual amount and timing of development will be dependent upon numerous factors, many of which are outside the control of the City or the developer, including interest by building users, private developers and local, regional, and national economic conditions. These and other factors acting together will ultimately determine the location and rate at which development within the project area occurs.



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SOURCE: RBF Consulting, 2014

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FIGURE 3.18

World Logistics Center Specific Plan Project
Environmental Impact Report

Conceptual Grading Plan

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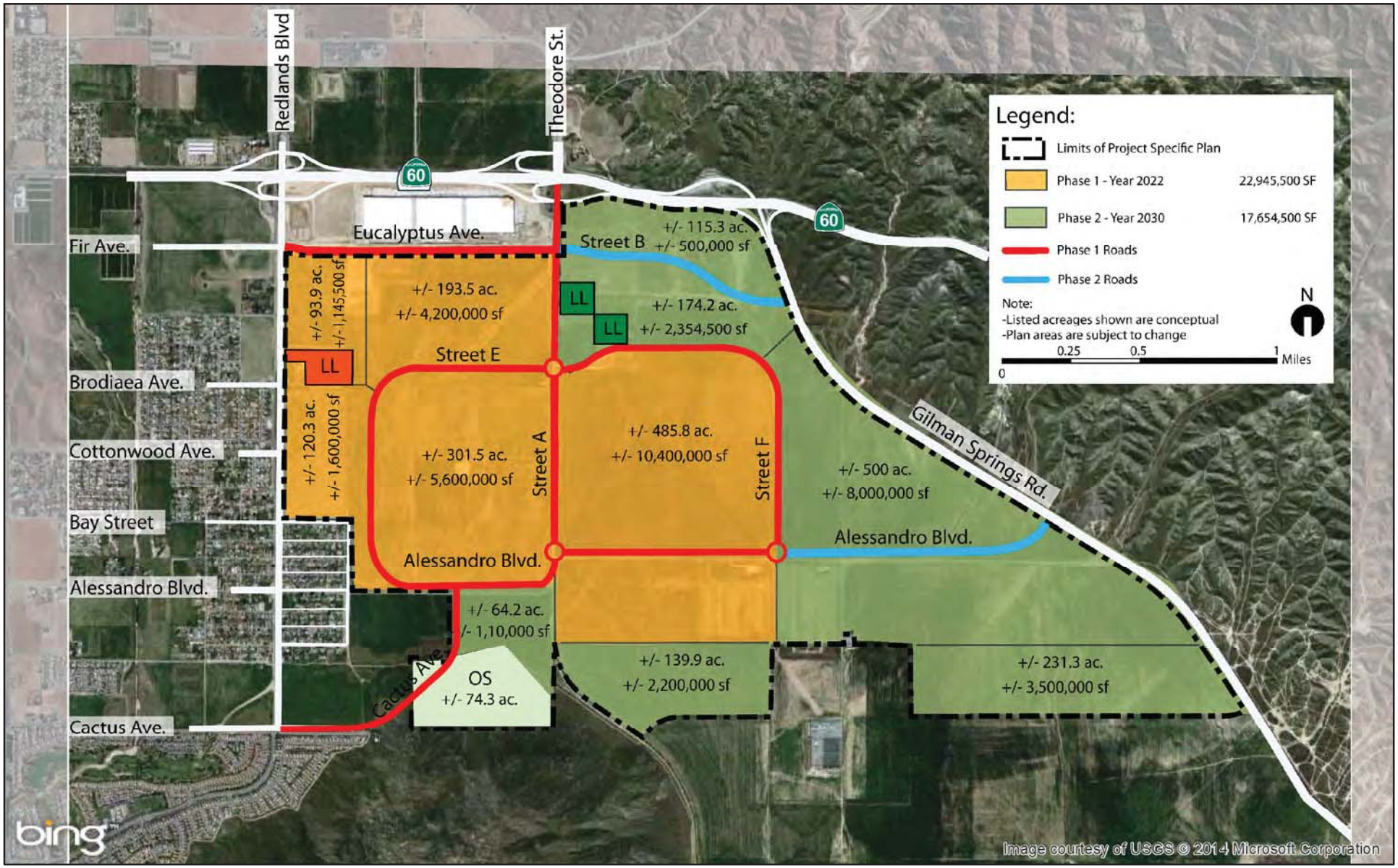

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FIGURE 3.19

World Logistics Center Specific Plan Project
Environmental Impact Report

Project Phasing

SOURCE: Air Quality, Greenhouse Gas, and Health Risk Assessment Report, July 2014.

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City adoption of the project will establish the framework for development of the area in accordance with the Specific Plan, which identifies the type and intensity of land uses permitted within the project. It is anticipated that development of the project would occur over time, as the result of the construction of multiple separate independent projects of varying sizes and configurations. Each of these future projects would be required to be consistent with the General Plan and zoning and would comply with all applicable regulations of the Specific Plan. Table 3.E provides an estimate of the rate at which the project area could be built out, consistent with the Specific Plan, and estimated levels of construction projected to occur during each phase of development. Table 3.E also includes the approximate amount of equipment anticipated to be used during construction of the project.

NOTE: The analysis of environmental impacts from the project, including biological resources, cultural resources, geotechnical constraints, air quality, greenhouse gases, noise, etc., addressed development of these offsite improvement areas as well as development of the WLCSP property.

Table 3.E: Estimated Construction Equipment and Phasing(2015–2030) revised per new phasing plan

Activity/Equipment	#	Duration (months)	Phase 1–		Phase 2–	
			Start	End	Start	End
Mass Grading/Excavation						
Dozers (D8R, D9, D10)	4-21	96	The equipment will be used from January 1 to December 31 during the following years: 2015, 2017, 2019, and 2021		For the years 2022 to 2024 equipment will be used from October 1 to March 31 of the following year. For the years 2027, 2028, and 2030 equipment will be used from January 1 to June 30.	
Scraper (651E)	6-30					
Compactor (824C, 834)	2-6					
Motor Grader (140G)	1-3					
Service/Support Truck	7-27					
Other Dozers (D6M, 550)	2-9					
Other[1]	8-18					
Finish Grading						
Dozer (D6M, 550)	3-9	32	Equipment will be used two months out of the following years 2015, 2017, 2019, and 2021		Equipment will be used two months out of the following years 2022, 2023, 2024, 2025, 2027, 2028, and 2030	
Backhoe (420D)	1-3					
Water Truck	1-3					
Service/Support Truck	1-3					
Building						
Backhoe (590)	6	186	July 1, 2015	December 31, 2021	January 1, 2022	December 31, 2030
Concrete Truck	36					
Excavators (9060, 270, 240, mini)	16					
Material Delivery Trucks	11					
Forklift (420 and 544D)	10					
Case and Skip Loaders[2]	28					
Service/Support Truck	24					
Other[3]	12					
Utilities						
Excavators[4]	26-30	186	July 1, 2015	December 31, 2021	January 1, 2022	December 31, 2030
Loaders	8					
Water Truck	17					
Backhoe (420)	2					
Service/Support Trucks	18					
Delivery Trucks	10					
Concrete Trucks	8					

Table 3.E: Estimated Construction Equipment and Phasing(2015–2030) revised per new phasing plan

Activity/Equipment	#	Duration (months)	Phase 1–		Phase 2–	
			Start	End	Start	End
Other[5]	4-8					
Interchange						
Dozer (D9, D10)	1	18	January 1, 2020	September 30, 2021	--	--
PW Scraper (623)	1					
Excavator (324)	1					
Backhoe (430)	1					
Crane	1					
Concrete Truck	4					
Service/Support Truck	4					
Drill Rig	1					
Dump Truck	5					
RT Wheel Loader (950)	1					
Concrete Screed Mach.	1					
Skip Loader (414)	1					
Dozer (D5, D6)	1					
Motor Grader (14M)	1					
Curbing						
Curb Machine/Screed	2	62	July 1, 2015[3]	December 31, 2021	January 1, 2022	December 31, 2030
Skip Loader (210)	1					
Concrete Truck	6					
Service/Support Truck	4					
Paving						
Roller/Paving/Blade/Scraper	10	32	January 1, 2015[4]	December 31, 2021	January 1, 2022	December 31, 2030
Skip Loader	4					
Bottom Dump Truck	4					
Delivery Truck	7					
Service/Support Truck	6					
Landscaping						
Loader (310G, 210LE, 544J)	6	186	January 1, 2015	December 31, 2021	January 1, 2022	December 31, 2030
Water Truck	2					
Excavator (mini) /Lift (544D)/Steer (S190R)	6					
Trencher (RT-45)	2					
Service/Support Truck	14					

Source: Highland Fairview, February 2014

1. Includes: Water Puller, 420D Backhoe, water trucks, support trucks
2. Includes: 414, 721, cat skip loader, 310G, 210LE, 544J
3. Includes: boom pump/truck, water truck, trencher, skid steer, water truck
4. Includes: 65,000 lbs to 175,000 lbs, 250G, and cat mini
5. Includes: dump truck, crane, fork lift

[3] Two months a year
[4] Four weeks a year

3.4.14 Construction Hours

Similar to the Highland Fairview Corporate Park, construction of warehousing buildings within the Specific Plan will occur on a 24 hour-a-day, 7 day-a-week basis. This is necessitated by the extensive use of poured concrete in the construction of building sites and the logistics buildings themselves. Major concrete pours are most efficiently and economically done in the cooler night and early morning hours. Additionally, the large number of concrete delivery trucks necessary for this construction has a minimal traffic impact in the nighttime hours.

The City's Municipal Code contains the following language regarding construction hours:

> ***Section 8.14.040*** *Hours of Construction. Any construction within the city shall only be as follows: Monday through Friday (except for holidays which occur on weekdays), six a.m. to eight p.m.; weekends and holidays (as observed by the city and described in Chapter 2.55 of this code), seven a.m. to eight p.m., unless written approval is obtained from the city building official or city engineer.*
>
> ***Section 8.21.050*** *Time of Grading Operations. Grading and equipment operations shall only be completed between the hours of seven a.m. and six p.m. Monday through Friday, excluding holidays and from eight a.m. to four p.m. on weekends and holidays. The city engineer may, however, permit grading or equipment operations before or after the allowable hours of operation if he or she determines that such operations are not detrimental to the health, safety, or welfare of residents or the general public. Permitted hours of operations may be shortened by the city engineer's finding of a previously unforeseen effect on the health, safety, or welfare of the surrounding community.*

If necessary, future developers within the WLCSP can apply to the City for extended hours of operation under the Municipal Code guidelines, as outlined in Condition of Approval #7 for the Highland Fairview Corporate Center (Skechers):

> *Construction and Demolition. No person shall operate or cause the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between the hours of eight p.m. and seven a.m. the following day such that the sound there from creates a noise disturbance, except for emergency work by public service utilities or for other work approved by the city engineer or designee.*

3.4.15 Specific Plan Implementation

Although financial and economic parameters of a project are not typically included in an EIR, the size and complexity of the Specific Plan project dictate that a certain amount of this information be included in the EIR to demonstrate that the project is feasible and that the City will not incur undue risk relative to the installation of public infrastructure and other facilities and services (Specific Plan Section 11.0).

Funding for the transportation, infrastructure, and other improvements identified in the Specific Plan would be provided by a variety of sources. For example, Highland Fairview would construct certain backbone roads at the outset of project development; future development would install road connections and on-site improvements. All projects would contribute to the City's Development Impact Fee (DIF) program to help fund future roadway improvements in the immediate surrounding City area. In addition, future development would contribute to the County's Transportation Uniform Mitigation Fee (TUMF) program to fund identified regional improvements such as the SR-60 ramps at Redlands Boulevard. The Specific Plan contains a discussion of potential financing measures and

mechanisms the City would need to enact, adopt, or participate in for the proposed infrastructure improvements.

One of the available regional infrastructure funding mechanisms is the TUMF managed by the Western Riverside Council of Governments (WRCOG). The primary purpose of the TUMF program is to fund regional transportation improvements. The TUMF program has become a key way to ensure that growth does not create gridlock on regional and local thoroughfares. Under the TUMF program, Western Riverside County is divided into five zones, with the Specific Plan located in the "Central" zone. The TUMF is structured so that 48.7 percent of funds generated in each zone go back to that zone to be programmed for projects. Another 48.7 percent is allocated to regional inter-zone projects programmed by the Riverside County Transportation Commission (RCTC), and 2.6 percent is allocated for regional transit projects programmed by the RTA. TUMF-eligible roadways within the proposed project include Redlands Boulevard, Alessandro Boulevard, Gilman Springs Road, and freeway interchanges at Gilman Springs Road and Redlands Boulevard.

The City of Moreno Valley has implemented a Capital Improvement Program (CIP) that is closely linked to the City DIF program. According to the 2011–2012 CIP, the City has experienced a reduction in DIF as well as other development-related funding sources. The current CIP reflects the new projects that have been funded. DIF funding is collected for "Arterial Streets," "Interchange Improvements," and "Traffic Signals." The CIP describes approximately $1.66 billion in capital projects through build out of the City.

There are several identified CIP projects within the project area including traffic signals along Alessandro Boulevard at Redlands Boulevard, Sinclair Street, Theodore Street, Virginia Street, and Gilman Springs Road; Eucalyptus Avenue at Redlands Boulevard, Sinclair Street, Theodore Street, Virginia Street, and Gilman Springs Road; SR-60 eastbound ramps at Theodore Street, and westbound ramps at Theodore Street and Redlands Boulevard. Future street improvements within the project area include SR-60 interchanges at Redlands Boulevard and/or Theodore Street, and Gilman Springs Road; although these are included in the City CIP program, the funding sources are TUMF and private developer contributions. Other future CIP identified street improvements include Alessandro Boulevard through the project area, Eucalyptus Avenue, Gilman Springs Road (within the city limits), Theodore Street, and Virginia Street. Updates to the CIP program may include future streets within the WLC project.

3.5 GENERAL PLAN AMENDMENT

Approval of the project includes amendments to the following General Plan text and Elements to incorporate the many aspects of the WLC Specific Plan (also see Figures 3.20a-j):

1. **Community Development Element**

   a. Revise Land Use Map (Figure 2-2) to include WLCSP land plan

   ~~b. Revise Section 2.1.1~~

   ~~… several City of Moreno Valley facilities, including city hall, the public safety building and the animal shelter. A major logistics center is planned southerly of SR-60 between Redlands Boulevard and Gilman Springs Road. There are two full service hospitals … (page 2-1)~~

   c. Revise Section 2.1.3

   … intersection of Virginia Street and Gato del Sol. ~~The acquisitions encompasses about one third of the land within the Moreno Highlands Specific Plan.~~

~~Neither of the aforementioned land purchases are likely to be developed as envisioned in the original specific plan, and are likely to remain substantially vacant. In that the Moreno Highlands Specific Plan Development Agreement precludes the City from making unilateral changes to the specific plan land use plan, no changes were recommended for the Moreno Highland Specific Plan as part of the General Plan Update.~~

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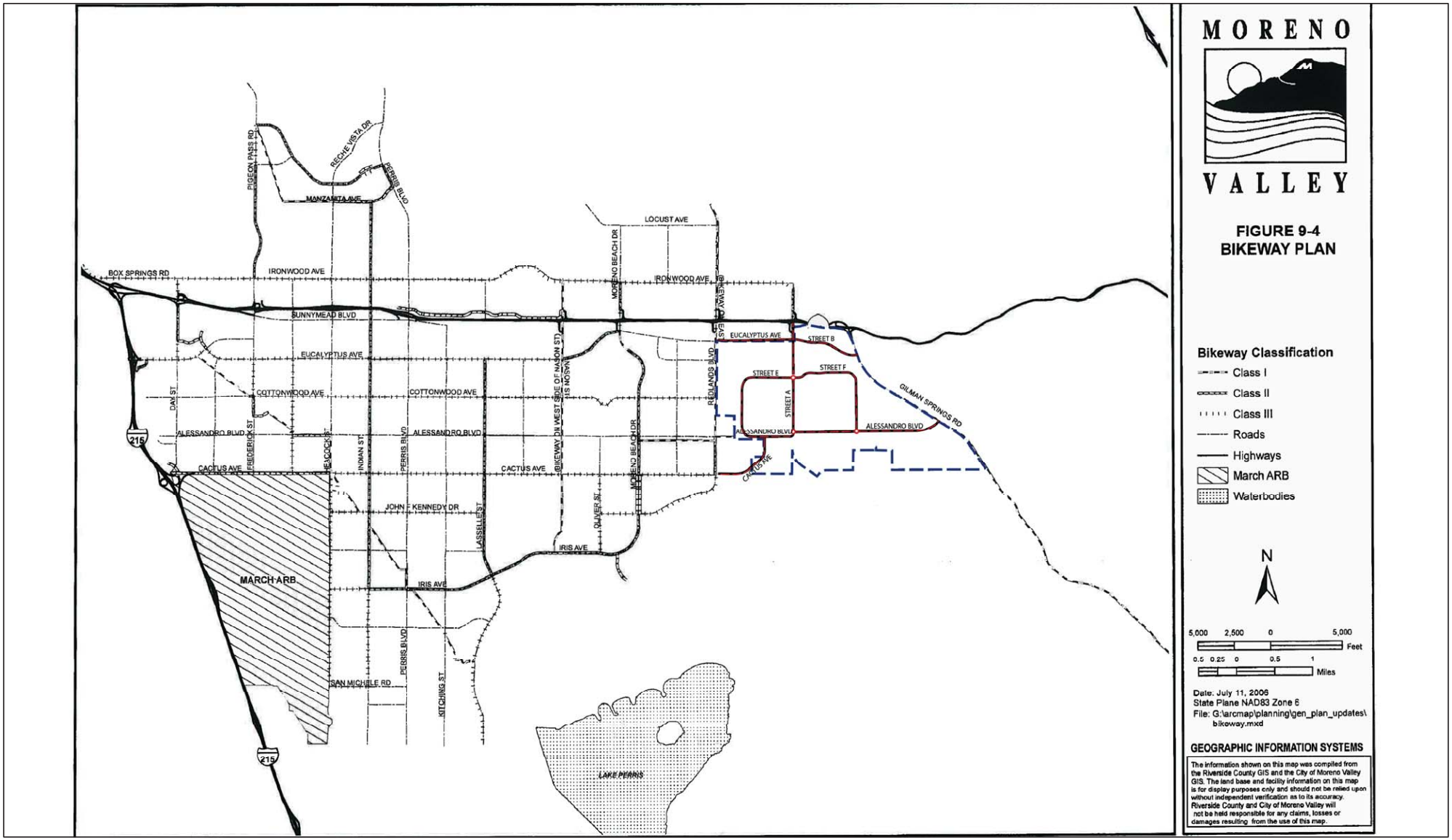

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FIGURE 3.20A

World Logistics Center Specific Plan Project
Environmental Impact Report
General Plan Amendment

SOURCE: Moreno Valley, September, 2014.

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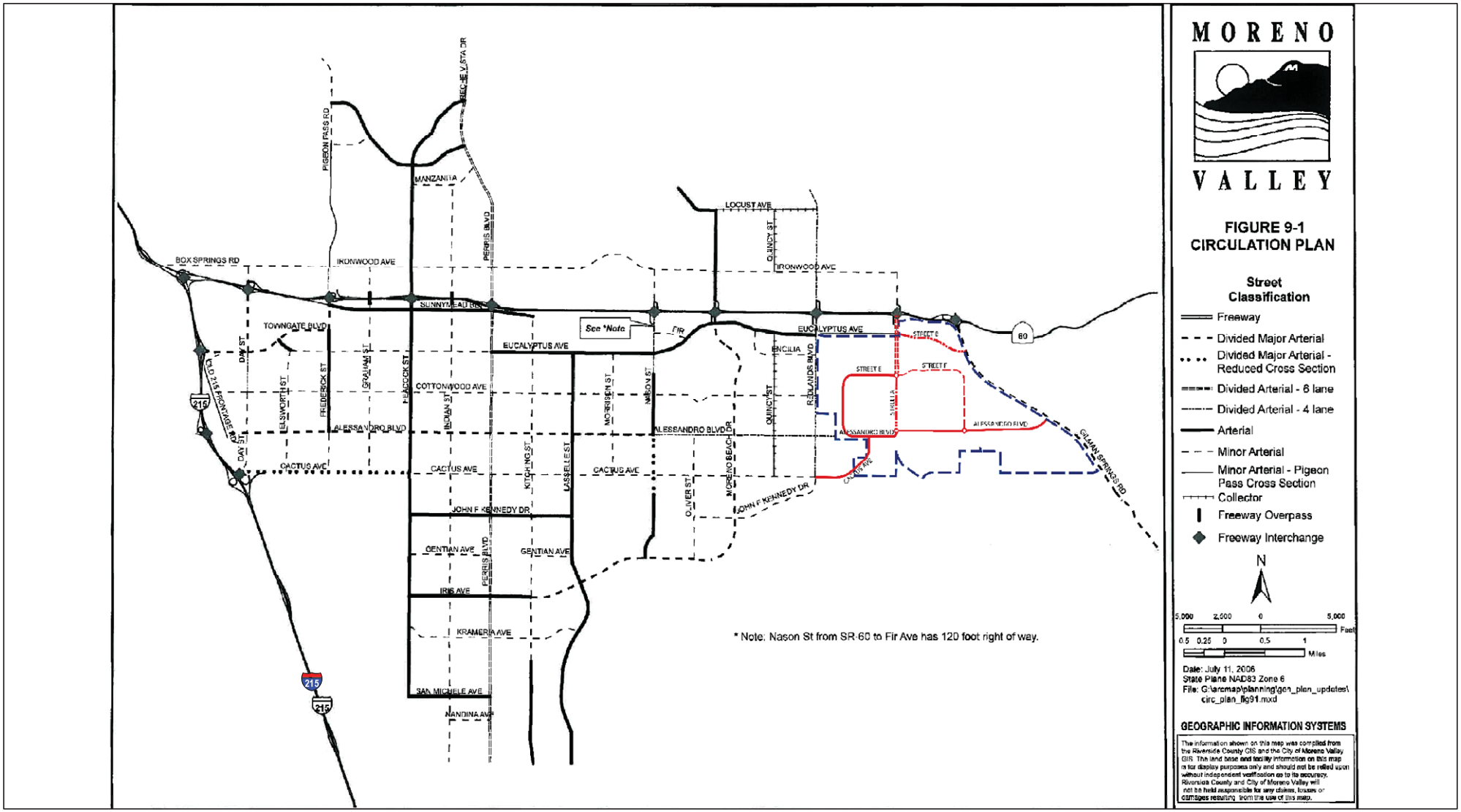

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FIGURE 3.20B

World Logistics Center Specific Plan Project
Environmental Impact Report

General Plan Amendment

SOURCE: Moreno Valley, September, 2014.

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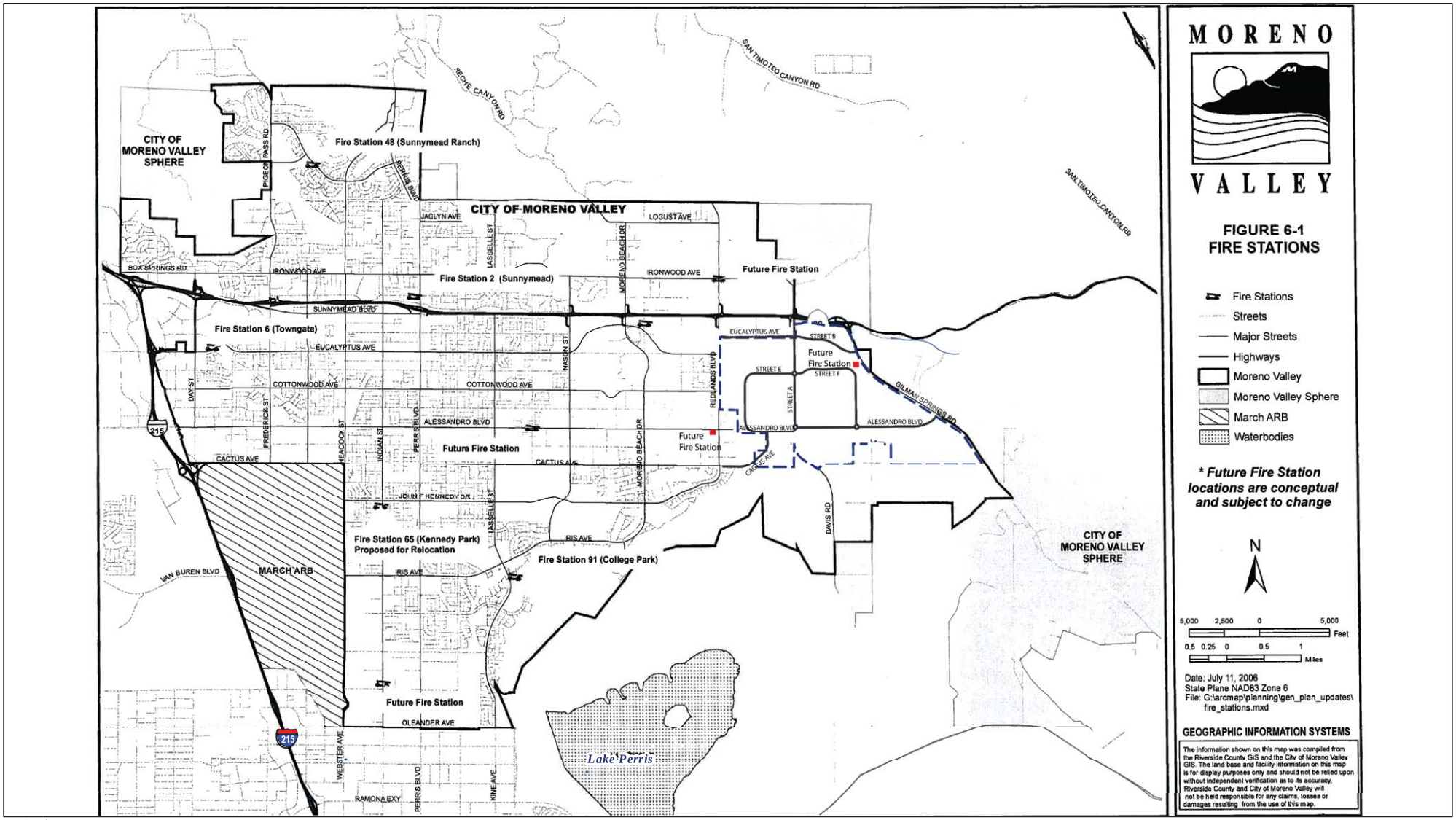

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FIGURE 3.20c

World Logistics Center Specific Plan Project
Environmental Impact Report

General Plan Amendment

SOURCE: Moreno Valley, September, 2014.

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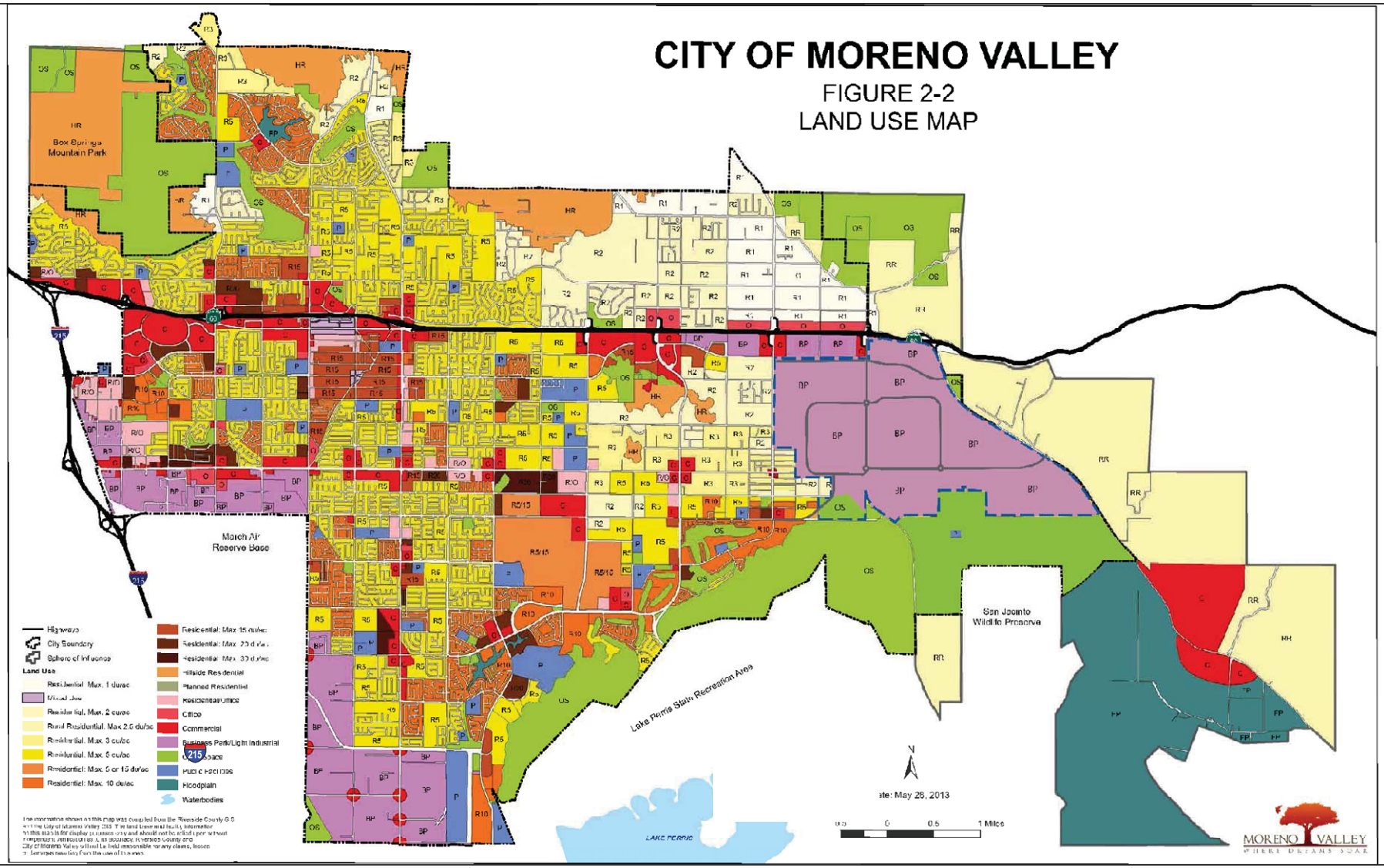

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FIGURE 3.20D

World Logistics Center Specific Plan Project
Environmental Impact Report

General Plan Amendment

SOURCE: Moreno Valley, September, 2014.

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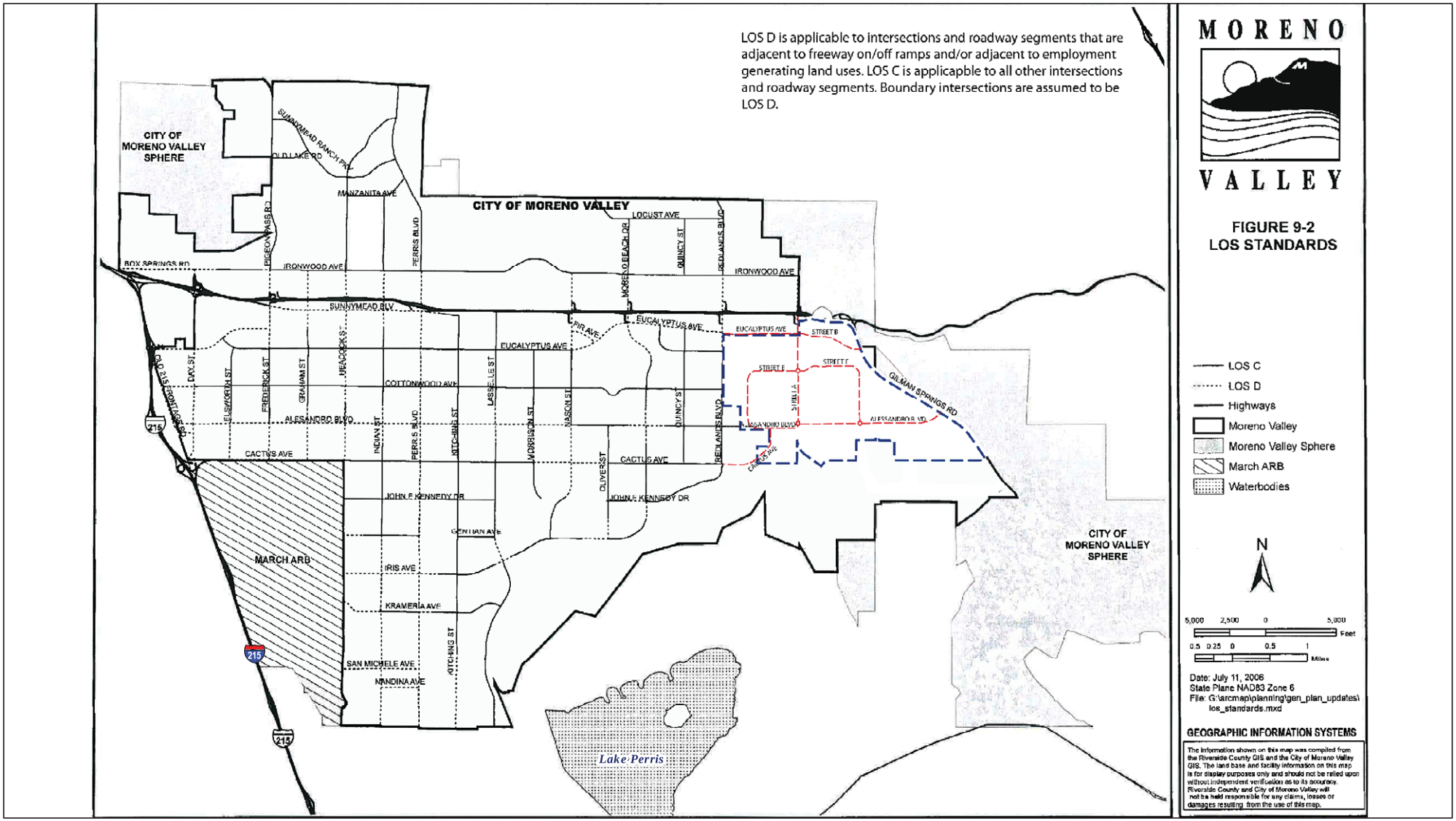

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FIGURE 3.20E

World Logistics Center Specific Plan Project
Environmental Impact Report
General Plan Amendment

SOURCE: Moreno Valley, September, 2014.

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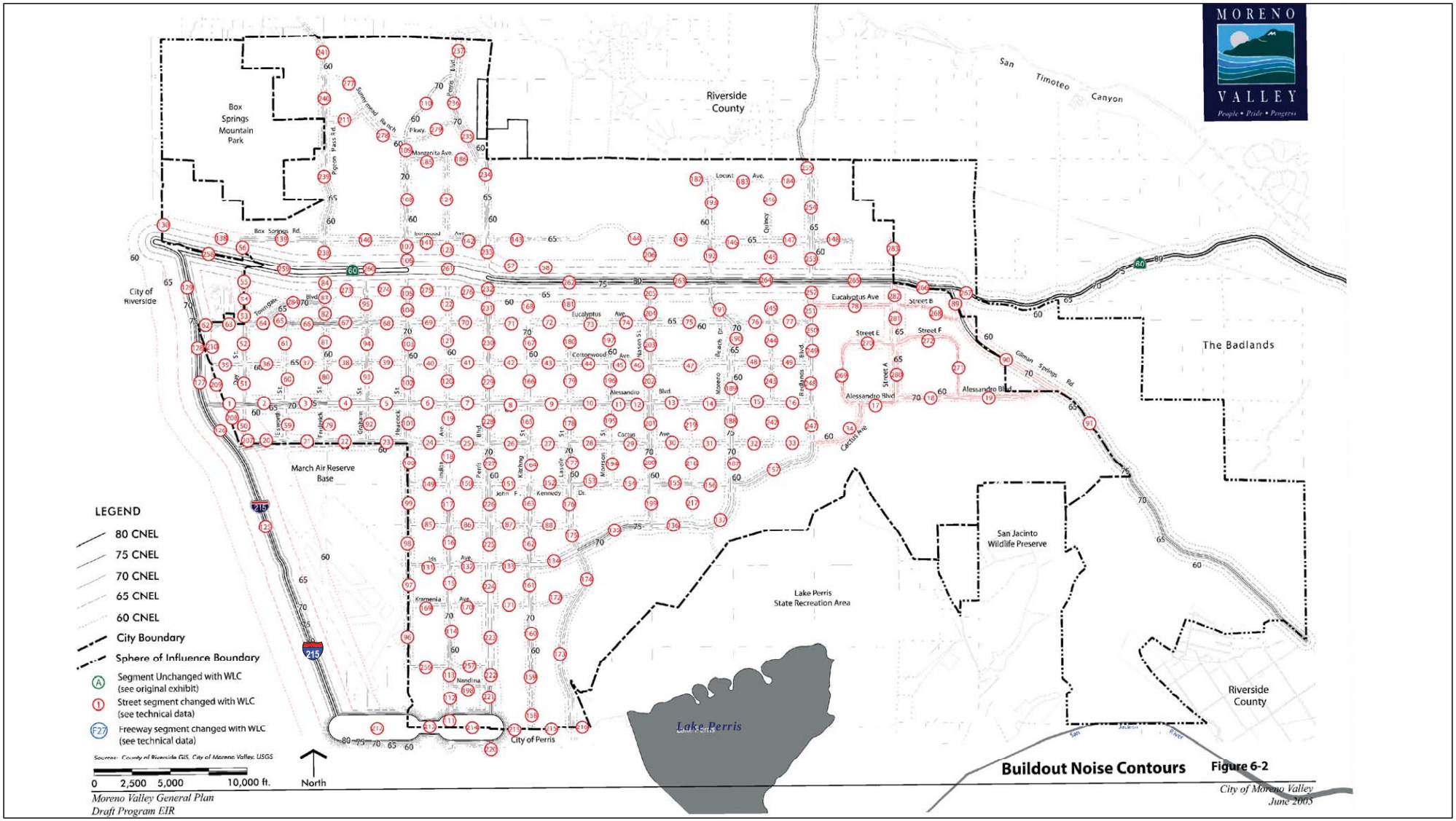

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FIGURE 3.20F

World Logistics Center Specific Plan Project
Environmental Impact Report
General Plan Amendment

SOURCE: Moreno Valley, June 2005

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Technical Data for Noise Contour Map

Note: Blanks represent segments where noise does not reach that dB level

				Distance from Centerline		
				60dB	65dB	70dB
1	Alessandro Blvd	I-215	Day St	681	361	184
2		Day St	Elsworth	304	141	65
3		Elsworth	Frederick	297	137	64
4		Frederick	Graham	290	134	62
5		Graham	Heacock	306	142	66
6		Heacock	Indian	288	134	62
7		Indian	Perris	292	135	63
8		Perris	Kitching	269	125	58
9		Kitching	Lasselle	258	120	55
10		Lasselle	Morrison	89	41	19
11		Morrison	Civic Center	92	42	19
12		Civic Center	Nason	92	42	19
13		Nason	Oliver	156	72	33
14		Oliver	Moreno Beach	145	67	31
15		Moreno Beach	Quincy	307	149	
16		Quincy	Redlands	91	42	19
17		Cactus	Theodore	191	88	41
18		Theodore	Street F	257	119	55
19		Street F	Gilman Springs	260	120	56
20	Cactus Avenue	I-215	Elsworth	757.5	404.5	207.5
21		Elsworth	Frederick	276	128	59
22		Frederick	Graham	309	143	66
23		Graham	Heacock	266	123	57
24		Heacock	Indian	207	96	44
25		Indian	Perris	185	86	39
26		Perris	Kitching	190	88	41
27		Kitching	Lasselle	165	76	35
28		Lasselle	Morrison	168	78	36
29		Morrison	Nason	200	92	43
30		Nason	Oliver	150	69	32
31		Oliver	Moreno Beach	67	31	14
32		Moreno Beach	Quincy	129	60	27
33		Quincy	Redlands	129	60	27
34		Redlands	Street E	253	117	54
35	Cottonwood Avenue	Frontage Rd	Day St	218	101	
36		Day St	Elsworth	280	135	
37		Elsworth	Frederick	180	87	
38		Frederick	Graham	195	94	
39		Graham	Heacock	210	100	
40		Heacock	Indian	225	108	
41		Indian	Perris	303	145	
42		Perris	Kitching	233	108	

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43		Kitching	Lasselle	253	118	
44		Lasselle	Morrison	273	128	
45		Morrison	Civic Center	203	93	
46		Civic Center	Nason	218	101	
47		Nason	Moreno Beach	296	138	
48		Moreno Beach	Quincy	296	138	
49		Quincy	Redlands	273	128	
50	Day Street	Frontage Rd	Alessandro	108	50	
51		Alessandro	Cottonwood	110	51	23
52		Cottonwood	Eucalyptus	369	184	91
53		Eucalyptus	Gateway	469	241	124
54		Gateway	Campus	501	256	131
55		Campus	SR-60	601	319	161
56		SR-60	Ironwood	420	210	100
57	Elder Avenue	Perris	Kitching	125		
58		E/O	Kitching	75		
59	Elsworth Street	Cactus	Alessandro	163	75	35
60		Alessandro	Cottonwood	77	36	16
61		Cottonwood	Eucalyptus	225	108	
62	Eucalyptus Avenue	I-215	Frontage	721	381	196
63		Frontage	Day St	409	211	110
64		Day St	Towngate	409	211	110
65		Towngate	Elsworth	302	144	
66		Elsworth	Frederick	325	155	74
67		Frederick	Graham	338	161	74
68		Graham	Heacock	358	173	80
69		Heacock	Indian	273	128	
70		Indian	Perris	100	46	
71		Perris	Kitching	94	44	
72		Kitching	Lasselle	259	124	
73		Lasselle	Morrison	279	134	
74		Morrison	Nason	259	124	
75		Nason	Moreno Beach	279	134	
76		Moreno Beach	Quincy	162	75	
77		Quincy	Redlands	194	93	
78		Redlands	Theodore	225	104	
79	Frederick Street	Cactus	Alessandro	120	56	26
80		Alessandro	Cottonwood	192	89	41
81		Cottonwood	Eucalyptus	259	124	
82		Eucalyptus	Towngate	392	194	93
83		Towngate	Sunnymead	601	319	161
84		Sunnymead	SR-60	601	319	161
85	Gentian Avenue	Heacock	Indian	173	80	
86		Indian	Perris	233	108	
87		Perris	Kitching	233	108	
88		Kitching	Lasselle	273	128	
89	Gilman Springs Road	SR-60	Street B	518	240	111

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90		Street B	Alessandro	468	217	100
91		Alessandro	S/O	432	200	93
92	Graham Street	Cactus	Alessandro	186	86	40
93		Alessandro	Cottonwood	137	63	29
94		Cottonwood	Eucalyptus	325	355	75
95		Eucalyptus	Sunnymead	345	168	81
96	Heacock Street	San Michele	Krameria	302	144	
97		Krameria	Iris	344	167	80
98		Iris	Gentian	419	219	99
99		Gentian	John F. Kennedy	419	219	99
100		John F. Kennedy	Cactus	75	34	16
101		Cactus	Alessandro	55	25	11
102		Alessandro	Cottonwood	188	87	40
103		Cottonwood	Eucalyptus	364	179	86
104		Eucalyptus	Sunnymead	364	179	86
105		Sunnymead	SR-60	484	239	114
106		SR-60	Hemlock	238	110	51
107		Hemlock	Ironwood	209	97	45
108		Ironwood	Manzanita	201	93	43
109		Manzanita	Sunnymead Ranch	129	104	78
110		Sunnymead Ranch	Perris	119	98	24
111	Indian Street	S/O	Oleander	318	148	68
112		Oleander	Nandina	446	218	101
113		Nandina	San Michele	453	225	108
114		San Michele	Krameria	338	161	74
115		Krameria	Iris	386	188	87
116		Iris	Gentian	365	180	87
117		Gentian	John F. Kennedy	325	155	75
118		John F. Kennedy	Cactus	58	26	12
119		Cactus	Alessandro	63	29	13
120		Alessandro	Cottonwood	165	76	35
121		Cottonwood	Eucalyptus	218	200	
122		Eucalyptus	Sunnymead	273	128	
123		Sunnymead	Ironwood	218	201	
124		Ironwood	Manzanita	218	201	
125	Interstate 215	Oleander	Van Buren	1268	778	413
126		Van Buren	Cactus	2182	1013	470
127		Cactus	Alessandro	2241	1040	482
128		Alessandro	Eucalyptus	2152	999	463
129		Eucalyptus	SR-60	2156	1000	464
130		Box Springs	Central	1780	1155	695
131	Iris Avenue	Heacock	Indian	179	86	
132		Indian	Perris	181	84	39
133		Perris	Kitching	91	42	19
134		Kitching	Lasselle	131	61	28
135		Lasselle	Nason	145	67	31
136		Nason	Oliver	277	128	59

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137		Oliver	Moreno Beach	68	31	14
138	Ironwood Avenue	W/O	Day St	345	168	81
139		Day St	Pigeon Pass	365	180	87
140		Pigeon Pass	Heacock	165	76	35
141		Heacock	Indian	154	71	33
142		Indian	Perris	210	100	
143		E/O	Perris	155	75	
144		W/O	Nason	138	18	
145		Nason	Moreno Beach	102	47	22
146		Moreno Beach	Quincy	41	19	8
147		Quincy	Redlands	41	19	8
148		Redlands	Sinclair	84	39	18
149	John F. Kennedy Drive	Heacock	Indian	279	134	
150		Indian	Perris	116	54	25
151		Perris	Kitching	122	56	26
152		Kitching	Lasselle	235	100	
153		Lasselle	Morrison	364	179	86
154		Morrison	Nason	302	144	
155		Nason	Oliver	344	167	80
156		Oliver	Moreno Beach	18	8	3
157		Moreno Beach	Redlands	204	95	44
158	Kitching Street	N/O	Oleander	224	107	
159		N/O	Nandina	344	167	80
160		S/O	Krameria	124	57	26
161		Krameria	Iris	97	45	20
162		Iris	Gentian	103	47	22
163		Gentian	John F. Kennedy	358	173	80
164		John F. Kennedy	Cactus	30	14	6
165		Cactus	Alessandro	46	21	10
166		Alessandro	Cottonwood	140	65	30
167		Cottonwood	Eucalyptus	296	138	
168		Eucalyptus	Sunnymead	253	118	
169	Krameria Avenue	Heacock	Indian	182	84	39
170		Indian	Perris	182	84	39
171		Perris	Kitching	43	20	9
172		Kitching	Lasselle	69	32	15
173	Lasselle Street	S/O	Krameria	75	34	16
174		Krameria	Iris	98	45	21
175		Iris	Gentian	190	88	41
176		Gentian	John F. Kennedy	392	239	114
177		John F. Kennedy	Cactus	199	92	43
178		Cactus	Alessandro	135	62	29
179		Alessandro	Cottonwood	102	47	22
180		Cottonwood	Eucalyptus	279	107	
181		N/O	Eucalyptus	218	18	
182	Locust Avenue	W/O	Moreno Beach	194	93	
183		Moreno Beach	Quincy	78	36	16

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184		Quincy	Redlands	78	36	16
185	Manzanita Avenue	Heacock	Indian	198	81	
186		Indian	Perris	115		
187	Moreno Beach Drive	John F. Kennedy	Cactus	65	30	14
188		Cactus	Alessandro	206	95	44
189		Alessandro	Cottonwood	208	96	44
190		Cottonwood	Eucalyptus	208	96	44
191		Eucalyptus	SR-60	208	96	44
192		SR-60	Ironwood	242	112	52
193		Ironwood	Locust	108	50	23
194	Morrison Street	John F. Kennedy	Cactus	273	128	
195		Cactus	Alessandro	273	128	
196		Alessandro	Cottonwood	98	45	21
197		Cottonwood	Eucalyptus	210	100	
198	Nandina Avenue	Indian	Perris	155	75	
199	Nason Street	Iris	John F. Kennedy	175	81	37
200		John F. Kennedy	Cactus	175	81	37
201		Cactus	Alessandro	257	119	55
202		Alessandro	Cottonwood	228	105	49
203		Cottonwood	Eucalyptus	419	209	99
204		Eucalyptus	SR-60 Ramps	424	214	104
205		SR-60 Ramps	SR-60	329	159	79
206		SR-60	Ironwood	203	93	
207	Old 215 Frontage Rd	Cactus	Day St	239.5	114.5	
208		Day St	Alessandro	80.5		
209		Alessandro	Cottonwood	179.5	86.5	
210		Cottonwood	Eucalyptus	239.5	114.5	
211	Old Lake Drive	Pigeon Pass	Sunnymead Ranch	240	115	
212	Oleander Avenue	I-215	Heacock	872	962	1062
213		Heacock	Indian	452	512	572
214		Indian	Perris	872	962	1062
215		Perris	Lasselle	76	35	16
216		Lasselle	Lake Perris	38	17	8
217	Oliver Street	Iris	John F. Kennedy	72	33	15
218		John F. Kennedy	Cactus	81	38	17
219		Cactus	Alessandro	20	9	4
220	Perris Boulevard	S/O	Oleander	626.5	326.5	156.5
221		Oleander	Nandina	139	63	29
222		Nandina	San Michele	139	63	29
223		San Michele	Krameria	139	63	29
224		Krameria	Iris	145	67	31
225		Iris	Gentian	278	129	60
226		Gentian	John F. Kennedy	278	129	60
227		John F. Kennedy	Cactus	109	50	23
228		Cactus	Alessandro	111	51	24
229		Alessandro	Cottonwood	366.5	181.5	88.5
230		Cottonwood	Eucalyptus	326.5	156.5	76.5

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231		Eucalyptus	Sunnymead	275	127	59
232		Sunnymead	Elder	516.5	261.5	126.5
233		Elder	Ironwood	486.5	241.5	116.5
234		Ironwood	Manzanita	326.5	156.5	76.5
235		Manzanita	Sunnymead Ranch	421.5	211.5	101.5
236		Sunnymead Ranch	Heacock	376.5	169.5	82.5
237		N/O	Heacock	519	264	129
238	Pigeon Pass Road	SR-60	Ironwood	396.5	181.5	88.5
239		Ironwood	Old Lake	392.5	194.5	93.5
240		Old Lake	Sunnymead Ranch	168	81	
241		N/O	Sunnymead Ranch	203	93	
242	Quincy Street	Cactus	Alessandro	122		
243		Alessandro	Cottonwood	167	74	
244		Cottonwood	Eucalyptus	167	74	
245		Eucalyptus	Ironwood	138		
246		Ironwood	Locust	68		
247	Redlands Boulevard	Cactus	Alessandro	61	28	13
248		Alessandro	Cottonwood	72	33	15
249		Cottonwood	Dracaea	72	33	15
250		Dracaea	Eucalyptus	113	52	24
251		Eucalyptus	Fir	265	123	57
252		Fir	SR-60	265	123	57
253		SR-60	Ironwood	325	151	70
254		Ironwood	Locust	372	172	80
255		N/O	Locust	372	172	80
256	San Michele Road	Heacock	Indian	209	99	
257		Indian	Perris	179	86	
258	SR-60	I-215	Day St	1963	911	422
259		Day St	Pigeon Pass	1998	927	430
260		Pigeon Pass	Heacock	1835	851	395
261		Heacock	Perris	1734	805	373
262		Perris	Nason	1617	750	348
263		Nason	Moreno Beach	1565	726	337
264		Moreno Beach	Redlands	1363	633	293
265		Redlands	Theodore	1344	624	289
266		Theodore	Gilman Springs	1409	654	303
267		E/O	Gilman Springs	1253	581	270
268	Street B	Theodore	Gilman Springs	135	62	29
269	Street E	Alessandro	Street E	119	55	25
270		Street E	Theodore	360	167	77
271	Street F	Alessandro	Street F	113	52	24
272		Street F	Theodore	202	93	43
273	Sunnymead Boulevard	Frederick	Graham	302	144	
274		Graham	Heacock	259	124	
275		Heacock	Indian	194	93	
276		Indian	Perris	179	86	
277	Sunnymead Ranch Parkway	Pigeon Pass	Old Lake	124		

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278		Old Lake	Heacock	302	144	
279		Heacock	Perris	167	80	
280	Theodore Street	Street C	Street F	361	167	77
281		Street F	Eucalyptus	712	330	153
282		Eucalyptus	SR-60	670	311	144
283		SR-60	Ironwood	145	67	31
284	Towngate Boulevard	Eucalyptus	Frederick	341	171	91

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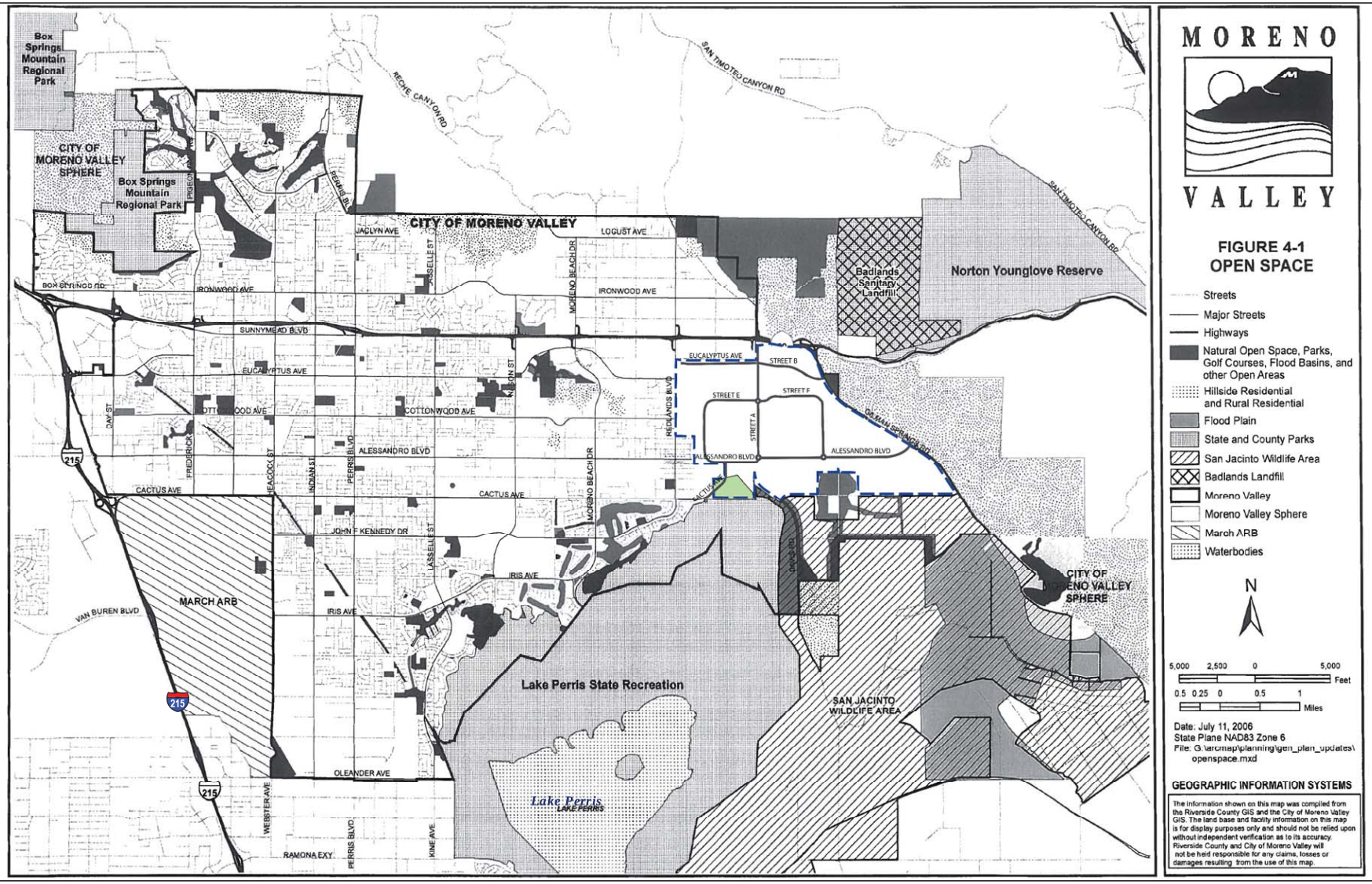

LSA

FIGURE 3.20G

World Logistics Center Specific Plan Project
Environmental Impact Report
General Plan Amendment

SOURCE: Moreno Valley, September, 2014.

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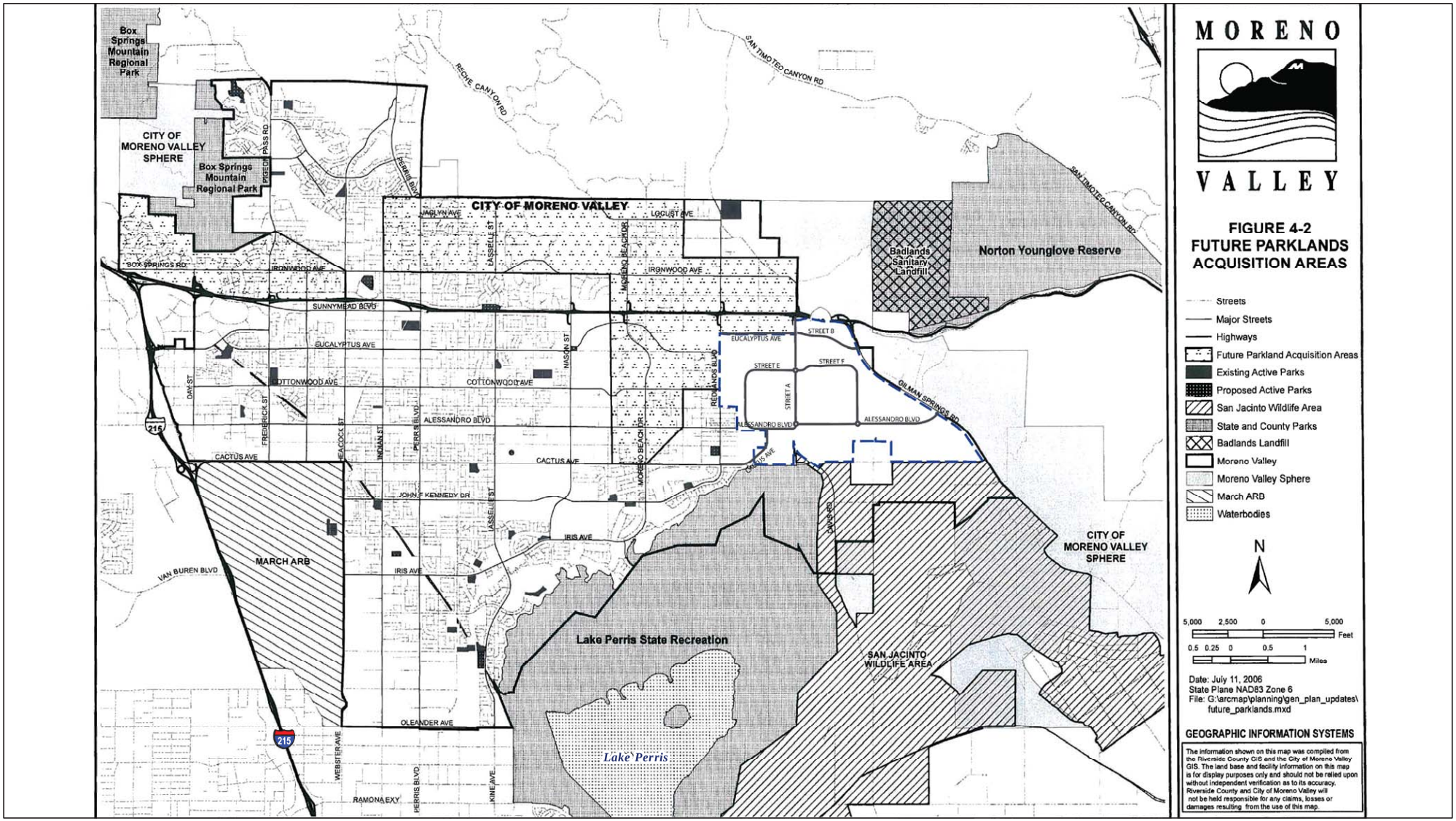

LSA

FIGURE 3.20H

World Logistics Center Specific Plan Project
Environmental Impact Report
General Plan Amendment

SOURCE: Moreno Valley, September, 2014.

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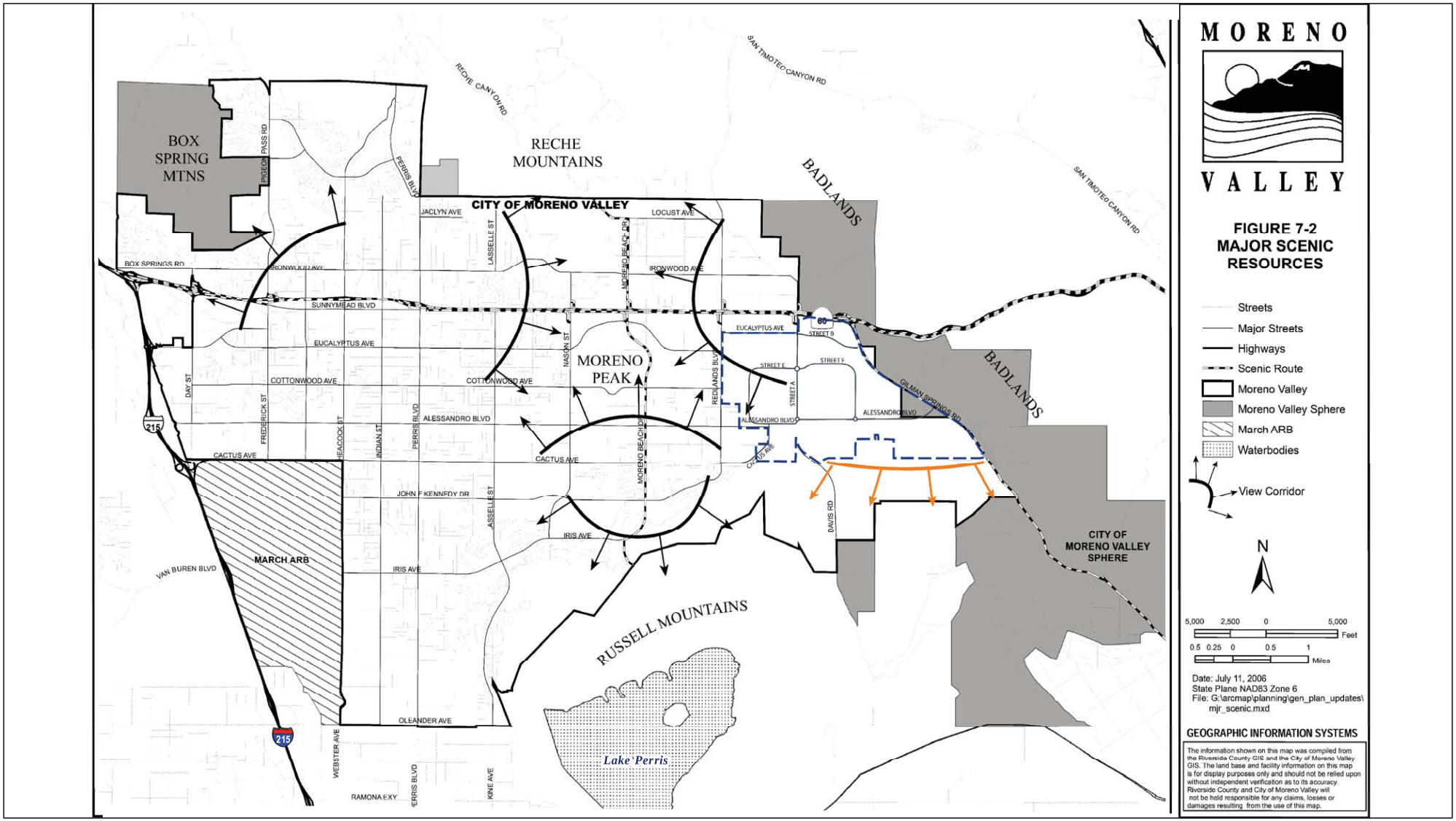

LSA

FIGURE 3.20i

World Logistics Center Specific Plan Project
Environmental Impact Report
General Plan Amendment

SOURCE: Moreno Valley, September, 2014.

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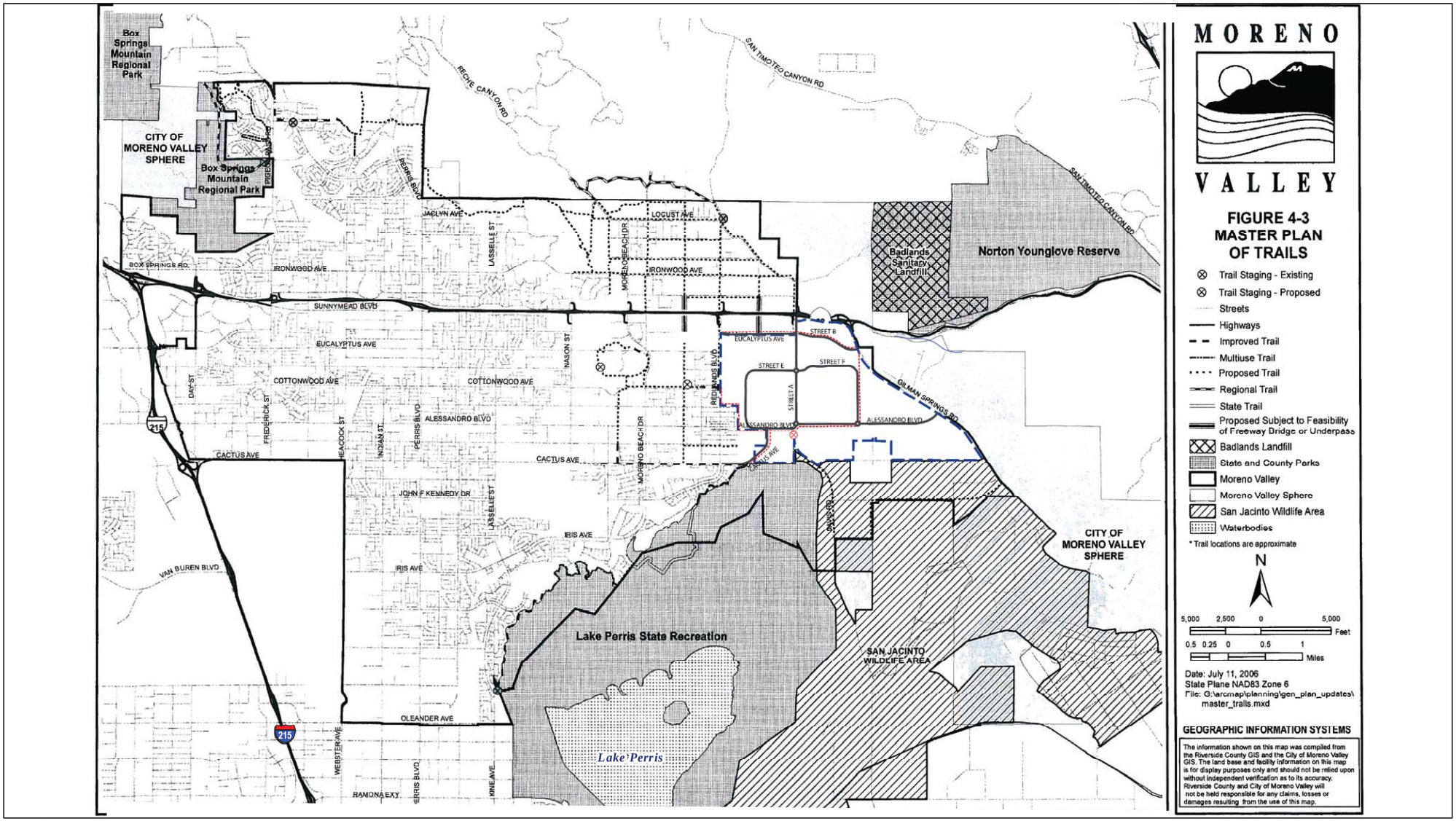

LSA

FIGURE 3.20J

World Logistics Center Specific Plan Project
Environmental Impact Report
General Plan Amendment

SOURCE: Moreno Valley, September, 2014.

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2. Parks, Recreation and Open Space Element

a. Revise Open Space Map (Figure 4-1) (page 4-2) to include WLCSP.

b. Revise Future Parkland Acquisition Areas map (Figure 4-2) (page 4-6).

c. Revise Master Plan of Trails (Figure 4-3) (page 4-13) to include WLCSP.

3. Circulation Element

a. Revise discussion on Industrial Development (Section 5.3.2.2).

Industrial and business park development is concentrated in the southern part of the City, located south of Iris Avenue and north of San Michele Road to the Perris city limits, and in the eastern part of the City, generally between Redlands Boulevard and Gilman Springs Road. This development … (page 5-7)

4. Safety Element (revise the following to incorporate WLCSP)

~~a. Revise section re: Fire and Emergency Services (Section 6.2)~~

b. Revise Fire Stations map (Figure 6-1)(page 6-8) consistent with WLCSP.

~~c. Revise Geologic Faults and Liquefaction map (Figure 6-3).~~

~~d. Revise discussion on Flood Hazards (Section 6.8).~~

~~e. Revise Flood Hazards map (Figure 6-4).~~

f. Revise Build-Out Noise Contours map (Figure 6-~~5~~2) to match WLCSP contours.

5. Conservation Element

~~a. Revise Scenic Resources section (Section 7.7) to incorporate references to WLCSP.~~

b. Revise Major Scenic Resources map (Figure 7-2)(page 7-13) to incorporate WLCSP.

6. Goals and Objectives

~~a. Revise section on industrial uses to reference LD and LL categories consistent with WLCSP.~~

~~b. Revise Objective 2.5.~~

~~Policy 2.5.2: The primary purpose of the areas designated Logistics Development is to provide for large, high-cube logistics warehouse uses of a minimum size of 500,000 square feet with a minimum clear height of 30 feet to accommodate modern, highly-automated warehouse facilities. The properties so designated should be subject to a Specific Plan to establish design standards and architectural guidelines to guide the development of these specialized buildings. Development intensity should not exceed a Floor Area Ratio of 1.0.~~

~~Policy 2.5.3: Locate manufacturing and industrial uses to avoid adverse impacts on surrounding land uses.~~

~~Policy 2.5.4: Screen manufacturing and industrial uses where necessary to reduce glare, noise, dust, vibrations, and unsightly views.~~

~~Policy 2.5.5: Design industrial developments to discourage access through residential areas.~~

c. ~~Revise Objective 2.8 to include non-residential land uses in description of "mixed-use" projects:~~

d. Revise Circulation Plan (Figure 9-1)(page 9-26) to incorporate WLCSP circulation plan.

e. Revise LOS Standards map (Figure 9-2)(page 9-28) consistent with WLCSP.

f. Revise Bikeway Plan map (Figure 9-4)(page 9-29) consistent with WLCSP bikeway plan.

~~g. Revise section on scenic vistas (Objective 7.7.5 to reflect recommended mitigation in the EIR.~~

3.6 PROJECT OBJECTIVES

The purpose of the proposed project is to provide a new master-planned facility specializing in logistics warehouse distribution services. Section 1.3.1, *Development Goals*, of the WLC Specific Plan outlines the following overall objectives for the proposed WLC Specific Plan:

NOTE: *The indicated minor wording change was made so the objectives would more accurate regarding service to the port which will only represent a small fraction of project trips (see Section 4.15, Transportation).*

- Create substantial employment opportunities for the citizens of Moreno Valley and surrounding communities.
- Provide the land use designation and infrastructure plan necessary to meet current market demands and to support the City's Economic Development Action Plan.
- Create a major logistics center ~~in Rancho Belago~~ with good regional and freeway access.
- Establish design standards and development guidelines to ensure a consistent and attractive appearance throughout the entire project.
- Establish a master plan for the entire project area to ensure that the project is efficient and business-friendly, accommodating the next-generation of logistics buildings.
- Provide a major logistics center to accommodate a portion of the ever-expanding trade volumes at the Ports of Los Angeles and Long Beach.
- Create a project that will provide a balanced approach to the City's responsibilities of fiscal viability, economic expansion, and environmental integrity.
- Provide the infrastructure improvements required to meet project needs in an efficient and cost-effective manner.
- Encourage new development consistent with regional and municipal service capabilities.
- Significantly improve the City's jobs/housing balance and help reduce unemployment within the City.
- Provide thousands of construction job opportunities during the project's build-out phase.
- Provide appropriate transitions or setbacks between on-site and off-site uses.

3.6.1 City's Economic Development Action Plan Objectives

In 2011, the City adopted an Economic Development Action Plan (EDAP) that outlined the following general objectives:

Objectives for Economic Development

- Create jobs locally and address City's high unemployment rate
- Address the Community's jobs to housing imbalance
- Strengthen and broaden the local economic foundation by attracting quality businesses
- Enhance City revenue generation from sources such as sales tax, property tax, transient occupancy tax, and utility tax – all aimed at improving quality of life in Moreno Valley

Eastern Moreno Valley–Rancho Belago

- Prime area of Community with large undeveloped areas.
- Skechers USA opening has generated interest by other prospective corporate users.
- Nearly 20-year old Moreno Highlands Specific Plan to expire in 2012
- Highest and Best land uses should be evaluated to address City's jobs to housing imbalance

Survey of Inland Region Industrial/Business Park Zoning

- Ontario 25.3%
- Perris 21.7%
- San Bernardino 18.0%
- Chino 17.1%
- Fontana 17.0%
- Rancho Cucamonga 15.3%
- Riverside 15.2%
- Corona 11.4%
- Moreno Valley 9.0%

In 2013, the EDAP was replaced and included the following specific objectives related to the World Logistics Center:

World Logistics Center at Rancho Belago

- Collaborate with Highland Fairview in the development of the World Logistics Center—a 41.6 million S.F. master planned corporate park proposed to be developed on 2,700 acres in the Rancho Belago area of eastern Moreno Valley.
- Process an Environmental Impact Report and preliminary development plans for the World Logistics Center in eastern Moreno Valley—south of SR 60 and east of Redlands Boulevard to Gilman Springs Road.
- Assist in the drafting of a Specific Plan that will guide the orderly development for of World Logistics Center.
- Cooperate with Highland Fairview in the formulation of a Development Agreement to create a public-private partnership to help facilitate the development of new public infrastructure in eastern

Moreno Valley associated with the World Logistics Center including roads, trails, utilities, storm water protection and fire protection facilities.

- Work with Highland Fairview in branding the World Logistics Center as one of the largest e-commerce focused development projects in the U.S.

3.7 REQUIRED DISCRETIONARY ACTIONS AND PERMITS

3.7.1 City of Moreno Valley – Current Approvals

This Program EIR is intended to inform the City of Moreno Valley decision-makers and the general public of the environmental consequences of the proposed project. Entitlements being analyzed in this EIR include a General Plan Amendment, adoption of a Specific Plan, a Zone Change, a Development Agreement, a Tentative Parcel Map, and annexation of an 85-acre parcel along Gilman Springs Road. The City of Moreno Valley is the Lead Agency for the proposed project, but discretionary actions may also be required by other agencies (see Section 3.6.3).

The following discretionary actions are anticipated to be taken by the City of Moreno Valley as part of the proposed project:

3.7.1.1 Environmental Impact Report

Before taking action on the project, the City must certify that the EIR prepared for the project is adequate and represents the independent judgment of the City as the Lead Agency under CEQA.

3.7.1.2 General Plan Amendment

The General Plan Amendment proposes a revision to the City General Plan land use designations for 3,~~ 814~~714 acres ~~and creates a new General Plan land use category for "Logistics Warehousing."~~ to Business Park/Light Industrial (BP). The General Plan Amendment also includes amendments to several other elements, including the Community Development Element, the Parks, Recreation and Open Space Element, the Circulation Element, the Environmental Safety Element, and the Conservation Element to make them consistent with the proposed project (see previous Section 3.5, *General Plan Amendment*).

3.7.1.3 WLC Specific Plan

The proposed project includes a Specific Plan to implement the amended General Plan and to set forth comprehensive land use regulations governing the development of the proposed project. The World Logistics Center Specific Plan is a master plan for a -2,~~ 710~~-610 acre site for the development of up to ~~41~~40.6 million square feet of modern high-cube logistics and related warehouse distribution facilities defined as Logistics Development and Light Logistics. The Specific Plan establishes the master plan of development for the project area, including development standards and use regulations, a master plan for circulation, infrastructure, architectural, landscape and design guidelines and sustainability goals - all of which will be applicable to all development within the area covered by the Specific Plan.

3.7.1.4 Change of Zone

The Change of Zone will establish the World Logistics Center Specific Plan, which will replace most of the Moreno Highlands Specific Plan and rezone several other contiguous properties. The new Specific Plan will become the regulatory land use document for the entire -2, ~~710~~ 610 acre Specific Plan area. The 910-acre CDFW property and the 174-acre SDG&E property will not be included in the Specific Plan but will be rezoned to Open Space to reflect the long-range plans for the properties. The 20 acres of land owned by SDG&E and SCGC that are used for natural gas facilities will be zoned for Public Utility use. The WLC property would then have two land use zones, Logistics Development (LD) and Light Logistics (LL).

3.7.1.5 Development Agreement

The project includes a Development Agreement between the project applicant, Highland Fairview, and the City of Moreno Valley in order to provide certainty for the future development of the project for those parcels owned by Highland Fairview (see Final EIR Appendix H for updated text).

3.7.1.6 Tentative Parcel Map

A Tentative Parcel Map (for financing purposes only) proposes the subdivision of a portion of the project site into large parcels. This map is for financing purposes only and does not create any development rights for the subdivided properties. Subsequent subdivision applications will be required prior to the development of any buildings on the site.

3.7.1.7 Annexation

The project includes the completion of the annexation process for an 85-acre parcel located on the north side of Alessandro Boulevard at Gilman Springs Road. The County has already taken the first step to make this parcel part of the City by including it in the City's Sphere of Influence in 1985. The proposed project includes pre-annexation General Plan land use designations and zoning for this parcel. This EIR will be the environmental documentation used by the Local Agency Formation Commission to complete the annexation process. This project proposes to incorporate this property into the World Logistics Center Specific Plan.

3.7.2 City of Moreno Valley – Future Approvals

"While building sizes, configurations and designs will vary, it is anticipated that between 15 and 30 logistics buildings will be developed within the WLC project. Each building may enclose from one to two million square feet and have multiple tenants. Each building will be subject to a discretionary Plot Plan process described in Section 11 of this Specific Plan."

Upon submittal of any site-specific development proposal within or related to the Specific Plan project, the City must determine whether the environmental effects of the proposal are within the levels of environmental effects analyzed in this programmatic EIR. In order to make this determination, the City may require the completion of an initial study (*CEQA Guidelines*, Appendix G Checklist). For each development proposal, the City will make one of the following determinations, as set forth under CEQA:

3.7.2.1 Categorical Exemptions (CE)

The City would adopt a categorical exemption under the following circumstances.

1) An assessment of the proposed action relative to the certified Program EIR determined there was no possibility of a significant environmental impact and the proposed action (utility improvements within rights-of-way, etc.) had already been evaluated in the EIR.

3.7.2.2 Negative Declaration (ND)

The City would adopt a negative declaration under the following circumstances.

2) If the initial study leads to the conclusion that the proposed project would have no significant environmental effects; or
3) If the initial study leads to the conclusion that the project may have potentially significant environmental effects, but all such effects are within levels that were fully reviewed, disclosed, and/or mitigated within this programmatic EIR.

Upon making a negative declaration, no further environmental analysis would be required.

3.7.2.3 Mitigated Negative Declaration (MND)

The City would adopt a mitigated negative declaration if the initial study leads to all of the following conclusions:

1) The proposed project could have a significant environmental effect; and
2) This potentially significant environmental effect may exceed levels that were fully reviewed, disclosed and/or mitigated within this programmatic EIR; and
3) The City, through a review of any associated studies that may accompany the completion of the initial study, concludes that these potentially significant effects can be fully mitigated with mitigation measures in addition to those identified in this programmatic EIR.

Upon making a mitigated negative declaration, no further environmental analysis would be required.

3.7.2.4 Supplemental EIR

A Supplemental EIR would be needed if the City concluded that the proposed project could have significant environmental effects exceeding the levels that were fully reviewed, disclosed, and/or mitigated within this program EIR and that further study is needed to determine if any feasible mitigation measures may be reasonable or prudent to address these environmental effects. Any Supplemental EIR(s) would only cover the environmental topic areas in which potentially significant impacts were identified in the initial study.

The initial study process outlined above will also help the City in determining if any proposed project within the project area qualifies for a partial or full exemption from any further environmental analysis. Specifically, some proposed projects may qualify for a statutory or categorical exemption, as outlined in Articles 18 and 19 of the *CEQA Guidelines*. Other provisions of California law limit the extent of further environmental review required in the case where a city has adopted a specific plan and certified an associated EIR, as would be the case for this project. Notwithstanding, the law also provides that in the event of changed circumstances in the project area or the identification of impacts

not previously considered or analyzed, subsequent environmental review (such as a mitigated negative declaration or supplemental EIR) may be required.

3.7.2.5 Subsequent EIR

CEQA Section 15162 requires a Subsequent EIR "If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration or EIR, the Lead Agency shall prepare a subsequent EIR if required under subsection (a). Otherwise, the Lead Agency shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation." Any changes to the Specific Plan will be subject to the criteria listed below. As required by Section 15162(a), a proposed change in a project will require preparation of a subsequent EIR if:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR or a negative declaration due to an involvement of new significant environmental effects, or a substantial increase in the severity of previously identified significant effects; or
2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects, or a substantial increase in the severity of the previously identified significant effects; or
3. New information of substantial importance, which was not known and could have not been known with the exercise of reasonable diligence at the time the previous EIR was certified, shows:
    a. The project will have one or more significant effects not discussed in the previous EIR;
    b. The significant effects previously examined will be substantially more severe than identified in the previous EIR;
    c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponent declines to adopt the mitigation measures or alternatives; or
    d. Mitigation measures or alternatives that are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponent declines to adopt the mitigation measures or alternatives.

If none of the above conditions is met, the preparation of a subsequent EIR is not required.

3.7.2.6 Addendum to WLC EIR

An Addendum to a previously approved EIR may be required if there are minor changes or additions to the previously analyzed project. An Addendum is used:

- To evaluate whether or not there are any new or more severe significant environmental effects associated with the proposed project;
- To review whether there is new information or circumstances that would require preparation of additional environmental documentation in the form of a subsequent or supplemental EIR, or if an Addendum is appropriate; and
- To evaluate the proposed project's potential environmental impacts in the context of the questions posed in CEQA Section 15162(a).

3.7.3 Actions by Others

Although the City of Moreno Valley is the Lead Agency for the proposed project, a number of other Federal, State, or special purpose agencies may consult this EIR for their own decision-making and actions now or in the future. The following is a list of anticipated discretionary or non-discretionary actions by other agencies, however, it is not exhaustive and may include other agencies and processes in the future as appropriate:

- ***County of Riverside***
  - Local Agency Formation Commission (LAFCO): Annexation of 85-acre parcel.
  - Flood Control and Water Conservation District: Amend Storm Drain Master Plan.
- ***Other Affected Agencies***
  - Western Riverside Council of Governments: TUMF Contributions.
  - Eastern Municipal Water District: Water Service Agreements.
  - Developer will make "fair share" contributions to established development impact fee programs in the cities of Riverside, Perris, and Redlands for local road and intersection improvements identified in the programmatic Traffic Impact Assessment (TIA) included with the EIR (Final EIR Volume 2 Appendix L-1). This item is subject to review and approval by the City Transportation Division.
- ***State of California***
  - Regional Water Quality Control Board: Water Quality Permitting.
  - Department of Transportation (Caltrans): Encroachment Permits for SR-60 and adopt fair share contribution programs for future development within the WLCSP to contribute funds for local road and intersection improvements identified in the programmatic Traffic Impact Assessment (TIA) included with the EIR (Final EIR Volume 2 Appendix L-1).
  - California Department of Fish and Wildlife: Streambed Alteration Agreements.
- ***Federal Agencies***
  - U.S. Army Corps of Engineers: Clean Water Act Permitting.

NOTE TO READERS: *This section contains no major revisions based on changes to the WLC Project, revised technical studies, or in response to comments on the Programmatic Draft EIR. However, changes to the text in each section or sub-section will be noted in double underline (addition) and strikeout (deletion). In addition, the reason for the change will be noted in italics before the modified text as to the reason for the change (e.g., changes in the project description, technical studies, or in response to comments on the Draft EIR).*

4.0 ENVIRONMENTAL IMPACT EVALUATION

As stated previously, there are 16 environmental issue areas that are analyzed in this EIR with respect to the proposed project. These issues are:

4.1 Aesthetics
4.2 Agriculture and Forestry Resources
4.3 Air Quality
4.4 Biological Resources
4.5 Cultural Resources
4.6 Geology and Soils
4.7 Greenhouse Gas Emissions, Energy Conservation, and Global Climate Change
4.8 Hazards and Hazardous Materials
4.9 Hydrology and Water Quality
4.10 Land Use and Planning
4.11 Mineral Resources
4.12 Noise
4.13 Population, Housing, and Employment
4.14 Public Services
4.15 Transportation and Traffic
4.16 Utilities and Service Systems

Within each subsection described in Section 4.0, the following information is presented relative to each environmental issue described:

- Description of the existing setting as it relates to the specific environmental issue;
- A summary of policies and regulations relevant to the specific environmental issue;
- Identification of the thresholds of significance;
- Evaluation of project-specific impacts and a determination of significance based on identified threshold levels;
- Description of design features of the Specific Plan that will help reduce potential impacts;
- Identification of mitigation measures;
- A determination of the level of significance after mitigation measures are implemented; and
- Cumulative impacts.

The environmental analysis provided in Sections 4.1 through 4.16 focuses on changes in the existing physical environment and identifies direct and indirect significant impacts associated with the proposed project. The cumulative impacts for each of the proposed project components are analyzed within the discussion of each component for each threshold.

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4.1 AESTHETICS: TABLE OF CONTENTS

FIGURES

TABLES

NOTE TO READERS. *This section has been revised based on changes to the WLC Specific Plan and in response to comments on the Programmatic DEIR regarding views.*

4.1 AESTHETICS

This section describes the existing aesthetic condition of the project area and analyzes potential impacts of the proposed WLC project relative to views, and light and glare based on the development characteristics outlined in the WLC Specific Plan (September 2014). Although there are no specific building locations or designs proposed at this time, the Specific Plan contains sufficient detail as to the general appearance and locations of buildings to evaluate the potential aesthetic impacts of development.

As a program-level CEQA document, this analysis will be based on the characteristics of buildings that can be built under the WLCSP. This analysis will look at the height, glare and lighting, visual impact, and viewshed impacts of the type of buildings authorized by the design standards and criteria set forth in Section 5.0 of the WLCSP. This section of the WLCSP creates comprehensive design and aesthetic guidelines. Section ~~4.3~~ 4.2.4 of the Specific Plan presents various line-of-sight cross-sections and photographic renderings showing views of various locations around the project site, which are illustrative of the massing and types of buildings authorized by the WLCSP.

Note: The following changes have been made due to revisions to the Specific Plan project area.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers ~~3,918~~ 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes ~~3,814~~ 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering ~~3,814.~~ 3,714 acres, which redesignates approximately 70 percent of the area (~~2,710~~ 2,610 acres) for logistics warehousing (new LD and LL~~, LS~~ zones) and the remaining ~~30~~ 29 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan will be adopted to govern development of the World Logistics Center for the ~~2,710~~ 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.

The environmental impacts of all of these entitlements on the entire project area are addressed in this EIR and the accompanying technical reports and analyses.

Information on visual characteristics, both on the site and in the vicinity of the project site, is presented in this section. Potential impacts to aesthetic visual resources and viewshed impacts resulting from the development of the proposed WLC project are based on analyses of site photographs, site reconnaissance, project data from the WLC Specific Plan, line-of-sight cross sections, and photographic renderings. The determinations in this section of the EIR are based, in part, on the City of Moreno Valley General Plan polices related to views and open space.

For the purposes of the following analyses, two general aesthetic terms are defined: scenic vistas and viewsheds.

- **Scenic Vistas.** A scenic vista can be categorized as either containing a panoramic view[1] or a focal view. Panoramic views are typically associated with publicly-accessible vantage points that provide a sweeping geographic orientation not commonly available (e.g., skylines, valleys, mountain ranges, or large bodies of water). Focal views are typically associated with views of natural landforms, public art/signs, and visually important structures, such as historic buildings. Aesthetic components of a scenic vista include three components: scenic quality, sensitivity level, and view access.
- **Viewsheds.** A viewshed is typically defined as the natural environment that is visible from one or more viewing points. CEQA documents most often define viewshed as what portions of the project viewers can see from surrounding areas. A viewshed can be divided into three distinct components: the foreground, midground, and background.

4.1.1 Existing Setting

NOTE: The following changes have been made due to revisions to the Specific Plan.

The approximately ~~3,814~~ 3,714-acre project site is located in Rancho Belago, the eastern portion of the City, and is situated on a gently sloping valley floor directly south of State Route 60 (SR-60) with the Badlands area to the east and northeast, the Mount Russell Range to the southwest, and Mystic Lake and the San Jacinto Wildlife Area to the southeast.

4.1.1.1 On-Site Conditions

Situated within northeastern Moreno Valley, the project site gently slopes to the south and elevations on-site range from 1,760 feet above mean sea level (amsl) near the northeast corner down to 1,480 feet amsl at the southeast corner. The site is largely vacant and supports mainly dry farm agriculture with little ornamental landscaping, lighting, or signage located within the project limits. At present, there are seven rural residences and associated farm structures in three areas on site: one on the east side of Redlands Boulevard in the west-central portion of the site and the others on either side of Theodore Street in the north-central portion of the site. The project site itself contains no scenic resources, although the large areas of agricultural fields do represent a kind of visual “open space” as vacant land and allow existing residences in the area to have unobstructed panoramic views. The site has significant views and scenic vistas of Mount Russell to the south, the Badlands to the north and east, Mount San Jacinto to the east, and the San Jacinto Wildlife Area to the south.

[1] A panoramic view consists of visual access to a large geographic area, for which the field of view can be wide and extend into the distance.

4.1.1.2 Adjacent Land Uses

Land uses adjacent to the project site include the Skechers logistics building to the northwest, and several suburban residential neighborhoods along Redlands Boulevard south of Cottonwood Avenue, and the "Old Moreno" commercial area at the intersection of Redlands Boulevard and Alessandro Boulevard. The closest residences are within 40 feet of the project property along Bay Street and Merwin Street. An additional residential neighborhood is located several hundred feet west of Redlands Boulevard, south of Eucalyptus Avenue. North of SR-60, there are several rural residences located between Redlands Boulevard and Theodore Street (refer to previously referenced Figure 3.3, *Existing Land Uses*). Much of the surrounding land is vacant and supports agriculture or open space (e.g., Badlands and Mount Russell). It should be noted that the General Plan makes reference to the "rural northeast portion of the City," which refers to the land north of SR-60, not south of the freeway (J. Terrell, personal communication, November 2012).

4.1.1.3 Existing Viewsheds and Scenic Vistas

As illustrated in Figure 4.1.1, the proposed project site represents a large undeveloped area situated between the Badlands (northeast and east), the San Jacinto Wildlife Area (south), and the Lake Perris Recreational Area (southwest) ~~and the existing urbanized area to the west.~~ Views across the site from SR-60 and from Gilman Springs Road are of vacant agricultural land forming the foreground, midground, and background. In the far background from these two roadways are Mystic Lake and the uplands surrounding Lake Perris. The major scenic resources for the project area, as documented in Figure 7-2 of the General Plan Conservation Element, are the Russell Mountains to the southwest, the Badlands to the east and northeast, Moreno Peak to the west, and the Reche Mountains to the far northwest. The existing agricultural fields provide a pleasant low relief foreground over which to view the three surrounding upland areas described above. The Conservation Element does not include the existing agricultural fields as a major scenic resource, although it does acknowledge that "Expanses of open land are found throughout the eastern portion of the study area. These tracts of land allow for uninterrupted scenic vistas from State Route 60, Gilman Springs Road, and other roadways and provide views of the San Jacinto Valley and the ephemeral Mystic Lake" (General Plan page 7-12).

Section 5.11, *Aesthetics*, in the City's General Plan EIR, indicates the major scenic resources within the Moreno Valley study area are visible from SR-60, a City-designated local scenic road. As SR-60 travels through the eastern part of Moreno Valley, it approaches and eventually passes through the Badlands area. Characterized by steep and eroded hillsides, the Badlands provide a range of hills that act as a visual backdrop to the valley. Similarly, views afforded while traveling west through Rancho Belago, the eastern part of the City, include views of the Badlands to the north and south, and Mystic Lake and the Mount Russell Range to the far south. These resources are highlighted in General Plan EIR Figure 5.11-1, *Major Scenic Resources*. Table 4.1.A provides a summary of the existing viewsheds to and from the project site. Because of these resources, travelers on SR-60 and Gilman Springs Road are considered scenic routes since these visual resources are readily visible from these roadways.

The Conservation Element of the General Plan also states that, "The City of Moreno Valley has the opportunity to designate scenic routes as the basis for preserving outstanding scenic views. Special attention to the location and design of buildings, landscaping, and other features should be made to protect and enhance views from scenic roadways" (General Plan page 7-14). These statements indicate the City acknowledges the eventual conversion of the extensive agricultural fields and their replacement by buildings, but it emphasizes the importance of locating and designing the buildings to maintain existing scenic views (i.e., the surrounding uplands).

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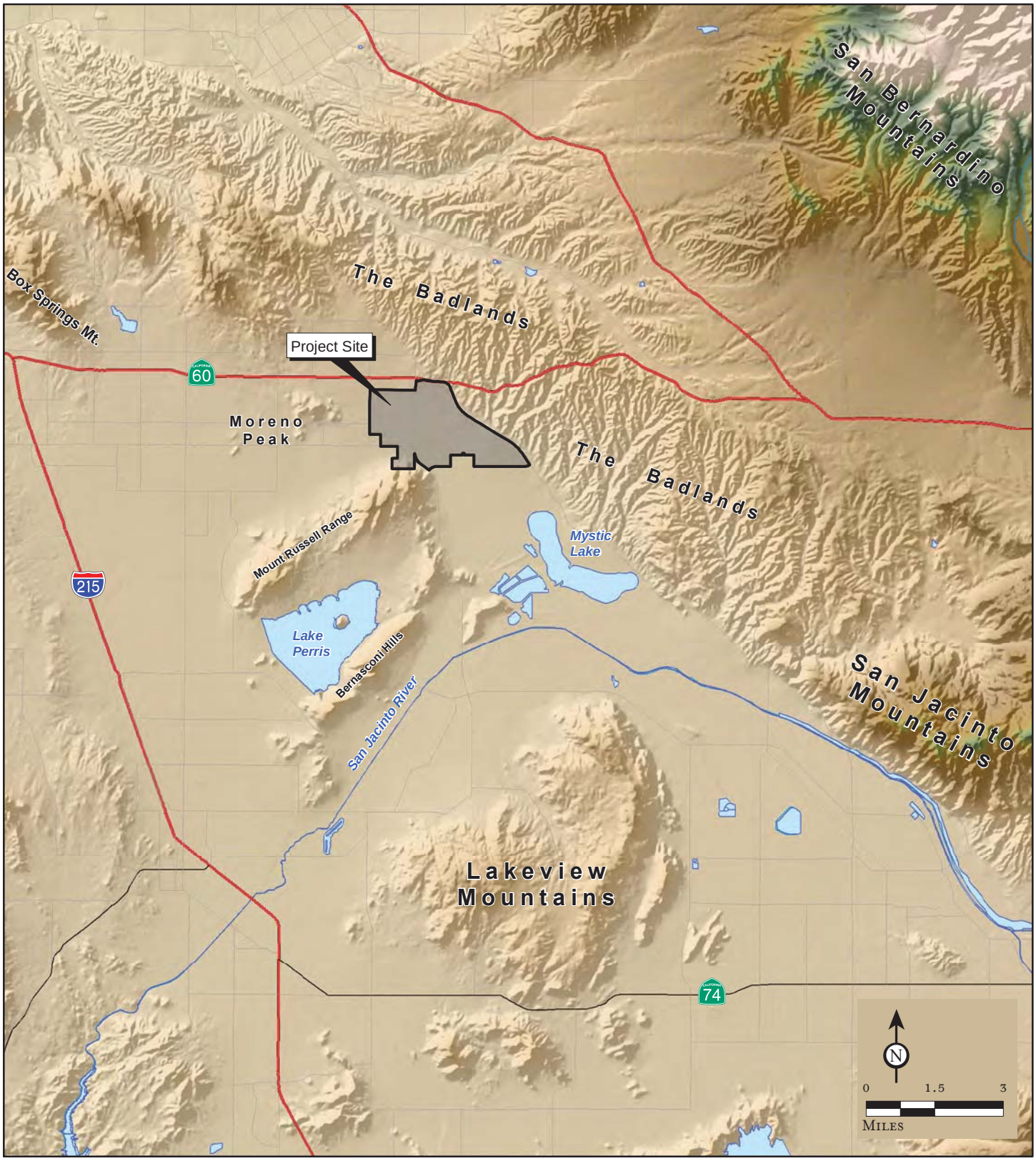

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FIGURE 4.1.1

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World Logistics Center Specific Plan Project
Environmental Impact Report

Natural Landforms

SOURCE: ESRI, USGS DEM.

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Table 4.1.A: Existing Viewsheds

Vantage Point	Characteristics of Views		
	Foreground	Midground	Background
Looking north from the SJWA* land toward the project site	Agricultural fields that are part of SJWA property	Agricultural fields on project site and SDG&E** facility	SR-60 with Badlands rising above
Looking east from existing residential uses along Redlands Boulevard toward the project site	Agricultural fields of the project site and windrow of olive trees along east side of Redlands Boulevard	Agricultural fields of the project site and Gilman Springs Road	Gilman Springs Road with Badlands rising above, and portions of Mount San Gorgonio visible above the Badlands (on a clear day)
Looking south from SR-60 toward the project site	Agricultural fields and related equipment on the project site	Agricultural fields of the project site and the northern SJWA property	Mystic Lake, SJWA, and Mount Russell Range surrounding the Lake Perris State Recreational Area
Looking west from Gilman Springs Road and the Badlands toward the project site	Agricultural fields and related equipment on the project site	Agricultural fields of the project site	Skechers building, scattered rural residential on the project site, and suburban residential at southwest portion of project site

* San Jacinto Wildlife Area.
** San Diego Gas & Electric Natural Gas Compressor Plant.
Source: LSA Associates, Inc. Site Survey, March 2012.

Views from the Project Site. Views to the north from the project site include the new Skechers logistics building and SR-60, while to the northeast, east and southeast, the rugged topography of the Badlands dominates the view. To the south, the view is of the San Jacinto Wildlife Area with partial views of Mystic Lake. To the southwest, views of Mount Russell and the Mount Russell Range predominate, with suburban residential uses visible to the far southwest and west. These views are experienced by travelers on Redlands Boulevard, Theodore Street, and Alessandro Boulevard, and residents of the rural residences on the project site. These represent significant visual resources; SR-60 and Gilman Springs Road are scenic routes because they have unobstructed views of these resources.

Views toward and across the Project Site. Views of the project site from the area north of SR-60 are limited by the SR-60 roadway and existing development. The skyline is dominated by views of the Badlands and of the Mount Russell Range. Views across the site from the northwest are from existing and/or planned non-residential uses. Current views of the site from these areas are of vacant agricultural land and the few scattered residences, and also the Skechers building near the northwest corner of the project site.

Foreground and midground views for the residences along the west and southwest boundaries of the project site are presently of vacant agricultural land, a windrow of olive trees along Redlands Boulevard, scattered palm trees, and scattered rural residences on site. Background views from these areas are of the Badlands, sweeping from the northeast to southeast. The Mount Russell Range dominates the southeasterly view from this area. Mystic Lake and the surrounding SJWA lands are not visible. These areas are also not visible from houses farther north along Redlands Boulevard as they are not elevated enough to see all the way to Mystic Lake, although there may be some limited views in that direction from second-story windows facing east that are not blocked by other residences.

Users of the SJWA south of the site have views of the existing agricultural lands on the project site. Finally, residents in the few homes on the east side of Gilman Springs Road have views of the agricultural lands on the project site.

Mount Russell, the Badlands, the SJWA, and Mystic Lake represent significant visual resources, and SR-60 and Gilman Springs Road are considered scenic routes because they have relatively unobstructed views of these resources.

This EIR analyzes the viewshed impacts of the project on (i) the residences along the west and southwest portions of the project site; (ii) the motoring public on SR-60 and Gilman Springs Road (designated scenic routes), Redlands Boulevard, Theodore Street, and Alessandro Boulevard; (iii) residences north of SR-60; and (iv) existing residences within the project area.

Figures 4.1.2 and 4.1.3A and B present a photographic key map and representative views of the project site.

4.1.1.4 Lighting and Visibility

The majority of the project area is currently very dark, with little or no ambient nighttime lighting other than from scattered rural residences and the SDG&E compressor facility. There is street lighting and general lighting along the western boundary of the site (i.e., along Redlands Boulevard) and from the Skechers warehouse building. The only other lighting comes from SR-60 along the northern boundary of the site. At present, Gilman Springs Road has no streetlights. Assuming “worst-case” conditions, current ambient light levels in the central and southern portions of the project site are assumed to be at or near zero foot-candles per square foot; this is the same unit of measurement used by professionals when referring to sky glow and nighttime light levels.

4.1.1.5 NOP/Scoping Comments

Many residents commented during the public scoping process that they were concerned about what the project would look like and about night lighting since the area is presently undeveloped and has no significant source of night lighting. Several commenters raised issues with future “night sky” impacts on the area.

4.1.2 Existing Policies and Regulations

4.1.2.1 City of Moreno Valley General Plan Policies

The following policies and goals pertain to aesthetics and are applicable to the proposed project:

Community Development

Objective 2.5 Promote a mix of industrial uses which provide a sound and diversified economic base and ample employment opportunities for the citizens of Moreno Valley with the establishment of industrial activities that have good access to the regional transportation system, accommodate the personal needs of workers and business visitors, and which meets the service needs of local businesses.

Policy 2.5.1 The primary purpose of areas designated Business Park/Industrial is to provide for manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities. The zoning regulations shall identify the particular uses permitted on each parcel of land. Development intensity should not exceed a Floor Area Ratio (FAR) of 1.00 and the average FAR should be significantly less.

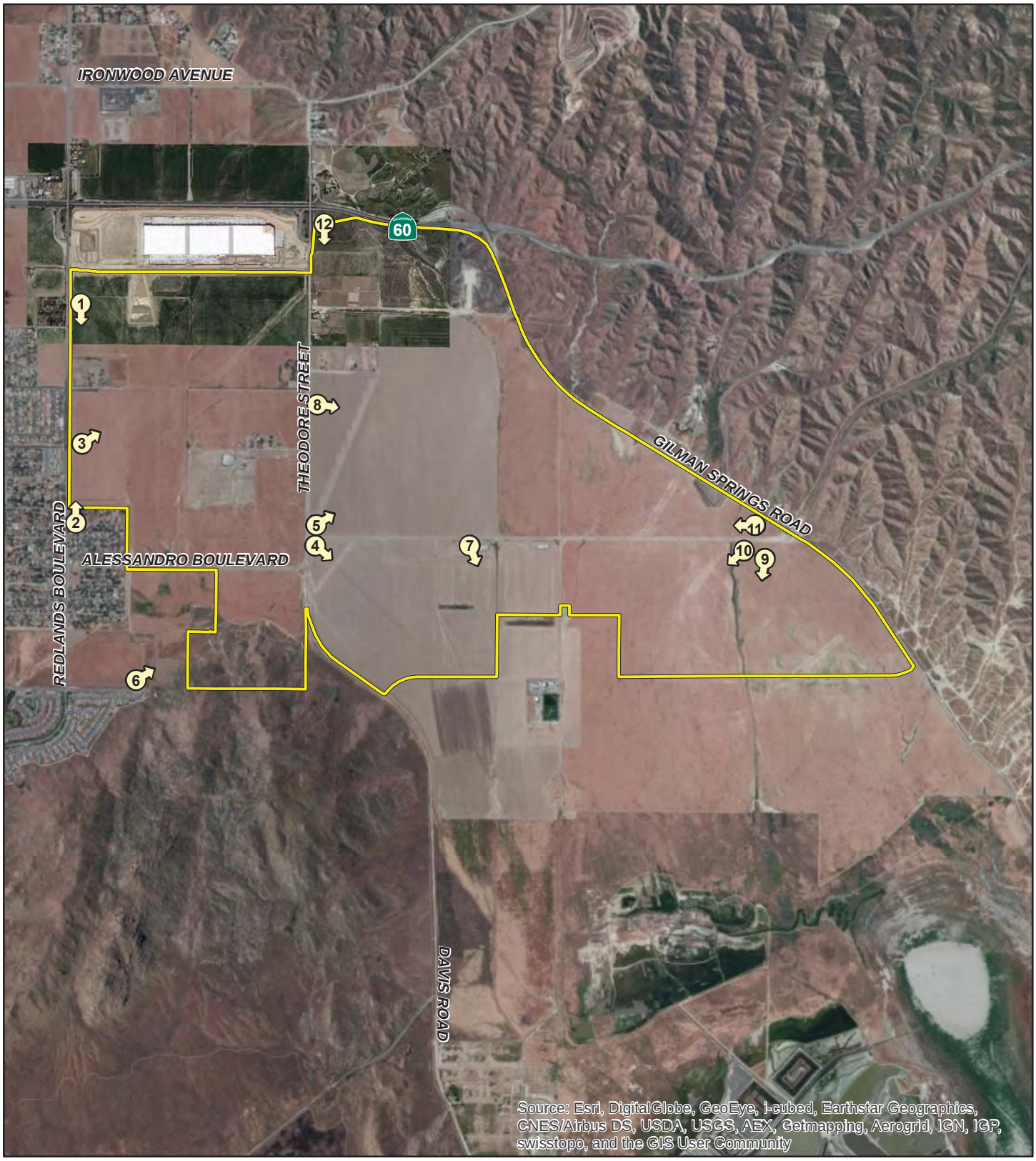

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FIGURE 4.1.2

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Project Boundary

1 Photograph Location and Direction Taken

World Logistics Center Specific Plan Project
Environmental Impact Report

Site Photograph Locations

SOURCE: ESRI World Imagery & Bing Aerial, 2010; Google Earth, 2011.

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PHOTOGRAPH 1: *View looking south along Redlands Boulevard from Eucalyptus Avenue.*

PHOTOGRAPH 2: *View looking north along Redlands Boulevard from Alessandro Boulevard.*

PHOTOGRAPH 3: *View looking northeast across western portion of site near Redlands Boulevard and Cottonwood Avenue.*

PHOTOGRAPH 4: *View looking southeast from Theodore Street and Alessandro Boulevard.*

PHOTOGRAPH 5: *View looking northeast from Theodore Street and Alessandro Boulevard.*

PHOTOGRAPH 6: *View looking northeast from southwest corner of site.*

LSA

FIGURE 4.1.3A

World Logistics Center Specific Plan Project
Environmental Impact Report

Site Photographs

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PHOTOGRAPH 7: *View of SDG & E Natural Gas Compressor facility (central portion of site).*

PHOTOGRAPH 8: *View of agricultural fields (typical) in central and eastern portions of site.*

PHOTOGRAPH 9: *View looking southwest toward Mystic Lake from near Gilman Springs Road.*

PHOTOGRAPH 10: *View looking southwest toward Lake Perris area from near Gilman Springs Road (SDG & E facility at right).*

PHOTOGRAPH 11: *View looking west along Alessandro Boulevard from near Gilman Springs Road.*

PHOTOGRAPH 12: *View looking south along Theodore Street from the SR-60 Freeway bridge.*

LSA

FIGURE 4.1.3B

World Logistics Center Specific Plan Project
Environmental Impact Report

Site Photographs

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Policy 2.5.2 Locate manufacturing and industrial uses to avoid adverse impacts on surrounding land uses.

Policy 2.5.3 Screen manufacturing and industrial uses where necessary to reduce glare, noise, dust, vibrations, and unsightly views.

Policy 2.5.4 Design industrial developments to discourage access through residential areas.

Objective 2.10 Ensure that all development within the City of Moreno Valley is of high quality, yields a pleasant living and working environment for existing and future residents, and attracts business as the result of consistent exemplary design.

Policy 2.10.1 Encourage a design theme for each new development that is compatible with surrounding existing and planned developments.

Policy 2.10.2 Screen trash storage and loading areas, ground and roof mounted mechanical equipment, and outdoor storage areas from public view as appropriate.

Policy 2.10.3 Require exterior elevations of buildings to have architectural treatments that enhance their appearance.

(a) A design theme, with compatible materials and styles, should be evident within a development project.

(b) Secondary accent materials, colors, and lighting should be used to highlight building features.

(c) Variations in roofline and setbacks (projections and recesses) should be used to break up the building mass.

(d) Industrial buildings shall include architectural treatments on visible façades that are aesthetically pleasing.

Policy 2.10.4 Landscaping and open spaces should be provided as an integral part of project design to enhance building design, public views, and interior spaces, provide buffers and transitions as needed, and facilitate energy and resource conservation.

Policy 2.10.5 Development projects adjacent to freeways shall provide landscaped buffer strips along the ultimate freeway right-of-way.

Policy 2.10.6 Buildings should be designed with a plan for adequate signage. Signs should be highly compatible with the building and site design relative to size, color, material, and placement.

Policy 2.10.7 On-site lighting should not cause nuisance levels or glare on adjacent properties.

Policy 2.10.8 Lighting should improve the visual identification of structures.

Policy 2.10.9 Fences and walls should incorporate landscape elements and changes in materials or textures to deter graffiti and add visual interest.

Policy 2.10.10 Minimize the use and visibility of reverse frontage walls along streets and freeways by treatments such as landscaping, berming, and “side-on” cul-de-sacs.

Policy 2.10.11 Screen and buffer non-residential projects from adjacent residential property and other sensitive land uses when necessary to minimize noise, glare, and other adverse effects on adjacent uses.

Policy 2.10.12 Screen parking areas from streets to the extent consistent with surveillance needs (e.g., mounding, landscaping, low profile walls, and/or grade separations).

Policy 2.10.13 Provide landscaping in automobile parking areas to reduce solar heat and glare.

Conservation Element

Objective 7.7 Where practicable, preserve significant visual features, significant views, and vistas.

Policy 7.7.3 Implement reasonable controls on the size, number, and design of signs to minimize degradation of visual quality.

Policy 7.7.4 Gilman Springs Road, Moreno Beach Drive, and State Route 60 shall be designated as local scenic roads.

Policy 7.7.5 Require development along scenic roadways to be visually attractive and to allow for scenic views of the surrounding mountains and Mystic Lake.

4.1.2.2 City of Moreno Valley Municipal Code

On September 11, 2012, the City Council adopted Ordinance 851, which amended various sections of the City Municipal Code, including Section 9.08.100 *Lighting* to address citywide night lighting standards. Among other things, it requires non-residential lighting to be fully shielded and directed away from surrounding residential uses. It also restricts non-residential lighting to not exceed 0.25 foot-candle of light measured from within five feet of any property line.

4.1.3 Methodology

Any evaluation of visual impacts is necessarily subjective; however, community aesthetic values can be used to evaluate changes in views within a particular community. These values are found in General Plan policies, zoning ordinances, and, where specific policies are absent, general design theory and visual analysis methods can be incorporated to evaluate aesthetic impacts. For the purposes of CEQA compliance, this analysis of visual impacts will focus on changes in the visual character of the project site that would result from the development of the proposed on-site uses, including the visual compatibility of on-site and adjacent uses, changes in vistas and viewsheds where visual changes would be evident, and the introduction of sources of light and glare. Impacts to the existing environment of the project site are to be determined by the contrast between the site's visual setting before and after the proposed development. In this analysis, emphasis has been placed on the transformation of the existing undeveloped conditions into urbanized uses. Although few standards exist to singularly define perceptions of aesthetic value, the degree of visual change can be measured and described in terms of visibility and visual contrast, dominance, and magnitude. Visual elevations and line-of-sight cross-sections from various vantage points around the project site are provided in Figures 4.1.4A-I, while computerized photographic renderings showing views of the site from different vantage points around the site are provided in Figures 4.1.5A-K.

NOTE: In Responses to Comments F-8-54 through -56 and G-51-40, the captions on several renderings were found to be incorrect and have since been corrected. In addition, several more renderings have been added to more fully illustrate potential views from areas surrounding the WLC site. These illustrations include one view toward Mt. Russell from SR-60 (traveling westbound on SR-60) and one additional view toward the Badlands and Mt. San Jacinto (traveling eastbound on SR-60).

Current residences southwest of the project site, as well as travelers along SR-60 and Gilman Springs Road are considered sensitive to the visual and aesthetic alteration of the project site. Where possible, the potential aesthetic impacts of the proposed project will be evaluated to determine if or the degree to which the project is consistent with applicable General Plan objectives and policies.

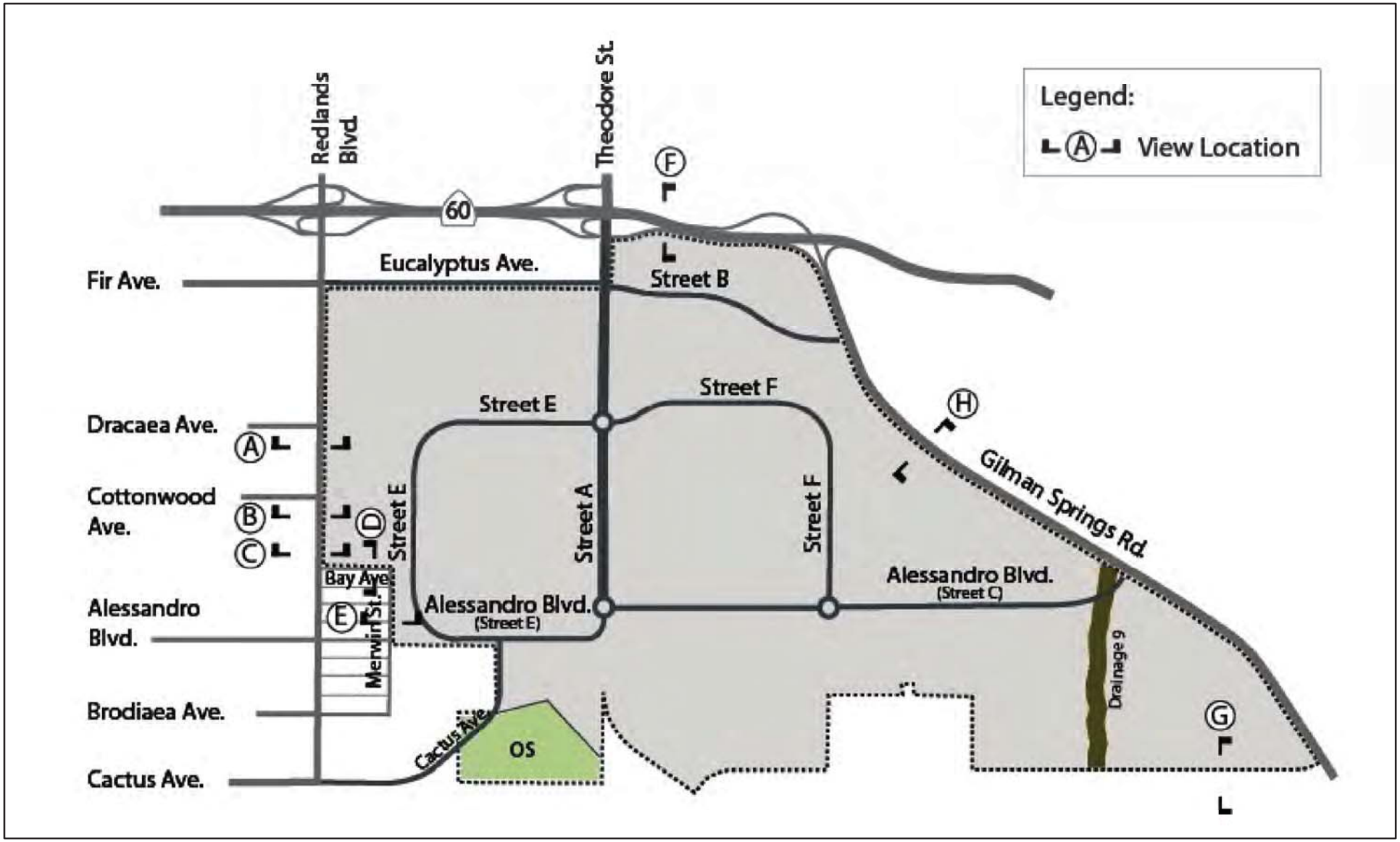

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FIGURE 4.1.4

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World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Section and Line of Sight Key Map

SOURCE: World Logistics Center Specific Plan, HF, September, 2014.

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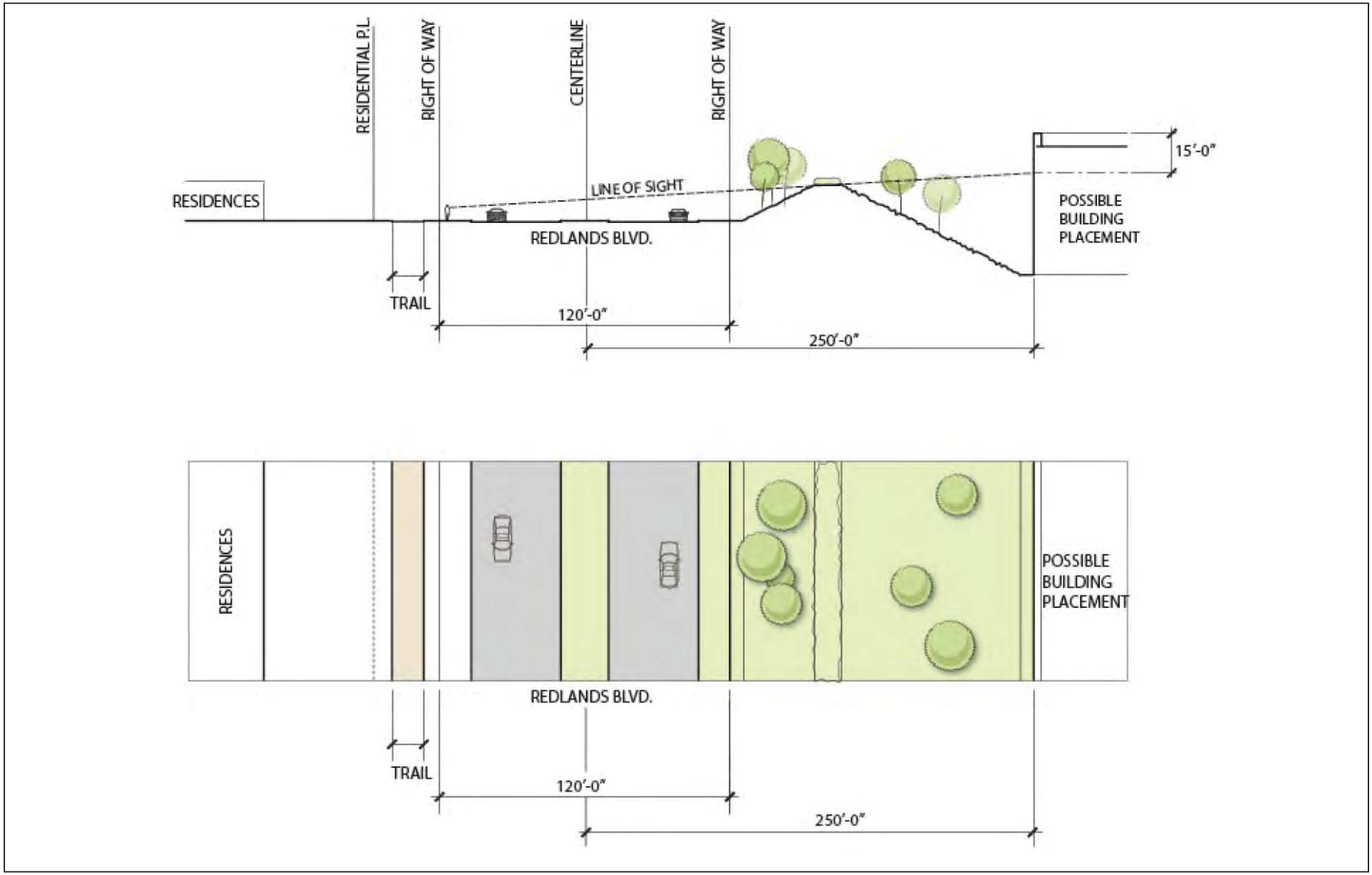

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FIGURE 4.1.4A

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Sections and Line-of-Sight Diagrams
Redlands Boulevard, Section A

SOURCE: World Logistics Center Specific Plan, HF, June, 2014.

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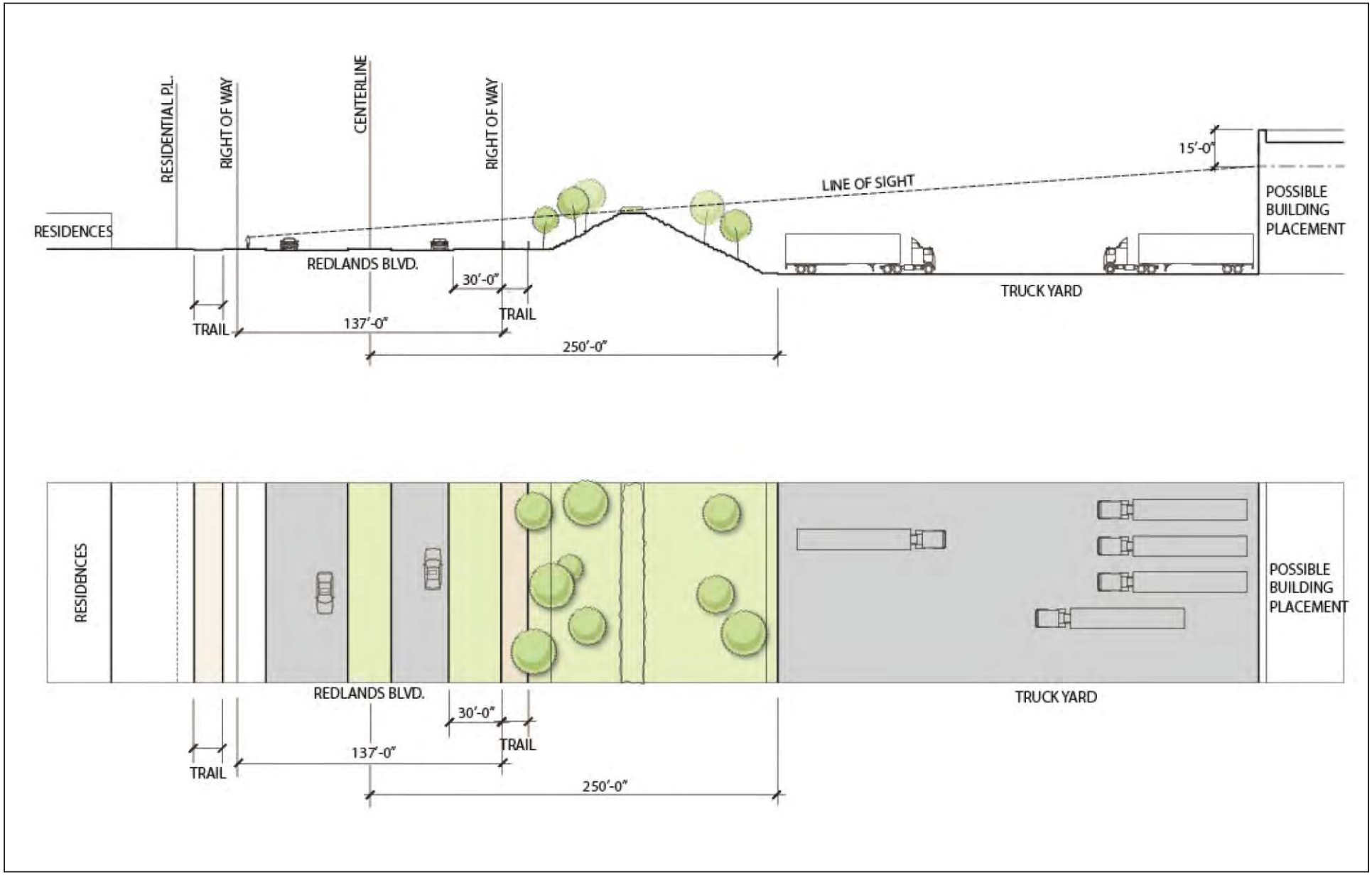

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FIGURE 4.1.4B

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Sections and Line-of-Sight Diagrams
Redlands Boulevard, Section B

SOURCE: World Logistics Center Specific Plan, HF, June, 2014.

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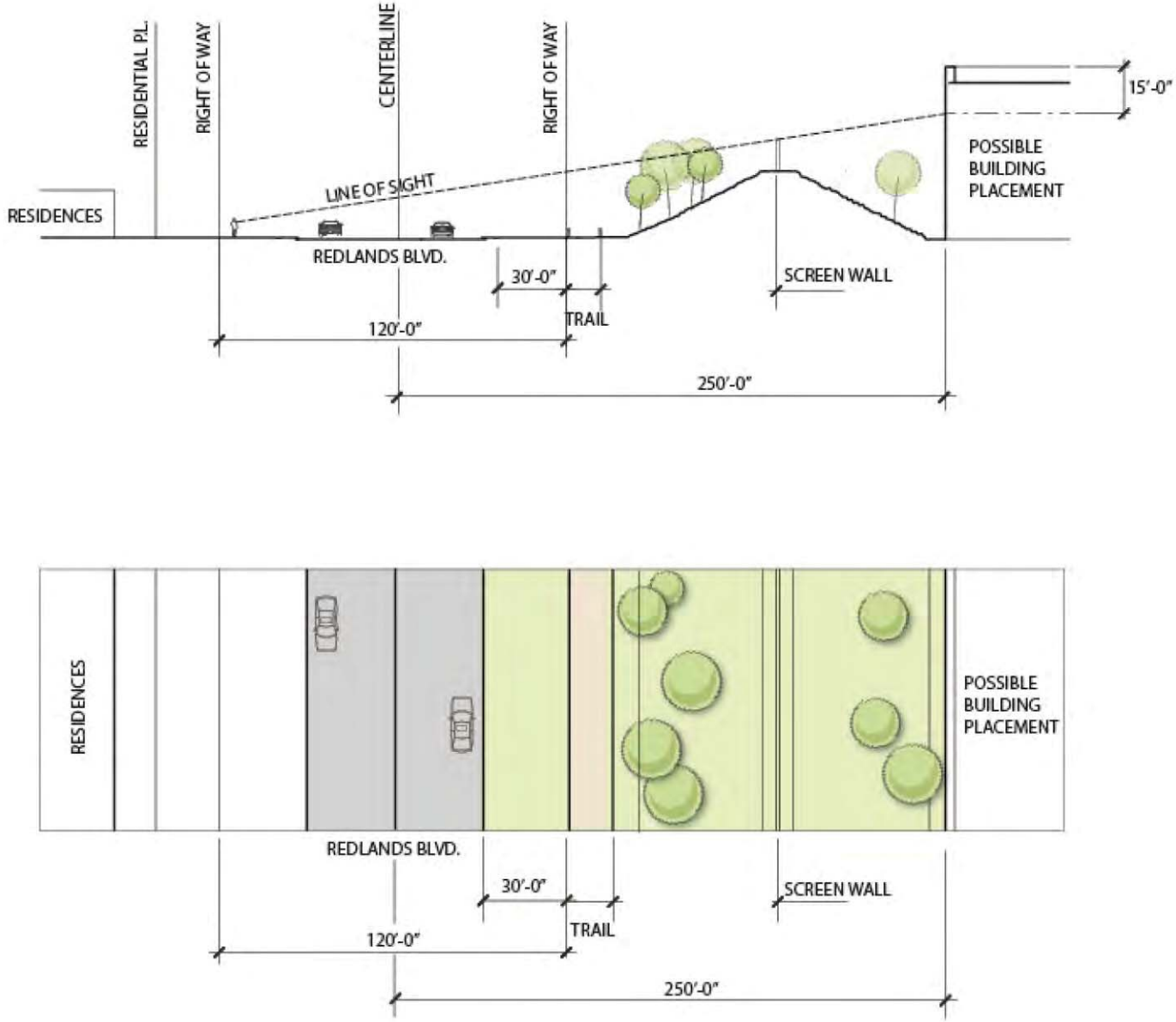

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FIGURE 4.1.4C

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Sections and Line-of-Sight Diagrams
Redlands Boulevard, Section C

SOURCE: World Logistics Center Specific Plan, HF, June, 2014.

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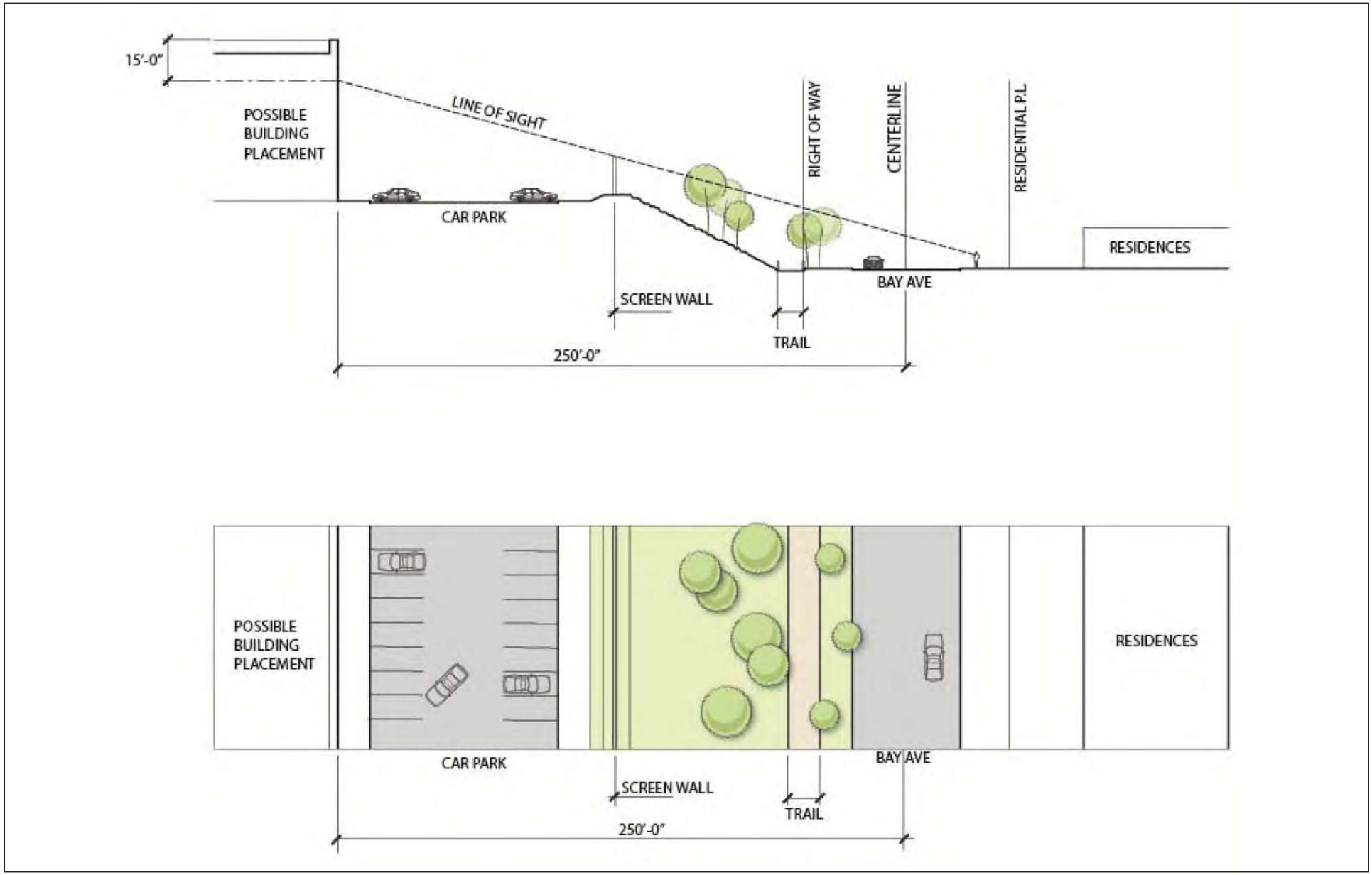

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FIGURE 4.1.4D

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Sections and Line-of-Sight Diagrams
Bay Street, Section D

SOURCE: World Logistics Center Specific Plan, HF, June, 2014.

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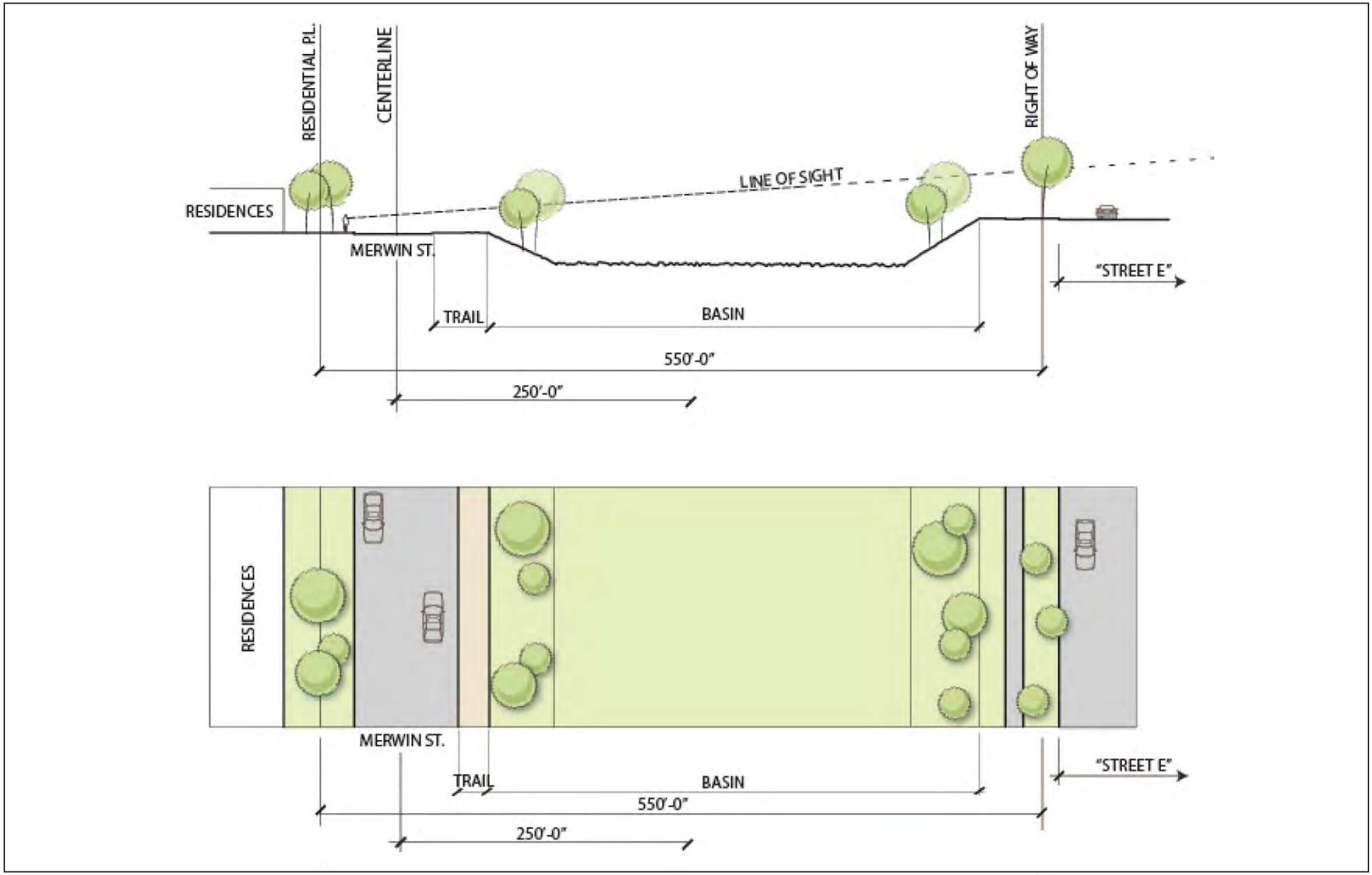

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FIGURE 4.1.4E

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Sections and Line-of-Sight Diagrams
Merwin Street, Section E

SOURCE: World Logistics Center Specific Plan, HF, June, 2014.

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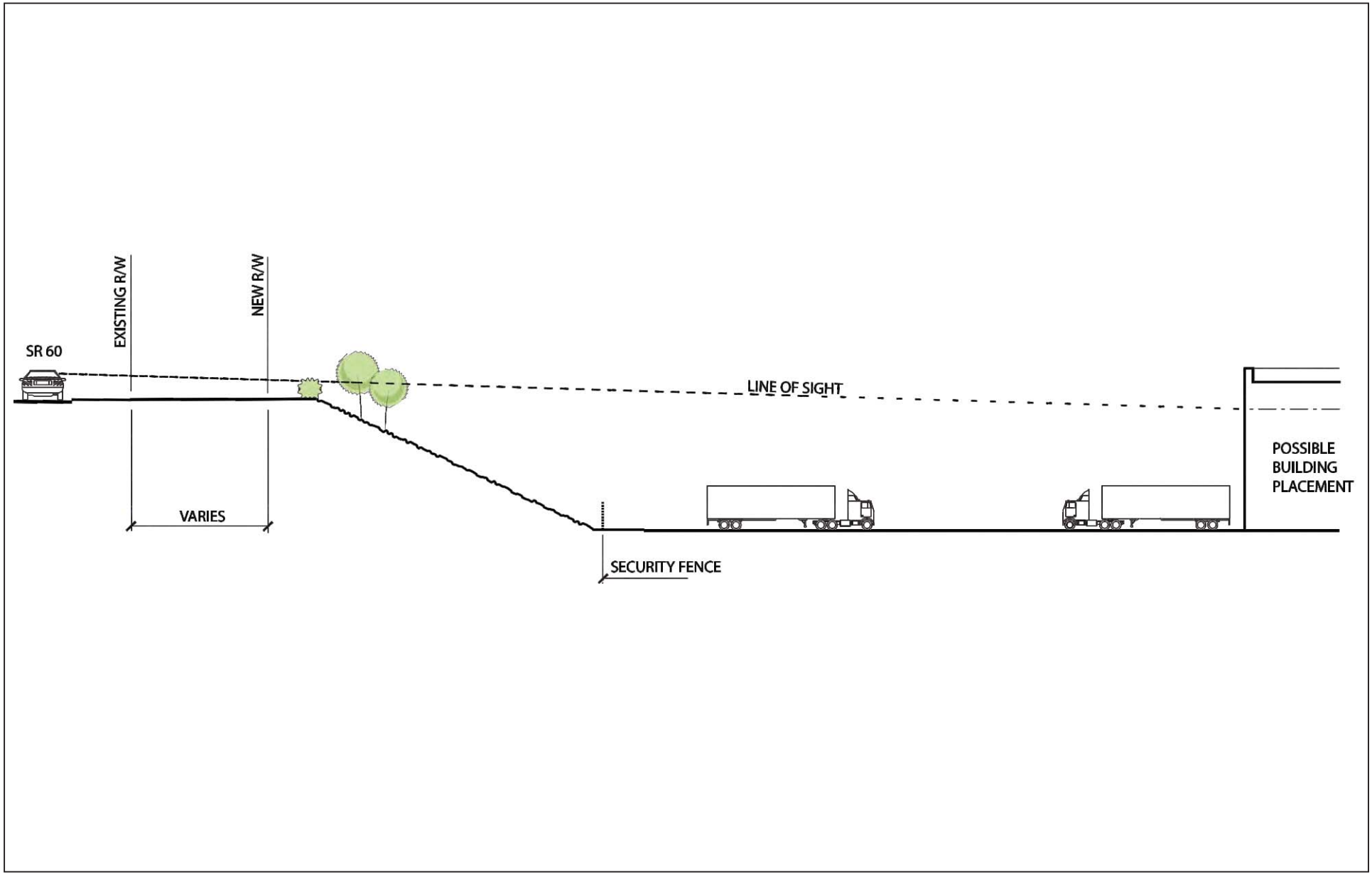

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FIGURE 4.1.4F

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Sections and Line-of-Sight Diagrams
SR-60 Between Theodore and Gilman Springs Road, Section F

SOURCE: World Logistics Center Specific Plan, HF, June, 2014.

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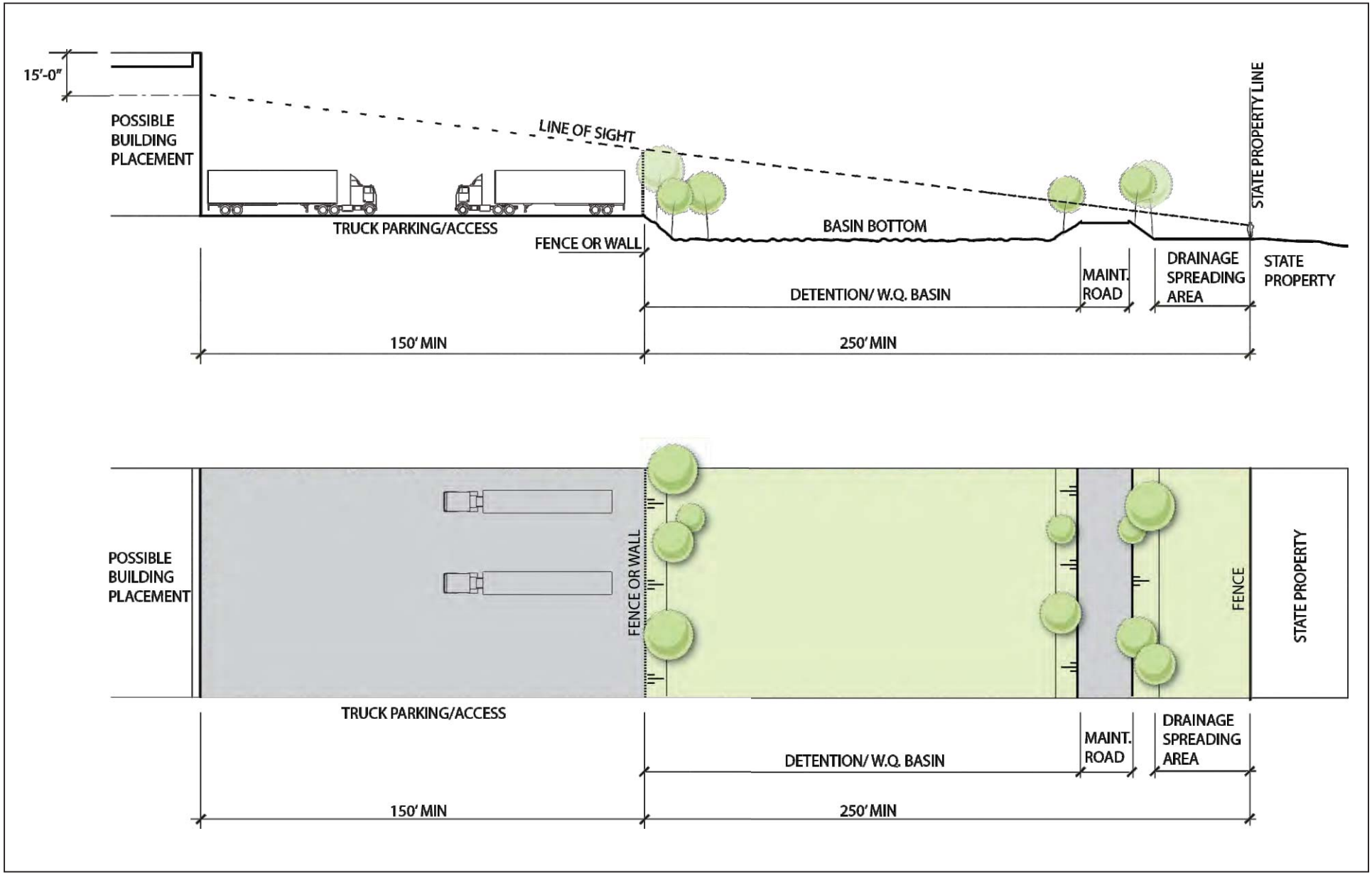

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FIGURE 4.1.4G

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Sections and Line-of-Sight Diagrams
Southern Boundary, Section G

SOURCE: World Logistics Center Specific Plan, HF, June, 2014.

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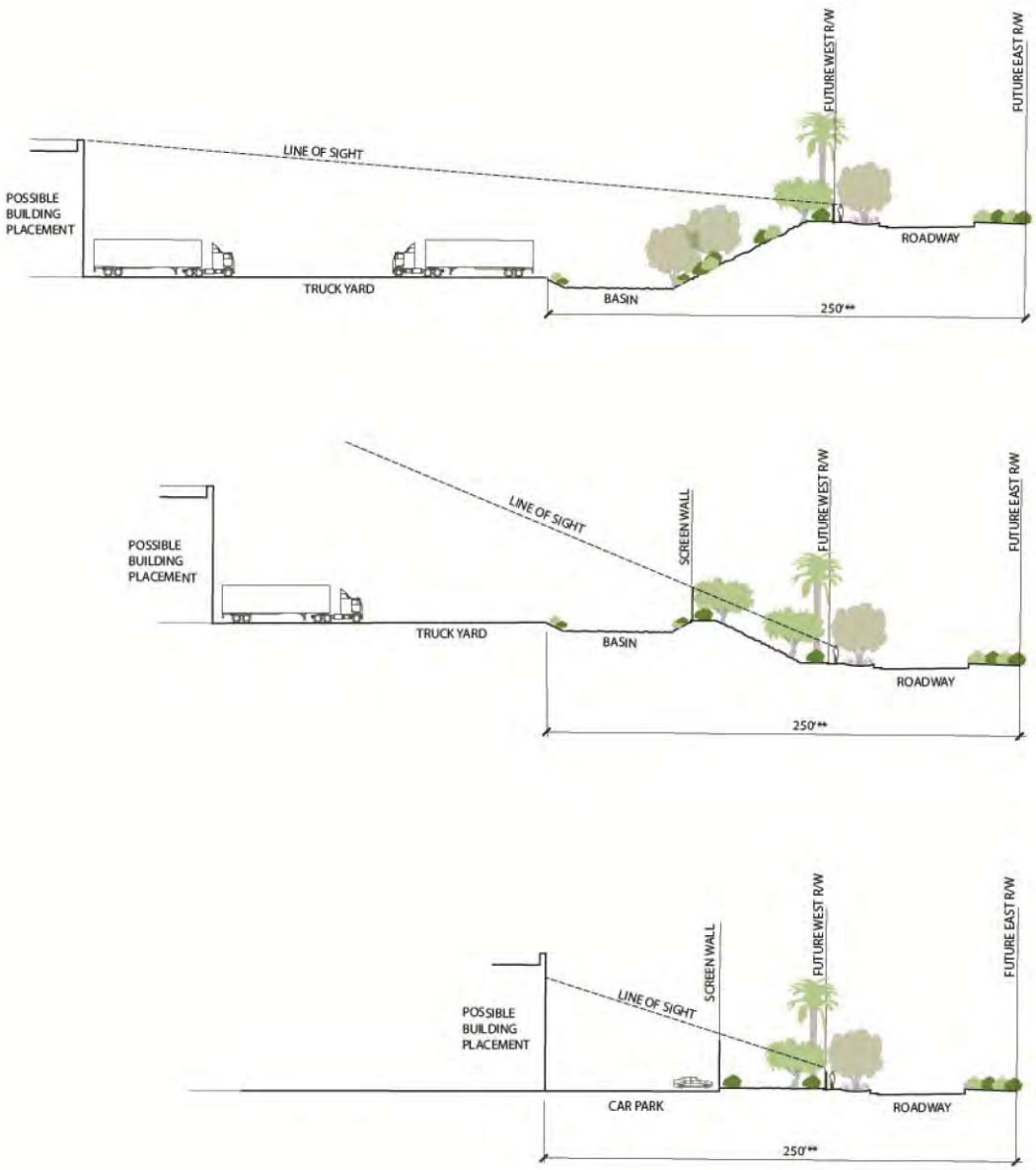

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FIGURE 4.1.4H

***Required setback to truck activity areas. A shorter setback is permitted subject to air quality and noise analyses.*

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Sections and Line-of-Sight Diagrams
Gilman Springs Road

SOURCE: World Logistics Center Specific Plan, HF, June, 2014.

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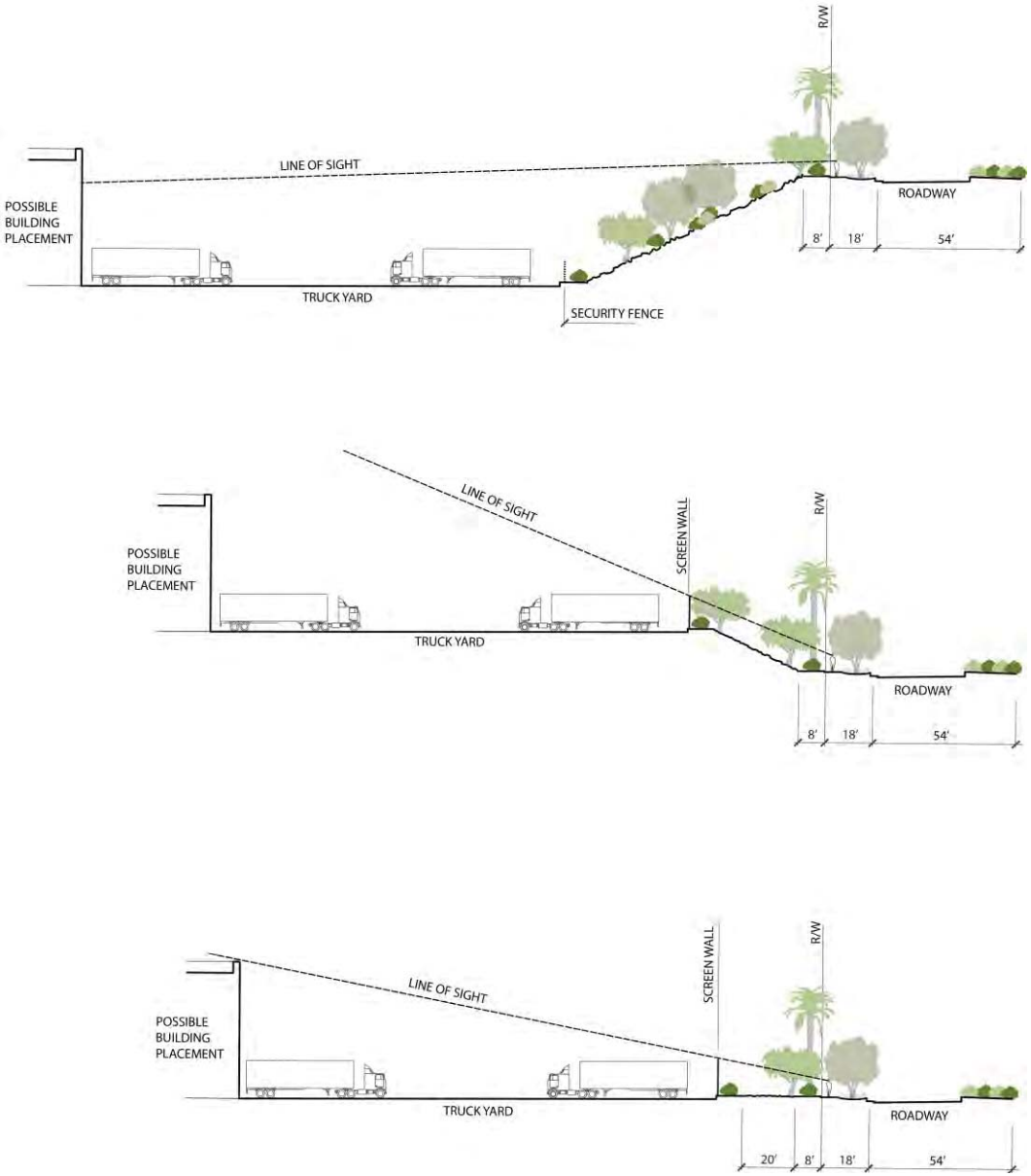

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FIGURE 4.1.4I

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Sections and Line-of-Sight Diagrams
All Interior Roadways

SOURCE: World Logistics Center Specific Plan, HF, June, 2014.

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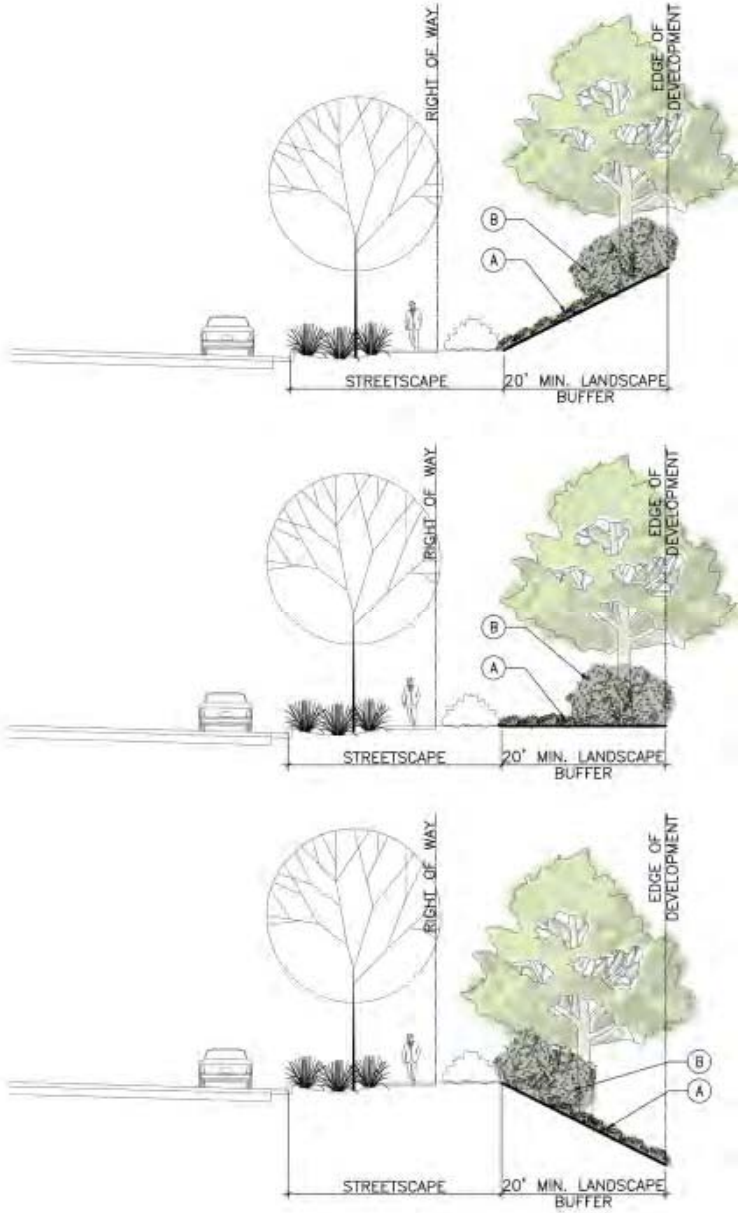

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FIGURE 4.1.4J

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Sections and Line-of-Sight Diagrams
Slope Planting Guideline

SOURCE: World Logistics Center Specific Plan, HF, June, 2014.

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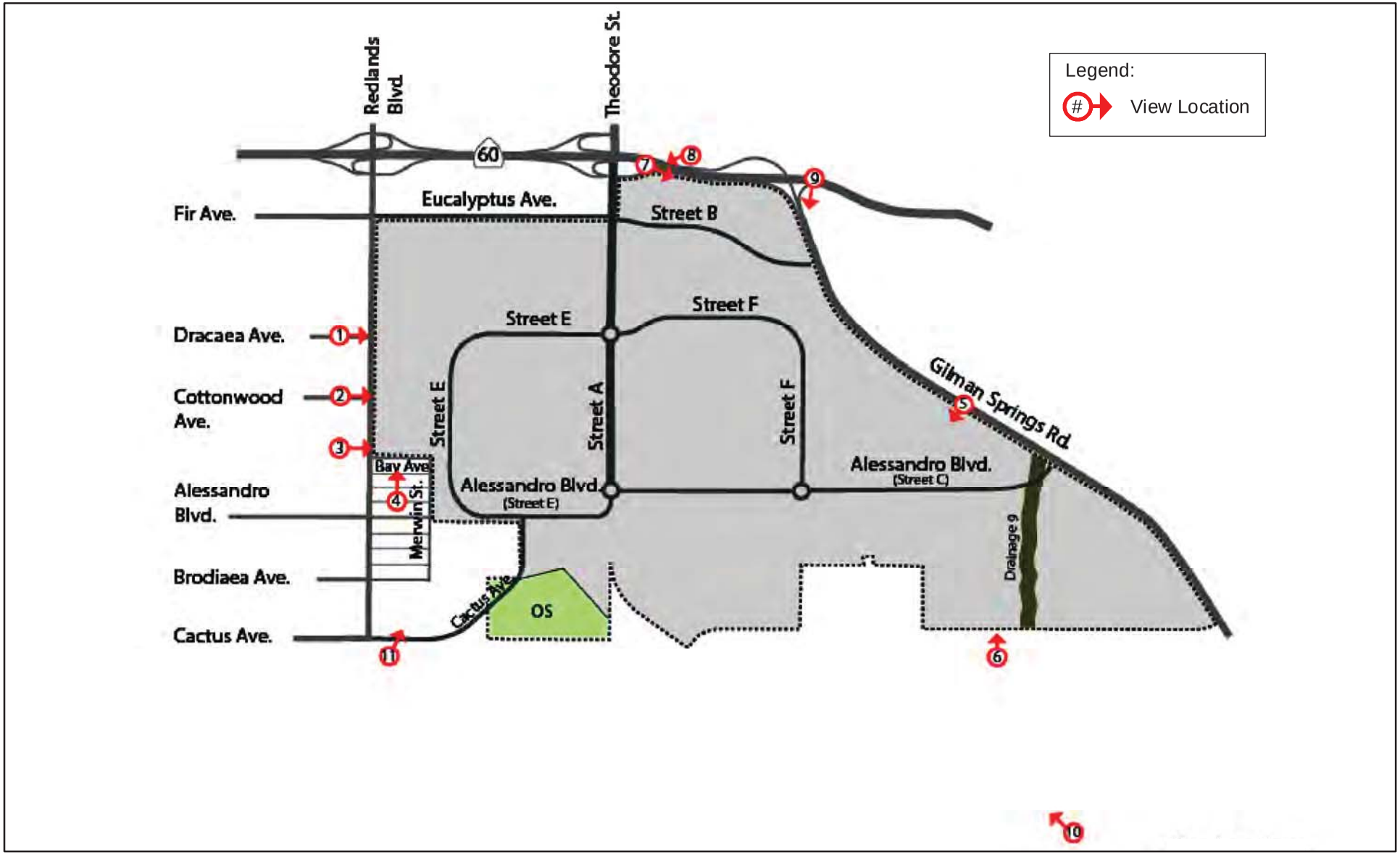

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FIGURE 4.1.5A

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World Logistics Center Specific Plan Project
Environmental Impact Report

Visual Simulation Key Map

SOURCE: World Logistics Center Specific Plan, HF, September, 2014.

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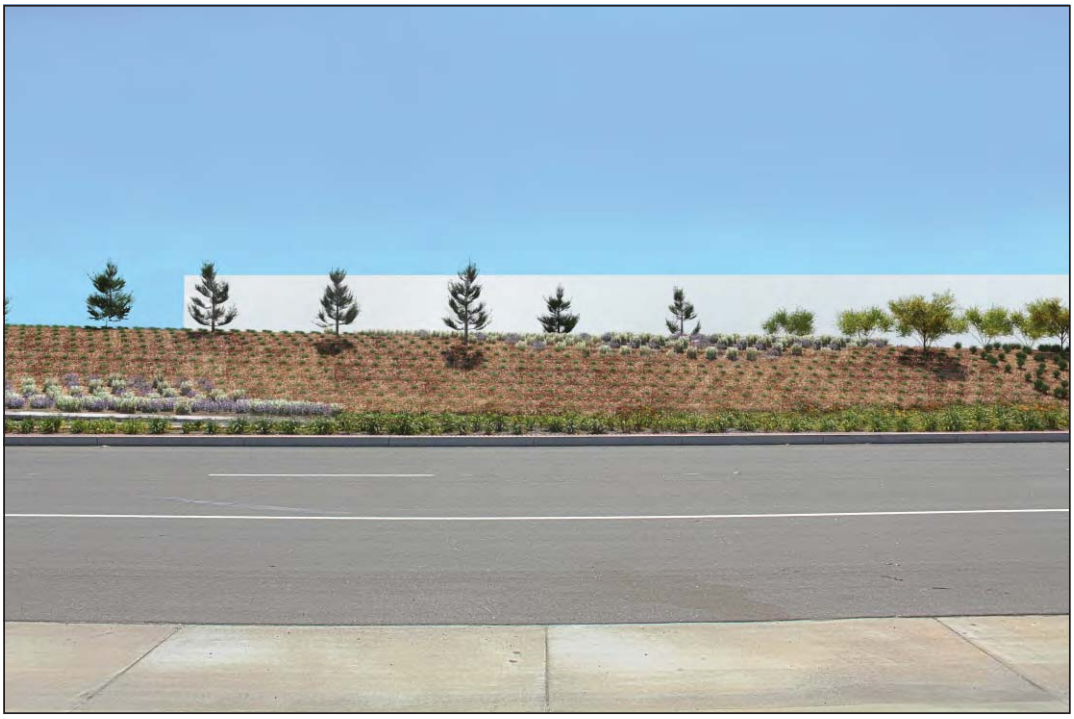

View 1: *Looking east across Redlands Boulevard at Dracaea Avenue vegetation at installation.*

View 1: *Looking east across Redlands Boulevard at Dracaea Avenue vegetation at maturity.*

LSA

FIGURE 4.1.5B

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

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View 2: *Looking east across Redlands Boulevard at Cottonwood Avenue vegetation at installation.*

View 2: *Looking east across Redlands Boulevard at Cottonwood Avenue vegetation at maturity.*

LSA

FIGURE 4.1.5C

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

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View 3: *Looking east across Redlands Boulevard at Bay Avenue vegetation at installation.*

View 3: *Looking east across Redlands Boulevard at Bay Avenue vegetation at maturity.*

LSA

FIGURE 4.1.5D

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

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View 4: *Looking north across Bay Avenue from east of Redlands Boulevard vegetation at installation.*

View 4: *Looking north across Bay Avenue from east of Redlands Boulevard vegetation at maturity.*

LSA

FIGURE 4.1.5E

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

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View 5: *Looking east across Gilman Springs Road at vegetation at installation.*

View 5: *Looking east across Gilman Springs Road at vegetation at maturity.*

LSA

FIGURE 4.1.5F

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

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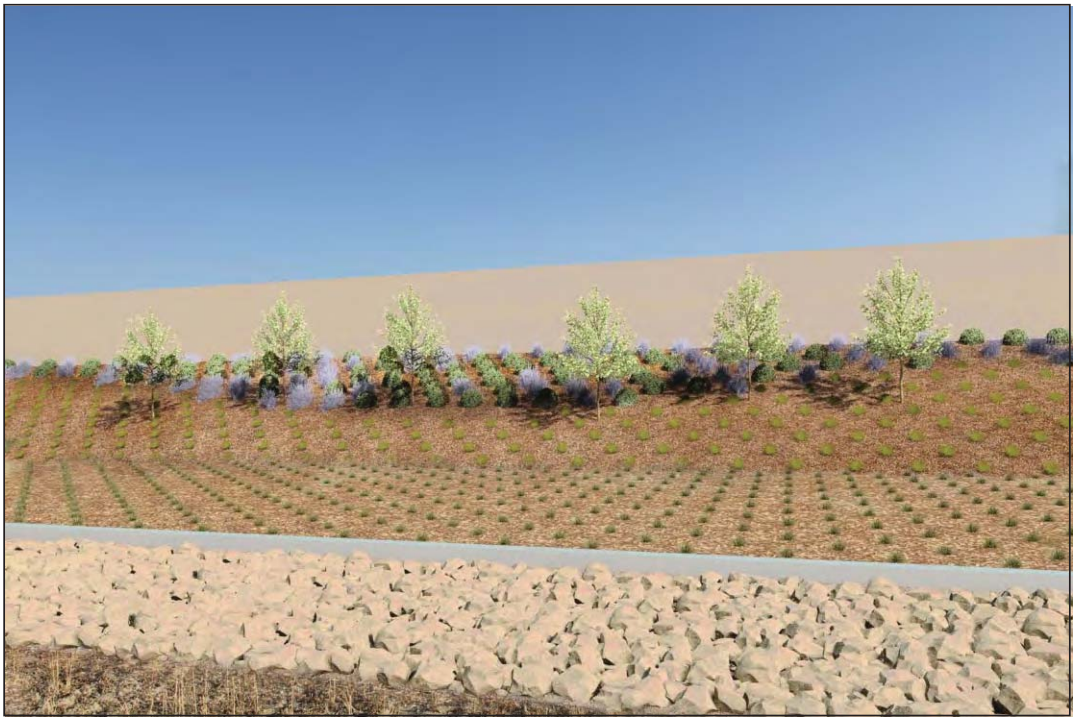

View 6: *Looking north from vegetation at installation.*

View 6: *Looking north toward southern Project Boundary vegetation at maturity*

LSA

FIGURE 4.1.5G

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

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View 7: *Looking southeast heading eastbound from SR-60 vegetation at installation.*

View 7: *Looking southeast heading eastbound from SR-60 vegetation at maturity.*

LSA

FIGURE 4.1.5H

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

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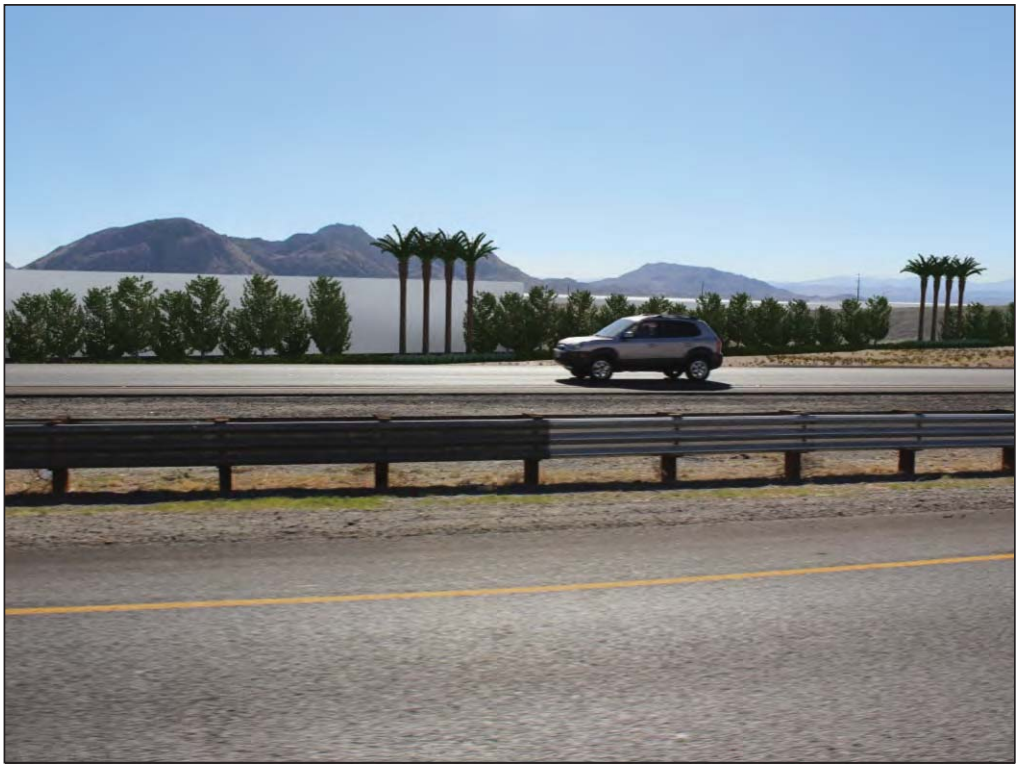
View 8: *Looking southwest heading westbound from SR-60 vegetation at installation.*



View 8: *Looking southwest heading westbound from SR-60 vegetation at maturity.*

LSA

FIGURE 4.1.5I

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

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View 9: *Looking south across Gilman Springs Road at vegetation at maturity.*

View 10: *Looking northwest from within San Jacinto Wildlife Area.*

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FIGURE 4.1.5J

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

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View 11: *Looking northeast from the corner of Cactus Avenue and Madrid Avenue.*

LSA

FIGURE 4.1.5K

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

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4.1.4 Thresholds of Significance

Appendix G of the *CEQA Guidelines* recognizes the following significance thresholds related to aesthetics. Based on these significance thresholds, a project would have a significant impact on aesthetic resources if it would result in:

- A substantial adverse effect on a scenic vista;
- Substantial damage to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway;
- Substantial degradation of the existing visual character or quality of the site and its surroundings; and/or
- A new source of substantial light or glare that would adversely affect daytime or nighttime views in the area.

4.1.5 Less than Significant Impacts

Due to the size and location of the project, and due to the fundamental and permanent alteration of the aesthetic characteristics of the site, all aesthetic impacts were determined to be potentially significant.

4.1.6 Significant Impacts

4.1.6.1 Scenic Vistas

Impact 4.1.6.1: *The proposed project would have a substantial significant effect on a scenic vista.*

Threshold	Would the proposed project have a substantial adverse effect on a scenic vista?

The proposed project could have a substantial adverse effect on one or more scenic vistas, notably views of the Badlands, Mount Russell and the Mount Russell Range, and Mystic Lake/San Jacinto Wildlife Area. For the proposed project, the nearest sensitive permanent visual receptors would be the existing single-family residences to the west and southwest along Redlands Boulevard. In addition, the views of the motoring public along SR-60, Gilman Springs Road, Redlands Boulevard, Theodore Street, and Alessandro Boulevard would be significantly affected as well. At present, the Skechers building blocks views of the site for travelers on SR-60 who are immediately north of the Skechers building.

One of the development goals of the Specific Plan is to have the heights of the buildings along the north, west and south perimeter of the site, including SR-60, be ~~no taller than~~ approximately the same height as the existing Skechers building (i.e., approximately 55 feet above a ground elevation of 1,740 feet amsl). This means, as the site elevation decreases to the south, taller buildings theoretically could be built as long as they do not exceed 1,795 feet elevation (i.e., height above sea level, not building height above ground). This would result in seeing only the buildings adjacent to the freeway for eastbound travelers on SR-60, but it would adversely affect views from other locations around the WLC Specific Plan site regardless of the height comparison to the Skechers building. The motoring public heading westbound on SR-60 would experience impacts to their views of ~~Mystic Lake and~~ Mount Russell.

Along Gilman Springs Road and away from the perimeter of the site, the Specific Plan allows warehouse buildings that may reach a height of 80 feet. These buildings would have a maximum altitude of 1,795 feet. The potential heights of project buildings, and possible viewshed impacts of

future development under the Specific Plan, are shown in previously referenced Figure 4.1.5, which provides computerized photographic renderings of the proposed project building and landscaping.

As stated previously, the project will allow a maximum of 60-foot tall warehouse buildings along the west, north, and south perimeters of the site, and 80-foot buildings on the "interior" portions of the site and along the eastern perimeter (i.e., Gilman Springs Road). Ground elevations range from 10 to 30 feet lower than Gilman Springs Road, which will help reduce visual impacts of warehouse buildings in the eastern portion of the site. The existing Skechers building at the northwest corner of the site can be seen from almost anywhere on the project site at present, and from surrounding off-site areas. Other warehouse buildings within the project will be at least that prominent when they are built.

Section 5.0 of the WLCSP contains architectural and design guidelines that will encourage the construction of attractive warehouse buildings and surrounding grounds. This is supported by the examples of building designs, materials, colors, and landscaping illustrations in the Specific Plan. The general development, setback, architectural design, and landscaping guidelines of the WLCSP require future development to provide attractive warehouse buildings with native plants and trees to help screen views of the lower portions of the buildings.

The Skechers building is mainly white, and the WLCSP indicates that future warehouse buildings on site will also be white or light colored to minimize energy consumption, provide architectural compatibility, and reflect heat to minimize the urban "heat island" effect (see also Section ~~6.0,~~5.3.13Sustainability). Based on current views of the Skechers building, these new buildings will also be visible from various off-site locations (e.g., north of SR-60 and east of Gilman Springs Road). However, white or light-colored buildings, like Skechers, may be more visible at longer distances compared to darker or earth-toned buildings.

General View Impacts from Existing Residences. The Specific Plan establishes a minimum setback of 250 feet along the west boundary of the project site between sensitive receptors (i.e., houses) and buildings or parking/circulation areas within the WLCSP. The Specific Plan also includes specific landscaping and other design criteria for this buffer (see WLCSP Section 4.2, *Offsite Landscaping*). It should be noted that the width of the adjacent street outside of the WLC project boundaries (e.g., Redlands Boulevard, Bay Avenue, and Merwin Street) is included in the 250-foot buffer distance.

The line-of-sight exhibits and the photographic renderings help predict how the WLCSP project will appear as buildings are constructed. ~~Section 4.2 of the WLCSP~~ Figures 4.1.4A-E include typical cross-sections that show the 250-foot setback as measured from the ~~west right-of-way~~center line of Redlands Boulevard and Merwin Street, and the south ~~right-of-way~~ center line of Bay Avenue. Not counting the existing street widths, the new landscaping setback/berm areas along the west side of the WLCSP will be approximately 150 feet wide (e.g., from the east side of Redlands Boulevard to the nearest truck activity area). These setbacks, and the proposed landscaping within the setback areas, are shown in previously referenced Figures 4.1.4A-E and 4.1.5A-F (Views 1-5). Section ~~5.3~~4.2 of the Specific Plan describes and illustrates how the landscaping will appear both upon installation and at maturity (photographic renderings of these conditions are also shown in Section 4.2, *Offsite ~~Design Standards –~~Landscaping*).

~~With~~ As development of the proposed project occurs, buildings, associated parking lots, and landscaping will be built on the project site. This will change existing views from virtually every point in and around the project site. Foreground and midground views would consist of trees, ornamental landscaping, and new warehouse buildings. Most background views will be affected as well with limited distant views of the Badlands, Mount San Jacinto, and Mount Russell remaining from some adjacent properties and roadways. Although the warehouse buildings and the single-family

residences would be separated by some distance, the proposed project will result in the reduction or elimination of existing background views.

Views from SR-60. The existing Skechers building can be used as a visual reference relative to future views involving the WLCSP. The average floor elevation of the Skechers facility is 1,740 feet amsl. Assuming an average building height of 55 feet, the Skechers building is at an elevation of 1,795 feet amsl compared to the elevation of SR-60 at 1,760 feet amsl adjacent to the Skechers building. This means a person driving on SR-60 cannot see much of the WLCSP property, or Mystic Lake while adjacent to the Skechers building, although the top of Mount Russell is visible from most locations.

Travelers in both directions on SR-60 will have views of the project site until the northernmost portion of the site is developed. As the site develops, the buildings would replace existing flat agricultural fields with industrial buildings, which may block foreground and midground views of travelers in both directions, depending on their locations. There are no site plans at present to show exact building locations or heights, so the determination of impacts must be based on the characteristics of buildings allowed under the Specific Plan. Buildings adjacent to the freeway would be approximately 60 feet in height, while buildings away from the northern perimeter (i.e., the south side of SR-60) could be up to 80 feet tall. If all of the future buildings along the south side of SR-60 block views to the same degree as the Skechers building, this would be a significant visual impact as it would reduce views of Mount Russell, and the Badlands south of SR-60 along Gilman Springs Road.

The height and location of buildings along this portion of the project will have to be designed to allow background views between and over them (i.e., so the mountains and Mystic Lake are not fully or largely obscured by buildings in the future). The conceptual landscape plans for the proposed project show trees will be planted along the south side of SR-60 to soften views of future buildings, but these will not fully obscure views of the buildings or parking areas, as the buildings may be taller than the trees will grow, and the buildings will extend farther into the midground and background views for many travelers. Even with the landscaping proposed by the WLC Specific Plan, development of this area will eventually replace the existing flat agricultural fields with tall industrial warehouse buildings that may completely or partially block views of the lower slopes of Mount Russell and the Badlands ~~and Mystic Lake~~. If future buildings were to block views of these major scenic resources substantially (per GP Figure 7-2), the WLC project would result in significant visual impacts along SR-60. The simulated view from SR-60 is shown in Figure 4.1.5J and K (Views 8 and 9).

Views from Gilman Springs Road. Travelers in both directions on Gilman Springs Road will have extensive views across the project site until the easternmost portion of the site is developed. As the site develops, the buildings would replace existing flat agricultural fields with industrial buildings. Buildings constructed in the eastern portion of the site may block foreground and midground views for travelers in both directions, depending on the location of the building and the traveler. There are no site plans at present to show exact building locations or individual building size/mass or heights, so the determination of impacts must be based on the characteristics of buildings allowed under the Specific Plan. Buildings adjacent to the roadway would be approximately ~~60~~80 feet in height, while buildings away from the eastern perimeter (i.e., the west side of Gilman Springs Road) could be up to 80 feet tall. If all of the future buildings along the west side of Gilman Springs Road block views to the same degree as the Skechers building, this would be a significant visual impact as it would - ~~eliminate~~ reduce views of Mount Russell to the west and views of Mystic Lake to the south. The height and location of buildings along this portion of the project will have to be designed to allow background views between and over them (i.e., so the mountains and Mystic Lake are not fully or largely obscured by buildings in the future). The conceptual landscape plans for the proposed project show trees will be planted along the west side of Gilman Springs Road to soften views of future buildings,

but these will not fully obscure views of the buildings or parking areas, as the buildings may be taller than the trees will grow, and the buildings will extend farther into the midground and background views for many travelers. Even with the landscaping proposed by the WLC Specific Plan, development of this area will eventually replace the existing flat agricultural fields with tall industrial warehouse buildings, which may completely or partially block views of the lower slopes of Mount Russell and Mystic Lake. If future buildings block views of these major scenic resources substantially (per GP Figure 7-2), the WLC project would result in significant visual impacts along Gilman Springs Road. The simulated view from this vantage point is shown in Figure 4.1. .~~5J~~5G (View ~~8~~6).

On-site Views. As the WLC project is developed, views from the various rural residences on site will become increasingly blocked, depending on the relative locations and heights of buildings. Over time, these views will be blocked by new logistics warehouse buildings.

In addition to the cross-sections in the WLCSP, LPA Architects created photographic renderings at ~~ten~~ nine locations to illustrate existing and future views from various vantage points around the WLC site. The following analysis of views is organized by the corresponding rendering(s). These renderings used actual photographs of the sites and superimposed a rendering of potential future buildings within the WLCSP, consistent with Specific Plan development guidelines. These renderings represent possible architectural treatments under the WLCSP design guidelines.

Views from Residences Southwest of the Site. As the project develops, views of the project site from existing residences southwest of the site will fundamentally change from vacant agricultural land to an urbanized logistics campus with major warehouse buildings, roadways, landscaping, and signage. The change in views would be softened somewhat by landscaping, which will be subject to the architectural and landscaping design guidelines outlined in the Specific Plan. All building proposals will be subject to a discretionary plan review process by the City with the opportunity for the public input and comment.

The WLCSP restricts building heights to 60 feet along the perimeter of the project, with the exception of along Gilman Springs Road, and 80 feet for non-perimeter buildings. The WLCSP also allows for the building office entrances and corners to be slightly higher than the main portions of buildings. By comparison, single-family residences southwest of the proposed project have an approximate maximum height of 18 feet for single-story homes and 30 feet for two-story homes. It should be noted that there is an existing windrow of olive trees along the east side of Redlands Boulevard between Cottonwood Avenue north to 700 feet north of Dracaea Avenue (almost 1,800 feet or a third of a mile in total). This windrow would help soften views of the WLCSP site from the homes west of the windrow for as long as the windrow remains in place.

The WLCSP requires that a landscaped berm be installed along the Redlands Boulevard right-of-way to soften project views from residential areas to the west. The Specific Plan requires that all truck accessways and loading areas be at least 250 feet from residential properties along Redlands Boulevard, Bay Avenue, and Merwin Street. The Specific Plan includes renderings of potential future buildings, which illustrate that future buildings will be largely screened by the landscaped berm and other landscaping. While the Specific Plan requires the use of native, drought-tolerant species throughout the project site, the areas adjacent to residential uses along Redlands Boulevard, Bay Avenue, and Merwin Street will receive a more extensive landscape treatment (WLCSP Section 4.2.4 refers these as special edge treatment area). However, landscaping will take a number of years to mature to a height that would soften views from residential areas. Even with the setbacks, berms, walls, and landscaping required by the WLC Specific Plan, the proposed development will fundamentally change views generally available to the public in this area (i.e., area residents driving or walking along Redlands Boulevard, Bay Avenue, and Merwin Street). This is a significant impact

and requires mitigation. The photographic renderings for the project show proposed landscaping upon installation and at maturity (assumed to be approximately 15 years) for each rendered location (refer to Figures 4.1.5B-F, Views 1-5).

Views from the South. The existing view from the San Jacinto Wildlife Area north toward the Badlands will eventually be blocked by future buildings, resulting in visual impacts from this area. Buildings in this area will be setback from the SJWA boundary a minimum of 400 feet and limited in height to 60 feet, ~~and the 250-foot landscaped buffer will set back the buildings from the SJWA boundary.~~ Figure 4.1.6A shows the location of three special edge treatment areas. Cross section and line of site diagrams are shown for the edge treatments in Figures 4.1.4A through 4.1.4I. Additional information on the Southern Boundary is shown in Figure 4.1.6B.

Views from the East. Permanent views from existing residences east of Gilman Springs Road will fundamentally change. The views they now have of the agricultural fields on the project site will eventually be replaced by a view of an urbanized area consisting of warehouse buildings, parking areas, streets, and ornamental landscaping. The proposed buildings will not block views of the Mount Russell Range to the southwest but may block or partially block views of the Mystic Lake area.

Transient/Motorist Views along Gilman Springs Road. Transient views for travelers on Gilman Springs Road will fundamentally change over time, as future buildings within the WLCSP will be visible to travelers in both directions, replacing existing views of agricultural fields. Eventually buildings within the Specific Plan may block or partially block views of the lower slopes of the Mount Russell Range, as well as distant views of Mystic Lake for southbound drivers. This is a potentially significant impact requiring mitigation.

Transient/Motorist Views along SR-60. Transient views for travelers on SR-60 will fundamentally change over time, as future logistics buildings will be visible to travelers in both directions as development occurs in the project area, replacing existing views of agricultural fields. Eventually buildings within the Specific Plan may block or partially block views of the lower slopes of the Badlands and the lower slopes of the Mount Russell Range, as well as views of Mystic Lake southbound depending on the driver's location and viewing angle. ~~When buildings are eventually built adjacent to the south side of SR-60, view across the valley floor and farther south toward Mystic Lake, may be completely blocked.~~ Mystic Lake is not visible for travelers along SR-60; therefore buildings will not block views of the lake for those traveling along SR-60.

Views from the North. Permanent views for residences north of SR-60 will change, and the upper portions of some of the future logistics buildings closest to SR-60 may be visible above the freeway. For residences that are elevated, views across the freeway may be more extensive and residents may see more of the WLC project as it develops. The proposed buildings are not expected to block views of the Mount Russell Range to the south or the Badlands to the southeast, but may eventually completely or partially block distant views of the vacant agricultural land and of Mystic Lake.

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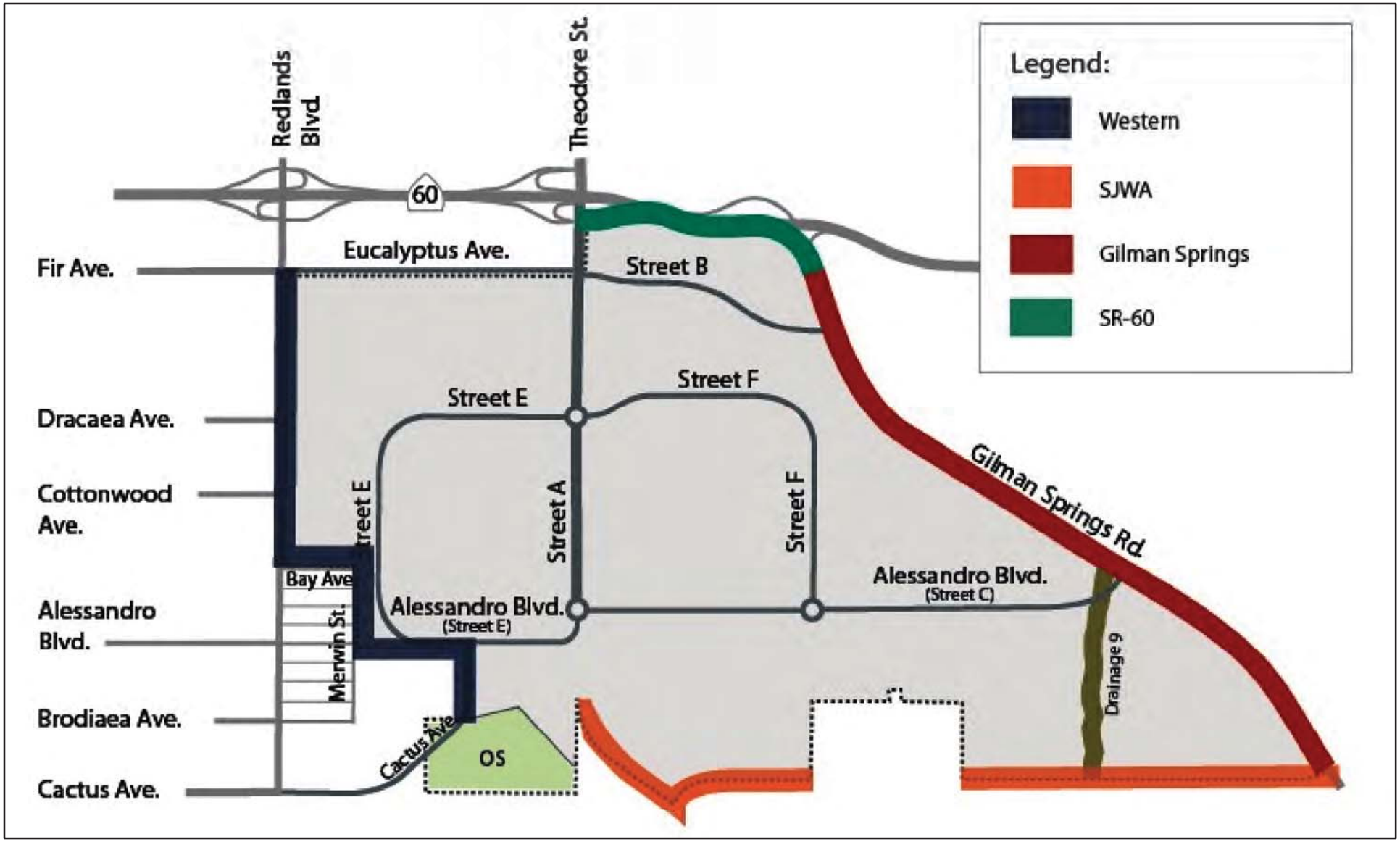

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FIGURE 4.1.6A

N

No Scale

World Logistics Center Specific Plan Project
Environmental Impact Report

Special Edge Treatment Area

SOURCE: HF, September, 2014.

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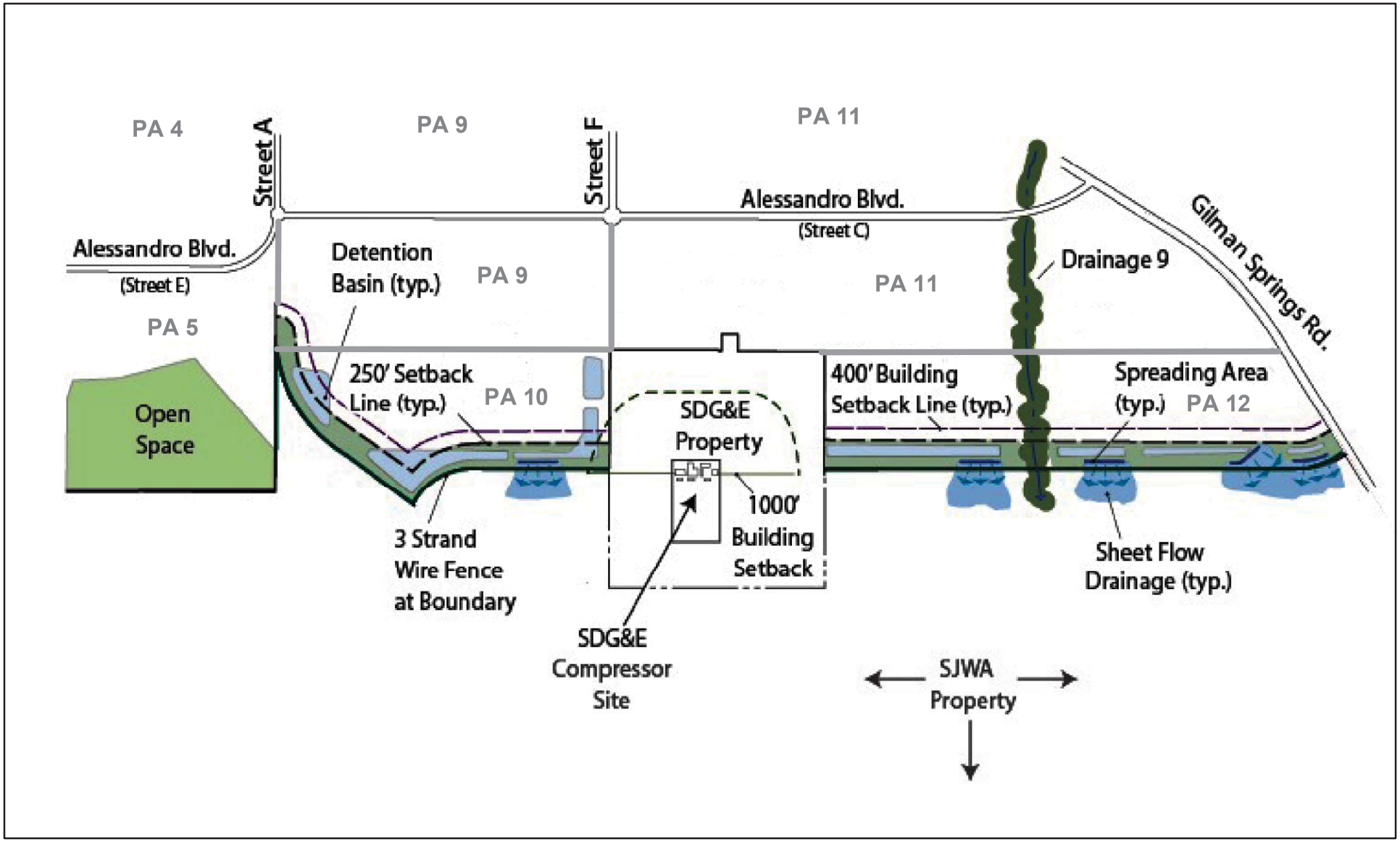

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FIGURE 4.1.6B

PA # Planning Area

No Scale

World Logistics Center Specific Plan Project
Environmental Impact Report

Southern Edge Treatment

SOURCE: HF, September, 2014.

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Views related to Off-site Improvements. Most project-related infrastructure improvements will not change existing views except for the future Theodore Street/SR-60 interchange improvements. When this interchange is rebuilt, views from some homes northwest of the intersection (i.e., looking southeast) may be incrementally affected by a larger, possibly higher bridge structure, depending on the ultimate design.

Construction of three off-site reservoir tanks will affect views of neighbors living near the new tanks. A new 1860 Zone tank southeast of SR-60/Gilman Springs Road and a new Zone 1967 tank just east of Theodore Street/Ironwood Avenue may be visible to some residents living northwest of Theodore Street/SR-60. In addition, a new 1764 Zone tank off of Cottonwood Avenue west of Redlands Boulevard may be visible to some residents living off of or driving along Cottonwood Avenue (see previously referenced Figure 3.13, *Water System*). However, views of a water tank are incremental and generally consistent with suburban areas, so these changes in views would not be considered significant.

General Plan Policies. These anticipated visual changes, while substantial, are generally consistent with General Plan Objective 7.7 in the Conservation Element regarding visual resources, which states, “Where practicable, preserve significant visual features, significant views, and vistas.” Based on the analysis in the preceding section, the WLCSP can preserve significant visual features, significant views, and vistas if the size and location of buildings developed under the WLCSP can be controlled so as to not substantially block views of Mount Russell, the Badlands, and Mystic Lake. The views from all areas surrounding the WLC site will fundamentally change as development occurs, but views of major scenic resources (i.e., Mount Russell, the Badlands, and Mystic Lake) may be largely preserved through careful limitations on the height and location of future buildings. The WLCSP outlines how future development will be made visually attractive and, through careful limitations on the height and location of future buildings, views of the surrounding mountains and Mystic Lake can be preserved through mitigation of individual buildings.

Impact Summary: Scenic Vistas. The implementation of the proposed project will obstruct and/or substantially affect scenic views for residents living within, or in the vicinity of, the project, and for travelers on SR-60, Gilman Springs Road, Redlands Boulevard, Theodore Street, and Alessandro Boulevard. Many of the views of the motoring public while on local roadways will fundamentally change instead of views of open agricultural land, these residents and motorists will view new logistics buildings and the associated parking areas, roadways, infrastructure, and landscaping. Therefore, the project will have a significant visual impact. The degree to which these buildings may block views of major scenic resources (i.e., Mount Russell, the Badlands, and Mystic Lake) will depend on the location and heights of buildings. This impact requires mitigation; however, this change in views, while substantial, is anticipated in the City’s General Plan, which allows development within the project area. At present, the General Plan allows development of a mixed-use residential community (i.e., Moreno Highlands Specific Plan), which would mainly be one-story and two-story buildings (approximate maximum height 35 feet). The WLCSP proposes to instead develop the site with logistics warehouse buildings (maximum height 60–80 feet), so this change in itself would represent a significant visual impact. In addition, the eventual change in views from existing (baseline) conditions is substantial and is considered a significant visual impact on scenic vistas.

Project or Specific Plan Design Features. The WLC Specific Plan contains design guidelines for architecture and landscaping within the site, which will guide the design of all project buildings toward attractive and visually appealing treatments. Section 2.0 of the Specific Plan indicates that warehouse uses will occur throughout the site, except for in the 74.3 acres at the southwest corner of the site designated for Open Space (OS). Section 5.0 of the Specific Plan outlines the design standards to be

applied to development within the project site, including Site Plan Guidelines (5.2), Architecture (5.3), Landscaping (5.4), and Lighting (5.5).

Specific Plan Section 5.1 indicates the project will utilize "Sustainable Design" to reduce pollution and conserve natural resources by considering renewable energy systems, minimizing the use of potable water, use atriums, skylights and internal courtyards to provide daylighting, orienting buildings to screen loading and service areas, collecting rainwater to irrigate drought-tolerant landscaping, providing landscaped outdoor plazas or entries, screening all truck yards from public view, etc.

Specific Plan Section 5.2 indicates building designs should "employ clean, simple, geometric forms and coordinated massing that produce overall unity, scale, and interest." They should have appropriate façades, fenestration, glazing materials, roofs, colors, etc. Appropriate building design includes visible vertical support, visible structural base, functional and straightforward elements, columns integrated into the façade, and proper structural scale. The visual examples of what are appropriate and what are not also helps the reader to understand how the future buildings will appear.

NOTE: The following mitigation measures relative to views have been revised largely in Responses to Comments F-13-6 and F-13-21in Letter F-13 from Johnson & Sedlack on behalf of the Sierra Club, Moreno Valley Group & Residents for a Livable Moreno Valley, Responses to Comments G-57-13, G-95-6, G-95-9, G-95-20, G-95-21, G-95-41, and related comments by others.

Mitigation Measures. The sizes, heights, and general locations of buildings on the site are limited by the standards and guidelines contained in the Specific Plan. The following mitigation measures are recommended to reduce project impacts related to the potential loss of public viewsheds:

4.1.6.1A ~~Prior to the issuance of any discretionary permit for development along the western boundary of the WLCSP, a minimum 250-foot setback shall be verified from closest residential property line along Redlands Boulevard, Bay Avenue, and Merwin Street to any truck access area of the WLC project.~~ Each Plot Plan application for development along the western, southwestern, and eastern boundaries of the project (i.e., adjacent to existing or planned residential zoned uses) shall include a minimum 250-foot setback measured from the City/County zoning boundary line and any building or truck parking/access area within the project. The setback area shall include landscaping, berms, ~~planted~~ and walls ~~and landscaping sufficient~~ to provide ~~effective~~ visual screening between the new development and existing residential areas upon maturity of the landscaping materials. ~~Prior to development of the portion of the WLC Specific Plan property adjacent to Redlands Boulevard, the~~ The existing olive trees along Redlands Blvd. shall remain in place as long as practical to help screen views of the project site. This measure shall be implemented to the satisfaction of the ~~City~~ Planning Official ~~Division~~.

~~**4.1.6.1B** Prior to the issuance of any discretionary permit for development under the WLCSP adjacent to Redlands Boulevard, Bay Avenue, and Merwin Street, the developer shall provide a plot plan or site plan, landscaping plan, and visual rendering(s) consistent with the WLCSP that accurately illustrate the appearance of the proposed development. The renderings shall be sufficient to demonstrate that views of the buildings and trucks will be effectively screened from view by existing residents upon maturity of planned landscaping. The location and number of view presentations shall be at the discretion of the City Planning Division.~~

4.1.6.1B Each Plot Plan application for development adjacent to Redlands Boulevard, Bay Avenue, or Merwin Street, shall include a plot plan, landscaping plan, and visual rendering(s) illustrating the appearance of the proposed development. The

renderings shall demonstrate that views of proposed buildings and trucks can be reasonably screened from view from existing residents upon maturity of planned landscaping and to ensure consistency with the General Plan Objective 7.7. "Effective" screening shall mean that no more than the upper quarter (25%) of a building is visible from existing residences, which shall be achieved through a combination of landscaping, berms, fencing, etc. The location and number of view presentations shall be at the discretion of the Planning Division.

4.1.6.1C Prior to the issuance of a certificate of occupancy for buildings adjacent to the western, southwestern, and eastern boundaries of the project (i.e., adjacent to existing residences at the time of application) the screening required in Mitigation Measure 4.1.6.1A shall be installed in substantial conformance with the approved plans to the satisfaction of the Planning Official.

4.1.6.1D Prior to the issuance of permits for any development activity adjacent to Planning Area 30 (74.3 acres in the southwest portion of the Specific Plan), the entirety of Planning Area 30 shall be offered to the State of California for open space purposes. In the event that the State does not accept the dedication, the property shall be offered to Western Riverside County Regional Conservation Authority or an established non-profit land conservancy for open space purposes. In the event that none of these organizations accepts the dedication, the property may be dedicated to a property owners association or may remain in private ownership and may be fenced and access prohibited.

Level of Significance after Mitigation. After implementation of the proposed mitigation measure(s), adverse effects on scenic vistas would remain significant and unavoidable due to the fundamental change in public views for residents within and surrounding the project site, for travelers on SR-60, Gilman Springs Road, ~~Redlands Boulevard,~~ Theodore Street, and ~~Alessandro~~Redlands Boulevard, ~~and for users of the San Jacinto Wildlife Area.~~

4.1.6.2 Scenic Resources and Scenic Highways

Impact 4.1.6.2: *The proposed project would have a significant impact on the views of scenic resources for motorists traveling on SR-60 and Gilman Springs Road.*

Threshold	Would the proposed project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway and/or local scenic road?

The California Department of Transportation (Caltrans) Scenic Highway Program does not identify any State-designated scenic highways[1] near the project site[2]. However, the City of Moreno Valley identifies SR-60 and Gilman Springs Road as local scenic roads.[3] According to the City's General Plan EIR, major scenic resources within the Moreno Valley study area are visible from SR-60 and Gilman Springs Road, both of which are City-designated local scenic roadways. It should be noted that Moreno Beach Drive, the other City-designated scenic route (per GP policy 7.7.4), is

[1] A State Scenic Highway is defined as any freeway, highway, road, or other public right-of-way, that traverses an area of exceptional scenic quality.
[2] *Eligible and Officially Designated Routes,* California Department of Transportation Scenic Highway Program, http://www.dot.ca.gov/hq/LandArch/scenic_highways/scenic_hwy.htm, website accessed April 4, 2012.
[3] *Conservation Element, Figure 7-2 Major Scenic Resources,* City of Moreno Valley General Plan, adopted July 11, 2006.

approximately one mile west of the project site. The proposed project would not be visible from Moreno Beach Drive, so it will not be analyzed further in this document. According to the City's General Plan, the built environment is equally important as natural landforms in terms of scenic values (e.g., buildings, landscaping, and signs).

Section 4.1.6.1 of this EIR determined that the proposed project could have a substantial adverse impact on one or more scenic vistas, including views of the Mount Russell Range and the Badlands for both residents and travelers on SR-60 and Gilman Springs Road.

The project is not required to provide a formal Visual Impact Assessment (VIA) to Caltrans since SR-60 is not a state-designated scenic highway; however, a cursory application of typical VIA requirements is useful in evaluating potential visual impacts of the project relative to travelers on SR-60 just north of the site. According to the Caltrans Handbook, a VIA is typically considered for projects that have the potential to change the "visual" environment. The level of assessment for the VIA can range from "no formal analysis" to a "complex analysis" and is determined by many factors such as numbers of viewer groups affected; existence of scenic resources; degree and totality of the proposed changes in the visual environment; local concerns or project controversy; and cumulative impacts along the transportation corridor.

In order to establish the need and level of study for a VIA, a preliminary evaluation is performed to determine if the project will cause any physical changes to the environment. This preliminary evaluation includes activities such as conducting a site visit to inventory the scenic resources of the project site, estimating potential changes to that character, and identifying viewer groups and public concerns or opposition to the proposal.

The following analysis of visual impacts of the project was conducted with the VIA criteria in mind. Even though a Caltrans VIA was not prepared, the following evaluation of potential impacts to visual resources is based on guidance from the following resource documents:

- Federal Highway Administration (FHWA) Technical Advisory T6640.8;
- FHWA Guidance HI-88-054: Visual Impact Assessment for Highway Projects;
- Title 23 U.S.C. 109 (h); and
- FHWA DOT-FH-11-9694: Visual Impact Assessment for Highway Projects, as published by the American Society of Landscape Architects.

Table 4.1.B provides the thresholds for a qualitative analysis as to what would be considered a minor, moderate, or major visual intrusion along scenic highways.

Table 4.1.B: Visual Intrusion Criteria

Type of Intrusion	Characteristics
Minor	Widely dispersed buildings; natural landscape dominates; wide setbacks and buildings screened from roadway; exterior colors and materials are compatible with environment; or buildings have cultural or historical significance.
Moderate	Increased number of buildings, but complementary to the landscape; smaller setbacks and lack of roadway screening; buildings do not degrade or obstruct scenic view.
Major	Dense and continuous development; highly reflective surfaces; buildings poorly maintained; visible blight; development along ridgelines; or buildings degrade or obstruct scenic view.

Source: *Scenic Highway Guidelines,* California Department of Transportation, March 1996; http://www.dot.ca.gov/hq/LandArch/scenic/guidelines/scenic_hwy_guidelines.pdf, site accessed April 27, 2012. Page 23.

The following analysis is generally based on the visual intrusion criteria from the Caltrans Guidelines for the Official Designation of Scenic Highways. These criteria, as identified in Table 4.1.B, provide for a qualitative analysis as to what would be considered a minor, moderate, or major visual intrusion along scenic highways. Existing views for motorists traveling eastbound and westbound on SR-60 consist of agricultural fields in the foreground and midground, and the Mount Russell Range and Badlands in the background. As previously identified in Figures 4.1.4 and 4.1.5, development of the proposed project would significantly alter the existing view by introducing large industrial buildings adjacent to the freeway. Existing eastbound and westbound views on SR-60 and Gilman Springs Road would be fundamentally altered with the future development of the proposed project. Views of the project buildings would occur for up to 112 seconds or almost two minutes when motorists are traveling at normal freeway speeds (approximately 9,000 feet or 1.7 miles @ 55 mph, Redlands Boulevard to Gilman Springs Road). Views would be even longer during rush hour or times of congestion when freeway speeds are below 55 mph, and shorter higher freeway speeds.

According to Figure 5-3 in the WLCSP (Building Height Plan, and Figure 3.9 in the Project Description of this EIR), the north, west, and south perimeter portions of the site will have buildings with heights up to 60 feet, and some of the buildings along the eastern perimeter and south of Street C (southeastern portion of the site but not adjacent to the San Jacinto Wildlife Area), would have heights of up to 80 feet. Since the Skechers building (roof height approximately 1,790 feet amsl) is already visible throughout the project site and from off-site areas to the east, south, and southwest, it is likely that most new buildings will be visible from these areas or possibly even farther away, depending on building heights and locations. The use of light colors and reflective surfaces such as glass and polished metal near office entrances and building corners, such as required in the WLC Specific Plan design guidelines, will enhance the visibility of these buildings.

The proposed sound walls and ornamental landscaping would soften the visual impacts of future buildings, but the proposed project would likely result in at least a partial obstruction of a portion of the Mount Russell Range for motorists traveling on SR-60, so the proposed buildings may obstruct the view of a major scenic feature from a City-designated scenic route. The proposed project meets criteria in both the moderate and major visual intrusion categories. Therefore, it is anticipated that the WLC Specific Plan design guidelines may create a major visual intrusion (i.e., significant impact) for motorists traveling on SR-60 and Gilman Springs Road.

General Plan Policies. These anticipated visual changes, while substantial, are generally consistent with the General Plan policies in the Conservation Element regarding visual resources and scenic routes, as outlined in Section 4.1.2.2 and excerpted below:

Objective 7.7 Where practicable, preserve significant visual features, significant views, and vistas.

Policy 7.7.4 Gilman Springs Road, Moreno Beach Drive, and State Route 60 shall be designated as local scenic roads.

Policy 7.7.5 Require development along scenic roadways to be visually attractive and to allow for scenic views of the surrounding mountains and Mystic Lake.

Based on the analysis in the preceding section, the WLCSP can preserve significant visual features, significant views, and vistas if the size and location of buildings developed under the WLCSP can be controlled so as to not substantially block views of Mount Russell, the Badlands, and Mystic Lake. The views from SR-60 and Gilman Springs Road will fundamentally change, but their views of major scenic resources (i.e., Mount Russell, the Badlands, and Mystic Lake) may be preserved through careful limitations on the height and location of future buildings. The WLCSP outlines how future development along SR-60 and Gilman Springs Road will be made visually attractive and can maintain some view corridors of the surrounding mountains and Mystic Lake through careful limitations on the

height and location of future buildings. These are considered significant visual impacts on local scenic roads that will require mitigation.

Project or Specific Plan Design Features. As outlined in the previous section, the WLCSP contains architectural and design guidelines that require the construction of attractive warehouse buildings and surrounding grounds. The WLCSP provides examples of building designs, materials, colors, and landscaping that would be allowed (or not allowed) within the Specific Plan. Section 5.0 of the Specific Plan outlines the design standards to be applied to development within the project site, including Site Plan Guidelines (5.2), Architecture (5.3), Landscaping (5.4), and Lighting (5.5).

Specific Plan Section 5.2.3 indicates the project will utilize "Sustainable Design" to reduce pollution and conserve natural resources by considering renewable energy systems, minimizing the use of potable water, use atriums, skylights and internal courtyards to provide daylighting, orienting buildings to screen loading and service areas, collecting rainwater to irrigate drought-tolerant landscaping, providing landscaped outdoor plazas or entries, screening all truck yards from public view, etc.

Specific Plan Section 5.~~2~~3.4 indicates building designs should employ clean, simple, geometric forms and coordinated massing that produce overall unity, scale, and interest. They should have appropriate façades, fenestration, glazing materials, roofs, colors, etc. Appropriate building design includes visible vertical support, visible structural base, functional and straightforward elements, columns integrated into the façade, and proper structural scale. The visual examples of what are appropriate and what are not also help the reader understand how the future buildings will appear.

However, even with the extensive design features of the Specific Plan, the resulting change in views from SR-60 and Gilman Springs Road will be significant, and mitigation is required.

Mitigation Measures. Construction of future logistics warehousing according to the development standards and design guidelines of the WLC Specific Plan will help soften building façades, and the installation of ornamental landscaping will help buffer the visual appearance of the buildings from SR-60, but the obstruction of local views will still be significant. Implementation of **Mitigation Measures 4.1.6.1A** through **4.1.6.1~~B~~1D** will help reduce these impacts, but not to less than significant levels.

Level of Significance after Mitigation. Even with implementation of **Mitigation Measures 4.1.6.1A** through **4.1.6.1~~B~~D**, the loss of views from SR-60 ~~and Gilman Springs Road~~ will remain a significant and unavoidable visual impact, but one that is nonetheless consistent with the City's applicable General Plan policies.

4.1.6.3 Existing Visual Character and Surroundings

Impact 4.1.6.3: *The proposed project will significantly degrade the existing visual character of the project site from open space to an urbanized setting by introducing large high cube logistics warehouse buildings.*

Threshold	Would the proposed project substantially degrade the existing visual character or quality of the site and its surroundings?

NOTE: The following changes have been made due to revisions made to the Specific Plan project size.

Visual impacts associated with changes to the general character of the project site (e.g., loss of open space), the components of the visual settings (e.g., landscaping and architectural elements), and the visual compatibility between proposed site uses and adjacent land uses would occur. The significance of visual impacts is inherently subjective as individuals respond differently to changes in the visual characteristics of an area. The project site is currently undeveloped with existing agricultural fields throughout the site. Development of the proposed industrial uses on the project site would include approximately 40.6 million square feet of warehouse distribution uses with associated parking areas, ornamental landscaping, and roadway and infrastructure on approximately 2,635 acres. Maximum building heights will range from 60 to 80 feet depending on location within the project ~~(i.e., buildings around the perimeter of the project will be 60 feet in height)~~ and will substantially change the views of both nearby residents and motorists on adjacent roadways.

The proposed project would also change views for travelers on the adjacent portion of SR-60 and Gilman Springs Road by introducing large industrial buildings in place of agricultural vacant land. The proposed buildings closest to the freeway would most likely have an average height of approximately 55 to 60 feet, although the maximum height may be increased by ~~10 feet~~ ~~which would exceed the existing height of the adjacent freeway by approximately 30 feet~~ up to 10 percent for portions of some buildings if necessary to accommodate interior facilities (i.e., elevator shafts) and architectural design elements, which would exceed the existing height of the adjacent freeway by approximately 30 feet. Such changes may be approved through the administrative variance process which provides for consideration of alternative standards, such as greater building heights, up to a maximum modification of 10%. The Administrative Variance process is provided in Section 11.3.3.1 of the Specific Plan.

Development of the proposed project would substantially and fundamentally change the existing character of the project site from open space to an urbanized setting with many large logistics buildings. The change in the character of the site would constitute a significant alteration of the existing visual character of the WLC project site, regardless of the architectural treatment and landscaping of the site. These impacts would be especially significant for residents of the existing residences on the project site, depending on the timing, location, and size of development in the future.

The proposed WLCSP includes a variety of architectural elements including façade accents such as corner treatments and roof trim. The project also provides variation in wall planes that serve to avoid an institutional appearance and break up the bulk of the buildings. This variation would create shadow lines at various times of the day.

The proposed warehouse buildings and ornamental landscaping would replace the widespread agricultural fields and scattered landscaping plants on the site. Landscaping would be provided in accordance with the Specific Plan Landscaping Guidelines.

The City recently approved an amendment to the Municipal Code requiring a 250-foot setback between industrial uses (i.e., the closest building and/or parking areas) and residential uses (i.e., Municipal Code Section 9.06). The Specific Plan design guidelines require specific setback distances. These required setbacks are shown in Section 4.2, *Offsite Landscaping*, of the Specific Plan. This section also includes a number of line-of-sight cross-sections and landscaping plans for the setbacks along the west side of the project. These setbacks provide a minimum 250 feet from existing residences to new proposed buildings or truck activity areas, consistent with the intent of Municipal Code Section 9.06.

In summary, the proposed setbacks, landscaping, berms, and walls outlined in the Specific Plan appear sufficient to provide adequate visual screening between proposed warehouse buildings and the existing residential uses. However, mitigation is required to ensure the actual design and

appearance of setback areas will effectively screen new development from existing residences and neighboring roadways.

Consistency with General Plan Policies. Sections 4.1.6.1 and 4.1.6.2 evaluated the WLC project relative to the General Plan objectives and policies in the Conservation Element. Table 4.1.C compares the WLCSP project to the General Plan objectives and policies in the Community Development Element:

Table 4.1.C: WLCSP Consistency with Community Development Element

General Plan Objective or Policy	Evaluation of WLCSP Consistency
Objective 2.5: Promote a mix of industrial uses which provide a sound and diversified economic base and ample employment opportunities for the citizens of Moreno Valley with the establishment of industrial activities that have good access to the regional transportation system, accommodate the personal needs of workers and business visitors, and which meets the service needs of local businesses.	**Consistent.** The WLCSP provides high cube logistics industrial uses near SR-60.
Policy 2.5.1: The primary purpose of areas designated Business Park/Industrial is to provide for manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities. The zoning regulations shall identify the particular uses permitted on each parcel of land. Development intensity should not exceed a Floor Area Ratio (FAR) of 1.00 and the average FAR should be significantly less.	**Consistent.** The WLCSP provides warehousing that is at FAR 0.5, which is much less than the maximum allowed.
Policy 2.5.2: Locate manufacturing and industrial uses to avoid adverse impacts on surrounding land uses.	**Consistent.** The WLCSP provides setbacks and visual screening from neighboring residential and open space uses, and precludes project traffic through these areas as well.
Policy 2.5.3: Screen manufacturing and industrial uses where necessary to reduce glare, noise, dust, vibrations, and unsightly views.	**Consistent.** The WLCSP shows that the proposed warehouse buildings will be set back and screened from existing off-site residential uses.
Policy 2.5.4: Design industrial developments to discourage access through residential areas.	**Consistent.** WLCSP precludes project truck traffic through residential areas to the west and southwest, as outlined in the WLCSP circulation plan (see DEIR Figure 3.10).
Objective 2.10: Ensure that all development within the City of Moreno Valley is of high quality, yields a pleasant living and working environment for existing and future residents, and attracts business as the result of consistent exemplary design.	**Consistent.** The WLCSP provides high quality architectural and landscaping themes for the proposed buildings and grounds within the project.
Policy 2.10.1: Encourage a design theme for each new development that is compatible with surrounding existing and planned developments.	*Note: The following changes have been made due to the revisions of the Specific Plan project size.* **Consistent.** The WLCSP encompasses 2,610 acres in the last remaining large vacant land in the City. It will create a new logistics center with unique design themes. This development will be set back and visually screened to make it compatible with other development within the project and screened from adjacent residential uses.

Table 4.1.C: WLCSP Consistency with Community Development Element

General Plan Objective or Policy	Evaluation of WLCSP Consistency
Policy 2.10.2: Screen trash storage and loading areas, ground and roof-mounted mechanical equipment, and outdoor storage areas from public view as appropriate.	**Consistent.** The WLCSP provides design and development guidelines that achieve these requirements.
Policy 2.10.3: Require exterior elevations of buildings to have architectural treatments that enhance their appearance. (a) A design theme, with compatible materials and styles should be evident within a development project. (b) Secondary accent materials, colors, and lighting should be used to highlight building features. (c) Variations in roofline and setbacks (projections and recesses) should be used to break up the building mass. (d) Industrial buildings shall include architectural treatments on visible façades that are aesthetically pleasing.	**Consistent.** The WLCSP contains detailed development and architectural design guidelines intended to provide high quality logistics warehousing development on the project site. The WLCSP design guidelines include secondary accents, roofline variations, setbacks, and façade treatments, consistent with this policy.
Policy 2.10.4: Landscaping and open spaces should be provided as an integral part of project design to enhance building design, public views, and interior spaces, provide buffers and transitions as needed, and facilitate energy and resource conservation.	**Consistent.** The WLCSP emphasizes landscaping and energy conservation or sustainability concepts as an integral part of project design. The entire southern boundary and the southwest corner of the project will be permanent open space.
Policy 2.10.5: Development projects adjacent to freeways shall provide landscaped buffer strips along the ultimate freeway right-of-way.	**Consistent.** The WLCSP provides extensive landscaping along the south side of SR-60.
Policy 2.10.6: Buildings should be designed with a plan for adequate signage. Signs should be highly compatible with the building and site design relative to size, color, material, and placement.	**Consistent.** The WLCSP includes a section on signage to provide a comprehensive plan for signage throughout the project area.
Policy 2.10.7: On-site lighting should not cause nuisance levels or glare on adjacent properties.	**Consistent with Mitigation.** The WLCSP contains lighting guidelines for future development, but ambient light level impacts will need to be calculated and, if necessary, mitigated through the City's site plan review process for each specific building proposed.
Policy 2.10.8: Lighting should improve the visual identification of structures.	**Consistent.** The WLCSP includes a section on signage with lighting for a comprehensive plan throughout the project area.
Policy 2.10.9: Fences and walls should incorporate landscape elements and changes in materials or textures to deter graffiti and add visual interest.	**Consistent.** The WLCSP design guidelines require that fences and walls incorporate landscaping and materials designed to reduce graffiti.
Policy 2.10.10: Minimize the use and visibility of reverse frontage walls along streets and freeways by treatments such as landscaping, berming, and "side-on" cul-de-sacs.	**Consistent.** The WLCSP design guidelines do not allow reverse frontage walls. The SR-60 freeway frontage along the north side of the project will be fully landscaped.
Policy 2.10.11: Screen and buffer non-residential projects from adjacent residential property and other sensitive land uses when necessary to minimize noise, glare, and other adverse effects on adjacent uses.	**Consistent.** The WLCSP provides a physical and visual setback to screen new warehouse buildings from existing residential buildings.
Policy 2.10.12: Screen parking areas from streets to the extent consistent with surveillance needs (e.g., mounding, landscaping, low profile walls, and/or grade separations).	**Consistent.** The WLCSP requires parking areas to be screened consistent with surveillance needs.
Policy 2.10.13: Provide landscaping in automobile parking areas to reduce solar heat and glare.	**Consistent.** The WLCSP landscaping plan provides for planting vegetation in parking areas that will help provide shade and reduce glare.

Due to the size and nature of the project, development of the WLCSP will eventually degrade the existing visual character of the area to a significant degree.

Project or Specific Plan Design Features. As outlined in previous sections, the WLCSP contains architectural and design guidelines that will encourage the construction of attractive warehouse buildings and surrounding grounds. The WLCSP provides examples of building designs, materials, colors, and landscaping that would be allowed (or not allowed) within the Specific Plan.

NOTE: The following mitigation measure regarding views has been changed in Response to Comment F-8-3 in Letter F-8 from Shute Mihaly & Weinberger LLP, Comment G-33-6 in Letter G-33 from Tom Behrens, Responses to Comments G-95-21, G-96-4, and related comments from others.

Mitigation Measures. Incorporation of the proposed design guidelines, landscaping guidelines, and **Mitigation Measure 4.1.6.1A** ~~**and 4.1.6.1B**~~ will help soften the visual appearance of the buildings from SR-60, Gilman Springs Road, and nearby residences. However, the fundamental change in visual character of the area will still be significant. Even with compliance with the City's General Plan and Municipal Code development guidelines for industrial development, including the 250-foot setback between industrial and residential land uses, the anticipated fundamental change in views expected in this area will be significant. Due to the heights and mass of buildings needed to accommodate the proposed land uses, no feasible mitigation is available that would reduce these potential impacts to less than significant levels. However, the following measure will help reduce the project's visual impacts on adjacent residential development:

~~**4.1.6.3A**~~ ~~Prior to the issuance of any discretionary permit for development under the WLCSP, the developer shall provide a site plan, landscaping plan, and visual rendering(s) consistent with the WLCSP that demonstrate changes in views of Mount Russell, the Badlands, and/or Mystic Lake for travelers along SR-60 or Gilman Springs Road, as appropriate. The renderings shall be sufficient to demonstrate typical views based on proposed site and landscaping plans, but the location and number of view presentations shall be at the discretion of the City Planning Division. These views shall be simulated from a height of six feet from the edge of the roadway travel lane closest to the visual resource.~~

4.1.6.3A Each Plot Plan application for development shall include plans and visual rendering(s) illustrating any changes in views of Mount Russell and/or the Badlands, for travelers along SR-60, as determined necessary by the Planning Official. The plans and renderings shall illustrate typical views based on proposed project plans, with the location and number of view presentations to be determined by the Planning Official. These views shall be simulated from a height of six feet from the edge of the roadway travel lane closest to the visual resource. The renderings must demonstrate that the development will preserve at least the upper two thirds (67%) of the vertical view of Mt. Russell from SR-60.

Level of Significance after Mitigation. Even with implementation of **Mitigation Measures 4.1.6.1A** through **4.1.6.**~~**1B**~~**1D** and **4.1.6.3A**, the substantial change in visual character of the project site and surrounding area from development of the proposed project will cause aesthetic impacts to remain significant and unavoidable.

4.1.6.4 Light and Glare

Impact 4.1.6.4: *The proposed project will introduce a significant new source of light and glare into the project area.*

Threshold	Would the proposed project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

Currently, there are few sources of light or glare on the project site and there is little or no impact on adjacent properties. Existing sources of light and glare in the surrounding area include the new Skechers building to the northwest of the project site, SR-60 traffic, streetlights, exterior lighting from the nearby residences, and vehicle headlights from motorists on Gilman Springs Road, Redlands Boulevard, Theodore Street, and Alessandro Boulevard.

Development of the project site would introduce numerous new sources of light and glare into the area in the form of street lighting, parking lots, and security lighting for the buildings and nighttime traffic.

The WLCSP requires that all site lighting be oriented downward so as to not project direct light rays upward into the sky or onto adjacent properties. The development of the project will cause a significant increase in light and glare in the area. This new lighting will incrementally affect nighttime conditions in the area.

The WLC Specific Plan requires energy-efficient lighting in most cases, but does allow mercury or incandescent lighting under some conditions (i.e., limited walkway or entryway applications). In addition, the lighting guidelines of the Specific Plan require high-pressure sodium or light-emitting diodes (LEDs) that produce a very “white” color of light, which allows for accurate color rendition (e.g., compared to low-pressure sodium, which produces an orange-tinged light that skews color rendition).

Exterior surfaces of the concrete tilt-up structure would be finished with a combination of architectural coatings, trim, and/or other building materials such as concrete and brushed metal. The proposed project will incrementally increase the amount of daytime glare in the project area by introducing windows and metal fixtures into the area. All development in the City, which includes light generated from warehouse buildings and parking lots, is required to adhere to lighting requirements contained in the City’s Municipal Code (Section 9.08.100 *Lighting*), which states that any outdoor lighting associated with nonresidential uses shall be shielded and directed away from the surrounding residential uses. Such lighting shall not exceed one-quarter (0.25) foot-candle at property lines and shall not blink, flash, oscillate, or be of unusually high intensity or brightness. Lighting in parking areas and drive aisles must be at least 1.0 foot candle and cannot exceed a maximum of 8.0 foot candles.

Adherence to the City’s Zoning Code would help reduce potential building or parking lighting impacts, but the location of industrial uses adjacent to residential uses would not reduce potential lighting impacts on adjacent residential uses to less than significant levels.

The WLC Specific Plan also allows for the installation of roof-mounted solar panels on future warehouse buildings ~~(i.e., the WLCSP will provide “solar ready” buildings)~~ and these panels may produce unintended glare to the southeast, south, and southwest of the site, depending on the angle of the sun, the number and location of panels, and the degree to which the building parapet blocks views of the panels from surrounding land uses. Without additional information, this impact is determined to be potentially significant and requires mitigation.

Consistency with General Plan Policies. The only General Plan policy that specifically addresses lighting is Policy 2.10.7, which states, **"**On-site lighting should not cause nuisance levels or glare on adjacent properties." Due to the amount of new development proposed, the project's impact relative to nuisance lighting and glare is potentially significant, even with implementation of the development and lighting design guidelines in the WLCSP. Therefore, mitigation is required.

Consistency with Municipal Code Requirements. The recent changes to the Municipal Code from Ordinance 851 will help control lighting impacts of the proposed project relative to adjacent residential properties. All development within the Specific Plan adjacent to residences along Redlands Boulevard, Bay Avenue, and Merwin Street will be required to demonstrate compliance with the off-site light spillage requirements of Section 9.08.100 of the Municipal Code.

Project or Specific Plan Design Features. The WLCSP contains lighting standards and design guidelines that will require the minimal use of lighting for building visibility and safety at night. The WLCSP provides examples of lighting that would be allowed (or not allowed) within the Specific Plan. However, Section 5.5.1 of the Specific Plan states that, "… lighting in the vicinity of the San Jacinto Wildlife Area shall be designed to confine all direct light rays to the project site and preclude the visibility of direct light rays from the wildlife area" (WLCSP page ~~126~~5-47).

In addition, Section 5.5 of the Specific Plan includes the following guidelines regarding lighting ~~(WLCSP page 127)~~:

5.5.2.2 All exterior on-site lighting must be shielded and confined within site boundaries. No direct rays or glare are permitted to shine onto public streets or adjacent lots.

5.5.2.3 Lighting fixtures are to be of clean, contemporary design.

5.5.2.4 Lighting must meet all requirements of the City of Moreno Valley.

5.5.2.5 Tilted wall fixtures (i.e., light fixtures which are not 90 degrees from vertical) are not permitted. Lights mounted to the roof parapet are not permitted. Wall-mounted light fixtures used to illuminate vehicular parking lots are not permitted.

5.5.2.6 Wall-mounted utility lights that cause off-site glare are not permitted. "Shoebox" lights are preferred.

NOTE: The following changes to mitigation for lighting impacts from solar panels have been made in Response to Comment G-95-42 in Letter G-95 from Thomas Thornsley.

Mitigation Measures. Even with compliance with the City's General Plan, Municipal Code, and the Specific Plan's development guidelines for lighting and building materials, the anticipated lighting and glare changes in this area will be potentially significant, especially adjacent to the San Jacinto Wildlife Area. Implementation of **Mitigation Measures 4.1.6.1A** through **4.1.6.1B** will help reduce related visual impacts, while **Mitigation Measures 4.1.6.4A** ~~through~~ and **4.1.6.4~~C~~B,** below, will help reduce light and glare associated with the new buildings near the SJWA. The project will also have to comply with the lighting requirements of ~~Mount Palomar Zone B~~ City Municipal Code.

In addition, the following measures are recommended to help ensure that potential lighting impacts of the project will remain at less than significant levels:

~~**4.1.6.4A** Each project proposed to be developed under the WLCSP adjacent to residential development shall provide a photometric plot of its proposed exterior lighting prior to the issuance of building permits. This plot shall demonstrate that it is consistent with the requirements of Section 9.08.100 of the City Municipal Code, to the satisfaction of the City's Planning Division. The lighting study shall indicate the expected increase in ambient night light levels at the property lines of adjacent residential uses (i.e., in the southwestern and western portions of the project site). The study shall demonstrate that the proposed lighting fixtures and/or visual screening do not exceed City standards regarding ambient light level impacts.~~

4.1.6.4A Each Plot Plan application for development adjacent to residential development shall include a photometric plot of all proposed exterior lighting demonstrating that the project is consistent with the requirements of Section 9.08.100 of the City Municipal Code. The lighting study shall indicate the expected increase in light levels at the property lines of adjacent residential uses. The study shall demonstrate that the proposed lighting fixtures and/or visual screening meet or exceed City standards regarding light impacts.

~~**4.1.6.4B** Prior to the issuance of any building permits for development under the WLCSP, the developer shall provide an analysis of any solar panels to be installed on the roof of the new building. The analysis shall demonstrate that, under "worst case" annual conditions, glare from the proposed panels will not leave the confines of the roof, based on building roof parapet design, and affect adjacent residential uses or public travelers along perimeter roadways. Design or construction modifications necessary to meet these requirements shall be implemented to the satisfaction of the City Planning Division.~~

4.1.6.4B Each Plot Plan application for development shall include an analysis of all proposed solar panels demonstrating that glare from panels will not negatively affect adjacent residential uses or negatively affect motorists along perimeter roadways. Design details to meet these requirements shall be implemented to the satisfaction of the Planning Official.

~~**4.1.6.4C** Prior to the issuance of any building permit for development under the WLCSP, low-pressure sodium (LPS) lighting shall be installed on the south sides of any building adjacent to the San Jacinto Wildlife Area (SJWA) to minimize "white" light spillage into the SJWA. This measure shall be implemented to the satisfaction of the City Planning Division based on consultation with the SJWA manager.~~

Level of Significance after Mitigation. Light and glare impacts of the proposed project can be reduced to less than significant levels by compliance with the lighting requirements of the City Municipal Code and implementation of **Mitigation Measures 4.1.6.4A** ~~through~~ and **4.1.6.4B.**

4.1.7 Cumulative Impacts

Significant Cumulative Impact: The proposed project, in combination with other projects in the eastern portion of the City and along SR-60 and Gilman Springs Road, would have a cumulatively significant and unavoidable impact related to views, scenic resources, night lighting, and glare in this portion of the City.

The development of the proposed project would partially obstruct views of surrounding mountain vistas from various vantage points in and around the project area. Partial view opportunities would continue to be available over future buildings, along roadways, between development areas, etc. Development of lands within the City, particularly along SR-60, would result in the cumulative conversion from open space to urbanized land uses. The proposed project would continue the development of logistics uses along the south side of SR-60 east of the City's Auto Center. The proposed project, in conjunction with other cumulative projects, would be developed in a manner consistent with existing development trends in the City. Since other projects in the area will include similar distribution uses, it can be anticipated that such uses would have a similar design and massing as the proposed project. Since the proposed project would affect views of the surrounding mountains, it is reasonable to conclude that similar warehouse distribution uses would also obstruct views of the surrounding mountains. However, the analysis in Section 4.1.6.1 determined visual impacts, though substantial, were consistent with applicable General Plan policies (Policy 7.7.4 in the Conservation Element). Based on this analysis, the proposed project, in combination with other cumulative projects in the surrounding area, will have a cumulatively significant and unavoidable impact related to aesthetics (i.e., views, scenic resources, and lighting) in this portion of the City.

The proposed, existing, and future development within the planning area will increase the amount of light and glare in the area. The cumulative lighting-related impacts of this new development would be reduced through the adherence to applicable City Municipal Code lighting standards. However, this project, in combination with the Auto Center and other approved high cube logistics developments in this portion of the City, will result in cumulatively considerable light and glare impacts, and the proposed project will make a significant contribution to that cumulative impact.

4.2 AGRICULTURAL AND FORESTRY RESOURCES: TABLE OF CONTENTS

FIGURES

TABLES

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NOTE TO READERS. *This section has been revised based on responses to comments on the Programmatic DEIR regarding calculation of and mitigation for loss of agricultural land, changes to the WLC Specific Plan, and changes to related technical studies.*

4.2 AGRICULTURAL AND FORESTRY RESOURCES

This section discusses possible agricultural and forestry resource impacts attributable to the proposed project. It describes existing agricultural resources and State farmland classifications for the project site. This section focuses on applicable State, regional, and local policies regarding agricultural resources and the conversion of farmland to non-agricultural uses.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers ~~3,918~~ 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes ~~3,814~~ 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering ~~3,814.~~ 3,714 acres, which redesignates approximately 70 percent of the area (~~2,710~~ 2,610 acres) for logistics warehousing (new LD and LL~~, LS~~ zones) and the remaining ~~30~~ 29 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the ~~2,710~~ 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*. ~~The environmental impacts of all of these entitlements on the entire project area are addressed in this EIR and the accompanying technical reports and analyses.~~

The analysis contained in this section is based on the following reference documents:

- *Agricultural Mitigation Bank Memorandum*, County of Riverside Transportation and Land Management Agency, October 2, 2003.

- *Agricultural Resources Assessment for the World Logistics Center Specific Plan Draft Environmental Impact Report*, Parsons Brinckerhoff, original dated February 12, 2012, revised December 2013.
- *California LESA Model*, Agribusiness, Natural Resources & Energy Practice Group of Cushman & Wakefield Western, Inc.(C&WW). December 20, 2013.
- *A Guide to the Farmland Mapping and Monitoring Program*, California Department of Conservation, Division of Land Resources Protection, 2004 Edition.
- *California Land Evaluation and Site Assessment Model, Instruction Manual*, California Department of Conservation, Office of Land Conservation, 1997.
- *Conservation Element, City of Moreno Valley General Plan*, adopted July 11, 2006.
- Google Maps Street View, imagery dated 2007.
- *Moreno Valley General Plan Environmental Impact Report*, SCH#200091075, certified July 2006.
- *Moreno Valley Municipal Code*, Chapter 9.06, current through February 2012.
- Riverside County Integrated Project website, http://www.rcip.org/, accessed April 5, 2012.
- *Riverside County Land Use Conversions, 1998–2000, 2000–2002, 2002–2004, 2004–2006,* California Department of Conservation, Division of Land Resources Protection.
- *Riverside County 2010 Agricultural Production Report*, Riverside County Farm Bureau, 2010.
- *Soil Survey Western Riverside County Area California*, United States Department of Agriculture, November 1971.
- *An Agriculture Industry Analysis of the Inland Empire*, Andrew Chang & Company, LLC. March 12, 2012 (DEIR Appendix C).

The California Land Evaluation and Site Assessment (LESA) Model worksheets prepared for the project are included in Appendix C to this EIR (*Agricultural Resources Assessment for the World Logistics Center Specific Plan Draft Environmental Impact Report*, Parsons Brinckerhoff, original dated February 2012, revised September 2014).

4.2.1 Existing Setting

Most of the land within the project area has been utilized for agricultural purposes since the late 1880s. The area has a history of citrus production and dryland farming incorporating various agricultural activities such as frequent disking, infrequent pesticide application, and very limited irrigation. Due to a variety of local and regional economic factors, agricultural production is no longer a principal characteristic of the Moreno Valley economy.[1]

NOTE: The following changes have been made due to revision to the Specific Plan project size.

Based on the project biology study (MBA ~~2012~~2014) and the review of recent aerial photographs, currently approximately 2,452 acres or ~~90~~94 percent of the 2,~~710~~610-acre Specific Plan area is currently dry farmed, mainly with winter wheat. The remaining acreage of the Specific Plan area contains rural residences and related building/uses, and disturbed native vegetation in the northeast and southwest portions of the site.

[1] Conservation Element, City of Moreno Valley General Plan.

Approximately 897 acres or 81 percent of the 1,104-acre open space properties that are owned by the State and public utility companies and located south of the Specific Plan site are in active agriculture; they are also being dry farmed primarily with winter wheat. The remaining land in this area includes disturbed native vegetation associated with Mystic Lake and public facilities, such as the two natural gas facilities.

Adjacent to the project area, suburban residential uses are located to the west, open space and scattered rural residential uses are located to the east, and State-owned open space properties, such as the Lake Perris Recreation Area and the San Jacinto Wildlife Area, are located to the southwest and south, respectively.

4.2.1.1 State Designated Farmland

The California Government Code (Section 65570) requires the collection and reporting of agricultural land use acreage and conversion by June 30 of each even-numbered year. Utilizing data from the U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) soil survey and current land use information, the California Department of Conservation (DOC), the Farmland Mapping and Monitoring Program (FMMP)[1] compiles important farmland maps for each county within the State. Maps and statistics are produced biannually using a process that integrates aerial photo interpretation, field mapping, a computerized mapping system, and public review. These maps delineate land use in eight mapping categories (and one overlay category) and represent an inventory of agricultural soil resources within Riverside County (see Figure 4.2.1). The categories of land shown on these maps are listed below.

- **Prime Farmland:** Land that has the best combination of physical and chemical characteristics for the production of crops. It has the soil quality, growing season, and moisture to produce sustained high yields of crops when treated and managed, including water management, according to current farming methods.
- **Farmland of Statewide Importance:** Land that is similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store moisture.
- **Unique Farmland:** Land of lesser-quality soils used to produce specific high economic value crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to produce sustained high quality or high yields of a specific crop when treated and managed according to current farming methods. It is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Examples of Unique Farmland crops include oranges, olives, avocados, rice, grapes, and cut flowers.
- **Farmland of Local Importance:** Land of importance to the local agricultural economy, as determined by each county's board of supervisors and local advisory committees, i.e., dairies, dry land farming, aquaculture, and uncultivated areas with soils qualifying for Prime Farmland and Farmland of Statewide Importance.

  Farmland of Local Importance in Riverside County, including the City of Moreno Valley, is defined as:

  - Lands with soils that would be classified as Prime and Statewide Farmland but lack available irrigation water.
  - Lands planted with dry land crops of barley, oats, and wheat.

[1] A Guide to the Farmland Mapping and Monitoring Program, California Department of Conservation, Division of Land Resources Protection, 2004 Edition.

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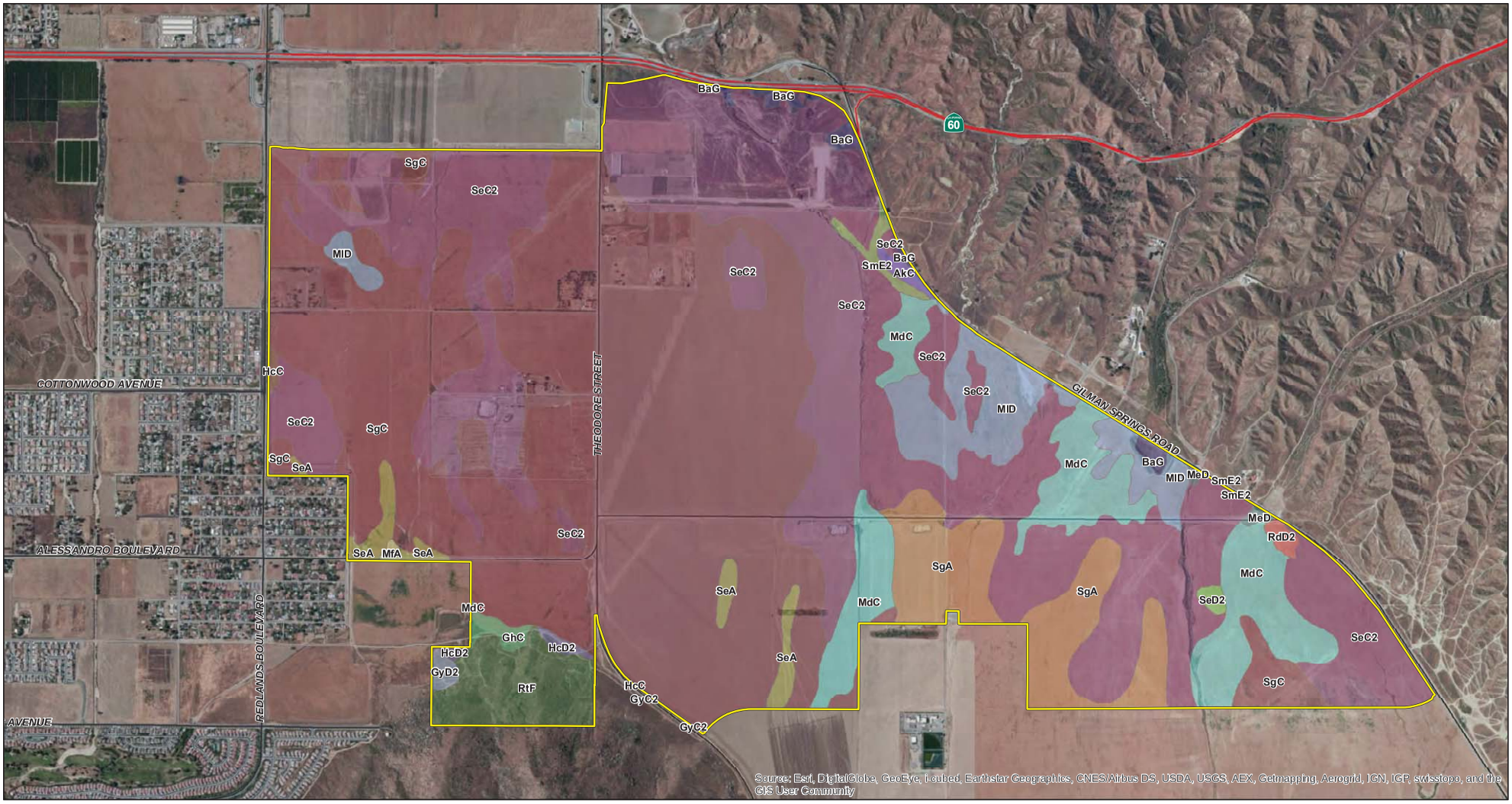

LSA

Project Boundary

Soil Classification

- AkC:Arbuckle loam, 2 - 8 % slopes
- BaG:Badland
- GhC:Gorgonio loamy sand, 0 - 8 % slopes
- GyC2:Greenfield sandy loam, 2 - 8 % slopes, eroded
- GyD2:Greenfield sandy loam, 8 - 15 % slopes, eroded
- HcC:Hanford coarse sandy loam, 2 - 8 % slopes
- HcD2:Hanford coarse sandy loam, 8 - 15 % slopes, erod ed
- MdC:Metz loamy sand, 2 - 8 % slopes
- MeD:Metz loamy sand, channeled, 0 - 15 % slopes
- MfA:Metz loamy fine sand, 0 - 2 % slopes
- MlD:Metz gravelly sandy loam, 2 - 15 % slopes
- RdD2:Ramona sandy loam, moderately deep, 8 - 15 % slopes, eroded
- RtF:Rockland
- SeA:San Emigdio fine sandy loam, 0 - 2 % slopes
- SeC2:San Emigdio fine sandy loam, 2 - 8 % slopes, eroded
- SeD2:San Emigdio fine sandy loam, 8 - 15 % slopes, eroded
- SgA:San Emigdio loam, 0 - 2 % slopes
- SgC:San Emigdio loam, 2 - 8 % slopes
- SmE2:San Timoteo loam, 8 - 25 % slopes, eroded

0 750 1,500
Feet

FIGURE 4.2.1

World Logistics Center
Specific Plan Project
Environmental Impact Report

Soils Map

SOURCE: ESRI, World Imagery, 2010; Soild Data Mart, 2003.

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- Lands producing major crops for Riverside County but that are not listed as Unique crops. These crops are identified as returning one million or more dollars on the 1980 Riverside County Agriculture Crop Report. Crops identified are permanent pasture (irrigated), summer squash, okra, eggplant, radishes, and watermelons.
- Dairylands, including corrals, pasture, milking facilities, hay and manure storage areas if accompanied with permanent pasture, or hayland of 10 acres or more.
- Lands identified by city or county ordinance as Agricultural Zones or Contracts, which includes Riverside City "Proposition R" lands.
- Lands planted with jojoba, which are under cultivation and are of producing age.

- **Grazing Land:** Land on which the existing vegetation, whether grown naturally or through management, is suitable for grazing or browsing of livestock.
- **Urban and Built-up Land:** Land used for residential, industrial, commercial, construction, institutional, and public administrative purposes such as railroad yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment plants, water control structures, and other development purposes. Highways, railroads, and other transportation facilities also are included in this category.
- **Other Land:** Land not included in any of the other mapping categories. Common examples include low-density rural developments, brush, timber, wetland, and riparian areas not suitable for livestock grazing, confined livestock, poultry or aquaculture facilities, strip mines, borrow pits, and water bodies smaller than 40 acres.
- **Water:** Water areas with an extent of at least 40 acres.
- **Land Committed to Nonagricultural Use:** This optional designation is an overlay to the standard farmland categories and represents existing farmland and grazing land and vacant areas that have a permanent commitment for development. Examples of Land Committed to Nonagricultural Use would include an area undergoing permanent infrastructure installation or for which bonds or assessments have been issued for public utilities. Such lands represent planning areas where there are commitments for future nonagricultural developments that are not reversible by a simple majority vote by a city council or board of supervisors.

Figure 4.2.2 details farmland designations on the project area. Approximately ~~3,389~~2,201 acres, or ~~89~~59 percent of the 3,~~814~~714-acre project area, are designated as Farmland of Local Importance. Approximately 25 acres at the ~~northeast~~southeast corner of Theodore and Eucalyptus Streets are designated Unique Farmland. Imagery dated 2007 shows fallow fields with ruderal vegetation in this area, although some plowing appears to have occurred and several greenhouses stood on the site at that time.[1] Approximately 400 acres located in several areas of the project area are designated X (Other Land) with the largest acreages in the northeast corner, southwest, and south central portions of the project area. Although there are seven scattered rural residences on the project site, a "worst-case" assumption is that 2,~~685~~200 acres of the WLC project site are considered Farmland of Local Importance with 25 acres classified as Unique Farmland by the State.

[1] Google Maps Street View, dated 2007, viewed April 3, 2012.

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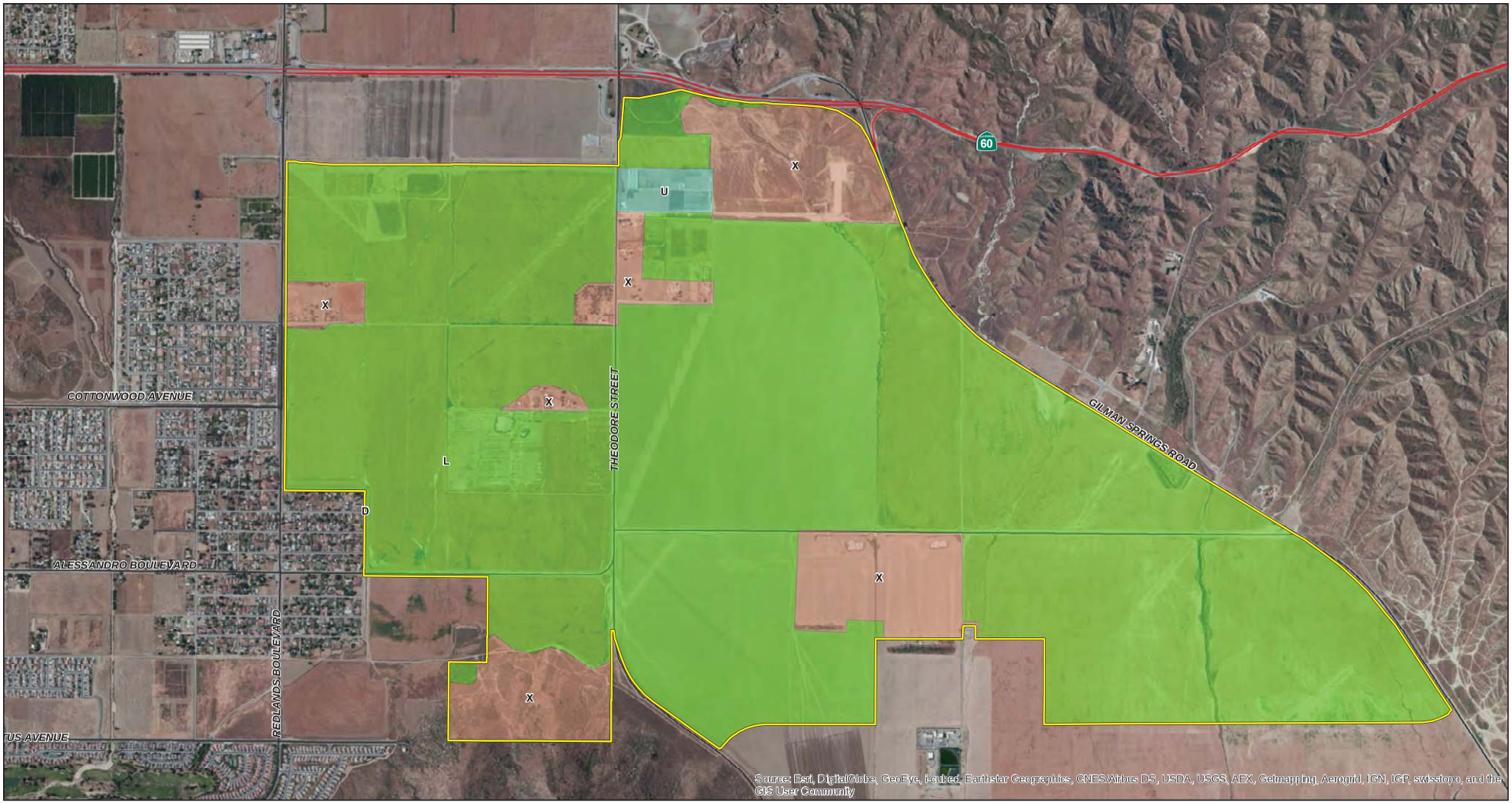

LSA

FIGURE 4.2.2

Project Boundary

Farmland

- D - Urban and Built-Up Land
- L - Farmland of Local Importance
- U - Unique Farmland
- X - Other Land

0 750 1,500
Feet

SOURCE: ESRI, World Imagery, 2010; Department of Conservation, Farmland Mapping & Monitioring Program (FMMP), 2010.

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World Logistics Center Specific Plan Project
Environmental Impact Report

Designated Farmland

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4.2.1.2 California Land Conservation Act (Williamson Act)

The California Land Conservation Act of 1965, also referred to as the Williamson Act, is a non-mandated State program administered by counties and cities for the preservation of agricultural land. This program enables local governments to enter into contracts with private landowners to restrict specific parcels of land to agricultural or related open space use. In return, landowners receive much lower property tax assessments than normal because the assessments are based upon farming and open space uses rather than full market value.

Participation in the program is voluntary on the part of both landowners and local governments, and it is implemented through the establishment of Agricultural Preserves and the execution of Williamson Act contracts. Individual property owners enter into a contract that restricts or prohibits development of their property to non-agricultural uses during the term of the contract in return for lower property taxes. Initially signed for a minimum ten-year period, the contracts are automatically renewed each year for a successive minimum ten-year period unless a notice of non-renewal is filed, or a contract cancellation is approved by the local government.

The nearest parcel that is under Williamson Act contract is approximately 1.5 miles to the southeast of the project site just west of Gilman Springs Road (see Figure 4.2.3). This property is outside of Moreno Valley city limits but within the city's sphere of influence. There are no Williamson Act Conservation contracts[1] within the project area.

4.2.1.3 General Plan, Specific Plan, and Zoning Designations

General Plan. The City's 2006 General Plan Land Use Element has no "agricultural" land use designation.[2] The EIR accompanying the City's 2006 General Plan determined that the conversion of agricultural land to nonagricultural uses throughout the City represented a significant cumulative impact. As the transition from agricultural to urban and suburban uses continues, the extent to which agriculture and supporting economic activities contribute to the economic base of the City is reduced. In its adoption of the 2006 General Plan, the City recognized that these losses were offset by the economic activities and social benefits that typically accompany urban development. In connection with the City's conclusion that a significant cumulative impact would result from implementation of the General Plan, the City adopted findings and facts and a Statement of Overriding Considerations indicating that social and economic factors outweighed the significant cumulative impacts associated with conversion of agricultural land to non-agricultural use.

Most of the project area is within the current Moreno Highlands Specific Plan and is designated for a mix of Business Park, Open Space, Residential, Commercial, Mixed Use, and Public Facilities land uses (see Section 4.10, *Land Use and Planning*). The land uses proposed in the WLCSP are Logistics Development (LD), Light Logistics (LL), ~~Logistics Support (LS),~~ and Open Space (OS).

4.2.1.4 NOP/Scoping Comments

During the NOP/scoping process, some local residents expressed concern over the loss of agricultural land on the project site.

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1 Department of Conservation, FMMP, 2008.
2 City of Moreno Valley General Plan, adopted July 2006.

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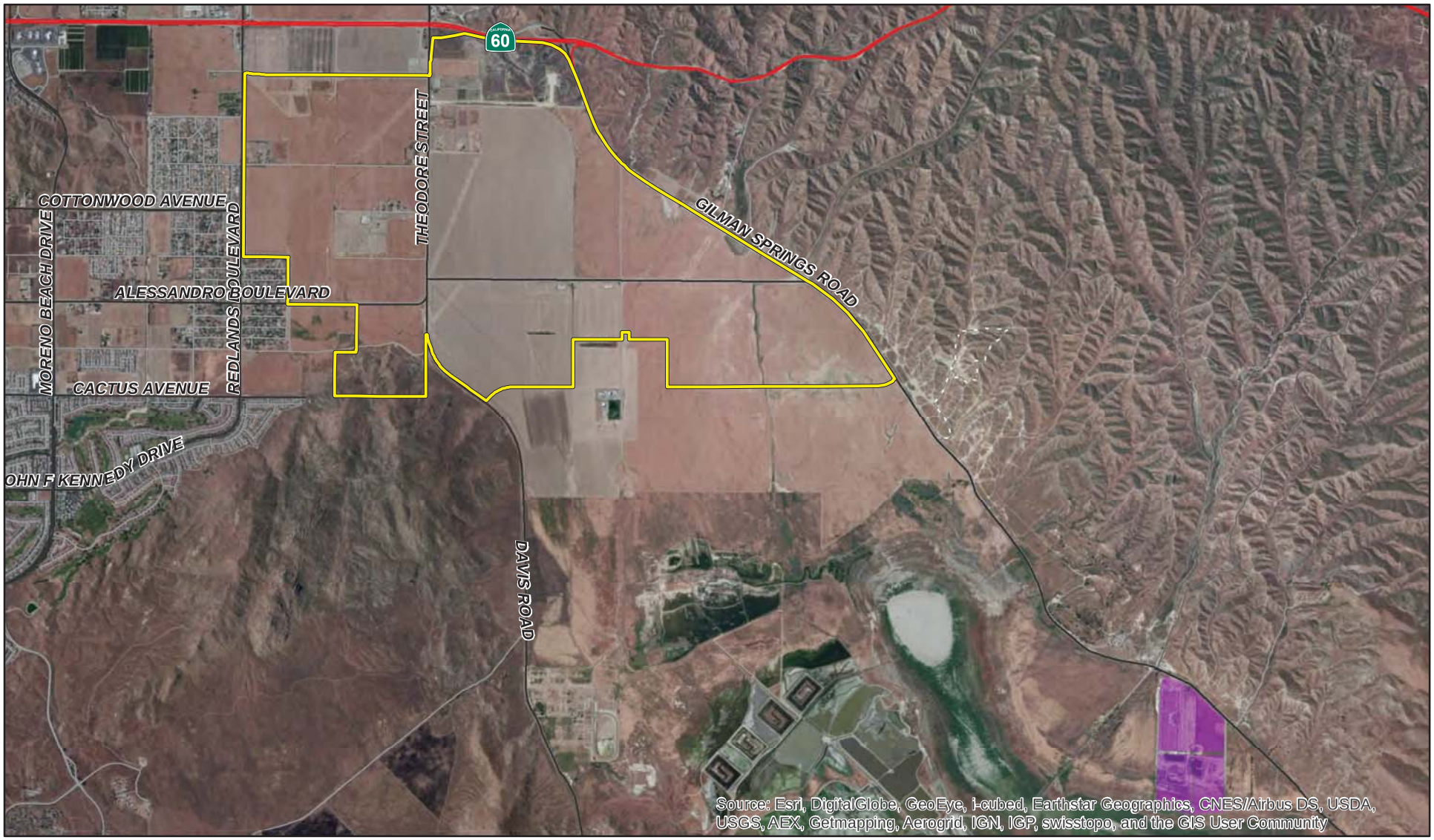

LSA

FIGURE 4.2.3

Project Boundary

Williamson Act Land

N

0 2,000 4,000

FEET

SOURCE: ESRI, World Imagery, 2010; Riverside County, 2008.

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World Logistics Center Specific Plan Project
Environmental Impact Report

Offsite Williamson Act Land

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4.2.2 Existing Policies and Regulations

4.2.2.1 City of Moreno Valley General Plan Policies

The City of Moreno Valley's General Plan does not designate any land for agricultural production or preservation, but growing crops is permitted in all of the City's zoning categories. Where practical, the City encourages incorporation of crops, such as existing tree groves, into the design of proposed development projects allowing continuation of the agricultural character of the area as well as providing a buffer between different types of land uses.

The following City General Plan goals and policies pertain to and are applicable to the proposed project.

9.1 Ultimate Goals

VIII. Recognize the need to conserve natural resources while accommodating growth and development.

9.4.2 Parks, Recreation, and Open Space Element Objectives and Policies

Objective 4.1 Retain agricultural open space as long as agricultural activities can be economically conducted, and are desired by agricultural interests, and provide for an orderly transition of agricultural lands to other urban and rural uses.

4.2.3 Thresholds of Significance

Appendix G of the *CEQA Guidelines* recognizes the following significance thresholds related to agricultural resources. Based on these significance thresholds, potential impacts to agricultural resources could be considered significant if the proposed project would:

- Conflict with existing zoning for agricultural use, or a Williamson Act contract;
- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g]);
- Result in the loss of forest land or conversion of forest land to non-forest use;
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use; and/or
- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program (FMMP) of the California Resources Agency, to non-agricultural use.

4.2.4 Methodology

The methodological analysis underlying this section of the EIR consists of the following:

- First, analyze the FMMP data to determine if portions of the ~~3,814~~ 3,714-acre project area are designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.
- Second, evaluate the current General Plan land use designations, Specific Plan proposal, and zoning applicable to the site to determine the existence of any conflicts between the project and any potential existing agricultural General Plan and zoning designations applicable to the site.

- Finally, use the California Land Evaluation and Site Assessment (LESA) model, developed by the State Department of Conservation, as a guide to quantify any potential impacts the proposed project may have on agricultural resources. Utilization of the LESA model is currently considered to be the most reliable method by which to determine a project's potential impacts on agricultural resources.

In the late 1980s and the early 1990s, the DOC and the State Legislature began exploring ways by which local agencies could analyze the specific impacts of local projects related to the conversion of farmland in a manner that was consistent throughout the State. At that time, reference to the FMMP maps was the only widely utilized methodological approach to analyzing conversion impacts. Oftentimes, the FMMP maps were outdated and/or did not contain specific data on local conditions that could better assess whether local land contains viable farmland. Federal and State agencies were and are cognizant of the fact that determining the true significance of agricultural conversions is a function of understanding the specific characteristics affecting a particular site proposed for conversion. In order to create a more site-specific methodological approach to assessing agricultural impacts, following the preparation of several State and Federal studies, the DOC developed the LESA model as an optional method by which local agencies could assess the impacts of land conversion on agricultural resources. (See, e.g., Stats. 1993, Ch. 812; Pub. Res. Code § 21095; California Agricultural Land Evaluation and Site Assessment Model, Instruction Manual, 1987.) Because of its use of localized input factors, the LESA model is generally recognized as the preferred methodological tool to assess the significance of a proposed project's impacts on agricultural resources.

4.2.5 Less than Significant Impacts

The following potential impacts were determined to be less than significant. In each of the following issues, either no impact would occur or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level. In either instance, no mitigation would be required.

4.2.5.1 Forest Land Zoning

Threshold	Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

According to the California Department of Forestry and Fire Protection, there are no areas designated as forest land or timberland on the project site. Therefore, no significant impacts would occur from the implementation of the project.

4.2.5.2 Loss or Conversion of Forest Land

Threshold	Would the project result in the loss of forest land or conversion of forest land to non-forest use?

There are no areas of forest lands on the project site. Therefore, no significant impacts would occur from the implementation of the project.

4.2.5.3 Existing Zoning and Williamson Act

Threshold	Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?

NOTE: The following changes have been made due to revision to the Specific Plan project size.

While some portions of the ~~3,918~~ 3,714-acre project site are currently used for agriculture, there are no Williamson Act contracts (see previously referenced Figure 4.2.3) on either the project site or any adjacent properties. Because the project would not conflict with any Williamson Act contracts, the impacts related to this issue would be less than significant and no mitigation is required.

The following changes have been made due to revision to the Specific Plan project size. There are no agricultural zones identified on the ~~3,918~~ 3,714-acre project site or on any of the surrounding properties.[1] However, agriculture is allowed in most areas of the City as an interim land use until it is replaced by development. The project site is not zoned for agricultural uses, so implementation of the proposed project would not conflict with existing zoning for agricultural uses. Agriculture is a permitted use in all areas of the proposed Specific Plan. In the absence of a significant impact, no mitigation is required.

It should be noted that the CDFW Conservation Buffer Area within the SJWA, which is immediately south of the Specific Plan site, is currently being used for agriculture. For additional analysis of the CDFW Conservation Buffer Area, see Section 4.4, *Biological Resources*, and 4.9, *Water Resources*.

General Plan Consistency. The following evaluates the proposed project in relation to the City's General Plan goals and objectives relative to agriculture:

9.1 Ultimate Goals

Goal VIII. Recognize the need to conserve natural resources while accommodating growth and development.

Consistency: With mitigation outlined in Section 4.1, *Aesthetics*, the Specific Plan will allow for preservation of the most prominent existing visual resources in this portion of the City, but will result in the removal of agricultural fields to support the proposed development of logistics warehousing. Therefore, the project is consistent with this goal and no mitigation is needed.

9.4.2 Parks, Recreation, and Open Space Element Objectives and Policies

Objective 4.1 Retain agricultural open space as long as agricultural activities can be economically conducted, and are desired by agricultural interests, and provide for an orderly transition of agricultural lands to other urban and rural uses.

Consistency: The project will eventually result in the loss of agricultural land within the Specific Plan area but will allow for the permanent designation of open space within the "other project areas" south of the Specific Plan area, which are currently dry farmed. Therefore, the proposed project is consistent with this objective and no mitigation is needed.

[1] *Land Use Map, Land Use Designations,* City of Moreno Valley General Plan, July 2006.

4.2.6 Significant Impacts

Impacts of the project on agricultural resources have been determined to be significant based on two significance thresholds.

4.2.6.1 Farmland Conversion

Impact 4.2.6.1: *Construction of the proposed project would convert 25 acres of Unique Farmland as identified by the State of California to non-agricultural uses.*

Threshold	Would the project result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural land use?

NOTE: The following changes have been made due to revision to the Specific Plan project size.

Approximately 25 acres of the project site are designated Unique Farmland. Under the proposed Specific Plan, this land will eventually be converted to non-agricultural use, which would result in a significant and unavoidable impact relative to "designated" farmland conversion. In addition, the project would result in the conversion of ~~2,610~~ 2,585 acres of land designated as Farmland of Local Significance within the Specific Plan area (total ~~2,710~~ 2,610 acres total minus 25 acres of Unique Farmland and ~~75~~384.0 acres designated as ~~Open Space~~Other). The 1,104 acres of open space and utility lands south of the Specific Plan site are not proposed for development and it is expected they will remain in their existing condition (i.e., dry farming).

Project or Specific Plan Design Features. Section ~~11~~12.5 of the Specific Plan contains a "right to farm" provision that will allow farming to continue on vacant land within the WLCSP until such time as it converts to developed uses. This provision will help protect onsite farming from "nuisance" claims by new landowners or tenants (e.g., dust, noise, etc.).

Mitigation Measures. Consideration was given to the contribution to an agricultural mitigation bank as potential project-related mitigation. The County of Riverside considered the establishment of an Agricultural Mitigation Bank to mitigate the loss of farmland during the adoption process of the Riverside County General Plan in 2003; however, purchase of credits in such a bank to mitigate the loss of agricultural lands as part of the Draft EIR for the County General Plan (refer to Mitigation Measures 4.2.2A, B, and C in the Draft EIR of the Riverside County Integrated Project) were specifically removed from the General Plan during the public hearings on the General Plan.[1] Since potential mitigation for regional loss of agriculture has already been considered and rejected by the County, such mitigation would be even more infeasible on a citywide basis.

The DEIR originally contained the following text. In 2009, a regional agricultural conversion report was prepared by CBRE Consultants[2] for an unrelated development project in the City of Perris and a similar study was prepared in 2011 for this project by Andrew Chang and Company (ACC 2012). The ACC[3] and CBRE reports both concluded that the agriculture industry will continue to decline in the Inland Empire and identified three main reasons for the decline: 1) the more affordable housing market in the region compared to Los Angeles and Orange Counties, 2) the competition for cheaper farm labor from areas like the South Central Valley, and 3) lower water allocations to agriculture

[1] Riverside County Integrated Project website, http://www.rcip.org/, accessed April 5, 2012.
[2] Economic Viability of Agriculture in the East Inland Empire. CBRE Consulting. 2009.
[3] Agriculture Industry Analysis of the Inland Empire, Andrew Chang and Company, 2012.

because of the growing urban population that receives priority for the water. The reports also noted that the agriculture industry within the Inland Empire is very small, making up only 4.1 percent of California's total agricultural industry and only 1 percent of the regional economy in 2010. There is a clear pattern of agricultural decline from 2006 to 2010. Over these four years, 24,000 acres of farmland were removed in the Inland Empire to make way for urban land uses. Agricultural production levels were 28 percent lower in 2010 than they were in 2004. The combination of the small size of the Inland Empire's agricultural industry and the three key economic constraints caused these studies to conclude that the agriculture industry in the Inland Empire is in decline. The ACC report concluded that the agriculture industry within the Inland Empire will become less competitive and continue to decline regardless of whether or not this project is developed. Under these circumstances, no mitigation that would artificially preserve or prolong agricultural activities (i.e., other than current market forces) in the project area and/or on the project site would be feasible or necessary.

The DEIR originally concluded there were no feasible mitigation measures to preserve agriculture over the long term on the project site in a regional context; however, the following Mitigation Measure 4.2.6.1A was recommended to preserve a part of the local heritage of farming for the Moreno Valley community for future generations:

Subsequent to circulation of the DEIR, it was determined that the new mitigation measure outlined below would sufficiently mitigate the loss of Unique Farmland, and so Mitigation Measure 4.2.6.1A for a "heritage farm" was no longer required.

The following mitigation measure has been added to the EIR in Response to Comment F-3-27 in Letter F-3 from California Clean Energy Committee, Comments F-7A-9, F-7A-39, and F-7A-63, in Letter F-7A from Lozeau Drury LLP, Response to Comment F-9A-43 in Letter F-9A from the Sierra Club, Response to Comment F-11-34 in Letter F-11 from the Sierra Club, Response to Comment F-13-06 in Letter F-13 from the Sierra Club et al, and related comments from others. The Response to Comment F-7A-39 outlines the changes made to the agricultural resources assessment for the project (FEIR Volume 2 Appendix C-2). In addition, a new MM 4.2.6.1A has been added to the FEIR Volume 2 requiring the acquisition of a conservation easement be recorded over land of comparable productive value to preserve offsite farmland or equal or more agricultural productivity compared to the unique farmland (refer to Response to Comment F-7A-39). It should be noted that the revised agricultural assessments determined the loss of farmland of local importance was in fact not significant under CEQA based on the results of the revised LESA model (see FEIR Volume 2 Appendices C-1 and C-4 for more information).

~~**4.2.6.1A**~~ ~~Prior to issuance of any discretionary permits for development within the WLCSP property, Highland Fairview shall offer to dedicate five (5) acres of land to the City for "heritage farming" (e.g., community gardens, farm museum, or pumpkin patch). This offer shall be in force for a period of 3 years. If the City has not accepted the offer after that time, the land shall revert to Highland Fairview for development consistent with the General Plan and zoning at that time. This measure shall be implemented to the satisfaction of the City Planning Division in consultation with the Riverside County Farm Bureau and the City's Environmental and Historic Preservation Board as appropriate. The site must have water service readily available.~~

4.2.6.1A Prior to the issuance of any grading permit affecting land designated as "Unique Farmland" (Figure 4.2.2 in the World Logistics Center Environmental Impact Report), an Agricultural Conservation Easement shall be recorded over land of equivalent or better agricultural economic productivity of the offsite easement property compared to the World Logistics Center property. The analysis will include a comparison of the project's "Unique Farmland" considering its relative economic potential as the best measure of productivity (i.e., net profitability per acre or potential net rental income

per acre). It will include a consideration of various important physical factors including location and accessibility, soils and topography, micro and macro climatic conditions, water availability and quality, as well as local practices, good farm management and cultural (growing) costs. The form and content of this easement, as well as the estimates of agricultural productivity, shall be reviewed and approved in advance by the Planning Official.

Level of Significance after Mitigation. The eventual conversion of 25 acres of Unique Farmland is a significant impact of the project resulting from the basic project objectives. ~~There is no reasonable or feasible mitigation to reduce the significant impacts resulting from the eventual permanent loss of agricultural land to a less than significant level. Even if agriculture continues on the site for a period of time, ultimately that land use will be eliminated from the project area by ongoing market forces. Therefore, there are no feasible measures that would mitigate the permanent loss or conversion of Unique Farmland to non-agricultural uses, and this remains a significant and unavoidable impact.~~ However, implementation of the additional Mitigation Measure 4.2.6.1A will reduce this impact to a less than significant level.

4.2.6.2 Conversion of Farmland to Non-Agricultural Uses

Impact 4.2.6.2: *The project would convert approximately ~~2,635~~ 2,226 acres of land currently being farmed, which includes ~~2,610~~ 2,201 acres of land designated as Farmland of Local Importance, to non-agricultural uses.*

Threshold	Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use, or conversion of forest land to non-forest use?

In addition to the FMMP designations, Riverside County has established a program through which it classifies various land within the County as Locally Important Farmland. While the County has established criteria by which Locally Important Farmland is categorized, a small portion of that land has been so designated due simply to the historical use of the land.

The factors used by Riverside County to define Locally Important Farmland are as follows:

- Lands with soils that would be classified as Prime and Statewide Farmland but lack available irrigation water.
- Lands planted with dry land crops of barley, oats, and wheat.
- Lands producing major crops for Riverside County but that are not listed as Unique crops. These crops are identified as returning one million or more dollars on the 1980 Riverside County Agriculture Crop Report. Crops identified are permanent pasture (irrigated), summer squash, okra, eggplant, radishes, and watermelons.
- Dairylands, including corrals, pasture, milking facilities, and hay and manure storage areas if accompanied with permanent pasture or hayland of 10 acres or more.
- Lands identified by city or county ordinance as Agricultural Zones or Contracts, which includes Riverside City “Proposition R” lands.
- Lands planted with jojoba which are under cultivation and are of producing age.

The majority of the proposed project site is currently designated Farmland of Local Importance by the County. None of the above factors supports maintaining the property as farmland, and it is likely that the property was designated as Locally Important Farmland based simply on the agricultural uses that

at one time existed on the property. The County's maps do not reflect the City's General Plan Land Use Map, which shows no agricultural designations in the City.

NOTE: The following changes have been made in response to Comment G-95-54 in Letter G-95 from Thomas Thornsley.

Implementation of the project would result in the permanent conversion of approximately ~~2,635~~ 2,226 acres currently used for dry farming to non-agricultural uses. While this could have an effect on accelerating the loss of other existing agricultural land, the state conservation lands to the south could be continued for agricultural production. Likewise, there is no other agricultural use in the Zone of Influence (term used in the State LESA Model) and a majority of the land in that zone is vacant (i.e., in the Badlands to the east and portions of the San Jacinto Wildlife Area and the Lake Perris State Recreation Area to the south). The conversion of agricultural lands to urban uses is supported by the City's General Plan policies, as discussed above. The entire project site and adjacent lands have been designated for urban uses for nearly 20 years by the City. Nevertheless, much of the Specific Plan area is designated Farmland of Local Importance and will be permanently converted to non-agricultural urban uses. Therefore, the project will cause significant, unavoidable impacts related to conversion of locally important farmland (see previously referenced Figure 4.2.2).

The farming that is currently conducted on the CDFW property south of the Specific Plan area is expected to continue for the foreseeable future. The existing vacant land adjacent to the SDG&E compressor plant property is not currently being farmed, but is expected to remain vacant for the foreseeable future.

The following information was added to the LESA Model analysis in Response to Comment F-7A-39 and related comments by others, and also due to changes in the two technical studies on agricultural resources (FEIR Volume 2 Appendices C-1 and C-4).

The LESA Model. The conversion of agricultural land to non-agricultural uses is a result of various economic and demographic factors. Increased costs for water and a continuing demand for housing and commercial development in the City and region have provided the primary impetus for this agricultural land conversion. Although the project results in a significant impact related to the conversion of farmland to non-agricultural use, this EIR also refers to the State LESA model as an analytical tool by which the project's impacts on agricultural conversion can be assessed, and to further gauge the level of significance of that farmland conversion. Appendix G of the *CEQA Guidelines* states as follows: "In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation (DOC) as an optional model to use in assessing impacts on agriculture and farmland." [1] Further, the LESA model was specifically created by the DOC in order to provide "specific guidance concerning how agencies should address farmland conversion impacts." Because of its use of localized inputs as part of the model, the LESA model is generally considered the preferred methodological tool by which to assess the significance of a proposed project's impacts related to agricultural resources.

The LESA model is intended to provide lead agencies with a methodology to identify potentially significant impacts that may result from agricultural land conversions. The model is a method of rating the relative quality of land resources and potential impacts to agricultural resources.

[1] *California Land Evaluation and Site Assessment Model*, Instruction Manual, State of California Department of Conservation, Office of Land Conservation, 1997.

The LESA Model uses six different factors (two based on soil resource quality and four based on on-site and adjacent land characteristics) to develop a weighted score that identifies the significance of potential impacts to agricultural resources. The Land Evaluation (LE) scoring utilizes two soil factors. The Land Capability Classification (LCC) indicates the suitability of soils for most kinds of crops and the risk of damage when they are used in agriculture, while the Storie Index provides a numeric rating (0–100) of the relative degree of suitability or value of a given soil for intensive agriculture. The Site Assessment (SA) scoring considers the size of the site to be converted, water supply restrictions in drought and non-drought years, and the presence (or absence) of adjacent agricultural, habitat, or parkland uses.

By assessing and weighing a variety of soil, water, and land use characteristics, it is possible that the conversion of a large parcel containing poor soils and with limited access to water would not result in a significant impact, while the conversion of a much smaller well-watered parcel with quality soils could be considered significant. To ensure potential impacts to adjacent agricultural activities are appropriately considered, the LESA model requires an examination of land use on all parcels within a Zone of Influence (ZOI) that extends a minimum 0.25 mile from the boundary of the site. For any site evaluated using the LESA model, the factors are rated, weighed, and combined, resulting in a single numeric score that becomes the basis for determining a project's potential significance.[1]

WLC Project Assessment

DEIR Assessment. To assess potential agricultural resource impacts that may result from development of the proposed site, the LESA model was run as part of the original DEIR for the entire 3,818-acre project area.[2] The total LESA score for the project is 63.51, which is considered significant unless the LE and SA sub-scores fall below 20 (see Table 4.2.A). The LE sub-score is 43 and the SA sub-score is 20.5, indicating a significant impact. The worksheets detailing the variables considered during the evaluation of each site are included in the *Agricultural Resources Assessment for the World Logistics Center Specific Plan* (DEIR Appendix C). This was the conclusion of the DEIR that was circulated for public review.

Table 4.2.A: LESA Model Significance Determination

Total LESA Score	Scoring Decision
0–39 Points	Not considered significant
40–59 Points	Considered significant *only* if LE and SA sub-scores are each *greater* than or equal to 20 points
60–79 Points	Considered significant *unless* either LE or SA sub-score is *less* than 20 points
80–100 Points	Considered significant

Source: California Land Evaluation and Site Assessment Model, Instruction Manual, State of California Department of Conservation, Office of Land Conservation, 1997.

Revised WLCSP Assessment. In response to comments regarding agricultural impacts, the LESA Model assessment prepared by Parsons Brinckerhoff (PB)(DEIR Appendix C-1) was revised to account for the smaller WLCSP project site (2,610 acres instead of 2,710 acres) and delete the CDFW Conservation Buffer Area, and to address Response to Comment F-7A-39 and related comments by others. In addition, an independent analysis was conducted on the subject by the

[1] *California Land Evaluation and Site Assessment Model*, Instruction Manual, State of California Department of Conservation, Office of Land Conservation, 1997.

[2] *Agricultural Resources Assessment for the World Logistics Center Specific Plan Draft Environmental Impact Report*, Parsons Brinckerhoff, February 2012.

Agribusiness, Natural Resources & Energy Practice Group of Cushman & Wakefield Western, Inc. (C&WW). Part of their analysis included the preparation of a LESA Model report to validate assumptions made in the DEIR. The revised PB analysis (FEIR Volume 2 Appendix C-1) and the new C&WW analysis (FEIR Volume 2 Appendix C-4) both determined the WLC project impact on agricultural resources is not considered significant because both the LE and SA sub-scores were less than 20 points (the revised PB report indicated an SA score of 19.5 while the new C&WW report indicated an SA score of 18.5), so mitigation is not required for this impact (i.e., **"**Conversion of Farmland to Non-Agricultural Uses"). In addition, Mitigation Measure 4.2.6.1A has been added to address the WLC project's contribution to loss of agricultural resources in western Riverside County.

Project or Specific Plan Design Features. There are no features included in the Specific Plan that address the loss of agriculture on the project site.

Mitigation Measures. As stated above, consideration was given to the contribution to an agricultural mitigation bank as potential project-related mitigation. However, the County, through the adoption of its General Plan, determined that contribution to an agricultural mitigation bank is not feasible and the City of Moreno Valley followed suit in the adoption of its General Plan. **Mitigation Measure 4.2.6.1A** ~~and **4.2.6.1B**~~ will help reduce impacts to agricultural resources, but development of the Specific Plan site will eventually remove 2,~~685~~226 acres of locally important farmland from production, and this is considered a significant long-term impact.

Level of Significance after Mitigation. The DEIR concluded that there was no feasible mitigation to reduce the significant impacts resulting from the loss of agricultural land to a less than significant level. However, implementation of, **Mitigation Measure 4.2.6.1A,** to ~~help~~ establish ~~a community garden~~ an off-site agricultural conservation easement, would ~~partially~~ mitigate the conversion of agricultural land, ~~the permanent loss or conversion of 2,610 acres of Locally~~ to non-agricultural uses. With implementation of these measures, project impacts to agricultural resources are reduced to less than significant levels.

4.2.7 Cumulative Impacts

Significant Cumulative Impact: *Riverside County has experienced a net loss of Unique Farmland over the most recent 2-year reporting period. The project contributes to the cumulative impacts of this net loss by removing an additional 25 acres of Unique Farmland from potential agricultural production in this portion of the County. In addition, it will eventually remove ~~3,389~~2,201 acres of land that is designated as Farmland of Local Importance (including ~~3,349 acres~~all of the land currently being dry farmed, in the project area, from potential agricultural production in this portion of the County.*[1]

The DOC Office of Land Conservation publishes a Farmland Conversion Report every two years as part of its FMMP. These reports document land use conversion by acreage for each California county. The most recent data are for the 2008–2010 period,[2] during which Riverside County experienced a net loss of 3,300 acres of Prime Farmland, 567 acres of Farmland of Statewide

[1] Revision made in response to Comment G-95-57 in Letter G-95 from Thomas Thornsley.

[2] Table A-25 Riverside County 2008–2010 Land Use Conversion, Farmland Mapping and Monitoring Program, California Department of Conservation Division of Land Resource Protection, http://redirect.conservation.ca.gov/dlrp/fmmp/county_info_results.asp; website accessed April 4, 2012.

Importance, and 1,742 acres of Unique Farmland. The amount of Important Farmland inventoried in Riverside County during the last countywide survey of farmland totaled 428,989 acres.

The cumulative area for agricultural resource impacts is Riverside County. As detailed in Table 4.2.B, the agricultural acreage inventoried in Riverside County by the FMMP has declined in each of the five past reporting cycles. The total planted acreage in Riverside County has fluctuated during the past five years (Table 4.2.C).

Table 4.2.B: Agricultural Acreage Inventoried

	Reporting Period				
	2010	**2008**	**2006**	**2002**	**2000**
Riverside County	428,989	433,877	444,455	479,278	609,535

Note: Though designated agricultural land, acreage may not necessarily be planted or otherwise used for agricultural uses.
Source: Table A-25 Riverside County 2008-2010 Land Use Conversion, California Department of Conservation, 2012.

Table 4.2.C: Planted Acreage

	Reporting Period				
	2010	**2009**	**2008**	**2007**	**2006**
Riverside County	209,913	202,066	246,012	214,050	216,219

Source: Riverside County 2010 Agricultural Production Report, 2010.

While agricultural land is a finite resource, the City, through its designation of the site for non-agricultural urban uses in its General Plan, has previously considered that continuing development pressures in the City and region would result in the conversion of agricultural land to non-agricultural uses. The utilization of the property sites for agricultural activity would impede the City from achieving the goals and objectives set forth in its General Plan.

As explained previously, the CBRE and the ACC reports concluded that the agriculture industry within the Inland Empire will become less competitive and continue to decline whether or not the proposed project is developed. Under these circumstances, no mitigation that would artificially preserve or prolong agricultural activities (i.e., other than current market forces) in the project area would be feasible or effective over the long term.

The continuation of agricultural operations on site over the long term is likely not economically viable. The County continues to experience a net loss of Unique Farmland and Farmland of Local Importance, and the development of the project would contribute to the countywide net loss of designated farmland.~~ Therefore, cumulative agricultural impacts associated~~However, with implementation of Mitigation Measure 4.2.6.1A, the WLC project ~~would be~~will not make a significant ~~and unavoidable since there is no feasible mitigation for this impact.~~

4.3 AIR QUALITY: TABLE OF CONTENTS

FIGURES

TABLES

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NOTE TO READERS. *This section has been revised to reflect changes from the original DEIR as a result of the following:*

- *Reduction of the project size by 100 acres and 1 million square feet of building space from the Specific Plan (in the southwest corner);*
- *Commensurate changes to the Traffic Impact Assessment (TIA, see Section 4.15);*
- *Updated trip lengths based on the revised TIA;*
- *Updated CalEEMod computer program with updated emission factors;*
- *Revised mitigation in response to comments;*
- *Change in project construction phasing (from 10 to 15 years);*
- *Updated EMFAC2014 emission factor model;*
- *Updated OEHHA health risk methodology; and*
- *Use of the latest Health Effects Institute (HEI) research that demonstrates that new technology diesel exhaust does not cause cancer.*

In January 2015, the results of a 5½-year study, led by the Health Effects Institute, were published regarding the health effects of new technology diesel exhaust and particularly the risk of cancer from exposure to diesel exhaust. The study found that new technology diesel exhaust does not cause cancer.

The HEI study distinguishes between older Traditional Diesel Engines (TDE) (exhaust from engines that are older than model year 2007) and new technology diesel exhaust (NTDE) (exhaust from engines model year 2007 or newer), which is 90-99% cleaner than TDE. The revised mitigation measures contained in this section require that all diesel trucks accessing the project during operation be model year 2010 or newer and that all off-road equipment meet Tier 4 engine standards. The results of the HEI Study indicate that the project mitigation requiring the application of Model Year 2010 engines as well as the use of Tier 4-compliant off-road construction equipment are not expected to result in emissions that would be associated with the formation of cancer in exposed individuals.

The DEIR contained an air quality analysis prepared before the release of the HEI study. As a result, the DEIR analysis assumed that any diesel exhaust, including NTDE, could cause cancer. For comparison to the DEIR, the following discussion analyzes the health risks which would occur if NTDE could cause cancer, which, as noted above, it does not. This is only for informational purposes and does not reflect the health risks associated with the World Logistics Center project.

HEI is an independent, non-profit research institute funded by the U.S. Environmental Protection Agency (EPA) and industry, and supported by the California Air Resources Board (CARB), the U.S. Federal Highway Administration, the US Department of Energy, Engine Manufacturers Association, American Petroleum Institute and the Coordinating Research Council to provide credible, high quality science on air pollution and health for air quality decisions.

These changes also resulted in updates to the traffic and air quality technical studies and proposed mitigation measures In addition, this section has been revised in response to public comments received on the Programmatic DEIR.

4.3 AIR QUALITY

This section analyzes the proposed project's potential air quality impacts and provides a discussion of the proposed project, the physical setting of the project area, and the air quality regulatory framework. The air quality analyses evaluate potential air quality impacts by examining the short-term construction as well as long-term operational impacts associated with the project and by evaluating the effectiveness of the identified mitigation measures. Modeled air quality levels are based upon vehicle data and project trip generation included in the project's *Traffic Impact Analysis* and peak turn volumes generated for the proposed project combined with emission factors from the ~~California Air Resources Board (~~CARB~~)~~. The evaluation was prepared in accordance with appropriate standards, utilizing procedures and methodologies as recommended by ~~in~~ the South Coast Air Quality Management District (SCAQMD) ~~*CEQA Air Quality Handbook* (SCAQMD 1993)~~, the California Office of Environmental Health Hazards Assessment (OEHHA), and CARB. Air quality data posted by the SCAQMD, CARB, and the ~~U.S. Environmental Protection Agency (~~EPA~~)~~ web sites are included to document the local air quality environment and are incorporated herein by reference.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers ~~3,918~~ 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes ~~3,814~~ 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering ~~3,814~~. 3,714 acres, which redesignates approximately 70 percent of the area (~~2,710~~ 2,610 acres) for logistics warehousing (new LD and LL~~, LS~~ zones) and the remaining ~~30~~ 29 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the ~~2,710~~ 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*~~. The environmental impacts of all of these entitlements on the entire project area are addressed in this EIR and the accompanying technical reports and analyses.~~

The analysis contained in this section is based on the following technical studies prepared for the proposed project:

- *Air Quality, Greenhouse Gas, and Health Risk Assessment Report* (Michael Brandman Associates – FirstCarbon Solutions [MBA-FCS], original dated January 29, 2013 and revised April 2015) contained in Appendix D of this EIR; and
- *Traffic Impact Analysis Report, The World Logistics Center,* (Parsons Brinkerhoff, Inc., original dated January 28, 2013 and revised September 2014) contained in Appendix L of this EIR.

In addition to these project-specific technical studies, the analysis contained in this section is also based on the following reference documents:

- *CEQA Air Quality Handbook,* South Coast Air Quality Management District, 1993;
- *Final EIR City of Moreno Valley General Plan*, July 2006;
- *Conservation Element*, City of Moreno Valley General Plan, adopted July 11, 2005;
- *Final 2012 Air Quality Management Plan,* South Coast Air Quality Management District ~~November 2007~~;
- Health Effects Institute, 2015: HEI Research Report 184, Advanced Collaborative Emissions Study (ACES); Lifetime Cancer and Non-Cancer Assessment in Rats Exposed to New-Technology Diesel Exhaust, January, 2015; and
- Other reference material, as cited herein and in the *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*.

4.3.1 Existing Setting

The project site is located in the South Coast Air Basin (Basin), a geographic area that encompasses the coastal plain and connecting broad inland valleys and low hills. The Pacific Ocean forms the southwestern border of the Basin, with mountain ranges forming the remainder of the border. The Basin includes Orange County and the non-desert portions of Los Angeles County, Riverside County, and San Bernardino County. The Basin is under the jurisdiction of the ~~South Coast Air Quality Management District (~~SCAQMD~~)~~.

Note: The following text has been added to help the reader better understand the complex topic of air quality.

The air quality in the air basin has been steadily improving over the last couple of decades as measured in air pollutant concentrations by the SCAQMD. A concentration of a pollutant is a measure of the amount of a pollutant in the air. Some pollutants are measured in parts per million (ppm) and some are measured in micrograms per cubic meter ($\mu g/m^3$).

When sensitive people, such as children, pregnant women, and the elderly, breathe in air pollutants, they can experience health effects. These health effects differ based on the type of pollutant, the length of time someone is exposed, pre-existing health conditions, and the concentration of the pollutant. In general, health effects can include coughing, sore throat, chest pain, difficulty breathing, eye irritation, reduced lung function, asthma aggravation, chronic lung diseases, cancer, and lung damage.

Federal, state, and local agencies enact rules and regulations to reduce air pollutant emissions to protect the health of sensitive individuals. The EPA sets federal ambient air quality standards and the

CARB sets state ambient air quality standards. When concentrations of pollutants exceed the standards, sensitive individuals may experience health effects.

Ozone is a pollutant formed in the air when emissions of volatile organic compounds (VOC) and nitrogen oxides (NOx) combine in the presence of sunlight. Ozone is a pollutant of concern in the air basin because ozone levels exceed the ozone standards.

As shown in Figure 4.3.1, ozone concentrations in the basin have generally decreased over the past twenty years for 1-hour and 8-hour averaging time periods as defined by the State and/or federal ambient air quality standards. The 1-hour and 8-hour concentration refers to the average of the concentration over a 1-hour and 8-hour time period, respectively.

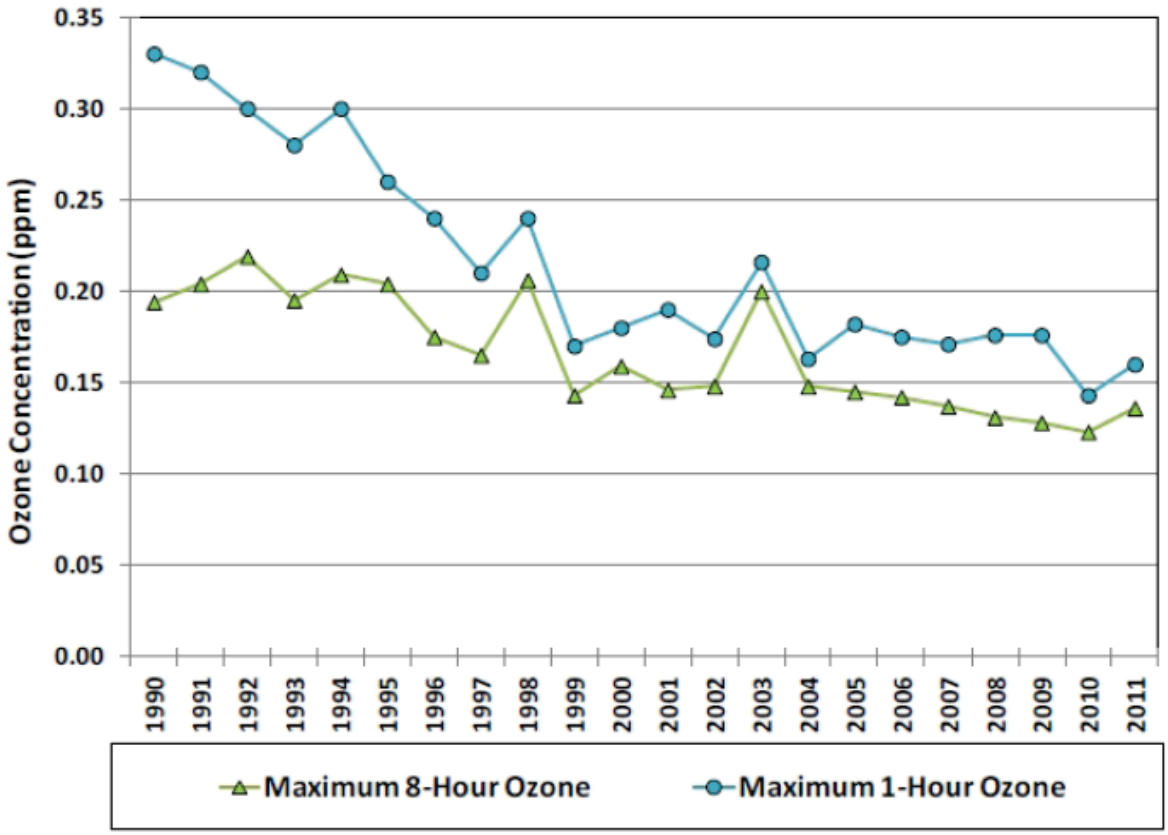


Figure 4.3.1: Ozone Concentration Trends in the South Coast Air Basin

As shown in Figure 4.3.2, the main source of NOx and VOC emissions in the basin are from on-road motor vehicles, not from the operation of buildings. Although vehicle miles traveled in the basin continue to increase, ozone concentrations are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with cleaner and lower-emitting vehicles. VOC and NOx are ozone precursors; therefore, if those emissions decrease, it follows that ozone concentrations would also decrease.

Emissions of NOx in the air basin are expected to decrease in the future despite future growth in population, and vehicle miles traveled, as shown in Figure 4.3.3.

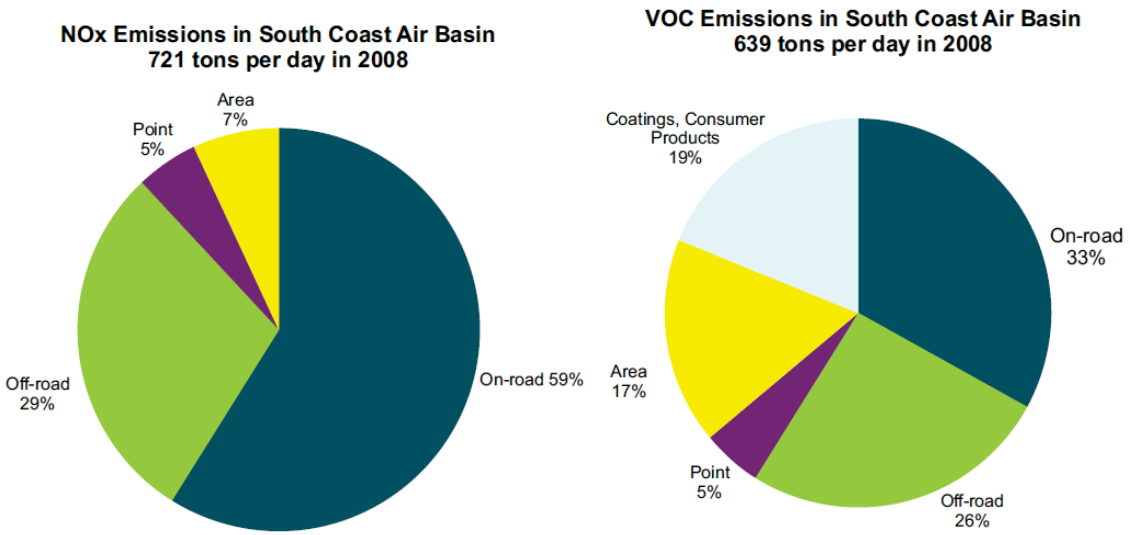


Figure 4.3.2: Ozone Precursor Emissions (VOC and NOx) in the South Coast Air Basin

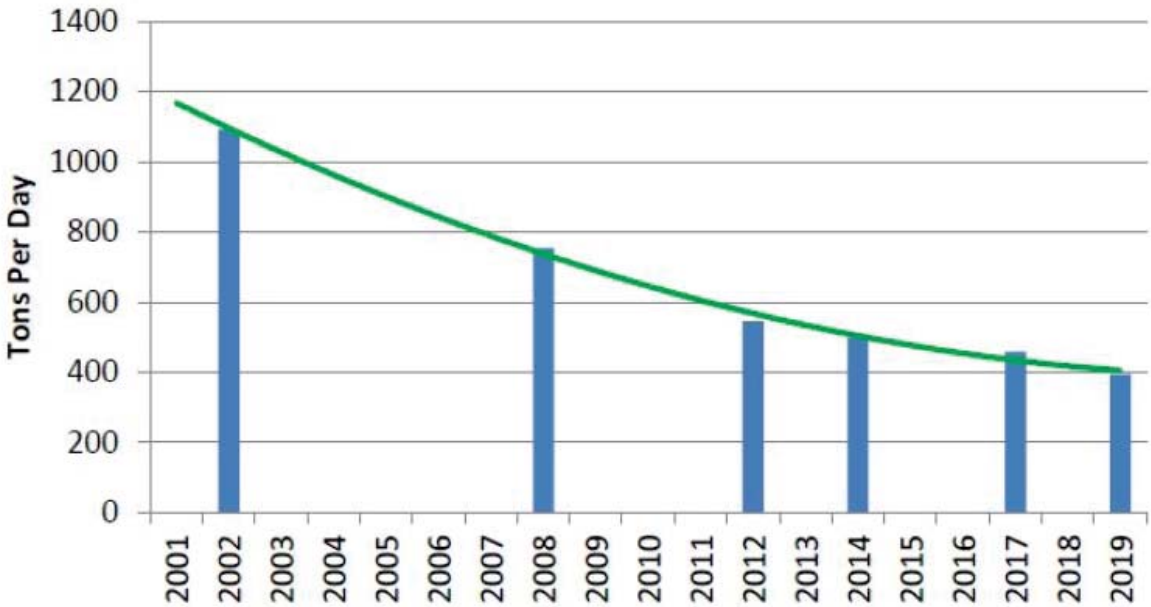


Figure 4.3.3: NOx Emissions Forecast in the South Coast Air Basin

Another pollutant of concern is particulate matter (PM). PM is a mixture of small particles and liquid droplets suspended in the air. It is made up of components such as chemicals, metals, soil, or dust particles. The size of these particulates is linked to their potential for causing health problems. Ultrafine particles are less than 0.1 in micron in diameter, fine particles are less than 2.5 microns in diameter ($PM_{2.5}$), and coarse particles are larger than 2.5 microns and smaller than 10 microns in diameter (PM_{10}). The CARB and EPA have established standards for $PM_{2.5}$ and PM_{10} but not for ultrafine particles. $PM_{2.5}$ and PM_{10} are a concern in the air basin because sometimes the concentrations exceed the standards. $PM_{2.5}$ is often used as a marker for toxic air pollutants such as diesel PM.

As shown in Figure 4.3.4, $PM_{2.5}$ emissions are expected to decrease in the Basin and then level out after the year 2014.

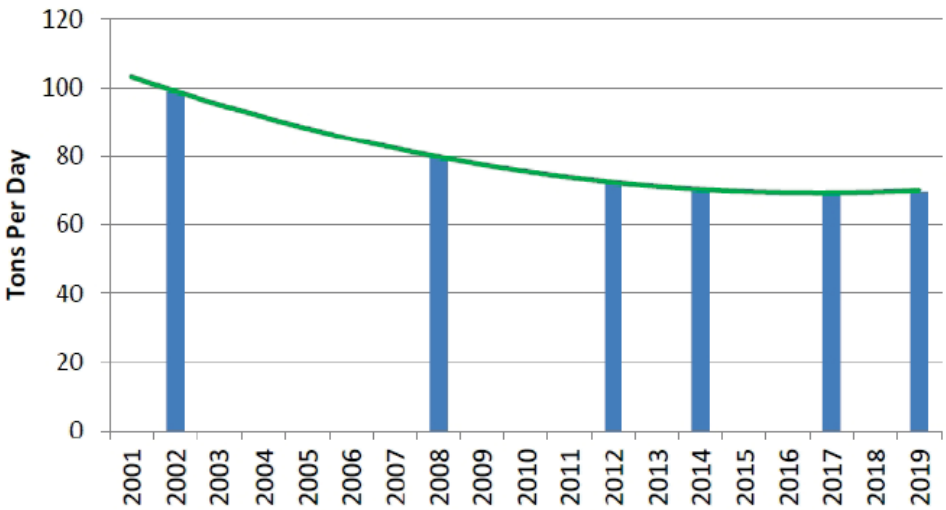


Figure 4.3.4: $PM_{2.5}$ Emissions Forecast in the South Coast Air Basin

As shown in Figure 4.3.5, PM_{10} and $PM_{2.5}$ annual concentrations have continued to decrease since 1990 within the air basin as a whole.

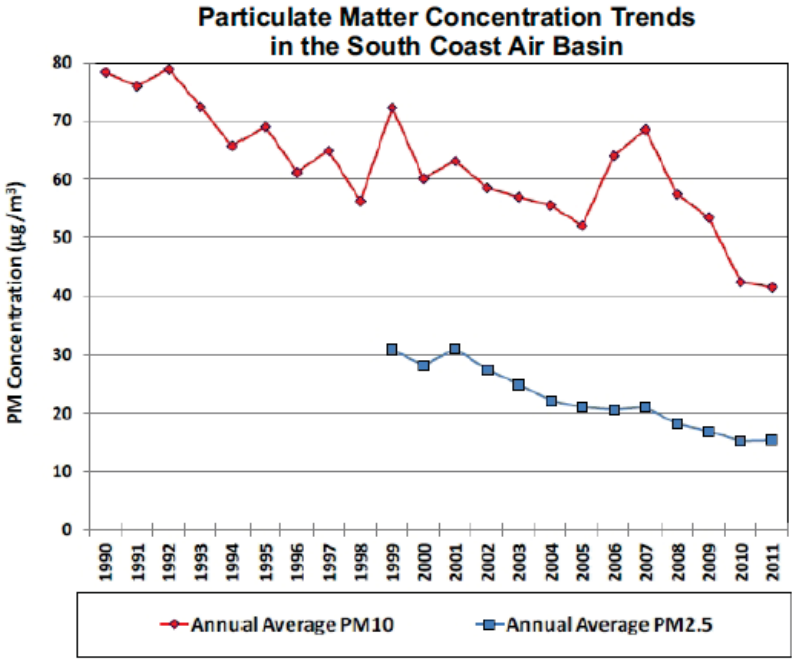


Figure 4.3.5: Particulate Matter Concentration Trends in the South Coast Air Basin

Figure 4.3.6 provides an additional view of $PM_{2.5}$ trends specifically in the Inland Empire. As shown, there is a marked decreasing trend in $PM_{2.5}$ concentrations in Riverside-Rubidoux, Fontana, and San Bernardino from 2001 to 2012 and at Mira Loma from 2006 to 2012. The relevance of these trends is

that $PM_{2.5}$ levels have displayed a decreasing trend in the Inland Empire despite increases in urban development including the development of large warehouse complexes since 2001.

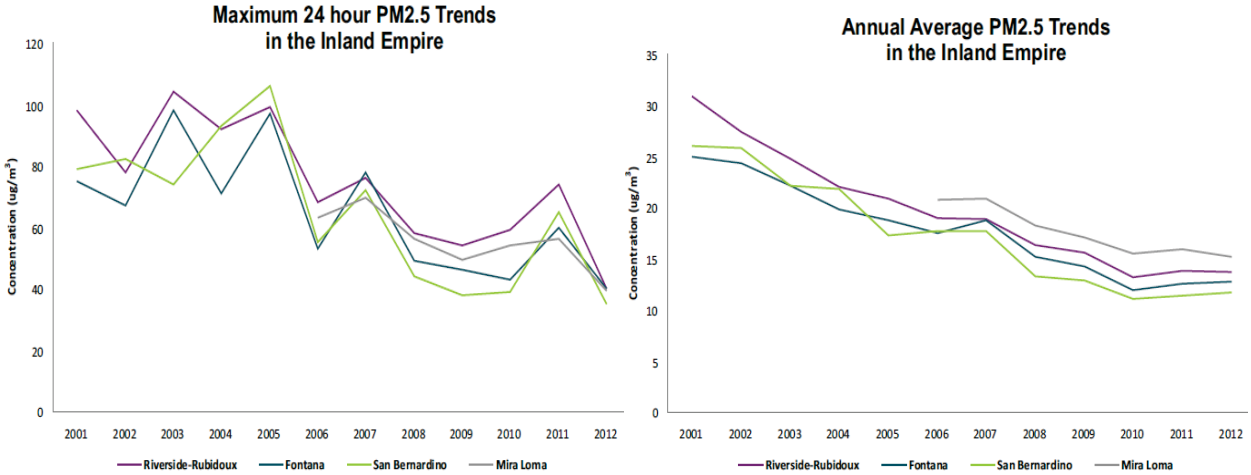


Figure 4.3.6: $PM_{2.5}$ Concentration Trends in the Inland Empire

Part of the success in the decreasing NOx and PM emissions are standards placed on motor vehicles. Figure 4.3.7 demonstrates the changes in U.S. heavy duty diesel emission standards for NOx and PM. The project would incorporate mitigation that would require that all heavy duty diesel trucks accessing the project incorporate 2010 emissions standards. As shown below, the 2010 standards are only a fraction of the older standards, at 0.2 grams per horsepower hour (g/HP-hr) of NOx and 0.01 g/HP-hr of PM. The text in blue represents the off-road construction standards; 2011 is Tier 4 Interim and 2014 is Tier 4 Final.

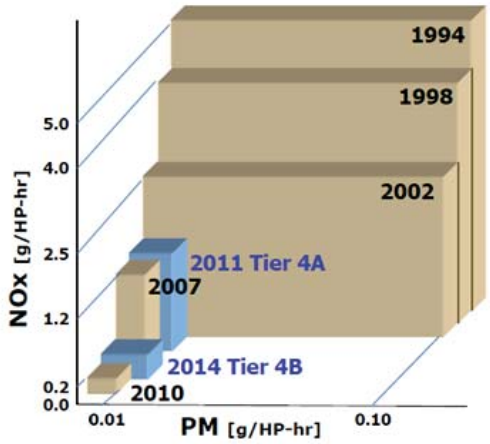


Figure 4.3.7: Changes in U.S. Heavy-Duty Diesel NOx and PM Emission Standards

4.3.1.1 Climate and Meteorology

Air quality in the project area is not only affected by various emission sources (mobile, industry, etc.), but also by atmospheric conditions such as wind speed, wind direction, temperature, rainfall, and amount of sunshine. The combination of topography, low atmospheric mixing height, abundant sunshine, and emissions from the second largest urban area in the United States combine to give the Basin one of the worst air pollution problems in the nation.

Winds in the Basin are predominantly of relatively low velocities, averaging about 4.0 miles per hour (mph). These low average wind speeds, together with a persistent temperature inversion, limit the vertical dispersion of air pollutants throughout the Basin. Strong, dry, north or northeasterly winds, known as Santa Ana winds, occur during the fall and winter months, dispersing air contaminants. These conditions tend to last for several days at a time.

During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas of Los Angeles County are transported predominantly inland into Riverside and San Bernardino Counties. In the winter, the greatest pollution problems are carbon monoxide (CO) and oxides of nitrogen (NO_X), because of extremely low inversions and air stagnation during the night and early morning hours that trap emissions principally from mobile sources. In the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons and NO_X to form photochemical smog.

4.3.1.2 Regional Air Quality

Both the State of California and the Federal government have established health-based ambient air quality standards (AAQS) for six air pollutants. These pollutants are known as "criteria pollutants."

- Carbon monoxide (CO)
- Lead (Pb)
- Nitrogen dioxide (NO_2)
- Ozone (O_3)
- Particulate matter with a diameter of 10 microns or less (PM_{10})
- Sulfur dioxide (SO_2)

Federal standards for 8-hour ozone and for fine particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) have also been adopted. In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety and are listed in Table 4.3.A. Table 4.3.B lists the health effects of these criteria pollutants and their potential sources.

Note: Episode criteria and smog alerts are no longer used by the CARB or the SCAQMD; the EPA's Air Quality Index is now used. Therefore, the following text has been deleted and information regarding the Air Quality Index has been added.

~~In addition to setting out AAQS, the State has established a set of episode criteria for O_3, CO, NO_2, SO_2, and PM_{10}. These episode criteria refer to periods of short-term exposure to air pollutants that threaten public health. Health effects are progressively more severe as pollutant levels increase from Stage One to Stage Three. These health effects will not occur unless the standards are exceeded by a large margin or for a prolonged period of time. Among the pollutants, O_3 and particulate matter ($PM_{2.5}$ and PM_{10}) are considered regional pollutants, while the others have more localized effects. Table 4.3.B lists the health effects of these criteria pollutants and their potential sources.~~

~~An alert level is that concentration of pollutants at which initial stage control actions are to begin. An alert will be declared when any one of the pollutant alert levels is reached at any monitoring site and meteorological conditions are such that the pollutant concentrations can be expected to remain at these levels for 12 or more hours or to increase; or, in the case of oxidants, the situation is likely to recur within the next 24 hours unless control actions are taken. At times, meteorological conditions are so adverse to pollutant dispersion that concentrations of ozone exceed the State air quality standard by as much as a factor of three. The CARB has defined Episode Levels of ozone air pollution as follows:~~

- ~~**Health Advisory Levels** occur when hourly ozone concentrations equal or exceed 0.15 parts per million (ppm). At this level, residents are advised to avoid prolonged, vigorous outdoor exercise, and persons with respiratory or coronary disease should avoid exercise.~~
- ~~**Stage 1 Episodes** occur when hourly ozone concentrations equal or exceed 0.20 ppm. At these times, persons with respiratory or coronary artery disease should be notified to take precautions against exposure and should stay indoors as much as possible. Schools are also notified to advise against strenuous physical activity for their students. To this end, schools are in regular communication with the SCAQMD.~~
- ~~**Stage 2 Episodes** occur when hourly ozone concentrations equal or exceed 0.35 ppm. The SCAQMD requires industry to take prompt actions to reduce emissions at those times. The last Stage 2 episodes occurred in 1989 and 1992.~~
- ~~**Stage 3 Episodes** occur when hourly ozone concentrations equal or exceed 0.50 ppm. The last Stage 3 episode occurred in the Basin in 1974.~~

~~Pollutant alert levels:~~

- ~~O_3: 392 micrograms per cubic meter (μg/m^3) (0.20 ppm), 1-hour average.~~
- ~~CO: 17 milligrams per cubic meter (mg/m^3) (15 ppm), 8-hour average.~~
- ~~NO_2: 1,130 μg/m^3 (0.6 ppm) 1-hour average; 282 μg/m^3 (0.15 ppm) 24-hour average.~~
- ~~SO_2: 800 μg/m^3 (0.3 ppm), 24-hour average.~~
- ~~Particulates, measured as PM_{10}: 350 μg/m^3, 24-hour average.~~

~~Table 4.3.B lists the health effects of these criteria pollutants and their potential sources.~~

The **Air Quality Index** is an index developed and reported by the United States EPA for reporting daily air quality. It indicates how clean or polluted the air is and what associated health effects might be a concern. The Air Quality Index focuses on health effects that may be experienced within a few hours or days after breathing polluted air. Descriptions for the various levels in the Air Quality Index are shown in Table 4.3.C.

The federal 8-hour ambient air quality standard for ozone is 75 ppb and the California standard is 70 ppb. The California 1-hour standard for ozone is 90 ppb (there is no federal 1-hour standard). As shown in the table, to achieve the federal ambient air quality standard for ozone, the Air Quality Index would need to be below 101. To achieve the state 8-hour ambient air quality standard for ozone, the Air Quality Index would need to be below 84.

In the Moreno Valley area in 2010 and 2011, the air quality index was greater than 150 for one day for each year. That means the air was unhealthy for one day in 2010 and one day in 2011. If the future years follow that trend, then one day during each of the construction years would cease construction activities.

Indirect sources of pollution are generated when minor sources collectively emit a substantial amount of pollution. Examples of this would be the motor vehicles at intersections, malls, and on highways. The California Clean Air Act (CCAA) provides the SCAQMD with the authority to manage transportation activities at indirect sources. The SCAQMD also regulates stationary sources of pollution throughout its jurisdictional area. Direct emissions from motor vehicles are regulated by the CARB.

The narrative below describes the pollutant characteristics, mechanisms of pollutant origination, and health effects for the criteria pollutants (i.e., pollutants specifically regulated under the Federal Clean

Air Act [CAA] and/or the California Clean Air Act [CCAA]) and other pollutants of concern. Because the concentration levels of the AAQS were set with an adequate margin to protect public health and safety, these health effects will not occur unless the standards are exceeded by a large margin or for a prolonged period of time. State AAQS are more stringent than Federal AAQS. An additional discussion of health effects is contained in the *Air Quality, Greenhouse Gas, and Health Risk Assessment* (2015).

- *Carbon Monoxide*
  - Description and Properties: CO is colorless, odorless toxic gas produce by incomplete combustion of carbon-containing fuels (e.g., gasoline, diesel fuel, and biomass). CO is a primary pollutant, meaning it is emitted directly into the air (unlike secondary pollutants such as ozone that are formed by the reactions of other pollutants). CO levels tend to be highest during the winter months when the meteorological conditions support the accumulation of the pollutants. This occurs when relatively low inversion levels trap pollutants near the ground and concentrated the CO (EPA 2006c). Because CO is somewhat soluble in water, normal winter conditions of rainfall and fog can suppress CO conditions.
  - Health Effects: CO is essentially inert to plants and materials but can have significant effects on human health. CO gas enters the body through the lungs, dissolves in the blood, and replaces oxygen as an attached hemoglobin. This binding reduces available oxygen in the blood and; therefore, reduces oxygen delivery to the body's organs and tissues. Effects on humans range from slight headaches to nausea to death. Elevated levels of CO can also cause visual impairments, reduced manual dexterity, poor learning ability, reduced work capacity, and trouble performing complex tasks.
  - Sources: The major sources of CO are on-road vehicles, aircraft, and off-road equipment, or any source that burns fuel including residential heaters and stoves. Since most of the CO sources are the indirect result of urban development, most emissions and unhealthy CO levels occur in major urban areas.
- *Ozone*
  - Description and Physical Properties: O_3 is known as a photochemical pollutant. Ozone is not emitted directly into the atmosphere, but is formed by a complex series of chemical reactions between reactive organic gases (ROG) or volatile organic compounds (VOC), NO_X, and sunlight. ROG and NO_X are emitted from automobiles, solvents and fuel combustion, the sources of which are widespread throughout the SCAQMD. Significant ozone formation generally requires an adequate amount of precursors in the atmosphere and several hours in a stable atmosphere with strong sunlight. The conditions conducive to the formation of ozone include extended periods of daylight (solar radiation) and hot temperatures. These conditions are prevalent during the summer when thermal inversions are most likely to occur. As a result, summertime conditions of long periods of daylight and hot temperatures form ozone in the greatest qualities. During the summer, thermal inversions trap ozone from dispersing vertically, high concentrations of this pollutant are prevalent.

Note: Table 4.3.C in the original DEIR was entitled "Attainment Status of Criteria Pollutants in the South Coast Air Basin" and has been moved to later in this section and renumbered Table 4.3.D.

Table 4.3.A: Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		Federal Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone (O_3)	1-Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.070 ppm (137 µg/m^3)		0.075 ppm (147 µg/m^3)		
Respirable Particulate Matter (PM_{10})	24-Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		—		
Fine Particulate Matter ($PM_{2.5}$)	24-Hour	No Separate State Standard		35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12.0 µg/m^3		
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m^3)	None	Non-Dispersive Infrared Photometry (NDIR)
	1-Hour	20 ppm (23 mg/m^3)		35 ppm(40 mg/m^3)		
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	—
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	Gas Phase Chemiluminescence	53 ppb (100 µg/m^3) (see footnote 8)	Same as Primary Standard	Gas Phase Chemiluminescence
	1-Hour	0.18 ppm (339 µg/m^3)		100 ppb (188 µg/m^3) (see footnote 8)	None	
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	—	Ultraviolet Fluorescence	0.030 ppm (for certain areas) (see footnote 9)	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	24-Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)	—	
	3-Hour	—		—	0.5 ppm (1300 µg/m^3)	
	1-Hour	0.25 ppm (655 µg/m^3)		75 ppb (196 µg/m^3) (see footnote 9)	—	
Lead[10]	30 Day Average	1.5 µg/m^3	Atomic Absorption	—	—	High-Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m^3	Same as Primary Standard	
	Rolling 3-Month Average[9,11]	—		0.15 µg/m^3		
Visibility-Reducing Particles	8-Hour	Extinction coefficient of 0.23 per kilometer - visibility of ten miles or more (0.07-30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.	Beta Attenuation and Transmittance through Filter Tape	**No Federal Standards**		
Sulfates	24-Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[9,10]	24-Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

Source: California Air Resources Board, ~~February 7, 2012~~ 2013.

Footnotes

1 California standards for ozone; carbon monoxide (except Lake Tahoe); sulfur dioxide (1- and 24-hour); nitrogen dioxide; suspended particulate matter (PM_{10} and $PM_{2.5}$) and visibility-reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2 National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth-highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current federal policies.

3 Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4 Any equivalent procedure which can be shown to the satisfaction of the CARB to give equivalent results at or near the level of the air quality standard may be used.

5 National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6 National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7 Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.

8 To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 22, 2010). Note that the EPA standards are in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national standards to the California standards the units can be converted from ppb to ppm. In this case, the national standards of 53 ppb and 100 ppb are identical to 0.053 ppm and 0.100 ppm, respectively.

9 On June 2, 2010, the U.S. EPA established a new 1-hour SO_2 standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. EPA also proposed a new automated Federal Reference Method (FRM) using the ultraviolet technology, but will retain the older pararosaniline methods until the new FRM have adequately permeated State monitoring networks. The EPA also revoked both the existing 24-hour SO_2 standard of 0.14 ppm and the annual primary SO_2 standard of 0.030 ppm, effective August 23, 2010. The secondary SO_2 standard was not revised at that time; however, the secondary standard is undergoing a separate review by EPA. Note that the new standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the new primary national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

10 The CARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

11 National lead standard, rolling 3-month average: final rule signed October 15, 2008.

°C = degrees Celsius
EPA = United States Environmental Protection Agency
µg/m^3 = micrograms per cubic meter mg/m^3 = milligrams per cubic meter
ppm = parts per million

Table 4.3.B: Summary of Health Effects of the Major Criteria Air Pollutants

Pollutants	Sources	Primary Effects
Ozone (O_3)	▪ Atmospheric reaction of organic gases (ROG or VOC) with nitrogen oxides in the presence of sunlight.	▪ Breathing difficulty. ▪ Lung tissue damage. ▪ Damage to rubber and some plastics.
Nitrogen Dioxide (NO_2)	▪ Motor vehicle exhaust. ▪ Heavy construction equipment exhaust. ▪ Farming equipment exhaust. ▪ Residential heating.	▪ Lung irritation and damage. ▪ Formation of acid rain.
Carbon Monoxide (CO)	▪ Motor vehicle exhaust. ▪ Heavy construction equipment exhaust. ▪ Farming equipment exhaust. ▪ Residential heating.	▪ Reduced tolerance for exercise. ▪ Impairment of mental function. ▪ Impairment of fetal development. ▪ Death at high levels of exposure. ▪ Aggravation of some heart diseases (angina).
Suspended Particulate Matter ($PM_{2.5}$ and PM_{10})	▪ Motor vehicle exhaust ($PM_{2.5}$). ▪ Equipment and industrial sources ($PM_{2.5}$). ▪ Residential and agricultural burning ($PM_{2.5}$ and PM_{10}). ▪ Atmospheric chemical reactions ($PM_{2.5}$ and PM_{10}). ▪ Road dust (PM_{10}). ▪ Windblown dust (Agriculture [PM_{10}]) ▪ Construction (Fireplaces [PM_{10}])	▪ Reduced lung function. ▪ Aggravation of the effects of gaseous pollutants. ▪ Aggravation of respiratory and cardiorespiratory diseases. ▪ Increased cough and chest discomfort. ▪ Soiling. ▪ Reduced visibility.
Sulfur Dioxide (SO_2)	▪ Coal/oil- burning power plants. ▪ Industries, refineries, and diesel engines.	▪ Increased lung disease. ▪ Breathing problems for asthmatics. ▪ Formation of acid rain.
Lead (Pb)	▪ Metal smelters. ▪ Resource recovery. ▪ Leaded gasoline. ▪ Deterioration of lead paint.	▪ Learning disabilities. ▪ Brain and kidney damage.

Source: California Air Resources Board 2009 (http://www.arb.ca.gov/research/health/fs/fs2/fs2.htm).

Table 4.3.C: Air Quality Index Descriptions (new table)

Air Quality Index Levels of Health Concern	Air Quality Index Numerical Range	Ozone Concentration for Air Quality Index (ppb)		Meaning
		8-Hour	1-Hour	
Good	Low: 0 High: 50	—	—	Air quality is considered satisfactory, and air pollution poses little or no risk.
Moderate	Low: 51 Std: 84* High: 100	Low: 59 Std: 70*	Low: 85	Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.
Unhealthy for Sensitive Groups	Low: 101 High: 150	Low: 75 (also the federal standard)	Low: 125	Members of sensitive groups may experience health effects. The general public is not likely to be affected. People with heart or lung disease, children, and older adults are considered sensitive and are at greater risk. For ozone, people who are active outdoors are also considered sensitive.
Unhealthy	Low: 151 High: 200	Low: 95	Low: 165	Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.
Very Unhealthy	Low: 201 High: 300	Low: 115	Low: 205	Health alert: everyone may experience more serious health effects
Hazardous	Low: 301 High: 500	Low: 374	Low: 405	Health warnings of emergency conditions. The entire population is more likely to be affected.

ppb = parts per billion (a measure of concentration) * Std = 8-hour California ozone ambient air quality standard

Source: MBA-FCS ~~2014~~ 2015

- Health Effects: Health effects of ozone can include respiratory system irritation, reduction of lung capacity, asthma aggravation, inflammation and damage to lung cells, aggravated cardiovascular disease, and permanent lung damage. The greatest health risk is to those who are more active outdoors during smoggy periods, such as children, athletes, and outdoor workers. Ozone also damages natural ecosystems such as forests, foothill communities, and damages agricultural crops and some man-made materials such as rubber, paint, and plastics.
- Sources: Ozone is a secondary pollutant, thus is not emitted directly in the lower level of the atmosphere. The sources of ozone precursors (ROG and NO_X) are discussed above in the description of ozone.

- *Oxides of Nitrogen*
  - Description and Physical Properties: During combustion of fossil fuels, oxygen reacts with nitrogen to produce NO_X (NO, NO_2, NO_3, N_2O, N_2O_3, N_2O_4, and N_2O_5). Atmospheric deposition of NO_X occurs when atmospheric or airborne nitrogen is transferred to water, vegetation, soil, or other materials. Acid deposition involves the deposition of nitrogen and/or sulfur acidic compounds that can harm natural resources and materials. NO_X is also an ozone precursor. When NO_X and ROG are released in the atmosphere, they can also be a precursor to PM_{10} and $PM_{2.5}$.
  - Health Effects: The EPA has concluded that the only form of NO_X that exists at a level high enough to cause public health concerns is nitrogen dioxide (NO_2) (EPA 1997). Nitrogen dioxide is a brown gas with a strong odor. NO_X can react with moisture, ammonia, and other compounds to form nitric acid and related particles. The main human health concerns of nitrogen dioxide include lung damage, increased incidence of chronic bronchitis, eye and mucus membrane damage, negative effects on the respiratory system, pulmonary dysfunction, and premature death. Small particles can penetrate deeply into the sensitive tissue of the lungs and can cause or worsen respiratory disease such as emphysema, asthma, and bronchitis, and can also aggravate existing heart disease (EPA 2005b). Because NO_X is an ozone precursor, the health effects associated with ozone are also indirect health effects associated with unhealthful levels of NO_X emissions.
  - Sources: A major source of NO_X includes stationary source fuel combustion (i.e. manufacturing and industrial, food and agricultural processing, and service commercial uses). Additionally, NO_X emission sources include motor vehicles internal combustion engines and electric utility and industrial boilers powered by fossil fuel combustion. Natural sources of NO_X include lightning, soils, wildfires, stratospheric intrusion, and the oceans. Natural sources accounted for approximately seven percent of 1990 emissions of NO_X for the United States. On-road vehicles also contribute to NO_X emissions.

- *Sulfur Dioxide*
  - Description and Physical Properties: Sulfur dioxide (SO_2) is a colorless, pungent gas. At levels greater than 0.5 ppm, the gas has a strong odor, similar to rotten eggs. Sulfuric acid is formed from sulfur dioxide, which is an aerosol particle component that affects acid deposition. Sulfur oxides (SO_X) include sulfur dioxide and sulfur trioxide (SO_3). The gas can also be produced in the air by dimethylsulfide and hydrogen sulfide. Sulfur dioxide is removed from the air by dissolution in water, chemical reactions, and transfer to soils and ice caps. Historically, sulfur dioxide was a pollutant of concern. However, with the successful application of regulations at the State and local level, the levels of sulfur dioxide have been reduced dramatically in the past several decades. The CARB, the State regulatory agency charged with regulating air pollution in the State, demonstrates that sulfur dioxide levels in the State are well below the maximum standards (CARB 2006b, Page 107, 408, and 409). Although sulfur dioxide concentrations have been reduced to levels well below State and

Federal standards, further reductions are desirable because sulfur dioxide is a precursor to sulfate and PM_{10}. Sulfates are a particulate formed through the photochemical oxidation of sulfur dioxide.

- Health Effects: Sulfur dioxide is a soluble gas; therefore, it can be absorbed in the mucous membranes of the respiratory tract and nose. Long-term exposure of high levels of sulfur dioxide can cause irritation of existing cardiovascular disease, respiratory illness, and changes in the defenses in the lungs. When people with asthma are exposed to high levels of sulfur dioxide for short periods of time during moderate activity, effects may include wheezing, chest tightness, or shortness of breath (EPA 2000).
- Sources: Anthropogenic, or human caused, sources include fossil-fuel combustion, mineral ore processing, and chemical manufacturing. Volcanic emissions are a natural source of sulfur dioxide.

- *Lead*
  - Description and Physical Properties: Lead (Pb) is a solid heavy metal that can exist in air pollution as an aerosol particle component. An aerosol is a collection of solid, liquid, or mixed-phase particles suspended in the air. Lead was first regulated as an air pollutant in 1976. Leaded gasoline was first marketed in 1923 and was used in motor vehicles until around 1970. The exclusion of lead from gasoline helped to decrease emissions of lead in the United States from 219,000 to 4,000 short tons per year between 1970 and 1997. Even though leaded gasoline has been phased out in most countries, some still use leaded gasoline. The mechanisms by which lead can be removed from the atmosphere (sinks) include deposition to soils, ice caps, and oceans, and inhalation.
  - Health Effects: Lead accumulates in bones, soft tissue, and blood and can affect the kidneys, liver, and nervous system. The more serious effects of lead poisoning include behavior disorders, mental retardation, and neurological impairment. Low levels of lead in fetuses and young children can result in nervous system damage, which can cause learning deficiencies and low IQs. Lead may also contribute to high blood pressure and heart disease.
  - Sources: Lead-ore crushing, lead-ore smelting, and battery manufacturing are currently the largest sources of lead in the atmosphere in the United States. Other sources include dust from soils contaminated with lead-based paint, soil waste disposal, and crustal physical weathering.

- *Particulate Matter (PM_{10} and $PM_{2.5}$)*
  - Description and Physical Properties: Particulate matter is a generic term that defines a broad group of chemically and physically different particles (either liquid droplets or solids) that can exist over a wide range of sizes. Examples of atmosphere particles include those produced from combustion (diesel soot or fly ash), light produced (urban haze), sea spray produced (salt particles), and soil-like particles from re-suspended dust. In discussions of air pollution, particulate matter is typically divided up into two size categories: PM_{10} and $PM_{2.5}$ because of the adverse health effects associated the smaller-sized particles. PM_{10} refers to particulate matter that is 10 microns or less in diameter (1 micron is one-millionth of a meter, also known as a micrometer [µm]). $PM_{2.5}$ refers to particulate matter that is 2.5 microns or less in a diameter. Soil dust consists of the minerals and organic material found in soil being lifted up into the air by winds (e.g., fugitive dust).
  - Health Effects: Particulate matter can be inhaled directly into the lungs where it can be absorbed into the bloodstream. It is a respiratory irritant and can cause direct pulmonary effects such as coughing, bronchitis, lung disease, respiratory illnesses, increased airway reactivity, and exacerbation of asthma. Relatively recent mortality studies have shown a statistically significant direct association between mortality and daily concentrations of

particulate matter in the air. Non-health effect includes reduced visibility and soiling of property.

- Sources: Particulate matter originates from a variety of stationary and mobile sources. Stationary sources include fuel combustion for electrical utilities, residential space heating, and industrial processes; construction and demolition; metals, minerals, and petrochemicals; wood products processing; mills and elevators used in agriculture; erosion from tilled lands; waste disposal and recycling. Mobile or transportation-related sources include particulate matter from highway vehicles and non-road vehicles and fugitive dust from paved and unpaved roads. Secondary particulate matter is formed in the atmosphere through chemical reactions that can involve ROG, SO_X, NO_X, and ammonia.

- *Diesel Particulate Matter*
  - Description and Physical Properties: Diesel particulate matter (DPM) is a source of $PM_{2.5}$ because the size of diesel particles are typically 2.5 microns and smaller. In 1998, DPM made up about 6 percent of the total $PM_{2.5}$ inventory nationwide (EPA 2002). Diesel exhaust is a complex mixture of thousands of particles and gases that is produced when an engine burns diesel fuel. DPM includes the particles-phase constituents in diesel exhaust. Organic compounds account for 80 percent of the total particulate matter mass, which is composed of compounds such as hydrocarbons and their derivatives, and polycyclic aromatic hydrocarbons (PAHs) and their derivatives. Fifteen PAHs are confirmed for carcinogenicity, a number of which are found in diesel exhaust (NTP 2005b). The chemical composition and particle sizes of diesel PM vary between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), expected load, engine emission controls, fuel formulations (high/low sulfur fuel), and the year of the engine (EPA 2002).
  - ~~Non-Cancer Health Effects: Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and can cause coughs, headaches, light-headedness, and nausea. Diesel exhaust is a major source of ambient particulate matter pollution as well, and numerous studies have linked elevated particle levels in the air to increase hospital admission, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems (OEHHA 2002).~~
  - Cancer Health Effects: Human studies on the carcinogenicity of diesel particulate matter demonstrate an increased risk of lung cancer, although the increased risk cannot be clearly attributed to diesel exhaust exposure (NTP 2005b). Several occupational and ambient studies have documented the health effects due to exposure to diesel PM. The California Office of Environmental Health Hazards Assessment (OEHHA), in its role in assessing risk from environmental factors reviews such studies and makes recommendations on the way environmental risk should be evaluated through programs like the AB2588 Hot Spot Program. In its comprehensive assessment of diesel exhaust, OEHHA analyzed more than 30 studies of people who worked around diesel equipment, including truck drivers, 1950's era railroad workers, and equipment operators. The studies showed these workers were more likely to develop lung cancer than workers who were not exposed to diesel emissions. These studies provided strong evidence that long-term occupational exposure to diesel exhaust increases the risk of lung cancer. However, all of these studies were based on exposure to exhaust from traditional diesel engines and prior to the advent of highly efficient emissions controls like the diesel particulate filter. Based on these studies, CARB identified diesel exhaust a toxic air contaminant in 1998.
  - More recently, in January 2015, a major new study evaluated the health impacts of "new technology diesel exhaust" (NTDE). Beginning in 2001, USEPA and CARB begin issuing a series of regulations that require new diesel-powered vehicles and equipment to use the latest emissions control technology. This technology relies on two components. The first is a diesel particulate filter, which is capable of reducing particulate matter emissions by over 90%

(required for new engines beginning in 2007). The second technology is selective catalytic reduction, which reduces emissions of nitrogen oxides by over 90% (required for new engines beginning in 2010). Diesel emissions from engines equipped with this technology are referred to as NTDE. As a result of the advances in emission control technology, USEPA, CARB, and other government and industry stakeholders commissioned a series of studies called the Advanced Collaborative Emissions Study (ACES). ACES has been guided by an ACES Steering Committee consisting of representatives of HEI and the Coordinating Research Council (CRC: a nonprofit organization that directs engineering and environmental studies on the interaction between automotive or other mobility equipment and petroleum products), along with the U.S. Department of Energy, U.S. EPA, engine manufacturers, the petroleum industry, CARB, emission control manufacturers, the National Resources Defense Council, and others. The Health Effects Institute (HEI), funded in part by USEPA, was selected to oversee Phase 3 of ACES.

- Phase 3 of ACES evaluated whether emissions from new technology diesel engines cause cancer or other health effects. Specifically, it evaluated the health impacts of an 2007-compliant engine equipped with a diesel particulate filter. HEI found:
    - "Lifetime inhalation exposure of rats exposed to one of three levels of NTDE from a 2007-compliant engine, for 16 hours per day, 5 days a week, with use of a strenuous operating cycle that more accurately reflected the real-world operation of a modern engine than cycles used in previous studies, did not induce tumors or pre-cancerous changes in the lung and did not increase tumors that were considered to be related to NTDE in any other tissue. A few mild changes were seen in the lungs, consistent with long-term exposure to NO2, a major component of NTDE, which is being further substantially reduced in 2010-compliant engines". (Page 1)
    - "Using appropriate statistical approaches to analyze the data from more than 100 endpoints in the broad areas of histology, serum chemistry, systemic and lung inflammation, and respiratory function, the investigators confirmed the a priori hypothesis, namely, that NTDE would not cause an increase in tumor formation or substantial toxic health effects in rats, although some biologic effects might occur". (Page 3)
    - "The overall conclusion was that chronic exposure of rats to NTDE did not produce tumors in the lung, in marked contrast to the effects of chronic exposure to TDE observed in multiple previous rat studies, in which lung tumors, as well as inflammation and the deposition of soot in the lung, were observed. Rather, the effects of NTDE in the lung more closely resembled changes noted after long-term exposures to gaseous oxidant pollutants, in particular NO2, and to TDE from which particles have been filtered out. It is possible that components of NTDE other than NO2 may have contributed to the effects reported, but the low levels of other components suggest that they would not be primarily responsible" (Page 3)
    - “Some mild histologic changes were found in the lung; however, these were not pre-cancerous lesions, previously described in long-term exposure studies of rats to TDE. Rather, the histologic changes — periacinar epithelial hyperplasia, bronchiolization, accumulation of macrophages, and periacinar interstitial fibrosis — were confined to a small region, the centriacinus, which is involved in gas exchange.” (Page 3)
    - “The histologic changes in the lungs were consistent with previous findings in rats after long-term exposure to NO2 — a major component of the exposure

atmosphere, which is being substantially further reduced in 2010-compliant engines." (Page 4)

- "The present findings strongly support the premise that advances in engine, fuel, and combustion technologies have substantially reduced the potential health impacts of DE and that estimates of hazard and risk based on laboratory or epidemiologic studies of the health impacts of TDE exposures most likely do not reflect either the hazards or the risks from NTDE". (Page 40)
- "As shown, the ACES Phase I study (Khalek et al. 2009) found that emissions from 2007-compliant engines were reduced more than 90% compared with those from a 2004 engine; emissions of hydrocarbons and other air toxics by 2007-compliant engines were also lower by more than 80% than those of older engines" (Page 154)

  - The HEI study clearly demonstrates that the application of new emissions control technology to diesel engines have virtually eliminated the health impacts of diesel exhaust.
  - Non-Cancer Health Effects: Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and can cause coughs, headaches, light-headedness, and nausea. Diesel exhaust is a major source of ambient particulate matter pollution as well, and numerous studies have linked elevated particle levels in the air to increase hospital admission, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems (OEHHA 2002). The HEI study discussed above also evaluated non-cancer health effects. The study found NTDE would not cause an increase in substantial toxic health effects in rats, although some biologic effects might occur.
  - Sources: Diesel exhaust.

- *Visibility-Reducing Particles*
  - Description and Physical Properties: Visibility-reducing particles (VRP) are suspended particulate matter that reduces visibility. Visibility is the distance through the air that can be seen without the use of instrumental assistance. The distance that can be seen is limited by the amount of gases and aerosol particles in the way. The EPA implemented a Regional Haze Rule in 1999 to attempt to protect visibility in 156 national parks and wilderness areas in the Unites States. The regulation requires states to establish goals for improving their areas and to work together with other states as the pollution is often transported over long distances (EPA 1999).
  - Health Effects: The human health effects of VRP are those of pollution (particulate matter, oxides of nitrogen, and sulfur dioxide) discussed above.
  - Sources: The sources are other pollutants (particulate matter, oxides of nitrogen, and sulfur dioxide) as discussed above.
- *Vinyl Chloride*
  - Description and Physical Properties: Vinyl chloride, or chloroethene, is a chlorinated hydrocarbon and colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products, including pipes, wire and cable coatings, and packaging materials. Vinyl chloride is formed when other substances such as trichloroethylene and tetrachloroethylene are broken down. This can occur when plastics containing these substances are left to decompose in solid waste landfills. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites due to microbial breakdown of chlorinated solvents. In 1978, the CARB established a State ambient air quality standard for vinyl chloride. The standard was set at 0.01 ppm for a 24-hour duration because

that was the lowest level that could be detected at that time. In 1990, the CARB identified vinyl chloride as a toxic air contaminant and estimated a cancer unit risk factor.

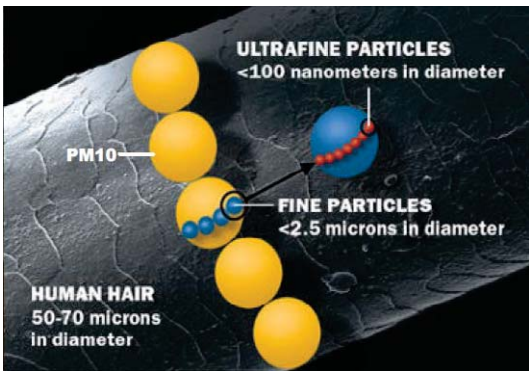
- Health Effects: Short-term exposure to high levels of vinyl chloride in air causes central nervous system effects, such as dizziness, drowsiness, and headaches (CARB 2005). Epidemiological studies of occupationally exposed workers have linked vinyl chloride exposure to development of a rare cancer, liver angiosarcoma, and have suggested a relationship between exposure and lung and brain cancers.
- Sources: Manufacturing of PVC plastic and vinyl products.

- *Hydrogen Sulfide*
  - Description and Physical Properties: Hydrogen sulfide (H_2S) is a flammable, colorless, poisonous gas that smells like rotten eggs.
  - Health Effects: High levels of hydrogen sulfide can cause immediate respiratory arrest. It can irritate the eyes and respiratory tract and cause symptoms like headache, nausea, vomiting, and cough. Long exposure to hydrogen sulfide can cause pulmonary edema.
  - Sources: Hydrogen sulfide and other reduced sulfur compounds form by the anaerobic decomposition of manure some types of bacteria found in animal and human by-products produce hydrogen sulfide during reduction of sulfur-containing compounds, such as proteins. Manure, storage tanks, ponds, anaerobic lagoons, and land application sites are the primary sources of hydrogen sulfide emissions. Anthropogenic sources include the combustion of sulfur containing fuels (oil and coal) and organic matter that undergoes putrefaction. It is used in the production of heavy water for nuclear reactors, the manufacture of chemicals, in metallurgy, and as an analytical reagent.
- *Reactive Organic Gases and Volatile Organic Compounds*
  - Description and Physical Properties: Reactive organic gases (ROG), or volatile organic compounds (VOC), are defined as any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. ROG consist of nonmethane hydrocarbons and oxygenated hydrocarbons. Hydrocarbons are organic compounds that contain only hydrogen and carbon atoms. Nonmethane hydrocarbons are hydrocarbons that do not contain the unreactive hydrocarbon, methane. Oxygenated hydrocarbons are hydrocarbons with oxygenated functional groups attached.
  - It should be noted that there are no State or Federal ambient air quality standard for ROG because they are not classified as criteria pollutants. They are regulated, however, because a reduction in ROG emissions reduces certain chemicals reactions that contribute to the formulation of ozone. ROG are also transformed into organic aerosols in the atmosphere, which contribute to higher PM_{10} and lower visibility.
  - Health Effects: Although health-based standards have not been established for ROG, health effects can occur from exposures to high concentrations because of interference with oxygen uptake. In general, concentrations of ROG are suspected to cause eye, nose, and throat irritation; headaches, loss of coordination, nausea, damage to liver, kidney, and the central nervous system (EPA 2005). There are many ROG that have been classified as toxic air contaminates. A particular ROG of concern is benzene, which is described in more detail below. The EPA maintains a list of all air substances that have been classified as hazardous to humans and/or animals, and includes ROG, pesticides, herbicides, and radionuclides (EPA 2006d).
  - Sources: The major sources of ROG are on-road motor vehicles and solvent evaporation.

- *Benzene*
  - Description and Physical Properties: Benzene is an ROG. It is a clear or colorless light-yellow, volatile, highly flammable liquid with a gasoline-like odor. The EPA has classified benzene as a "Group A" (human) carcinogen.
  - Health Effects: Short-term (acute) exposure of high doses from inhalation of benzene may cause dizziness, drowsiness, headaches, eye irritation, skin irritation, and respiratory tract irritation, and at higher levels, unconsciousness can occur. Long-term (chronic) occupational exposure of high dose by inhalation has caused blood disorders, including aplastic anemia and lower levels or red blood cells (EPA 1992). Occupational exposure to benzene has been shown to cause leukemia (mainly acute myelogenous leukemia) (NTP 2005). Studies have also found that benzene exposure increased the risks of lymphatic and hematopoietic cancer (cancers of lymphatic system and of organs and tissues involved in the production of blood), total leukemia, and specific histologic types of leukemia (NTP 2005).
  - Sources: Benzene is emitted into the air from gasoline services station (fuel evaporation), motor vehicle exhaust, tobacco smoke, and from burning oil and coal. Benzene is also used as a solvent for paints, inks, oils, waxes, plastic, and rubber. It is used in the extraction of oils from seeds and nuts. It is also manufactured for detergents, explosives, dyestuffs, and pharmaceuticals.

Ultrafine Particles. Ultrafine particles are particulate matter (PM) that exists in the ambient air and are less than 0.1 micrometer (µm or microns) in diameter. Ultrafine particles (UFP or $PM_{0.1}$) are included in the group called $PM_{2.5}$, particulate matter less than 2.5 micrometers in diameter.

The picture to the right displays the relative size of the particles compared with a human hair, with PM_{10} (particulate matter less than 10 micrometers in diameter) indicated as yellow circles, $PM_{2.5}$ shown as blue circles, and ultrafine particles shown as red circles.



The CARB or the EPA have not set an ambient air quality standard for ultrafine particles because health effect evidence and measurements are currently limited. In its recent revisions to the national ambient air quality standards for particulate matter, the EPA states, "In considering both the currently available health effects evidence and the air quality data, the Policy Assessment concluded that this information was still too limited to provide support for consideration of a distinct PM standard for ultrafine particles" (EPA 2013,[1] page 3122).

The EPA indicates that evidence and research regarding health effects from short-term and long-term exposure to ultrafine particles are still too limited to establish a standard for ultrafine particles. In addition, the EPA reports that the studies that do exist have reported inconsistent and mixed results. The following is an excerpt from the Federal Register illustrating this point:

[1] U.S. Environmental Protection Agency. 2013. Federal Register. National Ambient Air Quality Standards for Particulate Matter. Website: http://www.gpo.gov/fdsys/pkg/FR-2013-01-15/pdf/2012-30946.pdf. Accessed December 17, 2013.

"New evidence, primarily from controlled human exposure and toxicological studies, expands our understanding of cardiovascular and respiratory effects related to short-term ultrafine particle exposures. However, the Policy Assessment concluded that this evidence was still very limited and largely focused on exposure to diesel exhaust, for which the Integrated Science Assessment concluded it was unclear whether the effects observed are due to ultrafine particles, larger particles within the $PM_{2.5}$ mixture, or the gaseous components of diesel exhaust. In addition, the Integrated Science Assessment noted uncertainties associated with the controlled human exposure studies using concentrated ambient particle systems, which have been shown to modify the composition of ultrafine particles.

The Policy Assessment recognized that there are relatively few epidemiological studies that have examined potential cardiovascular and respiratory effects associated with short-term exposures to ultrafine particles. These studies have reported inconsistent and mixed results.

Collectively, in considering the body of scientific evidence available in this review, the Integrated Science Assessment concluded that the currently available evidence was suggestive of a causal relationship between short-term exposures to ultrafine particles and cardiovascular and respiratory effects. Furthermore, the Integrated Science Assessment concluded that evidence was inadequate to infer a causal relationship between short-term exposure to ultrafine particles and mortality as well as long-term exposure to ultrafine particles and all outcomes evaluated" (EPA 2013, page 3121).

The Integrated Science Assessment for Particulate Matter concluded that evidence is inadequate to determine a causal relationship between short-term exposures of ultrafine particles to mortality or central nervous system effects, but that the evidence is suggestive of short-term (24-hour) exposures causing cardiovascular and respiratory effects. The assessment also concluded that there is inadequate evidence linking long-term exposure (typically measured in terms of an annual concentration) of ultrafine particles to health effects, including respiratory, developmental, cancer, and mortality. Overall, epidemiological studies of atmospheric PM suggest that cardiovascular effects are associated with smaller particles, but there are few reports that make a clear link between ultrafine particle exposures and increased mortality. In January 2015, a new study[1] on the relationship of mortality to long-term exposure to fine and ultra-fine particles was released. The study found there was a relationship between morality and both fine and ultra-fine particles exposure.

In its Quantitative Health Risk Assessment for Particulate Matter, the EPA did not assess ultrafine particles, stating " that there was insufficient data to support a quantitative risk assessment for other size fractions (e.g., ultrafine particles)."[2]

The availability of measurements of ultrafine particles to support health studies is also limited:

With respect to our understanding of ambient ultrafine particle concentrations, at present, there is no national network of ultrafine particle samplers; thus, only episodic and/or site-specific data sets exist. Therefore, the Policy Assessment recognized a national characterization of concentrations, temporal and spatial patterns, and trends was not possible at this time, and the availability of ambient ultrafine measurements to support health studies was extremely limited. In general, measurements of ultrafine particles are highly dependent on monitor location and, therefore, more subject to exposure error than accumulation mode particles. Furthermore, the number of

[1] Environmental Health Perspectives, January 2015. Associations of Mortality with Long-Term Exposures to Fine and Ultrafine Particles, Species and Sources: Results from the California Teachers Study Cohort.

[2] U.S. Environmental Protection Agency. 2010. Quantitative Health Risk Assessment for Particulate Matter. EPA-452/R-10-005. Website: http://www.epa.gov/nscep/index.html. (Search for the document.) Accessed December 20, 2013.

> *ultrafine particles generally decreases sharply downwind from sources, as ultrafine particles may grow into the accumulation mode by coagulation or condensation. Limited studies of ambient ultrafine particle measurements have suggested that these particles exhibit a high degree of spatial and temporal heterogeneity driven primarily by differences in nearby source characteristics. Internal combustion engines and, therefore, roadways are a notable source of ultrafine particles, so concentrations of these particles near roadways are generally expected to be elevated. Concentrations of ultrafine particles have been reported to drop off much more quickly with distance from roadways than fine particles (EPA 2013, page 3121).*

In addition, it was hypothesized that chemical composition of PM may be a better predictor of health effects than particle size:

> *In addressing the issue of particle composition, the Integrated Science Assessment concluded that, '[f]rom a mechanistic perspective, it is highly plausible that the chemical composition of PM would be a better predictor of health effects than particle size.' Heterogeneity of ambient concentrations of $PM_{2.5}$ constituents (e.g., elemental carbon, organic carbon, sulfates, nitrates) observed in different geographical regions as well as regional heterogeneity in $PM_{2.5}$-related health effects reported in a number of epidemiological studies are consistent with this hypothesis (EPA 2013, page 3122).*

The SCAQMD's Multiple Air Toxics Exposure Study (MATES-IV) states, "the health impact caused by exposure to UFPs [ultrafine particles] is still not well-understood." MATES-IV presents measurements of black carbon and ultrafine particles at 10 fixed sites within the Basin. The results indicate that the highest black carbon levels were at more urban sites located near major roadways. Black carbon was not measured in the previous MATES-III; however, elemental carbon levels decreased about 35 percent during from 2005 to 2012. Black carbon is a term used for elemental and graphitic components of soot.

The SCAQMD's 2012 Air Quality Management Plan (AQMP) contains a detailed chapter on near roadway exposure and ultrafine particles. The AQMP summarizes current health effect research on ultrafine particles. The potential health effects from ultrafine particle exposure are similar to those of $PM_{2.5}$ and PM_{10}: such as adverse cardio-respiratory responses including elevated blood pressure, and mild inflammatory and prothrombotic (obstruction of circulation) responses. The AQMP indicated that future research and assessment is needed in the following areas:

- *Chemical Composition*. Chemical composition of ultrafine particles depends on many factors, including vehicle technology, fuel, and atmospheric chemical reactions after being emitted. Particle composition may be a factor determining particle toxicity; therefore, knowledge regarding the chemistry is important.
- *Formation.* More research is needed regarding the processes leading to ultrafine particle formation.
- *Standardized Measurement Methods and Procedures.* Currently, there is no standard method for conducting size-classified or particle-number measurements. Characteristics measured in ambient and emission-testing studies are highly dependent on the measurement instrument/protocol used and its setting.
- *Measurements at Hot Spot Locations.* More measurements should be taken at "hot spots" where large numbers of vehicles are operated.
- *Emissions Inventories.* Vehicle emission factors for different particle size ranges and for particle numbers are highly uncertain, and there are no emission inventories for ultrafine particles from motor vehicles. New estimations of ultrafine particle levels should not be derived solely from

vehicle emission factors (i.e., EMFAC), but have to include predictions for formation near the tailpipe and in the atmosphere.

- *Air Quality Modeling.* Modeling tools will need to be developed to simulate the formation and transport over a wide range of atmospheric conditions and emissions scenarios. The dispersion near the first few hundred meters of the roadway needs to be better understood.
- *Health Effects.* New toxicological and epidemiological studies targeting exposure to controlled and uncontrolled emissions from gasoline and diesel vehicles are needed to better characterize the exposure-response relationships to ultrafine particles and to help develop health guidelines and potential regulations. The health effects of inorganic ultrafine particle emissions from vehicles are only now starting to receive significant attention.
- *Other Sources.* More work is needed to better understand size, composition, and health impact of particles near stationary sources and other processes (rather than just motor vehicles).

Children and Air Pollution. Numerous studies have shown strong links between air pollution exposures and a range of health outcomes. One particular study was carried out over a 10-year experimental time period by the University of Southern California, the Children's Health Study (Gaulderman, 2000)[1]. The Children's Health Study, which began in 1992, is a large, long-term, study of the effects of chronic air pollution exposures on the health of children living in Southern California. Children may be more strongly affected by air pollution because their lungs and their bodies are still developing. Children are also exposed to more air pollution than adults since they breathe faster and spend more time outdoors in strenuous activities. About 5,500 children in twelve communities were enrolled in the study; two-thirds of them were enrolled as fourth-graders. Data on the children's health, their exposures to air pollution, and many factors that affected their responses to air pollution were gathered annually until they graduated from high school. The major conclusions reached in the University of Southern California's Children's Health Study are shown below. Note however, that the conclusions provided below were developed based on measurements made in the 1990's when levels of air pollution in the Basin were substantially higher than current levels as shown earlier in Figures 4.3.1 to 4.3.6 and as noted further in Section 4.3.1.4 below and new technology diesel vehicles had not yet been introduced.

- Children exposed to higher levels of particulate matter, nitrogen dioxide, acid vapor and elemental carbon, had significantly lower lung function at age 18, an age when the lungs are nearly mature and lung function deficits are unlikely to be reversed.
- Children who were exposed to current levels of air pollution had significantly reduced lung growth and development when exposed to higher levels of acid vapor, ozone, nitrogen dioxide, and particulate matter, which is made up of very small particles that can be breathed deeply into the lungs.
- Children living in communities with higher concentrations of nitrogen dioxide, particulate matter, and acid vapor had lungs that both developed and grew more slowly and were less able to move air through them. This decreased lung development may have permanent adverse effects in adulthood.
- Children who moved away from study communities had increased lung development if the new communities had lower particulate matter levels, and had decreased lung development if the new communities had higher particulate matter levels.

[1] Gauderman, W, et. al. Peters: Association between Air Pollution and Lung Function Growth in Southern California Children. American Journal of Respiratory and Critical Medicine. Vol 162. Page 1383. 2000. Accessed October 22, 2013.

- Days with higher ozone levels resulted in significantly higher school absences due to respiratory illness. Children with asthma who were exposed to higher concentrations of particulate matter were much more likely to develop bronchitis.

- In the most recent update to the Children's Health Study , researchers discovered that improvements in regional air quality contributed to improved children's lung function. Specifically, combined exposure to two harmful pollutants, nitrogen dioxide (NO2) and fine particulate matter, fell approximately 40 percent for children in the third study group (2007-2011) compared to the first study group (1994-98). The study followed children from Long Beach, Mira Loma, Riverside, San Dimas and Upland.
- Children's lungs grew faster as air quality improved. Lung growth from age 11 to 15 was more than 10 percent greater for children breathing the lower levels of NO2 from 2007 to 2011 compared to those breathing higher levels from 1994 to 1998.
- The percentage of children in the study with abnormally low lung function at age 15 dropped from nearly 8 percent for the 1994-98 group, to 6.3 percent in 1997-2001, to just 3.6 percent for children followed between 2007 and 2011.

4.3.1.3 Air Pollution Constituents and Attainment Status

The CARB has many responsibilities with respect to air quality, including the following:

- Coordination and oversight of State and Federal air pollution control programs in California;
- Oversight activities of local air quality management agencies (e.g., the SCAQMD);
- Responsibility for incorporating air quality management plans for local air basins into a State Implementation Plan (SIP) for EPA approval; and
- Maintaining air quality monitoring stations throughout the State in conjunction with local air districts.

The CARB has divided the State into 15 air basins based on meteorological and topographical factors that affect air pollution. An air basin generally has similar meteorological and geographic conditions throughout. The CARB and EPA use the data collected at monitoring stations to classify air basins as attainment, nonattainment, nonattainment transitional, or unclassified, based on air quality data for the most recent three calendar years compared with the AAQS. Nonattainment areas are imposed with additional restrictions, as required by the EPA to attain and maintain air quality standards. The air quality data are also used to monitor progress in attaining and maintaining air quality standards.

Significant authority for air quality control within the various air basins has been given to local air districts that regulate stationary source emissions and develop local nonattainment plans. Table 4.3.D identifies the attainment status[1] for the criteria pollutants in the Basin. The State AAQS are more stringent than the Federal AAQS.

Table 4.3.D: Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
O_3 1-hour	Nonattainment	N/A
O_3 8-hour	Nonattainment	Extreme Nonattainment

[1] Unclassified designation: a pollutant that is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment; Attainment designation: a pollutant is designated attainment if the State standard for that pollutant was not violated at any site in the area during a 3-year period. Nonattainment: a pollutant is designated nonattainment if there was at least one violation at any site in the area during a 3-year period.

Table 4.3.D: Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
PM_{10}	Nonattainment	Maintenance – serious (San Bernardino County is in nonattainment)
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Attainment/Maintenance
NO_2	~~Nonattainment~~ Attainment	Attainment/Maintenance
SO_2	Attainment	Attainment
Pb	Attainment	Attainment
All others	Attainment/Unclassified	Attainment/Unclassified

Unclassified designation: a pollutant that is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.
Attainment designation: a pollutant is designated attainment if the State standard for that pollutant was not violated at any site in the area during a 3-year period.
Nonattainment: a pollutant is designated nonattainment if there was at least one violation at any site in the area during a 3-year period.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment*, 2015

4.3.1.4 Regional Air Quality Improvements

The SCAQMD website (aqmd.gov) includes historical air quality data dating back to 1994; the year after air pollution emissions thresholds were established. As described on the SCAQMD website,[1] in 1994 pollutant concentrations in the Basin exceeded three of the six Federal ambient air quality standards. The state sulfate standard was exceeded in some Basin areas. The state lead standard was exceeded in one localized area immediately adjacent to a source of lead emissions. No areas of the Basin exceeded standards for nitrogen dioxide or sulfur dioxide. The Los Angeles and Riverside County areas of the Southeast Desert Air Basin (SEDAB) served by the District exceeded standards for ozone and PM_{10}. No other standards were exceeded in the District SEDAB areas. The Federal standards were exceeded at one or more locations in the Basin during 142 days in 1994.

Although both Federal and State standards were exceeded for three criteria pollutants during 1994, current air quality represents substantial improvement over historical air quality. Between 1982–1984 and 1992–1994, the number of days on which the Federal ozone standard was exceeded dropped by one third, from 33 percent to 22 percent of days, in the East San Gabriel Valley area, which is exceeded most frequently. Exceedances of the Federal carbon monoxide standard decreased from 11 percent of days in 1982–1984 to 7 percent of days in 1992–1994. A comparison for the same periods cannot be made for PM_{10} since the first full year of monitoring was 1985. However, between 1985–1987 and 1992–1994, the percent of days exceeding the Federal 24-hour standard decreased from 13 percent to 3 percent.[2]

Exceedances of the State nitrogen dioxide standard decreased from 1 percent of days in 1982–1984 to 0.1 percent of days in 1992–1994. The Federal nitrogen dioxide standard has not been exceeded in any area since 1991. There have been no exceedances of lead standards at regular air monitoring stations in the Basin since 1982. The State and Federal sulfur dioxide standards were not exceeded in any of the Basin monitoring areas during either period. Exceedances of the State sulfate standard decreased from 2 percent to 0 percent at the long-term site used in this analysis, though a few sites were exceeded in 1994. The areas of the Basin recording the highest pollutant concentrations have shown a significant decrease in exceedances of the Federal standards over the past decade.

[1] Historical Air Quality, Summary of 1994 Air Quality, http://aqmd.gov/smog/AirQualityStandardsComplianceReport/AirQualitySummary94.html, website accessed December 17, 2012.
[2] Air Quality Trends Through 1994, http://aqmd.gov/smog/trends_8494.html, website accessed May 9, 2012.

As described in the SCAQMD *December 2000 Air Quality Standards Report*, in a continuing trend of significant long-term improvement in air quality, the Basin did not experience a Stage 1 Episode for the second year in a row in the year 2000. Also, the year 2000 was the second year in the history of ambient air monitoring that the Basin was not the location recording the highest ozone concentration in the nation. Nonetheless, maximum pollutant concentrations in the region still exceed the Federal standards for ozone, carbon monoxide and particulate matter (PM_{10} and $PM_{2.5}$) by a wide margin.

Maximum 1-hour average and 8-hour average ozone concentrations in 2000 (0.184 ppm and 0.159 ppm) were 147 percent and 187 percent of the Federal 1-hour and 8-hour standards, respectively. The highest 8-hour average carbon monoxide concentration of 2000 (10.0 ppm) was 105 percent of the Federal standard. Maximum 24-hour average and annual average PM_{10} concentrations (139 $\mu g/m^3$ and 60.1 $\mu g/m^3$) were 92 percent and 119 percent of the Federal 24-hour and annual standards, respectively. Maximum 24-hour average and annual average $PM_{2.5}$ concentrations (119.6 $\mu g/m^3$ and 28.2 $\mu g/m^3$) were, respectively, 183 percent and 182 percent of the Federal 24-hour and annual standards.

In 2000, the Federal nitrogen dioxide standard was not exceeded, with a maximum concentration (0.0435 ppm), which was 81 percent of the Federal standard. The maximum 1-hour average nitrogen dioxide concentration (0.21 ppm) was 81 percent of the State standard. State standard for sulfate was exceeded on one day at one location. The maximum 24-hour concentration (26.7 $\mu g/m^3$) was 107 percent of the State standard. (There is no Federal sulfate standard.) Sulfur dioxide and lead concentrations continued to remain well below the Federal and State standards in 2000.[1]

As identified in the SCAQMD *December 2000 Air Quality Standards Report*, the number of exceedances recorded in 2000 shows that air quality trends through 2000 are consistent with a continuation of the downtrends reported in previous years. Figure 4.3.8 shows the trend in the percentage exceeding the Federal standards in the Basin. In 2000, there were 43 days on which one or more Federal standards were exceeded somewhere in the Basin, most of which (40 days) were for ozone alone. Between 1976–1978 and 1998–2000, the three-year average number of days exceeding any of the Federal standards for 1-hour ozone, 8-hour carbon monoxide or 24-hour PM_{10} in the Basin was reduced by 80 percent. ("All Standards" does not include PM_{10} until 1985.) The three-year average number of days exceeding the carbon monoxide Federal standard was reduced by 94 percent for the same period. The number of sampling days exceeding the Federal 24-hour PM_{10} standard decreased 93 percent between 1985–1987 and 1998–2000. (Three-year averages were used to minimize the effect of year-to-year variations due to changes in meteorological conditions.)

[1] *December 2000 Air Quality Standards Compliance Report,* SCAQMD, http://aqmd.gov/smog/AQSCR2000/aq00web.pdf, website accessed December 17, 2012.

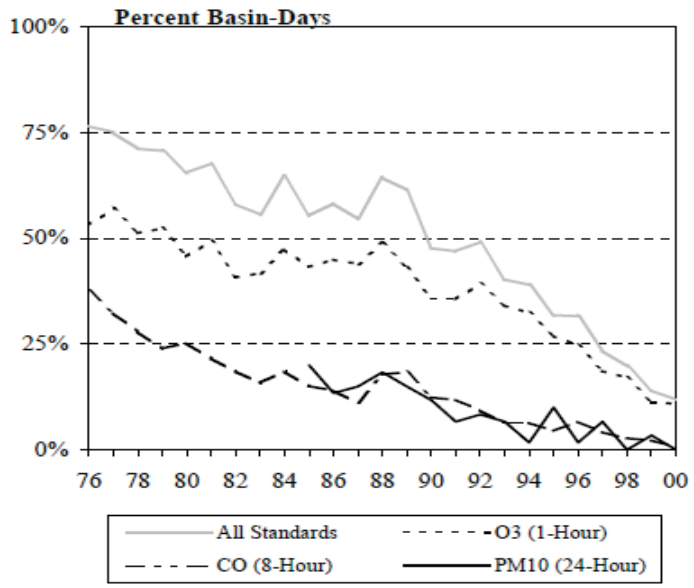


Figure 4.3.8: Percent of Days Basin Exceeds Federal AAQS

Between the periods 1976–1978 and 1998–2000, Stage 1 Episodes decreased 96 percent and health advisories decreased 86 percent. Exceedances of 1-hour and 8-hour Federal standards decreased 76 percent and 47 percent, and State standard exceedances decreased 49 percent as shown in Figure 4.3.9.

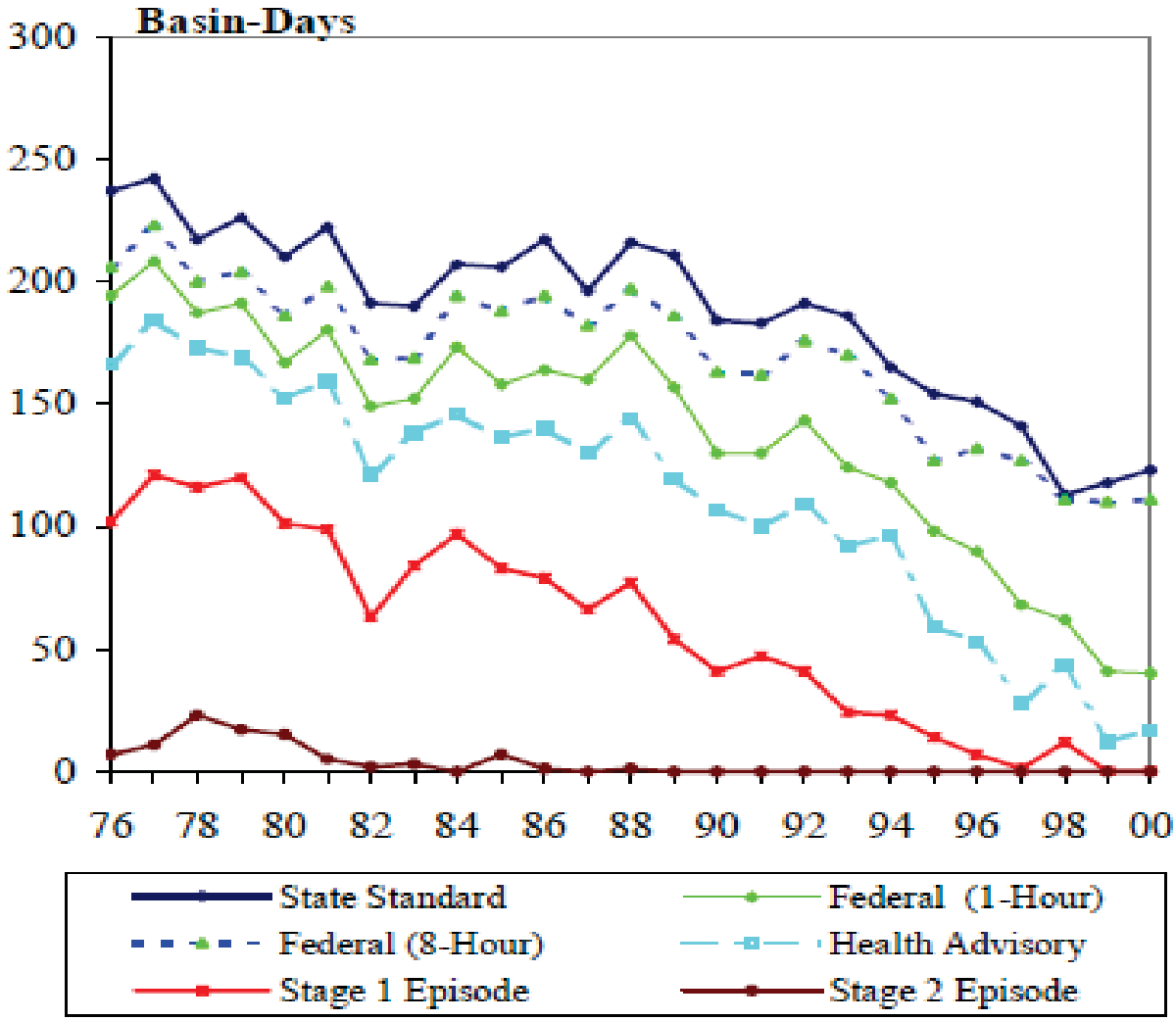


Figure 4.3.9: Exceedances of 1-Hour and 8-Hour Federal Standards

Figure 4.3.10 shows the number of days per month exceeding the Federal ozone standard for the period of 1976–2000. Up until the early 1990s, it was common to have days exceeding the Federal ozone standard as early as February and as late as November and December. Since the mid-1990s there have been no Federal standard exceedances recorded in the months of January–March and November–December. Also, the frequency of exceedances in fall (September and October) has been reduced significantly in recent years.

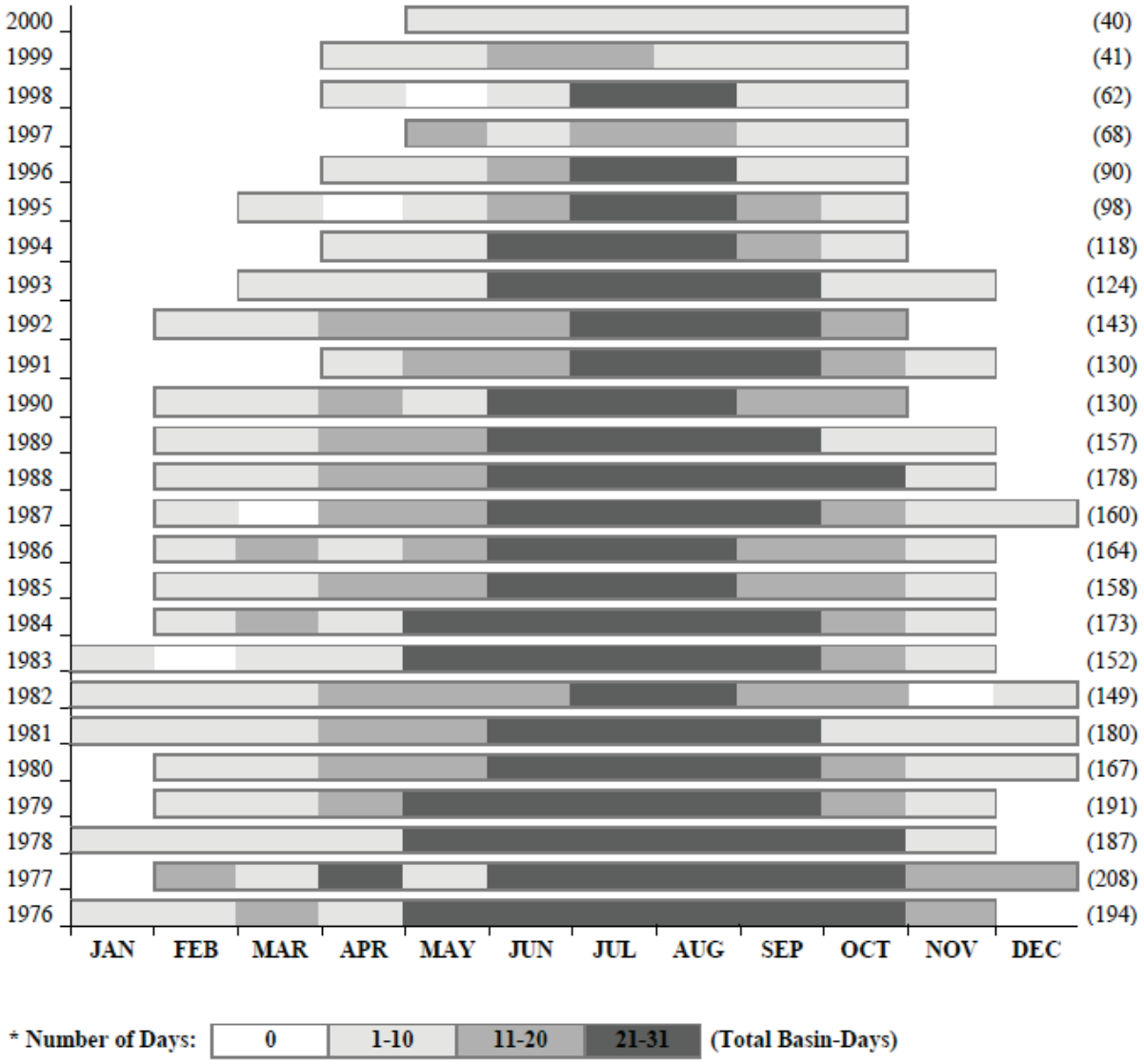


Figure 4.3.10: Number of Days per Month Federal Ozone Standard Exceeded, 1976–2000

The monthly distribution of the Federal ozone standard exceedances shows the trend toward shorter duration of the period of the year that high ozone concentrations occur (smog season). Although weather conditions contributed to the lower ozone concentrations, weather-adjusted trend studies have indicated that the significant downtrend in ozone concentration and shorter smog season in the Basin are mainly attributed to emission reduction and reduced reactivity of emitted organic compounds in the region.

As described in the SCAQMD *November/December 2006 Air Quality Standards Report*, the maximum 8-hour and 1-hour average ozone concentrations in the Basin (0.142 ppm and 0.175 ppm, recorded in the Central San Bernardino Mountains and East San Gabriel Valley areas) were 167 percent and 140 percent of the 8-hour and former 1-hour Federal standards, respectively. Maximum 24-hour average and annual average PM_{10} concentrations in the Basin (142 µg/m^3 and 64.0 µg/m^3, recorded in the Central San Bernardino Valley and Metropolitan Riverside County areas) were 94 percent of the Federal 24-hour standard and 125 percent of the former annual PM_{10} standards.

Maximum 24-hour average $PM_{2.5}$ concentration (72.2 µg/m^3 recorded in the South San Gabriel Valley area) was 203 percent of the new Federal 24-hour standard (35 µg/m^3) and 110 percent of the former standard (65 µg/m^3). Maximum annual average $PM_{2.5}$ concentration (20.6 µg/m^3 recorded in the Metropolitan Riverside County area) was 136 percent of the Federal annual $PM_{2.5}$ standard.

Nitrogen dioxide maximum annual average concentration (0.031 ppm recorded in the Northwest San Bernardino Valley area) was 58 percent of the Federal standard. (The annual average concentration was 103% of the proposed new annual State standard for NO_2.) Carbon monoxide concentrations have not exceeded the standards in the Basin since 2002. The highest 8-hour average carbon monoxide concentration in 2006 (6.4 ppm, recorded in the South Central Los Angeles County area) was 70 percent of the Federal standard. Sulfur dioxide, sulfate and lead concentrations remained well below the State and Federal standards in 2006.[1]

The American Lung Association website (lung.org) includes data collected from State air quality monitors that are used to compile an annual *State of the Air* report. These reports have been published over the last 13 years. The latest *State of the Air Report* compiled for the Basin was in 2010.[2] As noted in this report, air quality in the Basin has significantly improved in terms of both pollution levels and high pollution days over the past three decades. The area's average number of high ozone days dropped from 189.5 day per year in the initial 2000 State of the Air report (1996–1998) to 141.8 in the 2006–2008 report. The region has seen dramatic reduction in particle pollution since the initial State of the Air report (2000). While the 2010 *State of the Air Report* shows a slight uptick in the number of days of unhealthy air for ozone and annual particle pollution since the 2009 report, it is important to note that pollution levels measured in this latter report were affected by fluctuations in weather conditions in 2010 and the addition of several new particulate monitoring stations in areas in San Bernardino known to be particularly problematic for particulate matter given local conditions.

The 2012 Air Quality Management Plan states, "The remarkable historical improvement in air quality since the 1970s is the direct result of Southern California's comprehensive, multiyear strategy of reducing air pollution from all sources as outlined in its AQMPs" (South Coast Air Quality Management District 2012). As shown in Figure 4.3.11, ozone, NO_X, VOC, and CO have been decreasing in the Basin since 1975 and are projected to continue to decrease through 2020 (CARB 2009). These decreases result primarily from motor vehicle controls and reductions in evaporative emissions. Although vehicle miles traveled in the Basin continue to increase, NO_X and VOC levels are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with lower-emitting vehicles. NO_X emissions from electric utilities have also decreased due to use of cleaner fuels and renewable energy.

Figure 4.3.11 also displays ozone contour maps, which show that the number of days exceeding the national 8-hour standard has decreased between 1997 and 2007. In the 2007 period, there was an overall decrease in exceedance days compared with the 1997 period.

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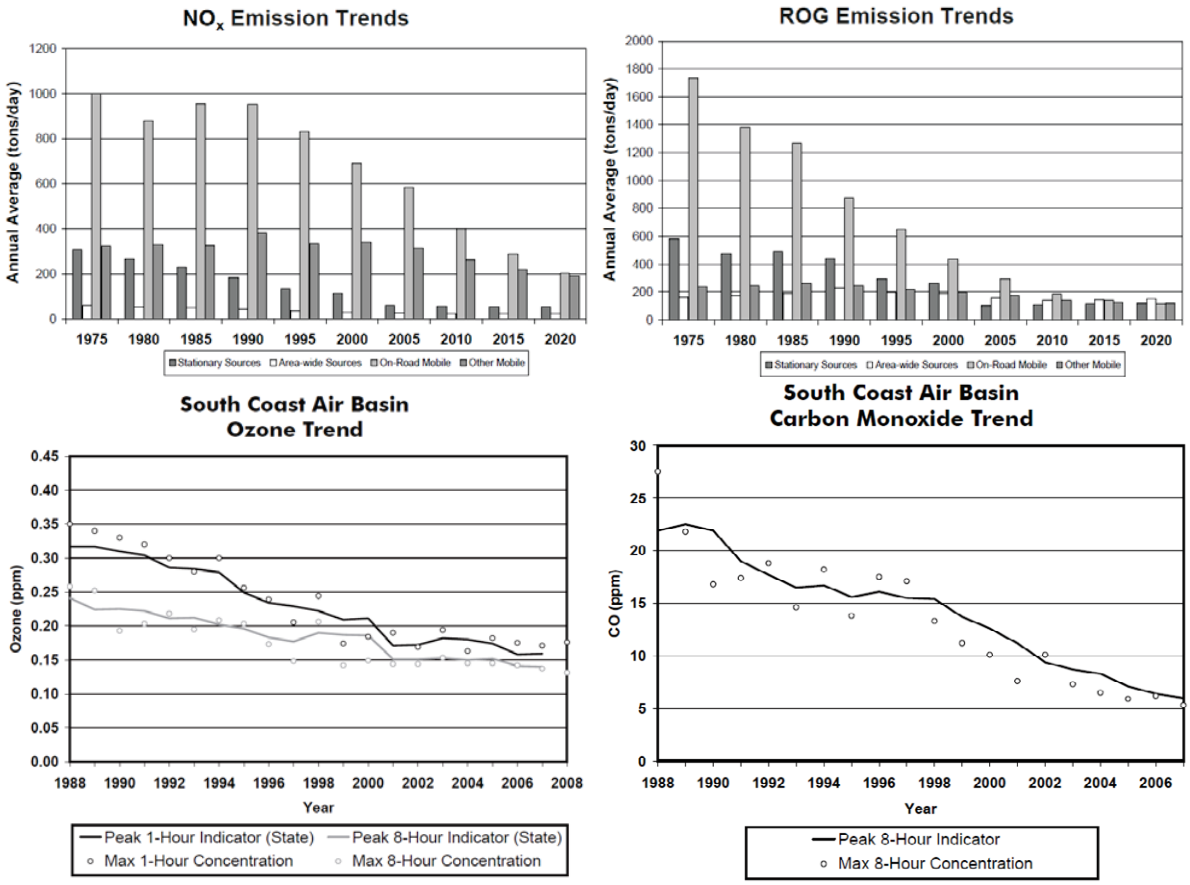
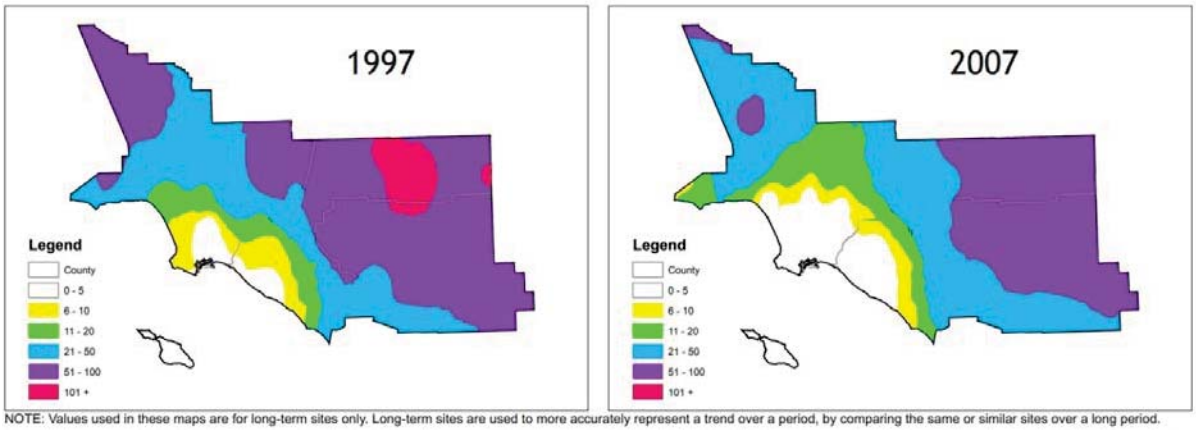
1 *November/December 2006 Air Quality Compliance Report*, SCAQMD, http://aqmd.gov/smog/AQSCR2006/2006_AirQuality.pdf, website accessed December 17, 2012.

2 *State of the Air 2010 South Coast Air Basin,* American Lung Association, *http://www.lung.org/associations/states/california/assets/pdfs/sota/south-coast-fact-sheet.pdf,* website accessed December 17, 2012.



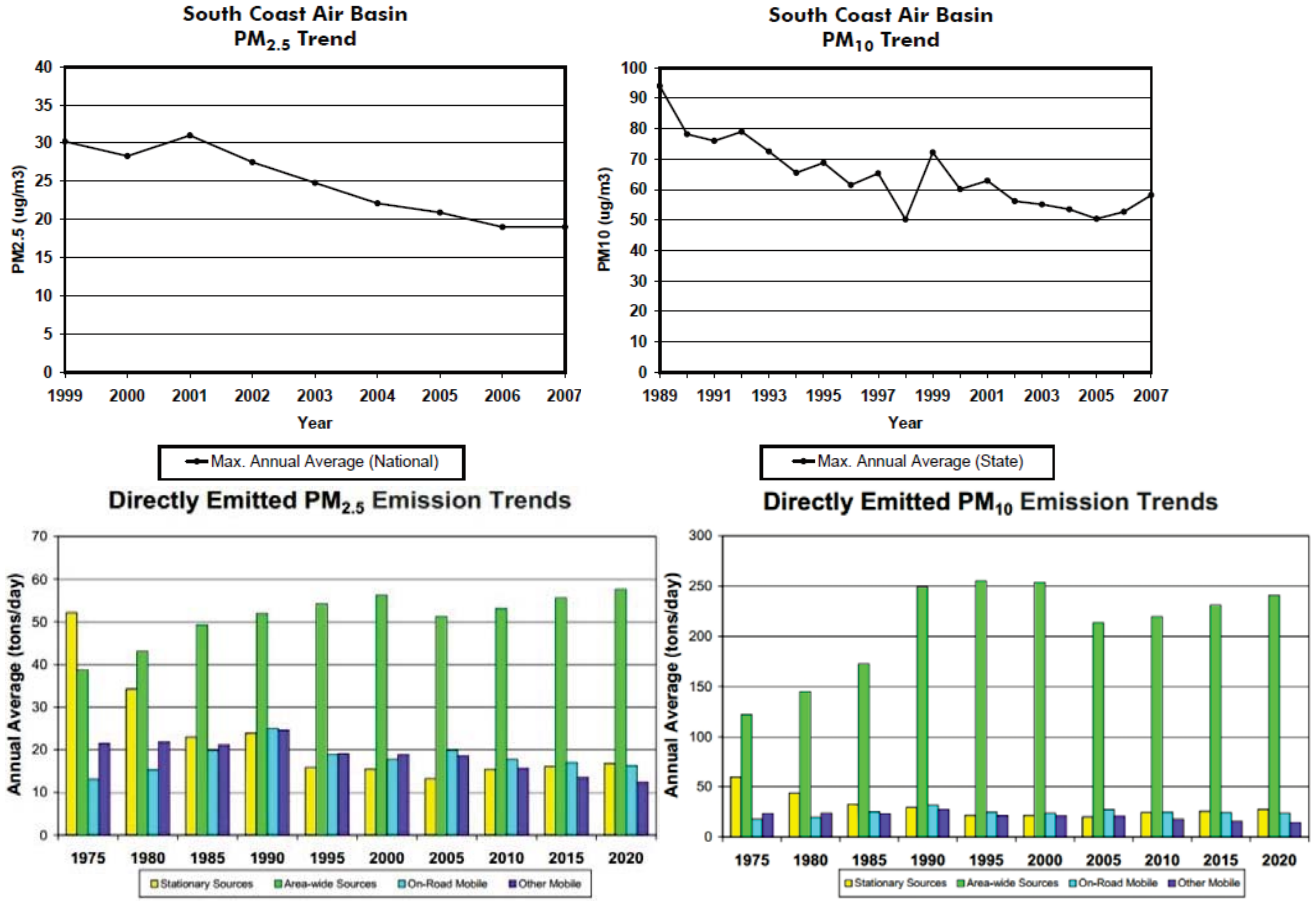
Ozone Contour Maps – 3 year Average of National 8-hour Exceedance Days



Note: ROG (reactive organic gases) and VOC (volatile organic compounds) are used interchangeably in this analysis.
Source: CARB, California Almanac of Emissions and Air Quality, 2009 Edition.

Figure 4.3.11: NOx, VOC, CO, and Ozone Trends in the South Coast Air Basin

As shown in the top portion of Figure 4.3.12, the overall trends of PM_{10} and $PM_{2.5}$ in the air (not emissions) show an overall improvement since 1975. As shown in the bottom portion of Figure 4.3.12, direct emissions of PM_{10} have remained somewhat constant in the Basin and direct emissions of $PM_{2.5}$ have decreased slightly since 1975. Area-wide sources (fugitive dust from roads, dust from construction and demolition, and other sources) contribute the greatest amount of direct particulate matter emissions.



Source: CARB, California Almanac of Emissions and Air Quality, 2009 Edition.
Figure 4.3.12: Particulate Matter Trends in the South Coast Air Basin

The reduction in air pollution levels experienced in the Basin is attributable to multiple factors. First, Federal and State regulatory strategies requiring the use of cleaner fuels and use of emissions control technology in the transportation and energy production industries have proven to greatly reduce the amount of tailpipe emission (vehicles) and point source (power plants) pollutants (e.g., NO_X and ROG). Second, the SCAQMD's rules and regulatory programs have proven to be instrumental in improving the air quality in the Basin. As an example, the SCAQMD has adopted multiple rules regarding fugitive dust (PM_{10} and $PM_{2.5}$) and construction emissions that have resulted in reduced emission levels. Third, the SCAQMD's creation of the 1993 CEQA review handbook has resulted in lead agencies throughout the air basin employing uniform CEQA analyses and methodologies. The use of uniform CEQA review has allowed the SCAQMD and lead agencies that rely on the 1993 SCAQMD Air Quality Handbook to perform CEQA analysis to better track progress and to employ uniform mitigation and design feature strategies. Fourth, the use of the SCAQMD thresholds of significance to determine a project's direct and cumulative impact has allowed the

SCAQMD to make tremendous progress toward achieving air quality attainment. The discussion above (pertaining to the air quality improvements achieved over the past 20 years) demonstrates that the SCAQMD's rules and procedures, including the uniform utilization of the thresholds of significance recommended in the SCAQMD *CEQA Air Quality Handbook* are contributing toward the achievement of improved air quality in the Basin.

It is for this reason that this EIR and the City have chosen to rely on the thresholds of significance established by the SCAQMD in its 1993 CEQA Handbook and subsequent additions to the Handbook. These thresholds of significance (which serve as both direct and cumulative thresholds) have been uniformly utilized by lead agencies throughout the Basin for the past 20 years and the improvement of air quality within the Basin throughout this time period has demonstrated the efficacy of these thresholds, along with the other regional and statewide regional programs discussed above, in improving air quality throughout the Basin.

4.3.1.5 Local Air Quality

The SCAQMD, together with the CARB, maintains ambient air quality monitoring stations in the Basin. The air quality monitoring station ~~closest~~ most representative of ~~to~~ the project site ~~is~~ are the Riverside-Magnolia and Riverside-Rubidoux stations. ~~This~~ These stations monitor~~s~~ CO, SO_2, NO_2, O_3, PM_{10}, and $PM_{2.5}$. ~~The air quality monitoring station closest to the site monitoring the rest of the criteria pollutants is the Metropolitan Riverside station~~. Some monitoring data for SO_2 has been omitted as attainment is regularly met for this pollutant within the Basin. These stations characterize the air quality representative of the ambient air quality in the project area.[1] The ambient air quality data in Table 4.3.E identify that CO and NO_2 levels are consistently below the relevant State and Federal standards in the project vicinity. O_3, PM_{10}, and $PM_{2.5}$ levels all exceed State and/or Federal standards regularly. Figure 4.3.13 identifies the locations of the monitoring stations relative to the proposed project site.

4.3.1.6 Sensitive Land Uses in the Project Vicinity

Sensitive receptors include residences, schools, medical offices, convalescent facilities, and similar uses ~~that are sensitive to air pollutants~~ where people sensitive to air pollutants may be located (i.e., the ill, elderly, pregnant women, and children). There are currently seven occupied single-family homes and associated ranch/farm buildings in various locations on the proposed project site. These residences are existing on-site sensitive receptors. The nearest off-site existing sensitive receptors in the vicinity of the proposed project site are the residences located along Bay Avenue, Merwin Street, ~~and~~ west of Redlands Boulevard, and scattered residences along Gilman Springs Road north of Alessandro Boulevard. Nearby sensitive land uses are depicted in Figure 4.3.14.

4.3.1.7 Existing Project Area Emissions

The project area is largely vacant undeveloped marginal agricultural land, with seven occupied single-family homes and associated ranch/farm buildings in various locations on the property. Much of the site is currently used for dry farming. San Diego Gas & Electric (SDG&E) operates a natural gas compressor plant, known as the Moreno Compressor Station, on 19 acres in the south-central portion of the site. The Southern California Gas Company (SCGC) also operates a metering and pipe cleaning station on two separate parcels (totaling 1.5 acres) in the south-central portion of the site south of Alessandro Boulevard along existing Virginia Street. Existing air quality conditions at the proposed project site reflect ambient[2] monitored conditions as presented in Table 4.3.E.

~~[1] Air quality data, 2009-2011; EPA, CARB, and SCAQMD websites.~~

[2] Ambient: of or related to the immediate surroundings of something; in this context it means "in the air"

Table 4.3.E: Ambient Air Quality Monitored in the Project Vicinity

Pollutant	Standard	2009	2010	2011	2012
Carbon Monoxide (CO)					
Maximum 1-hr concentration (ppm)		2.64	2.63	ND	ND
Number of days exceeded:	State: > 20 ppm	0	0	ND	0
	Federal: > 35 ppm	0	0	ND	0
Maximum 8-hr concentration (ppm)		1.85	1.84	1.35	1.59
Number of days exceeded:	State: ≥ 9.0 ppm	0	0	0	0
	Federal: ≥ 9~~.0~~ ppm	0	0	0	0
Ozone (O_3)					
Maximum 1-hr concentration (ppm)		0.116	0.128	0.128	0.126
Number of days exceeded:	State: > 0.09 ppm	25	31	52	27
Maximum 8-hr concentration (ppm)		0.101	0.099	0.115	0.102
Number of days exceeded:	State: > 0.07~~0~~ ppm	57	74	92	70
	Federal: > 0.075 ppm	36	47	67	47
Coarse Particulates (PM_{10})					
Maximum 24-hr concentration (μg/m^3)		86.8	75.0	82.7	82.6
Number of days exceeded:	State: > 50 μg/m^3	120	43	30	52
	Federal: > 150 μg/m^3	0	0	0	0
Annual arithmetic mean concentration (μg/m^3)		41.9	33.8	32.5	33.4
Exceeded for the year	State: > 20 μg/m^3	Yes	Yes	Yes	Yes
Fine Particulates ($PM_{2.5}$)					
Maximum 24-hr concentration (μg/m^3)		62.0	58.5	73.7	39.9
Number of days exceeded:	Federal: > 35 μg/m^3	15	4	5	7
Annual arithmetic mean (μg/m^3)		17.1	13.9	13.8	13.6
Exceeded for the year	State: > 12 μg/m^3	Yes	Yes	Yes	Yes
	Federal: > ~~15~~12.0 μg/m^3	Yes	~~No~~ Yes	~~No~~ Yes	Yes
Nitrogen Dioxide (NO_2)					
Maximum 1-hr concentration (ppm)		0.078	0.065	0.063	0.062
Number of days exceeded:	State: > 0.18 ppm	0	0	0	0
Annual arithmetic mean concentration (ppm)		0.017	0.017	0.017	0.016
Exceeded for the year	State: > 0.030 ppm Federal: > 0.053 ppm	No No	No No	ID	ID
Sulfur Dioxide (SO_2)					
Maximum 24-hr concentration (ppm)		0.003	0.005	0.001	ID
Number of days exceeded:	State: > 0.04 ppm	0	0	ND	ND
Annual arithmetic average concentration (ppm)		0.001	0.001	<0.001	ID
Exceeded for the year:	Federal: > 0.030 ppm	No	No	ND	ND

μg/m^3 = micrograms per cubic meter
ID = Insufficient data
ppm = parts per million
EPA = United States Environmental Protection Agency
ND = No data
Source: ~~MBA~~ *Air Quality, Greenhouse Gas, and Health Risk Assessment*, 2015

Figure 4.3.13: Air Quality Monitoring Stations

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Figure 4.3.14: ~~Sensitive Receptors in the Project Vicinity~~ Existing Sensitive Receptors

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4.3.2 Policies and Regulations

4.3.2.1 Federal Regulations

Clean Air Act. Pursuant to the Federal Clean Air Act (CAA) of 1970, the EPA established national ambient air quality standards (NAAQS). The NAAQS were established for six major pollutants, termed "criteria" pollutants. Criteria pollutants are defined as those pollutants for which the Federal and State governments have established ambient air quality standards, or criteria, for outdoor concentrations in order to protect public health.

The EPA established national air quality standards for ground-level O_3 and $PM_{2.5}$ in 1997. On May 14, 1999, the Court of Appeals for the District of Columbia Circuit issued a decision ruling that the CAA, as applied in setting the new public health standards for O_3 and particulate matter, was unconstitutional as an improper delegation of legislative authority to the EPA. On February 27, 2001, the U.S. Supreme Court upheld the way that the government sets air quality standards under the CAA. The Court unanimously rejected industry arguments that the EPA must consider financial cost as well as health benefits in writing standards. The Justices also rejected arguments that the EPA took too much lawmaking power from Congress when it set tougher standards for O_3 and soot in 1997. Nevertheless, the Court threw out the EPA's policy for implementing new O_3 rules, stating that the EPA ignored a section of the law that restricts its authority to enforce such rules.

In April 2003, the EPA was cleared by the White House Office of Management and Budget (OMB) to implement the eight-hour ground-level O_3 standard. The EPA issued the proposed rule implementing the eight-hour O_3 standard in April 2003. The EPA completed final eight-hour nonattainment status on April 15, 2004. The EPA issued the final $PM_{2.5}$ implementation rule in fall 2004. The EPA issued final designations on December 14, 2004.

Effective January 22, 2010, the EPA strengthened the standard for NO_2 by setting a new 1-hour standard at the level of 100 parts per billion (ppb). This standard defines the maximum allowable concentration anywhere in an area and will protect against adverse health effects associated with short-term exposure to NO_2. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 100 ppb. On January 25, 2010, the EPA issued the final rule setting the one-hour maximum standard for NO_2 at 100 parts per billion (ppb). The agency retained the annual standard of 53 ppb.

Additionally, effective June 2, 2010, the EPA revised the primary standard for SO_2 by establishing a new 1-hour standard at a level of 75 ppb. The EPA revoked the two existing primary standards of 140 ppb evaluated over 24 hours and 30 ppb evaluated over an entire year as they would not provide additional public health protection given a 1-hour standard at 75 ppb. To attain this standard, the 3-year average of the 99th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 75 ppb.

4.3.2.2 State Regulations

Mulford-Carrell Act. The State began to set California Ambient Air Quality Standards (CAAQS) in 1969 under the mandate of the Mulford-Carrell Act. The CAAQS are generally more stringent than the NAAQS. In addition to the six criteria pollutants covered by the NAAQS, there are CAAQS for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles.

Originally, there were no attainment deadlines for CAAQS; however, the CCAA of 1988 provided a time frame and a planning structure to promote their attainment. The CCAA required nonattainment areas in the State to prepare attainment plans and proposed to classify each such area on the basis of the submitted plan, as follows: moderate, if CAAQS attainment could not occur before December

31, 1994; serious, if CAAQS attainment could not occur before December 31, 1997; and severe, if CAAQS attainment could not be conclusively demonstrated at all. The attainment plans are required to achieve a minimum 5 percent annual reduction in the emissions of nonattainment pollutants unless all feasible measures have been implemented. The EPA has designated the Southern California Association of Governments (SCAG) as the Metropolitan Planning Organization (MPO) responsible for ensuring compliance with the requirements of the CAA for the Basin.

California Clean Air Act (CCAA). The CCAA was passed into law in 1988. The CCAA provides the basis for air quality planning and regulation independent of federal regulations. A major element of the CCAA is the requirement that local air districts in violation of the CAAQS must prepare attainment plans that identify air quality problems, causes, trends and actions to be taken to attain and maintain California's air quality standards by the earliest practicable date. The CCAA provides air districts with the authority to manage transportation activities at indirect sources that individually are minor but collectively emit a substantial amount of pollution such as motor vehicles at intersections, malls, and on highways. The SCAQMD also regulates stationary sources of pollution throughout its jurisdictional area. Direct emissions from motor vehicles are regulated by the CARB.

CARB Airborne Toxic Control Measure/Asbestos. Asbestos is listed as a toxic air contaminant by CARB and as a Hazardous Air Pollutant by the EPA. Asbestos occurs naturally in surface deposits of several types of rock formations. Asbestos most commonly occurs in ultramafic rock that has undergone partial or complete alteration to serpentine rock (serpentinite) and often contains chrysotile asbestos. In addition, another form of asbestos, tremolite, can be found associated with ultramafic rock, particularly near faults. Crushing or breaking these rocks, through construction or other means, can release asbestoform fibers into the air. Asbestos emissions can result from the sale or use of asbestos-containing materials, road surfacing with such materials, grading activities, and surface mining. The risk of disease is dependent upon the intensity and duration of exposure. When inhaled, asbestos fibers may remain in the lungs and with time may be linked to such diseases as asbestosis, lung cancer, and mesothelioma. In July 2001, the CARB approved an Air Toxic Control Measure for construction, grading, quarrying and surface mining operations to minimize emissions of naturally occurring asbestos. The regulation requires application of best management practices (BMPs) to control fugitive dust in areas known to have naturally occurring asbestos and requires notification to the local air district prior to commencement of ground-disturbing activities. The measure establishes specific testing, notification and engineering controls prior to grading, quarrying or surface mining in construction zones where naturally occurring asbestos is located on projects of any size. There are additional notification and engineering controls at work sites larger than one acre in size. These projects require the submittal of a "Dust Mitigation Plan" and approval by the air district prior to the start of a project. There is no asbestos in the project area (U.S. Geological Survey 2011).

4.3.2.3 Regional Regulations

Lewis Air Quality Management Act. The 1976 Lewis Air Quality Management Act established the SCAQMD and other air districts throughout the State. The Federal CAA Amendments of 1977 required that each state adopt an implementation plan outlining pollution control measures to attain the Federal standards in nonattainment areas of the State.

The CARB is responsible for incorporating air quality management plans for local air basins into an SIP for EPA approval. Significant authority for air quality control within them has been given to local air districts that regulate stationary source emissions and develop local nonattainment plans.

Carl Moyer Memorial Air Quality Standards Attainment Program. Since 1998, the Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program) has provided funding to encourage the voluntary purchase of cleaner engines, equipment, and emission reduction

technologies. The Carl Moyer Program plays a complementary role to California's regulatory program by funding emission reductions that are surplus, i.e., early and/or in excess of what is required by regulation. The Carl Moyer Program accelerates the turnover of old highly-polluting engines, speeds the commercialization of advanced emission controls, and reduces air pollution impacts on environmental justice communities. Emission reductions achieved through the Carl Moyer Program are an important component of the California State Implementation Plan.

Regional Air Quality Management Plan (AQMP). The SCAQMD and the SCAG are responsible for formulating and implementing the AQMP, which has a 20-year horizon for the Basin. An AQMP is a plan prepared and implemented by an air pollution district for a county or region designated as nonattainment of the Federal and/or California ambient air quality standards. The SCAQMD and SCAG must update the AQMP every three years. The current regional air quality plan is the Final 2012 Air Quality Management Plan (AQMP) adopted by the SCAQMD on December 7, 2012.

2003 AQMP. One of the purposes of the 2003 AQMP is to lead the Basin and portions of the Salton Sea Air Basin under SCAQMD jurisdiction into compliance with the 1-hour ozone and PM_{10} Federal standards (SCAQMD 2003).

The 2003 AQMP also replaced the 1997 attainment demonstration for the Federal CO standard, provided a basis for a maintenance plan for CO for the future, and updated the maintenance plan for the Federal nitrogen dioxide standard that the Basin has met since 1992 (2003 AQMP, page 1-1).

The 2003 AQMP also incorporated new scientific data in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. The 2003 AQMP utilized complex modeling to show that with the control measures, the Basin would be in compliance with the Federal and State standards for all pollutants by 2010, except for the State ozone and PM_{10} standards and the State ozone and PM_{10} standards after 2010 or by the earliest practicable date, as mandated by the California Health and Safety Code Section 40462. The CARB approved the 2003 AQMP on August 1, 2003. The EPA's adequacy finding on the emissions budgets for conformity determination in the Basin was published in the Federal Register (69 FR 15325-15326).

2007 AQMP. One of the purposes of the 2007 AQMP is to lead the Basin into compliance with the Federal 8-hour ozone and $PM_{2.5}$ standards. The 2007 AQMP was adopted by the SCAQMD on June 1, 2007 (SCAQMD 2007b). On July 13, 2007, the SCAQMD Board adopted the 2007 Final AQMP Transportation Conformity Budgets and directed the Executive Officer to forward them to the CARB for approval and subsequent submittal to the EPA. On September 27, 2007, the CARB adopted the State Strategy for the 2007 State Implementation Plan and the 2007 AQMP as part of the State Implementation Plan. On January 15, 2009, the EPA's regional administrator signed a final rule to approve in part and disapprove in part the SCAQMD 2003 1-hour ozone plan and the nitrogen dioxide maintenance plan. The parts of the plan that were approved strengthen the State Implementation Plan. The Clean Air Act does not require the disapproved portions of the plan, and the disapprovals do not start sanctions clocks.

The 2007 AQMP outlines a detailed strategy for meeting the Federal health-based standards for $PM_{2.5}$ by 2015 and 8-hour ozone by 2024 while accounting for and accommodating future expected growth. The 2007 AQMP incorporates significant new emissions inventories, ambient measurements, scientific data, control strategies, and air quality modeling. Most of the reductions will be from mobile sources, which are currently responsible for about 75 percent of all smog and particulate-forming emissions. The 2007 AQMP includes 37 control measures proposed for adoption by the SCAQMD, including measures to reduce emissions from new commercial and residential developments, more reductions from industrial facilities, and reductions from wood-burning fireplaces and restaurant char broilers.

2012 AQMP. The 2012 AQMP was adopted December 7, 2012 (SCAQMD 2012b). The purpose of the 2012 AQMP for the Basin is to set forth a program that will lead the Basin into compliance with the Federal 24-hour $PM_{2.5}$ air quality standard, and to provide an update of the Basin's projections in meeting the Federal 8-hour ozone standards. The AQMP was adopted by the SCAQMD Board; therefore, it was submitted to the EPA as the State Implementation Plan (SIP)~~ once it is approved by the SCAQMD Governing Board and the CARB~~. Specifically, the AQMP will serve as the official SIP submittal for the Federal 2006 24-hour $PM_{2.5}$ standard ~~for which the EPA has established a due date of December 14, 2012~~. In addition, the AQMP will update specific elements of the previously approved 8-hour ozone SIP: 1) an updated emissions inventory, and 2) new control measures and commitments for emissions reductions to help fulfill the Section 182(e)(5) portion of the 8-hour ozone SIP.

The 2012 AQMP states, "The remarkable historical improvement in air quality since the 1970's is the direct result of Southern California's comprehensive, multiyear strategy of reducing air pollution from all sources as outlined in its AQMPs."

The 2012 AQMP proposes Basin-wide $PM_{2.5}$ measures that will be implemented by the 2014 attainment date, episodic control measures to achieve air quality improvements (would only apply during high $PM_{2.5}$ days), Section 182(e)(5) implementation measures (to maintain progress toward meeting the 2023 8-hour ozone national standard), and transportation control measures. Most of the control measures focus on incentives, outreach, and education.

Proposed $PM_{2.5}$ reduction measures in the 2012 AQMP include the following:

- Further NO_X reductions from the SCAQMD's Regional Clean Air Incentives Market (RECLAIM) program. The RECLAIM program was adopted by the SCAQMD in October 1993 and set an emissions cap and declining balance for many of the largest facilities emitting NOx and SOx in the South Coast Air Basin. RECLAIM includes over 350 participants in its NOx market and about 40 participants in its SOx market. RECLAIM has the longest history and practical experience of any locally designed and implemented air emissions cap and trade program. RECLAIM allows participating facilities to trade air pollution while meeting clean air goals.
- Further reductions from residential wood-burning devices.
- Further reductions from open burning.
- Emission reductions from under-fired char broilers.
- Further ammonia reductions from livestock waste.
- Backstop measures for indirect sources of emissions from ports and port-related sources.
- Further criteria pollutant reductions from education, outreach, and incentives.

There are multiple VOC and NO_X reductions in the 2012 AQMP to attempt to reduce ozone formation, including further VOC reductions from architectural coatings, miscellaneous coatings, adhesives, solvents, lubricants, and mold release products.

The 2012 AQMP also contains proposed mobile source implementation measures for the deployment of zero and near-zero emission on-road heavy-duty vehicles, locomotives, and cargo handling equipment. There are measures for the deployment of cleaner commercial harbor craft, cleaner ocean-going marine vessels, cleaner off-road equipment, and cleaner aircraft engines.

The 2012 AQMP proposes the following mobile source implementation measures:

- On-road mobile sources:
  - Accelerated penetration of partial zero-emission and zero-emission vehicles. This measure proposes to continue incentives for the purchase of zero-emission vehicles and hybrid vehicles with a portion of their operation in an all-electric range mode. The state Clean Vehicle Rebate Pilot program is proposed to continue from 2015 to 2023 with a proposed funding for up to $5,000 per vehicle. The measure seeks to provide funding assistance for up to 1,000 zero-emission or partial-zero emission vehicles per year.
  - Accelerated penetration of partial zero-emission and zero-emission light-heavy and medium-heavy duty vehicles through funding assistance for purchasing the vehicles. The objective of the proposed action is to accelerate the introduction of advanced hybrid and zero-emission technologies for Class 4 through 6 heavy-duty vehicles. The state is currently implementing a Hybrid Vehicle Incentives Project program to promote zero-emission and hybrid heavy-duty vehicles. The proposed measure seeks to continue the program from 2015 to 2023 to deploy up to 1,000 zero- and partial-zero emission vehicles per year with up to $25,000 funding assistance per vehicle. Zero-emission vehicles and hybrid vehicles with a portion of their operation in an all-electric range mode would be given the highest priority.
  - Accelerated retirement of older light-, medium-, and heavy-duty vehicles through funding incentives.
  - Further emission reductions from heavy-duty vehicles serving near-dock rail yards This proposed control measure calls for a requirement that any cargo container moved between the ports of Los Angeles and Long Beach to the nearby rail yards be with zero-emission technologies. The measure would be fully implemented by 2020 through the deployment of zero-emission trucks or any alternative zero-emission container movement system such as a fixed guideway system. The measure calls for the CARB to either adopt a new regulation or amend an existing regulation to require such deployment by 2020.
- Off-road mobile sources:
  - Extension of the Surplus Off-Road Opt-In for NOx (SOON) provision for construction/industrial equipment, which provides funding to repower or replace older Tier 0 and Tier 1 equipment.
  - Further emission reductions from freight and passenger locomotives calls for an accelerated use of Tier 4 locomotives in the Basin.
  - Further emission reductions from ocean-going marine vessels while at berth.
  - Emission reductions from ocean-going marine vessels.

The 2012 AQMP also relies upon the SCAG regional transportation strategy, which is in its adopted 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and 2011 Federal Transportation Improvement Program, which contains the following sections:

1. Linking regional transportation planning to air quality planning and making sure that the regional transportation plan supports the goals and objectives of the AQMP/SIP.
2. Regional transportation strategy and transportation control measures: The RTP/SCS contains improvements to the regional multimodal transportation system including the following: active transportation (non-motorized transportation, e.g., biking and walking); transportation demand management; transportation system management; transit; passenger and high-speed rail; goods movement; aviation and airport ground access; highways; arterials; and operations and maintenance.
3. Reasonably available control measure analysis.

Diesel Regulations. The Ports of Long Beach and Los Angeles and the CARB have adopted regulations aimed at reducing the amount of diesel particulate. These programs are the Ports of Los Angeles and Long Beach "Clean Truck Program,[1] the CARB Drayage Truck Regulation,[2] and the CARB statewide On-road Truck and Bus Regulation.[3] Each of these regulatory programs will require an accelerated introduction of "clean trucks" into the statewide truck fleet that will result in substantially lower diesel emissions during the 2008 to 2020 timeframe.

- *Airborne Toxic Control Measure for Diesel Particulate Matter from Portable Engines Rated at 50 horsepower and Greater.* Effective February 19, 2011, each fleet shall comply with weighted reduced particulate matter emission fleet averages by compliance dates listed in the regulation.
- *CARB Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling* adopts new Section 2485 within Chapter 10, Article 1, Division 3, Title 13 in the California Code of Regulations. The measure limits the idling of diesel vehicles (i.e., commercial trucks over 10,000 pounds) to reduce emissions of toxics and criteria pollutants. The driver of any vehicle subject to this section: (1) shall not idle the vehicle's primary diesel engine for greater than five minutes at any location; and (2) shall not idle a diesel-fueled auxiliary power system for more than five minutes to power a heater, air conditioner, or any ancillary equipment on the vehicle if it has a sleeper berth and the truck is located within 100 feet of a restricted area (homes and schools).
- *CARB Final Regulation Order, Requirements to Reduce Idling Emissions from New and In-Use Trucks,* requires that new 2008 and subsequent model-year heavy-duty diesel engines be equipped with an engine shutdown system that automatically shuts down the engine after 300 seconds of continuous idling operation once the vehicle is stopped, the transmission is set to 'neutral' or 'park,' and the parking brake is engaged. If the parking brake is not engaged, then the engine shutdown system shall shut down the engine after 900 seconds of continuous idling operation once the vehicle is stopped and the transmission is set to neutral or park." There are a few conditions where the engine shutdown system can be overridden to prevent engine damage. Any project trucks manufactured after 2008 would be consistent with this rule, which would ultimately reduce air emissions.
- *CARB Regulation for In-Use Off-Road Diesel Vehicles.* On July 26, 2007, the CARB adopted a regulation to reduce diesel particulate matter and NO_X emissions from in-use (existing) off-road heavy-duty diesel vehicles in California. All self-propelled off-road diesel vehicles over 25 horsepower (hp) used in California and most two-engine vehicles (except on-road two-engine sweepers) are subject to this regulation. This includes vehicles that are rented or leased (rental or leased fleets). Such vehicles are used in construction, mining, and industrial operations. The regulation:
    - imposes limits on idling to no more than five consecutive minutes,
    - restricts adding of older equipment (such as Tier 0 and Tier 1) into fleets,
    - requires reporting and labeling, and
    - requires disclosure of the regulation upon vehicle sale.

  The CARB is enforcing that with fines up to $10,000 per day for each vehicle in violation. Performance requirements of the rule are based on a fleet's average NO_X emissions, which can be met by replacing older vehicles with newer, cleaner vehicles or by applying exhaust retrofits. The regulation was amended in 2010 to delay the original timeline of the performance requirements making the first compliance deadline January 1, 2014 for large fleets (over 5,000

[1] http://www.portoflosangeles.org/ctp/idx_ctp.asp.
[2] http://www.arb.ca.gov/msprog/onroad/porttruck/porttruck.htm.
[3] http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm.

horsepower), 2017 for medium fleets (2,501-5,000 horsepower), and 2019 for small fleets (2,500 horsepower or less).

Toxic Air Contaminants. A toxic air contaminant (TAC) is defined as an air pollutant that may cause or contribute to an increase in mortality (death) or serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. Hazardous Air Pollutants (HAPs) and TACs are used interchangeably in this discussion. HAPs are regulated by the EPA under the Federal Clean Air Act. TAC is the term used under the California Clean Air Act to regulate the same hazardous pollutants. These contaminants tend to be localized and are found in relatively low concentrations in ambient air. However, they can result in adverse chronic health effects if exposure to low concentrations occurs for periods of several years. Many of these contaminants originate from human activities, such as fuel combustion and solvent use.

In general, for those TACs that may cause cancer, there is no concentration that does not present some risk. In other words, there is no threshold level below which adverse health impacts are not expected to occur. This contrasts with the criteria pollutants carbon dioxide, nitrogen dioxide, particulate matter, and ozone for which acceptable levels of exposure can be determined and for which the State and federal governments have set ambient air quality standards. For this reason, thresholds for TAC impacts for regulatory purposes and for CEQA thresholds have been set based on the increase in risk of cancer of a specific amount at sensitive receptors located near the source of TAC emissions.

The California Almanac of Emissions and Air Quality presents the relevant concentration and cancer risk data for the ten TACs that pose the most substantial health risk in California based on available data. These TACs are as follows: acetaldehyde, benzene, 1.3-butadiene, carbon tetrachloride, hexavalent chromium, paradichlorobenzene, formaldehyde, methylene chloride, perchloroethylene, and diesel particulate matter (diesel PM).

TAC measurements, available at the SCAQMD Riverside Rubidoux monitoring station (14 miles north~~east~~west of the project site) can be used to characterize the “background” health risks from regional TAC emission sources. Table 4.3.F provides this summary of TAC levels in the project area and health risk information. This table lists the air concentration levels and associated health cancer risks for eight of the nine TACs reported by the CARB in its Almanac as measured at the Riverside-Rubidoux air monitoring station. Note that since diesel PM cannot be measured directly, the table does not provide estimates of either measured diesel PM or the cancer risk associated with diesel PM.

~~Some~~ Past studies have indicated that diesel PM poses the greatest health risk among the TACs listed in Table 4.3.F. The principal concern regarding exposures to diesel PM lies in its small size and thus its ability to penetrate deep into lung tissues when inhaled. Diesel exhaust has been found to cause health effects from short-term or acute exposures and from long-term chronic exposures, such as repeated occupational exposures. The type and severity of health effects depends upon several factors including the amount of chemical you are exposed to and the length of time you are exposed. Individuals also react differently to different levels of exposure. There is limited information on exposure to just diesel PM but there is enough evidence to indicate that inhalation exposure to diesel exhaust causes acute and chronic health effects.

Long-term (chronic) exposure to diesel exhaust is likely to occur when a person works in a field where diesel is used regularly or experiences repeated exposure to diesel fumes over a long period of time. Human health studies demonstrate a correlation between exposure to diesel exhaust and increased lung cancer rates in occupational settings. Experimental animal inhalation studies of chronic exposure to diesel exhaust have shown that a range of doses causes varying levels of inflammation and

cellular changes in the lungs. Human and laboratory studies have also provided considerable evidence that diesel exhaust is a likely carcinogen.

Several occupational and ambient studies have documented the health effects due to exposure to diesel PM. The California Office of Environmental Health Hazards Assessment (OEHHA), in its role in assessing risk from environmental factors reviews such studies and makes recommendations on the way environmental risk should be evaluated through programs like the AB2588 Hot Spot Program. In its comprehensive assessment of diesel exhaust, OEHHA analyzed more than 30 studies of people who worked around diesel equipment, including truck drivers, 1950's era railroad workers, and equipment operators. The studies showed these workers were more likely to develop lung cancer than workers who were not exposed to diesel emissions. These studies provide strong evidence that long-term occupational exposure to diesel exhaust increases the risk of lung cancer. However, all of these studies were based on exposure to exhaust from traditional diesel engines and prior to the advent of highly efficient emissions controls like the diesel particulate filter. Based on these studies, CARB identified diesel exhaust a toxic air contaminant in 1998.

In 2008, the SCAQMD released the third iteration of the Multiple Air Toxics Exposure Study (MATES-III). The MATES-III report includes monitoring of various air toxic compounds in the Basin, establishes and updates existing baseline toxic air contaminants, and simulates cancer risk in the Basin. The study focuses on the carcinogenic risk from exposure to air toxics. It does not estimate mortality or other health effects from particulate exposures. The SCAQMD MATES-III report indicates that overall in the Basin, diesel PM contributes 83.6 percent of the risk.

In 2014, the SCAQMD released the fourth iteration of the Multiple Air Toxics Exposure Study (MATES-IV). The MATES-IV is a follow up to the previous MATES studies and included an updated toxics air emission inventory, new air toxics air dispersion modeling, and enhanced air toxics monitoring. A key conclusion reached in the MATES-IV study was that the population weighted cancer risk in the Basin decreased by 57 percent from the MATES-III period in 2005 to the MATES-IV period in 2012 indicating that overall, cancer risks are declining in the Basin as a result of the implementation of emission controls principally on large diesel trucks. The MATES-IV study also concluded that diesel PM contributed 68 percent to the total cancer risk in the Basin with benzene and 1.3 Butadiene also making important contributions to cancer risk. Figure 4.2.15 summarizes the basin-wide cancer risks as derived from the MATES-IV study.

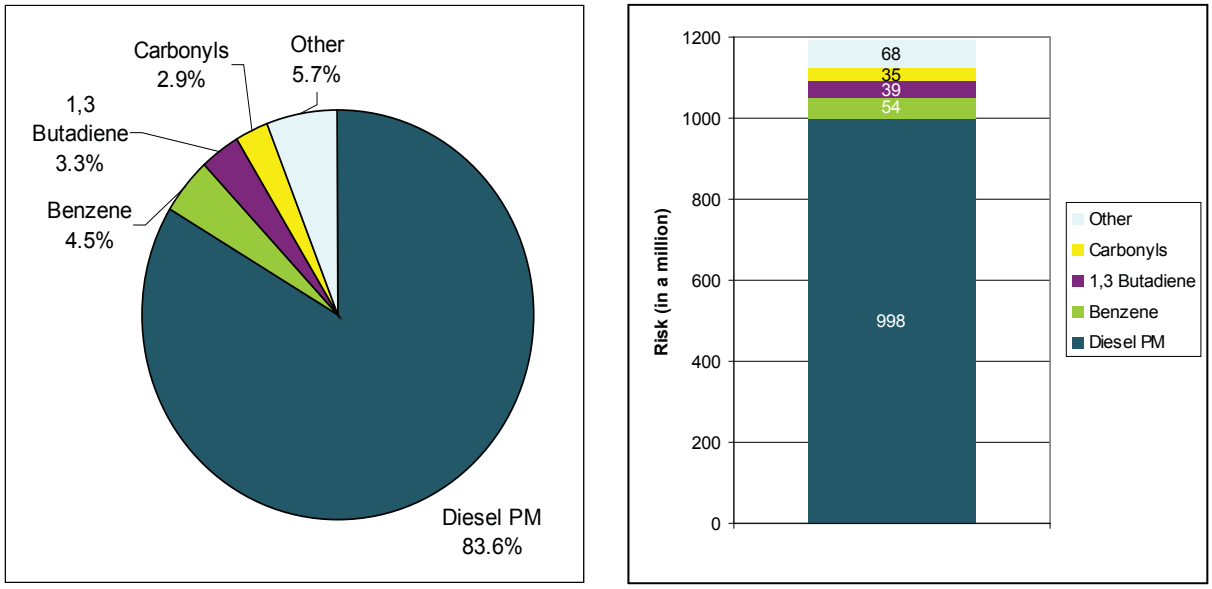

Figure 4.3.15: Summary of MATES IV Cancer Risks

Table 4.3.F: Toxic Air Contaminant Concentration Levels and Associated Health Effects (Riverside, California) (new table)

TAC	Concentration[A] / Health Risk[B]	2007	2008	2009	Health Effects
Acetaldehyde	Mean	1.08	0.99	1.22	Acetaldehyde is a carcinogen that also causes chronic non-cancer toxicity in the respiratory system. Symptoms of chronic intoxication of acetaldehyde in humans resemble those of alcoholism. The primary acute effect of inhalation exposure to acetaldehyde is irritation of the eyes, skin, and respiratory tract in humans. At higher exposure levels, erythema, coughing, pulmonary edema, and necrosis may also occur. Acute inhalation of acetaldehyde resulted in a depressed respiratory rate and elevated blood pressure in experimental animals.
	Health Risk	5	5	5	
Benzene	Mean	0.40	0.33	ID	Benzene is highly carcinogenic and occurs throughout California. Benzene also has non-cancer health effects. Brief inhalation exposure to high concentrations can cause central nervous system depression. Acute effects include central nervous system symptoms of nausea, tremors, drowsiness, dizziness, headache, intoxication, and unconsciousness. Neurological symptoms of inhalation exposure to benzene include drowsiness, dizziness, headaches, and unconsciousness in humans. Ingestion of large amounts of benzene may result in vomiting, dizziness, and convulsions in humans. Exposure to liquid and vapor may irritate the skin, eyes, and upper respiratory tract in humans. Redness and blisters may result from dermal exposure to benzene. Chronic inhalation of certain levels of benzene causes disorders in the blood in humans. Benzene specifically affects bone marrow (the tissues that produce blood cells). Aplastic anemia, excessive bleeding, and damage to the immune system (by changes in blood levels of antibodies and loss of white blood cells) may develop. Increased incidence of leukemia (cancer of the tissues that form white blood cells) has been observed in humans occupationally exposed to benzene.
	Health Risk	37	30	ID	
Chromium Hex	Mean	0.35	ID	ID	In California, hexavalent chromium has been identified as a carcinogen. There is epidemiological evidence that exposure to inhaled hexavalent chromium may result in lung cancer. The principal acute effects are renal toxicity, gastrointestinal hemorrhage, and intravascular hemolysis. The respiratory tract is the major target organ for chromium (VI) following inhalation exposure in humans. Other effects noted from acute inhalation exposure to very high concentrations of chromium (VI) include gastrointestinal and neurological effects, while dermal exposure causes skin burns in humans. Chronic inhalation exposure to chromium (VI) in humans results in effects on the respiratory tract, with perforations and ulcerations of the septum, bronchitis, decreased pulmonary function, pneumonia, asthma, and nasal itching and soreness reported. Chronic human exposure to high levels of chromium (VI) by inhalation or oral exposure may produce effects on the liver, kidneys, gastrointestinal and
	Health Risk	52	ID	ID	

Table 4.3.F: Toxic Air Contaminant Concentration Levels and Associated Health Effects (Riverside, California) (new table)

TAC	Concentration[A] / Health Risk[B]	2007	2008	2009	Health Effects
					immune systems, and possibly the blood.
Para-Dichlorobenzene	Mean	ID	ID	ID	In California, para-dichlorobenzene has been identified as a carcinogen. Acute exposure to 1,4-dichlorobenzene via inhalation results in irritation to the eyes, skin, and throat in humans. In addition, long-term inhalation exposure may affect the liver, skin, and central nervous system in humans (e.g., cerebellar ataxia, dysarthria, weakness in limbs, and hyporeflexia).
	Health Risk	ID	ID	ID	
Formaldehyde	Mean	2.88	2.88	3.12	The major toxic effects caused by acute formaldehyde exposure via inhalation are eye, nose, and throat irritation and effects on the nasal cavity. Other effects seen from exposure to high levels of formaldehyde in humans are coughing, wheezing, chest pains, and bronchitis. Chronic exposure to formaldehyde by inhalation in humans has been associated with respiratory symptoms and eye, nose, and throat irritation. Animal studies have reported effects on the nasal respiratory epithelium and lesions in the respiratory system from chronic inhalation exposure to formaldehyde. Occupational studies have noted statistically significant associations between exposure to formaldehyde and increased incidence of lung and nasopharyngeal cancer. This evidence is considered “limited” rather than “sufficient” due to possible exposure to other agents that may have contributed to the excess cancers. EPA considers formaldehyde to be a probable human carcinogen (cancer-causing agent) and has ranked it in EPA’s Group B1. In California, formaldehyde has been identified as a carcinogen.
	Health Risk	21	21	23	
Methylene Chloride	Mean	0.19	0.2	ID	Case studies of methylene chloride poisoning during paint-stripping operations have demonstrated that inhalation exposure to extremely high levels can be fatal to humans. Acute inhalation exposure to high levels of methylene chloride in humans has resulted in effects on the central nervous system, including decreased visual, auditory, and psychomotor functions, but these effects are reversible once exposure ceases. Methylene chloride also irritates the nose and throat at high concentrations. The major effects from chronic inhalation exposure to methylene chloride in humans are effects on the central nervous system, such as headaches, dizziness, nausea, and memory loss. In addition, chronic exposure can lead to bone marrow, hepatic, and renal toxicity. EPA considers methylene chloride to be a probable human carcinogen and has ranked it in EPA’s Group B2. California considers methylene chloride to be carcinogenic.
	Health Risk	0.7	0.7	ID	
Perchloroethylene	Mean	0.035	0.024	ID	In California, perchloroethylene has been identified as a carcinogen. Perchloroethylene vapors are irritating to the eyes and respiratory tract. Following chronic exposure, workers have shown signs of liver toxicity, as well as kidney dysfunction and neurological disorders.
	Health Risk	1	1	ID	
Diesel PM	Mean	No Monitoring Data Available			In its comprehensive assessment of diesel exhaust, OEHHA analyzed more than 30 studies of people who worked around diesel equipment, including truck drivers, railroad
	Health Risk				

Table 4.3.F: Toxic Air Contaminant Concentration Levels and Associated Health Effects (Riverside, California) (new table)

TAC	Concentration[A] / Health Risk[B]	2007	2008	2009	Health Effects
					workers, and equipment operators. The studies showed these workers were more likely to develop lung cancer than workers who were not exposed to diesel emissions. These studies provided strong evidence that long-term occupational exposure to diesel exhaust increases the risk of lung cancer. Exposure to diesel exhaust can have immediate health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. In studies with human volunteers, diesel exhaust particles made people with allergies more susceptible to the materials to which they are allergic, such as dust and pollen. Exposure to diesel exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks. This research was based on studies prio to the advent of modern diesel engines with high efficiency emissions controls. Note: ~~There have been some studies that suggest the risk from diesel PM is exaggerated, as discussed elsewhere in this EIR.~~ Since then the Health Effects Institute study clearly demonstrates that the application of new emissions control technology to diesel engines have virtually eliminated the health impacts of diesel exhaust.

ID = Insufficient data
A = Concentrations for Hexavalent Chromium are expressed as µg/m^3, and concentrations for Diesel PM are expressed as µg/m^3. Concentrations for all other TACs are expressed as ppb.
B = Health Risk represents the number of excess cancer cases per million people based on a lifetime (70-year) exposure to the annual average concentration. Total Health Risk represents only those compounds listed in this table and only those with data for the year. There may be other significant compounds for which monitoring and/or health risk information are not available
Source: CARB 2011 for the SCAQMD Riverside-Rubidoux air monitoring station.

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The risk basin-wide population weighted cancer risk is ~~1,194~~ 367 per million based on average at fixed monitoring sites estimated during the MATES-IV study. This level of risk means that on average an estimated 367 individuals in the basin could contract cancer out of a population of one million individuals exposed to all sources of toxic air contaminants over a lifetime of 70 years. A comprehensive air dispersion model and a detailed air toxics emission inventory were then used to estimate cancer risks at other locations where no monitoring sites were deployed. A 10-year research program (CARB 1998) demonstrated that diesel PM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to diesel PM poses a chronic health risk.

In addition to increasing the risk of lung cancer, exposure to diesel exhaust can have other health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. Diesel exhaust ~~is a~~ has been major source of fine particulate pollution as well, and studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems.

Diesel PM differs from other TACs in that it is not a single substance but a complex mixture of hundreds of substances. Although diesel PM is emitted by diesel-fueled, internal combustion engines, the composition of the emissions varies, depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present. Unlike the other TACs, however, no ambient monitoring data are available for diesel PM because no routine measurement method currently exists. The CARB has made preliminary concentration estimates based on a diesel PM exposure method. This method uses the CARB emissions inventory's PM_{10} database, ambient PM_{10} monitoring data, and the results from several studies to estimate concentrations of diesel PM. Within the Basin, in addition to diesel PM, there are emissions of benzene, formaldehyde, acetaldehyde, naphthalene, ethylbenzene, acrolein, toluene, hexane, propylene, and xylene from a variety of sources located within the Basin that contribute to health risks.

The average cancer risk in the project area is estimated to be 213 in a million based on the MATES-IV and ranges from 198 in a million at the southeast corner of the project to 239 in a million in the northern portion of the project as shown in Figure 4.3.16.

As shown in Figure 4.3.17, nearly all areas of the Basin experienced decreases in cancer risk during the time period from MATES–III time period of 2005 to the MATES-IV time period of 2012. The project area also experienced a decrease in cancer risk of between 100 and 400 in one million from the years 2005 to 2012.

~~As shown in Figure 4.3.16, the project area experienced an increase of between 51 and 250 in one million from 1998–99 to 2005.~~

Figure 4.3.~~16~~17 depicts the cancer risk estimates as a "snapshot in time." That is, the cancer risks are derived from air dispersion models and are based on the emissions of various TACs during the years ~~1998 and~~ 2005 and 2012. The basic tenet used to estimate cancer risk assumes that the public will be exposed to these TAC emissions during an entire 70-year lifetime of continuous exposure. However, the SCAQMD, CARB, and the EPA have adopted numerous regulations that have resulted in significant reductions in pollutant emissions with the attendant reductions in prevailing air quality levels since ~~1998 and 2005~~ 2012 as noted ~~above~~ earlier. The benefits of substantial additional emission reductions derived from the adoption and application of SCAQMD, CARB, and EPA regulations are not reflected in the estimate of 70-year lifetime cancer risks referred to in Figure 4.3.~~16~~17.

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Figure 4.3.16: MATES-IV Cancer Risks in the Project Site Area

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Figure 4.3.17: Change in MATES-IV Cancer Risks Between 2005 and 2012

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Additionally, in January 2015, a major new study[1] evaluated the health impacts of "new technology diesel exhaust" (NTDE). Beginning in 2001, USEPA and CARB begin issuing a series of regulations that require new diesel-powered vehicles and equipment to use the latest emissions control technology. This technology relies on two components. The first is a diesel particulate filter, which is capable of reducing particulate matter emissions by over 90% (required for new engines beginning in 2007). The second technology is selective catalytic reduction, which reduces emissions of nitrogen oxides by over 90% (required for new engines beginning in 2010). Diesel emissions from engines equipped with this technology is referred to as NTDE. As a result of the advances in emission control technology, USEPA, CARB, and other government and industry stakeholders commissioned a series of studies called the Advanced Collaborative Emissions Study (ACES). ACES has been guided by an ACES Steering Committee consisting of representatives of HEI and the Coordinating Research Council (CRC: a nonprofit organization that directs engineering and environmental studies on the interaction between automotive or other mobility equipment and petroleum products), along with the U.S. Department of Energy, U.S. EPA, engine manufacturers, the petroleum industry, CARB, emission control manufacturers, the National Resources Defense Council, and others. The Health Effects Institute (HEI), funded in part by USEPA, was selected to oversee Phase 3 of ACES.

Phase 3 of ACES evaluated whether emissions from new technology diesel engines cause cancer or other health effects. Specifically, it evaluated the health impacts of a 2007-compliant engine equipped with a diesel particulate filter. HEI found chronic exposure to NTDE did not induce tumors or pre-cancerous changes in the lung and did not increase tumors that were considered to be related to NTDE in any other tissue in laboratory rats. The study also confirmed that the concentrations of particulate matter and toxic air pollutants emitted from NTDE are more than 90% lower than emissions from traditional older diesel engine. Rats are the most sensitive laboratory animal species for evaluation of older technology diesel engines (pre-model year 2007), because of their sensitivity to high concentrations of particles (present in older technology diesel engines), compared with other species (including humans).

The HEI study clearly demonstrates that the application of new emissions control technology to diesel engines have virtually eliminated the health impacts of diesel exhaust.

Conservative Nature of Health Risk Assessments. Moreover, the current methodological protocols required by the SCAQMD and CARB when studying the health risk posed by diesel PM assume the following (from the California Air Pollution Control Officers Association 2009): (1) 24-hour constant exposure; (2) 350 days a year; (3) for a continuous period lasting 70 years. These are overly conservative assumptions that are not replicated in reality. Most people are indoors for 18–20 hours a day (at their place of employment or home) and most people do not live in the same location for a 70-year period. In fact, less than 10 percent of the population has a continuous residency at the same location of greater than 30 years (American Community Survey 2011). Thus, the health risk assessments prepared pursuant to the current protocols overestimate the risk of cancer associated with diesel PM exposure.

Alternate Views on Diesel PM Risk. Some researchers, such as Dr. James E. Enstrom (2008), believe that the risk from diesel PM is exaggerated. Enstrom calls into question some of the basic research on the declaration of diesel exhaust as a toxic air contaminant. In particular, the article states the following:

[1] Health Effects Institute, 2015: HEI Research Report 184, Advanced Collaborative Emissions Study (ACES): Lifetime Cancer and Non-Cancer Assessment in Rats Exposed to New-Technology Diesel Exhaust, published in January. Website: http://pubs.healtheffects.org/getfile.php?u=1067

> *There is substantial new epidemiologic evidence relevant to the health effects of diesel exhaust that was not considered when the 1998 toxic air contaminant declaration was made. For instance, the 2007 paper by Francine Laden et al. measured death rates during 1985–2000 among 54,000 members of the unionized U.S. trucking industry. … This cohort, which included 36,000 diesel truck drivers, had death rates from all causes and all cancer that were substantially below the rates among US males. Furthermore, unlike earlier evidence that was used in the TAC declaration, this cohort did not have a substantially elevated lung cancer death rate.*

Dr. Enstrom also indicates that the premature mortality calculation in the report, "Quantification of the Health Impacts and Economic Valuation of Air Pollution from Ports and Goods Movement in California," is exaggerated. Dr. Enstrom's analysis "found no relationship between $PM_{2.5}$ and mortality in elderly Californians during 1983–2002."

~~Moreover, the current methodological protocols required by the SCAQMD and CARB when studying the health risk posed by diesel PM assume the following: (1) 24-hour constant exposure; (2) 350 days a year (the OEHHA assumption that allows for a 2-week period away from home each year); (3) for a continuous period lasting 70 years. These are extremely conservative assumptions that are not replicated in reality. Most people are indoors for 18–20 hours a day (at their place of employment or home) and most people do not live in the same location for a 70-year period. In fact, the OEHHA observed that perhaps only 5 to 10 percent of the population has a continuous residency of greater than 30 years (OEHHA 2012). Thus, the health risk assessments prepared pursuant to these protocols overestimate the risk of cancer associated with diesel PM exposure.~~

4.3.2.4 Local Policies

City of Moreno Valley General Plan Policies. Chapter 9 of the City's General Plan defines goals and policies related to air quality within the City of Moreno Valley. The specific policies of the General Plan that are relevant to the proposed project are as follows:

Objective 6.7 Reduce mobile and stationary source air pollutant emissions.

Policy 6.7.1 Cooperate with regional efforts to establish and implement regional air quality strategies and tactics.

Policy 6.7.2 Encourage the financing and construction of park and ride facilities.

Policy 6.7.4 Locate heavy industrial and extraction facilities away from residential areas and sensitive receptors.

Policy 6.7.5 Require grading activities to comply with South Coast Air Quality Management District's Rule 403 regarding the control of fugitive dust.

Policy 6.7.6 Require building construction to comply with the energy conservation requirements of Title 24 of the California Administrative Code.

4.3.3 Methodology

The *Air Quality, Greenhouse Gas, and Health Risk Assessment Report* ~~contained in Appendix D~~ for the DEIR (Michael Brandman Associates, January 2013)[1] evaluated the air quality impacts associated with the development of the proposed project including the following:

[1] *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, Michael Brandman Associates, January 2013.

- Determine the short-term construction air quality impacts on both on-site and off-site sensitive receptors based on SCAQMD assessment methodologies and significance thresholds;
- Determine the long-term air quality impacts, including vehicular traffic, on both on-site and off-site sensitive uses based on SCAQMD assessment methodologies and significance thresholds; and
- Determine the required mitigation measures to reduce short-term and long-term on-site air quality impacts from all sources.

A revised Air Quality, Greenhouse Gas, and Health Risk Assessment Report (revised analysis) was prepared by Michael Brandman Associates – FirstCarbon Solutions (MBA-FCS) in 2015, which estimated the impacts from the reduced size of the project and also refined and updated the methodology used in the analysis, as discussed below.

~~Air quality in the project area would be affected by air pollutant emissions from stationary sources and mobile sources related to the proposed project. On February 3, 2011, the SCAQMD released the California Emissions Estimator Model (CalEEMod). The purpose of this new model is to calculate air quality and greenhouse gas (GHG) emissions more accurately from direct and indirect sources associated with the project and quantify applicable air quality and GHG reduction achieved from mitigation measures. The latest version of CalEEMod (version 2011.1.1) was utilized to predict these project-related air quality impacts.~~

4.3.3.1 Construction

Construction-related emissions are expected from various activities associated with the construction of the project such as rough grading, infrastructure construction, asphalt paving, building construction, architectural coatings, and construction workers commuting. Construction emissions for construction worker vehicles traveling to and from the project site, in addition to vendor trips (construction materials delivered to the project site) and haul trips (dump trucks and concrete trucks) were also accounted for in the analysis. Localized air quality in the project area would be affected by both heavy-duty construction equipment usage on site as well as local traffic due to the equipment delivery and construction worker commuting. The anticipated construction equipment and construction schedule are identified in Section 3.0, *Project Description*, in Table 3.C. The SCAQMD CEQA methodology[1] was used to analyze the criteria pollutant emissions from these activities.

Note: In response to comments received on the DEIR, the following revisions have been made to the construction emissions analysis:

- *New Version of CalEEMod*. The construction emissions in the DEIR were estimated with the approved model at the time, CalEEMod version 2011.1.1, which uses emission factors from the outdated OFFROAD2007 and EMFAC2007 emission models. Since publication of the DEIR, a new version of CalEEMod has been released, version 2013.2, uses construction emission factors from OFFROAD2011 and mobile source emissions from EMFAC2011. The new version of CalEEMod has lower construction equipment load factors, which are also used in this revised analysis.
- *Extended Construction Period.* In the DEIR, construction was assumed to occur over 10 years; in response to comments to reduce emissions, the revised analysis construction schedule is assumed to occur over 15 years.

[1] *CEQA Air Quality Handbook*, April 1993 and subsequent additions to the Handbook.

- *Refined Building Phasing.* The DEIR had all building construction activities lumped together. For better understanding and clarification, building construction activity was subdivided in this revised analysis into the following sub-phases: building-concrete; building-wet utilities; building-electrical; and building-landscaping to more accurately describe construction activities.
- *Mass Grading Duration.* In the DEIR, grading covered 12 months (for the unmitigated version) and 24 months (for the mitigated version). For the revised analysis, each planning area is graded separately over a total of approximately 58 months to reflect a more realistic grading plan.
- *On-Site On-road Vehicle Emissions.* On-site travel and idling emissions from concrete trucks, haul trucks, service/support trucks, and delivery trucks were not included in the DEIR but are included for the revised analysis.
- *Equipment for Grading.* The construction equipment and haul truck deliveries for the mass excavation and fine grading phases now vary per planning area (since there are varying sizes of each planning area), whereas in the DEIR, one equipment fleet was assumed for the mass grading and finish grading phases. In addition, because the grading duration has been extended and due to variations in the grading fleet based on the size of the planning area, less equipment is required. The overall construction equipment horsepower-hours per day has decreased in the revised analysis.
- *Onsite Equipment Fleet for Non-Grading Phases.* The duration for construction has been extended; therefore, the peak number of equipment has decreased. In addition, the types and daily horsepower hours for the equipment has changed.
- *Onsite Equipment Hours per Day.* The revised analysis assumes that the onsite equipment are in the on position for 10 hours per day as a project design feature. The analysis in the DEIR assumed 15 hours per day for the unmitigated version and 10 hours per day for the mitigated version. Because construction has been spread out over more time, there is no need for the equipment to operate 15 hours per day; therefore, the equipment hours per day has been added as a project design feature that sets the maximum hours per day is 10 hours per day for the onsite equipment. This means that each piece of construction equipment is assumed to be on for 10 hours per day. This would also apply to the onsite equipment used during concrete pouring, which would most likely occur during the night. This is a conservative scenario as the CalEEMod default assumes construction equipment would be on for 6 to 8 hours per day. This is used to calculate maximum daily emissions which are required for the regional analysis, because project emissions can occur on any day of the week. However, in order to calculate annual average emissions, it is necessary to base emissions upon a realistic work schedule. The revised analysis assumes a more realistic annual average use of construction equipment by assuming that the maximum equipment would occur for five days per week (instead of six days per week as in the DEIR). In this way, an annual average and daily emission inventories were estimated.
- *Tier 4 Equipment.* The analysis in the DEIR assumed the CalEEMod default construction equipment tier levels for the unmitigated version and for the mitigated version, assumed Tier 3 engines for years prior to 2017 and Tier 3 with diesel particulate matter filters for years after 2017. The revised analysis assumes that for the mitigated emissions, all equipment over 50 horsepower Tier 4 as required by a revised mitigation measure.
- *VOC Emissions from Striping Pavement.* The DEIR did not include these emissions because these emissions have been recently integrated within CalEEMod.

4.3.3.2 Operation

Air quality in the project area would be affected by long-term air emissions from stationary sources and mobile sources related to the proposed project once it commences operations. The stationary source emissions would come from consumption of natural gas and emergency generators while

mobile source emissions would come from vehicular emissions from automobiles and trucks traveling to, from, and within the project site and from on-site forklifts and yard trucks.

A key piece of information required to estimate the project's operational emissions deals with an estimate of the number of trips and types of vehicles (i.e., cars and trucks) generated by the project during a peak hour and on a daily basis. To determine mobile source emissions associated with the project, the trip generation rates were derived from the *Traffic Impact Analysis Report* for the project prepared by Parsons Brinckerhoff ~~(December 2013)~~.

~~It is important to note that~~ Appendix E of the CalEEMod Manual states the following regarding trip rates for large warehouses and distribution centers, and demonstrates that the trip rate applied for this project is appropriate, since the project is a Specific Plan containing more than 10 warehouse buildings:

> *In the case that air quality is evaluated for multiple warehouses (>10), such as in an analysis for a general plan, the average rate of 1.44 trips per TSF [thousand square feet] from the ITE [Institute of Transportation Engineers] 8th Edition Trip Generation manual is acceptable. This lower value may be more appropriate as on average, a small portion of warehouses can be expected to operate at varying levels of service, including some warehouses experiencing temporary partial or complete vacancy.* (SCAQMD 2013, CalEEMod manual,[1] pages 14-15)

Additionally, the SCAQMD is currently working with the Institute of Transportation Engineers to provide enhanced information and guidance regarding vehicle trips associated with warehouse operations. SCAQMD staff is recommending truck trip rates from the Institute of Transportation Engineers for high cube warehouse projects located in SCAQMD. Consistent with CEQA Guidelines, the SCAQMD states that an EIR may use a non-default trip rate if there is substantial evidence indicating another rate is more appropriate for the air quality analysis. The trip generation rate applied in this assessment for high cube warehouses (1.68 trips per thousand square feet) is greater than the average rate of 1.44 trips per thousand square feet recommended ~~by the SCAQMD~~ in CalEEMod thereby providing a more conservative estimate of vehicle trips (i.e., larger number of trips) and hence higher estimate of air quality impacts than the SCAQMD-recommended trip rate. ~~The CalEEMod model was used to predict these project-related long-term impacts. Localized air quality impacts in the project area would be affected by increased traffic flow due to the proposed project.~~

The EPA AERMOD air dispersion model, the Caltrans CALINE4 model, the CalEEMod, and the CARB EMFAC ~~2011~~2014 mobile source emission factor model were used to assess the project's impact on ~~the local~~ air ~~quality~~ pollutant emissions and concentrations.

~~For the criteria air pollutant analysis, emission factors for the year 2012 as embedded in CalEEMod (EMFAC2007) are used for the "worst-case" scenario. CalEEMod file runs for 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, and 2022 were conducted for both local and long-haul trips.~~

~~The emission factors for the truck CalEEMod files were modified to reflect the project design feature that requires the use of model year 2010 or newer trucks for all medium-heavy and heavy-heavy duty diesel trucks associated with the project. These factors were derived from EMFAC2011 for running exhaust emissions and replaced the respective emission factor entries in CalEEMod, which are based on the outdated CARB EMFAC2007 mobile source emission model. The CARB EMFAC2007 emission factors reflect a vehicle population that spans almost 25 years.~~

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[1] South Coast Air Quality Management District. 2013. CalEEMod, Appendix E, Technical Source Documentation. Website: http://www.aqmd.gov/docs/default-source/caleemod/caleemod-appendixe.pdf?sfvrsn=2http ~~http://www.aqmd.gov/caleemod/doc/AppendixE.pdf. Accessed May 16, 2012.~~

Emission factors for the year 2012 are used for the "worst-case" scenario. Phase 1 of the project used emission factors from the year 2022, and Phase 2 of the project used emission factors for the year 2035. For the mitigated version, the emission factors were modified to reflect the mitigation measure that requires the use of model year 2010 or newer trucks for all diesel trucks associated with the project.

Note: In response to comments received on the DEIR, the following revisions have been made to the regional operational emissions analysis:

- *Trip Lengths for Motor Vehicle Emissions*. Forecasted traffic volumes contained in the revised Traffic Impact Analysis were used to estimate the project's motor vehicle emissions instead of an arbitrary 50 miles per truck trip length and the CalEEMod default trip lengths for local trips used in the DEIR. The traffic model provided estimates of project traffic volumes for nearly 500 individual freeway and surface street roadway segments segregated by vehicle class as passenger cars, light heavy duty trucks, medium heavy duty trucks, and heavy-heavy duty trucks. This revised methodology provides a much more accurate estimate of the project's operational mobile source vehicle miles traveled and resulting emissions.
- *Updated Emission Factors for Motor Vehicles.* In the DEIR, regional motor vehicle emissions were estimated by CalEEMod using the EMFAC2007 mobile source emission model and EMFAC2011 emission model for the localized and health risk analysis. On December 30, 2014, the CARB released an updated version of its emission factor model, EMFAC2014. The CARB indicates that the EMFAC2014 mobile source emission model will be used henceforth to estimate on-road mobile source emissions in California. The EMFAC2014 model is an updated version of the EMFAC2014 model that was used in the DEIR. The EMFAC2011 mobile source emission model was applied to all vehicle classes in the revised analysis.
- *Decrease in Operational Square Footage.* The number of vehicle trips was revised to reflect a reduction of the project size from 41.6 million square feet to 40.6 million square feet and the redistribution of land use building square footage between the high cube logistics warehouse and light logistics land uses. In addition, a fire station land use was also added.
- *Additional On-site Emissions Sources.* Additional sources of operational emissions were also accounted for in this revised analysis including standby diesel generators, fork lifts, and yard trucks.
- *On-site Existing Emissions Estimated.* The existing agricultural emissions were estimated in the revised analysis; they were not estimated in the DEIR.

4.3.3.3 Localized Construction/Operation

SCAQMD has developed the Localized Significance Threshold (LST) methodology that can be used to determine whether or not a project may generate significant adverse localized air quality impacts that substantially affect sensitive receptors. LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable Federal or State AAQS and are developed based on the ambient concentrations of that pollutant for each source receptor area identified by the SCAQMD. SCAQMD's current guidelines, *Final Localized Significance Threshold Methodology* (June 2003) and subsequent additions, were adhered to in the assessment of local air quality impacts from the proposed project. The local emissions of concern from construction and operational activities as defined by the SCAQMD are NO_X, CO, PM_{10}, and $PM_{2.5}$ combustion emissions from construction equipment and fugitive PM_{10} dust from construction site preparation activities.

~~The localized significance threshold analysis evaluated two scenarios:~~

- ~~*Scenario 1:* Existing + Project: this scenario in assumes that the project is fully built out in 2012, the year that the Notice of Preparation for the project was published.~~

- ~~*Scenario 2:* Proposed Development Schedule: this scenario examines the proposed development of the two-phased project with development buildout years of 2017 for Phase 1 and 2022 for Phase 2 as compared to the existing 2012 year.~~

~~Scenario 1 represents a worst-case scenario since the project could not be physically built out in its entirety in a single year and does not reflect the fact that the project would be expected to be developed over a time period of at least 10 years depending on market demands for warehouse space. This assumption also does not account for the fact that emissions from mobile sources particularly from heavy duty diesel trucks are expected to decline significantly over the next 10 to 15 years as a result of emission controls already mandated by the CARB specifically for these vehicles.~~

~~In Scenario 1, emissions from the project were estimated for the year 2012 as the existing condition (date of publication of the Notice of Preparation) assuming the full buildout of the project in 2012. Scenario 1 also provides consistency with the project traffic and noise impact analyses reports which examine the Existing (2012) plus project condition and corresponds to the year when the Notice of Preparation was published for the project. Emission factors for the project were derived from the EMFAC2011 mobile source emission model for the year 2012. Information from the project traffic report was used to derive estimates of vehicle trips from within the project and from the local roadways that are within and along the boundaries of the Specific Plan as if the project were fully built out in 2012. This is a worst-case scenario because it assumes that all the trucks and vehicles accessing the project would consist of the fleet of today instead of the fleet of the future. The fleet of today has more emissions because there are older vehicles and trucks on the road that would be replaced in the future.~~

~~Scenario 2 represents the proposed project development including the localized impacts during construction and operation over the time period of 2013 to 2022. These results are compared to the existing air quality levels in 2012.[1] Scenario 2 examined three time periods:~~

- ~~The year 2013, which is the year with the highest construction emissions.~~
- ~~The year 2017, which is the year with the highest total emissions from both construction and operation and the first year during which project construction and the Phase 1 buildout operations would overlap.~~
- ~~The year 2022, which is the first year with the complete build out of the project.~~

Note: In response to comments received on the DEIR, the following revisions have been made to the localized significance threshold analysis:

- *Revisions to the Traffic Volumes.* The operational assessment of localized impacts reflects the changes in traffic volumes associated with the reduction in the project size and realignment of roadway segments that are within and border the project's boundaries.
- *Changes in Construction Schedule.* The analysis in the DEIR assumed a construction schedule of 10 years, whereas the revised assessment is based on a 15-year construction schedule. The

[1] The existing air quality levels in 2012 are actually represented by the highest monitored levels at the SCAQMD Riverside air monitoring station during the past three years (2009, 2010, and 2011). No air quality data summaries have been published by the CARB or SCAQMD for the complete year for 2012.

changes in construction schedule both by year and location within the project were accounted for under the revised, extended project development schedule for estimating the emissions subject to the LST assessment.

- *Emission Source Configuration.* The analysis in the DEIR of the off-road construction equipment exhaust was represented in the air dispersion model as a large area source that covered the construction area. The revised analysis represents the off-road construction exhaust emission source as a series of contiguous volume sources, which is consistent with the SCAQMD methodology for LST assessments.
- *Operational Truck Idling.* The analysis in the DEIR assumed that each heavy-duty truck that accessed the site during operation idled for a total of 15 minutes per day. In the revised analysis, each truck was assumed to idle for 5 minutes per day consistent with the California Air Resources Board's Air Toxic Control Measure that limits such idling to 5 minutes and requirements specified in the World Logistics Center Specific Plan. For the mitigated assessment, each truck was assumed to idle for 3 minutes per day.

The localized significance threshold analysis evaluated three conditions:

- Project Phase 1 (2012): this condition assumes that Phase 1 of the project is fully built out in 2012, the year that the Notice of Preparation for the project was published.
- Project Phase 1 and Phase 2 Full Build Out (2012): this condition assumes that Phase 1 and Phase 2 of the project are fully built out in 2012, the year that the Notice of Preparation for the project was published.
- Proposed Development Schedule: this condition examines the proposed development schedule of the two-phased project three analysis years were examined under this condition for potential localized air quality impacts:
    - 2021, the year when the projected construction schedule would result in construction activities in the western portion of the project adjacent to and across from the existing residential areas along Redlands Boulevard and when a substantial portion of Phase I operations would occur (approximately 56 percent of entire project floor space);
    - 2027, the year when the project emissions from both project construction and operation are at their highest combined levels for several pollutants; and when construction activities would occur adjacent to the existing residences along Gilman Springs Road and
    - 2035[1] when the Phase 1 and Phase 2 of the project are fully operational.

Project Phase 1 (2012) represents an interim step during which Phase 1 of the project (approximately 56 percent of the total size of the project) is completely built out in 2012. This analysis simply looks at the situation of what would happen if Phase 1 of the project were built in its entirety with no reductions in motor vehicle emissions that would occur in the future as a result of emission control programs that have already been adopted. This assessment also provides consistency with the project traffic impact analysis and noise reports which examine the Project Phase 1 (2012) condition. The project impact results are compared to the existing air quality levels in 2012 and only consider the project's operational emissions and not construction emissions.

[1] In some circumstances, references are made to the year 2035. The year 2031 is the proposed first year the project is fully built out. However, detailed traffic volumes were provided by the project traffic consultant for the long-term planning year 2035. For purposes of this assessment, project traffic volumes in 2031 were assumed to be the same as the forecast volumes in 2035.

Project Phase 1 and 2 Full Build Out 2012 represents a worst-case scenario since the project could not be physically built out in its entirety in a single year and does not reflect the fact that the project would be developed over a time period of 15 years depending on market demands for warehouse space. This assumption also does not account for the fact that emissions from mobile sources, prior to mitigation, particularly from heavy duty diesel trucks are expected to decline significantly over the next 10 to 15 years as a result of emission controls already mandated by the CARB specifically for these vehicles. This assessment also provides consistency with the project traffic impact analysis and noise reports which examine the full Project Phase 1 and Phase 2 (2012) Build Out (2012) condition. The project impact results are compared to the existing air quality levels in 2012 and only consider the project's operational emissions and not construction emissions.

The Proposed Project Development condition represents the proposed project development including the localized impacts during construction and operation over the time period of 2015 to 2035. These results are compared to the existing air quality levels in 2012.

4.3.3.4 Health Risk Assessment

A Health Risk Assessment (HRA) is a guide that helps to determine whether current or future exposures to a chemical or substance in the environment could affect the health of a population. In general, risk depends on the following factors:

- How much of a chemical is present in an environmental medium (e.g., air);
- How much contact (exposure) a person has with the contaminated environmental medium; and
- The inherent toxicity of the chemical.

The assessment of health impacts is a continuing evolution of science and regulation. Since December 2014, three major scientific and regulatory activities have come forward that will affect how such assessments are performed and what such impacts mean to society as described below.

- On December 30, 2014, the ARB released its update to the Emissions Factor Model, EMFAC2014, which is used to estimated emissions from motor vehicles in California. The EFAC2014 model represents the ARB's current understanding of motor vehicle technologies and regulatory implementation of rules aimed at reducing air emissions from motor vehicles. Of significance in this regard are the new projections of air emissions from heavy duty diesel engines. Based on the results of the EMFAC2014 model, emissions of diesel particulate matter range from 50 to 80 percent lower than previously estimated using the previous version of the EMFAC model, EMFAC2011. Since heavy duty trucks constitute nearly all of the project's diesel PM emissions, the incorporation of the emission information from the EMFAC2014 model is important in estimating the amount of diesel PM and in assessing the project's health risk impacts resulting from these emissions

- On January 27, 2015, the Health Effects Institute (HEI), a joint private-government partnership, released a major peer-reviewed scientific report entitled *Effects of Lifetime Exposure to Inhaled New-Technology Diesel Exhaust in Rats.* This is the first study to conduct a comprehensive evaluation of lifetime inhalation exposure to emissions from heavy-duty 2007-compliant engines (referred to as "new technology diesel exhaust," or NTDE). The study evaluated the long-term effects of multiple concentrations of inhaled NTDE, which has greatly reduced particle emissions compared with "traditional-technology diesel exhaust" (TDE) in male and female rats on more than 100 different biologic endpoints, including tumor development, and compared the results with biologic effects seen in earlier studies in rats

after exposure to TDE. Lifetime inhalation exposure of rats exposed to one of three levels of NTDE from a 2007-compliant engine, for 16 hours per day, 5 days a week, with use of a strenuous operating cycle that more accurately reflected the real-world operation of a modern engine than cycles used in previous studies, did not induce tumors or pre-cancerous changes in the lung and did not increase tumors that were considered to be related to NTDE. The importance of this study is that diesel PM emissions from new technology diesel engines does not cause any increase in the risk of lung cancer or other significant adverse health effects in study animals that, in fact are more sensitive to toxics exposures than humans. While this study focused on heavy duty truck emissions, the new clean diesel technology has the potential for impacting all sectors, including passenger cars, agriculture, construction, maritime and transportation. Previous studies directed at studying the effects of diesel PM on health were based on exposure studies that date 15 to 20 years ago when diesel emissions were significantly higher than the NTDE. It is also important to highlight that the U.S. Environmental Protection Agency (EPA), the California Air Resources Board, the U.S. Department of Energy (DOE) and the U.S. Federal Highway Administration are sponsors and/or reviewers of this study in conjunction with the manufacturers of emissions control equipment.

- On March 6, 2015, the California Office of Environmental Health Hazards Assessment (OEHHA) adopted a new guidance for estimating health risks from toxic air contaminants that incorporated the importance of early-in-life sensitivities of young children to exposures to toxics air contaminants and recommends a lifetime exposure duration of 30-years. Within the context of this assessment, this new assessment guidance is referred to as the "Current OEHHA Guidance". The new guidance updates earlier guidance recommended by OEHHA and SCAQMD referred to in this assessment as the "Former OEHHA Guidance", which was used in the DEIR. The "Former OEHHA Guidance" is based on a lifetime exposure of 70 years and does not incorporate early-in-life age sensitivity factors. The importance of the "Current OEHHA Guidance" is that the guidance produces much more conservative estimates of cancer risks from toxic air contaminant exposures than the "Former OEHHA Guidance".

- The HRA is being provided to allow decision makers to see the cancer-related impacts of the proposed project in the assumption that new technology diesel exhaust cause cancer, contrary to what was found by the HEI study.

~~The Health Risk Assessment (HRA) builds upon the methodology described above in the localized air quality assessment by examining the regional nature of the project's potential health risk impacts. The HRA methodology applies a risk characterization model to the results from the air dispersion model to estimate potential health risks at each sensitive receptor location. However, unlike the localized assessment, which looks at impacts within a specific year, the HRA examines the impacts over extended exposure time, which, in the case of cancer risk, is typically a 70-year lifetime exposure. Because of the pervasive nature of diesel particulate matter (diesel PM) in contributing to estimated health risks in California, the focus of this assessment is on estimating the health risks from diesel PM. While the project activities may result in the emission of other TACs (e.g., TACs from gasoline-powered vehicles), diesel PM from the project was found to contribute approximately 98 percent of the total cancer risk from project operations (see *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, Appendix D of this EIR).~~

~~The methodology applied in calculating cancer risk from TACs has been published by the SCAQMD and the California Office of Environmental Health Hazard Assessment (OEHHA). In this regard, cancer risk is expressed as the probability of an individual developing cancer due to exposure to TAC emissions out of a population of 1 million individuals. Thus, a receptor calculated to have a cancer~~

~~risk of 1 in one million means that this receptor has a probability of 1 in 1 million of developing cancer from the continuous exposure to TACs.~~

~~The methodology assumes that a person is exposed continuously to a project's TAC emissions for a period of 350 days per year, 24 hours per day over a 70-year lifetime period. The SCAQMD has established a significance threshold of 10 in 1 million for cancer risk attributable to exposure to a project's emissions. Project-related cancer risks at sensitive receptors exceeding this significance threshold are considered by the SCAQMD to result in significant health risk impacts for purposes of CEQA compliance.~~

~~Risk characterization for non-cancer health risks from TACs is expressed as a hazard index (HI). The HI is a ratio of the predicted concentration of a project's emissions to a concentration considered acceptable to public health professionals, termed the Reference Exposure Level (REL). A significant risk is defined by the SCAQMD as an HI of 1 or greater. The California OEHHA has assigned a chronic non-cancer REL of 5 µg/m^3 for diesel PM (OEHHA 2011). Diesel PM has effects on the respiratory system, which accounts for essentially all of its potential chronic non-cancer hazards. Therefore, the only HI calculated was for the respiratory system.~~

~~Two health risk analysis scenarios were examined to assess potential cancer risks to nearby sensitive receptors as follows:~~

- ~~Scenario 1: the "No Project" scenario in which cancer risks are estimated given vehicle traffic and diesel PM emissions spanning the 70-year cancer risk exposure time period from the existing condition 2012 to 2081 under the assumption that existing land uses plus other past, present, and reasonably foreseeable projects (both land development and roadway improvements) are implemented in 2017, 2022, and 2035. Within the City of Moreno Valley full buildout of the General Plan was assumed in 2035, except for the project site, which was assumed to be unchanged from existing conditions.~~

- ~~Scenario 2: the "With Project" scenario shows the effect of project-related construction and operational traffic diesel PM emissions if the project were built out in accordance with its proposed phased buildout schedule and then added to the No Project scenario during the 70-year cancer exposure time period from 2012 to 2081. This scenario forms the basis of comparison with the "No Project" scenario to quantify the incremental impacts from the project.~~

~~The DPM emissions and annual average DPM impacts for the Scenario 1, "No Project" scenario, were based on traffic information provided in the *Traffic Impact Analysis Report* for the existing condition (2012), buildout of Phase 1 (2017), final buildout of Phases 1 and 2 (2022), and the long-term planning year (2035). The existing condition scenario was based on the land uses as they exist today (2012).~~

~~For the year 2017 scenarios other past, present, and reasonably foreseeable projects in the study area were added to existing land uses. The 2017 scenarios also included the assumption of 2 percent annual growth in background traffic. Because including the other past, present, and reasonably foreseeable projects and a growth factor for background traffic represents a double-counting of growth, this ensures a conservative approach to estimating near-term future traffic. The scenarios analyzing longer-term conditions required the use of longer-term forecasts for land use in the Inland Empire based on the SCAG 2012 Regional Transportation Plan (RTP). A listing of other existing past, present, and reasonably foreseeable projects in the study area can be found in Appendix E of the *Air Quality, Greenhouse Gas, and Health Risk Assessment Report* (Appendix D of this EIR).~~

~~The diesel PM emission factors for the vehicle traffic were derived from the CARB EMFAC2011 mobile source emission model for each assessment year. The emission factors and traffic information~~

~~were interpolated for the time period 2012 to 2035 for the years for which traffic information was not provided. Finally, since the EMFAC2011 mobile source emission model does not provide emission factors beyond the year 2035, vehicle traffic volumes, diesel PM emission factors, and annual average diesel PM impacts for the years beyond 2035 were set to the year 2035 levels to complete the 70-year cancer risk exposure time period (2012 to 2081). The exposure levels averaged over each individual year (of the 70 total years) were then also averaged to get a total 70-year average. For example, the exposure levels for each day in 2012 were averaged (365 values) to get an average exposure for just 2012. Then, all the annual averages for 2012 through 2081 (i.e., over 70 years) were averaged to generate the 70-year average. The average diesel PM annual average was then used to estimate cancer risks.~~

~~For Scenario 2, annual average diesel PM emissions and impacts were calculated for each year starting from 2012 to 2081 to correspond to an exposure time period of 70 years required for estimating cancer risk for sensitive receptors. Specifically, annual average diesel PM concentrations were estimated from the diesel PM construction emissions for each year of construction from 2013 to 2021 according to the construction schedule and equipment usage projected for each year of construction. Zero project emissions were assumed in 2012 as the project does not exist in 2012. Annual average diesel PM emissions and impacts during operation were estimated for the years 2017, 2022, and 2035, years for which detailed traffic information was available from the traffic impact report. The annual average operational diesel PM impacts were then interpolated among these three calculation years based on the amount of square-footage of buildings brought online during each year. Finally, since the EMFAC2011 mobile source emission model does not provide emission factors beyond the year 2035, annual average diesel PM concentrations for the years beyond 2035 were set to the year 2035 levels.~~

~~During years when both construction and operations occur simultaneously (2017 to 2021), the annual diesel PM concentrations at the sensitive receptors from construction were added to the annual diesel PM concentrations from operations to provide a total impact assessment of all diesel PM emissions from the project. The resulting total annual average diesel PM concentrations calculated each year for the 70-year exposure time period (70 individual annual averages) were then averaged to obtain an average diesel PM air concentration for the 70-year time period for use in estimating health risks.~~

The following information is from the Health Risk Assessment contained in the revised *Air Quality, Greenhouse Gas, and Health Risk Assessment* (2015) contained in Appendix D. The text in this section is supported by references and discussion that can be found in the report in Appendix D.

Note: In response to comments received on the DEIR, the following revisions have been made to the health risk assessment:

- *Revisions to the Construction Emissions.* This revised analysis reflected the numerous changes in construction equipment, load factors, schedule, and sequencing of construction by location within the project as discussed above.
- *Revisions to Traffic Volumes.* The revised analysis made use of the revised traffic volume forecasts along nearly 500 individual roadway segments.
- *Expanded Model Extent.* The geographic extent of the air dispersion model domain was expanded to include freeway segments to the ports of Los Angeles and Long Beach.
- *Organic Gas Emissions Included.* The assessment of acute non-cancer hazards was expanded to examine the impacts of the toxic components of the project's total organic gas emissions from gasoline and diesel vehicles. The analysis in the DEIR focused on diesel PM to derive health impacts from the project.

- *Calculated Cancer Population Burden.* The health risk assessment was extended to include the computation of cancer population burden attributed to the project's diesel PM emissions.
- *Maximum Exposure Duration for Sensitive/Residential Receptors*. The analysis contained in the DEIR assumed a cancer risk exposure time period of 70 years for sensitive/residential receptors as representative of the "Former OEHHA Guidance" in estimating cancer risks. In this revised assessment, the cancer risk are presented using the "Current OEHHA Guidance." The "Current OEHHA Guidance" incorporates early-in-life exposure sensitivities and recommends an exposure duration of 30-year; the "Current OEHHA Guidance" reflects early age sensitivities[1] (i.e., weighting the effects of exposure more heavily for infants and teenagers than for adults) to toxic compounds and the US Census data showing that 90 percent of individuals live in their residence for 30 years or less; overall the "Current OEHHA Guidance" results in a more conservative analysis of cancer risks than "Former OEHHA Guidance" on performing health risk assessments.
- *Maximum Exposure Duration for Worker Receptors.* The analysis contained in the DEIR assumed a cancer risk exposure time period of 40 years for workers as recommended in the "Former OEHHA Guidance." In this revised assessment, the cancer risk impacts are presented for the "Current OEHHA Guidance" which assumes an exposure duration of 25 years for worker receptors, which is based on labor statistics showing 95 percent of workers stay in the same job for 25 years or less.
- *Include School Receptors.* The assessment of cancer risks at local school receptors was included in the revised analysis based on the "Current OEHHA Guidance", including the new proposed high school site #5 located north of SR-60.The analysis for the high school #5 is included in the Revised Air Quality Report (Appendix D).
- *Buffer Analysis.* The mitigated analysis includes assessment of cancer risks with a buffer of 250 feet (the project design) and 1,000 feet between the project's operational emissions and the centerlines of Redlands Boulevard, Gilman Springs Road, Bay Avenue, and Merwin Street. This assessment is included as a response to comments on the DEIR. The analysis found that a 1,000 foot buffer would result in no substantial reduction in the cancer risk impacts.

The HRA examines the regional nature of the project's potential health risk impacts over a multi-year time period. The HRA methodology applies a risk characterization model to the results from an air dispersion model to estimate potential health risks at each sensitive receptor location. Because of the pervasive nature of diesel particulate matter (diesel PM) in contributing to estimated health risks in California, the focus of this assessment is on estimating the health risks from diesel PM. While the project activities may result in the emission of other TACs (e.g., Total Organic Gases (TOG) from diesel and gasoline-powered vehicles), diesel PM from the project was found to contribute approximately 98 percent of the total cancer risk from project operations (see the revised *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, Appendix D of this EIR). TOG emissions from diesel and gasoline vehicles were, however, included in the assessment of acute non-cancer hazards.

The HRA process involves four main steps: hazard identification, dose-response assessment, exposure assessment, and risk characterization.

- **Hazard Identification**: Hazard identification is the process by which contaminants of concern are selected for investigation in the risk assessment, and includes a review of the chemicals

[1] Office of Environmental Health Hazard Assessment, Air Toxics Hot Spots Program, Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments, February 2015, Section 8.2. http://www.oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf

that are potentially released to the atmosphere from the equipment of concern. This assessment is responsive to the emissions of various toxic air contaminants from the construction and operation of the project. The main toxic air contaminants associated with the project include diesel PM from diesel-fueled equipment and total organic gases (TOG) from both gasoline and diesel vehicles.

- **Dose-Response Assessment**: The dose-response assessment develops relationships between exposures to a given chemical and the corresponding potential health effects associated with exposure to that chemical. In general, data are limited regarding adverse effects associated with direct exposure to humans to a particular chemical. Therefore, animal experiments have often been performed to assess a chemical's toxicity. These experiments are conducted to determine the organs that are adversely affected by a toxic chemical and the amount of the chemical needed to produce an adverse effect on the organ. Two types of adverse health effects are generally considered in health risk assessments: carcinogenic and non-carcinogenic. Carcinogenic compounds are not considered to have threshold levels (i.e., dose levels below which there are no risks). Any exposure, therefore, will have some associated risk. Chemicals that potentially produce carcinogenic effects have been shown or are suspected to produce tumors in animals or humans. Non-carcinogenic effects, such as liver or kidney damage, may be either reversible or permanent. In these situations, it is assumed that there is a level of exposure at which these chemicals produce no adverse effects in the human body. In other words, exposure to these chemicals in amounts less than a threshold level will result in no adverse health effects. The toxicity assessment characterizes the relationship between the magnitude of exposure and the nature and magnitude of adverse health effects that may result from such exposure

- **Exposure Assessment** identifies potential exposure pathways, estimates chemical concentrations at potential exposure points, and calculates expected doses of emitted substances. An exposure pathway is defined as the means by which an individual or a population is exposed to contaminants that originate from a source. Each pathway represents a different mechanism for exposure. An exposure pathway is defined as the means by which an individual or a population is exposed to contaminants that originate from a source. For this purpose, an air dispersion model (the USEPA AERMOD regulatory model), is used to estimate the toxic air concentrations at locations within and surrounding the project.

- **Risk Characterization** is the process of combining dose-response information with the estimates of human exposure in order to derive a quantitative estimate of the likelihood that humans will experience any adverse health effects for the given exposure assumptions. Two general types of health effects are generally considered: potential carcinogenic risks after chronic (long-term) exposure and potential non-carcinogenic health impacts following chronic (long-term) and acute (short-term) exposure. Each of these health effects was evaluated in this report.

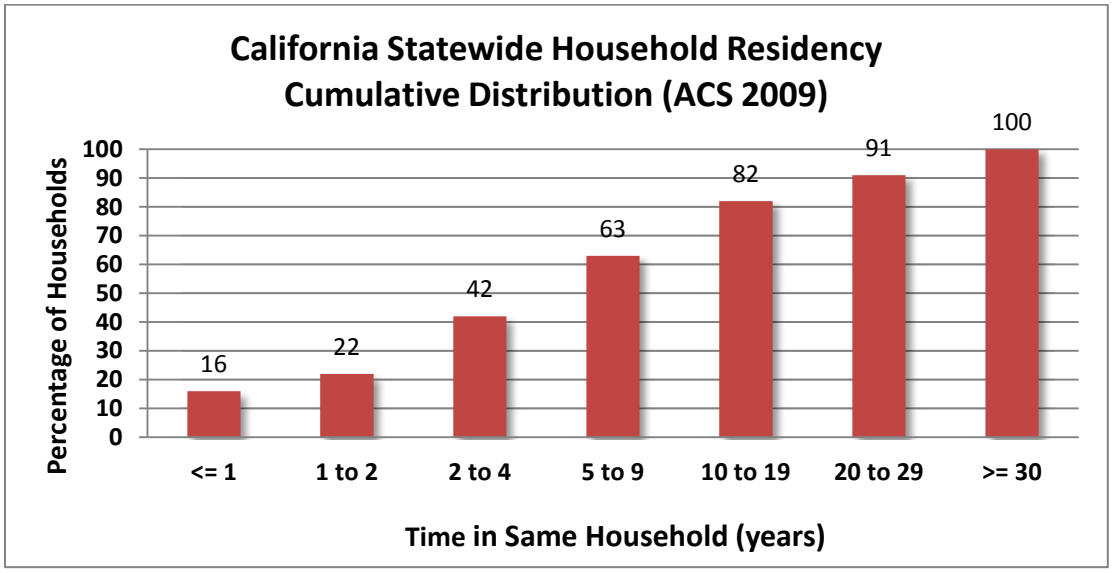
Estimation of Cancer Risks. Excess cancer risks[1] are estimated as the upper-bound incremental probability that an individual will develop cancer over a lifetime as a direct result of exposure to potential carcinogens over a specified exposure duration. The estimated risk is expressed as a unit-less probability. The cancer risk attributed to a chemical is calculated by multiplying the chemical intake or dose at the human exchange boundaries (e.g., lungs) by the chemical-specific cancer potency factor (CPF). A risk level of 1 in a million implies a likelihood that up to one person, out of one million equally exposed people would contract cancer if exposed continuously (24 hours per day) to the levels of toxic air contaminants over a specified duration of time.

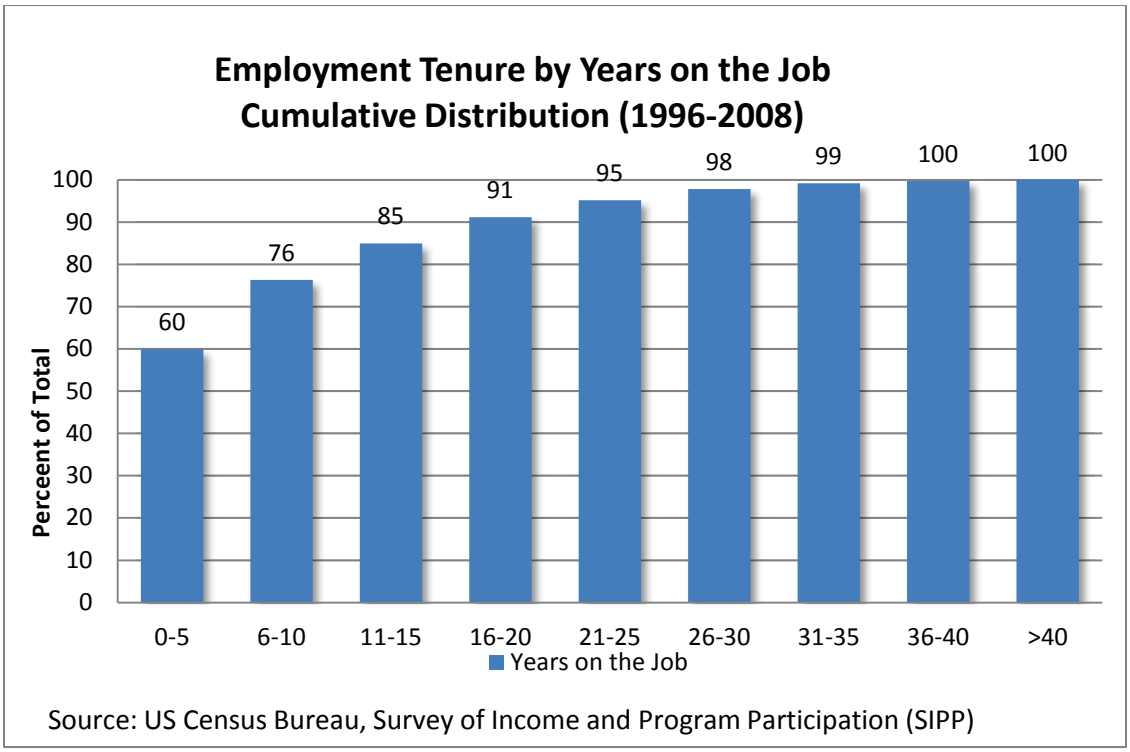
[1] Excess cancer risk is the risk from exposure to a source of air toxics that is over and above any cancer risk borne by a person not exposed to these air toxics.

The health risk assessment methodology that was included in the DEIR for estimating cancer risks is described below. This methodology, taken from the AB2588 Hot Spot program, estimates cancer risks over a 70-year lifetime of exposure and includes assumptions concerning individual rates of the inhalation of air. This methodology is referred to as the "Former OEHHA Guidance" since it is has been updated by OEHHA since the circulation of the DEIR. The "Former OEHHA Guidance" also provides for an estimate of off-site worker exposures over a 40-year duration.

On March 6, 2015, the OEHHA released its final version of the document. *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments*". This Guidance Manual has been developed by OEHHA, in conjunction with CARB, for use in implementing the Air Toxics Hot Spots Program (Health and Safety Code Section 44360). OEHHA is required to develop guidelines for conducting health risk assessments under the Air Toxics Hot Spots Program (Health and Safety Code Section 44360 (b) (2)). OEHHA earlier developed three Technical Support Documents (TSDs) in response to this statutory requirement, which provided the scientific basis for values used in assessing risk from exposure to facility emissions. The three TSDs describe non-cancer risk assessment (derivation of acute, 8-hour and chronic reference exposure levels), derivation of cancer potency factors, and exposure assessment methodology including stochastic risk assessment. The Guidance incorporates the awareness of the sensitivity of early-in-life exposures to toxic air contaminants for sensitive receptors. The methodology is referred to in this document as the "Current OEHHA Guidance".

The "Current OEHHA Guidance" provides for a 30-year lifetime exposure for sensitive receptors along with assumptions on age-specific sensitivity factors, daily breathing inhalation rates, and time at home estimates. The "Current OEHHA Guidance" also provides for a 25-year exposure duration for off-site worker receptors. To date, the technical support documents relative to the "Current OEHHA Guidance" have been finalized by the OEHHA relative to the AB2588 Hot Spots program; the CARB, and SCAQMD have initiated the process to adopt the guidance for AB2588 assessments and application to CEQA air quality impact assessments. This revised assessment estimates the project's health risk impacts under the "Current OEHHA Guidance". The changes in the "Current OEHHA Guidance" result in a more conservative estimate of cancer risks resulting from the incorporation of early-in-life exposures compared to the "Former OEHHA Guidance". This HRA is being provided to allow decision makers to see the cancer-related impacts of the proposed project in the assumption that new technology diesel exhaust cause cancer, contrary to what was found by the HEI study. The estimation of cancer risk involves the specification of several parameters including the concentration level of the toxic air contaminant (for purposes of this assessment diesel PM10 exhaust), the rate of inhalation of the toxic, the exposure frequency (number of days per year), the exposure duration in years, the time period over which the exposure takes place, what is termed a slope factor that represents an upper bound on the increased cancer risk from a lifetime exposure to a toxic by ingestion or inhalation and early-in-life age sensitivity factors. The values of these parameters depends on the type of receptor, i.e., sensitive/residential, worker, and student as discussed below.





Cancer Risk Exposure Assumptions. The principal focus of this HRA is on the potential health impacts to sensitive/residential receptors located within and surrounding the project site, based on the assumption that diesel exhaust can cause cancer. Sensitive receptors include hospitals, schools, daycare facilities, elderly housing and convalescent facilities. Residences are also considered sensitive receptors. An important parameter necessary to estimate cancer risk requires the specification of the duration of exposure of an individual to toxic air contaminants. An assessment of population mobility can assist in determining the length of time a residential receptor is exposed in a

particular location. For example, the duration of exposure to a source of toxic air contaminants will be directly related to the period of time residents live near the source of the emissions.

Table 4.3.G summarizes the primary exposure assumptions used to calculate individual cancer risk by receptor type for the "Current OEHHA Guidance".

Table 4.3.G: Exposure Assumptions for Cancer Risk for "Current OEHHA Guidance" (new table)

Type of Guidance	Receptor Type	Exposure Frequency		Exposure Duration (years)	Age Sensitivity Factors	Time at Home Factor (%)	Daily Breathing Rate (L/kg-day)
		Hours/ day	Days/ year				
Current OEHHA Guidance	Sensitive/Residential:						
	3rd Trimester	24	350	0.25	10	85	361
	0-2 years	24	350	2	10	85	1090
	3-16 years	24	350	14	3	72	745
	Older than 16 years	24	350	14	1	73	290
	Student	8	180	9	3	NA	745
	Worker	8	250	25	1	NA	230

(L/kg-day) = liters per kilogram body weight per day; NA = not applicable
The daily breathing rates shown are the 95th percentile rate as recommended by the OEHHA.
Source: OEHHA 2014

The underlying factors used in the analysis exemplify the conservative nature of utilizing the exposure scenarios and the underlying assumptions:

- The residential cancer risk calculation assumes that each resident will be exposed to diesel particulate matter (diesel PM) and organic gases for 24 hours a day for 350 days a year at the location of his or her home throughout the entire 30 year residential exposure period.
- The worker cancer risk calculation assumes that workers are exposed to diesel PM for 8 hours a day for 250 days a year, next to, but outside of the buildings in which they work.
- The atmospheric dispersion model and traffic model that are used to estimate risks generally provide impact estimates that are over-estimates based on the use of conservative model assumptions.

Other Factors that Influence Health Risk Estimates: Conservative Trip Estimates. It should also be noted that the traffic analysis used a conservative estimate of the number of truck trips after the project begins operation. This is important because diesel PM emissions are directly related to both the number of trucks and the vehicle miles traveled.

The traffic analysis in the EIR used the traffic generation rate for high-cube warehouses suggested by the Institute of Traffic Engineers ("ITE") which is based on traffic counts from a number of large warehouses located in California and elsewhere in the United States. This rate was also compared to the trip generation rate actually resulting from the Skechers warehouse immediately adjacent to the project. The Skechers warehouse is representative of the warehouses planned for the project. The ITE trip generation rate is three times greater than the Skechers warehouse traffic counts (see Table 4.15.K in the revised EIR). Because the project analysis used a higher trip generation rate, the vehicle miles traveled are also higher. The combination of the conservative forecasts of traffic and of the miles traveled means that the calculation of the cancer risk in the EIR overstates the extent of that risk regardless of the exposure period used.

Cancer Burden. Whereas cancer risk represents the probability of an individual to develop cancer, cancer burden multiplies the cancer risk by the exposed population to estimate the number of individuals that would be expected to contract cancer from the project. The exposed population is defined as the number of persons within a facility's zone of impact, which is typically the area exposed to an incremental cancer risk of one in a million from the project. Consistent with this definition, cancer burden was calculated by first identifying all population census tracts[1] located within the project's zone of impact, multiplying the estimated incremental project cancer risk impact in the census tract by the population of the census tract and then summing all of products of population times estimated cancer risk in the zone of impact. Note that each census tract contributes to the cancer burden in proportion to its population and risk. For example, if a census tract has a relatively high estimated cancer risk, but no people living there, it will not contribute to the estimation of the cancer burden. As provided in the "Current OEHHA Guidance", the cancer burden is calculated assuming a 70-year exposure duration along with the appropriate exposure frequency, daily breathing rates, age sensitivity factors, and time at home factors appropriate to each age group[2].

Non-cancer Hazards. Separate from cancer risk impacts, exposures to TACs such as diesel PM can also cause chronic (long-term) and acute (short-term) related non-cancer illnesses such as reproductive effects, respiratory effects, eye sensitivity, immune effects, kidney effects, blood effects, central nervous system, birth defects, or other adverse environmental effects. Risk characterization for non-cancer health risks from TACs is expressed as a hazard index (HI). The HI is a ratio of the predicted concentration of a project's emissions to a concentration considered acceptable to public health professionals, termed the Reference Exposure Level (REL). This is a separate and distinct analysis from the analysis conducted for cancer risk. A significant risk is defined by the SCAQMD as an HI of 1 or greater. The California OEHHA has assigned a chronic non-cancer REL of 5 $\mu g/m^3$ for diesel PM (OEHHA 2011). Diesel PM has effects on the respiratory system, which accounts for essentially all of its potential chronic non-cancer hazards. Therefore, the only HI calculated was for the respiratory system.

Exposures to toxics air contaminants can also have short-term or acute non-cancer effects, typically dealing with exposures over an hour or so. The California OEHHA has not defined a reference exposure level for diesel PM appropriate for estimating acute non-cancer hazards from diesel PM. Therefore, to estimate the potential acute non-cancer impacts from the project, it was necessary to examine the various individual chemical components (or chemical species) that comprise the emissions from both diesel vehicles and gasoline vehicles. For this purpose, use was made of emission source profiles that provide estimates of the various chemical components that comprise the exhaust from diesel and gasoline vehicles. From this information, an estimate can be made of the maximum one-hour average concentration levels of the project's various chemical species from which an acute non-cancer hazard index can be determined.

Morbidity and Mortality. Respirable particulate matter is a public health concern as it is known to impact both the respiratory and cardiovascular systems. Respirable particulate matter deposition in the lungs and penetration into the bloodstream (for the smallest particles) triggers a range of inflammation responses and exacerbates health problems such as asthma and chronic bronchitis. Individuals susceptible to higher health risks from exposure to airborne particulate matter (PM_{10} and

[1] A census tract is a geographic region defined for the purpose of taking a census. Usually these regions coincide with the limits of cities, towns, or other administrative areas. Each tract has a unique numeric code and averages about 4,000 inhabitants. The census tract centroid is the geographic center of the tract based on a weighted distribution of the population within the tract using the census blocks that comprise the tract. A census block is the smallest geographic unit used to tabulate population and each tract can be comprised of several blocks.

[2] Office of Environmental Health Hazard Assessment, Air Toxics Hot Spots Program, Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments, February 2015, Section 8.1. http://www.oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf

$PM_{2.5}$) include children, the elderly, smokers, and people of all ages with low pulmonary/cardiovascular function. The CARB reviewed and summarized the toxic health effects (i.e., mortality and morbidity) of PM exposure and presented a health effect model attempting to quantify these impacts based on concentration-response functions (C-R functions). This CARB model has been used, for example, to estimate the number of cases of disease and premature deaths linked to PM and ozone exposure from ports and goods movement in California.

The CARB model has also been used to quantitatively assess project-specific incremental levels of public mortality and morbidity, however, such calculations are subject to significant uncertainty. Sources of uncertainty include emission estimates, population exposure estimates, concentration-response functions, baseline rates of mortality and morbidity that are entered into C-R functions, and occurrence of additional not-quantified adverse health effects. It should be noted that the nature of PM as a complex mixture of various pollutants, as well as the confounding health effects of pollutants such as sulfur dioxide, NO_2, CO, and O_3 that tend to co-occur with PM in ambient air, greatly increase the complexity of deriving accurate PM concentration-response functions. Health risk estimates derived in the presence of significant uncertainty tend to rely on very conservative assumptions that may greatly overestimate the potential adverse health effects. Risk assessment has various uncertainties in the methodology and is therefore deliberately designed so that risks are not under predicted.

Despite a number of uncertainties in the analysis methodology, the expected increase in mortality and morbidity was calculated for the project's toxic air emissions.

Geographic Scope of the Health Risk Assessment. The HRA is characterized by two important differences from the localized significance threshold assessment for criteria pollutants. According to the SCAQMD localized significance threshold assessment methodology, the assessment of localized impacts addresses only those emissions that are generated "onsite", that is for the purposes of this project, emissions generated from within or along the boundaries of the Specific Plan. However, for the HRA, both the universe of the project's emission sources and air dispersion model receptors were greatly expanded to assess the regional impact of the project's emissions of toxics. For this purpose, the project's toxics emission sources included over 500 individual arterial road and freeway mainline segments in the region that extended from North Palm Springs to Long Beach in the east-west direction and from Rancho Cucamonga to Hemet/San Jacinto in the north-south direction, roughly an area of 3,500 square miles. The study area for the arterial roads covered all intersections in the City of Moreno Valley of a collector or higher classification street with another collector street or higher classification street at which the project would add 50 or more peak hour trips. The study area included the main arterial routes between the project and neighboring communities of Riverside, Perris, Beaumont, San Jacinto, Hemet, and Redlands.

The study area for freeways was selected to cover the freeway routes radiating from the project site to the north, south, east, and west. The analysis covered major portions of the following freeways from North Palm Springs to the ports of Los Angeles and Long Beach: Interstate 10, State Route 60, State Route 91, Interstate 215, and Interstate 710.

The generation of emissions from traffic traveling along the various arterial and freeway mainline roadway segments requires information on traffic volumes, length of segment, and emission factors. The emission factors, in turn, depend on vehicle type, speed, calendar year, and fuel type. Estimates of daily and peak hour vehicle volumes and types (passenger cars, light heavy duty trucks, medium heavy duty trucks, and heavy-heavy duty trucks) were provided by the traffic consultant for each roadway segment analyzed. The physical length and width of each roadway segment were estimated using the segment location as provided by the traffic consultant and aerial photographs available from Google Earth. Vehicle speeds for each roadway segment and vehicle type were estimated based on posted speed limits and peak morning and afternoon average speeds taken from the 2012 Regional

Transportation Plan for the years 2008 and 2035 (Southern California Association of Governments 2012). Segment speeds were adjusted to account for stop signs and traffic lights and other stoppages by reducing the prevailing vehicle speeds by 5 to 10 mph. The various roadway parameters are provided in Appendix D.

The expanded geographic scope of the assessment also necessitated an expansion in the locations of the receptors where the project's impacts were calculated. This expanded network included locations of individual schools within the Moreno Valley School District and over 2,300 census tract centroid locations.

Finally, it is recognized that because of the large geographical extent of the region covered in this HRA, meteorological conditions differ for different portions of the study region. The most frequent wind direction patterns in the Riverside and Moreno Valley areas are from the northwest direction at as represented by the SCAQMD Riverside air monitoring station. In contrast, the most frequent wind directions along the SR-60 and SR-91 west of SR-71 in the La Habra and Anaheim areas are generally from the southwest. Because of these wind differences, it was necessary to separate the air dispersion modeling into two separate pieces as follows. Those emission sources located east of SR-71 were assumed to be influenced by the meteorological conditions represented by the Riverside meteorological data. Those emission sources located west of SR-71 were assumed to be influenced by the meteorological conditions represented by the Anaheim meteorological data. The air dispersion modeling was done separately for the region east of SR-71 and for the region west of SR-71. The air pollutant concentrations at each receptor location were then comprised as the sum of the emission impacts from those sources located east of SR-71 and west of SR-71 as influenced by their respective meteorological conditions.

The health risk analysis examined the following condition:

- Proposed Project Development condition which examines the effect of project-related construction and operational traffic diesel PM emissions as if the project were built out in accordance with its proposed phased construction and operational buildout schedule commencing with the construction of Phase 1 in 2015, build out of Phase 1 in 2022, and the final full build out in 2035. This condition forms the basis for quantifying the incremental impacts from the project.

Annual average diesel PM emissions and impacts were calculated for each year starting from 2015 based on the assumption that diesel exhaust can cause cancer. Specifically, annual average diesel PM concentrations were estimated from the diesel PM construction emissions for each year of construction from 2015 to 2030 according to the construction schedule and equipment usage projected for each year of construction. Proposed Project Development examines project impacts resulting from the proposed construction and operation of the project from the commencement of construction in 2015 for a 30-year duration for sensitive/residential receptors, 25-year for worker receptors, and 9-year exposure time periods for school-site student receptors. Annual average diesel PM emissions and impacts during operation were estimated for the years 2022 and 2035, years for which detailed traffic information was available from the traffic impact report. The annual average operational diesel PM impacts were then interpolated among three calculation years: 2015 (operational emissions were assumed to be zero in this year), 2022 and 2035 based on the amount of square-footage of buildings brought online during each year. Annual average diesel PM concentrations for the years beyond 2035 were set to the year 2035 levels.

During years when both construction and operations occur simultaneously (2016 to 2030), the annual diesel PM concentrations at the sensitive receptors from construction were added to the annual diesel PM concentrations from operations to provide a total impact assessment of all diesel PM emissions from the project during each year. The resulting total annual average diesel PM concentrations

calculated each year for the exposure time period (individual annual averages) multiplied by the requisite daily breathing rates, age sensitivity factors, and time-at-home factors for each year of exposure assuming the a child of age zero (within the mother's womb) commences its lifetime exposure in year 2015. The HRA is being provided to allow decision makers to see the cancer-related impacts of the proposed project in the assumption that new technology diesel exhaust cause cancer, contrary to what was found by the HEI study. The revised mitigation conditions require that all diesel trucks accessing the project during operation be model year 2010 or newer and that all on-site equipment be Tier 4. The results of the HEI Study indicate that the project mitigation requiring the application of Model Year 2010 engines as well as the use of Tier 4-compliant off-road construction equipment are not expected to result in emissions that would be associated with the formation of cancer in exposed individuals.

4.3.4 Thresholds of Significance

Based on Appendix G of the *CEQA Guidelines*, air quality impacts would occur if the proposed project would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations; and/or
- Create objectionable odors affecting a substantial number of people.

In addition to the Federal and State AAQS, there are daily emissions thresholds for construction and operation of a proposed project in the Basin. The Basin is administered by the SCAQMD, and guidelines and emissions thresholds established by the SCAQMD in its *CEQA Air Quality Handbook*[1] and subsequent additions to the Handbook were used in this analysis. It should be noted that the emissions thresholds were established based on the attainment status of the air basin with regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety, these emissions thresholds are regarded as conservative and would overstate an individual project's contribution related to air quality and health risks.

4.3.4.1 Thresholds for Construction Emissions

The following CEQA significance thresholds for construction emissions have been established by the SCAQMD for the Basin:

- 75 pounds per day of VOC, also known as reactive organic compounds (ROC).
- 100 pounds per day of NO_X.
- 550 pounds per day of CO.
- 150 pounds per day of PM_{10}.

[1] *CEQA Air Quality Handbook*, April 1993.

- 150 pounds per day of SO_X.
- 55 pounds per day of $PM_{2.5}$.

Projects in the Basin with construction-related emissions that exceed any of the emission thresholds are considered to be significant under CEQA.

4.3.4.2 Thresholds for Operational Emissions

Projects with operation-related emissions that exceed any of the emission thresholds listed below are considered significant under the SCAQMD guidelines.

- 55 pounds per day of VOC, also known as ROC.
- 55 pounds per day of NO_X.
- 550 pounds per day of CO.
- 150 pounds per day of PM_{10}.
- 150 pounds per day of SO_X.
- 55 pounds per day of $PM_{2.5}$.

~~4.3.4.3 Federal 1-Hour NO2 Standard~~

~~On January 22, 2010, the EPA revised the primary nitrogen dioxide (NO_2) NAAQS in order to provide requisite protection of public health. Specifically, the EPA established a new 1-hour standard at a level of 100 ppb (188.68 µg/m^3), based on the 3-year average of the annual 98th percentile of the daily maximum 1-hour concentrations (form of the standard), in addition to the existing annual secondary standard (100 µg/m^3). EPA has also established requirements for an NO_2 monitoring network that will include monitors at locations where maximum NO_2 concentrations are expected to occur, including within 50 meters of major roadways, as well as monitors sited to measure the area-wide NO_2 concentrations that occur more broadly across communities.~~

~~The effective date of the new 1-hour standard was 60 days after the final rule was published in the Federal Register. The final rule was published in the Federal Register on February 9, 2010, with an effective date of April 12, 2010.~~

4.3.4.4 Air Pollutant Standards for CO with Localized Effects

The significance of localized project impacts under CEQA depends on whether ambient CO levels in the vicinity of the project are above or below State and Federal CO standards (previously referenced Table 4.2.A). If ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or Federal standard, project emissions are considered significant if they increase one-hour CO concentrations by 1.0 ppm or more or eight-hour CO concentrations by 0.45 ppm or more. The Basin meets State and Federal attainment standards for CO; therefore, the proposed project would have a significant CO impact if project emissions result in an exceedance of State or Federal one-hour or eight-hour standard. The following emission concentration standards for CO, based on the SCAQMD *CEQA Air Quality Handbook* (1993), apply to the proposed project:

- California State one-hour CO standard of 20.0 ppm.

- California State eight-hour CO standard of 9.0 ppm.

4.3.4.5 Localized Significance Thresholds

The SCAQMD published its *Final Localized Significance Threshold Methodology* in June 2003, revised July 2008) and *Final Methodology to Calculate Particulate Matter (PM) 2.5 and $PM_{2.5}$ Significance Thresholds* (October 2006), recommending that all air quality analyses include a localized assessment of both construction and operational impacts on the air quality of nearby sensitive receptors. LSTs represent the maximum emissions from a project site that are not expected to result in an exceedance of Federal or State AAQS. LSTs are based on the ambient concentrations of that pollutant within the Source Receptor Area (SRA) where a project is located and the distance to the nearest sensitive receptor. The project site is located in the northern portions of SRAs 24 (Moreno Valley) and 28 (San Jacinto).

In the case of CO and NO_2, if ambient levels are below the air standards for these pollutants, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or Federal standard, then project emissions are considered significant if they increase ambient concentrations by a measurable amount. This would apply to PM_{10} and $PM_{2.5}$, both of which are nonattainment pollutants in the Basin. For these latter two pollutants, the significance criteria are the pollutant concentration thresholds presented in SCAQMD Rules 403 and 1301. The Rule 403 threshold of 10.4 $\mu g/m^3$ applies to construction emissions (and may apply to operational emissions at aggregate handling facilities). The Rule 1301 threshold of 2.5 $\mu g/m^3$ applies to non-aggregate handling operational activities.

Sensitive receptors include residences, schools, hospitals, and similar uses that are sensitive to adverse air quality. There are currently seven occupied single-family homes and associated ranch/ farm buildings in various locations on the proposed project site. These residences are existing on-site sensitive receptors. The nearest off-site existing sensitive receptors in the vicinity of the proposed project site are the residences located along Bay Avenue, Merwin Street, and west of Redlands Boulevard, and scattered residences along Gilman Springs Road.

Following the SCAQMD LST methodology, for sites larger than 5 acres, air dispersion modeling needs to be conducted. Because the project site greatly exceeds 5 acres, the localized significance for project air pollutant emissions was determined by performing dispersion modeling to determine if the pollutant concentrations would exceed relevant significance thresholds established by the SCAQMD.

The following LSTs were applied to the construction and operation of the project:

- 0.18 ppm (State 1-hour); 0.100 ppm (Federal 1-hour); and 0.03 ppm (Annual) of NO_{2x} for construction or operations.
- 20 ppm (1-hour) and 9.0 ppm (8-hour) of CO for construction or operation.
- 10.4 $\mu g/m^3$ (24-hour) and 1 $\mu g/m^3$ of PM_{10} (Annual) for construction.
- 2.5 $\mu g/m^3$ (24-hour) and 1.0 ppm (Annual) of PM_{10} for operations.
- 10.4 $\mu g/m^3$ (24-hour) of $PM_{2.5}$ for construction.
- 2.5 $\mu g/m^3$ (24-hour) of $PM_{2.5}$ for operation.

- Note that when construction and operational activities occur at the same time, the SCAQMD recommends application of the significance thresholds for operation apply in determining emission significance

4.3.4.6 ~~Diesel Exhaust~~ Health Risk Significance Thresholds

For pollutants without defined significance standards or air contaminants not covered by the standard criteria cited above, the definition of substantial pollutant concentrations varies. For toxic air contaminants (TAC), "substantial" is taken to mean that the individual cancer risk exceeds a threshold considered to be a prudent risk management level. ~~If best available control technology for toxics (T-BACT) has been applied, the individual cancer risk to the maximum exposed individual (MEI) must not exceed 10 in 1 million if an impact is to be considered less than significant.~~

~~The following limits for maximum individual cancer risk (MICR), cancer burden and non-cancer acute and chronic hazard indices (HI) from project emissions of TACs have been established for the Basin:~~

- ~~**MICR.** MICR is the estimated probability of a potential maximally exposed individual contracting cancer as a result of exposure to TACs over a period of 70 years for residential and 40 years for worker receptor locations. The MICR calculations include multipathway consideration, when applicable. .~~

  ~~The total increase in MICR that is the sum of the calculated MICR values for all TACs emitted from the project will not result in an increased MICR greater than 10 in 1 million (1.0×10^{-5}) at any receptor location (assumes the project will be constructed with T-BACT).~~

  ~~(A)~~

- ~~**Chronic HI.** This is the ratio of the estimated long-term level of exposure to a TAC for a potential maximally exposed individual to its chronic reference exposure level. The chronic HI calculations include multipathway consideration, when applicable.~~

  ~~The cumulative increase in total chronic HI for any target organ system due to total emissions from the project will not exceed 1.0 at any receptor location.~~

- ~~**Acute HI.** This is the ratio of the estimated maximum one-hour concentration of a TAC for a potential maximally exposed individual to its acute reference exposure level.~~

  ~~The cumulative increase in total acute HI for any target organ system due to total emissions from the project will not exceed 1.0 at any receptor location.~~

The SCAQMD has defined several health risk significance thresholds that it recommends to Lead Agencies in assessing a project's health risk impacts. The City of Moreno Valley has not adopted its own set of thresholds. Therefore, the following SCAQMD thresholds were adopted for the project.

- **Maximum Individual Cancer Risk and Cancer Burden (MICR).** MICR is the estimated probability of a potential maximally exposed individual contracting cancer as a result of exposure to TACs over the applicable exposure period.

  A significant impact would occur for:

  (A) An increased MICR greater than 10 in 1 million at any receptor location; or

  (B) A cancer burden greater than 0.5

- **Chronic Hazard Index.** This is the ratio of the estimated long-term level of exposure to a TAC for a potential maximally exposed individual to its chronic reference exposure level. A reference exposure level is the exposure level below which an adverse health effect will not occur as

determined by health professionals The Chronic Hazard Index calculations include multi-pathway consideration, when applicable.

A significant impact would occur if the increase in total chronic hazard index for any target organ system due to exposures to total TAC emissions from the project exceeds 1.0 at any receptor location.

- **Acute Hazard Index.** This is the ratio of the estimated maximum one-hour concentration of a TAC for a potential maximally exposed individual to its acute reference exposure level, the exposure level below which an adverse health effect will not occur as determined by health professionals.

  A significant impact would occur if the increase in total acute Hazard Index for any target organ system due to exposure to total TAC emissions from the project exceeds 1.0 at any receptor location.

4.3.5 Less than Significant Impacts

The following impacts were determined to be less than significant. For each of the following issues, either no impact would occur (therefore, no mitigation would be required) or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level.

4.3.5.1 Odors

Threshold	Would the proposed project create objectionable odors affecting a substantial number of people?

The SCAQMD recommends that odor impacts be addressed in a qualitative manner. Such an analysis shall determine whether the project would result in excessive nuisance odors, as defined under the California Code of Regulations and Section 41700 of the California Health and Safety Code, and thus would constitute a public nuisance related to air quality.

Land uses typically considered associated with odors include wastewater treatment facilities, waste-disposal facilities, or agricultural operations. The project does not contain land uses typically associated with emitting objectionable odors.

SCAQMD Rule 402 dictates that air pollutants discharged from any source shall not cause injury, nuisance, or annoyance to the health, safety, or comfort of the public. With the exception of short-term construction-related odors (e.g., equipment exhaust, paint, and asphalt odors), the proposed uses that would be developed on the proposed site do not include uses that are generally considered to generate offensive odors (e.g., agricultural uses, wastewater treatment plants, or landfills). While the application of architectural coatings and installation of asphalt may generate odors, these odors are temporary and not likely to be noticeable beyond the project boundaries. SCAQMD Rules 1108 and 1113 identify standards regarding the application of asphalt and architectural coatings, respectively.

SCAQMD Rule 1108 sets limitations on ROG (reactive organic gases), which are similar to and for the purposes of this EIR equivalent to and therefore interchangeable with volatile organic compounds (VOC) content in asphalt. This rule is applicable to any person who supplies, sells, offers for sale, or manufactures any asphalt materials for use in the Basin. Rule 1113 of the SCAQMD deals with the selling and application of architectural coatings. Rule 1113 is applicable to any person who supplies, sells, offers for sale, or manufactures any architectural coating for use in the Basin that is intended to be applied to buildings, pavements, or curbs. This rule is also applicable to any person who applies or

solicits the application of any architectural coating within the Basin. Rule 1113 sets limits on the amount of VOC emissions allowed for all types of architectural coatings, along with a time table for tightening the emissions standards in the future. Compliance with Rule 1113 means that architectural coatings used during construction would have VOC emissions that comply with these limits. In addition, pursuant to Mitigation Measure 4.3.6.2C, the project would be required to use low VOC paints.

The SCAQMD indicates that the number of overall complaints has been declining. Between 2003 and 2007, odor complaints made up 50 to 55 percent of the total nuisance complaints. Over the past decade, odor complaints from paint and coating operations have decreased from 27 to 7 percent and odor complaints from refuse collection stations have increased from 9 to 34 percent.

Diesel exhaust and VOCs would be emitted during construction of the project, which are objectionable to some; however, emissions would disperse rapidly from the project site and therefore should not reach an objectionable level at the nearest sensitive receptors. Diesel exhaust would also be emitted during operation of the project from the long-haul trucks that would visit the project site. However, the concentrations would not be at a level to result in a negative odor response at nearby sensitive or worker receptors. In addition, modern emission control systems on diesel vehicles since 2007 virtually eliminate diesel's characteristic odor.

During blow-down maintenance activities, natural gas odors will be present around the SDG&E Compressor Plant located on the project site. When this portion of the WLC Specific Plan is developed, these odors will occasionally be detectable from the industrial warehouse properties adjacent to the SDG&E facility. These odors will be infrequent and odorized natural gas will not be present in high concentrations. Therefore, potential odor impacts from on-site natural gas operations are considered to be less than significant and do not require mitigation.

Adherence to applicable provisions of these rules is standard for all development within the Basin. In addition, conditions for the design of waste storage areas on the proposed site would be established through the permit process to ensure enclosures are appropriately designed and maintained to prevent the proliferation of odors. Solid waste generated by the proposed on-site uses will be collected by a contracted waste hauler, ensuring that any odors resulting from on-site uses would be adequately managed. Therefore, impacts associated with this issue would be less than significant and no mitigation is required.

4.3.5.2 Long-Term Microscale (CO Hot Spot) Emissions

Threshold	Would the proposed project violate any air quality standard or contribute substantially to an existing or projected air quality violation? For CO, the applicable thresholds are: - California State one-hour CO standard of 20.0 ppm; and - California State eight-hour CO standard of 9.0 ppm.

Vehicular trips associated with the development of the proposed project could contribute to congestion at intersections and along roadway segments in the project vicinity resulting in potential local CO "hot spot" impacts. The primary mobile source pollutant of local concern is CO, which is a direct function of vehicle travel speeds and idling time and, thus, traffic flow conditions. CO transport is extremely limited; it disperses rapidly with distance from the source under normal meteorological conditions. However, under certain extreme meteorological conditions, CO concentrations proximate to a congested roadway or intersection may reach unhealthful levels affecting local sensitive

receptors (residents, schoolchildren, etc.). High CO concentrations are typically associated with roadways or intersections operating at unacceptable levels of service or with very high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project's effect on local CO levels.

Carbon monoxide (CO) "hot spot" thresholds ensure that emissions of CO associated with traffic impacts from a project in combination with CO emissions from existing and forecast regional traffic do not exceed State or Federal standards for CO at any traffic intersection affected by the project. Project concentrations may be considered significant if a CO hot spot intersection analysis determines that project-generated CO concentrations cause a localized violation of the State CO 1-hour standard of 20 ppm, State CO 8-hour standard of 9 ppm, Federal CO 1-hour standard of 35 ppm, or Federal CO 8-hour standard of 9 ppm.

A CO hot spot is a localized concentration of CO that is above the State or Federal 1-hour or 8-hour CO ambient air standards. Localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles. To provide a worst-case scenario, CO concentrations are estimated at project-impacted intersections where the concentrations would be the greatest.

This analysis follows guidelines recommended by the CO Protocol (University of California, Davis 1997) and the SCAQMD. According to the CO Protocol, intersections with Level of Service (LOS) E or F require detailed analysis. In addition, intersections that operate under LOS D conditions in areas that experience meteorological conditions favorable to CO accumulation require a detailed analysis. The LOS for intersections is determined in the project Traffic Impact Analysis (refer to Section 4.15 of this EIR, Traffic and Circulation). The SCAQMD recommends that a local CO hot spot analysis be conducted if the intersection meets one of the following criteria: (1) the intersection is at LOS D or worse and where the project increases the volume to capacity ratio by 2 percent, or (2) the project decreases LOS at an intersection from C to D. A decrease in LOS, i.e., from C to D, means that there is more traffic and more delay at the intersection.

For this project analysis, the ~~top five~~ intersections with the highest traffic volumes and the LOS E or F before mitigation were identified for 2022 using information from the table in the traffic study "Intersection LOS under 2022 Plus Phase 1 Conditions." ~~In addition, intersection 103 was added because after mitigation, the LOS at the a.m. peak hour is E; the rest of the intersections are at D or better.~~ The ~~five~~ intersections with the greatest LOS before mitigation were also identified for 2035 using information from the table in the traffic study "Intersection LOS under 2035 Plus Build-out Conditions."

The CO concentrations were estimated using the CALINE4 model using 2012 emission factors. The emission factors are for "all" vehicle classes and are not adjusted for a project-specific fleet to provide a worst-case scenario. In addition, the emission factors do not take into account the project ~~design feature~~ mitigation reductions from requiring that all ~~medium-heavy duty trucks and heavy-heavy duty~~ diesel trucks are model year 2010 or newer.

Table ~~4.3.I~~ 4.3.H shows estimated CO concentrations at year 2022 plus project traffic conditions. The estimated CO concentrations at year 2035 are shown in Table ~~4.3.J~~ 4.3.I. As shown in the tables, the estimated 1-hour and 8-hour average CO concentrations from project-generated and cumulative traffic plus the background concentrations are below the State and Federal standards. No CO hot spots are anticipated because of traffic-generated emissions by the project in combination with other anticipated development in the area. Therefore, the mobile emissions of CO from the project are not anticipated to contribute substantially to an existing or projected air quality violation of CO. Therefore, according to this criterion, air pollutant emissions during operation would result in a less than significant impact. No mitigation is required.

Note: The following tables were edited because the revised Traffic Impact Analysis revised traffic volumes and LOS. CO hotspot analyses are dependent of traffic volumes through specific intersections; changes in a traffic analysis may result in changes to the intersections that require analysis in order to determine the location of greatest impact. That occurred in this analysis with changing transportation analysis requiring a modified CO hotspot analysis.

Table 4.3H: Carbon Monoxide Concentrations at Intersections, 2022

Intersection	Peak Hour	CO Concentration (ppm)		Significant Impact?
		1 Hour	8 Hour	
Cactus Avenue at Graham Street	PM	5.2	3.4	No
Cactus Avenue at Elsworth Street	PM	4.9	3.2	No
Alessandro Blvd at Sycamore Canyon Road	PM	4.8	3.1	No
Alessandro Blvd at Chicago Avenue	AM	5.2	3.4	No
Alessandro Blvd at Chicago Avenue	PM	5.4	3.5	No

- ppm = parts per million
- A significant impact would occur if the estimated CO concentration is over the 1-hour State standard of 20 ppm or the 8-hour State/Federal standard of 9 ppm.

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

Table 4.3.I: Carbon Monoxide Concentrations at Intersections, 2035

Intersection	Peak Hour	CO Concentration (ppm)		Significant Impact?
		1 Hour	8 Hour	
Alessandro Blvd at Mission Grove Pkwy	PM	5.1	3.3	No
Alessandro Blvd at Chicago Avenue	AM	5.3	3.5	No
Alessandro Blvd at Chicago Avenue	PM	5.4	3.5	No
Alessandro Blvd at Canyon Crest Drive	AM	5.4	3.5	No
Alessandro Blvd at Canyon Crest Drive	PM	5.6	3.7	No

- ppm = parts per million
- A significant impact would occur if the estimated CO concentration is over the 1-hour State standard of 20 ppm or the 8-hour State/Federal standard of 9 ppm.

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

4.3.6 Significant Impacts

The following impacts were determined to be potentially significant. In each of the following issues, mitigation measures have been recommended to reduce the significance of the identified impacts.

4.3.6.1 Air Quality Plan Management Plan Consistency

Impact 4.3.6.1: *Implementation of the proposed project has the potential to conflict with implementation of the SCAQMD 2012 AQMP.*

Threshold	Would the proposed project conflict with or obstruct implementation of the applicable air quality plan?

According to the 1993 SCAQMD Handbook, there are two key indicators of consistency with the Air Quality Management Plan (AQMP):

1. Indicator: Whether the project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
2. Indicator: A project would conflict with the AQMP if it would exceed the assumptions in the AQMP in 2010 or increments based on the year of project buildout and phase. The Handbook indicates that key assumptions to use in this analysis are population number and location and a regional housing needs assessment. The parcel-based land use and growth assumptions and inputs used in the Regional Transportation Model run by the Southern California Association of Governments that generated the mobile inventory used by the SCAQMD for AQMP are not available and assumed not to include the proposed project; therefore, the SCAQMD's significance thresholds are used to determine if the project exceeds the assumptions in the AQMP.

Considering the recommended criteria in the SCAQMD's 1993 Handbook, this analysis utilizes the following criteria to address this potential impact:

- Project's contribution to air quality violations (SCAQMD's first indicator, 1 as listed above);
- Assumptions in AQMP (SCAQMD's second indicator, 2, as listed above); and
- Compliance with applicable emission control measures in the AQMPs.

Project's Contribution to Air Quality Violations and Assumptions in AQMP. According to the SCAQMD, the project is consistent with the AQMP if the project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP (SCAQMD 1993, page 12-3). As shown in analyses in Impact 4.3.6.3, the project could violate an air quality standard and therefore could contribute substantially to an existing or projected air quality violation.

If a project's emissions exceed the SCAQMD regional thresholds for NO_X, VOC, PM_{10}, or $PM_{2.5}$, it follows that the emissions could cumulatively contribute to an exceedance of a pollutant for which the Basin is in nonattainment (ozone~~, nitrogen dioxide~~, PM_{10}, and $PM_{2.5}$) at a monitoring station in the Basin.

The thresholds are criteria for determining environmental significance and are discussed in the SCAQMD's 1993 Handbook for Air Quality Analysis and are updated in the SCAQMD's most recent

thresholds published online in 2012.[1] An exceedance of a nonattainment pollutant at a monitoring station would not be consistent with the goals of the AQMP to achieve attainment of pollutants.

As discussed in the analyses below (Impact 4.3.6.2, Construction Emissions, and Impact 4.3.6.4, Long-Term Operational Emissions), the project would exceed the regional emission significance thresholds for VOC, NO_X, CO, PM_{10}, and/or $PM_{2.5}$ prior to the application of mitigation. (Refer specifically to Table 4.3.J for construction emissions and Table 4.3.Y for operational emissions.) This means that project emissions of VOC and NO_X could combine with other sources and could result in an ozone, ~~nitrogen dioxide,~~ PM_{10}, or $PM_{2.5}$ exceedance at a nearby monitoring station. The Basin in which the project is located is in nonattainment for these pollutants; therefore, ~~the project would not be consistent with the AQMP.~~ according to this criterion, the project would not be consistent with the AQMP. The regional emissions assume a zero baseline for existing emissions on the project site and therefore assumes that the AQMP had no emissions for the project site. The regional significance thresholds can be interpreted to mean that if project emissions exceed the thresholds, then the project would also not be consistent with the assumptions in the AQMP. The project does not meet this criterion.

Note: The project comparison with the Moreno Highlands Specific Plan was removed because it is assumed that there would be a zero baseline for the existing emissions, instead of assuming that the existing conditions are emissions from the Moreno Highlands Specific Plan. Please see the paragraphs above for a discussion. Note that a comparison to the Moreno Highlands Specific Plan is still part of the No Project analysis of the EIR and can be found in the Alternatives Section 6.0.

~~**Assumptions in AQMP.** The analyses in the AQMP use demographic growth forecasts for various socioeconomic categories (e.g., population, housing, and employment by industry) developed by the SCAG for its RTP. Although it is uncertain what precise assumptions were used to generate the modeling in the AQMPs, for purposes of this analysis, it is assumed that the AQMPs use the assumptions from the current Moreno Highlands Specific Plan (MHSP).~~

~~The MHSP, adopted in 1992, had the land use acreages as displayed in Section 3.0, *Project Description* (Table 3.A). The emissions from the Specific Plan were estimated using CalEEMod (for assumptions, refer to the Air Quality, Greenhouse Gas, and Health Risk Assessment Report). Table 4.3.H shows the operational emissions for the MHSP.~~

~~**Table 4.3.H: Operational Regional Air Pollutant Emissions for Moreno Highlands Specific Plan**~~

~~Source~~	~~Summer Emissions (pounds per day)~~				
	~~VOC~~	~~NO_X~~	~~CO~~	~~PM_{10}~~	~~$PM_{2.5}$~~
~~Motor Vehicles~~	~~435~~	~~1.000~~	~~4,210~~	~~1,213~~	~~68~~
~~Natural Gas~~	~~8~~	~~65~~	~~33~~	~~5~~	~~5~~
~~Painting~~	~~123~~	~~—~~	~~—~~	~~—~~	~~—~~
~~Consumer Products~~	~~516~~	~~—~~	~~—~~	~~—~~	~~—~~
~~Natural Gas Hearths~~	~~14~~	~~0~~	~~1~~	~~10~~	~~10~~
~~Landscaping~~	~~18~~	~~7~~	~~609~~	~~3~~	~~3~~
~~**Total**~~	~~**1,114**~~	~~**1,072**~~	~~**4,853**~~	~~**1,231**~~	~~**86**~~
~~Significance Threshold~~	~~55~~	~~55~~	~~550~~	~~150~~	~~55~~
~~Significant Impact?~~	~~Yes~~	~~Yes~~	~~Yes~~	~~Yes~~	~~Yes~~

[1] The most recent SCAQMD significance thresholds are located at the following website~~: www.aqmd.gov/ceqa/handbook/signthres.pdf~~.http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2

~~Table 4.3.H: Operational Regional Air Pollutant Emissions for Moreno Highlands Specific Plan~~

~~Source~~	~~Summer Emissions (pounds per day)~~				
	~~VOC~~	~~NO_X~~	~~CO~~	~~PM_{10}~~	~~$PM_{2.5}$~~

~~PM_{10} and $PM_{2.5}$ emissions include exhaust and road dust.~~
~~Sulfur oxides emissions are under the 150 pounds per day significance threshold and at buildout total approximately 12 pounds per day.~~
~~Winter emissions are similar to summer emissions and are contained in Appendix A of the Air Quality, Greenhouse Gas, and Health Risk Assessment Report.~~
~~VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter~~
~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, January 2013.~~

~~Table 4.3.I shows a comparison of the project operational emissions with the MHSP operational emissions is shown in Table 4.3.I. As shown in the table, the project would result in a net decrease in VOC and CO emissions but an increase in NO_X, PM_{10}, and $PM_{2.5}$. This is primarily due to the number of heavy-duty trucks that would serve the project site. Although there may be fewer trips, the heavy-duty trucks are assumed to travel a farther distance. In addition, heavy-duty trucks have greater NO_X, PM_{10}, and $PM_{2.5}$ emissions compared with automobiles.~~

Compliance with Emission Control Measures. The second indicator of whether the project could conflict with or obstruct implementation of the AQMP is by assessing the project's compliance with the control measures in the AQMPs and the State Implementation Plan (SIP).

2003 AQMP. The 2003 AQMP contains a number of land use and transportation control measures including the following: the SCAQMD's Stationary and Mobile Source Control Measures; State Control Measures proposed by the CARB; and SCAG Transportation Control Measures (TCMs). The CARB's strategy for reducing mobile source emissions includes the following approaches: new engine standards; reduction of emissions from in-use fleet; requiring clean fuels; supporting alternative fuels and reduction of petroleum dependency; working with the EPA to reduce emissions from Federal and State sources; and pursuit of long-term advanced technology measures (AQMP 2003, page 4-25). SCAG TCMs include those contained in the Regional Transportation Plans (RTPs), the most current version of which is the 2008 RTP, which has control measures to reduce emissions from on-road sources by incorporating strategies such as high occupancy vehicle interventions, transit, and information-based technology interventions (AQMP 2003, page 4-19). The project would comply with the control measures and regulation set by the CARB and SCAG.

2007 AQMP. The focus of the 2007 AQMP is to demonstrate attainment of the Federal $PM_{2.5}$ ambient air quality standard by 2015 and the Federal 8-hour ozone standard by 2024, while making expeditious progress toward attainment of State standards. This is to be accomplished by building upon improvements from the previous plans and incorporating all feasible control measures while balancing costs and socioeconomic impacts. The 2007 AQMP indicates that $PM_{2.5}$ is formed mainly by secondary reactions of precursor gases. Therefore, instead of reducing fugitive dust (a primary source), the strategy for reducing $PM_{2.5}$ focuses on reducing precursor emissions of SO_X, directly emitted $PM_{2.5}$, NO_X, and VOC.

The 2007 AQMP control measures consist of four components: The first component is SCAQMD's Stationary and Mobile Source Control Measures. The Final 2007 AQMP includes 30 short-term and mid-term stationary and seven mobile source control measures for SCAQMD implementation. A complete listing of the measures is in the 2007 AQMP and includes measures such as VOC reductions from gasoline transfer and dispensing facilities, further NO_X reductions from space heaters, localized control program for PM emission hot spots, urban heat island, energy efficiency and conservation, etc. Some of the measures will become new rules and some will be amendments to existing rules. When the rules pass, the owner-operator will follow the applicable rules.

The second component is the CARB's Proposed State Strategy, which includes short- and mid-term control measures aimed at reducing emissions from sources that are primarily under State jurisdiction, including on-road and off-road mobile sources, and consumer products. These measures are required in order to achieve the remaining emission reductions necessary for $PM_{2.5}$ attainment. The CARB's strategy includes measures such as improvements to California's Smog Check Program, expanded passenger vehicle retirement, cleaner in-use heavy-duty trucks, reductions from port-related sources, cleaner off-road equipment, evaporative and exhaust strategies, pesticide strategies, etc. When these measures are implemented by the CARB, the project would be required to follow them.

The third component is the SCAQMD Staff's Proposed Policy Options to Supplement CARB's Control Strategy. SCAQMD staff believes that a combination of regulatory actions and public funding is the most effective means of achieving emission reductions. As such, the 2007 Final AQMP proposes three policy options for the ~~decision makers~~ lead agency to consider in achieving additional reductions. The first option is to incorporate the SCAQMD-proposed additional control measures as a menu of selections further reducing emissions from sources primarily under State and Federal jurisdiction. The second option is to have the State fulfill its NO_X emission reduction obligations under the 2003 AQMP by 2010 for its short-term defined control measures plus additional reductions needed to meet the NO_X emission target between 2010 and 2014. The third option is based on the same rate of progress under Policy Option 1 (the first option discussed above), but it relies heavily on public funding assistance to achieve the needed NO_X reductions via accelerated fleet turnover to post-2010 on-road emission standards or the cleanest off-road engine standards in effect today (or after 2010). This third component, the CARB's Control Strategy does not directly apply to the project. However, Mitigation Measure 4.3.6.3B requires that all diesel trucks accessing the project during operation be model year 2010 or newer, which is consistent with the third option under CARB's Strategy.

The fourth component consists of Regional Transportation Strategy and Control Measures provided by SCAG. Transportation plans within the Basin are statutorily required to conform to air quality plans in the region, as established by the 1990 Federal Clean Air Act and reinforced by other Acts. The region must demonstrate that its transportation plans and programs conform to the mandate to meet the Federal ambient air quality standards in a timely manner. The SCAG RTP is developed every 4 years with a 20-year planning horizon to meet the long-term transportation planning requirements for emission reductions from on-road mobile sources within the Basin. The Regional Transportation Improvement Program (RTIP) requires that SCAG meet the short-term implementation requirements of the Transportation Conformity Rule. The first 2 years of the program are fiscally constrained and demonstrate timely implementation of a special category of transportation projects called Transportation Control Measures (TCMs). In general, TCMs are those projects that provide emission reductions from on-road mobile sources, based on changes in the patterns and modes by which the regional transportation system is used. Strategies are grouped into three categories: high occupancy vehicle strategy, transit and systems management, and information-based technology (traveling during a less congested time of day). SCAG approved the transportation measures in the RTP, which have been included in the region's air quality plans. The TCMs will be implemented by the appropriate agencies and will subsequently reduce emissions in the Basin.

2012 AQMP. The 2012 AQMP was adopted in December 2012. The purpose of the 2012 AQMP for the Basin is to set forth a comprehensive and integrated program that will lead the Basin into compliance with the federal 24-hour $PM_{2.5}$ air quality standard, and to provide an update of the Basin's projections in meeting the Federal 8-hour ozone standards. The 2012 AQMP states, "The remarkable historical improvement in air quality since the 1970's is the direct result of Southern California's comprehensive, multiyear strategy of reducing air pollution from all sources as outlined in its AQMPs."

Similar to the prior AQMPs, the project would comply with all applicable rules and regulations enacted as part of the AQMP. In addition, the AQMP relies upon the SCAG regional transportation strategy, which is in its adopted 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and 2011 Federal Transportation Improvement Program. Included in the RTP/SCS are transportation control measures including active transportation (non-motorized transportation, e.g., biking and walking); transportation demand management; transportation system management; transit; passenger and high-speed rail; goods movement; aviation and airport ground access; highways; arterials; and operations and maintenance.

The project would be involved in goods movement. The heavy-duty trucks would access local highways and arterials.

State Implementation Plans. Geographical areas in the State that exceed the Federal air quality standards are called nonattainment areas. The project area is in nonattainment for ozone, PM_{10}, and $PM_{2.5}$~~, and nitrogen dioxide~~. SIPs show how each area will attain the Federal standards. To do this, the SIPs identify the amount of pollutant emissions that must be reduced in each area to meet the standard and the emission controls needed to reduce the necessary emissions. On September 27, 2007, the CARB adopted its State Strategy for the 2007 SIP. In 2009, the SIP was revised to account for emissions reductions from regulations adopted in 2007 and 2008 and clarifies CARB's legal commitment. Additional recent revisions to the SIP are as follows:

- In 2008, the EPA revised the lead[1] national ambient air quality standard by reducing it to 0.15 $\mu g/m^3$. On December 31, 2010, the Los Angeles County portion of the Basin was designated as nonattainment for the 2008 lead national standard as a result of exceedances measured near a large lead-acid battery recycling facility. The 2012 Lead SIP for Los Angeles County was prepared by the SCAQMD and addresses the recent revision to the lead national standard, and outlines the strategy and pollution control activities that demonstrate attainment of the lead national standard before December 31, 2015. The 2012 Lead SIP was approved May 4, 2012.
- A SIP revision for the federal nitrogen dioxide standard was prepared in 2012, to address the new 1-hour federal ambient air quality standard for nitrogen dioxide.
- The proposed California Infrastructure SIP revision was considered by the CARB on January 23, 2014. The proposed Infrastructure SIP revision is administrative in nature and covers the National Ambient Air Quality Standards (federal standards) for ozone (1997 and 2008), fine particulate matter (PM2.5; 1997, 2006, and 2012), lead (2008), nitrogen dioxide (2010), and sulfur dioxide (2010). The proposed revision describes the infrastructure (authorities, resources, and programs) California has in place to implement, maintain, and enforce these federal standards. It does not contain any proposals for emission control measures.

The SIP takes into account CARB rules and regulations. The project will comply with applicable rules and regulations as identified in the AQMPs and SIPs. Because the project would comply with all applicable rules and regulations, the project complies with this criterion.

Summary. Although the project would be consistent with the policies, rules, and regulations in the AQMPs and SIPs, the project must meet all the criteria listed above to be consistent with the AQMPs. The project could impede AQMP attainment because its construction and operation emissions exceed the SCAQMD regional significance thresholds, so the project is considered to be inconsistent with the AQMP.

[1] Lead referred to here is a chemical element; a heavy metal.

Mitigation Measures. To facilitate monitoring and compliance, applicable SCAQMD regulatory requirements are restated in the mitigation identified below in Section 4.3.6.2 and 4.3.6.3. These measures shall be incorporated in all project plans, specifications, and contract documents. Typical mitigation measures identified to reduce the level of emissions of criteria pollutants include those identified below in Section 4.3.6.2 and 4.3.6.3. **Mitigation Measures 4.3.6.2A, 4.3.6.2B, 4.3.6.2C, 4.3.6.2D, 4.3.6.3A, 4.3.6.3B, 4.3.6.3C, 4.3.6.3D,** and **4.3.6.4A** are required.

Level of Significance After Mitigation. As noted above, implementation of the proposed project would exceed applicable thresholds for all criteria pollutants, with the exception of SO_X. Despite the implementation of mitigation measures, emissions associated with the proposed project cannot be reduced below the applicable thresholds. In the absence of feasible mitigation to reduce the proposed project's emission of criteria pollutants to below SCAQMD thresholds, potential air quality impacts resulting from exhaust from construction equipment will remain significant and unavoidable.

4.3.6.2 Construction Emissions

Impact 4.3.6.2: *Construction of the proposed project has the potential to exceed applicable daily thresholds that may affect sensitive receptors.*

Threshold	Would the proposed project violate any AAQS or contribute to an existing or projected air quality violation; or expose sensitive receptors to pollutants? For construction operations, the applicable daily thresholds are: - 75 pounds per day of ROC/VOC; - 100 pounds per day of NO_X; - 550 pounds per day of CO; - 150 pounds per day of PM_{10}; - 150 pounds per day of SO_X; and - 55 pounds per day of $PM_{2.5}$.

Grading and other construction activities produce combustion emissions from various sources such as site grading, utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, asphalt paving, and motor vehicles transporting the construction crew. Exhaust emissions during these construction activities will vary daily as construction activity levels change. The use of construction equipment on site would result in localized exhaust emissions. Activity during peak grading days typically generates a greater amount of air pollutants than other project construction activities.

While the actual details of the future construction schedule are not known, it is expected that project construction would occur in two phases with seven discrete activities in Phase 1 and eight discrete activities in Phase 2. For Phase 1, the following activities are assumed to occur over the course of ~~four~~ seven years in the analysis: 1) rough grading, which includes mass site grading; 2) finish grading; 3) building construction; 4) infrastructure construction which includes utility installation; 5) curb, gutter, sidewalk, subgrade preparation, drop rock, and paving activities; 6) asphalt paving; and 7) landscaping. For Phase 2, the same activities are assumed to occur over the course of nine years in the analysis, Phase 1 includes interchange construction as the eighth activity. Within the "building construction" phase, it is assumed that there would also be subphases of concrete pouring, installation of wet utilities, electrical installation, and landscaping. Appendix D of this EIR includes details of the emission factors and other assumptions.

Table 4.3.~~K~~J identifies projected emissions resulting from grading and construction activities for the proposed project and shows the estimated maximum daily construction emissions over the course of project construction prior to the application of mitigation.

The construction emissions estimates summarized in Table 4.3.~~K~~J are based on the assumed construction scenario described in Section 3.0, *Project Description*, of this EIR. Using emission factors from the CalEEMod model, Table 4.3.~~K~~J indicates that construction emissions of criteria pollutants would exceed the SCAQMD daily emission thresholds for all criteria pollutants (VOC, NOx, CO, PM_{10}, and $PM_{2.5}$), with the exception of SO_X.[1] This is a significant impact requiring mitigation.

Fugitive dust emissions are generally associated with land clearing and exposure of soils to the air and wind, and cut-and-fill grading operations. Dust generated during construction varies substantially by project, depending on the level of activity, the specific operations and equipment, local soils, and weather conditions at the time of construction. The proposed project will be required to comply with SCAQMD Rules 402 and 403 to control fugitive dust. There are a number of feasible control measures that can be reasonably implemented to significantly reduce PM_{10} emissions from construction.

As identified in Table 4.3.~~K~~J, fugitive dust and exhaust emissions ~~(i.e., PM_{10})~~ during the anticipated peak construction day for the proposed project would exceed SCAQMD daily construction thresholds. The percentage of dust and exhaust varies by year but for PM_{10} is an average of 70 percent dust and 30 percent exhaust. $PM_{2.5}$ has an average of 29 percent dust and 71 percent exhaust.

[1] The project would emit SO_X from construction equipment exhaust; however, the maximum emissions (6.8 pounds per day) are less than significant as they are far below the threshold of 150 pounds per day.

Table 4.3.KJ: Short-Term Regional Construction Emissions–Without Mitigation (Table Revised)

Year	Maximum Daily Pollutant Emissions (lbs/day)								
	VOC	NO_X	CO	PM10 dust	PM10 exhaust	PM_{10} Total	PM2.5 dust	PM2.5 exhaust	$PM_{2.5}$
2015	~~130~~ 128	1,463	871	124	69	193~~199~~	20	64	84~~86~~
2016	267	841	530	82	44	126	9	41	50
2017	~~316~~ 314	1,432	849	125	68	193~~198~~	20	62	82~~85~~
2018	267	841	530	82	44	126	9	41	50
2019	~~373~~ 371	2,116	1,226	173	93	266~~284~~	38	86	124~~131~~
2020	277	961	596	86	50	137	11	46	57
2021	303	1,259	774	122	62	184~~188~~	19	57	76~~77~~
2022	~~288~~ 286	1,057	668	116	53	169~~173~~	17	49	66~~67~~
2023	~~319~~ 317	1,389	885	141	66	207~~216~~	26	61	87~~90~~
2024	~~300~~ 298	1,174	754	125	57	183~~189~~	20	53	73~~75~~
2025	~~312~~ 311	1,289	854	141	62	203~~213~~	26	57	83~~87~~
2026	267	841	530	82	44	126	9	41	50
2027	263	729	750	140	28	168~~177~~	26	26	52~~55~~
2028	~~254~~ 252	607	667	126	23	149~~155~~	20	21	41~~44~~
2029	223	318	456	82	12	94	9	11	20
2030	245	420	571	124	16	140~~145~~	20	15	35~~37~~
SCAQMD Threshold	**75**	**100**	**550**	**NA**	**NA**	**150**	**NA**	**NA**	**55**
Exceeds Threshold?	**Yes**	**Yes**	**Yes**	**NA**	**NA**	**Yes**	**NA**	**NA**	**Yes**

~~- PM_{10} and $PM_{2.5}$ emissions include exhaust and fugitive dust emissions.~~

- Sulfur oxide (SOx) emissions are contained in the CalEEMod output; the maximum emissions would be 2.5 pounds per day, substantially under the threshold of 150 pounds per day.

- The emissions assume all construction activities (mass grading, fine grading, building, utilities, curbing, landscaping, painting, paving, and/or interchange) occur on the same day, depending on the year in which the activity occurs.

- Emissions assume compliance with SCAQMD Rule 403.

VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter
NA = not applicable as there is no separate threshold for dust/exhaust

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, ~~2014~~ 2015.

The proposed project is required to comply with regional rules that assist in reducing short-term air pollutant emissions. SCAQMD Rule 402 requires implementation of dust-suppression techniques to prevent fugitive dust from creating a nuisance off site. SCAQMD Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Applicable dust suppression techniques from Rule 403 are summarized below. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus the PM_{10} component). Compliance with these rules would reduce impacts on nearby sensitive receptors. The applicable Rule 403 measures are as follows:

- All clearing, grading, earthmoving, or excavation activities shall cease when winds exceed 25 miles per hour per SCAQMD guidelines in order to limit fugitive dust emissions.
- The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the project are watered at least three times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day.
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 0.6 meter (2 feet) of freeboard (vertical space between the top of the load and top of the trailer) in accordance with the requirements of California Vehicular Code Section 23114.
- The contractor shall ensure that traffic speeds on unpaved roads and project site areas are 15 miles per hour or less to reduce fugitive dust haul road emissions.

As previously discussed, SCAQMD Rule 1113 regulates the sale and application of architectural coatings. Rule 1113 is applicable to any person who applies or solicits the application of any architectural coating within the Basin. Rule 1113 sets limits on the amount of ROG or VOC emissions allowed for all types of architectural coatings. Compliance with Rule 1113 means that architectural coatings used during construction would have ROG or VOC emissions that comply with these limits.

Mitigation Measures. The following measures are recommended to reduce the level of emissions of criteria pollutants:

~~**4.3.6.2A** During construction of any development within the WLCSP, the following measures shall be implemented by each developer to the satisfaction of the City Planning Department. Construction equipment maintenance records and data sheets of equipment design specifications (including the emission control tier of the equipment) shall be kept on site during construction subject to inspection by the City and provided to the City on a monthly basis by the applicant or construction manager depicting that the mitigation measures are being met.~~

~~a) Prior to the year 2017, off-road diesel-powered construction equipment greater than 50 horsepower shall meet or exceed United States Environmental Protection Agency (EPA) Tier 3 off-road emissions standards.~~

~~b) In the year 2017 and thereafter, off-road diesel-powered construction equipment greater than 50 horsepower shall implement one of the following: meet EPA Tier 4 emissions standards, meet EPA Tier 4 Interim emissions standards, or meet EPA Tier 3 standards with California Air Resources Board verified Level 3 filters to reduce 85 percent diesel particulate matter. If a good faith effort to rent Tier 4 equipment within 200 miles of project has been conducted but has been unsuccessful, then Tier 3 equipment (without filters) can be used. Written~~

~~verification of the Tier 4 equipment search of three or more rental companies shall be provided by the project applicant to the City verifying the results of the search prior to the use of Tier 3 construction equipment.~~

~~c) Off-road diesel-powered equipment during all construction shall be limited to 10 hours per day in the on position and in compliance with the project Noise Reduction Compliance Plan with regards to the timing and location of grading operations. There are no restrictions for equipment powered by natural gas or electricity.~~

~~d) Construction equipment shall be properly maintained according to manufacturer specifications.~~

~~e) Contractors shall turn off all construction equipment and delivery vehicles when not in use or limit on-site idling to 5 minutes or less in any one hour.~~

~~f) On-site electrical hook ups to power grid shall be provided for electric construction tools including saws, drills and compressors, where feasible, to reduce the need for diesel-powered electric generators.~~

~~g) The project shall demonstrate compliance with South Coast Air Quality Management District Rule 403 concerning fugitive dust and provide appropriate documentation to the City of Moreno Valley.~~

~~h) Off-site construction shall be limited to the hours between 6a.m. to 8 p.m. on weekdays only. Construction during City holidays shall not be permitted.~~

4.3.6.2A Construction equipment maintenance records (including the emission control tier of the equipment) shall be kept on site during construction and shall be available for inspection by the City of Moreno Valley.

a) Off-road diesel-powered construction equipment greater than 50 horsepower shall meet United States Environmental Protection Agency Tier 4 off-road emissions standards. A copy of each unit's certified tier specification shall be available for inspection by the City at the time of mobilization of each applicable unit of equipment.

b) During all construction activities, off-road diesel-powered equipment may be in the "on" position not more than 10 hours per day. c) Construction equipment shall be properly maintained according to manufacturer specifications.

d) All diesel powered construction equipment, delivery vehicles, and delivery trucks shall be turned off when not in use. On-site idling shall be limited to three minutes in any one hour.

e) Electrical hook ups to the power grid shall be provided for electric construction tools including saws, drills and compressors, where feasible, to reduce the need for diesel-powered electric generators. Where feasible and available, electric tools shall be used

f) The project shall demonstrate compliance with South Coast Air Quality Management District Rule 403 concerning fugitive dust and provide appropriate documentation to the City of Moreno Valley.

g) All construction contractors shall be provided information on the South Coast Air Quality Management District Surplus Off-road Opt-In "SOON" funds which provides funds to accelerate cleanup of off-road diesel vehicles.

h) Construction on-road haul trucks shall be model year 2007 or newer.

i) Information on ridesharing programs shall be made available to construction employees.

j) During construction, lunch options shall be provided onsite.

k) A publicly visible sign shall be posted with the telephone number and person to contact regarding dust complaints per AQMD Standards. l) Only non-diesel material handling equipment may be used in any logistics building in the WLC. m) Off-site construction shall be limited to the hours between 6 a.m. to 8 p.m. on weekdays only. Construction during City holidays shall not be permitted.

~~**4.3.6.2B** Prior to issuance of any grading permits for development within the WLCSP, the developer shall provide a traffic control plan to the City that describes in detail the location of equipment staging areas, stockpiling/storage areas, construction parking areas, safe detours around the project construction site, as well as provide temporary traffic control (e.g., flag person) during construction-related truck hauling activities. The traffic control plan is intended to minimize traffic congestion and delays that increase idling and acceleration emissions. The developer shall maintain one copy on site in the construction trailer to the satisfaction of the City.~~

4.3.6.2B Prior to issuance of any grading permits, a traffic control plan shall be submitted to and approved by the City of Moreno Valley that describes in detail the location of equipment staging areas, stockpiling/storage areas, construction parking areas, safe detours around the project construction site, as well as provide temporary traffic control (e.g., flag person) during construction-related truck hauling activities. Construction trucks shall be rerouted away from sensitive receptor areas. Trucks shall use State Route 60 using Theodore Street, Redlands Boulevard (north of Eucalyptus Avenue), and Gilman Springs Road. In addition to its traffic safety purpose, the traffic control plan can minimize traffic congestion and delays that increase idling emissions. A copy of the approved Traffic Control Plan shall be retained on site in the construction trailer.

~~**4.3.6.2C** During construction of any development within the WLCSP, the following measures shall be applied to construction activities as indicated:~~

~~a) Use paints with a volatile organic compound (VOC) content 100 grams per Liter or lower for both interior and exterior surfaces, if painted.~~

~~b) Recycle leftover paint. Take any leftover paint to a household hazardous waste center; do not mix leftover water-based and oil-based paints.~~

~~c) Keep lids closed on all paint containers when not in use to prevent VOC emissions and excessive odors.~~

~~d) For water-based paints, clean up with water only. Whenever possible, do not rinse the clean-up water down the drain or pour it directly into the ground or the storm drain. Set aside the can of clean-up water and take it to the hazardous waste center (www.cleanup.org).~~

~~e) Use compliant low VOC cleaning solvents to clean paint application equipment.~~

~~f) Keep all paint and solvent-laden rags in sealed containers to prevent VOC emissions.~~

4.3.6.2C The following measures shall be applied during construction of the project to reduce volatile organic compounds (VOC):

a) Non-VOC containing paints, sealants, adhesives, solvents, asphalt primer, and architectural coatings (where used), or pre-fabricated architectural panels shall be used in the construction of the project to the maximum extent practicable. If such products are not commercially available, products with a VOC content of 100 grams per Liter or lower for both interior and exterior surfaces shall be used.

b) Leftover paint shall be taken to a designated hazardous waste center.

c) Paint containers shall be closed when not in use

d) Low VOC cleaning solvents shall be used to clean paint application equipment.

e) Paint and solvent-laden rags shall be kept in sealed containers.

~~**4.3.6.2D** During construction of any development within the WLCSP, grading shall not occur on days with an Air Quality Index forecast greater than 150 for particulates or ozone (unhealthy for sensitive groups, unhealthy, very unhealthy, or hazardous conditions). Air Quality Index forecasts can be obtained at www.airnow.gov and/or www.enviroflash.info.~~

4.3.6.2D No grading shall occur on days with an Air Quality Index forecast greater than 150 for particulates or ozone as forecasted for the project area (Source Receptor Area 24).

~~**Level of Significance After Mitigation.** There are several methods to reduce daily construction emissions, one of which is to increase the tier of the off-road construction equipment. The unmitigated construction emissions assumed CalEEMod default equipment tiers. Beginning in the year 2011, new off-road mobile engines sold that are greater than 175 horsepower (hp) and non-emergency stationary engines less than 10 liters per cylinder and greater than 175 hp are required to meet Tier 4 Interim standards. Tier 4 Final for engines greater than 130 hp will not be required for new construction equipment until the year 2014. The availability of Tier 3 and Tier 4 equipment varies; therefore, it is not always feasible to use Tier 3 and Tier 4 equipment. Therefore, **Mitigation Measure 4.3.6.2A** allows for flexibility in requiring higher-tiered equipment.~~

~~**Level of Significance After Mitigation.** Significant and unavoidable. There are several methods to reduce daily construction emissions, one of which is to increase the tier of the off-road construction equipment. The mitigation measure with the greatest reduction is **Mitigation Measure 4.3.6.2.A**, which requires Tier 3 equipment before year 2027 and Tier 4 Interim (or higher) equipment for all equipment except scrapers in the year 2027 and after. Therefore, this measure was estimated in CalEEMod by assuming that construction equipment before 2027 is Tier 3 and construction equipment in 2027 and later is Tier 4 (with the exception of scrapers, which are Tier 3). This exception for scrapers is necessary because Tier 4 scrapers are difficult to find.~~

As shown in Table 4.3.~~L~~K, construction emissions are still significant after mitigation, with the exception of $PM_{2.5}$. The reduction in $PM_{2.5}$ emissions is by a reduction in exhaust from the application of Tier 4 off-road equipment. PM_{10} emissions are still significant because emissions in 2019 exceed the threshold; however, emissions of PM_{10} during all other years of construction are less than significant. Although mitigation reduces emissions of all pollutants during construction, potential air quality impacts resulting from exhaust from construction equipment and fugitive dust will remain significant and unavoidable.

Table 4.3.~~L~~K: Mitigated Short-Term Regional Construction Emissions (revised)

Year	Maximum Daily Pollutant Emissions (lbs/day)				
	VOC	NO_X	CO*	PM_{10}	$PM_{2.5}$
2015	31~~49~~	523~~780~~	871	130~~165~~	26~~57~~
2016	134~~143~~	371~~517~~	530	86~~107~~	14~~34~~
2017	143~~160~~	529~~791~~	849	130~~166~~	26~~58~~
2018	134~~143~~	371~~517~~	530	86~~107~~	14~~34~~
2019	158~~181~~	764~~1,195~~	1226	181~~241~~	45~~95~~
2020	135~~146~~	401~~567~~	596	91~~114~~	16~~38~~
2021	142~~156~~	515~~761~~	774	128~~161~~	25~~55~~
2022	140~~153~~	460~~662~~	668	122~~151~~	22~~49~~
2023	148~~167~~	605~~913~~	885	147~~191~~	32~~70~~
2024	143~~159~~	522~~774~~	754	131~~166~~	26~~57~~
2025	148~~167~~	605~~911~~	854	148~~191~~	32~~70~~
2026	134~~143~~	371~~517~~	530	86~~107~~	14~~34~~
2027	145~~148~~	571~~671~~	750	146~~162~~	31~~43~~
2028	142~~146~~	519~~601~~	667	131~~143~~	25~~34~~
2029	132	368~~378~~	456	86	13~~14~~
2030	139~~140~~	470~~516~~	571	129~~137~~	25~~30~~
Average Emissions from revised analysis (for informational purposes)	134~~146~~	498~~692~~	719	122~~150~~	24~~48~~
Average Emissions from Draft EIR (for informational purposes)	233	1,100	1217	87	49
SCAQMD Threshold	**75**	**100**	**550**	**150**	**55**
Exceeds Threshold?	**Yes**	**Yes**	**Yes**	**Yes**	**~~Yes~~ No**

* There is an error in the way CalEEMod estimates the effect of a higher tier (such as Tier 3 or 4) on mitigated CO; therefore, the unmitigated values are reported for CO. This was confirmed by the SCAQMD by a personal communication. The SCAQMD is currently preparing a work around for this; however, it was not available as of the date of this analysis.

- Sulfur oxide (SOx) emissions are contained in the CalEEMod output in Appendix A of the Air Quality, Greenhouse Gas, and Health Risk Assessment Report; the maximum emissions would be approximately 2~~3~~ pounds per day after mitigation, substantially under the threshold of 150 pounds/day.
- Mitigation Measure 4.3.6.2A(a) was estimated by CalEEMod using its mitigation module by assuming Tier 4 off-road equipment.
- Mitigation Measure 4.3.6.2A(b) restricts equipment from operating more than 10 hours per day in the on position, which is estimated in CalEEMod in both the unmitigated and mitigated estimates.
- Mitigation Measures 4.3.6.2A(c) through (e), 4.3.6.2A(g) through (m), 4.3.6.2B, and 4.3.6.2D are not quantified.
- Mitigation Measure 4.3.6.2A(f) is assumed in the unmitigated and mitigated estimates (Rule 403).
- Mitigation Measure 4.3.6.2A(i) requires that construction haul trucks be 2007 model year or greater. CalEEMod does not have a mitigation measure embedded in the model to quantify the reduction from this measure. Therefore, this reduction quantification was not provided.
- Mitigation Measure 4.3.6.2C reduces VOC emissions during painting and is calculated as demonstrated in the spreadsheets in Appendix A of the Air Quality, Greenhouse Gas, and Health Risk Assessment Report.

VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, ~~MBA 2014~~ 2015.

Comparing the emissions to those as estimated in the DEIR, average daily emissions of VOC, NOx, CO and $PM_{2.5}$ have decreased by approximately 100, 600, 500 and 25 pounds per day, respectively. This is primarily because 1) the construction period for the project increased from 10 years to 15 years, resulting in decreased construction activity levels (if market conditions further slow project development, impacts would be no greater than those described in this analysis); 2) Tier 4 equipment is applied as mitigation; and 3) a newer version of CalEEMod was used to estimate construction emissions. The average PM_{10} emissions increased slightly by approximately 35 pounds per day, primarily because of the inclusion of unpaved road dust.

The results of this regional construction analysis indicate that during construction, the South Coast Air Basin may experience the following cumulative health effects from ozone exposure:[1]

Ozone can cause the following health effects: Irritate respiratory system; reduce lung function; breathing pattern changes; reduction of breathing capacity; inflame and damage cells that line the lungs; make lungs more susceptible to infection; aggravate asthma; aggravate other chronic lung diseases; cause permanent lung damage; some immunological changes; and/or increased mortality risk.

4.3.6.3 Localized Construction and Operational Air Quality Impacts

Impact 4.3.6.3: *Construction and operation of the proposed project has the potential to exceed localized daily thresholds that may affect sensitive receptors.*

Threshold	Would the proposed project violate any AAQS or contribute to an existing or projected air quality violation; or expose sensitive receptors to pollutants? The applicable localized thresholds are: - 20 ppm (1 hour) and 9 ppm (8 hours) of CO during construction or operation; - 0.18 ppm (State 1 hour), 0.100 ppm (National 1 hour), and 0.030 ppm (Annual) of NO_X during construction or operation; - 10.4 µg/m^3 (24 hours) 1.0 µg/m^3 (Annual) of PM_{10} during construction - 2.5 µg/m^3 (24 hours) and 1.0 µg/m^3 (Annual) of PM_{10}; during operation and - 2.5 µg/m^3 (24 hours) of $PM_{2.5}$ during operation - During time periods when construction and operational activities occur at the same time, the SCAQMD recommends application of the significance thresholds for operations to assess the significance of the activities

Note: Section 4.3.6.3 in the original DEIR was replaced in its entirety in this revised DEIR section. The reader is referred to the original DEIR section 4.3.6.3 for the text of that section.

The localized analysis focused on three analysis conditions:

1. Project Phase 1 (2012), which evaluates what air quality impacts the project-related emissions would have if Phase 1 of the project (approximately 56 percent of the square footage) was built out in full in 2012[2] and no other changes occurred to land uses or the roadway system;
2. Project Phase 1 and Phase 2 Full Build Out (2012), which evaluates what air quality impacts the project-related emissions would have if the entire project, both Phase 1 and Phase 2, were build out in full in 2012 and no other changes occurred to land uses or the roadway system; and
3. Proposed Project Development Schedule, which evaluates the air quality impacts from the construction and operation of the project as a 2-phase development with the construction commencing in 2015, build out of Phase 1 in 2022 and the final Phase 1 and Phase 2 build out in 2035.

[1] Although carbon monoxide emissions are over the threshold, it is primarily a localized pollutant. The localized analyses demonstrated that concentrations would not exceed the ambient air quality standards for carbon monoxide; therefore, less than significant health effects are anticipated.

[2] 2012 is the CEQA Baseline year for this project.

The Project Phase 1 (2012) and Project Phase 1 and Phase 2 Full Build Out (2012) conditions represents worst-case conditions in that the project physically could not be built-out in 2012 or, in fact, in any single year due to the size of the project. These conditions have been included in this assessment to correspond to the analysis scenarios examined in the project traffic impact report. These conditions also do not account for the fact that vehicle emissions are expected to decline significantly over the next ten years in response to mandated motor vehicle emission controls adopted by the CARB and EPA as the project develops in the future. Thus, consideration of these conditions will significantly overestimate the project's potential air quality impacts. The Proposed Project Development condition represents the logical and realistic development of the project over a period of 15 years as represented by the project applicant. The LST analysis is presented for each condition below.

Pursuant to the SCAQMD's LST methodology, only emissions generated from emission sources located within and along the project boundaries are included in the LST assessment. These emission sources include vehicle travel on the roadway network within and along the borders of the project and emissions from support equipment including forklifts, yard/hostler trucks, and emergency standby electric generators.

The project's emissions then served as input into the AERMOD air dispersion model to derive estimate of the project's localized air quality impacts for each condition.

Project Phase 1 (2012) LST Assessment

The project's on-site emissions were estimated from the traffic-generated by the various project vehicles as provided by the traffic impact report. Vehicle emissions were assumed to be representative of the calendar year 2012 vehicle fleet. Also included were emissions from various support equipment including forklifts, yard trucks, and standby emergency generators. The localized assessment results for the Project Phase 1 (2012) condition are provided in Table 4.3.L for receptors located within the project boundaries and in Table 4.3.M for receptors located outside the project's boundaries along with a comparison to the SCAQMD's localized significance thresholds. The significance thresholds for CO and nitrogen dioxide are derived from the measured ambient air quality data from the SCAQMD Riverside air monitoring station and serve as the measure of existing air quality.[1]

Table 4.3.~~M~~L: Localized Assessment of Project Phase 1 (2012) Emissions Maximum Impacts Within the Project Boundaries (without mitigation) (revised)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold
			Project Local Impact	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.64	0.14~~0.12~~	2.78~~2.75~~	20	No
	8 hour, ppm	1.84	0.04~~0.03~~	1.88~~1.87~~	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.078	0.068~~0.065~~	0.146~~0.143~~	0.18	No
	National 1 hour, ppm	0.060	0.012~~0.060~~	0.113~~0.120~~	0.100	Yes
	Annual, ppm	0.017	0.012~~0.018~~	0.029~~0.035~~	0.030	~~No~~ Yes

[1] In keeping with the SCAQMD recommendations, the highest air quality measurement for the years 2009, 2010, 2011, and 2012 served as a measure of the existing background air quality data for NO_2 and CO.

Table 4.3.~~M~~L: Localized Assessment of Project Phase 1 (2012) Emissions Maximum Impacts Within the Project Boundaries (without mitigation) (revised)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold
			Project Local Impact	Total (Background + Project)		
PM_{10}	24 hour, µg/m^3	NA	5.4~~5.2~~	5.4~~5.2~~	2.5	Yes
	Annual, µg/m^3	NA	3.4~~3.3~~	3.4~~3.3~~	1.0	Yes
$PM_{2.5}$	24 hour, µg/m^3	NA	2.2~~2.0~~	2.2~~2.0~~	2.5	No

µg/m^3 = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data during the 4-year time period of 2009 to 2012
[2] Highest impacts generally occur at the existing residences within the project boundaries.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, ~~MBA September 2014~~2015.

Table 4.3.~~N~~M: Localized Assessment of Project Phase 1 (2012) Emissions Maximum Impacts Outside of the Project Boundaries (without mitigation) (revised)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold
			Project Local Impact	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.64	0.07~~0.06~~	2.71~~2.70~~	20	No
	8 hour, ppm	1.84	0.02	1.86	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.078	0.038~~0.035~~	0.116~~0.113~~	0.18	No
	National 1 hour, ppm	0.058~~0.060~~	0.031~~0.028~~	0.089~~0.088~~	0.100	No
	Annual, ppm	0.017	0.004~~0.005~~	0.021~~0.022~~	0.030	No
PM_{10}	24 hour, µg/m^3	NA	2.1~~1.6~~	2.1~~1.6~~	2.5	No
	Annual, µg/m^3	NA	1.1	1.1	1.0	Yes
$PM_{2.5}$	24 hour, µg/m^3	NA	0.8~~0.6~~	0.8~~0.6~~	2.5	No

µg/m^3 = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for 2012 for CO and nitrogen dioxide derived as the highest air quality measured data during the 4-year time period of 2009 to 2012
[2] Highest impacts generally occur at the existing residences along Redlands Boulevard to the west of the project.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, ~~MBA September 2014~~ 2015.

As noted from Table 4.3.L, the project would exceed the SCAQMD's localized significance thresholds for nitrogen dioxide and PM_{10} at receptors located within the project boundaries, realizing again however, that this scenario reflects an impossible situation that assumes that Phase 1 of the project is built out in its entirety in 2012 and that the existing receptors located within the project boundaries remain in place. As shown in Table 4.3.M, the significance thresholds would not be exceeded at any sensitive receptor located outside of the project boundaries except for the annual PM_{10} project impact.

The Project Phase 1 and Phase 2 Full Build Out (2012) LST Assessment

The localized assessment results for the Project Phase 1 and Phase 2 Full Build Out (2012) condition are provided in Table 4.3.N for receptors located within the project boundaries and in Table 4.3.O for receptors located outside the project's boundaries along with a comparison to the SCAQMD's localized significance thresholds. The significance thresholds for CO and nitrogen dioxide are derived from the measured ambient air quality data from the SCAQMD Riverside air monitoring station and serve as the measure of existing air quality.

Table 4.3.N: Localized Assessment of Project Phase 1 and Phase 2 Full Build Out (2012) Emissions Maximum Impacts Within the Project Boundaries (without mitigation) (revised)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold
			Project Local Impact	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.64	0.18 ~~0.15~~	2.82 ~~2.79~~	20	No
	8 hour, ppm	1.84	0.05 ~~0.04~~	1.89 ~~1.88~~	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.078	0.093 ~~0.074~~	0.171 ~~0.152~~	0.18	No
	National 1 hour, ppm	0.058~~0.060~~	0.075 ~~0.070~~	0.133 ~~0.130~~	0.100	Yes
	Annual, ppm	0.017	1.012 ~~0.016~~	0.029 ~~0.033~~	0.030	No ~~Yes~~
PM_{10}	24 hour, $\mu g/m^3$	NA	7.2 ~~6.9~~	7.2 ~~6.9~~	2.5	Yes
	Annual, $\mu g/m^3$	NA	4.8 ~~4.7~~	4.8 ~~4.7~~	1.0	Yes
$PM_{2.5}$	24 hour, $\mu g/m^3$	NA	2.9 ~~2.7~~	2.9 ~~2.7~~	2.5	Yes

$\mu g/m^3$ = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for 2012 for CO and nitrogen dioxide derived as the highest air quality measured data during the 4-year time period of 2009 to 2012
[2] Highest impacts generally occur at the existing residences within the project boundaries.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, ~~MBA September 2014~~ 2015.

Table 4.3.~~P~~O: Localized Assessment of Project Phase 1 and Phase 2 Full Build Out (2012) Emissions Maximum Impacts Outside the Project Boundaries (without mitigation) (revised)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold
			Project Local Impact	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.64	0.09	2.73	20	No
	8 hour, ppm	1.84	0.02	1.86	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.078	0.054	0.132	0.18	No
	National 1 hour, ppm	0.058	0.045	0.103	0.100	Yes
	Annual, ppm	0.017	0.004	0.021	0.030	No
PM_{10}	24 hour, $\mu g/m^3$	NA	2.3	2.3	2.5	No

Table 4.3.~~P~~O: Localized Assessment of Project Phase 1 and Phase 2 Full Build Out (2012) Emissions Maximum Impacts Outside the Project Boundaries (without mitigation) (revised)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold
			Project Local Impact	Total (Background + Project)		
	Annual, µg/m^3	NA	1.2	1.2	1.0	Yes ~~No~~
$PM_{2.5}$	24 hour, µg/m^3	NA	0.9	0.9	2.5	No

µg/m^3 = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for 2012 for CO and nitrogen dioxide derived as the highest air quality measured data during the 4-year time period of 2009 to 2012
[2] Highest impacts generally occur at the existing residences along Redlands Boulevard to the west of the project.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, ~~MBA September 2014~~2015.

As noted from the above tables, the project would exceed the SCAQMD's significance thresholds for NO_2, PM_{10}, and $PM_{2.5}$ for receptors located within the project's boundaries and NO_2 and PM_{10} at receptors located outside of the project's boundaries.

It is important to note the Project Phase 1 (2012) and Project Phase 1 and Phase 2 Full Build Out (2012) conditions assume that the project's emissions are at the levels that would occur in 2012. The majority of the project's operational emissions are from on-road mobile sources, more particularly, heavy-duty trucks that contribute a disproportionate amount of emissions compared to passenger vehicles. Emissions from on-road mobile sources are regulated at the State and Federal levels and, therefore, are outside of the control of local agencies such as the City and the SCAQMD. For example, the CARB is working closely with the EPA, engine and vehicle manufacturers, and other interested parties to identify programs that will reduce emissions from heavy-duty diesel vehicles in California. In its "Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles," the CARB presented a blueprint for achieving a 75 percent reduction in diesel particulates by 2010 and an 85 percent reduction by 2020 from the 2000 baseline. The emission reductions would arise from a combination of measures including the use of ultra-low sulfur diesel fuel, new emission standards for large diesel engines, restrictions on diesel engine idling, addition of post-combustion filter and catalyst equipment, and retrofits for business and government diesel truck fleets. The implementation of these emission reductions will also result in reductions of other pollutants such as NO_X, VOC, and CO. As these emission reduction programs are implemented and there is a turnover in the use of older vehicles with newer and cleaner vehicles, the project's operational emissions are expected to decline significantly in the future.

Emission controls on mobile source vehicles already adopted by the CARB particularly dealing with NO_X and PM_{10} controls on heavy duty trucks will reduce truck emissions significantly over the next 10 years. As an example, in the South Coast Air Basin, the per-mile running exhaust rate of NO_X emissions from the largest category of heavy duty diesel trucks is estimated to decline from an average of 11.4 grams/mile in 2012 to 3.9 grams/mile by 2022, a decline of 66 percent from 2012 levels and to 1.8 grams/mile in 2035, a decrease of 84 percent from 2012 levels. Similarly, the per-mile running exhaust rate of PM_{10} emissions from the largest category of heavy duty diesel trucks is estimated to decline from an average of 0.34 gram/mile in 2012 to 0.02 gram/mile in 2022, a decline of 94 percent from 2012 levels and decline to 0.006 grams/mile in 2035, a decline of 98 percent from 2012 levels. Thus, two Project (2012) conditions represent highly conservative estimates, in terms of overestimating of the project's operational impacts.

Proposed Project Development Schedule LST Assessment

The final localized threshold assessment condition examined potential local project impacts considering the proposed construction and build out schedule of the project over a time period of 15 years from the commencement of construction in 2015 to the final build out in 2035. This condition examined three specific time periods:

- The year 2021: the year 2021 was selected to determine the potential localized impacts from the project's construction and operational emissions to the existing residences located to the west of the project across Redlands Boulevard. These residences are the closest sensitive receptors outside of the project's boundaries. According to the conceptual construction schedule provided by the applicant, extensive building construction is expected to take place within the project site along and to the east of Redlands Boulevard in 2021. The year 2021 also corresponds to the completion of approximated 88 percent of the Phase 1 operation (50 percent of the entire project) and the attendant operational emissions. The project's onsite maximum daily and annual construction emissions were estimated using the CalEEMod land use emission model and the construction equipment inventory and activities provided by the applicant (see discussion in Appendix D). The project's onsite operational emissions, principally from the project's mobile sources, were derived from detailed traffic volume data provided by the project's traffic impact analysis. The traffic impact analysis applied a comprehensive regional transportation model to develop daily and peak hour traffic volumes for 2022 and 2035 from the project's mobile sources. Peak hour and daily project traffic volumes were developed for each year from 2015 to 2035 for roadway segments within and along the boundaries of the project using the following assumptions:
  - Project operational traffic volumes were assumed to be zero in 2015, the year that project construction would commence.
  - Traffic volumes for the years 2016 to 2022 (the completion year for Phase 1 operations) were interpolated from 2015 to 2022 by applying the annual project occupancy schedule to the 2022 traffic volumes.
  - Traffic volumes for the years 2023 to 2035 were interpolated from the provided traffic volumes in 2022 and 2035 by applying the annual project occupancy schedule.
- The year 2027, when the project's total daily on-site construction and operational emissions would be the highest for several air pollutants and construction and operations would occur along the eastern portion of the project potentially impacting the existing residences across from the project along Gilman Springs Road; and
- The year 2035, which is the long term planning year analyzed in the project traffic impact report and representative of the complete build out of both Phases 1 and 2.

Localized Impact Analysis, 2021. The localized impacts for the short-term construction and operational activities were analyzed using an air dispersion model (EPA AERMOD Model) to simulate the transport and dispersion of project-related emissions through the air. These impacts were then compared to the applicable SCAQMD localized concentration thresholds.

The estimated maximum localized air quality impacts from the construction and operation of the project in 2021 are summarized in Table 4.3.P for locations within the project's boundaries. These maximum impacts were found at the locations of the existing residences within the project boundaries. Table 4.3.Q summarizes the highest air quality impacts for sensitive receptors located outside of the project boundaries. As noted from these two tables, project impacts would exceed the significance thresholds for nitrogen dioxide, PM_{10} and $PM_{2.5}$ for locations within the project boundaries and nitrogen dioxide and PM_{10} at receptors located outside the project boundaries, and thus represents a significant impact without mitigation.

Table 4.3.~~Q~~P: Localized Assessment – Construction and Operation, Year 2021 Maximum Impacts Within the Project Boundaries (without Mitigation) (revised)

Pollutant	Averaging Time, Units	Existing Background [1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Impact	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.64	0.34	2.98	20	No
	8 hour, ppm	1.84	0.08	1.93	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.078	0.086	0.164	0.18	No
	Annual, ppm	0.017	0.016	0.033	0.030	~~No~~ Yes
PM_{10}	24 hour, µg/m^3	NA	18.9	8.9	2.5[3]	Yes
	Annual, µg/m^3	NA	~~2.9~~ 2.7	~~2.9~~ 2.7	1.0	Yes
$PM_{2.5}$	24 hour, µg/m^3	NA	3.7	3.7	2.5[3]	Yes

µg/m^3 = micrograms per cubic meter (a concentration unit), ppm = parts per million (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for 2012 for CO and nitrogen dioxide derived as the highest air quality measured data during the 4-year time period of 2009 to 2012
[2] Highest impacts generally occur at the existing residences within the project boundaries
[3] During periods when both construction and operation overlap the SCAQMD recommends the operational significance thresholds for PM_{10} and $PM_{2.5}$ as opposed to the construction thresholds which are 10.4 ug/m^3 for PM_{10} and $PM_{2.5}$. This provides a very conservative threshold for determining the significance of project impacts.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* ~~MBA September 2014~~ 2015.

Table 4.3.~~R~~Q: Localized Assessment – Construction and Operation, Year 2021 Maximum Impacts Outside the Project Boundaries (without Mitigation) (revised)

Pollutant	Averaging Time, Units	Existing Background [1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Impact	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.64	0.32	2.96	20	No
	8 hour, ppm	1.84	0.08 ~~0.06~~	1.93 ~~1.90~~	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.078	0.083	0.161	0.18	No
	Annual, ppm	0.017	0.015	0.032	0.030	~~No~~ Yes
PM_{10}	24 hour, µg/m^3	NA	3.5 ~~3.6~~	3.5 ~~3.6~~	2.5[3]	Yes
	Annual, µg/m^3	NA	0.9 ~~1.1~~	0.9 ~~1.1~~	1.0	No ~~Yes~~
$PM_{2.5}$	24 hour, µg/m^3	NA	2.4	2.4	2.5[3]	No

µg/m^3 = micrograms per cubic meter (a concentration unit), ppm = parts per million (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for 2012 for CO and nitrogen dioxide derived as the highest air quality measured data during the 4-year time period of 2009 to 2012.
[2] Highest impacts at any receptor located outside of the boundaries of the project generally occur in the residential areas to the west of the project across Redlands Boulevard.
[3] During periods when both construction and operation overlap the SCAQMD recommends the operational significance thresholds for PM_{10} and $PM_{2.5}$ as opposed to the construction thresholds which are 10.4 ug/m^3 for PM_{10} and $PM_{2.5}$. This provides a very conservative threshold for determining the significance of project impacts.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, ~~MBA September 2014~~ 2015.

Localized Air Quality Impact Analysis, 2027. The year 2027 was selected for the LST Analysis for two principal reasons: 1) the year 2027 corresponds to the year with the highest combined total onsite construction and operational emissions of NO_x and CO and the third or fourth highest onsite emissions of PM_{10} and $PM_{2.5}$ during the time period of 2015 to 2035; and 2) the location of the building construction in 2027 places the construction emissions adjacent to the existing residences located on the eastern side of the project across Gilman Springs Road.

The project's maximum combined impacts from construction and operations during 2027 are shown in Table 4.3.R for the existing sensitive receptors located within the project boundaries along with the SCAQMD-recommended significance thresholds. Table 4.3.S shows the maximum combined impacts for sensitive receptors located outside of the project boundaries. These latter impacts were found within the residential areas located to the east of the project across Gilman Springs Road. As shown in these tables, the project would exceed the SCAQMD's significance thresholds for PM_{10} at locations within the project boundary and no thresholds outside of the project boundary.

Table 4.3.~~S~~R: Localized Assessment – Construction and Operation, Year 2027 Maximum Impacts Within the Project Boundaries (without Mitigation) (revised)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Impact	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.64	0.21 ~~0.27~~	2.85 ~~2.91~~	20	No
	8 hour, ppm	1.84	0.05 ~~0.07~~	1.89 ~~1.91~~	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.078	0.072~~0.066~~	0.150 ~~0.144~~	0.18	No
	Annual, ppm	0.017	0.008	0.025	0.030	No
PM_{10}	24 hour, μg/m^3	NA	5.5	5.57	2.5[3]	Yes
	Annual, μg/m^3	NA	3.3 ~~4.2~~	3.3 ~~4.2~~	1.0	Yes
$PM_{2.5}$	24 hour, μg/m^3	NA	1.6 ~~2.9~~	1.6 ~~2.9~~	2.5[3]	No ~~Yes~~

μg/m^3 = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for 2012 for CO and nitrogen dioxide derived as the highest air quality measured data during the 4-year time period of 2009 to 2012
[2] Highest impacts at any receptor located outside of the boundaries of the project generally occur in the residential areas to the east of the project across Gilman Springs Road
[3] During periods when both construction and operation overlap the SCAQMD recommends the operational significance thresholds for PM_{10} and $PM_{2.5}$ as opposed to the construction thresholds which are 10.4 ug/m^3 for PM_{10} and $PM_{2.5}$. This provides a very conservative threshold for determining the significance of project impacts.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, ~~MBA September 2014~~ 2015.

Table 4.3.~~T~~S: Localized Assessment – Construction and Operation, Year 2027 Maximum Impacts Outside the Project Boundaries (without Mitigation) (revised)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Impact	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.64	0.18 ~~0.10~~	2.82 ~~2.74~~	20	No
	8 hour, ppm	1.84	~~0.02~~ 0.05	~~1.86~~ 1.89	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.078	~~0.074~~ 0.071	~~0.152~~ 0.149	0.18	No
	Annual, ppm	0.017	~~0.001~~ 0.003	~~0.018~~ 0.020	0.030	No
PM_{10}	24 hour, µg/m^3	NA	~~3.1~~ 2.2	~~3.1~~ 2.2	2.5[3]	No ~~Yes~~
	Annual, µg/m^3	NA	~~0.9~~ 0.8	~~0.9~~ 0.8	1.0	No
$PM_{2.5}$	24 hour, µg/m^3	NA	~~1.8~~ 1.1	~~1.8~~ 1.1	2.5[3]	No

µg/m^3 = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for 2012 for CO and nitrogen dioxide derived as the highest air quality measured data during the 4-year time period of 2009 to 2012
[2] Highest impacts at any receptor located outside of the boundaries of the project generally occur in the residential areas to the east of the project across Gilman Springs Road
[3] During periods when both construction and operation overlap the SCAQMD recommends the operational significance thresholds for PM_{10} and $PM_{2.5}$ as opposed to the construction thresholds which are 10.4 ug/m^3 for PM_{10} and $PM_{2.5}$. This provides a very conservative threshold for determining the significance of project impacts.
Source: Air Quality, Greenhouse Gas, and Health Risk Assessment Report, ~~MBA September 2014~~ 2015.

Localized Air Quality Impact Analysis, 2035. The year 2035 represents a long-term planning year when both phases of the project would be fully in operation. Operational emissions during 2035 were estimated based on the project's trip generation and project-related travel along the local roadway network within and along the project boundaries. Table 4.3.T shows the maximum localized air quality impacts for 2035 relative to the background air quality levels at the existing sensitive receptors located within the project boundaries. Table 4.3.U identifies the highest localized impacts for sensitive receptors located outside of the project boundaries. These latter impacts were found within the residential areas located to the west of the project across Redlands Boulevard. As shown in Table 4.3.T, the concentrations of PM_{10} exceed the SCAQMD's significance thresholds due principally to the inclusion of entrained road dust in the impact assessment and would, therefore, represent a significant impact without mitigation. Table 4.3.U indicates that no receptor located outside of the project boundary would exceed any significance threshold.

Table 4.3.~~U~~T: Localized Assessment – Project Operation Full Build Out, Year 2035 Maximum Impacts Within the Project Boundaries (without Mitigation) (revised)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Impact	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.64	0.06~~0.05~~	2.70 ~~2.69~~	20	No
	8 hour, ppm	1.84	0.02~~0.01~~	1.87 ~~1.85~~	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.078	0.036~~0.039~~	0.114 ~~0.117~~	0.18	No
	National 1 hour, ppm	0.060	0.031~~0.033~~	0.089 ~~0.093~~	0.100	No
	Annual, ppm	0.017	0.006~~0.007~~	0.023 ~~0.024~~	0.030	No
PM_{10}	24 hour, µg/m^3	NA	5.5 ~~5.6~~	5.5 ~~5.6~~	2.5	Yes
	Annual, µg/m^3	NA	3.7 ~~3.9~~	3.7 ~~3.9~~	1.0	Yes
$PM_{2.5}$	24 hour, µg/m^3	NA	1.5 ~~1.6~~	1.5 ~~1.6~~	2.5	No ~~Yes~~

µg/m^3 = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for 2012 for CO and nitrogen dioxide derived as the highest air quality measured data during the 4-year time period of 2009 to 2012
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, ~~MBA September 2014~~ 2015.

Table 4.3.~~V~~U: Localized Assessment – Project Operation, Year 2035 Maximum Impacts Outside of the Project Boundaries (without Mitigation) (revised)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Impact	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.64	0.04	2.68	20	No
	8 hour, ppm	1.84	0.01	1.85	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.078	0.027	0.105	0.18	No
	National 1 hour, ppm	0.058 ~~0.060~~	0.022	0.080	0.100	No
	Annual, ppm	0.017	0.002	0.019	0.030	No
PM_{10}	24 hour, µg/m^3	NA	2.0	2.0	2.5	No
	Annual, µg/m^3	NA	0.9	0.9	1.0	No
$PM_{2.5}$	24 hour, µg/m^3	NA	0.7	0.7	2.5	No

µg/m^3 = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for 2012 for CO and nitrogen dioxide derived as the highest air quality measured data during the 4-year time period of 2009 to 2012
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, ~~MBA September 2014~~ 2015.

Summary. The localized significance analysis demonstrates that without mitigation, the project would exceed the localized significance thresholds for NO_2, PM_{10}, or $PM_{2.5}$ for one or more of the LST assessment years (2021, 2027, or 2035) analyzed under this revised LST assessment. Therefore, according to this criterion, the air pollutant emissions would result in a significant impact and could exceed or contribute to an exceedance of the ambient air quality standards for NO_2, PM_{10}, and $PM_{2.5}$.

Mitigation Measures. Mitigation measures identified previously under Impact 4.3.6.2 (**Mitigation Measures 4.3.6.2A**, **4.3.6.2B**, and **4.3.6.2D**) to reduce construction emissions of criteria pollutants are required. The project will also be required to comply with SCAQMD Rules 402 and 403. Additionally, the following mitigation measures are required to reduce emissions of criteria pollutants during project operations.

~~**4.3.6.3A** Prior to issuance of a Certificate of Occupancy, vehicles must be able to access the building using paved roads and parking lots.~~

4.3.6.3A Prior to issuance of occupancy permits for each warehouse building within the WLCSP, the developer shall demonstrate to the City that vehicles can access the building using paved roads and parking lots.

~~**4.3.6.3B** All applications for development shall be subject to the following conditions of approval:~~

~~**Prior to the issuance of a Certificate of Occupancy**~~

~~a) Post signs informing truck drivers about the health effects of diesel particulates, the California Air Resources Board diesel idling regulations, and the importance of being a good neighbor by not parking in residential areas.~~

~~b) Post signs in all dock and delivery areas containing the following: truck drivers shall turn off engines when not in use; trucks shall not idle for more than five minutes; telephone numbers of the building facilities manager and the California Air Resources Board to report violations.~~

~~c) Prior to issuance of occupancy permits, signs shall be installed at each exit driveway, providing directional information to the City's truck route. Text on the sign shall read "To Truck Route" with a directional arrow. Truck routes shall be clearly marked per the City's Municipal Code.~~

~~**On an Ongoing Basis**~~

~~d) Tenants shall maintain records on their fleet equipment and vehicle engine maintenance to ensure that equipment and vehicles serving the warehouses within the project are in good condition and in proper tune pursuant to manufacturer's specifications. The records shall be maintained on site and be made available for inspection by the City.~~

~~e) Tenants will ensure that site enforcement staff in charge of keeping vehicle records will be trained/certified in diesel health effects and technologies, for example, by requiring attendance at California Air Resources Board approved courses (such as the free, one-day Course #512). Documentation of said training shall be maintained on-site and be available for inspection by the City.~~

~~f) Tenants will be encouraged to become a SmartWay Partner.~~

~~g) Tenants will be encouraged to maximize the number of truck trips will be carried by SmartWay 1.0 or greater carriers.~~

~~All of the measures above shall be incorporated into conditions of approval for each future development project within the WLCSP.~~

4.3.6.3B The following shall be implemented as indicated:

Prior to Issuance of a Certificate of Occupancy

a) Signs shall be prominently displayed informing truck drivers about the California Air Resources Board diesel idling regulations, and the prohibition of parking in residential areas.

b) Signs shall be prominently displayed in all dock and delivery areas advising of the following: engines shall be turned off when not in use; trucks shall not idle for more than three consecutive minutes; telephone numbers of the building facilities manager and the California Air Resources Board to report air quality violations.

c) Signs shall be installed at each exit driveway providing directional information to the City's truck route. Text on the sign shall read "To Truck Route" with a directional arrow. Truck routes shall be clearly marked per the City Municipal Code.

On an Ongoing Basis

d) Tenants shall maintain records on fleet equipment and vehicle engine maintenance to ensure that equipment and vehicles are maintained pursuant to manufacturer's specifications. The records shall be maintained on site and be made available for inspection by the City.

e) Tenant's staff in charge of keeping vehicle records shall be trained/certified in diesel technologies, by attending California Air Resources Board approved courses (such as the free, one-day Course #512). Documentation of said training shall be maintained on-site and be available for inspection by the City.

f) Tenants shall be encouraged to become a SmartWay Partner.

g) Tenants shall be encouraged to utilize SmartWay 1.0 or greater carriers.

h) Tenants' fleets shall be in compliance with all current air quality regulations for on-road trucks including but not limited to California Air Resources Board's Heavy-Duty Greenhouse Gas Regulation and Truck and Bus Regulation.

i) Information shall be posted in a prominent location available to truck drivers regarding alternative fueling technologies and the availability of such fuels in the immediate area of the World Logistics Center.

j) Tenants shall be encouraged to apply for incentive funding (such as the Voucher Incentive Program [VIP], Carl Moyer, etc.) to upgrade their fleet.

k) All yard trucks (yard dogs/yard goats/yard jockeys/yard hostlers) shall be powered by electricity, natural gas, propane, or an equivalent non-diesel fuel. Any off-road engines in the yard trucks shall have emissions standards equal to Tier 4 Interim or greater. Any on-road engines in the yard trucks shall have emissions standards that meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025.

l) All diesel trucks entering logistics sites shall meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025 or be powered by natural gas, electricity, or other diesel alternative. Facility operators shall maintain a log of all trucks entering the

facility to document that the truck usage meets these emission standards. This log shall be available for inspection by City staff at any time.

m) All standby emergency generators shall be fueled by natural gas, propane, or any non-diesel fuel.

n) Truck and vehicle idling shall be limited to three (3) minutes.

~~**4.3.6.3C** The 2012 Regional Transportation Plan includes a zero/near-zero emissions truck corridor along State Route 60. The WLC project shall provide for the establishment of onsite alternative fueling infrastructure (electric charging stations and/or natural gas fueling), which will help facilitate the use of these low-emitting trucks. An alternative fueling facility to serve the WLCSP will be in place prior to the issuance of building permits for more than 25 million total square feet of logistics warehousing within the WLC Specific Plan. This facility may be on or offsite, subject to review and approval by the City.~~

4.3.6.3C Prior to the issuance of building permits for more than 25 million square feet of logistics warehousing within the Specific Plan area, a publically-accessible fueling station shall be operational within the Specific Plan area offering alternative fuels (natural gas, electricity, etc.) for purchase by the motoring public. Any fueling station shall be placed a minimum of 1000 feet from any off-site sensitive receptors or off-site zoned sensitive uses. This facility may be established in connection with the convenience store required in Mitigation Measure 4.3.6.3D.

~~**4.3.6.3D** The WLC project shall provide a site for the sale of food, fuel, and convenience items to minimize the need for trucks to travel off-project to purchase these goods and services. This facility shall be in place within the project area prior to the issuance of building permits for more than 25 million total square feet of logistics warehousing within the WLC Specific Plan to minimize the need for trucks to traverse through residential neighborhoods.~~

4.3.6.3D Prior to the issuance of building permits for more than 25 million square feet of logistics warehousing within the Specific Plan area a site shall be operational within the Specific Plan area offering food and convenience items for purchase by the motoring public. This facility may be established in connection with the fueling station required in Mitigation Measure 4.3.6.3C.

4.3.6.3E Refrigerated warehouse space is prohibited unless it can be demonstrated that the environmental impacts resulting from the inclusion of refrigerated space and its associated facilities, including, but not limited to, refrigeration units in vehicles serving the logistics warehouse, do not exceed any environmental impact for the entire World Logistics Center identified in the program Environmental Impact Report. Such environmental analysis shall be provided with any warehouse plot plan proposing refrigerated space. Any such proposal shall include electrical hookups at dock doors to provide power for vehicles equipped with Transportation Refrigeration Units (TRUs).

~~**Level of Significance After Mitigation.** For Scenario 1, which reflects the worst-case of full build of the project in 2012, there are no mitigation measures that can be logically applied. Therefore, the project's impact would remain significant and unavoidable.~~

~~For Scenario 2, even after mitigation, both the daily and annual emissions of all pollutants would exceed the SCAQMD's regional emission significance levels and would also continue to exceed the localized significance thresholds as well for nitrogen dioxide, PM_{10}, and $PM_{2.5}$ during construction and PM_{10} during operations. In the absence of feasible mitigation to reduce the proposed project's emission of criteria pollutants to below SCAQMD thresholds, potential localized air quality impacts will remain significant and unavoidable.~~

Level of Significance After Mitigation. Significant and unavoidable. Table 4.3.V compares the project impacts before and after mitigation for those assessment conditions and pollutants that indicated a significant impact before mitigation. After application of mitigation, the project would continue to exceed the localized significance thresholds at one or more of the existing residences located within the project boundaries for PM_{10} (24-hour and annual) all assessment conditions. Mitigation does reduce impacts from NO_2 emissions. The project's localized impacts would not exceed any significance thresholds for receptors located outside of the project boundaries.

In summary, those residents inside the project boundaries could be exposed to significant short-term and long-term PM_{10} concentrations on an ongoing basis. The health effects from particulate matter were discussed earlier and could include the following:

- Particulate matter can cause the following health effects from short-term (24-hour) exposure: irritation of the eyes, nose, throat; coughing; phlegm; chest tightness; shortness of breath; aggravate existing lung disease, causing asthma attacks and acute bronchitis; and/or those with heart disease can suffer heart attacks and arrhythmias.
- Particulate matter can cause the following health effects from long-term exposure (annual): reduced lung function; chronic bronchitis; changes in lung morphology; and/or death.

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Table 4.3.V: Comparison of Local Project Air Quality Impacts Before and After Mitigation (new table)

Assessment Condition	Location	Pollutant, Averaging Time, Units	Total Impact Before Mitigation[1]	Total Impact After Mitigation	Significance Threshold	Exceeds Threshold After Mitigation?
Project Phase 1 (2012)	Inside Project Boundaries	National NO_2 1-hour, ppm	0.113 ~~0.120~~	0.089 ~~0.084~~	0.100	No
		~~NO_2, Annual, ppm~~	~~0.035~~	~~0.020~~	~~0.030~~	~~No~~
		PM_{10} 24 hour, µg/m^3	5.4 ~~5.2~~	4.4	2.5	Yes
		PM_{10}, Annual, µg/m^3	3.4 ~~3.3~~	2.8	1.0	Yes
	Outside	PM_{10}, Annual, µg/m^3	1.1	0.9	1.0	No
Project Phase 1 and Phase 2 Full Build Out (2012)	Inside Project Boundaries	National NO_2 1-hour, ppm	0.133 ~~0.130~~	0.094 ~~0.090~~	0.100	No
		~~NO_2, Annual, ppm~~	~~0.033~~	~~0.021~~	~~0.030~~	~~No~~
		PM_{10} 24-hour, µg/m^3	7.2 ~~6.9~~	6.9 ~~5.9~~	2.5	Yes
		PM_{10}, Annual, µg/m^3	4.8 ~~4.7~~	4.6 ~~4.0~~	1.0	Yes
		$PM_{2.5}$ 24 hour, µg/m^3	2.9 ~~2.7~~	1.6 ~~1.7~~	2.5	No
	Outside	National NO_2 1-hour, ppm	0.103 ~~0.108~~	0.076 ~~0.081~~	0.100	No
		PM_{10}, Annual, µg/m^3	1.2	0.8	1.0	No
Project Development Schedule Year 2021	Inside Project Boundaries	NO_2, Annual, ppm	0.033	0.027 ~~0.028~~	0.030	No
		PM_{10} 24-hour, µg/m^3	8.9 ~~12.1~~	7.6 ~~10.7~~	2.5	Yes
		PM_{10}, Annual, µg/m^3	2.7 ~~2.9~~	2.5 ~~2.8~~	1.0	Yes
		$PM_{2.5}$ 24 hour, µg/m^3	3.7 ~~4.5~~	1.4 ~~2.3~~	2.5	No
	Outside Project Boundaries	NO_2, Annual, ppm	0.032	0.026 ~~0.028~~	0.030	No
		PM_{10} 24-hour, µg/m^3	3.5 ~~3.6~~	2.3	2.5	No
		~~PM_{10}, Annual, µg/m^3~~	~~1.1~~	~~0.7~~	~~1.0~~	~~No~~
Project Development Schedule Year 2027	Inside Project Boundaries	PM_{10} 24-hour, µg/m^3	5.5 ~~6.7~~	5.4 ~~6.6~~	2.5	Yes
		PM_{10} Annual, µg/m^3	3.3 ~~4.2~~	1.9 ~~4.2~~	1.0	Yes
		~~$PM_{2.5}$ 24 hour, µg/m^3~~	~~2.9~~	~~2.9~~	~~2.5~~	~~Yes~~
	~~Outside Project Boundaries~~	~~PM_{10} 24 hour, µg/m^3~~	~~3.9~~	~~2.4~~	~~2.5~~	~~No~~
		~~PM_{10}, Annual, µg/m^3~~	~~1.7~~	~~0.9~~	~~1.0~~	~~No~~
Project Development Schedule Year 2035 Build Out	Inside Project Boundaries	PM_{10} 24 hour, µg/m^3	5.5 ~~5.6~~	5.5 ~~5.6~~	2.5	Yes
		PM_{10} Annual, µg/m^3	3.7 ~~3.9~~	3.7 ~~3.9~~	1.0	Yes

Table 4.3.V: Comparison of Local Project Air Quality Impacts Before and After Mitigation (new table)

Assessment Condition	Location	Pollutant, Averaging Time, Units	Total Impact Before Mitigation[1]	Total Impact After Mitigation	Significance Threshold	Exceeds Threshold After Mitigation?

Notes: μg/m^3 = micrograms per cubic meter (a unit of concentration); ppm = parts per million (a unit of concentration)
[1] Total Impacts include the incremental impacts from the project plus the pollutant background; see Tables 4.3.M to 4.3.U for the total impacts for the various assessment conditions prior to the application of mitigation.
Source: Air Quality, Greenhouse Gas, and Health Risk Assessment Report, ~~MBA September 2014~~ 2015.

Table 4.3.~~X~~W: Operational Regional Air Pollutant Emissions (Worst-Case Scenario) (revised)

Scenario	Source	Emissions (pounds per day)				
		VOC	NO_X	CO	PM_{10}	$PM_{2.5}$
Phase 1 2012 emission factors	Mobile	377 ~~335~~	5,141 ~~4,651~~	3,144~~2,615~~	746 ~~721~~	311 ~~318~~
	Architectural Coatings	146	0	0	0	0
	Consumer Products	117	0	0	0	0
	Natural Gas	<1	2	2	<1	<1
	Onsite equipment	5	138	51	1	1
	Total	**645 ~~603~~**	**5,281 ~~4,791~~**	**3,197 ~~2,668~~**	**747 ~~722~~**	**312 ~~319~~**
Buildout 2012 emission factors	Mobile	666 ~~590~~	9,057 ~~8,378~~	5,531 ~~4,820~~	1,308 ~~1,268~~	547 ~~516~~
	Architectural Coatings	258	0	0	0	0
	Consumer Products	207	0	0	0	0
	Natural Gas	<1	4	3	0	<1
	Onsite equipment	9	245	90	2	2
	Total	**1,140 ~~1,064~~**	**9,306 ~~8,627~~**	**5,624 ~~4,913~~**	**1,310 ~~1,270~~**	**549 ~~518~~**
Significance Threshold		55	55	550	150	55
Significant Impact?		Yes	Yes	Yes	Yes	Yes

Notes: VOC = volatile organic compounds; NOx = nitrogen oxides; CO = carbon monoxide
PM10 and PM2.5 = particulate matter <1 = less than one
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, ~~MBA September 2014~~ 2015.

4.3.6.4 Long-Term Operational Emissions

Impact 4.3.6.4: *Implementation of the proposed project may have the potential to exceed applicable daily thresholds for operational activities.*

Threshold	Would the proposed project violate any AAQS or contribute to an existing or projected air quality violation; or expose sensitive receptors to pollutants? For long-term operations, the applicable daily thresholds are: - 55 pounds of VOC; - 55 pounds of NO_X; - 550 pounds of CO; - 150 pounds of PM_{10}; - 55 pounds of $PM_{2.5}$; and - 150 pounds of SO_X.

Long-term air pollutant emission impacts that would result from the proposed project are those associated with stationary sources and mobile sources involving any project-related change (e.g., emissions from the use of motor vehicles by project-generated traffic). This analysis assesses the mobile source emissions generated by vehicles driving to and from the proposed land uses, as well as area source emissions generated by project maintenance operations.

Worst-Case Scenario. Projected emissions resulting from operational activities of the proposed project under the worst-case scenario are identified in Table 4.3.~~X~~W.

Emissions from the existing on-site residences and fugitive dust are not included in the worst-case analysis. In addition, there may be minor emissions of VOC from the fueling station, depending on what type of fuel is used. However, details regarding the fueling station are currently unknown so the emission source is not estimated. This is a worst-case analysis because it assumes that the entire project would be built-out in 2012. The motor vehicle and truck emission factors are from 2012, which assumes a "dirtier" fleet than would be the case in later years. ~~The emission factor models assume that later on, the average fleet would be newer as people purchase newer cars, which are more efficient and have fewer air pollutants. In addition, no reductions are taken for the model year 2010 trucks that would be accessing the project pursuant to project design features~~ In addition, no reductions are taken for mitigation measures.

As identified in Table 4.3.~~X~~W, operational emissions for the proposed project would exceed SCAQMD daily operational thresholds for all criteria pollutants with the exception of SO_X for the "worst-case" 2012 scenario.

Operational Regional Emissions. Table 4.3.~~Y~~X shows the detailed operational emission sources generated both on site and off site for Phase 1 (2022) and buildout. The table shows particulate matter (PM_{10} and $PM_{2.5}$) divided into dust and exhaust sources. As shown in the table, emissions of VOC, NOx, CO, PM_{10}, and $PM_{2.5}$ are significant after completion of Phase 1 and after full buildout.

Table 4.3.~~Z~~Y shows the operational emissions year by year using future year emission factors: year 2022 for Phase 1 (2016 to 2022) and year 2035 for Phase 2 (2023 to buildout). The VOC, NOx, CO, PM10, and PM2.5 emissions would be over the SCAQMD's significance thresholds. The emissions demonstrate that although the number of vehicles and trucks would increase year by year, the emissions do not increase dramatically because the per-vehicle emission factors decrease over time as cleaner vehicles enter the fleet over time.

Combined Construction and Operation. There would be overlapping of construction and operational emissions with project implementation. The maximum daily operational emissions as shown in Table 4.3.~~Z~~Y were added to the maximum daily construction emissions (from Table 4.3.K) and are shown in Table 4.3.~~AA~~Z, which shows all pollutants for all years exceed the SCAQMD thresholds, with the exception of SO_X emissions. SO_X are not shown in the table as they are far below the significance threshold of 150 pounds per day.

As identified in the preceding tables, project-related air quality impacts for all criteria pollutants, with the exception of SO_X, would be significant and mitigation measures are required.

Mitigation Measures. The mitigation measures previously identified under Impact 4.3.6.3 (**Mitigation Measures 4.3.6.3A** through **4.3.6.3E**) would reduce operational emissions of criteria pollutants associated with the project. Additionally, the following mitigation measure is required:

~~**4.3.6.4A** Prior to the issuance of a building permit for each development within the WLCSP, the developer shall demonstrate to the satisfaction of the City that the project incorporates the following:~~

~~a) All tenants shall participate in Riverside County's Rideshare Program. The purpose of the program would be to discourage single-occupancy vehicle trips and encourage alternate modes of transportation such as carpooling, transit, walking, and biking. The program shall provide employees with assistance in using alternate modes of travel, including carpooling encouragement, ride-matching assistance, and vanpool assistance.~~

~~b) Storage lockers shall be provided in each building for a minimum of three percent of the full-time equivalent employees based on a ratio of 0.60 employee per 1,000 square feet of building area.~~

~~c) Class II bike lanes shall be incorporated into the design for Gilman Springs Road (SR-60 to Alessandro Boulevard), Theodore Street (SR-60 to project), Eucalyptus Avenue (Redlands Boulevard to Theodore Street), and the main roads in the project (Street A, Street B, Street C, Street D, Street E, and Street F).~~

~~d) The project shall incorporate pedestrian pathways between on-site uses.~~

~~e) Site design and building placement shall provide pedestrian connections between internal and external facilities.~~

~~f) The project shall provide pedestrian connections to residential uses within 0.25 mile from the project site.~~

~~g) A minimum of two electric vehicle-charging stations for automobiles or light-duty trucks shall be provided at each building.~~

~~h) Each building shall provide secure bicycle storage space equivalent to five percent of the automobile parking spaces provided.~~

~~i) Each building shall provide a minimum of two shower and changing facilities within 200 yards of a building entrance.~~

~~j) Each building shall provide preferred parking for low-emitting and fuel-efficient vehicles equivalent to at least eight percent of the required number of parking spaces.~~

~~k) All discretionary approvals for development shall include a 250-foot setback along the western portion of the site adjacent to Redland Boulevard, Bay Avenue~~

~~and Merwin Street, from the CDFW property, and between residentially zoned property and logistics buildings in the WLC Specific Plan along Redlands Boulevard, Bay Avenue, and Merwin Street.~~

~~l) Electrical power sources shall be provided for service equipment and docking of trucks to minimize idling emissions and emissions from transportation refrigeration units if such units are to be used. The project applicant shall include in all new lease documents the requirement that tenants shall use only trucks with transportation refrigeration units capable of utilizing electrical hook-ups.~~

4.3.6.4A The following measures shall be incorporated as conditions to any Plot Plan approval within the Specific Plan:

a) All tenants shall be required to participate in Riverside County's Rideshare Program.

b) Storage lockers shall be provided in each building for a minimum of three percent of the full-time equivalent employees based on a ratio of 0.50 employees per 1,000 square feet of building area. Lockers shall be located in proximity to required bicycle storage facilities.

c) Class II bike lanes shall be incorporated into the design for all project streets.

d) The project shall incorporate pedestrian pathways between on-site uses.

e) Site design and building placement shall provide pedestrian connections between internal and external facilities.

f) The project shall provide pedestrian connections to residential uses within 0.25 mile from the project site.

g) A minimum of two electric vehicle-charging stations for automobiles or light-duty trucks shall be provided at each building. In addition, parking facilities with 100 parking spaces or more shall be designed and constructed so that at least three percent of the total parking spaces are capable of supporting future electric vehicle supply equipment (EVSE) charging locations. Only sufficient sizing of conduit and service capacity to install Level 2 Electric Vehicle Supply Equipment (EVSE) or greater are required to be installed at the time of construction.

h) Each building shall provide indoor and/or outdoor - bicycle storage space consistent with the City Municipal Code and the California Green Building Standards Code.-Each building shall provide a minimum of two shower and changing facilities for employees.

i) Each building shall provide preferred and designated parking for any combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles equivalent to the number identified in California Green Building Standards Code Section 5.106.5.2 or the Moreno Valley Municipal Code whichever requires the higher number of carpool/vanpool stalls.

j) The following information shall be provided to tenants: onsite electric vehicle charging locations and instructions, bicycle parking, shower facilities, transit availability and the schedules, telecommunicating benefits, alternative work schedule benefits, and energy efficiency.

It is important to note that, in addition to the operational activity mitigation measures identified previously, future development would need to incorporate physical attributes and operational programs that will act to generally reduce operational-source pollutant emissions including GHG

emissions. These project characteristics are identified in Section 4.7, *Climate Change and Greenhouse Gas Emissions*, of this EIR.

Level of Significance after Mitigation. ~~he project may employ workers locally from the City. This has the benefit of improving the local jobs/housing balance leading to air quality benefits in terms of shorter trip lengths, which lead to lower emissions than if the workforce was derived from distant locations.~~ Mitigated operational emissions for full buildout are shown in Table 4.3.~~AB~~AA. Also shown in the table are existing emissions from the onsite agricultural activities. When those emissions are ~~educed from 3 percent pursuant to **Mitigation Measure 4.3.6.4A** (see greenhouse gas analysis for description of mitigation reductions). However, even~~ subtracted from the project emissions, emissions are still over the significance thresholds. Note that the emissions are based on conservative assumptions such as truck trips and miles traveled. Even with mitigation, emissions are still significant. Despite implementation of mitigation measures, emissions of criteria pollutants would still exceed SCAQMD significance thresholds resulting in a significant and unavoidable operational air quality impact. Therefore, there could be cumulative health effects from ozone, PM_{10}, and $PM_{2.5}$ as described earlier in this section and summarized as follows:

- Ozone can cause the following health effects: irritate respiratory system; reduce lung function; breathing pattern changes; reduce breathing capacity; inflame and damage cells that line the lungs; make lungs more susceptible to infection; aggravate asthma; aggravate other chronic lung diseases; cause permanent lung damage; some immunological changes; and/or increase mortality risk.
- Particulate matter (PM_{10} and $PM_{2.5}$) can cause the following health effects from short-term (hours/days) exposure: irritation of the eyes, nose, throat; coughing; phlegm; chest tightness; shortness of breath; aggravate existing lung disease, causing asthma attacks and acute bronchitis; and/or those with heart disease can suffer heart attacks and arrhythmias.
- Particulate matter can cause the following health effects from long-term exposure: reduced lung function; chronic bronchitis; changes in lung morphology; and/or death.

Operational emissions (not including construction emissions) at buildout in this revised analysis as compared with the estimates in the DEIR are as follows:

- Emissions of VOC have decreased slightly by 140 pounds/day, in accordance with a reduction in square feet for the project and a revision of emission factors.

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Table 4.3.X: Operational Regional Air Pollutant Emissions (Detail, Unmitigated) (New Table)

Phase	Source	Emissions (pounds/day)								
		VOC	NO_X	CO	PM_{10} Dust	PM_{10} Exh.	PM_{10} Total	$PM_{2.5}$ Dust	$PM_{2.5}$ Exh.	$PM_{2.5}$ Total
Existing	Tractor, dust	<1	5	3	352	<1	**352**	77	<1	**77**
Phase 1	Mobile	106	1,591	1,068	612	9	620	164	8	172
	Architectural Coatings	146	0	0	0	0	0	0	0	0
	Consumer Products	117	0	0	0	0	0	0	0	0
	Natural Gas	<1	2	2	0	<1	<1	0	<1	0
	On-site Equipment	5	138	51	0	1	1	0	1	1
	Total	**374**	**1,731**	**1,121**	**612**	**10**	**621**	**164**	**9**	**173**
Buildout	Mobile	120	1,031	1,286	1,114	6	1,120	298	6	303
	Architectural Coatings	258	0	0	0	0	0	0	0	0
	Consumer Products	207	0	0	0	0	0	0	0	0
	Natural Gas	<1	4	3	0	<1	<1	0	<1	<1
	On-site Equipment	9	245	90	0	2	2	0	2	2
	Total	**594**	**1,280**	**1,379**	**1,114**	**8**	**1,122**	**298**	**8**	**305**
	Net increase	**594**	**1,275**	**1,376**	**762**	**8**	**770**	**221**	**8**	**228**
Significance Threshold		55	55	550	None	None	150	None	None	55
Significant Impact?		Yes	Yes	Yes	--	--	Yes	--	--	Yes

Notes: VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter Exh. = exhaust
<1 = less than 1 Net increase = total buildout minus existing
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

Table 4.3.~~Z~~Y: Operational Regional Air Pollutant Emissions (Year by Year, pounds per day, unmitigated) (revised)

Year	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
2016	34	159	103	*	57	16
2017	69	317	205	*	114	32
2018	114	528	342	*	190	53
2019	160	740	479	*	266	74
2020	245	1,132	733	*	407	114
2021	330	1,525	987	*	547	153
2022	374	1,732	1,121	*	622	174
2023	395	1,690	1,145	*	669	186
2024	415	1,647	1,169	*	715	199
2025	445	1,587	1,203	*	782	216
2026	478	1,519	1,242	*	858	236
2027	511	1,450	1,281	*	934	256
2028	544	1,382	1,321	*	1,010	276
2029	566	1,337	1,346	*	1,059	289
2030	588	1,292	1,372	*	1,109	302
Buildout	594	1,280	1,379	*	1,123	306
SCAQMD Threshold	55	55	550	150	150	55
Significant?	Yes	Yes	Yes	No	Yes	Yes

- Emissions are from local vehicles, trucks, natural gas, emergency generators, forklifts, yard trucks, painting, and consumer products. There is no reduction from existing onsite emissions.
- Emissions for Phase 1 are years 2016-2022. Emissions for Phase 2 are year 2023-buildout operational emissions are assumed to be zero in 2015 when project construction commences.
- PM_{10} and $PM_{2.5}$ emissions include exhaust and road dust.
- Landscaping emissions are negligible.

* Sulfur dioxide emissions as estimated in the Draft EIR were substantially less than the threshold of 150 pounds per day. Thus, emissions reflecting decreased vehicle miles traveled would also be less than significant.

VOC = volatile organic compounds; NO_X = nitrogen oxides; SO_2 = sulfur dioxide; CO = carbon monoxide; PM_{10} and $PM_{2.5}$ = particulate matter

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, ~~MBA September 2014~~ 2015.

Table 4.3.~~AAZ~~: Combined Construction and Operational Regional Air Pollutant Emissions (Year by Year, pounds per day, unmitigated) (revised)

Year	VOC	NO_X	CO	PM_{10}	$PM_{2.5}$
2015 (construction)	128	1,463	871	193	84
2016	301	1,000	633	183	66
2017	382	1,749	1,054	306	114
2018	381	1,369	872	316	103
2019	531	2,855	1,705	532	198
2020	522	2,093	1,329	543	171
2021	633	2,784	1,761	731	229
2022	661	2,789	1,789	791	240
2023	712	3,079	2,030	876	273
2024	713	2,822	1,923	898	272
2025	756	2,876	2,057	986	299
2026	744	2,360	1,772	984	286
2027	774	2,179	2,031	1,102	308
2028	796	1,989	1,987	1,159	318
2029	789	1,655	1,803	1,153	309
2030	833	1,712	1,942	1,249	337
Buildout (operation only)	594	1,280	1,379	1,123	306
SCAQMD Threshold	55	55	550	150	55
Significant?	Yes	Yes	Yes	Yes	Yes

- Year 2015 contains construction emissions only; buildout contains operational emissions only
- Sulfur oxide (SOx) emissions are substantially under the threshold of 150 pounds per day
- Reduction from existing onsite emissions are not included.

VOC = volatile organic compounds; NO_X = nitrogen oxides; CO = carbon monoxide; PM_{10} and $PM_{2.5}$ = particulate matter
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, ~~MBA September 2014~~ 2015.

Table 4.3.~~AB~~AA: Operational Regional Air Pollutant Emissions (Mitigated) (Revised)

Scenario	Source	Emissions (pounds per day)				
		VOC	NO_X	CO	PM_{10}	$PM_{2.5}$
Buildout	Vehicles: Local and trucks	119	~~1,001~~	1,286	1,120	303
	Architectural Coatings	258	0	0	0	0
	Consumer Products	207	0	0	0	0
	Natural Gas	<1	4	3	<1	<1
	Onsite Equipment	8	91	107	<1	<1
	Subtotal – Project Emissions	**592**	**1,096**	**1,396**	**1,120**	**303**
	Existing	*<1*	*5*	*3*	*352*	*77*
	Net Increase	**592**	**1,091**	**1,393**	**768**	**226**
	Significance Threshold	55	55	550	150	55
	Significant Impact?	Yes	Yes	Yes	Yes	Yes

- PM_{10} and $PM_{2.5}$ emissions include exhaust and road dust.
- Landscaping emissions are negligible.
- Sulfur oxides emissions are under the 150 pounds per day significance threshold and at buildout would be less than 23 pounds per day.

VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, ~~MBA September 2014~~ 2015.

- For the unmitigated emissions, NOx, CO, and PM_{10} in the revised analysis are about 1,800, 2,200, and 600 pounds per day lower than in the DEIR, respectively. For the mitigated emissions, NOx, CO, and PM_{10} in the revised analysis are about 2,000, 2,000, and 600 lower than in the DEIR, respectively. The revised emissions are lower because the emission factors for the mobile trucks and vehicles have been revised and because the vehicle miles traveled (VMT) has decreased. In the DEIR, the VMT at buildout for heavy duty trucks was 730,100 miles per day and in the revised analysis, the diesel vehicles is 420,400 miles per day; therefore, the VMT for diesel vehicles decreased by approximately 309,700 miles per day. The VMT decreased because the analysis in the DEIR assumed a conservative, but arbitrary 50 miles per trip for all heavy duty trucks and in the revised analysis the VMT is based on actual model results for all trips as estimated in the Traffic Impact Analysis for nearly 500 freeway and roadway segments. The VMT for light duty vehicles increased by approximately 64,600 miles: in the DEIR, the VMT for light duty vehicles was 549,700 miles per day and in the revised analysis, the VMT for gasoline vehicles is 614,300 miles per day.
- Emissions of $PM_{2.5}$ in the revised analysis have increased by approximately 150 pounds per day because of the use of updated emission factors.

During overlap of construction and operation, VOC, NO_X, CO, PM_{10}, and $PM_{2.5}$ would continue to exceed SCAQMD significance thresholds after mitigation, as shown in Table 4.3.~~AC~~AB. Therefore, impacts are significant and unavoidable. The emissions do not take into account the existing onsite agricultural emissions.

Table 4.3.~~AC~~AB: Combined Construction and Operational Regional Air Pollutant Emissions (Year by Year, pounds per day) – Mitigated (revised)

Year	VOC	NO_X	CO	PM_{10}	$PM_{2.5}$
2015	31	523	871	130	26
2016	167	465	631	143	29
2017	209	716	1,052	243	57
2018	243	683	868	275	65
2019	311	1,200	1,699	444	117
2020	371	1,069	1,319	495	127
2021	459	1,414	1,748	671	174
2022	500	1,482	1,774	739	192
2023	530	1,633	2,018	812	214
2024	547	1,558	1,914	843	220
2025	583	1,651	2,53	926	245
2026	603	1,428	1,773	941	247
2027	650	1,639	2,036	1,077	285
2028	682	1,599	1,997	1,138	299
2029	695	1,455	1,815	1,431	300
2030	725	1,562	1,958	1,236	325
Buildout	593	1,097	1,396	1,121	304
SCAQMD Threshold	55	55	550	150	55
Significant?	Yes	Yes	Yes	Yes	Yes

- Year 2015 contains construction emissions only; buildout contains operational emissions only
- Sulfur oxide (SOx) emissions for construction are contained in the CalEEMod output in Appendix A; the emissions are substantially under the threshold of 150 pounds per day.
- Emissions do not include existing onsite emissions.

VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, ~~MBA September 2014~~ 2015

4.3.6.5 Impacts to Sensitive Receptors

Impact 4.3.6.5: *Implementation of the proposed project may have the potential to result in impacts to sensitive receptors.*

Threshold	Would the proposed project expose sensitive receptors to substantial pollutant concentrations? For localized air quality impacts, the applicable thresholds are: - 20 ppm (1 hour) and 9 ppm (8 hours) of CO during construction and operation; - 0.18 ppm (State 1 hour), 0.100 ppm National 1 hour), and 0.030 ppm (Annual) of NO_X during construction and operation; - 10.4 µg/m^3 (24-hours) and 1 µg/m^3 (Annual) of PM_{10} during construction - 2.5 µg/m^3 (24 hours) and 1.0 µg/m^3 (Annual) of PM_{10} during operations; and - 2.5 µg/m^3 (24 hours) of $PM_{2.5}$ during operations. - <u>During time periods when construction and operational activities occur at the same time, the SCAQMD recommends application of the significance threshold for operations.</u> For health risk impacts, the applicable thresholds are: - Maximum Individual Cancer Risk: An increased cancer risk greater than 10 in 1 million ~~(1.0×10^5)~~ at any receptor location; - <u>Cancer burden: An increase in cancer burden of 0.5 or</u> - Non-cancer chronic hazard indices (HI): A cumulative increase for any target organ system exceeding 1.0 at any receptor location.

Localized Air Quality Impacts. The construction and operation of the project would result in the emissions of carbon monoxide, oxides of nitrogen, and particulate matter. As noted in the discussion of Impact 4.3.6.3, construction and operation of the proposed project have the potential to exceed localized air quality significance thresholds for oxides of nitrogen (NO_x) and particulate matter (PM_{10} and $PM_{2.5}$) that may expose sensitive receptors to substantial pollutant concentrations. These impacts are shown in Impact 4.3.6.3.

<u>Acute and Chronic</u> Health Risk Impacts. <u>Acute and chronic health risk impact analysis examines the increased risk associated with air pollution for non-cancer health outcomes. Since these are non-cancer health impacts, as described below, the impacts are analyzed separately from increased cancer risk associated with air pollution.</u>

~~The construction and operation of the project would result in the emissions of several toxic air contaminants, the most ubiquitous being diesel particulate matter (diesel PM), which constitutes in excess of 80 percent of the estimated airborne inhalation cancer risk in the Basin.~~ <u>Past studies have indicated that</u> exposures to diesel PM can have both short-term and long term non-cancer health effects. The construction and operation of the project would not emit any toxic chemicals in any significant quantity other than vehicle exhaust. While there may be other toxic substances in use on site, compliance with State and Federal handling regulations will bring these emissions to below a level of significance.

Exposure to diesel exhaust can have immediate (acute) health effects, such as irritation of the eyes, nose, throat, and lungs, and can cause coughs, headaches, light headedness, and nausea. In studies with human volunteers, diesel exhaust particles made people with allergies more susceptible to the materials to which they are allergic, such as dust and pollen. Exposure to diesel exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks. However, according to the rulemaking on *Identifying Particulate Emissions from Diesel-Fueled Engines as a Toxic Air Contaminant* (CARB 1998), the available data from studies of humans exposed to diesel exhaust are not sufficient for deriving an acute non-cancer health risk guidance value. ~~While the lung is a major target organ for diesel exhaust, studies of the gross respiratory effects of diesel exhaust in exposed workers have not provided sufficient exposure information to establish a short-term non-cancer health risk guidance value for respiratory effects.~~

The revised analysis, however, does derive an estimate of acute non-cancer risks by examining the acute health effects of the various toxic components that comprise diesel and gasoline emissions. There is specific guidance for estimating the acute non-cancer hazards from these toxic components based on chemical profiles established by the CARB which was used in the revised analysis to determine the project's acute non-cancer hazards.

To determine the project's *chronic* non-cancer hazard impact, the highest annual diesel PM concentration was determined covering the years 2015 (the commencement of project construction) to 2035 (the full build out of the project). In this regard, the highest annual average diesel PM concentration prior to mitigation determined through air dispersion modeling was 1.02 ug/m^3, at an existing residence located within the project boundaries. This diesel PM concentration was due to the impacts of diesel PM emissions from the off-road construction equipment and operation equipment. This level of diesel PM impact results in a chronic non-hazard index of 0.20. This hazard index is less than the SCAQMD's significance level of 1.0, and is, therefore, less than significant.

The estimation of the *acute* non-cancer hazard index requires the estimation of the maximum 1-hour impacts of total organic gases (TOG). Estimates of the project's maximum 1-hour TOG emissions were derived from the project's peak hour traffic data along the nearly 500 roadway segments contained within the assessment and then speciated or broken down into the various toxic air contaminant components by fuel type, gasoline and diesel. The acute non-cancer hazard index was determined for a worst-case condition that assumed the project would be completely built out in 2012 with the project's attendant traffic and emission estimates as they would exist in 2012. This condition is the same as the Project Phase 1 and Phase 2 Full Build Out (2012) condition assumed in the Localized Significance Threshold assessment provided earlier. Based on this information, the maximum acute non-cancer hazard index found at any receptor within the model domain was 0.07, which is less than the SCAQMD's non-cancer hazard index of 1.0, and, therefore, is less than significant.

Therefore, the potential for short-term acute and chronic exposure from diesel exhaust are considered to be less than significant and no mitigation is required.

~~**Cancer Risks.** As noted in Section 4.3.3, *Methodology*, the project health risk assessment examined two scenarios:~~

- ~~Scenario 1: "No Project" scenario in which cancer risks are estimated given vehicle traffic and diesel PM emissions spanning the 70-year cancer risk exposure time period from the existing condition 2012 to 2081 under the assumption that existing land uses plus other past, present, and reasonably foreseeable projects (both land development and roadway improvements) are implemented in 2017, 2022, and 2035. Within the City of Moreno Valley, full buildout of the General Plan was assumed in 2035, except for the project site, which was assumed to be unchanged from existing conditions.~~

- ~~Scenario 2: the "With Project" scenario shows the effect of project-related construction and operational traffic diesel PM emissions if the project were built out in accordance with its proposed phased buildout schedule and then added to the No Project scenario during the 70-year cancer exposure time period from 2012 to 2081. This scenario forms the basis of comparison with the "No Project" to quantify the incremental impacts from the project.~~

~~Table 4.3.Z compares the total operational diesel PM emissions estimated for Scenario 1 "No Project" and Scenario 2 "With Project" including project truck yards, local roadway network internal to the project site, local surface streets, and freeway mainline segments in this assessment for the years 2012, 2017, 2022, and 2035.~~

~~Table 4.3.Z: Operational Diesel PM Emissions (pounds per day)~~

~~Year~~	~~Daily Diesel PM Emissions (pounds per day)~~		
	~~Scenario 1 (No Project)~~	~~Scenario 2 (With Project)~~	~~Project Increment~~
~~2012~~	~~823~~	~~823~~	~~0~~
~~2017~~	~~265~~	~~289~~	~~24~~
~~2022~~	~~260~~	~~314~~	~~54~~
~~2035~~	~~362~~	~~413~~	~~51~~

~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, January 2013.~~

~~Of note from the above table is that diesel PM emissions decline significantly from the existing condition in 2012 throughout the future years due to the effects of mandated emission controls on heavy-duty diesel vehicles. Further, the Scenario 2 "With Project" emissions for 2017, 2022, and 2035 are all less than the existing 2012 emissions. Note further that the future decline in emissions would even be greater than indicated except that the emission totals reflect growth in future vehicle traffic that offsets some of the emission declines resulting simply from the mandated emission controls.~~

~~Table 4.3.AA compares the maximum cancer risks for Scenario 1, "No Project," Scenario 2, "With Project," and the project's incremental impact at three locations: at the maximum individual cancer risk anywhere in the area covered by the dispersion model, at the sensitive receptors located within the boundaries of the WLC Specific Plan, and at the sensitive receptors located in the residential areas to the west of the project across Redlands Boulevard. Note that each scenario quantified cancer risks over the 2012–2081 70-year risk exposure time period. Note further that the project's incremental impacts include both construction and operational emissions.~~

~~Table 4.3.AA: Estimated Cancer Risks, Without Mitigation~~

~~Receptor Location~~	~~Cancer Risk (risk per million)[A]~~				~~Project Increment Exceeds Threshold?~~
	~~Scenario 1 No Project~~	~~Scenario 2 With Project[B]~~	~~Project Increment[B]~~	~~Significance Threshold~~	
~~Maximum Individual Cancer Risk[C]~~	~~183.9~~	~~190.4~~	~~6.5~~	~~10~~	~~No~~
~~Cancer Risk within the Specific Plan[D]~~	~~21.0~~	~~121.7~~	~~100.7~~	~~10~~	~~Yes~~
~~Cancer Risk in Residential Areas Across Redlands Boulevard[E]~~	~~25.0~~	~~47.2~~	~~22.2~~	~~10~~	~~Yes~~

~~Table 4.3.AA: Estimated Cancer Risks, Without Mitigation~~

~~Receptor Location~~	~~Cancer Risk (risk per million)~~[A]				~~Project Increment Exceeds Threshold?~~
	~~Scenario 1 No Project~~	~~Scenario 2 With Project~~[B]	~~Project Increment~~[B]	~~Significance Threshold~~	

~~A. 70-year lifetime exposures over the 2012 to 2081 time period.~~
~~B. Project's incremental impacts assume unmitigated construction diesel PM emissions.~~
~~C. The maximum individual cancer risk is located near the intersection of Interstate 10 and State Route 60 near the City of Beaumont.~~
~~D. The maximum affected sensitive receptor located within the Specific Plan is located near the Intersection of Theodore Street, Street E and Street F.~~
~~E. The maximum impacted sensitive receptor within the residential areas to the west of the project across Redlands Boulevard is located near the intersection of Redlands Boulevard and Eucalyptus Avenue.~~
~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, January 2013.~~

~~As noted in Table 4.3.AA, the project's incremental cancer risks exceed the SCAQMD's cancer risk significance threshold of 10 in a million at sensitive receptor locations both within the WLC Specific Plan boundaries (existing residences) as well as within the residential areas located to the west of the WLC Specific Plan across Redlands Boulevard.~~

~~Figure 4.3.9 shows a plot of the "No Project" cancer risks while Figure 4.3.10 shows the "With Project cancer risks. Figure 4.3.11 shows a plot of the project's incremental cancer risks compared to the No Project scenario prior to any mitigation. Figure 4.3.12 provides the cancer risk within the immediate vicinity of the project.~~

~~As shown in Table 4.3.AA, the estimated cancer risk at the sensitive receptors located within the boundaries of the Specific Plan from the project is 100.7 in one million, above the threshold of 10 in one million. Within the existing residential areas to the west of the project across Redlands Boulevard, the cancer risk from the project is 22.2 in 1 million, also above the threshold of 10 in one million. This is a significant impact and mitigation is required.~~

~~A risk level of 1 in a million implies a likelihood that up to one person, out of one million equally exposed people would contract cancer if exposed continuously (24 hours per day) to the specific concentration over 70 years (an assumed lifetime). This risk would be an excess cancer risk that is in addition to any cancer risk borne by a person not exposed to these air toxics.~~[1]

Cancer Risks. As noted in Section 4.3.3, *Methodology*, the project health risk assessment examined the following condition for impacts to both sensitive/residential and worker receptors:

> Proposed Project Development condition which evaluates the impacts of project-related construction and operational traffic diesel PM emissions as if the project were built out in accordance with its proposed phased construction and operational buildout schedule commencing with the construction of Phase 1 in 2015, build out of Phase 1 in 2022, and the full build out in 2035.

This HRA is being provided to allow decision makers to see the cancer-related impacts of the proposed project in the assumption that new technology diesel exhaust cause cancer, contrary to what was found by the HEI study. The revised mitigation conditions require that all diesel trucks accessing the project during operation be model year 2010 or newer and that all on-site equipment be Tier 4. The results of the HEI Study indicate that the project mitigation requiring the application of

[1] Definition of a 1 in a million cancer risk from the US EPA, Technology Transfer Network Air Toxics, Glossary of Key Terms, Website: www.epa.gov/ttn/atw/natamain/gloss1.html.

Model Year 2010 engines as well as the use of Tier 4-compliant off-road construction equipment are not expected to result in emissions that would be associated with the formation of cancer in exposed individuals.

Cancer Risk for Sensitive/Residential Receptors. To provide context with the methodology shown in the DEIR, Table 4.3.AC presents the results of the health risk assessment as presented in the DEIR. The cancer risk estimated applied the "Former OEHHA Guidance" and the now out-of-date EMFAC2011 mobile source emission model at several receptor locations inside and outside of the project boundary. For reference, a risk level of 1 in a million implies a likelihood that up to one person, out of one million equally exposed people would contract cancer if exposed continuously (24 hours per day) to the specific concentration of diesel PM over the duration of the exposure. This risk would be an excess cancer risk that is in addition to any cancer risk borne by a person not exposed to these air toxics[1].

Table 4.3.AD presents the estimated cancer risks applying the "Current OEHHA Guidance" and the use of the EMFAC2014 mobile source emission model. The results are provided separately for project construction diesel PM emissions, operational diesel PM emissions, and the total project diesel PM emissions prior to the application of emission mitigation. As noted therein, the estimated cancer risks are far greater than the corresponding risks estimated using the "Former OEHHA Guidance". This is because of the use of the age-specific factors (e.g., age-sensitivity factors and daily breathing rates) used in the "Current OEHHA Guidance" during the first 16 years, and in particular the first 2 years, of the 30-year exposure duration that greatly influence the risks over the entire 30-year exposure duration. The "Former OEHHA Guidance" used a 70-year exposure but did not make use of any age-specific factors. Because of the use of the age-specific early-in-life factors under the "Current OEHHA Guidance", the estimated cancer risks would result in an exceedance of the 10 in a million cancer risk significance threshold in the first year of the project construction in 2015 alone. As can be seen from Table 4.3.AD the construction impacts contribute the greatest proportion of the total impact particularly under the "Current OEHHA Guidance".

On the basis of the results shown in Table 4.3.AD based on the application of the "Current OEHHA Guidance", the project would exceed the SCAQMD's cancer risk significance threshold of 10 in a million prior to the application of mitigation and would represent a significant impact. However, this analysis is based on the assumption that new technology diesel exhaust cause cancer, contrary to what was found by the HEI study and discussed in more detail below.

[1] Definition of a 1 in a million cancer risk from the US EPA, Technology Transfer Network Air Toxics, Glossary of Key Terms, Website: www.epa.gov/ttn/atw/natamain/gloss1.html.

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Table 4.3.AC: Estimated Cancer Risks, 70-Year Exposure Duration for Sensitive/Residential Receptors as Shown in the Draft EIR

Receptor Location	UnMitigated			Mitigated		
	Total Incremental Cancer Risk[1] (risk/million)	SCAQMD Cancer Risk Significance Threshold (risk/million)	Exceeds Threshold?	Total Incremental Cancer Risk[1] (risk/million)	SCAQMD Cancer Risk Significance Threshold (risk/million)	Exceeds Threshold?
Maximum risk anywhere in the modeling domain[2]	100.7	10	Yes	76.8	10	Yes
Maximum risk at existing residences within the project boundaries	100.7	10	Yes	76.8	10	Yes
Maximum risk at any existing residential area outside of the project boundaries[3]	22.2	10	Yes	20.9	10	Yes

Notes:
[1] 70-year average exposures from 2015 to 2084 (includes diesel PM emissions from construction and operation); cancer risk estimates derived from the EMFAC2011 emission model and "Former OEHHA Guidance" for estimating cancer risks as presented in the Draft EIR
[2] Location is at the existing residences within the boundaries of the project
[3] Location is at the southwest corner of the project
[4] Location is at an undeveloped property zoned for residential at the southwest corner of the project
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

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~~Table 4.3.ADAC: Estimated Cancer Risks, 70-Year Exposure Duration for Sensitive/Residential Receptors, Without Mitigation (revised)~~

~~Receptor Location~~	~~Incremental Cancer Risk[1] (risk/million)~~	~~SCAQMD Cancer Risk Significance Threshold (risk/million)~~	~~Exceeds Threshold?~~
~~Maximum risk anywhere in the modeling domain[2]~~	~~57.8~~	~~10~~	~~Yes~~
~~Maximum risk at existing residences within the project boundaries~~	~~57.8~~	~~10~~	~~Yes~~
~~Maximum risk at any existing residential area outside of the project boundaries[3]~~	~~21.5~~	~~10~~	~~Yes~~
~~Maximum risk at any undeveloped residentially zoned property outside of the project boundaries[4]~~	~~28.6~~	~~10~~	~~Yes~~

~~Notes:~~
~~(1) 30-year average exposures from 2015 to 2044 (includes diesel PM emissions from construction and operation)~~
~~(2) Location is at the existing residences within the boundaries of the project~~
~~(3) Location is at an existing residence on Theodore Street north of State Route 60.~~
~~(4) Location is at an undeveloped property zoned for residential at the southwest corner of the project~~
~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, MBA.~~

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Table 4.3.AD: Estimated Cancer Risks, 30-Year Exposure Duration for Sensitive/Residential Receptors, Based on the "Current OEHHA Guidance", Without Mitigation

Receptor Location	Incremental Cancer Risk During Project Construction (risk/million)	Incremental Cancer Risk During Project Operation (risk/million)	Total Incremental Cancer Risk[1] (risk/million)	SCAQMD Cancer Risk Significance Threshold (risk/million)	Exceeds Threshold?
Maximum risk anywhere in the modeling domain[2]	180.8	6.7	187.5	10	Yes
Maximum risk at existing residences within the project boundaries[3]	180.8	6.7	187.5	10	Yes
Maximum risk at any existing residential area outside of the project boundaries[4]	47.2	2.5	49.7	10	Yes
Maximum risk at any undeveloped residentially zoned property outside of the project boundaries[5]	40.5	2.7	43.2	10	Yes

Notes:
[1] 30-year average exposures from 2015 to 2044 (includes diesel PM emissions from construction and operation); cancer risk estimates derived from the EMFAC2014 emission model and "Current OEHHA Guidance" for estimating cancer risks
[2] Location is at the existing residences within the boundaries of the project
[3] Location is at the existing residences within the boundaries of the project
[4] Location is at the southwest corner of the project
[5] Location is at an undeveloped property zoned for residential at the southwest corner of the project
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

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Figures 4.3.18a and 4.3.18b show the incremental cancer risks for the project location as calculated based on the EMFAC2014 emission model and the application of the "Current OEHHA Guidance" cancer risk estimation methodology and based on the assumption that diesel exhaust from old technology engine diesel emissions can cause cancer. The figures show the results prior to the application of mitigation.

Estimates of Cancer Risk for School Site Receptors. Cancer risk at school sites in the area with the application of the "Current OEHHA Guidance" is provided in Appendix D. Prior to the application of the mitigation, the maximum cancer risk is 3.2 in a million at Ridgecrest Elementary School. The cancer risk at the proposed high school at Ironwood Avenue and Quincy Street is 3.4 in a million. Impacts at schools are less than the 10 in one million significance threshold prior to mitigation and are less than significant.

Estimates of Cancer Risk for Worker Receptors. Estimates of worker exposures were prepared based on the assumption of a 25-year exposure duration for 250 days per year and 8 hours per day as described in the methodology section above and in the revised Air Quality, Greenhouse Gas, and Health Risk Assessment Report (Appendix D). Note that the OEHHA early-in-life age factors do not apply to worker receptors. The highest worker cancer risk estimates prior to the application of mitigation are greater than the SCAQMD cancer risk threshold of 10 in a million at 10.1 in a million inside the project boundaries and 4.1 in a million outside the project boundaries.

However, this analysis is based on the assumption that new technology diesel exhaust cause cancer, contrary to what was found by the HEI study and discussed in more detail below.

Estimates of Cancer Burden. In response to comments received on the DEIR, an estimate of cancer burden was developed in this revised analysis. The cancer burden calculation provides an estimate of the increased number of cancer cases as a result of exposures to TAC emissions. The total cancer burden is the product of the number of persons in a population area (such as a census tract) and the estimated individual risk from TACs in that population area and then summed over all population areas. The SCAQMD indicates that the burden calculation include those population units having an incremental cancer risk of 1 in a million or greater.

Cancer risks were estimated at the geographical center (centroid) of 2,360 census tracts that spanned the Basin from Palm Springs to the City of Los Angeles. For the 70-year exposure duration with the inclusion of the "Current OEHHA Guidance", the cancer burden is estimated to be 1.6 out of a population of about 880,000 individuals that were estimated to have a cancer risk of 1 in a million or more. The SCAQMD has established a threshold for cancer burden of 0.5. Therefore, the project would exceed the SCAQMD's cancer burden significance threshold prior to the application of mitigation.

*Informational Purposes: Morbidity and Mortality***.** There is no established threshold or approved methodology for calculating morbidity and mortality. For purposes of this assessment, morbidity is a term for describing how an external effect such as air pollution would exacerbate an existing illness and other health effect. Mortality is another term for death. The following represents the result of the calculations for long-term mortality and various morbidity health endpoints due to diesel PM for the project prior to the application of mitigation. The locations for the morbidity/mortality estimations were at the location with the highest combined annual diesel PM concentration and census tract population such that the change in diesel PM would affect the greatest number of people. A cumulative total of each mortality/morbidity health endpoint was also calculated that totals the number of added cases of an identified health endpoint at each census tract location within the entire region potentially impacted by the project emissions.

The estimates of mortality and morbidity impacts are based on the application of concentration-response functions (C-R functions) that relate the change in the number of adverse health effect

incidences in a population to a change in air pollutant concentration experienced by that population. However, such estimations are subject to great uncertainty. Sources of uncertainty include emission estimates, population exposure estimates, form of C-R functions, baseline rates of mortality and morbidity that are entered into the C-R functions, and occurrence of additional not-quantified adverse health effects. It should be noted that the nature of PM as a complex mixture of various pollutants, as well as the confounding health effects of pollutants such as sulfur dioxide, NO_2, CO, and ozone that tend to co-occur with PM in ambient air, greatly increase the complexity of deriving accurate PM concentration-response functions.

Exposure to the Project's diesel PM emissions prior to mitigation would result in an increase in mortality of approximately 0.002 additional cases per year at the location where the project has its maximum impact from diesel PM emissions or 0.2 additional cases over all of the census tracts contained In the modeling domain.

Table 4.3.AE summarizes the estimates of the various morbidity health endpoints due to the emissions from the project. As shown in this table, the project would not result in a single new added case of a quantified health endpoint either at either the location where the impact would be greatest or cumulatively over the entire air dispersion modeling domain examined in this assessment (approximately 3,500 square miles, potentially impacted by the project).

Table 4.3.AE: Estimates of Various Morbidity Health Endpoints from Project Emissions Without Mitigation (new table)

Health Endpoint	Maximum Added Occurrences (cases/year)	Cumulative Occurrences over the Entire Modeling Region (cases/year)
Long-term Mortality (Ages 30+)	0.0022	0.22
Chronic Illness: Chronic Bronchitis (Age 27+)	0.010	0.99
Hospitalization: Chronic Obstructive Pulmonary Disease Age 65+)	0.00002	0.002
Hospitalization: Pneumonia (Age 65+)	0.00003	0.003
Hospitalization: Cardiovascular (Age 65+)	0.00005	0.005
Hospitalization: Asthma (Age 0-64)	0.00001	0.001
Hospitalization: Asthma-related Emergency Visits (Ages 0-64)	0.00003	0.004

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

City of Moreno Valley General Plan. The project is consistent with the following City of Moreno Valley General Plan (2006) policies to help reduce air quality impacts to sensitive receptors:

- Policy 6.7.4 Locate heavy industrial and extraction facilities away from residential areas and sensitive receptors. Project consistency: The project would not contain heavy industrial and extraction facilities (such as a gravel mine). The project would contain warehousing, distribution, and light logistics. Therefore, the project is consistent with this policy. Nonetheless, the proposed plan places this development at the eastern end of the City, reducing the potential residential/development interface.
- Policy 6.7.5 Require grading activities to comply with South Coast Air Quality Management District's Rule 403 regarding the control of fugitive dust. Project consistency: The project would

comply with all applicable rules and regulations. Mitigation Measure 4.3.6.2A requires that the project demonstrate compliance with Rule 403.

Mitigation Measures. The mitigation measures previously identified under other impact sections are required (**Mitigation Measures 4.1.6.1A, 4.3.6.2A**, **4.3.6.2B**, **4.3.6.2D, 4.3.6.3A, 4.3.6.3B, 4.3.6.3C, 4.3.6.3D,** and **4.3.6.3E**) to reduce construction and operational emissions of criteria pollutants would reduce the estimated cancer risks associated with the project.

~~**Level of Significance after Mitigation.** Table 4.3.AB summarizes the 70-year lifetime cancer risks after implementation of mitigation for the project-related health risk impacts. As shown, cancer risk exceed the threshold of 10 in one million. Despite implementation of mitigation measures, impacts remain significant and unavoidable. Figure 4.3.13 displays the project's cancer risks after mitigation.~~

~~**Table 4.3.AB: Estimated Cancer Risks for Sensitive Receptors – With Mitigation**~~

~~Receptor Location~~	~~Cancer Risk (risk per million)[A]~~				~~Project Increment Exceeds Threshold?~~
	~~Scenario 1 No Project~~	~~Scenario 2 With Project[B]~~	~~Project Increment[B]~~	~~Significance Threshold~~	
~~Maximum Individual Cancer Risk[C]~~	~~183.9~~	~~190.2~~	~~6.3~~	~~10~~	~~No~~
~~Cancer Risk within the Specific Plan[D]~~	~~21.0~~	~~97.8~~	~~76.8~~	~~10~~	~~Yes~~
~~Cancer Risk in Residential Areas Across Redlands Boulevard[E]~~	~~25.0~~	~~45.9~~	~~20.9~~	~~10~~	~~Yes~~

~~A. 70-year lifetime exposures over the 2012 to 2081 time period.~~
~~B. Project's incremental impacts assume unmitigated construction diesel PM emissions.~~
~~C. The maximum individual cancer risk is located near the intersection of Interstate 10 and State Route 60 near the City of Beaumont.~~
~~D. The maximum affected sensitive receptor located within the Specific Plan is located near the Intersection of Theodore Street, Street E and Street F.~~
~~E. The maximum impacted sensitive receptor within the residential areas to the west of the project across Redlands Boulevard is located near the intersection of Redlands Boulevard and Eucalyptus Avenue.~~
~~Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, January 2013.~~

Level of Significance after Mitigation for Worker and School Children Cancer Risk. Less than Significant. The cancer risk impacts are less than the threshold of 10 in a million for workers 1.3 in one million onsite; 0.5 in one million offsite) and school children (0.7 in one million). More importantly, HRA is being provided to allow decision makers to see the cancer-related impacts of the proposed project in the assumption that new technology diesel exhaust cause cancer, contrary to what was found by the HEI study.

Level of Significance after Mitigation for Localized Particulate Matter Impacts. Significant and unavoidable. In summary, those residents inside the project boundaries could be exposed to significant short-term and long-term PM10 concentrations on an ongoing basis. The health effects from particulate matter were discussed earlier and could include the following:

- Particulate matter can cause the following health effects from short-term (24-hour) exposure: irritation of the eyes, nose, throat; coughing; phlegm; chest tightness; shortness of breath; aggravate existing lung disease, causing asthma attacks and acute bronchitis; and/or those with heart disease can suffer heart attacks and arrhythmias.

- Particulate matter (PM_{10}) can cause the following health effects from long-term exposure (annual): reduced lung function; chronic bronchitis; changes in lung morphology; and/or death.

Level of Significance after Mitigation for Sensitive Receptor Cancer Risk. Less than significant.

Mitigation Measure 4.3.6.3B would require that all diesel trucks that access the project site be model year 2010 or later and limits truck and vehicle idling to 3 minutes. **Mitigation Measure 4.3.6.2A** would require that Tier 4 construction equipment be used on the project site. These mitigation measures would reduce the cancer risk from the project.

Mitigation Measure 4.3.6.3C may encourage alternative fueled vehicles and trucks on the project site; however, no reduction is taken. **Mitigation Measure 4.3.6.3D** may reduce vehicle miles traveled to food establishments; however, no direct reduction is taken. **Mitigation Measure 4.3.6.3E** requires that if transportation refrigeration units are to be used, electrical hookups would be required. In addition, refrigerated space is prohibited unless the impacts do not exceed any environmental impacts identified in the EIR. Therefore, it is assumed in the unmitigated and mitigated estimates that there would be no transportation refrigeration units.

Table 4.3.AF shows the cancer risks estimated with the "Current OEHHA Guidance" after application of mitigation. As noted, the cancer risks are substantially less after mitigation. However, the SCAQMD cancer risk significance threshold would continue to be exceeded at locations within the project boundaries but not at any residential areas outside of the project boundary. The large reduction in cancer risk after mitigation is attributable principally to the reduced diesel PM attributed to mitigation such as the commitment to Tier 4 construction equipment. The impact of this mitigation is largely felt during the first 3 to 5 years of construction when the "Current OEHHA Guidance" assigns large age sensitivity factors to the first few years of the 30-year exposure duration. Figure 4.3.19a and Figure 4.3.19b provided a regional and close-in view of the risks, respectively after the application of mitigation. Even so, this HRA is being provided to allow decision makers to see the cancer-related impacts of the proposed project in the assumption that new technology diesel exhaust cause cancer, contrary to what was found by the HEI study, as discussed in more detail below. Through mitigation, new technology diesel engines are required for the WLC project. The revised mitigation conditions require that all diesel trucks accessing the project during operation be model year 2010 or newer and that all on-site equipment be Tier 4. The results of the HEI Study indicate that the project mitigation requiring the application of Model Year 2010 engines as well as the use of Tier 4-compliant off-road construction equipment are not expected to result in emissions that would be associated with the formation of cancer in exposed individuals.

The HEI study clearly demonstrates that the application of new emissions control technology to diesel engines have virtually eliminated the health impacts of diesel exhaust.

Mitigation measures 4.3.6.2A and 4.3.6.3B require 2010-compliant trucks for operation and Tier 4 equipment for construction, both of which rely on diesel particulate filters similar to those tested in the HEI study. These vehicles reduce emissions by 90% when compared to 2006 vehicles and by 99% when compared to uncontrolled diesel engines. Recent emissions testing by CARB revealed that these diesel engines are cleaner than originally estimated. These findings, which are reflected in the latest CARB emissions factor model EMFAC2014, are 70% cleaner than previously estimated.

Beginning in 2001, USEPA and CARB began issuing a series of regulations that require new diesel-powered vehicles and equipment to use the latest emissions control technology. This technology relies on two components. The first is a diesel particulate filter, which is capable of reducing particulate matter emissions by over 90% (required for new engines beginning in 2007). The second technology is selective catalytic reduction, which reduces emissions of nitrogen oxides by over 90% (required for new engines beginning in 2010). Diesel emissions from equipment equipped with this technology is referred to as NTDE. As a result of the advances in emission control technology, USEPA, CARB, and other government and industry stakeholders commissioned a series of studies called the Advanced Collaborative Emissions Study (ACES). ACES has been guided by an ACES

Steering Committee consisting of representatives of HEI and the Coordinating Research Council (CRC: a nonprofit organization that directs engineering and environmental studies on the interaction between automotive or other mobility equipment and petroleum products), along with the U.S. Department of Energy, U.S. EPA, engine manufacturers, the petroleum industry, CARB, emission control manufacturers, the National Resources Defense Council, and others. The Health Effects Institute (HEI), funded in part by USEPA, was selected to oversee Phase 3 of ACES.

Phase 3 of ACES evaluated whether emissions from new technology diesel engines cause cancer or other health effects. Specifically, it evaluated the health impacts of a 2007-compliant engine equipped with a diesel particulate filter. HEI found that lifetime exposure to new technology diesel exhaust (NTDE) did not cause carcinogenic lung tumors. The study also confirmed that the concentrations of particulate matter and toxic air pollutants emitted from NTDE are more than 90% lower than emissions from traditional older diesel engine.

As a result of the very low emissions from new technology diesel engines and the research conducted by HEI, it is projected that the project would not result in any new cancer risks from the project's diesel emissions. Therefore, the project would have a less than significant health risk impact.

As discussed above, there are no significant health risk impacts associated with the project. However, under a very conservative application of the "Current OEHHA Guidance" to the proposed project (which was provided for informational purposes), three homes within the Specific Plan area could be identified as having a health risk in excess of the SCAQMD threshold. Although air quality significance thresholds have been established for outdoor environments, a significant portion of human exposure to air pollutants occurs indoors where people spend more than 90 percent of their time (USEPA 2011). One approach to reduce exposure is the installation of high efficiency panel filters inside the HVAC system. Air filters and other air-cleaning devices are designed to remove pollutants from indoor air. Some are installed in the ductwork of a home's central heating, ventilating, and air-conditioning (HVAC) system to clean the air in the entire house. In studies of the effectiveness of air filtration systems in classrooms (SCAQMD 2009) and by the EPA in residences (USEPA 2009b), the combination of an HVAC system with a high performance panel filter reduced indoor levels of fine particulate matter, PM2.5 and smaller particles by 70 to 90 percent.

The use of a filtration system consisting of the application of filters with a rating of ASHRSE Standard 52.2 MERV-13 is sufficient to capture a significant portion of the diesel particulate matter. However, the filtration system would not remove the smallest of particles (less than approximately 0.01 to 0.2 micron in diameter). MERV-13 filters would, however, reduce particles in the range of 0.3 to 1 micron by up to 75 percent and particles larger than 1 micron by 90 percent (see Table 1 of the Addendum to CARB 2012). Based on measurement studies of the size distribution of the collected DPM, approximately 0.1 to 10 percent of the total DPM mass includes particles between 0.01 and 0.2 micrometer in diameter, particles between 0.3 and 1 micrometer in diameter comprise 70 percent of the total DPM mass, and particles above 1 micrometer comprise 5 to 20 percent of the total DPM mass (DieselNet.com 2002).

Since the cancer risk from DPM is calculated from the mass of DPM emitted, the quantity of DPM reduced by the action of air filters would thus equate to a reduction in cancer risk. The application of MERV-13 air filter filtration system would result in a reduction of DPM exposures by approximately 70 percent.

DPM Size: 0.01 to 0.2 micrometers 0.3 to 1 micrometers Greater than 1 micrometer

(10% total mass x 0% reduction + 70% total mass x 75% reduction + 20% total mass x 90% reduction)

Attributing an adjustment for time that windows might be open, residents would be outside, or for different compounds that result in the cancer risk would reduce the efficacy of the filters by about 20 percent, bringing the total cancer risk reduction from the filters to 50 percent.

Absent the results of the HEI study, installation of air filters meeting the requirements discussed above on the three identified homes within the WLCSP area would reduce the OEHHA-calculated risk to below 10 in one million. The use of the filters would bring the OEHHA-calculated risk below the SCAQMD threshold eliminating any possible risk from the project on those three homes within the Specific Plan area. However, based upon the results of the HEI study, health risk impacts are less than significant and no further mitigation is required.

In summary, the implementation of all the recommended mitigation measures, including the requirement to use 2010 diesel engine emissions standards and Tier 4 construction equipment, will reduce the OEHHA-calculated cancer risk to below 10 in one million on all but three existing residences within the WLCSP boundary. However, the HEI study indicates the use of 2010 diesel engines and TIER 4 equipment will eliminate the project cancer risk, therefore, there will be no impacts to the three homes and no mitigation is required.

Finally, note further that after application of mitigation, the cancer risk burden is estimated at 0.10 based on the "Current OEHHA Guidance" which is less than the SCAQMD cancer burden significance threshold of 0.5, based on the assumption that diesel exhaust can cause cancer. Therefore, the project would not exceed the SCAQMD's cancer burden significance threshold.

As requested in comments received during the DEIR comment period, an analysis was conducted to compare cancer risks for a design buffer area of 250 feet from the project boundaries (this is the current project design) to a buffer area of 1,000 feet from the property boundary based on the "Current OEHHA Guidance". As shown in Table 4.3.AG, the results for the maximum incremental cancer risk are nearly identical for the 250-foot buffer and the 1,000-foot buffer. The 1,000-foot buffer would not appreciably reduce air quality impacts. More importantly, as result of revised mitigation measures such as 4.3.6.2.A that commits to cleaner construction equipment, there is no significant health impact outside the project boundaries for residents, workers, or other sensitive receptors that would be affected by an increased buffer area. That analysis assumes that traditional diesel equipment would be used as opposed to new technology diesel (which does not contribute to cancer risk), as required by project mitigation measures. As shown in Figure 4.3.20, the locations of the 10 in one million cancer risk contour line for the project design and the 1,000 foot buffer under the "Current OEHHA Guidance" exposure duration are coincident and overlap each other.

Table 4.3.AF: Estimated Cancer Risks, 30-Year Exposure Duration for Sensitive/Residential Receptors, Based on the "Current OEHHA Guidance", With Mitigation

Receptor Location	Incremental Cancer Risk During Project Construction (risk/million)	Incremental Cancer Risk During Project Operation (risk/million)	Total Incremental Cancer Risk[1] (risk/million)	SCAQMD Cancer Risk Significance Threshold (risk/million)	Exceeds Threshold?
Maximum risk anywhere in the modeling domain[2]	11.4	5.6	17.0	10	Yes
Existing residences within the project boundaries					
13100 Theodore St	11.2	4.5	15.7	10	Yes
13200 Theodore St	11.1	4.5	15.6	10	Yes
13241 Theodore St	11.4	5.6	17.0	10	Yes
30220 Dracaea Ave	5.0	3.6	8.6	10	No
30240 Dracaea Ave	5.0	3.6	8.6	10	No
29080 Dracaea Ave	3.0	1.5	4.5	10	No
29140 Dracaea Ave	4.8	1.7	6.5	10	No
Maximum risk at any existing residential area outside of the project boundaries[3]	2.7	1.6	4.3	10	No
Maximum risk at any undeveloped residentially zoned property outside of the project boundaries[4]	2.1	1.9	4.0	10	No

Notes:
[1] 30-year average exposures from 2015 to 2044 (includes diesel PM emissions from construction and operation); cancer risk estimates derived from the EMFAC2014 emission model and "Current OEHHA Guidance" for estimating cancer risks
[2] Location is at the existing residences within the boundaries of the project
[3] Location is at the southwest corner of the project
[4] Location is at an undeveloped property zoned for residential at the southwest corner of the project
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

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Table 4.3.A~~F~~AE: Estimated Cancer Risks, 70-year Exposure Duration for Sensitive/Residential Receptors, With Mitigation (revised)

Receptor Location	Incremental Cancer Risk[1] (risk/million)		SCAQMD Cancer Risk Significance Threshold (risk/million)	Exceeds Threshold?
	250-Foot Buffer	1000-Foot Buffer		
Maximum risk anywhere in the modeling domain[2]	~~52.3~~ 17.0	~~52.7~~ 16.5	10	Yes
Maximum risk at existing residences within the project boundaries	~~52.3~~ 17.0	~~52.7~~ 16.5	10	Yes
Maximum risk at any existing residential area outside of the project boundaries[3]	~~19.7~~ 4.3	~~19.7~~ 3.9	10	No ~~Yes~~
Maximum risk at any undeveloped residentially zoned property outside of the project boundaries[4]	~~27.4~~ 4.0	~~27.4~~ 3.7	10	No ~~Yes~~

Notes:
(1) 30-year average exposures from 2015 to 2044 (includes diesel PM emissions from construction and operation)
(2) Location is at the existing residences within the boundaries of the project~~; the risk is slightly higher with a 1,000-foot buffer because the emissions are emitted from a smaller and more concentrated geographical area.~~
(3) Location is ~~at an existing residence on Theodore Street north of State Route 60~~ at the southwest corner of the project along Bay Avenue
(4) Location is at an undeveloped property zoned for residential ~~on Redlands Boulevard near Eucalyptus Avenue~~ at the southwest corner of the project
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, ~~MBA September~~ 2015.

Risk in Perspective. To better understand cancer risk, even though new technology diesel exhaust does not cause cancer according to the HEI study, it helps to understand risk in other contexts. For instance, SCAQMD estimates that the risk of developing cancer from all sources of air pollution in Southern California is approximately 367 in one million. According to the National Cancer Institute, Americans face an overall risk of developing cancer from all causes of 408,000 in one million. Figure 4.3.21 presents the project risk in perspective with other lifetime risks in the United States based on mortality statistics. As shown in the figure, the project cancer risk (the risk of developing cancer, not dying of cancer) has a slightly higher risk than dying from a lightning strike and lower risk than accidental drowning.

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Figure 4.3.18a: Incremental Project Cancer Risk – No Mitigation ”Current OEHHA Guidance”

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Figure 4.3.18b: Incremental Project Cancer Risk – "Current OEHHA Guidance" Close-In View

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Figure 4.3.19a: Incremental Project Cancer Risk – ”Current OEHHA Guidance” With Mitigation

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Figure 4.3.19b: Incremental Project Cancer Risk – "Current OEHHA Guidance" With Mitigation Close-In View

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Figure 4.3.20: Cancer Risk Buffer Analysis – “Current OEHHA Guidance” with Mitigation

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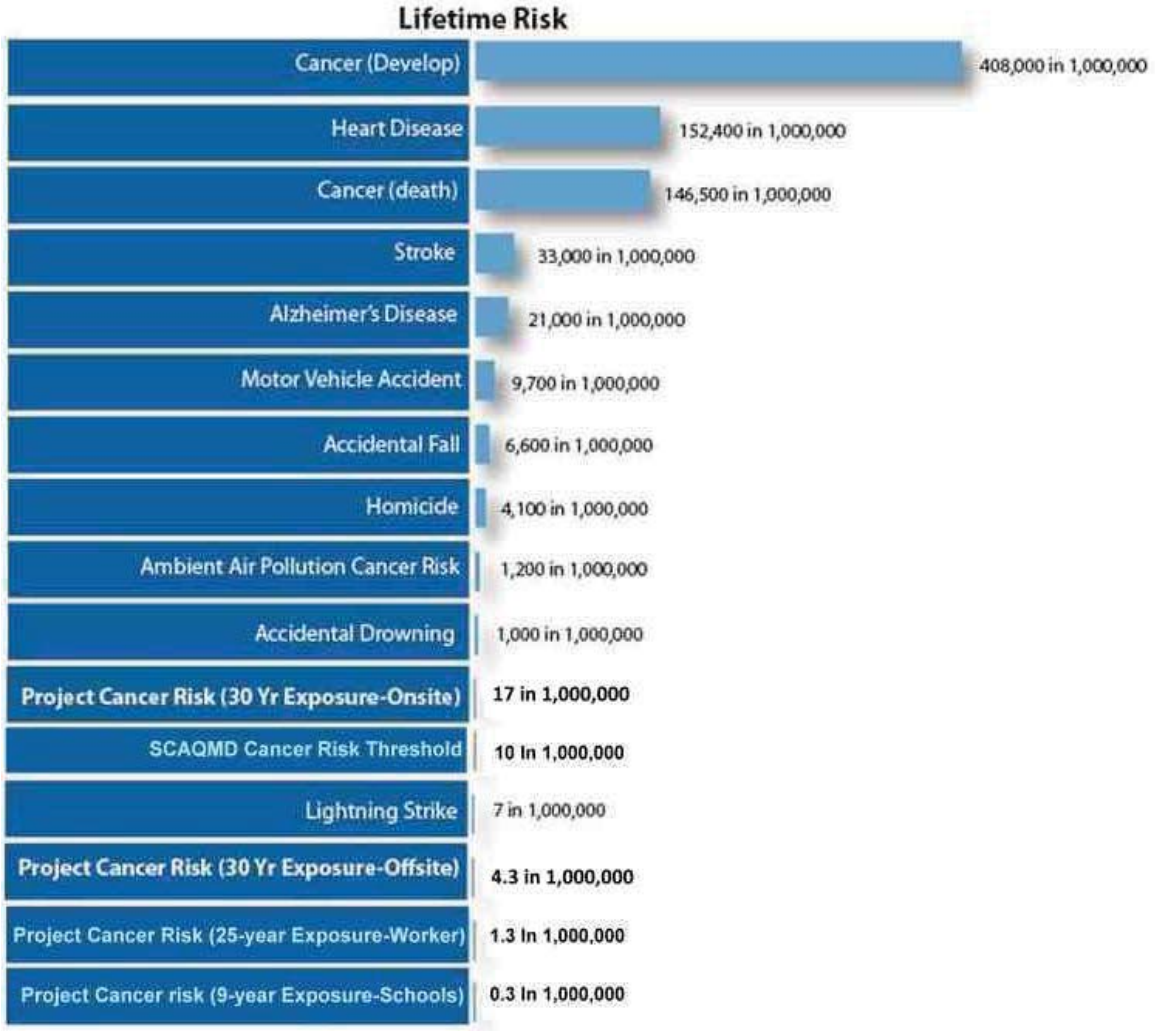

Figure 4.3.21: Lifetime Risk Comparison

4.3.7 Cumulative Impacts

4.3.7.1 Short-Term Air Quality Impacts

The cumulative area for air quality impacts is the Basin. It is generally accepted that if a project exceeds the regional threshold for a nonattainment pollutant, then it would result in a cumulatively considerable net increase of that pollutant and result in a significant cumulative impact. The Basin is currently in nonattainment for ozone, ~~nitrogen dioxide, and particulate matter (~~PM_{10} and $PM_{2.5}$~~)~~. The implementation of the project would contribute criteria pollutants to the area during project construction. A number of individual projects in the area may be under construction simultaneously with the proposed project. Depending on construction schedules and actual implementation of projects in the area, generation of fugitive dust and pollutant emissions during construction would result in substantial short-term increases in air pollutants. Each project would be required to comply with the SCAQMD's standard construction measures; however, despite adherence to SCAQMD's standard construction measures and **Mitigation Measures 4.3.6.2A** through **4.3.6.2D** identified previously, project-related emissions would still exceed applicable SCAQMD regional thresholds for ~~all criteria pollutants~~ VOC, NOx, and CO. Therefore, cumulative impacts associated with short-term air quality impacts would be significant and unavoidable.

4.3.7.2 CO Hot Spot Impacts

As identified in Section 4.3.5.2, no significant CO hot spot impacts would occur. It is anticipated that CO emissions in the future will decrease with advances in technology. As previously identified, background concentrations in future years are anticipated to continue to decrease as the concerted effort to improve regional air quality progresses. Therefore, CO concentrations in the future years would generally be lower than existing conditions. Based on the analysis, because no CO hot spot impacts would occur, it is reasonable to assume that a less than significant cumulative CO impact would occur.

4.3.7.3 Long-Term Regional Air Quality Impacts

As previously identified in Tables ~~4.3.M~~, 4.3.~~AB~~AA~~,~~ and 4.3.~~AC~~AB, the long-term operation and the combined construction and operational emissions of the project would contribute to long-term regional air pollutants despite implementation of mitigation measures. The Basin is in nonattainment for ozone, ~~nitrogen dioxide, and particulate matter (~~PM_{10} and $PM_{2.5}$~~)~~ at the present time; therefore, the operation of the proposed project would exacerbate nonattainment of air quality standards within the Basin and contribute to adverse cumulative air quality impacts. Implementation of the proposed project would unavoidably contribute to significant long-term cumulative air quality impacts.

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~~Figure 4.3.18a: Incremental Project Cancer Risk – 70-year Exposure Time Period~~

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~~Figure 4.3.18b: Incremental Project Cancer Risk – 70-year Exposure Time Period Close-In View~~

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~~Figure 4.3.18c: Geographical Extent of the One in a Million Cancer Risk Contour Line – 70-Year Exposure Duration~~

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~~Figure 4.3.19a: Incremental Project Cancer Risk – 70-year Exposure Time Period (original DEIR)~~

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~~Figure 4.3.19b: Incremental Project Cancer Risk – 70-year Exposure Time Period Close-In View (original DEIR)~~

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4.3.7.4 Cumulative Health Risk Impacts

~~As noted from the results shown in previously referenced Table 4.3.AA and Table 4.3.AB, since the project on its own exceeds the SCAQMD's cancer risk significance threshold with mitigation, the project would also result in a cumulatively considerable impact. The cumulative cancer risk noted as the "With Project Scenario (No Project + Project)" is depicted in previously referenced Figure 4.3.13, which shows the maximum cumulative cancer risk is estimated to be 190 in a million and was found to occur near the intersection of Interstate 10 and State Route 60 near Banning, California. Maximum cumulative risk occurs at a different location than the project's maximum risk. At the location of the maximum cumulative risk, the project contributes a risk of approximately 6 in a million or less than 4 percent of the total. The project's maximum cancer risk occurs at the existing sensitive receptors located within the boundaries of the WLC Specific Plan near the intersection of Theodore Street and Street E and Street F. At the location of the project's maximum incremental impact, the project contributes approximately 78 percent of the total cumulative risk.~~

Cancer Risks to Sensitive Receptors and Cancer Burden. SCAQMD recommends that any given project's potential contribution to cumulative cancer risk impacts should be assessed using the same significance criteria as for project-specific impacts. Therefore, a project that has the potential to exceed any significance threshold on its own would also result in a cumulatively considerable significant impact. As noted from the results shown in previously discussed in Impact 4.3.6.5 in the subsection *Cancer Risks*, since the project would implement mitigation measures resulting in the cleanest on-road and off-road diesel equipment and such equipment has been shown though extensive health effects studies to not result in cancer. Therefore, the project would not result in a cumulatively considerable impact.

~~**SCAQMD MATES Studies.** The SCAQMD conducted detailed toxic air contaminant emission inventory, air sampling, and dispersion modeling studies: Multiple Air Toxics Exposure Study (MATES-II and (MATES-III). The MATES studies provide health risk estimates of various toxic air contaminants as well as their spatial magnitude and distribution across the Basin. The MATES-III program results indicate that the cancer risks in the area where the project site is located are estimated to be approximately 500 in one million of which diesel PM contributes approximately 84 percent of the total cancer risk. The remaining portion of the total cancer risk consists mainly of exposures to benzene, formaldehyde, acrolein, and 1,3-butadiene. The MATES-III study found that the population weighted cancer risk in the entire Basin was estimated to be 853 in one million.~~

~~The MATES risks are estimated using assumptions that are substantially different than the assumptions used in the project's impact assessment. The MATES risks represent a snapshot in time based on the inventory of toxic air emissions from the year 2005, which are assumed to remain constant over the next 70 years. In reality, the toxic emissions in the South Coast Air Basin have changed dramatically since 2005 with reductions noted in virtually all toxic levels, including diesel PM emissions. The MATES risks also do not take account of the fact that a number of emission control regulations have been adopted particularly on heavy duty diesel trucks, which will substantially reduce their per mile emissions over the next 10 years. In accordance with guidance from the SCAQMD, the diesel PM emissions from the project incorporate the mandated changes in future vehicle emissions. Using comparable emissions assumptions, the MATES risks could be substantially lower than the levels indicated below in Table 4.3.AGAF. Nonetheless, the project's incremental cancer risk when added to the MATES risk levels, would result in a cumulatively considerable impact.~~

~~Table 4.3.AGAF: Cumulative Cancer Risk Values, 70-year Exposure Duration (revised)~~

~~Receptor Location~~	~~Cancer Risk (risk per million)~~		
	~~Project Increment (with Mitigation)~~	~~MATES-III~~	~~Total Cumulative Risk~~
~~Maximum risk anywhere in the modeling domain~~	~~52.0~~	~~497~~	~~549~~
~~Maximum risk at existing residences located within of the project boundaries~~	~~52.0~~	~~497~~	~~549~~
~~Maximum risk at existing residential area outside project boundaries~~[(1)]	~~25.5~~	~~497~~	~~523~~
~~Maximum risk at any undeveloped residentially zoned property outside of the project boundaries~~[(2)]	~~27.2~~	~~497~~	~~524~~

~~(1) Location is north of State Route 60 and east of the junction with Interstate 215.~~
~~(2) Location is at an undeveloped property zoned for residential on Redlands Boulevard north of Eucalyptus Avenue~~
~~Source of project increment: dispersion modeling conducted by Michael Brandman Associates (see tables above), September 2014.~~
~~Source of MATES-III risk: South Coast Air Quality Management District (refer to MATES Cancer Risk Exhibit); the risk is at the project location.~~

~~Figure 4.3.20 displays the cancer risk in the project area as estimated by the SCAQMD MATES-III study and shows the estimated cancer risk on the project site ranges from 497 near the highway to 409 farthest in the southeastern corner of the project site.~~

~~Table 4.3.AC displays a summary of the cancer risk values. The project values represent the maximum cancer risk values from project-related diesel emissions. The cumulative values represent the project impact plus the impact of other diesel trucks in the area. The MATES-III values are estimated by the SCAQMD. If the cancer risk values were compared with the project-specific threshold of 10 cancers per million, the cancer risk values would exceed the threshold. In fact, virtually all areas within the SCAQMD would exceed the 10 in a million significance threshold.~~

~~The 70-year lifetime cancer risks after implementation of mitigation are summarized in previously referenced Table 4.3.AB for the project-related health risk impacts. As shown, cancer risks exceed the threshold of 10 in one million. The cumulative impacts include the impacts from both the project trucks and motor vehicles and trucks and other motor vehicles from all other existing, planned, and reasonably foreseeable projects. Appling the SCAQMD's cancer risk significance threshold of 10 in a million would result in a cumulative impact that exceeds the threshold. Impacts would remain significant and unavoidable as there are no other feasible mitigations that would reduce health risks associated with implementation of the proposed project.~~

~~**Worker Exposure.** There are a variety of State and Federal programs that protect onsite workers from safety hazards, including high air pollutant concentrations (California Division of Occupational Safety and Health; Centers for Disease Control and Prevention 2012,~~

~~On-site workers are not required to be addressed through this health risk assessment process. A document published by the California Air Pollution Control Officers Association (2009), "Health Risk Assessments for Proposed Land Use Projects," indicates that on-site receptors are included in risk assessments if they are persons not employed by the project. Persons not employed by the project would not remain on-site for any significant period. Therefore, a health risk assessment for on-site workers is not required or recommended. With regards to offsite worker exposures, assuming the worker exposure assumptions of 40 years, 8 hours per day, and 49 weeks per year as per the OEHHA recommendations, the highest offsite worker exposure cancer risk due to the project's DPM~~

~~emissions was found to be 7.0 in a million. This risk level is less than the SCAQMD cancer risk threshold of 10 in one million. Persons not employed by the project would not remain on-site for any significant period. Therefore, a health risk assessment for on-site workers is not required or recommended.~~

Non-Cancer Acute and Chronic Hazards Impacts. As previously identified, the maximum non-cancer chronic hazard index and acute non-cancer hazard index from the operation of the project are estimated to be ~~less than 0.05 at any location outside of the boundaries of the WLC Specific Plan~~ less than 0.13 and 0.06, respectively. These values are less than the SCAQMD's significance threshold of 1.0. Therefore, the project would also have a less than significant cumulative non-cancer hazard impact.

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~~Figure 4.3.20: SCAQMD MATES Cancer Risks for the Proposed Project~~

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~~Figure 4.3.20a: Incremental Project Cancer Risk – 30-year Exposure Time Period~~

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~~Figure 4.3.20b: Incremental Project Cancer Risk – 30-year Exposure Time Period Close-In View~~

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~~Figure 4.3.21a: Cancer Risk Buffer Analysis - 70-year Exposure Time Period~~

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~~Figure 4.3.21b: Cancer Risk Buffer Analysis - 70-year Exposure Time Period Close-In View~~

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Summary of Project-Related Air Quality Impacts

Based on the preceding analyses in Sections 4.3.5.1 through 4.3.6.5, the WLC project will have the following direct and cumulative air quality impacts:

Table 4.3.AH: Summary of Project-Related Air Quality Impacts (new table)

Impact	Air Quality Topic/Issue	Impact Conclusion
Project Impacts		
4.3.5.1	Odors	Less than Significant No Mitigation Required
4.3.5.2	Long-Term Micro-Scale CO Hotspot Emissions	Less than Significant No Mitigation Required
4.3.6.1	Air Quality Management Plan Consistency	Significant (inconsistent) and Unavoidable with Mitigation
4.3.6.2	Regional Construction Emissions	Significant and Unavoidable with Mitigation (VOC, NOx, CO, and PM_{10}; regional health effects from ozone)
4.3.6.3	Localized Construction and Operation (LSTs)	Significant and Unavoidable with Mitigation (onsite) Less than Significant with Mitigation (offsite)
4.3.6.4	Regional Long-Term Operational Emissions	Significant and Unavoidable with Mitigation (VOC, NOx, CO, PM_{10}, and $PM_{2.5}$; regional health effects from ozone, PM_{10}, and $PM_{2.5}$)
4.3.6.5	Sensitive Receptors (a) Localized PM_{10}	Significant and Unavoidable for PM_{10} with Mitigation (onsite) Less than Significant with Mitigation (offsite)
	(b) Non-Cancer Acute and Chronic Health Risks	Less than Significant
	(c) Cancer Risks– Sensitive Receptors	Less than Significant with Mitigation
	(d) Cancer Burden	Less than Significant with Mitigation
	(e) Cancer Risks –Workers	Less than Significant with Mitigation
	(f) Cancer Risks – School Sites	Less than Significant
Cumulative Impacts		
4.3.7.1	Cumulative Short-Term Air Quality Impacts	Significant and Unavoidable
4.3.7.2	Cumulative CO Hot Spots	Less than Significant
4.3.7.3	Cumulative Long-Term Regional Impacts	Significant and Unavoidable
4.3.7.4	Cumulative Health Risk Impacts (a) Cancer Risks and Cancer Burden to Sensitive Receptors (b) Cancer Risks – Worker Exposure (c) Non-Cancer Acute and Chronic Impacts	 Less than Significant with Mitigation Less than Significant with Mitigation Less than Significant

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4.4 BIOLOGICAL RESOURCES: TABLE OF CONTENTS

FIGURES

TABLES

NOTE TO READERS. *The following revisions have been made due to changes in the proposed WLC project, responses to comments on the Programmatic DEIR and revisions and updates to the project biological resources assessment.*

4.4 BIOLOGICAL RESOURCES

Changes from December 2012 Biological Resource Analysis

- *At the request of Metropolitan Water District of Southern California (Letter C-2) information about the Inland Feeder was added to the Section 4.4.1.*
- *Additional details about existing setting Section 4.4.1 were added in response to the revised survey area and comments made on the DEIR. The format of this section was revised to follow the format and organization that was used in the revised MSHCP report. However, the information is conceptually the same.*
- *Table 4.4.A: Summary of Vegetation was updated based on the revised MSHCP report and moved to Section 4.4.1.4.*
- *Table 4.4.B was divided into two separate tables based on the updated biological resources report in addition to comments regarding the presence of sensitive plants and wildlife in the area.*
- *Additional discussion of burrowing owl was added to Sections 4.4.1.13 and 4.4.1.14 due to a burrowing owl being identified within the project site during the 2013 focus survey.*
- *Table 4.4.D Special Interest Species was incorporated into Tables 4.4.B Sensitive Plant Species in the WLC Project Area and 4.4.C Sensitive Wildlife Species in the WLC Project Area.*
- *The discussion of riparian habitat and potential wildlife species was expanded in section 4.4.1.14 due to the updated MSHCP report.*
- *Detailed information about on-site drainages has been excerpted from the Jurisdictional Delineation Report and added to Section 4.4.1.19. A discussion of on-site drainages were also added to Section 4.4.6.3.*
- *The updated MSHCP report determined that Section 4.4.5.1 Jurisdictional Waters/Wetlands required mitigation to be less than significant. This section was added to 4.4.6.3 Jurisdictional Delineation, Riparian Habitat or Other Sensitive natural Communities. The existing mitigation was revised to mitigate potential jurisdictional impacts to less than significant levels.*
- *All mitigation measures in Section 4.4.6 were updated based on the revised the MSHCP report.*
- *In response to a comment made on the DEIR a nitrogen deposition section of added to section 4.4.6.2.*
- *Mitigation Measures 4.4.6.1A through 4.4.6.1C were revised based on comments from the U.S. Fish and Wildlife Service.*
- *Additional discussion of burrowing owl impacts was added to Section 4.4.6.4 due to the burrowing owl being identified within the project site during the 2013 focus survey. Burrowing Owl mitigation was also expanded.*

This section discusses the potential impacts of development of the proposed project on biological resources. In 2012, Michael Brandman Associates (MBA) conducted a Habitat Assessment, Multiple

Species Habitat Conservation Plan (MSHCP) Consistency Analysis, Habitat Acquisition and Negotiation Strategy (HANS) ~~Review~~ Report, and California Environmental Quality Act (CEQA) Biological Resources Assessment to comply with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) requirements. The 2012 MBA report summarized the results of several focused surveys conducted since 2004 on the WLC property. In 2014, the various WLC project studies were updated to reflect the most current information about the project area. Information to evaluate and analyze the proposed project's impacts to biological resources is derived from the following references and studies included in Appendix E:

- *Habitat Assessment, MSHCP Consistency, and HANS Report*, MBA, ~~December 20, 2012.~~original dated December 20, 2012, revised September 2014. (This includes the focused surveys included as separate documents in the previous version.)
- *Jurisdictional Delineation of the World Logistics Center,* MBA, original dated October 29, 2012, revised dated December 19, 2013.
- *Determination of Biologically Equivalent or Superior Preservation (DBESP),* MBA, December 5, 2013, revised September 2014.

In addition, the analysis contained in this section is based on the following reference documents:

- *Conservation Element*, City of Moreno Valley General Plan, adopted in July 2006.
- Western Riverside County MSHCP, adopted October 2003.
- MSHCP Final EIR, certified October 2003.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers ~~3,918~~ 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes ~~3,814~~ 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering ~~3,814~~. 3,714 acres, which redesignates approximately ~~71~~70 percent of the area (~~2,710~~ 2,610 acres) for logistics warehousing (new LD and LL~~, LS~~ zones) and the remaining ~~30~~ 29 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (this project September 2014) will be adopted to govern development of the World Logistics Center for the ~~2,710~~ 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*. ~~The environmental impacts of all of these entitlements on the entire project area are addressed in this EIR and the accompanying technical reports and analyses.~~

~~For the purposes of analysis in this section of the EIR, the project area has been divided into three sections. The first includes the Specific Plan area and associated off-site facilities referred to as the Specific Plan area. The second section includes the California Department of Fish and Wildlife (CDFW) conservation area as well as the SDG&E-owned lands and will be referred to as the CDFW Buffer Area.~~

The MBA report included an assessment of the WLC Specific Plan (WLCSP) site (2,610 acres), the 910-acre CDFW Conservation Buffer Area within the San Jacinto Wildlife Area (SJWA), the SDG&E Moreno Compressor Plant (194 acres), an "indirect impact zone" surrounding portions of the WLCSP property (502 acres), potential offsite infrastructure facilities (304 acres) and modified survey areas to match the reduced project area of the specific plan. In this section, the combined areas described in this paragraph total 5,972 acres and are hereafter referred to in this section as the survey area.

~~third includes a 1,000-foot wide area along the south and east boundaries of the site to examine possible indirect impacts on the San Jacinto Wildlife Area and referred to as the "Off-site Analysis Zone."~~

The information presented in this section is based on surveys of various portions of the project site conducted by MBA from 2005 to ~~2012~~2013 as referenced above. Development is only proposed on the Specific Plan property; the CDFW and public facilities property are not proposed for development and are expected to remain in their present condition. The habitat assessment information summarized in this section was collected during several site visits to the project area, the CDFW buffer area, the public facilities property, and the off-site improvement area~~, and the 1,000-foot buffer area in 2010 and 2012. Other focused surveys for sensitive species were conducted~~ at various times from 2005 to ~~2012~~2013.

The entire project area is regulated by the MSHCP, which is a regional conservation plan adopted by Riverside County in 2003. The MSHCP establishes core areas identifying important land that supports listed or sensitive species. The MSHCP also establishes criteria cells for land with important resources that need to be protected as part of the overall plan. The MSHCP identifies these critical lands for preservation or for relatively passive open space and utility uses. The MSHCP serves as a regional habitat conservation plan. The MSHCP was created, studied, and adopted by the County, the U.S. Fish and Wildlife Service (USFWS), CDFW, and fourteen cities in Riverside County along with the County. A more complete discussion of the MSHCP is provided in Section 4.4.1.6.

4.4.1 Existing Setting

The project area is located on the fringe of the urbanized development area of the City of Moreno Valley. The majority of the project area has been used for agricultural purposes for decades. Various portions of the area contain structures associated with previous agricultural activities, including residential structures, farm buildings, concrete pads, and fences. There are two small portions of relatively undisturbed vegetation on site, one in the northeastern portion of the site on land owned by Metropolitan Water District, and the second in the southwestern portion of the site in the rocky hills south of Alessandro Road and west of Theodore Street. Many of the off-site facilities such as water and sewer lines and access to potential water reservoirs are proposed along existing rights-of-way in the City of Moreno Valley. Debris basins are proposed along the eastern side of Gilman Springs Road

to prevent debris and sediment from the Badlands from disrupting traffic on Gilman Springs Road after significant storm events. The CDFW Conservation Buffer Area south of the Specific Plan area is similar in history and conditions to the project site. The 1,104-acre area has been plowed for decades and portions of it are being actively farmed. The southwestern portion of the Conservation Buffer contains areas of non-native grasslands, although aerial photographs show that the area has been intermittently tilled over last 80 years.

Note: The following information was added at the request of the Metropolitan Water District of Southern California (Letter C-2) regarding the Inland Feeder. A figure showing the location of the Inland Feeder can be found at the end of comment Letter C-2 from the Metropolitan Water District of Southern California.

> "Metropolitan owns property and owns and operates facilities on and adjacent to the site of the proposed project. As shown on the attached map, Metropolitan's irregularly shaped fee-owned property (APN 422-040-009 and 422-040-015), Inland Feeder Tunnel, and appurtenant tunnel access structure are located within the proposed specific plan area. In addition, Metropolitan's 145-inch-inside-diameter Inland Feeder pipeline and appurtenant structures extend through the specific plan area in the street rights-of-way for Eucalyptus Avenue, Theodore Street, and Davis Road. Metropolitan also has a 110-foot-wide easement along Davis Road."

4.4.1.1 Topography and Soils

The project area is located in Rancho Belago, in the eastern portion of the City of Moreno Valley, in western Riverside County. The site is generally located south of SR-60, east of Redlands Boulevard, west of Gilman Springs Road, and north of the San Jacinto Wildlife Area (SJWA). The project site gently slopes down from north to south, and contains 15 identifiable drainages, as outlined in the jurisdictional delineation.[1]

The soils in the project area have been mapped by the *Soil Survey of Western Riverside Area, California* (1971)[2] and include San Emigdio loam (SgA and SgC) and San Emigdio fine sandy loam (SeC2), with smaller inclusions of Arbuckle loam (AkC), Badland (BaG), Gorgonio loamy sand (GhC), Greenfield sandy loam (GyA, GyC2, GyD2), Hanford coarse sandy loam (HcC and HcD2), Metz loamy sand (MdC and MeD), Metz loamy fine sand (MfA), Metz gravelly sandy loam (MID), Ramona sandy loam (RdD2), Rockland (RtF), San Emigdio fine sandy loam (SeA and SeD2), and San Timoteo loam (SmE2).

The observed surface soils in the area contain evidence of heavy repeated disturbance from agriculture-related activities. None of the soils present in the project area is considered sensitive pursuant to the MSHCP, which includes all of Moreno Valley (i.e., the City is a signatory to the MSHCP).

4.4.1.2 Land Uses

Agricultural fields including dry-land grain farming dominate the project area. Some rural residences are located in the central portion of the area along Theodore Street, and areas of open space are located throughout the southern and northeastern portions of the site. General land uses around the project area include suburban residential development to the west, vacant land and scattered rural residences to the north and east (across SR-60 and Gilman Springs Road, respectively), the SJWA and natural gas distribution facilities to the south, and the Lake Perris State Recreation Area (LPSRA) to the southwest.

---

1 *Jurisdictional Delineation of the World Logistics Center,* Michael Brandman Associates, ~~April 23, 2012~~December 19, 2013.
2 *Soil Survey of Western Riverside Area, California,* United States Department of Agriculture, November 1971.

4.4.1.3 Vegetation, General

The following data on vegetation in the study area are from the City's *General Plan Final Program EIR*[1] and the *MSHCP Consistency Analysis Report*[2] for the project area. The following describes the vegetation within~~ each of the three main reporting~~ various WLC project areas~~: the WLC Project~~, including the Specific Plan, Offsite Improvement Area~~ (3,300.6 acres);~~, CDFW Conservation Buffer~~Area (1,104.0 acres);~~, Indirect Impact Zone, and ~~Off-site Analysis Zone (1,636.6 acres), which includes a 1,000-foot off-site area studied by MBA (2012).~~Additional Survey Areas. Table 4.4.A provides a numerical summary of the various types of vegetation within the WLC planning area.

Note: Table 4.4.A: Summary of Vegetation with the WLC Study Area has been removed in its entirety. To see original table please refer to FEIR Volume IV Section 4.4.1.3, Table 4.4.A.

Note: The following changes are the result of modifications to the WLCSP project area and updates to the various biological technical studies, and in response to a number of comments recommending the biological site surveys be updated. In addition, some paragraphs in this section were moved and only new information is shown in double underline.

4.4.1.4 Vegetation (MBA Project Survey Area)

There are ~~ten (10~~eleven (11) plant communities/vegetation types that occur within the MBA project survey area: extensive agriculture (e.g., dry-land farming), non-native grassland, urban/developed, disturbed, Riversidean sage scrub, mule fat scrub, non-vegetated channel, open water, ornamental, ~~and~~southern willow scrub, and northern mixed chaparral (see Figure 4.4.1). Figure 4.4.2 depicts the location of drainage features and Riparian/Riverine areas. The following acreages are for approximately ~~3,300~~5,972 acres including the WLCSP (2,~~710~~610 acres) plus off-site improvements and the existing Highland Fairview Corporate Park (Skechers) property, which was included in some of the historical vegetation surveys for this area. The vegetation of the CDFW/public facilities lands and the Off-site Analysis Zone are addressed following the information on the Project Area (i.e., areas of proposed or existing development).

Almost all (~~3,238~~5,815 acres or 97~~%)~~.4 percent) of the ~~WLC Project Area~~MBA survey area (5,972 acres) is disturbed by human activity[3], mainly~~ dry-land~~dryland farming, with only~~ 63~~157 acres or~~ 3~~2.6 percent consisting of native plant communities. The nature and extent of the existing plant communities are discussed below in the order of their presence on the property.

---

1 City of Moreno Valley Final Program EIR Conservation Element, City of Moreno Valley, October 2006.

2 *Habitat Assessment, MSHCP Consistency Analysis, and HANS report*, Michael Brandman Associates, ~~October 2012~~September 2014.

3 Includes agriculture, non-native grassland, urban/developed, disturbed, and ornamental categories.

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Table 4.4.A: Summary of Vegetation within the WLC Study Area (new table)

Vegetation Community	WLCSP	Off-site Improvements	CDFW Conservation Buffer	SDG&E Moreno Compressor Station	Indirect Impact Zone	Additional Survey Areas	Totals
Extensive Agriculture	2,193	71	732	166	105	167	3,434
Non-Native Grassland	219	110	151	0	349	900	1,729
Urban/Developed	92	100	1	14	5	280	492
Disturbed	48	17	9	11	19	46	150
Riversidean Sage Scrub	48	0	11	0	21	17	97
Mule Fat Scrub	5	4	0	0	2	30	41
Southern Willow Scrub	1	0	6	0	0	7	14
Non-Vegetated Channel	0	2	0	0	1	4	7
Ornamental	3	0	0	3	0	0	6
Open Water	0	0	0	0	0	1	1
Northern Mixed Chaparral	1	0	0	0	0	0	1
Totals	**2,610.0***	**304.0***	**910.0***	**194.0***	**502.0***	**1,452.0***	**5972.0***

Note:
* Rounded to the nearest whole number.
Source: Habitat Assessment, MSHCP Consistency Analysis, and HANS report, Michael Brandman Associates, September 2014.

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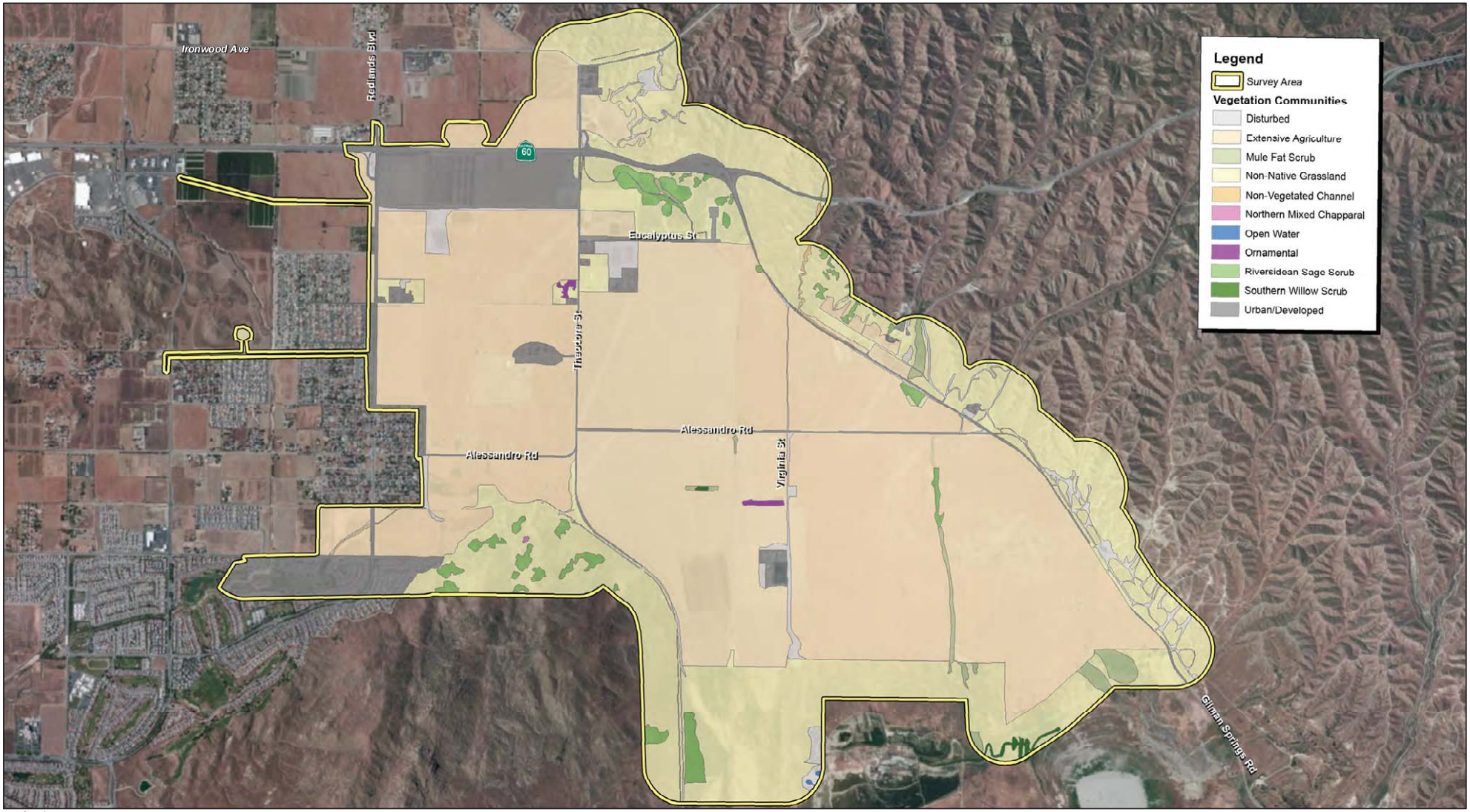

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SOURCE: Michael Brandman Associates, 11/2013

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FIGURE 4.4.1

World Logistics Center Specific Plan Project
Environmental Impact Report

Onsite Vegetation Communities

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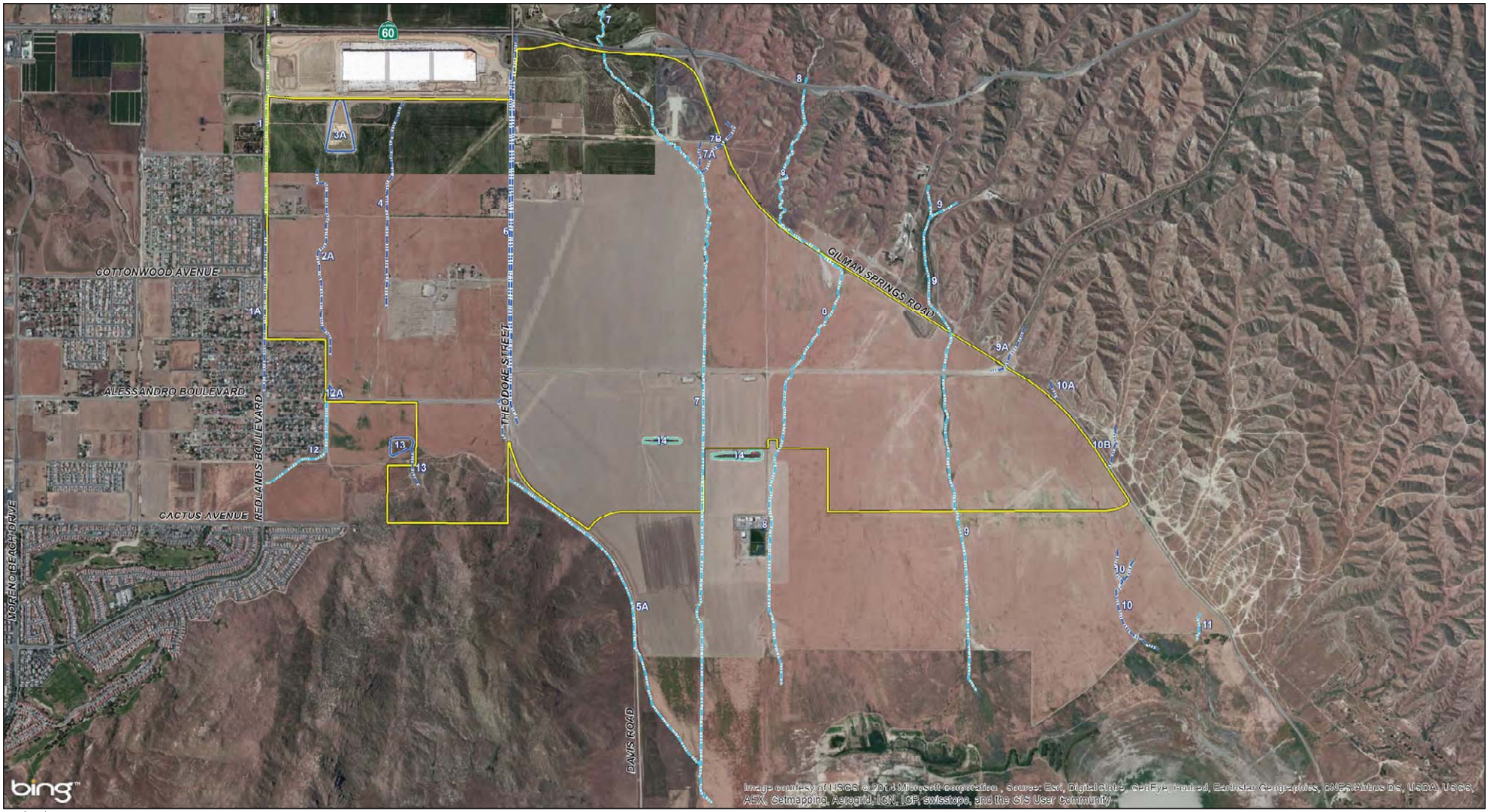

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Project Boundary

CDFW/USACE Non-Jurisdictional Detention Basin, RWQCB Jurisdictional Detention Basin

CDFW/USACE Non-Jurisdictional Detention Basin,

CDFW Jurisdictional Streambed, USACE/RWQCB Jurisdictional Waters of the U.S.

CDFW/USACE Non-Jurisdictional Waters

CDFW Non-Jurisdictional Waters, USACE/RWQCB Jurisdictional Waters of the U.S.

FIGURE 4.4.2

World Logistics Center Specific Plan Project Environmental Impact Report

Onsite Drainage Features

SOURCE: County of Riverside, 2011; ESRI World Imagery & Bing Imagery, 2010; Delineation of Jurisdictional Waters and Wetlands, 2012.

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a. Extensive Agriculture

This disturbed plant association covers ~~2,452.2~~3,434.0 acres or ~~74~~57.5 percent of the ~~WLC planning~~MBA survey area, and includes areas where vegetative cover comprises less than 10 percent of the surface area and where there is evidence of intense soil surface disturbance associated with agricultural uses. ~~Vegetation~~This community is generally dominated by winter wheat (*Triticum aestivum*), but also has small inclusions of non-native vegetation along the margins of the fields. Non-native vegetation within disturbed land will have a high predominance of ~~non-native~~invasive or weedy species that are indicators of heavy, soil disturbance, such as horse nettle (*Solanum elaeagnifolium*), bindweed (*Convolvulus arvensis*), and short-pod mustard (*Hirschfeldia incana*).

The extensive agriculture community in the project area also contains various interstitial ditches that are excluded from regular heavy-agricultural equipment disturbances, such as disking. These areas are less frequently disturbed and contain larger, more established, ruderal vegetation, such as tree tobacco (*Nicotiana glauca*) and tree of heaven (*Ailanthus altissima*), in addition to the fast-growing Russian thistle (*Salsola tragus*), telegraph weed (*Heterotheca grandiflora*), lamb's quarters (*Chenopodium album*), sow thistle (*Sonchus oleraceus*), and short-pod mustard. The interstitial ditch areas do not occupy enough area nor are continuous enough to constitute a separate plant community and are therefore considered part of the extensive agricultural plant community. The majority of the project area is occupied by extensive agriculture and recently disked or heavily grazed, such as in the pasturelands in the northwestern portion of the project area. Most of these areas are disked at least once each year and planted with winter wheat.

b. Non-Native Grassland

Non-native grassland is characterized by a dense to sparse cover of non-native annual grasses often associated with numerous weedy species and native annual forbs (wildflowers), especially in years with plentiful rain. Seed germination occurs with the onset of winter rains. Some plant growth occurs in winter, but most growth and flowering occurs in the spring. Plants then die in the summer, and persist as seeds in the uppermost layers of soil until the next rainy season. Dominant plants include brome (*Bromus* spp.), wild oat (*Avena* spp.), Jimson weed (*Datura stramonium*), and common sunflower. Non-native grassland occupies 1,729.0 acres or 29.0 percent of the MBA survey area, mainly in the Badlands area east of Gilman Springs Road and the southern portion as part of the CDFW Conservation Buffer land.

c~~b~~. Urban/Developed

The urban/developed area includes any form of human disturbance associated with the development of rural residences that has resulted in permanent impacts to natural communities. This land use type comprises approximately ~~366.9~~492.0 acres or ~~11~~8.2 percent of the ~~WLC project~~MBA survey area. By definition, urban/developed areas include roads, buildings and structures, pavement, concrete, landscape vegetation, and windrow vegetation. The isolated occurrences of the urban/developed community occur throughout the study area. The urban/developed area is not associated with any native vegetation and provides only limited habitat value, primarily as cover, nesting, and perching opportunities for birds and common terrestrial wildlife that have adapted to urban, agricultural, or other disturbed areas associated with human activity. The largest area of Urban/Developed land occurs in the northwestern corner of the survey area and is associated with the existing Skechers building.

d. Disturbed Areas

These areas support sparse ruderal vegetation and an occasional scattering of native plant species. This type of "habitat" is not a plant community and is considered to be of little or no value to wildlife~~; it~~

~~does not have a Holland classification code~~. Disturbed areas include an area in the northern portion of the project site associated with the adjacent rural residences. These areas have been cleared of vegetation. The remaining disturbed areas are associated with dirt access roads and the area surrounding the existing natural gas compressor station. This category occupies ~~72.5~~150 acres or 2~~.2~~5 percent of the WLC site.

e. Riversidean Sage Scrub

~~The dominant species observed within the~~Stands of Riversidean sage scrub (RSS) ~~plant community includes native shrubs such as~~range from fairly open to dense with dominant species including brittlebush (*Encelia farinosa*), California buckwheat (*Eriogonum fasciculatum*), black sage (*Salvia mellifera*), California sagebrush (*Artemisia californica*), and coastal goldenbush (*Isocoma menziesii*). Other species observed include four-winged saltbush (*Atriplex canescens*), scalebroom (*Lepidospartum squamatum*), and California aster (*Lessingia filaginifolia*), in addition to non-native grasses such as ripgut brome (*Bromus diandrus*), slender oat (*Avena barbata*), red brome (*Bromus madritensis*), and non-native weedy species such as short-pod mustard. There are ~~48.6~~97.0 acres (1.6%) of RSS located within the main drainage feature on the eastern side of the WLC project site (Drainage Feature 9, see Figure 4.4.2). The quality of the habitat on site can generally be considered moderate based on vegetation characteristics such as plant density, diversity of species, and level of disturbance. The stand within Drainage Feature 9 is of low quality due to high levels of disturbance, low density of native species, and sparse coverage. There are small patches of RSS in the northeastern and southwestern corners of the ~~WLCSP project site. Stands of RSS range from fairly open to dense, and are typically dominated by California sagebrush (*Artemisia californica*) and California buckwheat, and are often found integrated with chaparral, scrub, grassland and ruderal type plant communities~~MBA survey area.

f. Mule Fat Scrub

Mule fat scrub is a widespread natural community throughout California and usually occurs below 2,000 feet. Mule fat scrub occupies approximately ~~8.8~~41.0 acres or 0~~.3~~7 percent of the ~~WLC project~~MBA survey area within a portion of Drainage Feature 9 in the southeastern portion of the ~~project area (i.e., the~~ WLC Specific Plan area and the CDFW Conservation Buffer lands~~)~~. The mule fat scrub in the project area is generally characterized by dense stands of mule fat (*Baccharis salicifolia*) with various shrubs, weeds, and non-native grasses sparsely intermixed.

All areas of mule fat scrub within the drainage feature on the site are relatively undisturbed and contain little trash dumping, agricultural activities, or the presence of domesticated animals. The mule fat scrub plant community provides moderate quality habitat for a number of species. The dominant species observed within the mule fat scrub community were mule fat and tree tobacco. Other species observed include cheeseweed (*Malva parviflora*), wild radish (*Raphanus raphanistrum*), Russian thistle, common sunflower (*Helianthus annuus*), and short-pod mustard, in addition to non-native grasses such as ripgut brome, slender oat, and red brome. Drainage Feature 9 also contains scattered occurrences of scalebroom and four-winged saltbush.

g~~i~~. Southern Willow Scrub

The southern willow scrub community is characterized by dense, broad-leafed, winter deciduous riparian thickets of vegetation, and is dominated by several species of willow tree. Scattered emergent Freemont cottonwood (*Populus fremontii*) and California sycamore (*Platanus racemosa*) are most closely associated with this community. Most stands are too dense for understory development. This plant community is typically found on loose, sandy, or fine gravelly alluvium soils near stream channels during flood flows. It requires repeated flooding to prevent it from converting to a more mature Southern Cottonwood-Sycamore Riparian Forest community. The CDFW lists it as a

sensitive plant community. Plant species identified within the community include sandbar willow (*Salix exigua*), black willow (*Salix goodingii*), mule fat, Freemont's cottonwood, Mexican fan palm (*Washingtonia robusta*), olive (*Olea europea*), phacelia (*Phacelia sp.*), and common sunflower.

There is a single patch of southern willow scrub ~~within the project area t~~hat comprises approximately 0.9 acre within ~~an abandoned man-made catch basin~~ the central portion of the WLCSP. This community is composed of a single isolated stand within a human-made, catch basin that occurs south of Alessandro Boulevard and west of Virginia Street (see Figure 4.4.2). This stand ~~is the~~was a direct result of nuisance flow and agricultural runoff from concrete cattle containment areas ~~south of the Skechers facility. The concrete cattle containment areas have been removed and the~~adjacent to the catch basin ~~facilities are~~. This area no longer ~~functional. Due to the small size of the stand and the geographic isolation~~receives runoff from ~~any other riparian~~ the previous cattle facility and habitat ~~in the project area, the plant community on site provides limited staging~~quality is progressively getting worse due to a lack of available moisture. Therefore, this patch of habitat ~~for migrating avian species, and only poor quality~~is considered of low-habitat value. The remainder of the southern willow scrub habitat is either within additional survey area or within the CDFW Conservation Buffer.

h. Non-Vegetated Channel

The non-vegetated channel community occurs within the northeastern portion of the site (east of Gilman Springs Road) and the southwestern corner of the survey area, west of Theodore Street and south of Alessandro Road and accounts for 7 acres (0.1%) of habitat within the survey area. This habitat contains mainly cobbles and boulders along the channel bottom and banks. The substrate contains sparse sandy deposits with limited vegetative cover and therefore provides low quality habitat for sensitive plant and wildlife species.

i. Ornamental

~~The area with this vegetation previously contained southern willow scrub, but has recently converted to a dense stand of salt cedar. Wildlife that uses this area has adapted to urban, agricultural, or other disturbed areas associated with human activity and development, and is found within one of two catch basins on the project site. The other is discussed relative to the southern willow scrub community below. This plant group occupies 2.3 acres or less than 0.1 percent of the WLC project site. The vegetation in these areas is artificially irrigated and likely planted several decades ago as part of housing or farm landscaping or gardens.~~

This plant community occupies 6.0 acres or 0.1 percent of the MBA survey area. There are two distinct areas within the survey area that contain ornamental vegetation. The first area is located within rural residential development just west of Theodore Street and south of Eucalyptus Avenue. This portion of the survey area contains a stand of olive trees. The second area occurs within a human-made catch basin in the center of the WLCSP and is likely naturally occurring and likely began growing several decades ago. The area with this vegetation previously contained southern willow scrub, but has naturally converted to a dense stand of salt cedar. Wildlife that uses this area has adapted to urban, agricultural, or other disturbed areas associated with human activity. The other catch basin is discussed relative to the southern willow scrub community above. The ornamental area is not associated with any native vegetation and provides only limited habitat value, primarily as cover, nesting, and perching opportunities for birds.

An ornamental plant community is typically described as a large stand of non-native ornamental trees or shrubs. These areas are often artificially created, but can be naturally occurring. Plant species vary from project site to project site, but are generally non-native and are often associated with landscape plants.

There are two distinct areas within the survey area that contain ornamental vegetation. The first area is located within rural residential development just west of Theodore Street and south of Eucalyptus Avenue. This portion of the survey area contains a stand of olive trees. The second area occurs within a human-made catch basin in the center of the WLCSP and is likely naturally occurring and likely began growing several decades ago.

The ornamental areas are not associated with any native vegetation and provides only limited habitat value, primarily as cover, nesting, and perching opportunities for birds and common terrestrial wildlife that have adapted to urban, agricultural, or other disturbed areas associated with development. This land use type comprises approximately six acres of the survey area.

j. Open Water

Open water is characterized by ponded or flowing water with little to no vegetative cover. These areas are specifically associated with freshwater drainage features and typically provide habitat for aquatic plant and wildlife species. There is a 1.0-acre area or less than 0.1 percent of open water located in the northern portion of the SJWA. The open water areas within the survey area are artificially created ponded areas.

k. Northern Mixed Chaparral

The northern mixed chaparral community is characterized by broad-leaved shrubs forming dense, often nearly impenetrable vegetation dominated by scrub oak (*Quercus dumosa*), chamise (*Adenostoma fasciculatum*), and any one of several species of manzanitas (*Arctostaphylos)* and lilacs (*Ceanothus*). Plants are typically deep-rooted and little or no understory vegetation is present. This vegetation community is adapted to repeated fires, to which many species respond by stump sprouting. A dense cover of annual herbs may appear during the first growing season after a fire, followed in subsequent years by perennial herbs, short-lived shrubs, and reestablishment of dominance by the original shrub species. There is 1.0~~.4~~ acre or less than 0.1 percent of northern mixed chaparral located on a north-facing slope of the hills at the southwestern corner of the project area.

4.4.1.5 Vegetation in the CDFW Conservation Buffer Area

~~Seven~~Six plant communities/land use types occur within the 1,104-acre CDFW Conservation Buffer Area: ~~disturbed,~~extensive agriculture (e.g., ~~dry-land~~dryland farming), ~~mule fat scrub,~~ non-native grassland, Riversidean sage scrub, disturbed, southern willow scrub, and urban/developed. The CDFW Conservation Buffer consists of the 910 acres of land that was placed into conservation in 2001 and the 194-acre SDG&E facility. The CDFW Conservation Buffer Area has been used for agricultural pursuits over many years, but there are a few isolated areas that have been left fallow and these have begun to return to non-native grassland and Riversidean sage scrub. See Table 4.4.A for a listing of plant associations in the CDFW Conservation Buffer Area.

~~**a. Extensive Agriculture**~~

~~The "extensive agriculture" plant community includes areas where native vegetative cover comprises less than ten percent of the surface area and where there is evidence of intense soil surface disturbance associated with agricultural uses. Vegetation within disturbed land will have a predominance of non-native or weedy species that are indicators of heavy soil disturbance, such as horse nettle, bindweed, and short-pod mustard. The extensive agriculture community in the project area also contains various interstitial ditches that are excluded from regular heavy-agricultural equipment disturbances, such as disking. These areas are less frequently disturbed and contain~~

~~larger, more established, ruderal vegetation, such as tree tobacco and tree of heaven, in addition to the fast-growing Russian thistle, telegraph weed, lamb's quarters, sow thistle, and short-pod mustard. The existing interstitial ditch areas do not occupy enough acreage nor are they continuous enough to constitute a separate plant community; therefore, they are considered part of the extensive agricultural plant community.~~

~~The majority of the CDFW Conservation Buffer Area, approximately 897 acres, is occupied by extensive agriculture. These areas include regularly disked areas used for dry-land farming. These areas of extensive agriculture appear to be disked at least once each year and planted with winter wheat, and may support wintering raptors and game birds.~~

~~b. Non-native Grassland~~

~~The non-native grassland community is characterized by a dense-to-sparse cover of non-native annual grasses often associated with numerous weedy species and native annual forbs (wildflowers), especially in years with plentiful rain. Seed germination occurs with the onset of winter rains. Some plant growth occurs in winter, but most growth and flowering occurs in the spring. Plants then die in the summer and persist as seeds in the uppermost layers of soil until the next rainy season. Dominant plant genera typically found within non-native grasslands include brome, wild oat, fescue (*Vulpia* sp.), and barley (*Hordeum* sp.).~~

~~Non-native grassland occupies approximately 151.7 acres of the southwestern most portion of the CDFW Conservation Buffer Area northwest of the SJWA. Plant species observed within the non-native grassland community on the study area include non-native grasses such as ripgut brome, slender oats, and red brome, and weedy species such as shortpod mustard, Jimson weed, and common sunflower.~~

~~c. Disturbed~~

~~Disturbed areas are characterized by a lack of significant vegetative cover, as the result of previous human disturbance or significant natural disturbance. Although such areas may exhibit patches of sparse ruderal vegetation and an occasional scattering of native plant specimens, this type of "habitat" is not a plant community and is considered to be of little or no value to wildlife. This land type occupies 20.2 acres of the Conservation Buffer Area. Disturbed areas within the CDFW Conservation Buffer Area are associated with dirt access roads and the area surrounding the existing natural gas compressor station.~~

~~d. Urban/Developed~~

~~The urban/developed area includes any form of human disturbance that has resulted in permanent impacts to natural communities. This land use type comprises approximately 14.7 acres of the project area. By definition, urban/developed areas include roads, buildings and structures, pavement, concrete, landscape vegetation, and windrow vegetation. The urban/developed community within the CDFW Conservation Buffer is limited to the SDG&E compressor station area and associated paved access roads.~~

~~e. Riversidean Sage Scrub (RSS)~~

~~Riversidean sage scrub is a native plant community that is widespread throughout Riverside County and typically consists of low-growing, drought deciduous and evergreen shrubs that occur on steep and/or gentle sloping topography. This community may be found on xeric sites with severely drained soils, or clays that release stored soil moisture slowly. Stands of RSS range from fairly open to dense,~~

~~and are typically dominated by California sagebrush and California buckwheat, and are often found integrated with chaparral, scrub, grassland and ruderal type plant communities.~~

~~There is one area of 10.8 acres within the CDFW Conservation Buffer that contains RSS. This is located in the extreme southwestern corner of the CDFW Buffer Area along Davis Road. The dominant species observed within the RSS plant community in the area include native shrubs such as brittlebush, California buckwheat, black sage, and coastal goldenbush. Other species observed include four-winged saltbush, scale broom, and California aster, in addition to non-native grasses such as ripgut brome, slender oat, red brome, and non-native ruderal species such as short-pod mustard.~~

~~f. Mule Fat Scrub~~

~~Mule fat scrub is a riparian scrub community that is strongly dominated by mule fat and is typically associated with intermittent stream channels and moderate depth to the water table. Mule fat scrub is a widespread natural community throughout California and usually occurs below an elevation of 2,000 feet. Mule fat scrub occupies approximately 6.1 acres of the CDFW Conservation Buffer Area within a portion of Drainage Feature 9 south of Alessandro Boulevard. The mule fat scrub in the project area is generally characterized by dense stands of mule fat with various shrubs, weeds, and non-native grasses sparsely intermixed.areas of mule fat scrub within the drainage features on site are relatively undisturbed and contain little trash dumping, agricultural activities, or the presence of domesticated animals. The mule fat scrub plant community on the study area provides moderate quality habitat for a number of common wildlife species.~~

~~The dominant species observed within the mule fat scrub community are mule fat and tree tobacco. Other species observed include cheeseweed, wild radish, Russian thistle, common sunflower, and short-pod mustard, in addition to non-native grasses such as ripgut brome, slender oat, and red brome. Drainage Feature 9 also contains scattered occurrences of scale broom and four-winged saltbush.~~

~~g. Ornamental~~

~~The ornamental area includes a dense stand of salt cedar. This vegetation community is found within one of two catch basins within the study area. This land use type comprises approximately 3.3 acres of the study area. The vegetation in catch basin is likely naturally occurring and likely began growing several decades ago. The ornamental area is not associated with any native vegetation and provides only limited habitat value, primarily as cover, nesting, and perching opportunities for birds and common terrestrial wildlife that have adapted to urban, agricultural, or other disturbed areas associated with development.~~

4.4.1.6 Vegetation~~, Off-site Analysis~~ <u>in the Indirect Impact</u> Zone

~~Nine~~<u>Seven</u> plant communities/land use types occur within the 1,636.6-acre off-site analysis zone. This area was evaluated as an additional 1,000-foot zone beyond the boundaries of the project area to consider potential off-site indirect impacts associated with noise, light, water quality, and air quality concerns beyond the boundary of the actual project area. ~~Only the northern mixed chaparral community is not represented (see Figure 4.4.1).~~

~~The study~~<u>Plan communities associated with the Indirect Impact Zone include non-native grassland, extensive agriculture, RSS, disturbed, urban/developed, mule fat scrub, and non-vegetated channel (see Figure 4.4.1). This</u> area contains land that has been previously disturbed as a result of development and off-road vehicle trails~~, minor portions of the duck club ponds, and non-native~~

~~grassland covered hills~~ east of Gilman Springs Road and general open space areas in the southwestern portion of the survey area.

~~a. Non-native Grassland~~

~~Non-native grassland occupies approximately 1,241.1 acres of the CDFW Conservation Buffer Area and is the dominant vegetation type. Plant species observed within the non-native grassland community in the Off-site Analysis Zone include non-native grasses such as ripgut brome, slender oats, and red brome, and weedy species such as shortpod mustard, Jimson weed, and common sunflower.~~

~~b. Urban/Developed~~

~~The urban/developed area includes any form of human disturbance that has resulted in permanent impacts to natural communities. It occupies 136.1 acres and is scattered throughout the CDFW Conservation Buffer Area associated with the residential community south of Cactus Avenue in the extreme southwestern portion of this area.~~

~~c. Extensive Agriculture~~

~~Approximately 118.2 acres of extensive agriculture is present within the buffer. It is located on the east side of Gilman Springs Road, just south of the future Eucalyptus Street intersection.~~

~~d. Disturbed~~

~~Disturbed areas are characterized by a lack of significant vegetative cover, as the result of previous human disturbance or significant natural disturbance. Although such areas may exhibit patches of sparse ruderal vegetation and an occasional scattering of native plant specimens, this type of "habitat" is not a plant community and is considered to be of little or no value to wildlife. Disturbed areas occupy 58.8 acres of the Off-site Analysis Zone and include dirt access roads and off-road vehicle trails on the east side of Gilman Springs Road.~~

~~e. Riversidean Sage Scrub~~

~~Riversidean sage scrub occupies 39 acres of the Off-site Analysis Zone and is in small patches scattered throughout the CDFW Conservation Buffer Area and on the east side of Gilman Springs Road.~~

~~f. Mule Fat Scrub~~

~~Mule fat scrub occupies approximately 32.1 acres of the Off-site Analysis Zone and is found within a drainage course located west of Gilman Springs Road and south of the CDFW Conservation Buffer Area and just north of the margins of Mystic Lake.~~

~~g. Southern Willow Scrub~~

~~There is a single 6.8-acre patch of southern willow scrub located in a drainage course located between the main portion of Mystic Lake and the duck ponds in the extreme southern portion of the buffer.~~

~~Non-vegetated channel occurs within the northeastern corner of the CDFW Conservation Buffer Area north of Gilman Springs Road (upper end of Drainage Feature 9) and accounts for 3.3 acres of habitat.~~

~~**i. Open Water**~~

~~Open water occurs in the southern portion of the CDFW Conservation Buffer Area south of the SDG&E area. These areas are specifically associated with the artificially created duck ponds located within the open space CDFW Conservation Buffer Area. These areas are characterized by open water with little to no vegetative cover and occupy 1.1 acres.~~

4.4.1.7 Wildlife in the Specific Plan Area

Despite the disturbed nature of the WLC planning area (i.e., 97% non-native vegetation), common wildlife species that have adapted to human-modified landscapes are present and were observed on site, including the red-tailed hawk (*Buteo jamaicensis*), house finch (*Carpodacus mexicanus*), mourning dove (*Zenaidia macroura*), common raven (*Corvus corax*), coyote (*Canis latrans*), desert cottontail (*Sylvilagus audubonii*), and California ground squirrel (~~*Spermophilus*~~*Otospermophilus beecheyi*). A complete list of species observed on site is included in Appendix B of the *MSHCP Consistency Analysis* contained in Appendix E to this EIR. Utilization of agricultural areas by wildlife varies greatly depending upon the type of crop and the time of the year. Due to the amount of agricultural activities over the past decades, there is a limited number of species that are present although many species discussed above occur along the margins of the agricultural fields and along the limited drainage areas. In addition to the more common species discussed above, the San Diego gopher snake (*Pituophis cantenifer annectens*), white-tailed kite (*Elanus leucurus*), barn owl (*Tyto alba*), loggerhead shrike (*Lanius ludovicianus*), and Botta's pocket gopher (*Thomomys bottae*) were recorded to occur within the WLCSP and the off-site facility areas. There is a robust passerine bird population at the site during the growing season with a severely limited number of mammals following the harvest, largely due to the extensive ~~agricultural~~disking activities.

4.4.1.8 Wildlife in the CDFW Conservation Buffer Area

The adjacent San Jacinto Wildlife Area (SJWA) has a very high diversity and abundance of bird species, and is recognized nationally and internationally for its bird population. The amount and diversity of birds in the SJWA contributes to a large degree to the number of different kinds of birds observed in the agricultural areas on the project site and within the CDFW Conservation Buffer Area. Numerous bird and mammal species occur within these agricultural areas and fallow fields may provide foraging opportunities for raptors. The number of passerine birds is high and includes both year-round species and transitory birds associated with the SJWA. ~~There~~The number of mammals is limited probably due to the extensive agricultural pursuits of the past.

4.4.1.9 Wildlife~~, Off-site~~ in the Off-site Analysis Indirect Impact Zone

MBA evaluated this area using direct observations, literature reviews, and information from studies performed on adjacent areas. The area adjacent to Gilman Springs Road on the south end of the planning area was examined by MBA biologists in 2007 (unpublished Burrowing Owl Survey Report, MBA). The distribution of wildlife species at this adjacent ~~1,636-acre~~ area was similar to the WLCSP and the CDFW Conservation Buffer Area, with a very limited distribution of mammals (primarily burrowing mammals) and a high incidence of passerine birds.

4.4.1.10 Wildlife in the SJWA and Mystic Lake

The SJWA is 20,000 acres of man-made wetlands and open water ponds and is the first state wildlife area to utilize reclaimed water to enhance its wetlands. It is located south of the project area and the CDFW Conservation Buffer Area. The SJWA contains several habitat areas, including wetlands, restored riparian habitat, grasslands, sage scrub, and marshes and provides habitat for the several threatened and endangered wildlife species including Stephens' kangaroo rat, Swainson's hawk, and bald eagle. The SJWA contains an important inland wetland, which provides habitat for many wetland plant species and wildlife species including aquatic birds, amphibians, and fish. According to the CDFW:

> *"The San Jacinto Wildlife Area public lands currently total about 20,000 acres. The Wildlife Area shares a common boundary with the 8,800-acre Lake Perris State Recreation Area. The majority of the Wildlife Area is located in unincorporated Riverside County. The northern portion of the Wildlife Area is included within the city limits of Incorporated City of Moreno Valley. Davis Road, an unimproved dirt road, bisects the Wildlife Area in a north-south direction. This roadway is maintained by DFG on the north and the County of Riverside on the south. Surrounding land users are primarily involved in agriculture principally dry land wheat farming and dairy operations. The private lands immediately north of the Wildlife Area are currently farmed and are included within the City of Moreno Valley jurisdiction. The 150 acre Double Bar "S" Horse Ranch represents the only substantial in-holding within the current Wildlife Area boundary. To the east lies Mystic Lake bed, the most northern portion of which has recently been Incorporated into the Wildlife Area. The south eastern parts of the lake bed remain in private ownership and are used for agriculture when not inundated with flood waters from the San Jacinto River. Numerous privately owned hunt clubs (waterfowl and game bird hunting clubs) are also located on the current eastern boundary of the Wildlife Area. The unincorporated rural communities of Lakeview and Nuevo are located to the south. Much of the land on the immediate southern boundary of the Wildlife Area is currently farmed by the Amway Corporation Nutrilite Division."*

The SJWA is a significant resource for avian species and other wildlife. In 1981–82, the State Wildlife Conservation Board initially purchased 15,000 acres of the Mystic Lake area as mitigation for habitat impacts associated with the construction of the State Water Project (SWP). This area was designated as the SJWA. In 1995, the Board acquired an additional 921 acres of upland farmland within the southern portion of the Moreno Highlands Specific Plan property to incorporate into the SJWA. In 2001, the Board acquired an additional 274 acres in this same area. This land was purchased to provide a buffer between the land surrounding Mystic Lake and the planned urban development within Moreno Valley. The Board action on this purchase indicated the land was to "facilitate restoration of historic water flows back into the lakebed and allow for reversion back to wetlands during wet years, and areas of low vegetation cover during dry years, all providing significant habitat for species using the SJWA, including a number of state and federally listed species."[1]

CDFW Conservation Buffer Area. The entirety of the State-owned land south of the project area is referred to as the SJWA. However, the land purchased out of the Moreno Highlands Specific Plan is referred to in this EIR as the CDFW Conservation Buffer Area to denote the reason for its original purchase. The 1,195 acres acquired by the Wildlife Board during the past twenty years was intended to serve as an effective buffer between the SJWA and the development expected to occur north of the SJWA area (the present mixed-use Moreno Highlands Specific Plan). Currently, this acreage provides not only a buffer area, but also provides open space for raptor and bird foraging habitat, and is actively farmed under CDFW contract. Approximately 909 acres of the land within the project area

[1] Wildlife Conservation Board minutes from May 18, 2001.

are identified as Conservation Area (total 1,085 acres) and are owned by the CDFW and support vegetation identified as "Extensive Agriculture" in Section 4.4.1.3, *Vegetation*. The proposed project will permanently designate this CDFW Conservation Buffer Area as Open Space under the City General Plan. It is anticipated the State would maintain its function as a buffer and also as foraging habitat for raptors as long as it is regularly tilled. There are no plans to alter the current agricultural activities on this property.

Mystic Lake. This is a large crescent-shaped, intermittent water body within the SJWA, which serves as a significant wetland habitat for numerous birds including migratory waterfowl such as ducks, grebes, and occasional geese. Seasonal upland game hunting is allowed within the SJWA and Lake Perris State Recreation Area. Other uses of the SJWA include wildlife observation, nature study, fishing, hiking, photography, field trials, hunting dog training classes, and conservation of wildlife and wildlife habitat. Bird species commonly found at various times of the year in the SJWA include a wide variety of ducks, shore birds and gulls, upland game species, and a variety of passerine birds including those found in the project area and the CDFW Conservation Buffer area.

4.4.1.11 Sensitive Biological Resources

Special status species are plant and animal species or subspecies for which there is concern for population sustainability or that are otherwise considered worthy of consideration for protection by the CDFW, USFWS, local agencies, or special interest groups, such as the California Native Plant Society (CNPS). In addition to species federally or State listed as ~~Endangered~~endangered or ~~Threatened~~threatened, these include species that are Candidates or Proposed for listing as ~~Endangered~~endangered or ~~Threatened~~threatened, plant species that are State listed as Rare, animal species designated as Fully Protected or Species of Special Concern by the State of California, and plant species designated as California Rare Plant Rank (RPR) 1A, 1B, or 2. California Rare Plant Ranks are assigned by a committee of government agency and non-governmental botanical experts, including experts from CNPS, and are not official State designations of rarity status. Legal protection for sensitive species varies widely, from the comprehensive protection extended to federally listed threatened and/or endangered species to species without legal protection at the current time.

4.4.1.12 Western Riverside County Multiple Species Habitat Conservation Plan

The MSHCP for western Riverside County is an element of the Riverside County Integrated Project (RCIP), which is an integration of land use, transportation, and conservation planning and implementation to develop a consensus for the future development of Riverside County. The MSHCP is designed to protect over 150 species and conserve over 500,000 acres of land in western Riverside County. The MSHCP was conceived, developed, and is being implemented specifically to address the direct, indirect, cumulative, and growth-related effects on covered species resulting from build out of planned land use and infrastructure, including the proposed project.

The MSHCP involves efforts by the County, State, and Federal governments, the fourteen cities in western Riverside County, and private and public entities engaged in construction activities that potentially affect the species covered under the MSHCP. The plan specifies an obligation of local projects, both public and private, to mitigate their impacts on species. The MSHCP includes incentives for conservation or the purchase of properties from willing sellers and will eventually result in a Conservation Area in excess of 500,000 acres, focusing on conservation of 146 species. The MSHCP Conservation Area includes approximately 347,000 acres of existing Public/Quasi-Public Lands and approximately 153,000 acres of Additional Reserve Land.

The MSHCP Conservation Area[1] is made up of existing and proposed "Core" areas, or large assemblages of public land that contain important habitat and listed or sensitive species populations. The core areas are connected by a series of "linkages" or "corridors" identified across public and private lands to allow wildlife movement and genetic connectivity and diversity among the core areas. The MSHCP identifies conservation areas through a series of "criteria cells" within which certain biological resources (i.e., vegetation and/or physical features) should be preserved over the long term. The MSHCP also establishes various processes to evaluate land development proposals in light of its goals and requirements. The MSHCP also identifies when studies need to be performed within certain criteria cells to determine the presence or absence of listed or otherwise sensitive species of plants or animals.

The project site is located within the Reche Canyon/Badlands Area Plan of the MSHCP. Portions of the project area occur in 14 criteria cells of the MSHCP. Therefore, the project applicant, the City, and the County[2] are required to use the Habitat Acquisition Negotiation Strategy (HANS) process established in the MSHCP to identify and acquire habitat as part of the development review process. The HANS process involves negotiations between a landowner and the Western Riverside County Regional Conservation Authority (RCA) so the County can acquire land with important habitat or other biological resources while providing fair compensation and/or reasonable development opportunities on the remaining land for the landowner.

The southern portion of the project area (910 acres owned by the CDFW) is the northern portion of the SJWA, which is classified as "Public Conserved Land" under the MSHCP. MSHCP Proposed Core 3 is located to the north and east of the project area, and Existing Core H is located to the south. Small portions of the project area fall within both Core Areas (see Figure 4.4.3). No existing or proposed linkage or constrained linkage areas are within or adjacent to the project area.

The ~~2012~~2013 MBA report focused on sensitive resources that could potentially occur in the overall planning area, including nine Criteria Area plant species, burrowing owl (*Athene cunicularia*), and Los Angeles pocket mouse (*Perognathus longimembris brevinasus*).

4.4.1.13 Endangered, Threatened, and Special Status Species

It is typical to base the presence or likelihood of presence of sensitive species within a specific area on the following criteria:

- Direct observation of the species or its sign in the project area or immediate vicinity during site-specific surveys or reported in previous biological studies;
- Sighting by other qualified observers;
- Record reported by the Natural Diversity Data Base (NDDB) published by the CDFW; and/or
- Presence or location of specific species lists provided by private groups (e.g., CNPS).

Threatened and Endangered Species. The USFWS and the CDFW list species as ~~Threatened~~threatened or ~~Endangered~~endangered under the Federal and California Endangered Species Acts (FESA and CESA, respectively). An ~~Endangered~~endangered species is one that is in danger of extinction throughout all or a significant portion of its range. A ~~Threatened~~threatened species is one that is likely to become endangered in the foreseeable future.

[1] Not to be confused with the Conservation Area within the WLC planning area
[2] Western Riverside County Regional Conservation Authority (RCA)

The USFWS may designate "critical habitat" that identifies specific areas, both occupied and unoccupied, that are often necessary to the conservation of a listed species. To make a determination of Critical Habitat, biologists consider physical and biological habitat features needed for life and successful reproduction of the species which include:

- Space for individual and population growth and for normal behavior;
- Cover or shelter;
- Food, water, air, light, minerals, or other nutritional or physiological requirements;
- Sites for breeding and rearing offspring; and
- Habitats that are protected from disturbances or are representative of the historic geographical and ecological distributions of a species.

Critical Habitat areas may require special management considerations or protections.The project site is not located within any USFWS designated Critical Habitat area, and no ~~Threatened~~threatened or ~~Endangered~~endangered species were observed within the project site during the field surveys.

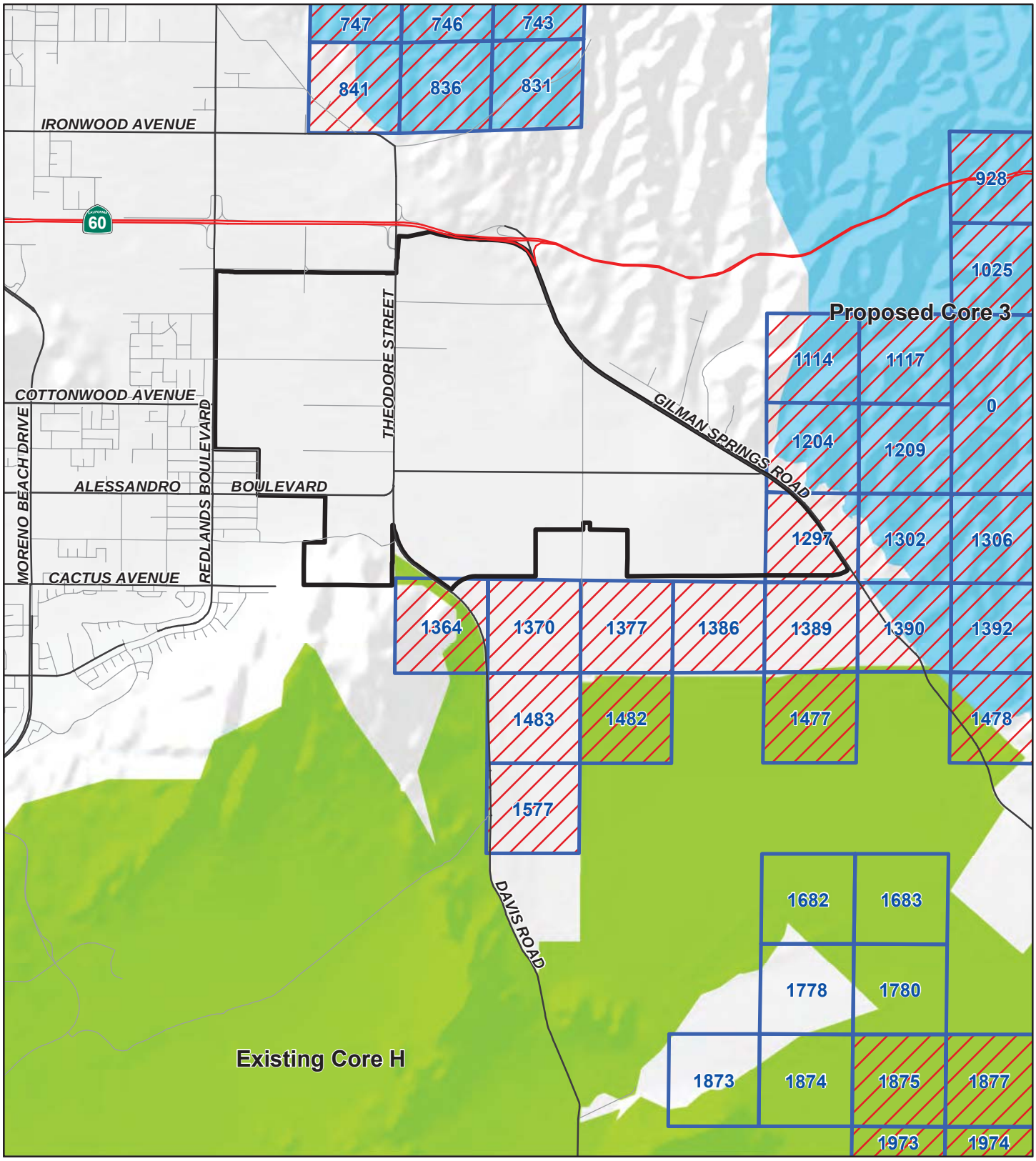
Table 4.4.B identifies ~~Threatened and Endangered~~special status plant species identified in the City's *General Plan Final EIR,* and in searches of the CDFW's *California Natural Diversity Data Base* (CNDDB) and the CNPS's *Electronic Inventory of Rare and Endangered Vascular Plants of California* that may potentially occur in the ~~WLC planning area and the WLCSP project area (land proposed for development)~~project survey area.

Note: Table 4.4.B was divided into two separate tables based on the updated biological resources report and various comments regarding the presence of sensitive plants and wildlife in the area. For the original Table 4.4.B please refer to Final EIR Volume IV, Section 4.4, Table 4.4.B.

Note: The following sections were reorganized from the original DEIR to be more consistent with the updated biological resource reports, but the data has not substantially changed.

Federally Endangered Plant Species. ~~Two~~As shown in Table 4.4.B, two federally endangered plant species, San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*) and slender-horned spineflower (*Dodecahema leptoceras*), were analyzed for their potential to occur in the project area and the off-site facilities. No evidence of these plant species was found during reconnaissance-level surveys. In addition, no suitable habitat for this species occurs on site due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native, low-quality vegetation. No additional federally endangered plant species were analyzed for potential to occur in the project area and off-site facilities because no additional federally endangered plant species are known to occur on, or in the vicinity of, the site. No suitable habitat was found in the project area or off-site facilities to support other federally endangered plant species. Therefore, federally endangered plant species are not likely to occur in the project area or off-site facilities.

Federally Threatened Plant Species. As shown in Table 4.4.B, one federally threatened plant species, thread-leaved brodiaea (*Brodiaea filifolia*), was analyzed for its potential to occur in the project area. No evidence of this federally threatened plant species was found and no suitable habitat for this federally threatened plant species occurs on site due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native low-quality vegetation. No additional federally threatened plant species were analyzed for their potential to occur in the project area because no additional federally threatened plant species are known to occur on, or in the vicinity of, the site. No suitable habitat was found during the site surveys to support other federally threatened plant species. Therefore, federally threatened plant species are not likely to occur in the project area.



LSA

FIGURE 4.4.3

N

0 2,000 4,000

FEET

Project Boundary

CriteriaCells

Reche Canyon/Badlands Area Plan

Existing Core

Proposed Core

World Logistics Center Specific Plan Project
Environmental Impact Report

MSHCP Areas

SOURCE: Riverside County, 2011.

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Table 4.4.B: Sensitive Plant Species in the WLC Project Area (new table)

Species		Status			Preferred Habitat	Life Form	Bloom Period	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Scientific Name	Common Name	USFWS		CNPS					
Atriplex coronata var. *notatior*	San Jacinto valley crownscale	FE	—	1B.1	Occurs in playas, chenopod scrub, grasslands, and vernal pools. Specifically found in dry alkali flats in the San Jacinto River Valley. Elevation limits: 1,200 to 1,500 feet.	Annual herb	Apr to Aug	Covered	**Not Likely to Occur.** No alkali flats occur in the WLCSP. Recorded approximately 2.5 miles southeast of the WLCSP (CNDDB 2012) and 1.5 miles south of the study area boundary (RCA 2013).
Brodiaea filifolia	Thread-leaved brodiaea	FT	SE	1B.1	Occurs in coastal scrub, cismontane woodland, grasslands, and vernal pools. Usually associated with annual grassland and vernal pools in clay soils. Elevation limits: 75 to 2,500 feet.	Perennial herb bulbiferous	Mar to Jun	Covered	**Not Likely to Occur.** No clay soils or vernal pools occur in the WLCSP. Recorded approximately 5 miles south of the WLCSP (CNDDB 2012) and 4 miles south according to the BMP (RCA 2013).
Calochortus plummerae	Plummer's mariposa lily	—	—	4.2	Occurs in coastal scrub, chaparral, grasslands, cismontane woodlands, and lower montane coniferous forests. Found in rocky and sandy soils, usually of granitic or alluvial material. Very common after fire. Elevation limits: 300 to 4,500 feet.	Bulbiferous herb	May to Jul	Not Covered	**Moderate Potential to Occur.** The portion of the WLCSP that contains sandy soils and chaparral/RSS along the western border of the project in an area slated as open space. Recorded approximately 2 miles east of the WLCSP. (CNDDB 2012)
Centromadia pungens ssp. *laevis*	Smooth tarplant	—	—	1B.1	Occurs in grasslands, chenopod scrub, meadows, playas, and riparian woodland. Prefers alkali meadow and alkali scrub. Elevation limits: 0 to 1,500 feet.	Annual herb	Apr to Sep	Covered	**Not Likely to Occur.** No alkali soils occur in the WLCSP. Recorded approximately 3 miles west of the WLCSP (CNDDB 2012) and 2.5 miles south by the BMP (RCA 2013).

Table 4.4.B: Sensitive Plant Species in the WLC Project Area (new table)

Species		Status			Preferred Habitat	Life Form	Bloom Period	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Scientific Name	Common Name	USFWS		CNPS					
Chorizanthe parryi var. *parryi*	Parry's spineflower	—	—	1B.1	Occurs in coastal scrub and chaparral. Found on dry slopes and flats, sometimes at interface of two vegetation types, on dry, sandy soils. Elevation limits: 150 to 5,000 feet.	Annual herb	Apr to Jun	Covered	**Moderate Potential to Occur.** The portion of the WLCSP that contains sandy soils and chaparral/RSS along the western border of the project in an area slated as open space. Recorded approximately 4.5 miles northwest of WLCSP. (CNDDB 2012)
Dodecahema leptoceras	Slender-horned spineflower	FE	SE	1B.1	Occurs in chaparral and alluvial fan sage scrub. Prefers flood deposited terraces and washes. Elevation limits: 600 to 2,300 feet.	Annual herb	Apr to Jun	Covered	**Low Potential to Occur.** The WLCSP contains several natural drainages; one contains a mixture of RSS and mule fat scrub. The remaining drainages are generally devoid of vegetation. Recorded approximately 7 miles northwest of the WLCSP. (CNDDB 2012)
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	—	—	1B.1	Occurs in coastal salt marshes, playas, grasslands, and vernal pools. Usually found on alkali soils in playas, sinks, and grasslands. Elevation limits: 1 to 4,500 feet.	Annual herb	Feb to Jun	Covered	**Not Likely to Occur.** No alkali soils, marshes, or vernal pools occur in the WLCSP. Observed approximately 2 miles south of WLCSP (CNDDB 2012) and as close as 0.75 mile to the south of the WLCSP study area according to the BMP (RCA 2013).

Table 4.4.B: Sensitive Plant Species in the WLC Project Area (new table)

Species		Status			Preferred Habitat	Life Form	Bloom Period	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Scientific Name	Common Name	USFWS		CNPS					
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	—	—	4.3	Occurs in chaparral and coastal scrub on dry soils. Elevation limits: 1 to 3,000 feet.	Annual herb	Jan to Jul	Not Covered	**Low Potential to Occur.** The portion of the WLCSP that contains sandy soils and chaparral/RSS along the western border of the project in an area slated as open space. Recorded approximately 7 miles northwest of WLCSP. (CNDDB 2012)
Nama stenocarpum	Mud nama	—	—	2B.2	Occurs in marshes, swamps, lakeshores, riverbanks, and intermittently wet areas. Elevation limits: 15 to 1,500 feet.	Annual/ perennial herb	Jan to Jul	Covered	**Not Likely to Occur.** No lakes, marshes or riverine areas occur in the WLCSP. The drainage features onsite do not remain wet long enough to be considered suitable habitat. Recorded approximately 2.5 miles southeast of WLCSP. (CNDDB 2012)
Symphyotrichum defoliatum	San Bernardino aster	—	—	1B.2	Occurs in meadows, seeps, marshes, swamps, coastal scrub, cismontane woodland, lower montane coniferous forest, and grasslands. Found in vernally mesic areas near ditches, streams, and springs. Elevation limits: 6 to 6,000 feet.	Rhizoma-tous herb	Jul to Nov	Not Covered	**Not Likely to Occur.** The ditches and erosion features in the WLCSP are heavily disturbed. Recorded 2.5 miles northeast of the WLCSP. (CNDDB 2012)

Table 4.4.B: Sensitive Plant Species in the WLC Project Area (new table)

Species		Status			Preferred Habitat	Life Form	Bloom Period	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Scientific Name	Common Name	USFWS		CNPS					
Trichocoronis wrightii var. *wrightii*	Wright's trichocoronis	—	—	2B.1	Occurs in marshes and swamps, riparian forest, meadows, seeps, and vernal pools. Found in mud flats of vernal lakes, drying riverbeds, and alkali meadows. Elevation limits: 10 to 1,300 feet.	Annual herb	May to Sep	Covered	**Not Likely to Occur.** No marshes, riverine or vernal pool areas occur in the WLCSP. Recorded approximately 4 miles south of the WLCSP. (CNDDB 2012)

U.S. Fish and Wildlife Service
FE Federal Endangered
FT Federal Threatened
PE Proposed Endangered
PT Proposed Threatened
FC Federal Candidate
FSC Species of Concern*
*No longer recognized as a federal designation.

California Department of Fish and Game
CE California Endangered
CT California Threatened
CR California Rare

California Native Plant Society
1A Plants presumed extinct in California.
1B Plants rare, threatened, or endangered in California and elsewhere.
2 Plants rare, threatened, or endangered in California, but more common elsewhere.
3 Plants about which we need more information.
4 Plants of limited distribution.

Not Likely to Occur - There are no present or historical records of the species occurring on or in the immediate vicinity (within 3 miles) of the WLCSP and the diagnostic habitats strongly associated with the species do not occur on or in the immediate vicinity of the site.
Low Potential to Occur - There is a historical record of the species in the vicinity of the WLCSP and potentially suitable habitat onsite, but existing conditions (e.g., density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, isolation) substantially reduce the possibility that the species may occur. The site is above or below the recognized elevation limits for this species.
Moderate Potential to Occur - The diagnostic habitats associated with the species occur on or in the immediate vicinity of the WLCSP, but there is not a recorded occurrence of the species within the immediate vicinity (within three miles). Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity.
High Potential to Occur - There is both suitable habitat associated with the species and a historical record of the species on or in the immediate vicinity of the WLCSP (within 3 miles).
Species Present - The species was observed in the WLCSP at the time of the survey or during a previous biological survey.
Source: Habitat Assessment, MSHCP Consistency Analysis, and HANS report, Michael Brandman Associates, September 2014.

Federally Proposed Endangered, Proposed Threatened, Federal Candidate, and Federal Plant Species of Concern. The USFWS has developed several categories for sensitive species not yet determined to have reached endangered or threatened status. Generally, federally proposed endangered or threatened species are species considered unofficially endangered or threatened (i.e., final regulatory action formally listing such species has not yet occurred). Federal candidate species are species who are candidates for becoming listed as endangered or threatened, and Federal species of concern are species whose numbers are considered low enough to have approached Federal candidate status.

Federally Protected Plant Species. As shown in Table 4.4.B, no Federal plant species of concern were analyzed for their potential to occur in the WLCSP and off-site facilities because no evidence of any Federal plant species of concern was found in the project area, nor was any suitable habitat found due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native low-quality vegetation.

Federally Endangered Wildlife Species. ~~Four~~As shown in Table 4.4.C, four federally endangered wildlife species were analyzed for potential to occur in the project area or off-site facilities: Riverside fairy shrimp (*Streptocephalus woottoni*), southwestern willow flycatcher (*Empidonax traillii extimus*), least Bell's vireo (*Vireo bellii pusillus*), and Stephens' kangaroo rat (*Dipodomys stephensi*). No evidence of any federally endangered wildlife species was found in the project area or off-site facilities. Stephens' kangaroo rat is the only federally listed wildlife species potentially occurring on site. Although no sign of Stephens' kangaroo rat was identified during the site surveys, it was determined that this species may range through the general area. This species is commonly found in ruderal and minimally disturbed areas. Low quality habitat was observed along existing roadsides.

Since the project area is within the known range of this species and low quality habitat was identified on site, there is a moderate potential for Stephens' kangaroo rat to occupy some portion of the WLC project area or off-site facilities.

No suitable habitat for Riverside fairy shrimp, southwestern willow flycatcher, and least Bell's vireo, occurs on site due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native low-quality vegetation. No additional federally endangered wildlife species were analyzed in Table 4.4.~~B~~C for their potential to occur in the project area because no additional federally endangered wildlife species are known to occur on, or in the vicinity of, the site.

~~**Federally Threatened Plant Species.** One~~**Federally Threatened Wildlife Species.** As shown in Table 4.4.C, Coastal California gnatcatcher (*Polioptila californica californica*) is known to occur within moderate to high quality coastal sage scrub in the general area and some suitable habitat occurs on site for coastal California gnatcatcher. There is marginal Riversidean sage scrub in the north near SR-60 and Gilman Springs Road and in the proposed Open Space Area adjacent to the ~~LSSRA~~Lake Perris State Recreation Area (LPSRA) south of Brodiaea Avenue, west of Theodore Street and east of Redlands Boulevard. No additional federally threatened wildlife species were analyzed for their potential to occur in the ~~planning~~WLC project area.

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Table 4.4.C: Sensitive Wildlife Species in the WLC Project Area (new table)

Species		Status			Required Habitat	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Scientific Name	Common Name	Federal	State	Other			
Branchiopods							
Streptocephalus woottoni	Riverside fairy shrimp	FE	—	CDFW: CSC	Occurs in tectonic swales and earth slump basins in grassland and coastal sage scrub. Inhabits seasonally astatic pools filled by winter/spring rains. Hatches in warm water later in the season.	Covered	**Not Likely to Occur.** No vernal pools occur in the WLCSP. Observed farther than 5 miles south of the WLCSP.
Reptiles and Amphibians							
Aspidoscelis hyperythra	Orange-throated whiptail	—	—	CDFW: CSC	Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats. Prefers washes and other sandy areas with patches of brush and rocks. Also near perennial plants where termites, its major food, can be found.	Covered	**Low Potential to Occur.** Limited coastal scrub is present in the WLCSP. Woody vegetation onsite is very sparse and is not considered sufficient to support the species. The nearest occurrence of the species was recorded approximately 0.3 mile north of the WLCSP; however, in the eighteen years since the observation, the previous site conditions have changed to become unsuitable habitat (CNDDB 2012).
Crotalus ruber ruber	Northern red-diamond rattlesnake	—	—	CDFW: CSC	Inhabits chaparral, woodland, grassland, and desert habitats. Occurs in rocky areas and dense vegetation. Needs rodent burrows, cracks in rocks, or surface cover objects.	Covered	**Not Likely to Occur.** No rocky areas and dense native plant communities occur in the WLCSP and the site is regularly disturbed. Recorded approximately 1 mile south of the WLCSP; however, the observation occurred over 80 years ago (CNDDB 2012). The BMP has recently found the species in the same area as the CNDDB sighting (RCA 2013)
Phrynosoma coronatum blainvillei	Coast horned lizard	—	—	CDFW: CSC	Inhabits coastal sage scrub and chaparral in arid and semi-arid climates. Prefers friable, rocky, or shallow sandy soils.	Covered	**Low Potential to Occur.** The portion of the WLCSP that contains sandy soils or rocky soils and chaparral/RSS along the western border of the project in an area slated as open space. Recorded approximately 4 miles northwest of the WLCSP (CNDDB 2012)

Table 4.4.C: Sensitive Wildlife Species in the WLC Project Area (new table)

Species		Status			Required Habitat	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Scientific Name	Common Name	Federal	State	Other			
Spea hammondii	Western spadefoot	—	—	CDFW: CSC	Occurs primarily in grassland habitats, but also found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	Covered	**Not Likely to Occur.** No vernal pools or native woodlands occur in the WLCSP. Recorded approximately 2 miles south and west of the WLCSP (CNDDB 2012). The BMP studies have occurrences approximately 0.7 mile south of the study area boundary (RCA 2013)
Birds							
Agelaius tricolor	Tricolored blackbird	—	—	CDFW: CSC	Highly colonial species. Requires open water, protected nesting substrate, and foraging areas with insect prey within a few miles of the colony.	Covered	**Low Potential to Occur.** No open water or protected nesting habitat is located in the WLCSP. Numerous nesting pairs were recorded within the wheat fields on the southeastern portion of the WLCSP in 1995. The wheat has since been removed and no suitable nesting vegetation remains (CNDDB 2012).
Aimophila ruficeps canescens	Southern California rufous-crowned sparrow	—	—	CDFW: CSC	Resident in coastal sage scrub and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches.	Covered	**Low Potential to Occur.** While sparse RSS and chaparral are present within the WLCSP, no steep slopes are present in the WLCSP. Recorded approximately 4 miles west of the WLCSP (CNDDB 2012). The BMP database has the species less than 1.0 mile from the WLCSP study area boundary (RCA 2013).
Amphispiza belli belli	Bell's sage sparrow	—	—	CDFW: CSC	Nests in chaparral dominated by fairly dense stands of chamise. Found in coastal sage scrub in southern portion of range. Nests typically located on the ground beneath shrub or in shrub 6 to 18 inches above ground.	Covered	**Not Likely to Occur.** No dense stands chaparral or coastal sage scrub vegetation occurs in the WLCSP. Recorded approximately 4 miles northwest of the WLCSP (CNDDB 2012) and according to the BMP 4 miles south of the WLCSP study area (RCA 2013).

Table 4.4.C: Sensitive Wildlife Species in the WLC Project Area (new table)

Species		Status			Required Habitat	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Scientific Name	Common Name	Federal	State	Other			
Athene cunicularia	Burrowing owl	—	—	CDFW: CSC	Occupies burrows in open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably the California ground squirrel.	Covered	**Present.** Despite the heavy disturbance the WLCSP contains flat topography with sparse, low-lying vegetation and various California ground squirrel burrows. Observed within the WLCSP in 2005; however, focused surveys conducted in 2010 and 2012 found the WLCSP and surroundings to be unoccupied. The 2013 survey of the WLCSP again found a pair of owls (MBA 2013b)
Aquila chrysaetos	Golden eagle	—	—	CDFW: FP	Open mountains, foothills, plains.	Covered	**Low Potential to Occur.** The WLCSP contains open flat area that is considered marginally suitable foraging habitat, but not suitable nesting habitat. Recorded approximately 1 mile south of the WLCSP (RCA 2013)
Buteo swainsonii	Swainson's hawk	—	ST	—	Grasslands and riparian areas	Covered	**Low Potential to Occur.** The WLCSP contains open flat area that is considered marginally suitable foraging habitat, but not suitable nesting habitat. Recorded approximately 1 mile south of the WLCSP (RCA 2013)
Buteo regalis	Ferruginous hawk	—	—	CDFW: CSC	Winters in open grasslands, sagebrush flats, desert scrub, low foothills, and fringes of pinyon-juniper habitats.	Covered	**Low Potential to Occur.** The WLCSP contains open flat area that is considered marginally suitable foraging habitat, but not suitable nesting habitat. Recorded approximately 1 mile northeast of the WLCSP (CNDDB 2012) and 2 miles south of the WLCSP according to BMP records (RCA 2013).

Table 4.4.C: Sensitive Wildlife Species in the WLC Project Area (new table)

Species		Status			Required Habitat	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Scientific Name	Common Name	Federal	State	Other			
Coccyzus americanus occidentalis	Western yellow-billed cuckoo	FC	SE	—	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Specifically nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Covered	**Not Likely to Occur.** No riparian plant communities occur in the WLCSP. Recorded approximately 5.5 miles northwest of the WLCSP (CNDDB 2012).
Elanus leucurus	White-tailed kite	—	—	CDFW: FP	Nests in rolling foothills/valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodlands. Prefers open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Covered	**Present.** The WLCSP contains suitable foraging habitat, but few dense-topped trees occur in the vicinity of the site. Known to occur in the San Jacinto Valley but not recorded within 7 miles of the site (CNDDB 2012). The BMP indicates that the species is found 1.0 mile from the WLCSP study area boundary (2013). Species was observed foraging within the southern portion of the survey area adjacent to the SJWA.
Empidonax traillii extimus	Southwestern willow flycatcher	FE	SE	—	Nests in riparian woodlands in southern California.	Covered	**Not Likely to Occur.** No riparian plant communities occur in the WLCSP. Recorded approximately 6.5 miles east of the WLCSP (CNDDB 2012).
Eremophila alpestris actia	California horned lark	—	—	CDFW: CSC	Inhabits short-grass prairie, bald hills, mountain meadows, open coastal plains, fallow grain fields, and alkali flats.	Covered	**Present.** The WLCSP contains flat, fallow grain fields that constitute suitable nesting habitat. Observed in the WLCSP during the reconnaissance-level surveys (MBA 2012).

Table 4.4.C: Sensitive Wildlife Species in the WLC Project Area (new table)

Species		Status			Required Habitat	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Scientific Name	Common Name	Federal	State	Other			
Falco columbarius	Merlin	—	—	CDFW: CSC	Winters in seacoast, tidal estuaries, open woodlands, savannahs, edges of grasslands and deserts, farms and ranches. Clumps of trees or windbreaks are required for roosting in open country.	Covered	**Low Potential to Occur.** Portions of the WLCSP contain windbreak trees and open farmland. Known to occur in the San Jacinto Valley but not recorded within 7 miles of the site (CNDDB 2012). The BMP database has the species less than a mile south of the WLCSP study area (RCA 2013).
Falco mexicanus	Prairie falcon	—	—	CDFW: CSC	Inhabits dry, open terrain, either flat or hilly. Breeding sites located on cliffs.	Covered	**Low Potential to Occur.** The WLCSP contains marginally suitable foraging habitat but no suitable nesting habitat. Known to occur in the San Jacinto Valley but not recorded within 7 miles of the site (CNDDB 2012).
Falco peregrinus anatum	Peregrine falcon	FD	SE	CDFW: FP	Nests near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds, and human-made structures. Nest consists of a scrape on a depression or ledge in an open site.	Covered	**Low Potential to Occur.** The WLCSP contains marginal nesting habitat. Known to occur in the San Jacinto Valley but not recorded within 7 miles of the site (CNDDB 2012). The BMP indicates the species is within 1.0 mile of the southern boundary of the study area (RCA 2013).
Icteria virens	Yellow-breasted chat	—	—	CDFW: CSC	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Specifically nests in low, dense riparian vegetation, consisting of willow, blackberry, wild grape. Forages and nests within 10 feet of ground.	Covered	**Not Likely to Occur.** No riparian plant communities occur in the WLCSP. Recorded approximately 5.5 miles northwest of the WLCSP (CNDDB 2012).

Table 4.4.C: Sensitive Wildlife Species in the WLC Project Area (new table)

Species		Status			Required Habitat	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Scientific Name	Common Name	Federal	State	Other			
Lanius ludovicianus	Loggerhead shrike	—	—	CDFW: CSC	Inhabits broken woodlands, savannah, pinyon-juniper, Joshua tree and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	Covered	**Present.** The WLCSP contains flat, open area that is suitable foraging habitat but not suitable nesting habitat. Observed by MBA during previous surveys, approximately within the WLCSP (MBA 2012).
Plegadis chihi	White-faced ibis	—	—	CDFW: CSC	Rookery sites include shallow freshwater marshes. Nests in dense tule thickets interspersed with areas of shallow water for foraging.	Covered	**Not Likely to Occur.** No marshes or bodies of water occur in the WLCSP. Recorded approximately 3 miles southeast of the WLCSP (CNDDB 2012).
Polioptila californica californica	Coastal California gnatcatcher	FT	—	CDFW: CSC	Obligate, permanent resident of coastal sage scrub below 2,500 feet in southern California. Prefers low coastal sage scrub in arid washes and on mesas and slopes.	Covered	**Low Potential to Occur.** There is limited and sparse coastal sage scrub vegetation occurs in the WLCSP. Recorded approximately 4 miles northwest of the WLCSP (CNDDB 2012) and less that 0.5 mile of the WLCSP study area according to BMP (RCA 2013).
Vireo bellii pusillus	Least Bell's vireo	FE	SE	—	Summer resident in low riparian vegetation in the vicinity of water or in dry river bottoms; below 2,000 feet. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, baccharis, and mesquite.	Covered	**Not Likely to Occur.** No riparian plant communities or significant riparian vegetation occur in the WLCSP. Recorded approximately 3 miles northeast of the WLCSP (CNDDB 2012) and was recorded by the BMP at 2 miles from the closest WLCSP border (RCA 2013).

Table 4.4.C: Sensitive Wildlife Species in the WLC Project Area (new table)

Species		Status			Required Habitat	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Scientific Name	Common Name	Federal	State	Other			
Mammals							
Chaetodipus fallax fallax	Northwestern San Diego pocket mouse	—	—	CDFW: CSC	Inhabits coastal scrub, chaparral, and grasslands. Prefers sandy, herbaceous areas, usually in association with rocks or coarse gravel.	Covered	**Present.** Sandy to loamy soils occur in the WLCSP. There are limited areas of RSS and chaparral and herbaceous areas are severely limited due to agricultural activities. Species was caught within Drainage 9 (MBA 2013).
Dipodomys stephensi	Stephens' kangaroo rat	FE	ST	—	Primarily found in annual and perennial grasslands, but also occurs in coastal scrub and sagebrush with sparse canopy cover. Prefers buckwheat, chamise, brome grass, and filaree. Will burrow into firm soil.	Covered under SKRHCP	**Moderate Potential to Occur.** The WLCSP contains areas similar to grasslands with very sparse canopy, but is heavily disturbed. Recorded approximately adjacent to the general WLCSP on the west and south (CNDDB 2012).
Lasiurus xanthinus	Western yellow bat	—	—	CDFW: CSC	Occurs in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats below 1,800 feet. Roosts in trees.	Not Covered	**Not Likely to Occur.** No riparian or native plant communities occur in the WLCSP. Recorded approximately 3.5 miles southwest of the WLCSP (CNDDB 2012).
Lepus californicus bennettii	San Diego black-tailed jackrabbit	—	—	CDFW: CSC	Inhabits coastal sage scrub habitats. Specifically, intermediate canopy stages of shrub, open shrub, herbaceous and tree, and herbaceous edge habitats.	Covered	**Present** Recorded within the MWD lands in the northern portion of the WLCSP during burrowing owl surveys (MBA 2013).
Onychomys torridus ramona	Southern grasshopper mouse	—	—	CDFW: CSC	Inhabits desert areas, especially scrub habitats with friable soils. Prefers low to moderate shrub cover. Feeds almost exclusively on arthropods, especially scorpions and orthopteran insects.	Not Covered	**Not Likely to Occur.** No shrub or scrub habitat occurs in the WLCSP. Additionally, the site is regularly disturbed by disking. Recorded approximately 4 miles southeast of the WLCSP (CNDDB 2012).

Table 4.4.C: Sensitive Wildlife Species in the WLC Project Area (new table)

Species		Status			Required Habitat	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Scientific Name	Common Name	Federal	State	Other			
Perognathus longimembris brevinasus	Los Angeles pocket mouse	—	—	CDFW: CSC	Inhabits lower elevation grasslands and coastal sage communities. Prefers open ground with fine sandy soils.	Covered	**Low Potential to Occur.** The sandy soils that occur in the WLCSP are limited to existing drainages with the proper coastal sage communities. Three years of trapping did not produce any Los Angeles pocket mice. Recorded approximately 3 miles south of the WLCSP (CNDDB 2012). It was observed in BMP trapping within 2 miles of the study area (RCA 2013).
Taxidea taxus	American badger	—	—	CDFW: CSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats. Needs sufficient food, friable soils, and open, uncultivated ground. Preys on burrowing rodents.	Not covered	**Low potential to occur.** The WLCSP contains limited amounts of vegetation and the ground is cultivated. Recorded approximately 8.5 miles northwest of the WLCSP (CNDDB 2012). RCA data lists the closest recorded occurrence, just outside the 1,000-foot buffer area. Most likely limited to the badlands area north and east of the project site.

Federal
FE Federal Endangered
FT Federal Threatened
FSC Federal Species of Concern
PFT Proposed Federal Threatened
FC Candidate for Federal Listing
FD Delisted

State
SE State Endangered
ST State Threatened

Other
CDFW: CSC California Species of Concern
CDFW: FP Fully Protected Species
CDFW: P Protected Species

Not Likely to Occur - There are no present or historical records of the species occurring on or in the immediate vicinity (within 3 miles) of the WLCSP and the diagnostic habitats strongly associated with the species do not occur on or in the immediate vicinity of the site.
Low Potential to Occur - There is a historical record of the species in the vicinity of the WLCSP and potentially suitable habitat onsite, but existing conditions (e.g., density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, isolation) substantially reduce the possibility that the species may occur. The site is above or below the recognized elevation limits for this species.
Moderate Potential to Occur - The diagnostic habitats associated with the species occur on or in the immediate vicinity of the WLCSP, but there is not a recorded occurrence of the species within the immediate vicinity (within three miles). Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity.
High Potential to Occur - There is both suitable habitat associated with the species and a historical record of the species on or in the immediate vicinity of the WLCSP (within 3 miles).
Species Present - The species was observed in the WLCSP at the time of the survey or during a previous biological survey.
Source: Habitat Assessment, MSHCP Consistency Analysis, and HANS report, Michael Brandman Associates, September 2014.

Federally Proposed Endangered, Proposed Threatened, Federal Candidate, and Federal Species of Concern. The USFWS has developed several categories for sensitive species not yet determined to have reached endangered or threatened status. Generally, federally proposed endangered or threatened species are species considered unofficially endangered or threatened (i.e., final regulatory action formally listing such species has not yet occurred). Federal candidate species are species who are candidates for becoming listed as endangered or threatened, and Federal species of concern are species whose numbers are considered low enough to have approached Federal candidate status. The western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) is the only Federal Candidate Species with a potential to occur in this area, but this species is not likely to occur in the WLCSP and off-site facilities. In addition, it is a covered species under the MSHCP.

~~**Protected Plant Species.** No Federal plant species of concern were analyzed for their potential to occur in the WLCSP and off-site facilities because no evidence of any Federal plant species of concern was found in the project area, nor was any suitable habitat found due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native low-quality vegetation.~~

Federally Protected Wildlife Species. There ~~were no~~was only one Federal wildlife species of concern analyzed for ~~their~~its potential to occur in the WLCSP and off-site facilities~~. The~~ (see the western yellow-billed cuckoo ~~(*Coccyzus americanus occidentalis*) is not likely to occur in the WLCSP and off-site facilities and is also a covered species under the MSHCP.~~

discussed above). No evidence of any other Federal wildlife species of concern was found in the project area nor does any suitable habitat occur due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native low-quality vegetation. No additional Federal wildlife species of concern were analyzed for potential to occur in the project area because no additional Federal wildlife species of concern are known to occur on, or in the vicinity of, the site. ~~Therefore, Federal wildlife species of concern are not likely to occur in the project area and there is no potential impact to Federal wildlife species of concern.~~

California State Endangered Plant Species. ~~Two~~As shown in Table 4.4.B, two California State endangered plant species were analyzed for their potential to occur in the WLCSP and off-site facilities: slender-horned spine-flower and thread-leaved brodiaea. No evidence of these State-listed plant species was found in the project area nor is there any suitable habitat for these State-listed plant species due to regular disking of the site and dominance of sparse, non-native low-quality vegetation. No additional State-listed plant species were analyzed for potential to occur in the project area because no additional State-listed plant species are known to occur on, or in the vicinity of, the site, nor was any suitable habitat found to support other State-listed plant species. Therefore, State-listed plant species are not likely to occur in the project area and there is no potential impact to State endangered plant species.

California State Threatened Plant Species. As shown in Table 4.4.B, no California State threatened plant species are known to occur on, or in the vicinity of, the project site and no suitable habitat occurs within the project are for any California State threatened plant species. Therefore, California State threatened plant species are not likely to occur in the project area and there is no potential impact to State threatened plant species.

California State Endangered Wildlife Species. ~~Four~~As shown in Table 4.4.B, four California State endangered wildlife species were analyzed for their potential to occur in the WLCSP and off-site facilities: western yellow-billed cuckoo, southwestern willow flycatcher, least Bell's vireo, and ~~American~~ peregrine falcon (*Falco peregrinus anatum*). No evidence of these California State endangered wildlife species was found in the project area. In addition, no suitable habitat for these species occurs within the project area due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native low-quality vegetation. No additional California State

endangered wildlife species were analyzed for potential to occur in the project area because no additional California State endangered wildlife species are known to occur on, or in the vicinity of, the site. No suitable habitat was found in the project area to support other California State endangered wildlife species. Therefore, California State endangered wildlife species are not likely to occur in the project area and there is no potential impact to State endangered wildlife species.

California State Threatened ~~Plant Species.~~ No**~~California State Threatened~~ Wildlife Species.** ~~A single~~As shown in Table 4.4.C, two California State threatened wildlife species was analyzed for its potential to occur in the project area: ~~the Stephens' kangaroo rat~~Swainson's hawk (*Buteo swainsonii*) and Stephens' kangaroo rat. There is little to no nesting habitat within the WLCSP for Swainson's hawk and marginally quality foraging habitat. This species is known to occur with the adjacent SJWA and has a low potential to occur within the WLCSP project site. Although no sign of Stephens' kangaroo rat was identified in the project area, MBA concluded that this species may range through the general area. This species is known to occur in ruderal and minimally disturbed areas. Marginal habitat was observed along existing roadsides and within active pasture areas. Since the project area is within the known range of this species, and marginal habitat was identified on site, there is a moderate potential for Stephens' kangaroo rat to occupy some portion of the area.

No additional California State threatened wildlife species are known to occur on, or in the vicinity of, the site. No suitable habitat was found in the project area support other California State threatened wildlife species. Therefore, except for the Stephens' kangaroo rat, California State threatened wildlife species are not likely to occur in the project area and there is no potential impact to California State threatened wildlife species.

~~**Special-Status Species.** Special-status species are plant and wildlife species that have been afforded legal protection under the FESA, CESA, or any other local regulations, or are considered rare, threatened, or endangered by any other resource agency, or organization in the scientific community. As it pertains to the technical reports prepared by MBA for the project (focused surveys) and the biological resources section of this EIR, the following describes applicable classifications of special-status species not listed above for FESA and CESA.~~

California State Fully Protected Species. The classification of Fully Protected was California's initial effort in the 1960s to identify and provide additional protection to those animals that were rare or faced possible extinction. The list of fully protected species included fish, mammals, amphibians, reptiles, birds, and mammals. Most fully protected species are currently listed as threatened or endangered species under the more recent endangered species laws and regulations.

Fully protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

California State Fully Protected ~~Wildlife~~ Species. ~~Two~~As shown in Table 4.4.C, three California State Fully Protected ~~wildlife~~ species were analyzed for their potential to occur in the project area: golden eagle (*Aquila chrysaetos*), white-tailed kite (*Elanus leucurus*) and ~~American~~ peregrine falcon. No suitable nesting habitat for golden eagle, white-tailed kite or ~~American~~ peregrine falcon occurs within the area due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native low-quality vegetation. However, agricultural land does represent marginal quality foraging habitat within the WLCSP project ~~area~~site and adjacent CDFW Conservation Areas. No additional California State fully protected wildlife species were analyzed for their potential to occur in the project area because no additional California State fully protected wildlife species are known to occur on, or in the vicinity of, the site. No suitable habitat was found in the WLCSP and off-site facilities to support other California State fully protected wildlife species. Therefore, California State

fully protected wildlife species are not likely to occur in the project area and there is no impact to California State fully protected wildlife species.

California Rare Plants Species and ~~Wildlife~~California Species of Concern. California Species of Concern (CSC) applies to animals not listed under the FESA or CESA, but are declining at a rate that could result in Federal or State listing or historically occur in low numbers and known threats to their persistence currently exist.

California Rare Plant Species. No California rare plant species are known to occur on, or in the vicinity of, the project area nor is any suitable habitat known to occur within the area. Therefore, no California rare plant species were analyzed for their potential to occur in the project area. Eleven special status plant species, as determine by the California Native Plant Society, were identified as potentially occurring within the project area. Three of the species (Plummer's mariposa lily [*Calochortus plummerae*], Robinson's pepper-grass [*Lepidium virginicum* var. *robinsonii*], and San Bernardino aster [*Symphyotrichum defoliatum*]) are not covered by the MSHCP. Plummer's mariposa lily and Robinson' pepper-grass have a moderate to low potential to occur based on habitat type and soils requirements. These species were not identified during sensitive plant surveys (MBA 2010).

The 2010 sensitive plant survey was conducted based on the 2010 site boundary and the then-current existing conditions. Several areas within the current WLCSP were not surveyed because they were either not included in the proposed development footprint (such as the Off-site Improvement Areas) or were not within areas of suitable habitat. Therefore, areas that contained suitable habitat, but are outside of the proposed development footprint, or areas that were not accessible during the survey, were not included. Since all areas of the WLCSP were not surveyed, additional plant surveys are recommended on a project-by-project basis. There has been below-average rainfall in the area since the 2010 plant surveys were conducted. Project-level surveys will be required prior to submittal of the CEQA documents as part of the project-specific environmental review process.

The Sensitive Plant Focused Survey Report only discusses the plant communities in which focused plant surveys were conducted. Many of the areas within the Extensive Agricultural Areas and the Urban/Developed areas contain elements of Riversidean sage scrub, non-native grasslands, and riparian habitat, but not in a sufficient amount to be considered a separate plant community. The remaining nine plant communities found within the WLCSP, either do not provide suitable habitat or are not within the proposed project impact area; these plant communities will not be directly or indirectly impacted by project development.

Updated focused plant surveys will likely be warranted on a project-level basis, especially if existing site conditions change over time. If the agricultural fields are left fallow, suitable habitat for a number of sensitive plant species may develop. Therefore, additional focused plant surveys will be required on a project-by-project basis as specific developments are proposed and subsequent or supplemental CEQA documentation is prepared.

The potential habitat for these species is confined to RSS and sandy-rocky soils, which are confined to the proposed open space area in the southwestern portion of the Specific Plan area.

California ~~Wildlife~~ Species of Concern. Twenty-one California Wildlife Species of Concern were analyzed for their potential to occur in the WLCSP and off-site facilities:

- Orange-throated whiptail (*Aspidoscelis hyperythra*)
- Coast horned lizard (*Phrynosoma coronatum*)
- Northern red-diamond rattlesnake (*Crotalus ruber ruber*)
- Western spadefoot (*Spea hammondii*)

- Tricolored blackbird (*Agelaius tricolor*)
- Bell's sage sparrow (*Amphispiza belli belli*)
- Ferruginous hawk (*Buteo regalis*)
- Merlin (*Falco columbarius*)
- Yellow-breasted chat (*Icteria virens*)
- White-faced ibis (*Plegadis chihi*)
- Western yellow bat (*Lasiurus xanthinus*)
- Southern grasshopper mouse (*Onychomys torridus ramona*)
- American badger (*Taxidea taxus*)
- Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)
- Burrowing owl (*Athene cunicularia hypugaea*)
- California horned lark (*Eremophila alpestris actia*)
- Prairie falcon (*Falco mexicanus*)
- Loggerhead shrike (*Lanius ludovicianus*)
- Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)
- San Diego black-tailed jackrabbit (*Lepus californicus bennettii*)
- Los Angeles pocket mouse (*Perognathus longimembris brevinasus*)

The project area contains suitable foraging habitat for loggerhead shrike, ferruginous hawk, merlin, prairie falcon, California horned lark, and burrowing owl but no suitable nesting habitat for ferruginous hawk, merlin, or prairie falcon. Suitable ground-nesting habitat occurs for burrowing owl and California horned lark.~~ Although no~~No sign of burrowing owl was identified during focused surveys conducted in 2012. However, burrowing owl was identified within the southern portion of in the WLCSP project site and offsite facilities during focused surveys conducted in 2013 and, it was determined that this species may range through the general area. Several California horned larks and loggerhead shrikes were observed foraging within the area. No suitable habitat for western spadefoot, Bell's sage sparrow, yellow-breasted chat, white-faced ibis, western yellow bat, southern grasshopper mouse, and American badger occurs within the project area due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native low-quality vegetation. The western yellow bat, southern grasshopper mouse and American badger are not covered under the MSHCP. However, since there is no suitable habitat for these species, no impact is expected to occur. The remaining species are covered under the MSHCP.

There is limited suitable habitat for orange-throated whiptail, northern red-diamond rattlesnake, coast horned lizard, southern rufous-crowned sparrow, northwestern San Diego pocket mouse, San Diego jackrabbit, and Los Angeles pocket mouse in the project area. These species are generally associated with ~~coastal sage scrub~~RSS, which is limited to the north near SR-60 and Gilman Springs Road and in the proposed Open Space Area adjacent to the ~~LSSRA~~LPSRA between Theodore Street and Redlands Boulevard, just south of Brodiaea Avenue. Focused surveys for Los Angeles pocket mouse in 2005, 2010, 2012, and ~~2012~~2013 were negative. The orange-throated whiptail is not covered under the MSHCP. There is limited habitat for the orange-throated whiptail in an area that is currently proposed for open space in the southwestern corner of the Specific Plan area. The other species mentioned are covered under the MSHCP. There is a low potential for these species to occur.

No additional California wildlife species of concern were analyzed for potential to occur in the project area because none is known to occur on, or in the vicinity of, the site. No suitable habitat was found in the project area to support other California Wildlife Species of Concern. Therefore, except for the burrowing owl, loggerhead shrike, and California horned lark, California Wildlife Species of Concern are not likely to occur in the WLCSP and off-site facilities.

California Native Plant Society (CNPS). The CNPS is a non-profit organization whose collaborative efforts in research helps maintain an inventory of rare and endangered plants that occur throughout

California. The CNPS has developed its own classification system in defining the degree of endangerment for sensitive plant species that models that of the FESA and CESA. Plants considered to be rare, threatened, or endangered in California are designated as List 1B or List 2 plant species. Plants for which more information is needed to determine their status are designated List 3 species. Plants with limited distribution are designated as List 4 species.

CNPS Listed Plant Species. Eight CNPS List 1B plant species were analyzed for potential to occur in the project area: San Jacinto Valley crownscale, thread-leaved brodiaea, Plummer's mariposa lily, smooth tarplant (*Centromadia pungens* ssp. *laevis*), slender-horned spineflower, Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), Robinson's peppergrass, and San Bernardino aster.

Two CNPS List 2 plant species, mud nama (*Nama stenocarpum*) and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*), were analyzed for potential to occur in the project area.

One CNPS List 3 plant species, Parry's spineflower (*Chorizanthe parryi* var. *parryi*), was also analyzed for potential to occur in the project area.

No evidence of any CNPS List 1B, List 2, or List 3 plant species were observed in the project area. In addition, no suitable habitat for any of these species occurs due to historic agricultural activities, regular disking of the site, and dominance of sparse, low quality non-native vegetation.

No additional CNPS List plant species were analyzed for potential to occur in the WLCSP and off-site facilities because none is known to occur on, or in the vicinity of, the site. No suitable habitat was found in the project area to support other CNPS List plant species. Therefore, CNPS List plant species are not likely to occur in the project area.

Migratory Bird Treaty Act and Section 3503 of the State Fish and Game Code. The project area contains suitable nesting habitat for ground-nesting birds such as burrowing owl and horned lark. The few large trees on the site provide suitable habitat for other migratory birds.

Raptor Foraging Habitat. The project area contains flat, open areas with sparse vegetation, which provides marginal foraging habitat for some raptors species. Due to the regular, heavy disturbance associated with the various agricultural activities in the area, and the limited size of the site in relation to the expansive foraging habitat in the vicinity including the CDFW Conservation Buffer Area and the SJWA, LPSRA, and the Badlands to the east, the foraging habitat on site is considered marginally suitable and of poor quality (MBA 2013, pages 94-95).

4.4.1.14 MSHCP Consistency Analysis

a. Burrowing Owl

The burrowing owl is an avian species of special concern that is protected by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code Section 3503. This species typically occurs in grassland and scrub habitats characterized by low-growing vegetation with an abundance of small mammal burrows, including the California ground squirrel. It often prefers areas with moderate disturbance and/or berms or drainage features. Reasons for burrowing owl population decline include habitat destruction, insecticide poisoning, rodenticide (particularly squirrel eradication), and shooting.

The project area contains potentially suitable habitat for burrowing owl, such as flat, open, valley floor plains occupied by non-native grasslands, fallow fields, and agricultural lands. Details of the methodologies for the focused surveys are discussed in Appendix D, Burrowing Owl Focused Surveys. Details for these focused surveys for burrowing owl may not match exactly with the project

area as the boundaries of the various studies have evolved over time. The 2012 studies for burrowing owl encompassed the 3,300 acres of the project area.

Burrowing owl was identified within the southern portion of the WLCSP project site during focused surveys conducted in 2013, and may continue to range through the general area. Focused surveys for burrowing owl conducted in June–July 2012 did not locate any owls (MBA 2012b). During focused surveys conducted by MBA in 2005 (covering approximately 1,778 acres of the project area), a single breeding pair of burrowing owls was observed within an ephemeral drainage feature (Drainage 4) that longitudinally traverses the western portion of the survey area. The owls were observed perching and in flight along the western bank of the drainage feature, immediately south of its intersection with Dracaea Avenue. Conditions in this area have changed over the 6-year period and this was no longer habitat due to changes in land use.

In addition, focused burrow and burrowing owl surveys conducted by MBA in 2006 (750 acres), 2007 (2,904 acres), 2010 (3,~~814~~714 acres), and 2012 (3,300 acres) did not ~~disclose~~determine the presence of any burrowing owls. (Appendix D, Burrowing Owl Focused Surveys). Burrowing owls were recorded in 2008 (246 acres) just south of the Skecher's Logistic Center (Fierro, personal communication). A single burrowing owl was observed within the temporary detention basin located south of the Skecher's building during the March 2012 site visit.

The disked and fallow fields within the project area continue to provide suitable foraging habitat for burrowing owl. The area contains numerous California ground squirrel and desert cottontail burrows, which are potentially suitable for burrowing and nesting by the owls. Therefore, this species appears to be present within portions of the project area and the CDFW Conservation Buffer Area, although it may not be a permanent resident.

b. Los Angeles Pocket Mouse

Los Angeles pocket mouse (LAPM) is a California species of special concern that inhabits lower elevation grasslands and scrub communities within Los Angeles, San Bernardino, and Riverside Counties. Los Angeles pocket mouse is the smallest of the pocket mice subspecies and is adapted for arid or semi-arid environments and nocturnal activity. The primary habitat requirement for the subspecies is a suitable burrowing substrate of fine sandy soils. LAPM is commonly found in low elevation open grasslands, coastal sage scrub, and alluvial fan sage scrub. The subspecies is recorded to have been observed approximately 2 miles southeast of the study area (CDFW 2012).

The majority of the project area does not contain suitable habitat for LAPM due to regular disturbance associated with agriculture, and the absence of fine sand soils. Drainage Feature 9, however, is not subject to regular agricultural disturbance and contains Riversidean sage scrub appropriate soils; therefore, this drainage feature contains marginally suitable habitat for LAPM.

MBA conducted surveys for LAPM in 2005, 2010, 2012, and ~~2012~~2013. In 2005, MBA conducted focused trapping surveys for LAPM in the south-central and southeastern portions of the project area. A total of 121 traps were set throughout the drainage features. In 2010, MBA conducted focused trapping surveys in the same location as in 2005 and in two additional drainage features. A total of 122 traps were set among the three drainage features. Only Drainage Feature 9 has suitable RSS and soils, and the other two drainage features only contained suitable soils. The 2012 trapping effort was conducted in the same area as in 2010. No LAPM were trapped. No LAPM were trapped during the focused surveys in any of the three trapping sessions (2005, 2010, 2012, and ~~2012~~2013); therefore, MBA has determined that this species is absent from the project area and no additional trapping is required.

c. Criteria Area Species

The following ten Criteria Area Species were assessed for their potential to occur in the project area:

- Mud nama (*Nama stenocarpum*);
- Little mousetail (*Myosurus minimus apus*);
- Coulter's goldfields (*Lasthenia glabrata* sub. *coulteri*);
- Thread-leafed brodiaea (*Brodiaea filifolia*);
- Davidson's saltscale (*Atriplex serenana davidsonii*);
- Parish's brittlescale (*Atriplex parishii*);
- San Jacinto valley crownscale (*Atriplex coronata notatior*);
- Round-leafed filaree (*Erodium macrophyllum*);
- Smooth tarplant (*Hemizonia pungens laevis*) and
- Nevin's Barberry (*Mahonia nevinii*).

The thread-leafed brodiaea typically occurs on gentle hillsides, valleys, and floodplains in semi-alkaline mudflats; therefore, it is not likely to occur within the WLC planning area.

Most of these species are associated with in highly alkaline, silty-clay soils in association with the Traver-Domino-Willows soil association. In Riverside County, vernal pool plant species are most closely associated with the Willows soil series.

According to the biological assessment, San Jacinto valley crownscale, Parish's brittlescale, Davidson's saltscale, smooth tarplant, Coulter's goldfields, and little mousetail are not likely to occur on the project site due to the absence of vernal pools or vernal pool-like conditions, or alkaline conditions (e.g., alkali annual grassland components of alkali vernal plains or areas that have semi-regular inundation).

The project site does not contain friable clay soils, so round-leafed filaree is not expected to occur. Although small areas of the site contain sage scrub and chaparral vegetation, no alluvial scrub or rocky chaparral slopes occur; therefore, Nevin's barberry is not likely to occur on the project site.

Mud nama is associated with ponds, lakes, or regularly muddy embankments. Since these conditions are not present, it is unlikely this species occurs on the project site.

d. Narrow Endemic Plant Species

The following six Narrow Endemic Plant Species were assessed for their potential to occur on the project area:

- San Diego ambrosia (*Ambrosia pumila*);
- Wright's trichocoronis (*Trichocoronis wrightii wrightii*);
- California Orcutt grass (*Orcuttia californica*);
- spreading navarretia (*Navarretia fossalis*);
- many-stemmed dudleya (*Dudleya multicaulis*); and
- Munz's onion (*Allium munzii*).

As with the Criteria Area species, San Diego ambrosia, Wright's trichocoronis, California Orcutt grass, and spreading navarretia are not likely to occur on the site due to the absence of vernal pools, vernal pool-like conditions, or alkaline conditions (e.g., alkali annual grassland components of alkali vernal plains or areas that have semi-regular inundation). In addition, no clay soils occur within the project area; therefore, many-stemmed dudleya and Munz's onion are not likely to occur.

e. Riparian/Riverine Habitat and Vernal Pools

The project area contains two types of riparian vegetation: mule fat scrub and southern willow scrub. Both plant communities are isolated, disturbed, low in vegetative cover, and generally of poor habitat quality. Three drainage features and one catch basin contain riparian/riverine areas (see previously referenced Figure 4.4.2). One of these drainage features is outside of the project area on the east side of Gilman Springs Road, within one of the proposed debris basins.

The mule fat scrub community on site occurs intermittently within Drainage Feature 9; a small patch within Drainage Feature 7; and within the debris basin associated with Drainage Feature 8. Drainage Feature 9 and the catch basin are both narrow and bordered on each side by disked agricultural fields. Drainage Feature 9 also contains a narrow band of mule fat scrub, but is bordered by relatively undisturbed Riversidean sage scrub. Over time, the drainage feature has fragmented and currently contains isolated patches of riparian vegetation. Within the mule fat scrub community, tree tobacco and other non-native plant species, have established in approximately equal quantity as mule fat.

Drainage Feature 8 has a proposed debris basin across Gilman Springs Road. This small drainage has an area of mule fat scrub that is probably surviving based on the blockage of the drainage at the road. The mule fat scrub portions of the project area are poor in habitat quality due to the small size of the stands, the sparse vegetative cover within the communities, the isolation of the individual stands, and the disturbance from the adjacent agricultural uses. Given the above characteristics, riparian wildlife species have a low potential to occur. Despite the absence of suitable habitat for federally and State listed threatened or endangered species such as least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo that commonly occur in riparian habitat, this drainage feature is considered riparian/riverine areas under the MSHCP because of the presence of mule fat and the subsurface connectivity to off-site riparian areas downstream.

Southern willow scrub occurs in a single isolated catch basin in the project area (Figure 4.4.2, Drainage Feature 14). The catch basin contains marginal vegetative characteristics and no hydrological characteristics that fit the MSHCP description for riverine/riparian areas. It exists as isolated, human-made, catch basin that receives nuisance flows and agricultural runoff from concrete cattle containment areas adjacent to the basin, which have subsequently been removed. It is located south of Alessandro Road and does not contain any upstream or downstream connection to any other drainage features. There is no evidence of prolonged ponding within this basin. Due to the high percolation rate, this area does not hold water long enough to provide the necessary hydrology associated with the creation and maintenance of a vernal pool. There are no drainage features that convey natural flows into these basins. Therefore, the basins only source of hydrology is from natural rainfall within the limits of the basin. Vegetation in the catch basin consists of southern willow scrub and includes plant species such as Freemont's cottonwood, black willow, sandbar willow, and mule fat. The plant community primarily consists of a moderate density of trees with a few understory plants.

Southern willow scrub is typically considered suitable habitat for a number of wildlife species that commonly occur in riverine/riparian habitats throughout southern California. These wildlife species include sensitive avian species such as least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo. The southern willow scrub associated with Drainage 14 does not contain hydric

soils or wetland hydrology indicators. This basin is considered low in habitat quality because it is isolated, small in size, and lacks significant vegetation density. ~~Given these characteristics, riparian wildlife species have a low potential to occur. However, this basin is considered riparian/riverine habitat due to the presence of riparian vegetation and the loss of habitat will have to be evaluated under the MSHCP process~~The vegetation within the basin is sparse, with a 30- to 40- percent canopy cover of native willows. The small patch of riparian habitat also contains about 50 percent native willows and 50 percent non-native ornamental trees such as Peruvian pepper tree (*Schinus molle*). The southern willow scrub habitat is 0.86 acre in size (rounded up to 1 acre in the document). There is no suitable habitat for any riparian/riverine avian species, such as least Bell's vireo (*Vireo bellii pusillus),* southwestern willow flycatcher (*Empidonax traillii extimus*), and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), due to the limited size of the basin. There is also no suitable habitat within the immediate vicinity (approximately 2 miles) and there is no direct habitat connection to any suitable offsite habitat. Based on these factors, there is no suitable nesting habitat and limited resting habitat for the listed riparian species covered under the MSHCP. Given these characteristics, riparian wildlife species have a low potential to occur.

The term "functioning riparian habitat"," describes a patch or area of riparian habitat that functions as a riparian habitat. It provides suitable habitat for plant and wildlife species that are commonly found in riparian habitats. Even low- quality riparian habitat may provide functional riparian habitat if it supports a population of riparian species. The riparian habitat onsite is extremely small and completely isolated from riparian habitat in the eastern portion of the City of Moreno Valley.

The riparian vegetation onsite does not support wildlife species commonly found within riparian habitat such as common yellow-throat (*Geothlypis trichas sinuosa*), yellow warbler (*Dendroica petechia brewsteri*), yellow-breasted chat (*Icteria virens*), and summer tanager (*Piranga rubra*), as described in the Birds as Indicators of Riparian Vegetation (no date) condition in the western U.S. Bureau of Land Management, Partners in Flight, Boise, Idaho. Therefore, even though the WLCSP contains small patches of riparian vegetation, it does not function as a riparian habitat. A few plants in an isolated area do not create a functional habitat.

MBA also conducted a vernal pool habitat assessment within the WLCSP and off-site facilities. As defined by the MSHCP, vernal pools are "seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation, and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season." No vernal pools or ephemeral ponds were observed in the WLCSP or any of the off-site areas during the habitat assessment survey. In addition, no suitable habitat for any fairy shrimp species was identified within any of the project area.

f. Urban/Wildlands Interface Analysis

This section addresses the indirect effects associated with locating development in proximity to MSHCP Conservation Areas. The project area is bordered to the east by Proposed Core 3 (MSHCP Section 6.1.1) and to the south by the SJWA and Existing Core H. Moreover, portions of the project area fall within the boundaries of these Conservation Areas.

The portion of the project area within the SJWA (i.e., Conservation Area) is currently used for agricultural land, but is owned by the CDFW and operated as conservation land as part of the SJWA. No development will occur in this area. The remaining portions of the project area that are on or adjacent to conservation areas will incorporate the design features and measures related to drainage features, toxics, lighting, noise, invasive plants, barriers, and grading/land development discussed below. These measures will make the proposed project consistent with the MSHCP, Section 6.1.4,

Guidelines Pertaining to the Urban/Wildlands Interface. A detailed description of recommendations pertaining to an urban/wildlands interface is provided below for adjacency issues identified in the MSHCP. Additional discussion of indirect impacts of the project on the SJWA and Conservation Areas is included in Section 4.4.1.12, *Other Issues*, later in this section. This information is from Section 6.1.4 of the MSHCP, *Guidelines Pertaining to the Urban/Wildland Interface.*

Drainage Features. Development of the project area will include a comprehensive system of storm drains to handle runoff from the proposed project. The project drainage plan shows that drainage from the project area will be directed to the regional storm drain system and away from the adjacent open space, or treated by water quality and retention basins to maintain historical runoff rates and patterns onto downstream land, such as the Mystic Lake area.

The conceptual drainage plan for the WLCSP development consists of a series of collection basins throughout the development that will treat the first flush storm events and convey storm flows to a series of detention basins along the southern boundary of the WLCSP. The basins will be designed to provide a water quality treatment as well as provide an area for creation of riparian habitat. Based on the size of the proposed detention basins, only the inlet and outlet structures will require routine maintenance. This allows the majority of the detention basins to remain undisturbed, which allows for long-term conservation of the riparian habitat. The design, operation, and maintenance of the drainage system for the proposed project will be designed to regulate the discharge of water into any MSHCP Conservation Area under either of these design scenarios.

All development within the project area will be required to obtain a statewide general National Pollutant Discharge Elimination System (NPDES) construction permit for all construction activities associated with the proposed project and will be subject to the County of Riverside's regulations to implement the NPDES program. The NPDES requirements are discussed in greater detail in Section 4.9, *Hydrology and Water Quality*.

Barriers. The WLCSP project will incorporate special edge treatments designed to separate development areas from MSHCP open space areas both to the south and across Gilman Springs Road (i.e., fencing). The Specific Plan indicates that native landscaping and fencing will be installed to minimize unauthorized public access to the south and across Gilman Springs Road, which will also help minimize impacts related to domestic animal predation and illegal trespass and dumping. Impacts to adjacent native areas across Gilman Springs Road will therefore be minimized. In addition, the landscaping palette for the Specific Plan uses native species and precludes invasive plants as shown in the MSHCP invasive species list (MSHCP Table 6-2). The Specific Plan shows a 250-foot setback along the SJWA boundary to the south, as well as walls/fencing and controls on lighting that will comply with the City's new Municipal Code section 9.08.100 to preclude light spillage off site greater than 0.25 foot-candles per square meter. Warehousing will have a minimum 11-foot solid wall along the SJWA boundary with landscaping to soften the appearance and which may eventually provide roosting or nesting opportunities for native birds. There will be no public pedestrian or vehicular access from the development onto the SJWA land to the south, and private access to MSHCP areas to the east across Gilman Springs Road will be limited by fencing along private property lines within the project site.

Access. The project will prohibit public access into all MSHCP conservation areas including those contained within SJWA and Existing Core H to the south of the project area. Private access to Proposed Core 3 (Section 6.1.1, Proposed Core 3) to the east of the WLC project area will be limited by fencing of private property limits, but the public may still be able to access these areas from public roads, including Gilman Springs Road.

Grading/Land Development. Project grading will not encroach into conservation land that will be designated as open space located within Existing Core H to the south or Proposed Core 3 (Section 6.1.1, *Proposed Core 3*) to the east of the WLC project area.

Fuels Management. Fuels management focuses on hazard reduction for humans and their property (MSHCP, p. 6-72). According to the Fuels Management Guidelines, for new development planned adjacent to all MSHCP conservation areas or other undeveloped areas, brush management shall be incorporated in the development boundaries and shall not encroach into the MSHCP conservation areas (MSHCP, p. 6-72). Any areas planted with fire-resistant, non-invasive plants must not encroach into the MSHCP conservation area. Accordingly, with implementation of these measures, the WLCSP project will be consistent with the MSHCP Fuels Management Guidelines.

g. Migratory Corridors/Linkages

The project area is adjacent to an existing migratory corridor across Gilman Springs Road (i.e., Criteria Cells 1290, 1389, and 1390) as designated by the MSHCP. While the open agricultural fields that presently occupy much of the project area are not designated as corridors or linkages in the MSHCP, the project site, including the CDFW property, supports extensive agricultural fields, which do not constitute native vegetation, but do provide some foraging value and may allow for migration or movement of wildlife through the general area even considering the level of repeated disturbance by agricultural activities. Wildlife movement through this area is generally planned to take place across the Mystic Lake property to the south. The northern (upland) portion of the SJWA (i.e., the CDFW Conservation Buffer Area) and the southern portion of the Specific Plan area do not provide suitable habitat or resources to support wildlife migration or regular wildlife movement.

4.4.1.15 MSHCP Conservation Criteria Areas

Figure 4.4.4 shows the location and relationship of the MSHCP conservation areas described in this section, as well as their relationship to the project area.

a. Core 3

NOTE: The following changes have been made due to revision to the Specific Plan project size.

The MSHCP establishes a number of “core” areas that contain or support important biological habitat or species. Some of the core areas are existing reserves, while others are proposed for preservation. This section analyzes the proposed project in relation to the nearby MSHCP core areas. The project area is located within the Reche Canyon/Badlands Area Plan and falls within both the Badlands North Area Plan Subunit and the SJWA/Mystic Lake Area Plan Subunit. No existing or proposed linkage, or constrained linkage areas are in the vicinity of the project. Proposed Core 3 (MSHCP Section 6.1.1) is located to the north and east of the project area and Existing Core H is located to the south (see previously referenced Figure 4.4.3). As shown in Table 4.4.~~C~~D, portions of the project area fall within 12 Criteria Cells that are all associated with existing or proposed core areas. However, the following analysis will show that almost all criteria cells are within the CDFW-owned Conservation Buffer Area and thus will not be directly affected by the development within the Specific Plan. The project also proposes no development within the ~~75~~74.3-acre Open Space area in the southwestern corner of the Specific Plan.

Table 4.4.~~C~~D: MSHCP Criteria Cells within the Project Area

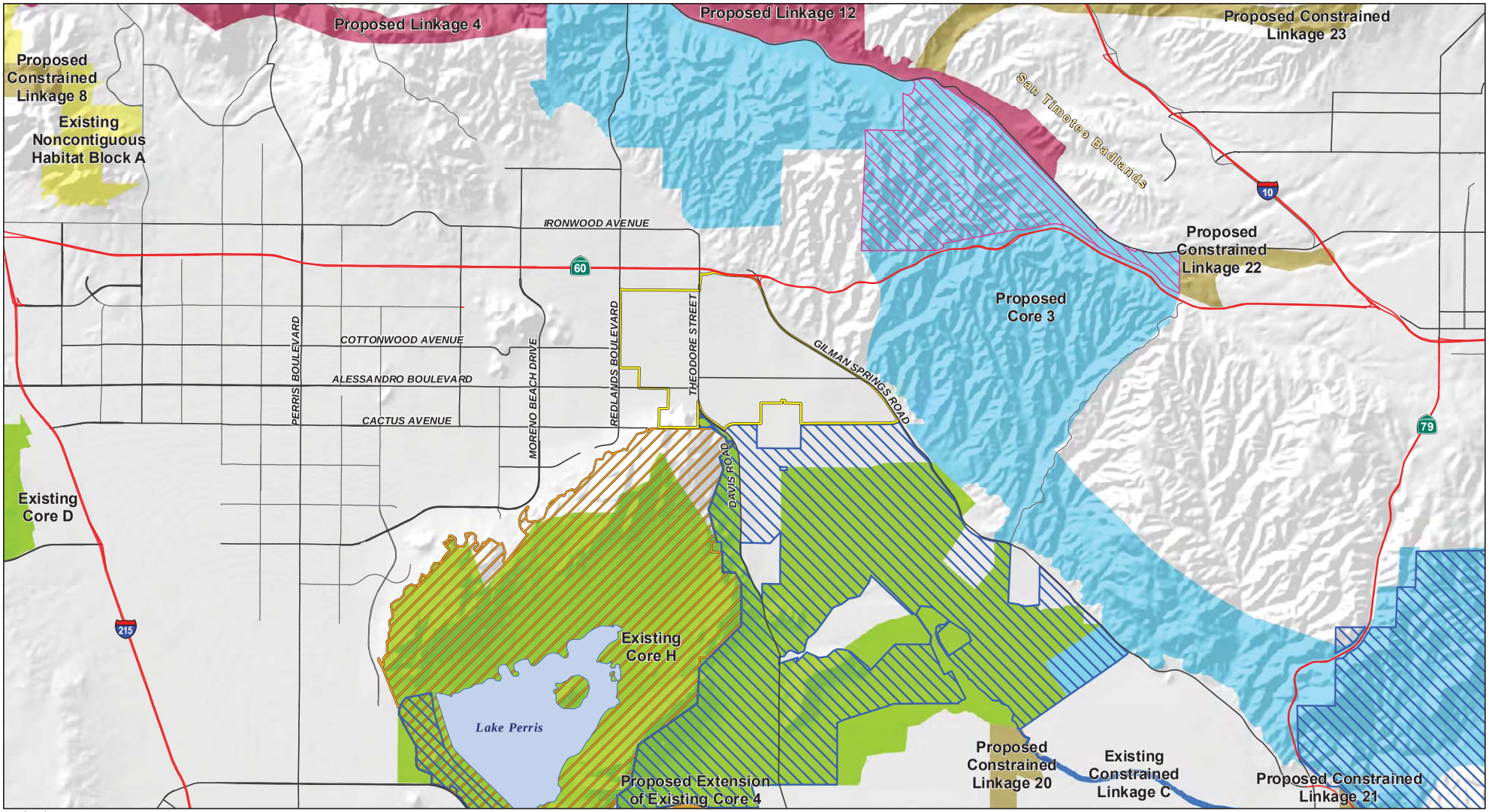
Area Plan Subunit within MSHCP	Cell Group	Criteria Cells
Badlands North Area Plan Subunit 3	Cell Group E	1390
	Cell Group X	1297
		1204
San Jacinto Wildlife Area/Mystic Lake Area Plan Subunit 4	Cell Group D	1364
		1370
		1377
		1386
		1389
		1482
		1483
		1477
		1577

The portions of the project area within Cell Group D are within the SJWA/Mystic Lake Area Plan Subunit 4. This Cell Group supports Existing Core H. Approximately 929 acres of the project area are within Cell Group D. This portion within Cell Group D is located within the SJWA. This area is currently owned by the State of California through a purchase in 2001 and is now designated as Public/Quasi-Public Conserved Land under the MSHCP (see Figure 4.4.3). Although this land is not considered to be mitigation for the proposed development, it does provide more than 900 acres of buffer between the project and the high quality habitat areas of the SJWA.

As shown in Figure 4.4.4, the CDFW-owned portion of the project area overlaps Cell Groups E and X, which are within the Badlands North Area Plan Subunit 3. These Cell Groups support Proposed Core 3. Approximately 52 acres of the CDFW area overlap Cell Group E, and approximately 114 acres of the CDFW Area occurs within Cell Group X. The project will not conflict with MSHCP Conservation Criteria because no development is planned within the CDFW area of the project (which is part of the SJWA). However, any development adjacent to the SJWA will need to address edge effects.

~~Figure 4.4.4: MSHCP Conservation Areas~~ Minimizing edge effects is considered a significant goal of Proposed Core 3. Approximately 56 acres of the project area occur within the western extent of Proposed Core 3. The portions of the Core along Gilman Springs Road are currently subject to edge effects associated with existing traffic, and the development of the project may incrementally increase these edge effects. All development in the southern portion of the project will need to implement measures that minimize edge effects associated with urban development in wildlands. The minimization efforts are addressed in Section 4.4.1.8g, *Urban/Wildlands Interface Analysis*, of this report.

The CDFW-owned land within the project area is located adjacent to the junction of Proposed Core 3 and Existing Core H. Development of the project will not impede the movement of wildlife or reduce the continuous area of the two cores, which are both goals of Proposed Core 3. Additionally, the portion of the project area located adjacent to the Core 3/Core H junction will remain undeveloped, facilitating connectivity between the two Cores. The project area occupies less than 0.1 percent of Proposed Core 3 and the goals of the Proposed Core 3 will be maintained.



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Project Boundary
San Jacinto Wildlife Area (CDFW)
Lake Perris State Recreation Area
Norton Younglove Reserve
Existing Constrained Linkage
Existing Core
Existing Noncontiguous Habitat Block
Proposed Core
Proposed Noncontiguous Habitat Block
Proposed Extension of Existing Core
Proposed Constrained Linkage
Proposed Linkage

SOURCE: County of Riverside, 2003 & 2011; California Dept. of Fish and Game, 2011.

I:\HFV1201\Reports\EIR\fig4-4-4_Linkages.mxd (12/18/2013)

FIGURE 4.4.4

World Logistics Center Specific Plan Project
Environmental Impact Report

MSHCP Conservation Areas

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b. Existing Core H

Existing Core H consists of the Lake Perris State Recreation Area (LPSRA), SJWA, private lands, and lands with pre-existing conservation agreements (see previously referenced Figure 4.4.4). It provides resident habitat for several species, contains soils suitable for some Narrow Endemic plant species, supports vernal pool complexes and may provide a connection to Core Areas in the Badlands and the middle reach of the San Jacinto River. Maintenance of habitat quality, floodplain processes along the San Jacinto River, and conservation of vernal pool complexes are important for species covered by the MSHCP. The Core Area provides potentially suitable live-in habitat for small rodents and common mammals.

Approximately 113.1 acres of the project area are located within the northern extent of Existing Core H. The CDFW-owned Area in Existing Core H contains potentially suitable habitat for small rodents, common mammals, and burrowing owl. No vernal pool complexes or floodplain conditions occur on the project site and there is no suitable habitat for any narrow endemic plant species. The portion of the project area within Existing Core H will not be developed (i.e., the Conservation Buffer Area) because it is part of the SJWA. The WLC planning area occupies less than 0.2 percent of Existing Core H and the goals of this core area will be maintained.

c. Reche Canyon/Badlands Area Plan

The Reche Canyon/Badlands Area Plan of the MSHCP is in the northern portion of western Riverside County, south of the City of San Bernardino, west of The Pass Area Plan and the San Jacinto Valley Area Plan, north of the Mead Valley Area Plan and the Lakeview/Nuevo Area Plan, and east of the Highgrove Area Plan, the Cities of Norco and Riverside Area Plan, and the March Area Plan. The City of Moreno Valley sits entirely within the Reche Canyon/Badlands Area Plan. The Area Plan incorporates lands within the LPSRA and SJWA, and is separated into 4 Area Plan Subunits. The project area is located within portions of Area Plan Subunit 3: Badlands North and Area Plan Subunit 4: San Jacinto Wildlife Area/Mystic Lake (see Figure 4.4.4).

The target conservation acreage range for the Reche Canyon/Badlands Area Plan is 30,815 to 35,905 acres; it is composed of approximately 20,295 acres of existing Public/Quasi-Public Lands and 10,520 to 15,610 acres of Additional Reserve Lands. The target acreage range within the City of Moreno Valley is 80 to 130 acres. The City of Moreno Valley target acreage is included within the 10,520 to 15,610 acre target conservation range on Additional Reserve Lands for the entire Area Plan.

The Conservation Buffer Area portion of the WLC planning area includes approximately 910 acres of the SJWA, which is designated as Additional Reserve Land. All of this area is within the City of Moreno Valley, and preservation of the Conservation Area of the project will fulfill the MSHCP's target acreage range for the City.

d. Area Plan Subunit 3: Badlands, North

Area Plan Subunit 3 of the Reche Canyon/Badlands Area Plan includes lands within the northeastern and eastern portions of the Area Plan within the Badlands (see Figure 4.4.4). Area Plan Subunit 3 contains a total of 88 Criteria Cells organized into 16 Cell Groups and 4 independent cells. The MSHCP conservation objectives for Area Plan Subunit 3 include conserving land within the Badlands area, north to the vicinity of SR-60, south to southeastern extent of the SJWA, west to the eastern boundary of the SJWA, and east to the Laborde Canyon vicinity. Target acreage range required for Additional Reserve Lands within Area Plan Subunit 3 is 8,270 to 10,895 acres. Plant and Wildlife Planning Species within Area Plan Subunit 3 include:

- Nevin's barberry;
- Bell's sage sparrow;
- Cactus wren;
- Loggerhead shrike;
- Southern California rufous-crowned sparrow;
- Los Angeles pocket mouse;
- San Bernardino kangaroo rat;
- Stephens' kangaroo rat;
- Bobcat; and
- Mountain lion.

Under the MSHCP, additional biological issues and considerations are proposed for conservation for each Area Plan Subunit. The biological issues and considerations emphasized in Area Plan Subunit 3 include:

- Conserving large habitat blocks in the Badlands.
- Maintain Core Area for bobcat.
- Maintaining Core and Linkage Areas for mountain lion.
- Determining potential for populations of San Bernardino kangaroo rat along San Timoteo Creek.
- Maintain Linkage Area to SJWA for Stephens' kangaroo rat.
- Determine presence of potential Core Area for Los Angeles pocket mouse in San Timoteo Creek and tributaries to the Badlands.
- Maintain Core Area for Nevin's barberry.

The eastern boundary of the project area (i.e., Gilman Springs Road) is within Area Plan Subunit 3, the main focus of which is protection of bobcat and mountain lion habitat. The portions of the project area within Area Plan Subunit 3 are along the southwestern edge of the Subunit and collectively comprise approximately one percent of the target acreage range proposed for conservation. Since the project area encroaches on a limited portion of the boundary of the Area Plan Subunit, and since these portions of the project area are already subject to existing edge effects, impacts from development under the WLCSP does not conflict with the long-term conservation goals for bobcat or mountain lion habitat. It should be noted that the project site is across a major roadway (Gilman Springs Road) from the Badlands and the sensitive habitat contained in this Area Plan Subunit.

e. Cell Group E and Criteria Cell 1390

Conservation within Cell Group E will contribute to assembly of Proposed Core 3 and will focus on chaparral, coastal sage scrub, grassland, and Riversidean alluvial fan sage scrub habitat. Areas conserved within this Cell Group will be connected to habitat proposed for conservation in Cell Group X to the north, habitat proposed for conservation in Cell Group C also to the north, and to habitat proposed for conservation in Cell Group F to the south. Conservation within Cell Group E will range from 45 percent to 55 percent of the Cell Group focusing in the western portion (see Figure 4.4.4).

Within the westernmost portion of Cell Group E, and specifically within Criteria Cell 1390, the project area encroaches on 51.9 acres. This portion of the project area is already in public ownership, is within the northeastern portion of the SJWA which is Public/Quasi-Public Conserved Land and is designated to be conserved by the CDFW. The project proposes no development on this land, so it would be consistent with the MSHCP (see Figure 4.4.3). It should be noted that this area is already part of the SJWA and is not proposed for any development under the proposed project.

f. Cell Group X: Criteria Cells 1204 and 1297

Conservation within Cell Group X will contribute to assembly of Proposed Core 3 and will focus on chaparral, coastal sage scrub, and grassland habitat. Areas conserved within Cell Group X will be connected to habitat proposed for conservation in Cell Groups C to the east, V to the northeast, and to chaparral and grassland habitat proposed for conservation in Cell Group E to the south. Conservation within Cell Group X will range from 65 percent to 75 percent of the Cell Group focusing in the northeastern portion of the Cell Group (see Figure 4.4.4).

Within the southwestern portion of Cell Group X, and specifically within Criteria Cells 1204 and 1297, the project area encroaches on 114.2 acres. Under the MSHCP, conservation for Cell Group X is proposed for the northeastern portions of the Cell Group. The project area is not within the targeted conservation areas and, therefore, will not adversely affect the County's ability to achieve the goals of the MSHCP (see Figure 4.4.4).

g. Area Plan Subunit 4: San Jacinto Wildlife Area/Mystic Lake

Area Plan Subunit 4 of the Reche Canyon/Badlands Area Plan includes lands within the southeastern portions of the Area Plan within the SJWA. Area Plan Subunit 4 contains 26 Criteria Cells organized into 3 Cell Groups and 12 independent cells. The MSHCP conservation objectives for Area Plan Subunit 4 include conserving land within the SJWA and Mystic Lake (see Figure 4.4.4). The target acreage range required for Additional Reserve Lands within Area Plan Subunit 4 is 860 to 1,750 acres.

Plant and Wildlife Planning Species within Area Plan Subunit 4 include:

- California Orcutt grass
- Los Angeles pocket mouse
- Smooth tarplant (*Hemizonia pungens*)
- Thread-leaved brodiaea
- Wright's trichocoronis
- Stephens' kangaroo rat
- Loggerhead shrike
- Northern harrier (*Circus cyaneus*)
- Peregrine falcon (*Falco peregrinus*)
- Tricolored blackbird (*Agelaius tricolor*)
- White-tailed kite (*Elanus leucurus*)
- Black-crowned night heron (*Nycticorax nycticorax*)
- California horned-lark (*Eremophila alpestris actia*)
- Coulter's goldfields
- San Jacinto Valley crownscale
- Spreading navarretia
- Vernal barley (*Hordeum intercedens*)
- American bittern (*Botaurus lentiginosus*)
- Burrowing owl
- Bobcat
- Mountain plover (*Charadrius montanus*)
- Osprey (*Pandion haliaetus*)
- Prairie falcon (*Falco mexicanus*)
- White-faced ibis (*Plegadis chihi*)
- Davidson's saltscale (*Atriplex serenana var. davidsonii*)
- Double-crested cormorant (*Phalacrocorax auritus*)

The biological issues and considerations emphasized in Area Plan Subunit 4 include:

- Conservation of alkali playa and other habitat to augment existing conservation in the SJWA and Mystic Lake.
- Conservation of existing vernal pool complexes associated with the San Jacinto River floodplain in the SJWA and Mystic Lake area. Conservation should focus on vernal pool surface area and supporting watersheds.

- Provide for a connection of intact habitat between the SJWA and the adjacent Badlands to the north.
- Conservation of Willow-Domino-Travers soils supporting sensitive plants such as San Jacinto Valley crownscale, Davidson saltscale, Coulter's goldfields, spreading navarretia, vernal barley and Wright's trichocoronis.
- Provide for and maintain a continuous linkage along the San Jacinto River from the southern to the southeastern boundary of the Reche Canyon/Badlands Area Plan.
- Maintain Linkage Area for bobcat.
- Maintain a Linkage Area for Stephens' kangaroo rat to SJWA.
- Determine the potential presence of potential Core Area for Los Angeles pocket mouse in connection between the Badlands and the SJWA.

The southern portion of the project area (i.e., the CDFW-owned Conservation Buffer Area) includes grasslands and agricultural lands that will be conserved as part of the northern portion of the SJWA. The project area is not within or along the San Jacinto River floodplain, and does not contain any alkali playa habitat or vernal pool complexes under the definition provided by the MSHCP.

There is no Willow-Domino-Travers soil within the project area; therefore, San Jacinto Valley crownscale, Davidson saltscale, Coulter's goldfields, spreading navarretia, vernal barley and/or Wright's trichocoronis are not likely to occur in the project area.

The project area is located immediately north of the Stephens' kangaroo rat preserve within the SJWA. The CDFW-owned portion of the project area adjacent to the SJWA is subject to regular disking and other disturbances associated with agricultural uses. The regular disturbances have resulted in an absence of suitable habitat for Stephens' kangaroo rat within the project area. The presence of a habitat linkage for this species within the project area is unlikely and population fragmentation is not anticipated.

Small portions of the project area contain suitable habitat for Los Angeles pocket mouse and burrowing owl; however, MBA's focused surveys concluded that the project area does not support the Los Angeles pocket mouse. The population of burrowing owl on site fluctuates from year to year, but they have been observed on site in the past and this EIR concludes this species may be present, especially in areas with suitable habitat or where agricultural fields become fallow for extended periods of time.

h. Cell Group D: Criteria Cells 1364, 1370, 1377, 1386, 1389, 1477, 1482, 1483, and 1577

Conservation within Cell Group D will contribute to assembly of areas proposed for conservation for Existing Core H (see Figures 4.4.4 and 4.4.3). Conservation within Cell Group D will focus on agricultural land. Conservation within this Cell Group will be approximately five percent of Cell Group D focused on the southern and western portion of the Cell Group. This cell group is already part of the SJWA and is being maintained as agricultural land by the CDFW (i.e., it constitutes the CDFW-owned Conservation Buffer Area).

Within Cell Group E, and specifically within Criteria Cells 1364, 1370, 1377, 1386, 1389, 1477, 1482, 1483, and 1577, the project area encroaches on 928.5 acres. Under the MSHCP, conservation for Cell Group D is proposed for the southern and western portions of the Cell Group. The project area includes approximately 60 percent of the northern portion of the Cell Group; therefore, future development of the project area is consistent with the conservation goals for this cell group. The majority of Cell Group D is within the northern extent of SJWA, a Public/Quasi-Public Conserved

Land. This area is part of the SJWA and designated as conserved by the CDFW. It is designated as the Conservation Area and is not proposed for development under the project. Any development within land adjacent to Cell Group D (and the SJWA) must incorporate urban edge design features to minimize any potential impacts to the SJWA.

~~4.4.1.16 Species~~ **4.4.1.16 Federal Migratory Bird Act and California Department of Fish and Wildlife Protection** ~~**by the MSHCP**~~

a. Nesting Birds

The extensive agriculture plant communities in the project area provide suitable nesting habitat for ground-nesting avian species such as western meadowlark (*Sturnella neglecta*) and burrowing owl. Suitable habitat for shrub and tree nesting species such as red-tailed hawk, black phoebe (*Sayornis nigricans*), and house finch occur along the edges of existing development surrounding the project area as well as isolated, remnant patches of vegetation in undisturbed portions of the project area. Therefore, portions of the project area provide suitable nesting habitat for migratory birds protected under the MBTA and California Fish and Game Code.

b. Stephens' Kangaroo Rat

The project area is located just north of the Core Reserve Area for the Stephen's Kangaroo Rat Habitat Conservation Plan (HCP), but is not located within a core area. However, the project area is located within the fee area of the HCP. The project would have to comply with the HCP's Implementing Agreement (IA) and pay the County's per-acre mitigation fee.

The CDFW-owned portion of the project area is located immediately north of Core Reserve Area for Stephens' kangaroo rat and is not proposed for development as it is owned by the State and is already part of the SJWA. Therefore, incorporating this area into the Core Reserve Area for Stephen's kangaroo rat will provide a setback from the areas proposed for development within the project.

c. USFWS Designated Critical Habitat

No USFWS designated Critical Habitat for any species is present within the project area.

d. Other Special Status Species

Based on the CDFW and CNPS database searches mentioned above, 26 special status species that are not listed as Threatened or Endangered have the potential to occur in the project vicinity (previously referenced Tables 4.4.~~A~~B and 4.4.C). Species that are not covered under the MSHCP or are not adequately conserved by the MSHCP at this time are also included in ~~Table 4.4.A. All but six of the species in Table 4.4.A are covered by the MSHCP, meaning that they are considered adequately conserved provided that the MSHCP is implemented as intended~~those tables.

4.4.1.17 Special-Status Species Not Covered by the MSHCP

The vast majority of special-status species considered in this analysis are "covered" species under the MSHCP. However, 18 special-status species have the potential to occur in the general project vicinity and are not covered under the MSHCP or are not adequately conserved by the MSHCP at this time. Details regarding the potential occurrence of these non-covered species are included in the General Biological Resources and MSHCP Compliance Report prepared by MBA and included as

Appendix E-1. Due to unsuitable habitat and conditions within the project limits, none of these 18 non-covered species is expected to occur in the project area (see ~~Table~~previously referenced Tables 4.4.~~D~~B and 4.4.C). Neither additional surveys nor additional conservation measures will be required for the project to address these species.

Note: Table 4.4.D has been deleted in its entirety. Please refer to Volume IV of the Final EIR to see original Table 4.4.D in section 4.4.1.17.

a. Special-Status Wildlife

Note: The following changes have been made in response to the revised Habitat Assessment MSHCP Consistency Analysis and in response to Comment F-7A-34 in Letter F-7A from Lozeau Drury LLP.

The revised MBA report (2013) states that ~~one~~no special-status wildlife species were observed during field surveys. ~~This was grasshopper sparrow in the southern sage scrub habitat area. In addition~~However, raptors are numerous in the agricultural fields on the project site and off site in the SJWA. None of the other special-status wildlife species was determined to be present within the WLC planning area because their habitat requirements are not present on the site; therefore, no further survey or study is required to determine likely presence, absence, or to assess project-related effects to these species.

While none of the bat species identified in the MSHCP Compliance Report (Appendix E-1) is expected to roost in the project area, the site does contain suitable foraging habitat for bat species that may roost in the surrounding region. The incremental loss of bat foraging habitat on the site would be compensated by participation in the MSHCP because the MSHCP mitigation fees are meant to purchase conservation lands to support species throughout western Riverside County.

b. Raptors and Other Avian Species

California Fish and Game Code, Sections 3503, 3503.5, 3505, and 3513, and the California Code of Regulations (Title 14, Sections 251.1, 652 and 783-786.6) have specific provisions for the protection of raptors (birds of prey). Furthermore, the MBTA protects the nests of migratory birds and raptors. There are a limited number of tall trees within the project site that would provide roosting or nesting habitat for raptors, such as hawks and owls, among other resident and migratory bird species. Two raptor species, red-shouldered hawk and American kestrel, have been observed in the area on a regular basis, suggesting at least these raptors may be roosting on site or nearby. The extensive open land within the project area provides foraging habitat for raptors and other avian species.

~~One of the species in previously referenced Table 4.4.B, grasshopper sparrow, was observed on the site during the burrowing owl survey. Fourteen other species, including burrowing owl~~*NOTE: The following changes have been made in response to the revised Habitat Assessment MSHCP Consistency Analysis and in response to Comment F-7A-34 in Letter F-7A from Lozeau Drury LLP.*

Thirteen species have a low-to-moderate potential to occur on the site based on existing habitat quality. Burrowing owl is assumed to be present on site, especially in areas of suitable habitat and in agricultural fields that are left fallow for extended periods of time.

As previously indicated, the project site is within the MSHCP burrowing owl survey area, and habitat assessments and focused surveys were conducted. During the focused survey in 2005, one location within the project site contained burrowing owl sign (i.e., whitewash and bone fragments) and a pair was observed in this same area. Field surveys also identified suitable burrows in the project area that

may provide habitat for the western burrowing owl. Therefore, the species is considered to be present due to the presence of suitable habitat on site.

To confirm presence or absence of the burrowing owl in specific development areas of the project area, an MSHCP 30-day pre-construction protocol survey for burrowing owl will need to be conducted prior to any ground-disturbing activities. Figure 4.4.5 shows the location of burrowing owl habitat on the project site.

Of the species with potential to occur on the site, none is listed as threatened or endangered under State or Federal law, all are relatively widespread, and the project area does not contain high quality habitat for any of these species.

4.4.1.18 Other Issues

a. Setbacks

The MSHCP's urban/wildlands interface analysis encourages buffers or setbacks between development and areas with sensitive biological resources. The SJWA is considered an important resource due to the large number and diversity of birds that utilize it. Available research and MSHCP guidelines recommend a setback or buffer between the north boundary of the SJWA and the south boundary of development within the proposed project. Existing scientific and academic literature can provide guidance on the appropriate width of such a buffer under these types of conditions. Typical setbacks to protect wildlife from human presence (though not warehousing) ranges from 50 to 500 ~~Figure 4.4.5: Burrowing Owl Habitat~~ feet, but 200~~–215~~250 feet appears adequate for the most sensitive or valuable wetlands.[1] As an example, Placer County has setback guidelines in its General Plan of a setback range of 100–400 feet between field crops and natural areas, and a setback range of 50–200 feet between rangeland/pastures and natural areas[2]. In addition, the MSHCP and adopted guidelines of the USFWS and CDFW include a setback of 200 feet or more from nesting birds during construction activities. For example, typical burrowing owl mitigation says, "To adequately avoid active nests, no grading or heavy equipment activity shall take place within at least 250 feet of an active nest during the breeding season (February 1 through August 31) and 160 feet during the non-breeding season."

In evaluating the potential impacts of project development on the SJWA and Mystic Lake, it will be important to consider that the CDFW Conservation Buffer Area was originally purchased by the State to provide a buffer between SJWA/Mystic Lake and future development within the Moreno Highlands Specific Plan (now the proposed project area).

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1 *Setting Buffer Sizes for Wetlands.* J. McElfish 2008.
2 Placer County General Plan, Land Use Element, Table I-4, 1994.

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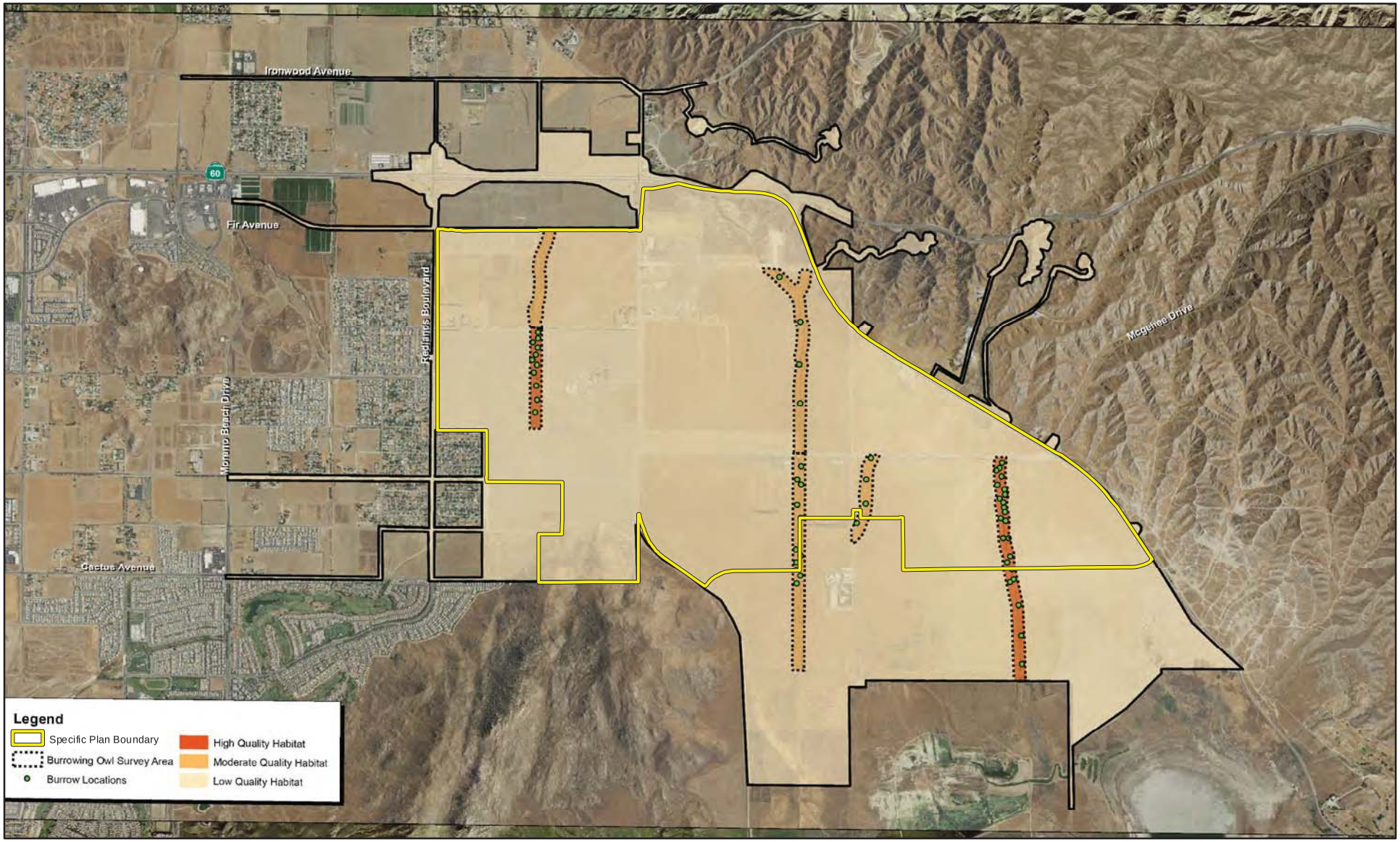

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FIGURE 4.4.5

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SOURCE: Michael Brandman Associates, 2010.

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World Logistics Center Specific Plan Project
Environmental Impact Report

Burrowing Owl Habitat Suitability

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Note: The following information has been excerpted from the Jurisdictional Delineation Report prepared by MBA which was updated in 2014 to respond to comments from the resource agencies.

4.4.1.19 On-site Drainages

A formal jurisdictional delineation (JD) was conducted within the WLCSP and offsite facilities by MBA in September 2007 and again in March 2012. A total of 15 primary drainage features were identified during these combined surveys. A number of sub-drainages or tributaries were also identified. Jurisdiction for each drainage and/or sub-drainage or tributary was evaluated for jurisdiction under Section 404 and 401 of the CWA as administered by USACE and RWQCB, respectively; the Porter Cologne Act as administered by the RWQCB; and Section 1600 of the Fish and Game Code as administered by CDFW.

Based on comments received from the resource agencies, the 2013 JD report concludes that two drainage features (Drainage 12 and 15) have been determined to be jurisdictional waters of the U.S. under Section 404 and 401 of the CWA. Drainage 15 is included in this discussion because it may occur within two offsite utility improvements. Approximately 500 linear feet of the drainage feature was included in the survey area. Approximately 5,430 linear feet of Drainage 12 is included in the survey area (0.5 acres). This includes approximately 1,300 linear feet within the WLCSP, and the remaining 4,130 linear feet will be part of the offsite improvements. The remaining 13 drainage features are considered isolated features with no direct connectivity to downstream traditional navigable waters or have no significant nexus. Drainage features 1, 5, and 6 are roadside ditches that are also isolated features. Drainage features 3, 4, 10, 11, and 13 are upland swales with evidence of periodic erosion but no evidence of annual flows and no clearly defined bed and bank feature. No jurisdictional wetlands were identified within the entire WLCSP. However, the regulatory agencies make all final jurisdictional determinations.

Drainage features 3, 4, 10, 11, and 13 do not have a clearly defined bed and bank feature and do not have any riparian habitat or evidence of flows. These features are better described as upland swales with occasional eroded areas. Under the Porter Cologne Act, the RWQCB takes jurisdiction of drainage features that would normally be under USACE jurisdiction, but are considered isolated. Drainages 7, 8, 9, 12, and 15 were determined to be waters of the state and subject to the jurisdiction of both the CDFW and RWQCB. The jurisdictional limits of waters of the state are not required to have downstream connectivity. There are approximately 3.0 acres of waters of the state, which includes areas with a clearly defined bed and bank feature within the WLCSP and offsite facilities. However, the CDFW makes all final Section 1600 jurisdictional determinations.

Drainage 1: This feature is a roadside ditch that conveys nuisance flows on the east side of Redlands Boulevard. Currently the ditch is contained within a concreted-lined swale and has intermittent areas with an earthen bed and bank. This ditch has no vegetation and leaves the site in an underground storm drain facility. This roadside ditch typically conveys flows during any storm event because most of the drainage is currently paved. This feature does not contribute to the function or value of any downstream drainage features and is not considered a riparian/riverine feature (see Photos 9 and 10).

Drainage 2: This feature is an upland swale that conveys nuisance flows within an actively disked agricultural field and only receives flows every 5 to 7 years. This swale contains periodic sign of erosion, but is mostly an unvegetated swale with minimal evidence of flows. This drainage begins to sheet flow just north of Bay Avenue and has no hydrologic connection to any downstream drainage feature. This feature does not contribute to the function or value of any downstream drainage and is not considered a riparian/riverine feature (see Photos 11 and 12).

Drainage 3: This feature is a temporary detention basin used to treat nuisance flow from the adjacent Skechers logistic facility. The flows within this feature are completely contained within the facility and there is no downstream connection to any other drainage features. This feature does not contribute to function or value to any downstream drainage features and is not considered a riparian/riverine feature (see Photo 13).

Drainage 4: The drainage feature previously originated from an underground storm drain beneath SR- 60. The previous flows from this feature have been redirected into the detention basin associated with Drainage 3. Drainage 4 currently conveys flows from local runoff within the WLCSP footprint and only receives flows every 5 to 7 years. This feature has evidence of a historic channel near the intersection of Dracaea Avenue and Sinclair Street. However, this feature sheet flows just south of Cottonwood Avenue and has no hydrologic connection to any downstream drainage features. This drainage does not contribute to the function or value of any downstream drainage features and is not considered a riparian/riverine feature (see Photos 14 and 15).

Drainage 5: This drainage is a roadside ditch located along the western side of Theodore Street. This drainage originates at the eastbound Theodore Street off-ramp from SR- 60. This feature conveys nuisance flows from Theodore Street and immediate vicinity during large storm events and may only receive flows every 5 to 7 years. This feature contains an intermittent bed and bank feature, but terminates just north of Alessandro Boulevard. This feature has no hydrologic connection to any downstream drainage. This feature does not contribute to function or value to any downstream drainage features and is not considered a riparian/riverine feature (see Photos 16 and 17).

Drainage 6: This feature is also a roadside ditch located along the eastern side of Theodore Street. This drainage originates from an underground storm drainage beneath SR- 60. It conveys nuisance flow from Theodore Street and immediate vicinity and may only receive flows every 5 to 7 years. This feature contains an intermittent bed and bank feature, but terminates southeast of Alessandro Boulevard within an active agricultural field. This feature has no hydrologic connection to any downstream drainage. This feature does not contribute to function or value to any downstream drainage features and is not considered a riparian/riverine feature (see Photos 18 and 19).

Drainage 10: This drainage is an isolated feature that contains some evidence of erosion and is caused by a change in slope within highly erosive soils. This feature terminates as the topography levels resulting in sheet flows. This feature contains a few scattered tree tobacco, but otherwise has no change in soils or vegetation. This feature has no hydrologic connection to any downstream drainage and may only receive flows every 5 to 7 years. This feature does not contribute to function or value to any downstream drainage features and is not considered a riparian/riverine feature (see Photo 20).

Drainage 11: This drainage is an isolated feature and similar to Drainage 10. This feature contains some evidence of erosion and is likely caused by runoff associated with Gilman Springs Road. This feature terminates as the topography levels resulting in sheet flows. This feature has no hydrologic connection to any downstream drainage and may only receive flows every 5 to 7 years. This feature does not contribute to function or value to any downstream drainage features and is not considered a riparian/riverine feature (see Photo 21).

Drainage 13: This drainage is an isolated feature and similar to Drainage 10. This feature contains some evidence of erosion and is likely caused by runoff associated with the steep hillsides to the south. This feature terminates as the topography levels resulting in sheet flows. This feature has no hydrologic connection to any downstream drainage and may only receive flows every 5 to 7 years. This feature does not contribute to function or value to any downstream drainage features and is not considered a riparian/riverine feature (see Photo 22).

Drainages 1, 2, 3, 4, 5, 6, 10, 11, and 13 do not provide any function or value as drainage features and do not meet the minimum criteria to be designated as Riparian/Riverine areas. All of the above-mentioned drainage features, with the exception of Drainage 13, flow in a north-to-south direction and in a straight-line channel. Drainage 13 flows in a south-to-north orientation. All of these channels terminate as sheet-flow within the WLCSP or immediately offsite and do not reappear further downstream. These features have a parallel flow pattern and are artificially created to minimize flooding impacts to the surrounding agricultural lands within the WLCSP. None of these features has any downstream hydrologic connectivity to any downstream drainage features.

Project components affecting streambed and bank subject to CDFW jurisdiction, including riparian habitat, would require a Streambed Alteration Agreement (SAA) from CDFW.

When impacts are identified during project-specific applications, the proponent will apply for appropriate permits. Mitigation ratios will be determined following standard guidelines and mitigation will include a mixture of onsite habitat creation, offsite habitat creation, or the purchase of offsite mitigation credits at an established mitigation bank. Compensatory mitigation will be no less than a 1:1 replacement ratio to guarantee a no net loss of riparian habitat, but this mitigation ratio is negotiated during permit the acquisition process on a project-by-project basis.

The WLCSP also incorporates a number of potential offsite improvements. All offsite improvements east of Redlands Boulevard may potentially impact drainage features likely considered jurisdictional by USACE, RWQCB, and CDFW. Once these offsite improvements have been finalized, a project specific jurisdictional delineation will be required in order to document the existing conditions, potential impacts, and recommended mitigation measures.

The previous jurisdictional delineation report[1] conducted in 2012 concluded that the project area contained 14 drainage features including four roadside ditches, seven isolated drainage features, and three isolated features. All 14 drainage features lack direct connectivity to any downstream Traditional Navigable Waters (TNWs) or any other Relatively Permanent Waters (RPW). The four roadside ditches lack riparian vegetation and only convey nuisance flows from localized runoff from the adjacent road. These flows eventually revert to sheet flow within the survey area and have no direct connectivity.

According to the previous 2012 report, the three isolated features include an abandoned water quality detention basin and two abandoned basins associated with previous cattle activities. The water quality basin is a temporary facility that was constructed to treat drainage flows resulting from the construction of the Skechers facility. The two isolated basins were previously used to collect polluted runoff from the associated cattle facility. The facility included concrete-lined areas to contain cattle in a dairy operation. Animal waste would be collected in the basins to protect downstream water quality. The livestock facilities have been removed and the basins are no longer functioning.

The ~~remaining seven drainage features originate on site or immediately north of the survey area. These features are mostly human-made and are used to control downstream flows within a channel to reduce erosion impacts to adjacent agricultural fields. The soft soils within the project area are highly erosive and the depth of the erosional features varies from 2 feet to 30 feet. All seven drainage features eventually revert to sheet flow conditions into open grassland habitat with no direct connectivity downstream. These drainage features were~~2012 report determined ~~not to be subject to~~that the ~~jurisdiction of the CDFW. These~~on-site features ~~do~~did not meet the minimum requirements to be considered jurisdictional by regulatory agencies due to the following:

[1] *Jurisdictional Delineation Report*, Michael Brandman Associates, April 23, 2012.

- Lack of connectivity to any downstream waters of the US or waters of the State.
- Absence of a consistent bed and bank and/or ordinary high water mark (OHWM).
- Low biological resource value.
- The roadside ditches and agricultural drainages drain only upland areas and do not carry relatively permanent water flows.
- No jurisdictional wetlands occur within the project area.

Important Note. Although the previous JD report from 2012 concluded the onsite drainages were not jurisdictional, the 2013 JD report has amended that conclusion based on comments by the state and federal resource agencies. The 2013 JD report concludes there are two (2) drainage channels on the WLC site (Drainages 12 and 15) are considered jurisdictional by both federal and state agencies, while drainages 7, 8, and 9 are considered jurisdictional by the CDFW and the RWQCB. The location and extent of these on-site drainages in relation to the project site are illustrated in previously referenced Figure 4.4.2.

4.4.1.20 NOP/Scoping Comments

Local residents and representatives of several conservation groups related the biological resources of the San Jacinto Wildlife Preserve expressed concern about impacts of the project on the Preserve, including diesel particulates and other air pollutants, noise, night lighting, etc. At least one conservation group representative felt that project impacts should be identified for every species present in the area (see Section 2.6.1, *Notice of Preparation*). Copies of NOP comment correspondence is included in Appendix A.

The discussion of potential environmental impacts of the project on biological resources and the MSHCP that was requested by conservation groups has been addressed in previous sections, including indirect effects of diesel air pollutant emissions, lighting, noise, etc.

4.4.2 Existing Policies and Regulations

4.4.2.1 Federal Regulations

Federal Endangered Species Act (FESA). The FESA was enacted to protect any species of plant or animal that is endangered or threatened with extinction. Section 9 of the FESA prohibits “take” of federally threatened or endangered wildlife. Take, as defined under the FESA, means to harass, harm, pursue, hunt, wound, kill, trap, capture, collect, or attempt to engage in any such conduct (16 USC 1532[19]). Section 9 also prohibits the removal and reduction of endangered plants from lands under Federal jurisdiction, and the removal, cutting, digging, damage, or destruction of endangered plants on any other area in “knowing violation of State law or regulation.”

Section 9 of the FESA (16 USC 1538) prohibits take of a federally listed endangered species of fish or wildlife except pursuant to a permit and HCP approved under Section 10(a) of the FESA (16 USC 1539). The FESA prohibitions and requirements are different, however, for endangered species of plants. Section 9 prohibits the take of endangered plants only from areas under Federal jurisdiction, or if such take would violate state law.

Development proposed by the WLC project site is located on private land. For listed plants located on private land, formal consultation with the USFWS is required when a project has a Federal “nexus”

(i.e., a Federal permit is required or Federal funding is involved). In the absence of a Federal nexus, a project does not require a permit under the FESA for impacts to listed plants on private lands.

Clean Water Act. The USACE regulates discharges of dredged or fill material into waters of the United States. These waters include wetlands and non-wetland bodies of water that meet specific criteria, including a direct or indirect connection to interstate commerce. The USACE regulatory jurisdiction pursuant to Section 404 of the Federal Clean Water Act (CWA) is founded on a connection, or nexus, between the water body in question and interstate commerce. This connection may be direct (through a tributary system linking a stream channel with traditional navigable waters used in interstate or foreign commerce) or may be indirect (through a nexus identified in the USACE regulations). The USACE typically regulates as non-wetland waters of the U.S. any body of water displaying an ordinary high water mark (OHWM). In order to be considered a jurisdictional wetland under Section 404, an area must possess three wetland characteristics: hydrophytic vegetation, hydric soils, and wetland hydrology. Each characteristic has a specific set of mandatory wetland criteria that must be satisfied in order for that particular wetland characteristic to be met.

In 2006, the United States Supreme Court in the consolidated cases *Rapanos v. United States* and *Caravell v. United States*, Nos. 04-1034 and 04-1384 (*Rapanos*: June 19, 2006) addressed CWA jurisdiction over wetlands adjacent or abutting navigable, non-navigable and ephemeral tributaries and jurisdiction over permanent and relatively permanent non-navigable tributaries. According to the United Sates Supreme Court, the CWA does not assert jurisdiction over upland erosional features, gullies, and roadside ditches that have infrequent, low volume, and short duration of water flow. The USACE uses a significant nexus analysis. A water body is considered to have a "significant nexus" with a traditional navigable water (TNW)[1] if its flow characteristics and functions in combination with the ecologic and hydrologic functions performed by all wetlands adjacent to such a tributary, affect the chemical, physical, and biological integrity of a downstream traditional navigable water. Additional information is provided in the Environmental Protection Agency (EPA) memorandum titled "Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States* & *Caravell v. United States*," dated June 5, 2007 (USACE 2007), and also the *U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook* (USACE and EPA 2007).

The Regional Water Quality Control Board (RWQCB) is responsible for the administration of Section 401 of the CWA, through water quality certification of any activity that may result in a discharge to jurisdictional waters of the U.S. The RWQCB may also regulate discharges to "waters of the State," including wetlands, under the California Porter-Cologne Water Quality Control Act.

4.4.2.2 State Regulations

California Endangered Species Act (CESA). The CESA is similar to the FESA in that its intent is to protect species of fish, wildlife, and plants that are in danger of, or threatened with, extinction because their habitats are threatened with destruction, adverse modification, or severe curtailment, or because of overexploitation, disease, predation, or other factors.

"Take" as defined under CESA means hunt, pursue, capture, or kill, or attempt to hunt, pursue, capture, or kill. Under certain conditions, CESA has provisions for take through a 2081 Permit or a Section 2081 Memorandum of Understanding. The impacts of the authorized take must be minimized and fully mitigated. No permit may be issued if the issuance of the permit would jeopardize the continued existence of the species.

[1] A "traditional navigable water" includes all of the "navigable waters of the United States," defined in 33 C.F.R. § 329 and by numerous decisions of the Federal courts, plus all other waters that are navigable-in-fact.

California Environmental Quality Act. Section 15380(b) of the *CEQA Guidelines* provides that a species not listed on the Federal or State lists of protected species may be considered rare or endangered if the species can be shown to meet specified criteria. These criteria have been modeled after the definitions in FESA and CESA and § 2780–2781 of Article 1 of the California Fish and Game Code dealing with the California Wildlife Protection Act of 1990. This section was included in the guidelines primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on a species that has not yet been listed by either the USFWS or CDFW.

California Fish and Game Code Section 3503 and the Migratory Bird Treaty Act. Section 3503 of the California Fish and Game Code prohibits the destruction of bird nests except as otherwise provided for in the Fish and Game Code. The MBTA similarly protects the nests of migratory birds. These regulations apply to the individual nests of these species, but do not regulate impacts to the species' habitats.

Raptor Protection. The California Fish and Game Code (Fish and Game Code, Sections 3503, 3503.5, 3505 and 3513), and California Code of Regulations (Title 14, Sections 251.1, 652 and 783-786.6) have specific provisions for the protection of raptors (birds of prey).

Streambed Alteration Agreements. Sections 1600 et seq. of the California Fish and Game Code define the responsibilities of the CDFW and require public and private applicants to obtain an agreement for projects that would "divert, obstruct, or change the natural flow or bed, channel, or bank of any river, stream, or lake designated by the CDFW in which there is at any time an existing fish or wildlife resource or from which those resources derive benefit, or would use material from the streambed designated by the department." CDFW wardens and/or unit biologists typically have the responsibility for formulating and issuing Streambed Alteration Agreements. The CDFW, through provisions of the Code (Sections 1601–1603), is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. Streams (and rivers) are defined by the presence of a channel bed and banks, and at least an intermittent flow of water. The CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by the CDFW.

Native Plant Protection Act (NPPA). Sections 1900–1913 of the California Fish and Game Code (Native Plant Protection Act) direct the CDFW to carry out the Legislature's intent to "… preserve, protect and enhance endangered or rare native plants of this state." The NPPA gives the California Fish and Game Commission the power to designate native plants as "endangered" or "rare" and protect endangered and rare plants from take.

4.4.2.3 Regional Regulations

Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The continued loss of habitat to new development and the cumbersome process of environmental review and habitat mitigation on a project-by-project basis led to preparation of the MSHCP. The MSHCP is a multi-jurisdictional effort that provides a regional conservation solution to species and habitat issues. The underlying goal of the MSHCP is to protect multiple species by preserving a variety of habitat and providing linkages between different habitat areas and other undeveloped lands. The MSHCP allows Riverside County and its cities to better control local land-use decisions and maintain a strong economic climate in the region while addressing the requirements of CESA and FESA. The overall goal of the MSHCP is to enhance and maintain biological diversity and ecosystem processes while allowing future economic growth.

The MSHCP was adopted on June 17, 2003. The MSHCP is a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP) focusing on the long-term conservation of species and their habitats

in western Riverside County. The MSHCP serves as an HCP pursuant to Section 10(a)(1)(B) of FESA as well as the Natural Communities Conservation Plan (NCCP) under the State of California. The USWFS issued a Biological Opinion for the MSHCP on June 22, 2004. The CDFW also issued the NCCP Approval and Take Authorization for the MSHCP. As long as adherence to the policies and requirements of the MSHCP is maintained, participants in the MSHCP, which include the County of Riverside and fourteen cities (including the City of Moreno Valley), are allowed to authorize "incidental take" of plant and wildlife species of concern.

The MSHCP will eventually result in an MSHCP Conservation Area in excess of 500,000 acres and focuses on conservation of 146 species including amphibians, reptiles, birds, mammals, invertebrates, and plants. The MSHCP Conservation Area includes approximately 347,000 acres on existing Public/Quasi-Public Lands and approximately 153,000 acres of Additional Reserve Land. The MSHCP Plan Area encompasses approximately 1.26 million acres (1,966 square miles); it includes all unincorporated Riverside County land west of the crest of the San Jacinto Mountains to the Orange County line, as well as the jurisdictional areas of the Cities of Temecula, Murrieta, Lake Elsinore, Canyon Lake, Norco, Corona, Riverside, Moreno Valley, Banning, Beaumont, Calimesa, Perris, Hemet, and San Jacinto. It provides a coordinated MSHCP Conservation Area and implementation program to preserve biological diversity and maintain the region's quality of life.

The MSHCP serves as a HCP pursuant to Section 10(a)(1)(B) of FESA, as well as an NCCP under the NCCP Act of 2001. The MSHCP allows the City of Moreno Valley as well as other signatories of the Plan to authorize "Take" of plant and wildlife species identified within the Plan Area. The USFWS and CDFW have authority to regulate the Take of Threatened, Endangered, and rare Species. Under the MSHCP, the USFWS and CDFW can grant "Take Authorization" for otherwise lawful actions—such as public and private development that may incidentally Take or harm individual species or their habitat outside of the MSHCP Conservation Area—in exchange for the assembly and management of a coordinated MSHCP Conservation Area.

Of the 1.26 million acres covered by the MSHCP, 500,000 acres have been designated for preservation: 347,000 acres are already conserved as public or quasi-public land and another 45,270 acres have been acquired as habitat by the Regional Conservation Authority (RCA). According to the most recent RCA-MSHCP Annual Report, the City of Moreno Valley has a high-end goal of conserving 130 acres within its sphere of influence of the MSHCP; the City has already conserved 943 acres (RCA Annual Report 2010, Table 3). Altogether, Riverside County has reached 77 percent of the goal in the MSHCP.

Stephens' Kangaroo Rat Habitat Conservation Plan (SKR HCP). The USFWS issued a permit to the Riverside County Habitat Conservation Agency on May 3, 1996, for incidental take of Stephens' kangaroo rat (*Dipodomys stephensi*). The 30-year plan is designed to acquire and permanently conserve, maintain, and fund the conservation, preservation, restoration, and enhancement of Stephens' kangaroo rat occupied habitat. The SKR HCP covers approximately 534,000 acres within the member jurisdictions (including the City of Moreno Valley), and includes an estimated 30,000 acres of occupied Stephens' kangaroo rat habitat. The SKR HCP requires members to preserve and manage 15,000 acres of occupied Stephens' kangaroo rat habitat in 7 Core Reserves encompassing over 41,000 acres. Currently 12,460 acres of occupied habitat exists within the Core Reserves.

4.4.2.4 City of Moreno Valley General Plan Policies

The specific policies outlined in the City's General Plan Conservation Element related to biological resources include:

Conservation Element

Policy 7.4.1 Require all development, including roads, proposed adjacent to riparian and other biologically sensitive habitats to provide adequate buffers to mitigate impacts to such areas.

Policy 7.4.3 Preserve natural drainage courses in their natural state and the natural hydrology, unless the protection of life and property necessitate improvement as concrete channels.

Policy 7.4.5 The City shall fulfill its obligations set forth within any agreement(s) and permit(s) that the City may enter into for the purpose of implementing the Western Riverside County Multiple Species Habitat Conservation Plan.

4.4.3 Methodologies

The project area was assessed to determine consistency with the MSHCP focusing on conservation of species and their associated habitats in western Riverside County. The Riverside County Integrated Project (RCIP) Conservation Summary Report was first reviewed to determine habitat assessment and potential survey requirements for the study area. Geographic Information Systems (GIS) software was used to map the site in relation to MSHCP areas including Criteria Cells; conservation areas and linkages; Criteria Area Species Survey Areas for plant, bird, mammal, and amphibian species; Narrow Endemic Plants Survey Area; and survey requirements for inadequately covered species.

4.4.3.1 Literature Search

Prior to each field visit, a literature review to determine environmental conditions occurring on the study area and the surrounding area was conducted. The primary objective of the review is to evaluate the potential for suitable habitat for sensitive plant and wildlife species, as well as to determine the applicability of other MSHCP and CEQA requirements as they pertain to the proposed project. A compilation of sensitive plant and wildlife species recorded in the vicinity of the study area was derived from the CDFW's California Natural Diversity Data Base (CDFW 2012), a sensitive species and plant community account database. Additional recorded occurrences of plant species found on or near the planning area were derived from the California Native Plant Society's (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California database. The CNDDB and CNPS search was based on the *Lakeview, Sunnymead*, and *El Casco, California* USGS 7.5-minute topographic quadrangles, encompassing 126 square miles. Additional recorded occurrences of these species found on or near the study area were derived from biota studies conducted for the MSHCP as well as studies conducted by MBA biologists for other projects over the years.

The MSHCP and CEQA also require an assessment to determine the potentially significant effects of the project on riparian/riverine areas and vernal pools. According to the MSHCP, the documentation for the assessment shall include mapping and a description of the functions and values of the mapped areas with respect to the species listed in the MSHCP's Section 6.1.2, Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools. This assessment is independent from considerations given to waters of the U.S. and waters of the State under the Clean Water Act (CWA) and California Fish and Game Code. This assessment has been completed for all of the study area but not in the zone of potentially indirect effects.

As part of the MSHCP requirements, an Urban/Wildlands Interface Analysis is required to address the indirect effects associated with locating proposed development in proximity to MSHCP conservation areas. The development may result in edge effects, which could potentially affect biological resources

within the MSHCP Conservation Area. According to the MSHCP, the analysis should include an assessment of the potential indirect project impacts that may result from drainage features, toxics, noise, invasive species, barriers, access, and grading/development, as listed and described in the MSHCP's Section 6.1.4, *Guidelines Pertaining to Urban/Wildlands Interface*. For this study, the Urban/Wildlands Interface Analysis was extended eastward to include indirect effects adjacent to Gilman Springs Road.

4.4.3.2 Habitat Assessment Survey

MBA originally assessed the planning area in 2005 and has conducted numerous additional surveys since then. Details of the survey dates and specific survey areas are provided in the 2012 MBA report (DEIR Appendix E). The planning area, including the off-site facilities and the CDFW Conservation land, was surveyed to determine the plant communities present, the suitability for Narrow Endemic and Criteria Area plant species, the presence of riparian areas, and the presence of suitable habitat for burrowing owl and Los Angeles pocket mouse. Parameters assessed included soil conditions, presence of indicator species, slope, aspect, and hydrology.

4.4.3.3 Plants

Plant communities were mapped using 7.5-minute USGS topographic base maps and aerial photographs. The plant communities within the planning area were classified according to the CDFW's List of Terrestrial Natural Communities (2003) and cross-referenced to descriptions provided in Holland's Preliminary Descriptions of the Terrestrial Natural Communities of California (1986) and Oberbauer's Terrestrial Vegetation Communities in San Diego County Based on Holland's Descriptions (1996). Common plant species observed during reconnaissance-level surveys in the planning area were identified by visual characteristics and morphology in the field and recorded in a field notebook. Uncommon and less familiar plants were identified off site using taxonomical guides. A list of all species observed on the study area was compiled from the survey data, shown in Appendix A of the MBA 2012 report (DEIR Appendix E).

4.4.3.4 Wildlife

Wildlife species detected during field surveys in the planning area by sight, calls, tracks, scat, or other sign recorded during surveys in a field notebook by all biologists working on the project. Field guides were used to assist with identification of species during surveys. Although common names of wildlife species are fairly well standardized, scientific names are used in this report and are provided in Appendix A of the ~~2012~~2013 MBA report (DEIR Appendix E).

4.4.3.5 Riparian/Riverine and Vernal Pool Habitat

Aerial photography was reviewed prior to conducting general surveys to identify any potential natural drainage features and water bodies that may qualify as riparian/riverine. In general, the surface drainage features indicated as blue-line streams on USGS topographic quadrangle maps that were observed or expected to exhibit evidence of flow, can potentially support riparian/riverine areas. The planning area was evaluated for any riparian/riverine and vernal pool habitat in 2005, 2007, 2012, and ~~2012~~2013.

4.4.3.6 Burrowing Owl

The project site is within the MSHCP burrowing owl survey area, and habitat assessments for burrowing owl (*Athene cunicularia hypugea*) were conducted 2005, 2006, 2010, 2012, and ~~2012~~2013 on various portions of the project site. Areas of suitable habitat, if present, were mapped onto an aerial photograph. Potential owl burrows, such as abandoned small mammal burrows, as well as manmade structures including earthen berms, cement culverts, cement, asphalt, rock, or wood debris piles, or openings beneath cement or asphalt pavement are generally mapped onto an aerial photograph. The site was determined to have suitable habitat in a number of widespread locations, and owls were observed in various locations during the MSHCP fieldwork, so a focused survey was recently conducted in ~~2012~~2013.

A focused western burrowing owl survey was conducted for the proposed project site on ~~five~~seven separate days in ~~2012~~2013. Under the MSHCP, the focused survey protocol was divided into two parts: 1) a Focused Burrow Survey; and 2) a Focused Burrowing Owl Survey. The focused survey was conducted during the breeding season (March 1–August 31) as defined under the MSHCP,[1] and also in accordance with the California Burrowing Owl Consortium's (CBOC) *Burrowing Owl Survey Protocol and Mitigation Guidelines*.[2] Although the species was not observed during the most recent survey, it has been observed at other times in the past, and is assumed to be present due to the presence of suitable habitat and the fact they can occupy fallow agricultural fields relatively quickly. The MSHCP requires that pre-construction surveys be completed in areas of suitable habitat.

4.4.3.7 Los Angeles Pocket Mouse

Focused surveys for the Los Angeles pocket mouse (LAPM) (*Perognathus longimembris brevinasus*) were conducted in August 2005, June 2010, ~~and~~ June 2012, and July 2013 (see DEIR Appendix E). The surveys were conducted according to the established USFWS protocols for Pacific pocket mouse (*Perognathus longimembris longimembris*), a similar species. The current protocol requires trapping for 5 consecutive nights: conducted when the animal is active aboveground at night, during a new moon phase, if possible. No LAPM were observed in the project area during the focused surveys, but there is marginal habitat located in Drainages 7 and 9. MBA concluded that the project area was not occupied by LAPM. However, future surveys may be needed for development in areas of the site that contain suitable habitat for the project to be consistent with the long-term conservation goals of the MSHCP.

4.4.3.8 Jurisdictional Determination Report

Prior to beginning the field delineation, a color aerial photograph, a topographic base map of the project area and the previously cited USGS topographic maps were examined to determine the locations of potential areas of USACE/CDFW/RWQCB jurisdiction. Potential jurisdictional areas were field-checked for the presence of definable channels[3] and/or wetland vegetation, soils and hydrology. Suspected wetland habitats on the site were evaluated using the methodology set forth in the *U.S. Army Corps of Engineers 1987 Wetland Delineation Manual*[4] (Wetland Manual) and the *2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region*

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1 Western Riverside County Multiple Species Habitat Conservation Plan, Volume I, Dudek & Associates, June 17, 2003.
2 Burrowing Owl Survey Protocol and Mitigation Guidelines, California Burrowing Owl Consortium, 1993.
3 U.S. Army Corps of Engineers. 2008. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) ion the Arid West Region of the United States: A Delineation Manual. ERDC/CRREL TR-08-12: Cold Regions Research and Engineering Laboratory, U.S. Army Engineer Research and Development Center, Hanover NH.
4 Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*, Technical Report Y-87-1, U.S. Army Engineer Waterways Experimental Station, Vicksburg, Mississippi.

(Version 2.0).[1] The limits of USACE/CDFW/RWQCB jurisdiction were recorded using sub-meter GPS technology while in the field.

4.4.4 Thresholds of Significance

Based on Appendix G of the *CEQA Guidelines*, biological resource impacts would occur if the proposed project would:

- Have a substantial adverse effect, either directly or indirectly or through habitat modification, on any species identified as endangered or threatened in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
- Have a substantial adverse effect, either directly or indirectly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or the USFWS;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native or resident migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

4.4.5 Less than Significant Impacts

~~4.4.5.1 Jurisdictional Waters/Wetlands~~

~~Threshold~~	~~Would the proposed project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?~~

~~Drainages in the project area were investigated and delineated by MBA in March 2012 and updated in 2013. A total of 15 primary drainage features were identified during this survey and a number of sub-drainages or tributaries were also identified. Jurisdiction for each drainage and/or sub-drainage or tributary was evaluated for jurisdiction under Section 404 and 401 of the CWA as administered by USACE and RWQCB, respectively; Porter Cologne as administered by the RWQCB; and Section 1600 of the Fish and Game Code as administered by the CDFW.~~

[1] U.S. Army Corps of Engineers. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region. Ed. J.S. Wakeley, R.W. Lichevar, and C.V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

~~All 15 drainage features identified in the 2013 document were assessed to determine the jurisdictional limits. Based on current conditions, two of the 15 features is subject to the jurisdiction of the USACE and/or RWQCB. In addition, no jurisdictional wetlands or isolated wetlands were identified. Drainage Features 1, 2, 4, 12, and 13 flow to the south and then southwest of the project area. These drainage features are contained in roadside ditches or otherwise sheet flow prior to leaving the project area.~~

~~Drainage Feature 12 and 15 are likely subject to USACE jurisdiction. However, if any portion of Drainage Features 12 and 15 are affected by WLC project construction activities or flood control improvements in the future, then regulatory permitting may be required.~~

~~There are two drainage features that are completely isolated, Drainage Features 3 and 14. Drainage Feature 3 is an isolated temporary water quality facility serving the new Skechers building. This feature was created in an existing upland area and will eventually be converted into an underground storm drainage system. The second feature (consisting of two small basins) was created in an upland area to contain polluted runoff from a now-abandoned cattle operation. The eastern feature (Feature 14) is dominated by non-native tree species and contains no native riparian habitat. The western feature contains a mix of non-native trees and native riparian habitat. There is no evidence of ponding and the basin is no longer in use. These basins no longer serve any water quality function and are therefore not considered to be an isolated water of the State under the Porter Cologne Act.~~

~~The remaining seven features flow to the south and eventually revert to sheet flow conditions before reaching the San Jacinto Wildlife Area. Each drainage feature was walked until neither an ordinary high water mark (OHWM) nor a clearly defined bed and bank feature was present and the drainage course reverted to sheet flow onto open land. There was no evidence of flows downstream of the drainage where the OHWM was no longer present. Therefore, these features are hydrologically and physically isolated from any downstream RPW or TNW. Surface flows from the project area will eventually be conveyed into the SJWA. The SJWA's system of ponded areas was surveyed to document any downstream connectivity to any RPW or TNW. Based on current site conditions, the water within the SJWA is completely contained within the ponded area system with a large overflow area that conveys flows over a spillway in the southwest corner of the facility. There is no evidence of active flows within the spillway channel and all upstream flows are likely maintained within the SJWA exclusive of major flood events (50- to 100-year floods). Therefore, no significant impacts are expected in this regard, and no mitigation is required.~~

~~The MBA 2013 report concludes that two of the drainages on the project site are under the jurisdiction of the USACE (Drainages 12 and 15), and several additional drainages are under the jurisdiction of the CDFW and RWQCB (Drainages 7, 8, 9, 12, and 15). Additional analysis regarding impacts to drainages potentially under CDFW jurisdiction is presented in Section 4.4.6.3., *Riparian Habitat or Other Sensitive Natural Communities*.~~

4.4.5.~~2~~1 Adopted Policies and/or Ordinances

Threshold	Would the proposed project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Table 4.4.E summarizes the City's General Plan and Municipal Code policies regarding biological resources and their consistency with the WLCSP.

Table 4.4.E: General Plan and Municipal Code Biological Resources Policies

Goals, Objectives, Policies, Ordinances		Project Consistency
City of Moreno Valley General Plan		
Objective 7.4	Maintain, protect, and preserve biologically significant habitats where practical, including the San Jacinto Wildlife Area, riparian areas, habitats of rare and endangered species, and other areas of natural significance.	No significant riparian or other biologically sensitive habitat is on or adjacent to the study area. The project is consistent with this objective.
Policy 7.4.1	Require all development, including roads, proposed adjacent to riparian and other biologically sensitive habitats to provide adequate buffers to mitigate impacts to such areas.	No significant riparian or other biologically sensitive habitat is on or adjacent to the study area. The project is consistent with this policy.
Policy 7.4.2	Limit the removal of natural vegetation in hillside areas when retaining natural habitat does not pose threats to public safety.	Limited stands of natural plant communities or stands of native vegetation occur in the study area within hillside areas. These areas are proposed as open space under the proposed action. The project is consistent with this policy.
Policy 7.4.3	Preserve natural drainage courses in their natural state and the natural hydrology, unless the protection of life and property necessitate improvement as concrete channels.	The study area contains 14 drainages and/or basins. As specific projects are designed within the WLCSP, consistency with the policy will have to be determined.
Policy 7.4.4	Incorporate significant rock formations into the design of hillside developments.	The study area is generally not a hillside area. Limited natural rock formations occur in a proposed open space area. The project is consistent with this policy,
Policy 7.4.5	The City shall fulfill its obligations set forth within any agreement(s) and permit(s) that the City may enter into for the purpose of implementing the Western Riverside County Multiple Species Habitat Conservation Plan.	See Consistency with Chapter 3.48 of the City of Moreno Valley Municipal Code below.
City of Moreno Valley Municipal Code		
Title 3 Revenue and Finance		
Chapter 3.48 MSHCP Fee Program (Ordinance 742 Section 1.1, 2007)	Establish a local development mitigation fee to assist in the maintenance of biological diversity and the natural ecosystem processes that support this diversity; the protection of vegetation communities and natural areas within the city and western Riverside County which are known to support threatened, endangered or key sensitive populations of plant and wildlife species; the maintenance of economic development within the city by providing a streamlined regulatory process from which development can proceed in an orderly process; and the protection of the existing character of the city and the region through the implementation of a system of reserves which will provide for permanent open space, community edges, and habitat conservation for species covered by the MSHCP.	MBA conducted an MSHCP Consistency Analysis for the proposed project in 2012 and found that the study area is within the MSHCP fee area. Impacts are potentially significant and mitigation is provided.

Table 4.4.E: General Plan and Municipal Code Biological Resources Policies

Goals, Objectives, Policies, Ordinances		Project Consistency
Title 8 Buildings and Construction		
Chapter 8.60 Threatened and Endangered Species (Ordinance 502 Section 2.1, 1996)	Adopt and require certain implementation measures as required by the Stephens' Kangaroo Rat Habitat Conservation Plan (SKRHCP), the Section 10(a) Permit and the Management Authorization; and to adopt and impose an impact and mitigation fee to provide funds to the Riverside County Habitat Conservation Authority to implement the terms of the SKRHCP.	The study area is located within the known range of SKR. The study area is also located within the SKRHCP fee area and not in the SKRHCP Core Reserve Area. Impacts are potentially not consistent; however mitigation is provided.

Sources: City of Moreno Valley General Plan, 2006; City of Moreno Valley Municipal Code.

This analysis indicates the proposed project is consistent with local policies and ordinances protecting biological resources that apply to the project area. Compliance with State and Federal regulations to ensure protection and preservation of significant biological resources, and the implementation of the MSHCP are the applicable policies/programs that the project must implement. As there are no other local policies or ordinances regarding the protection of biological resources identified by the City or other local jurisdiction applicable to the project site, no impact would occur and no mitigation is required.

4.4.5.~~3~~2 Habitat Fragmentation/Wildlife Movement

Threshold	Would the proposed project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Habitat fragmentation occurs when a single, contiguous habitat area is divided into two or more areas, or where an action isolates the two or more new areas from each other. Isolation of habitat occurs when wildlife cannot move freely from one portion of the habitat to another or to/from one habitat type to another. Habitat fragmentation may occur when a portion of one or more habitats is converted into another habitat, as when scrub habitats are converted into annual grassland habitat because of frequent burning. Wildlife movement includes seasonal migration along corridors, as well as daily movements for foraging. Examples of migration corridors may include areas of unobstructed movement for deer, riparian corridors providing cover for migrating birds, routes between breeding waters and upland habitat for amphibians, and between roosting and feeding areas for birds.

The project area contains no significant cover of native plant communities and currently experiences heavy disturbance associated with agricultural activities. Additionally, the project area is adjacent to SR-60 and Gilman Springs Road on the north and east and is bordered by urban development on the west. The nearest linkage area as identified under the MSHCP is Proposed Linkage 5 and is located approximately 3 miles north of the project and approximately 3.6 miles south of the project is Proposed Constrained Link 20. The development of the project area will not impede the movement of any wildlife; therefore, the proposed project will not affect any wildlife movement corridor.

The Conservation Buffer Area located in the southern portion of the project area is owned by the CDFW and currently regularly disked as part of the SJWA's agricultural operations. It currently provides foraging habitat for various resident and migratory wildlife species. The portion of the project area adjacent to the SJWA lands has been actively farmed for decades and is regularly disked. The Conservation Buffer Area is designated as open space in the proposed project and no development is proposed for this area.

~~According to the project biological report~~Although the project area does not contain any designated wildlife movement corridors or MSHCP linkages~~. It~~ (i.e., MSHCP, City General Plan, etc.), it is likely that wildlife moves through adjacent properties such as the SJWA and the Mystic Lake area to the south, the Badlands area to the east and the Lake Perris State Recreation Area to the southwest. The project biological report concluded that development of the project as proposed would not directly have any significant impact on wildlife movement in the area, and would not fragment habitat or adversely affect wildlife movement through the surrounding areas. ~~Therefore, impacts in this regard~~The biological report also determined that the proposed project would not impede or minimize any significant wildlife corridor for the target species associated within the Reche Canyon/Badlands Area plan, which include Bell's sage sparrow (*Amphispiza belli belli*), cactus wren (*Campylorhynchus brunneicapillus sandiegensis*), loggerhead shrike (*Lanius ludovicianus*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), bobcat (*Lynx rufus*), Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), mountain lion (*Felis concolor*), San Bernardino kangaroo rat (*Dipodomys merriami parvus*), Stephens' kangaroo rat (*Dipodomys stephensi*), and Nevin's barberry (*Berberis nevinii*). In addition, although not required, Drainage ~~12~~9 is being designed to allow for wildlife movement between the Badlands and the SJWA (e.g., relatively natural channel conditions with 50-foot setbacks on either side of the channel through the WLCSP property. These project design features will maintain a wildlife travel path along Drainage 9. Therefore, impacts related to wildlife movement are less than significant, and no mitigation is needed.

4.4.6 Significant Impacts

4.4.6.1 Endangered and Threatened Species

Impact 4.4.6.1: *The project may have significant impacts on listed species.*

Threshold	Would the proposed project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as endangered or threatened in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Of the special-status plant and animal species that have the potential to occur within the general vicinity of the project area, 17 plant and animal species are designated as endangered or threatened by State and/or Federal authorities (Table 4.4.F). None of these species was observed or is believed to be present on the project site; it is possible the listed birds may utilize the SJWA on a seasonal basis.

Table 4.4.F: Endangered/Threatened Species Within the Project Area

Species	Status Designation	Potential for Occurrence
Munz's onion *Allium munzii*	Federal: Endangered State: Threatened	Not Expected
San Diego ambrosia *Ambrosia pumila*	Federal: Endangered State: None	Not Expected
Marsh sandwort *Arenaria paludicola*	Federal: Endangered State: Endangered	Low
Nevin's barberry *Berberis nevinii*	Federal: Endangered State: Endangered	Not Expected
Thread-leaved brodiaea *Brodiaea filfolia*	Federal: Endangered State: Threatened	Not Expected
Slender-horned spineflower *Dodecahema leptoceras*	Federal: Endangered State: Endangered	Not Expected

Table 4.4.F: Endangered/Threatened Species Within the Project Area

Species	Status Designation	Potential for Occurrence
Spreading navarretia *Navarretia fossalis*	Federal: Threatened State: None	Not Expected
California Orcutt grass *Orcuttia californica*	Federal: Endangered State: Endangered	Not Expected
Vernal pool fairy shrimp *Brachinecta lynchi*	Federal: Threatened State: Special Animal	Not Expected
Riverside fairy shrimp *Streptocephalus woottoni*	Federal: Endangered State: Special Animal	Not Expected
Quino checkerspot butterfly *Euphydryas editha quino*	Federal: Endangered State: Special Animal	Not Expected
California tiger salamander *Ambystoma californiense*	Federal: Threatened State: Species of Special Concern	Not Expected
Southwestern willow flycatcher *Empidonax traillii extimus*	Federal: Endangered State: Special of Special Concern	Not Expected
Coastal California gnatcatcher *Polioptila californica californica*	Federal: Threatened State: Special of Special Concern	Not Expected
Least Bell's vireo *Vireo belli pusillus*	Federal: Threatened State: Special of Special Concern	Not Expected
San Bernardino kangaroo rat *Dipodomys merriami parvus*	Federal: Threatened State: Special of Special Concern	Not Expected
Stephens' kangaroo rat *Dipodomys stephensi*	Federal: Endangered State: Threatened	Not Expected

Source: *MSHCP Compliance Report,* Michael Brandman Associates. April 23, 2012 Appendix E-1.

The potential for occurrence determination was based on the results of focused biological resource surveys, and/or the lack of suitable habitat in the project limits for the referenced species. No Federal or State endangered/threatened species were detected on the project site during the focused biological resource surveys. However, to err on the side of caution, it is reasonable to conclude that, at a minimum, indirect impacts to listed species may be significant, and mitigation is required.

Project or Specific Plan Design Features. The proposed World Logistics Center Specific Plan provides for a number of project design features to address the interface between the project and the SJWA. These features include enhanced landscaping along the southern boundary, restrictions on site lighting, restrictions on native/drought-tolerant landscape materials, the installation of special drainage facilities, restrictions on public access, special architectural standards for building elevations facing the SJWA, restrictions on the orientation of adjacent buildings, signage restrictions, and other development guidelines intended to create an interface area that is sensitive to the unique relationship between the project and the SJWA.

The Specific Plan establishes a 250-foot wide development setback from the southernmost property line along the SJWA boundary, and an additional 150-foot building setback (i.e., in addition to the setback provided by the CDFW Conservation Area) to help minimize potential impacts on biological resources of the SJWA.

It is important to note that the 910-acre area immediately south of the project was purchased by the State of California largely to serve as a buffer between the habitat area and future development to the north (at that time, the Moreno Highlands Specific Plan). The acquisition of this buffer area created a State-owned 3,000-foot wide separation between the project and the SJWA at that time.

The Specific Plan includes development restrictions that may affect off-site areas such as the SJWA, including architecture and building design, landscaping, and off-site lighting:

- *Architecture and Building Restrictions (Specific Plan Section 4.1).* Sections 4.1.2 and 4.1.3 require ground- and roof-mounted equipment to be screened from off-site view.
- *Landscaping Restrictions (Specific Plan Section 4.2).* Section 4.2.4 provides ~~"screening criteria"~~ "Special Edge Treatment Areas" in terms of adjacent land uses, including the SJWA (Section 4.2.4.3) ~~Page 58 of the Specific Plan shows the landscaping treatment along the SJWA boundary, while page 60 shows the treatment along~~ and Gilman Springs Road (Section 4.2.4.4).
- *Off-site Lighting (Specific Plan Section 4.3).* Section 4.3.1~~.3~~ indicates one of the main objectives of the project lighting is "… all lighting in the vicinity of the San Jacinto Wildlife Area shall be designed to confine all direct light rays to the project site and preclude the visibility of direct light rays from the wildlife area" (page ~~78~~4-42). The project will also have to comply with the City's new Dark Sky Lighting Ordinance, which reduces spillover light to 0.25 foot-candles at five feet from the adjacent property lines.

The Specific Plan provides for a 250-foot development setback and an additional 150-foot building setback adjacent to the CDFW Conservation Buffer Area. The development setback area would include landscape areas, drainage facilities, site fencing and walls, etc. According to available research previously presented in Section 4.4.1.18a, a 250-foot development setback is adequate for a project-SJWA buffer and is supported by a compilation of available academic and scientific literature and studies on wildlife impacts from diesel emissions, and also the distance established in nesting bird surveys for setbacks from human activity. In addition, the Specific Plan requires solid walls along the property line, which will help provide an additional buffer from building lighting and noise and effectively mitigate potential direct and indirect impacts on the SJWA.

Roadkill. As development occurs within the WLCSP, some local wildlife will be injured or killed by the additional vehicles and trucks on SR-60, Gilman Springs Road, Redlands Boulevard north of Eucalyptus Avenue, and all internal WLCSP roads. There is no accurate way to quantify this impact, since there are no data on existing roadkill on these roadways. However, it is reasonable to assume this impact will increase linearly (from current levels) as project-related traffic increases. It should be noted that development within the Specific Plan along the west side of Gilman Springs Road will be separated from the roadway by fencing or walls as appropriate; this will help restrict human access to Gilman Springs Road and native areas along the east side of the roadway, and may incrementally reduce roadkill along Gilman Springs Road. Native wildlife will still experience incremental adverse impacts from roadkill along Gilman Springs Road as the WLC project develops in the future, but these impacts would be less than significant as long as the County coordinates with the RCA and takes wildlife movement between Core H and proposed Core 3 into account when designing and improving Gilman Springs Road.

Operational Noise. The northern portion of the SJWA will experience increased, fluctuating sound levels during construction and operation (e.g., vehicle traffic and truck loading and unloading), but truck traffic and human activity will result in an incremental increase in overall ambient sound over the long term. In addition, it is possible construction activities on the project site, including areas adjacent to the SJWA, may be subject to construction activity on a 24-hour-per-day, 7-day-per-week schedule. The calculations in Table 4.4.G were provided by the project noise consultant (Mestre Greve Associates) specifically for the southern boundary area of the project.

The portion of the SJWA immediately south of the Specific Plan site (i.e., the Conservation Buffer Area) is vacant and regularly disked for dry farming. This area is quiet, with L_{eq} levels during the day of 35.8 dB and nighttime levels of 40.8 dB. Noise levels in this north SJWA area are affected by road

noise from Gilman Springs Road to the east and from noise generated at the existing natural gas facilities.

Table 4.4.G: Noise Levels along the Project Southern Boundary

Noise Conditions	Daytime (dB)			Nighttime (dB)		
	L_{min}	L_{eq}	L_{max}	L_{min}	L_{eq}	L_{max}
Warehousing Noise						
50 feet	38.3	48.6	63.1	38.3	48.6	63.1
100 feet	37.5	47.8	62.3	37.5	47.8	62.3
250 feet	34.4	44.7	59.2	34.4	44.7	59.2
500 feet	30.6	40.9	55.4	30.6	40.9	55.4
Warehousing Noise Plus Ambient[1]						
50 feet	38.3	49.3	63.1	38.3	48.8	63.1
100 feet	37.5	48.6	62.3	37.5	48.1	62.3
250 feet	35.9	46.2	59.2	34.4	45.2	59.2
500 feet	35.9	43.9	55.4	30.6	42.1	55.4
Change in Ambient Noise Levels[2]						
50 feet	2.4	8.5	12.8	8.3	13.0	12.0
100 feet	1.6	7.8	12.0	7.5	12.3	11.2
250 feet	0.0	5.4	8.9	4.4	9.4	8.1
500 feet	0.0	3.1	5.1	0.6	6.3	4.3

1 Distances are in feet, noise levels are in dBA.
2 L_{eq} noise added logarithmically, L_{max} and L_{min} will not add in this situation.
Highest L_{max} and highest L_{min} were used.
Source: Project noise report and tabular noise data email, Mestre Greve Associates, May 2012.

The noise data in Table 4.4.G indicate that warehousing activity would raise ambient noise levels (measured at 50 feet) by 8 dB during the day and 13 dB at night. If a physical setback or buffer were implemented in this area to reduce impacts such as noise, the project noise consultant has estimated the noise levels for distances from 50 to 500 feet shown in Table 4.4.G.

These calculations show that the increase in noise levels from development would be close to 3 dB at a distance of 500 feet, resulting in overall noise levels (ambient plus development) of 43.9 dB measured at a distance of 500 feet (L_{eq}) during the day and 45.2 dB at 500 feet at night.

In addition to regular background noise contributions from traffic on Gilman Springs Road and the compressors at the SDG&E plant that run 24 hours per day, the SDG&E compressor plant has regular “blow-down” events, which is an automatic pipeline pressure relief process. When these occur, noise levels in the CDFW Conservation Buffer Area adjacent to the compressor plant property lines may reach 130 dB or higher, which is equivalent to a jet plane landing or a train horn at 100 feet. For more information on “blow-down” effects to humans, see Section 4.12, *Noise*, and 4.8, *Hazards and Hazardous Materials*. It should be noted that the pump noise and the blow-down events have been occurring regularly for many years, along with their potential impacts on SJWA wildlife; however, these utility facilities already exist and are not part of any development proposed within the WLC project.

Based on available information, it is reasonable to conclude that increased noise from human activity (project construction, traffic on local roads, loading and unloading of trucks, etc.) related to the proposed project will not have significant impacts on local wildlife in the SJWA area. Available

research indicates that increased noise levels near wildlife areas can contribute to behavioral changes such as increased startling in birds, which can be especially harmful during nesting periods, hunting pattern changes or avoidance which decrease habitat value and use, sleep pattern disruption, and decreased overall health from noise stress. These impacts can affect mammals, birds, and other species present within the SJWA. For these reasons, human activity should be set back from the SJWA to help minimize these impacts. The WLCSP indicates there will be a 250-foot minimum development setback and an additional 150-foot building setback along the southern boundary of the Specific Plan area to act as a buffer between the WLCSP and the SJWA. With implementation of the two setback areas (total 400 feet) and proposed solid walls along the SJWA boundary, the anticipated increase in noise from the proposed project will not have a significant impact on wildlife and would not require mitigation.

Construction Noise. Development within the WLCSP and off-site facilities must incorporate landscape elements including trees, shrubs, and groundcover, which would assist in off-site noise reduction. A noise analysis has been prepared for the project to quantify potential short-term and long-term noise impacts that could occur as a result of development of the parcel adjacent to open space areas. Based on recent studies (Landrum and Brown 2012), noise contours would exceed 60 dBA (L_{eq}) roughly 1,000 feet into the CDFW Conservation Buffer Area during construction of the southernmost areas of Phase 2. There is no projected change in noise contours associated with the operation of the facility over those of the no project condition. Therefore, any noise-related impacts would be temporary in nature and generally limited to construction of Phase 2 facilities along the southern boundary of the WLC.

Invasive Species. The WLCSP landscaping palette does not include any of the invasive plant species listed in Section 6.1.4 of the MSHCP (Table 6-2), but there should be mitigation to ensure that no on-site landscaping along the southern boundary of the site conflicts with MSHCP invasive plant guidelines.

Lighting. Lighting associated with planned warehouse development of the eastern and southern portions of the WLCSP would have various direct and indirect impacts on local wildlife, depending on the species and the nature of light exposure. There is some scientific and academic research on the effects of night lighting on various species, even though the subject species and lighting conditions vary widely. This section generally compares the results of this research to the relationship of the project and the SJWA.

Some available research[1] states that night lighting can have a wide range of adverse effects on wildlife, including mammals, birds, bats, amphibians, insects, fish, even plants. Effects range from reduced health by upsetting diurnal rhythms, reduced clutch size, egg size, or survival success of nesting birds, to actual mortality from increased predation under higher ambient light levels. Bats and certain insects are also attracted to outdoor night lighting, which may adversely affect their survival or cause them to become dependent on the lighting. Small mammals would also be attracted to these areas and might suffer increased predation or roadkill crossing streets.

Future development within the Specific Plan will have to comply with the off-site lighting restrictions outlined in Section 4.3 of the Specific Plan, including the requirement that direct light rays from all lighting fixtures be directed downward, illuminate only the building or space intended, and do not spill onto adjacent properties"~~ (Specific Plan Section 5.4.2.2, page 127)~~ (Section 9.08.100 Lighting 5.5.2.1). This will also apply to project-related development in Planning Areas 10 and 12, which will help minimize lighting impacts on biological species in the adjacent SJWA land.

[1] *Ecological Consequences of Artificial Night Lighting.* C. Rich and T. Longcore (ed), 2006.

All on-site lighting will also have to comply with the new night lighting guidelines in Section 9.08.100 of the City's Municipal Code, which limits off-site impacts to 0.25 foot-candles per square meter. As development occurs within the Specific Plan, adherence to these design guidelines and restrictions will help ensure that night lighting increases will not result in significant indirect lighting impacts on native wildlife within the SJWA.

For example, the Specific Plan requires that streetlights, parking lot lighting, and other project-related illumination sources be positioned, directed, and shielded to avoid "direct light spill" into MSHCP conservation areas including those contained within Existing Core H to the south of the project area, and Proposed Core 3 (Section 6.1.1, Proposed Core 3) to the east of the project area. Lighting installed according to the WLC Specific Plan will be consistent with MSHCP guidelines. The project will also have to comply with the City's new Dark Sky Lighting Ordinance, which reduces spillover light to 0.25 foot-candles at five feet from the adjacent property lines. However, due to the size of the WLC project and its proximity to the SJWA, additional mitigation may be necessary for cumulative lighting impacts on the SJWA.

In addition to night lighting issues associated with construction and operation, the proposed facilities are to include roof-mounted photovoltaic panels to provide electricity for the facilities and aid in the sustainability of the project and reduce additional GHG emissions. There is a potential for glare from these panels to confuse migratory birds into attempting to land in the area of the panels. However, the project design calls for the use of low glare and high solar transmission films to increase solar capacity and prevent unnecessary glare, so this impact would be less than significant.

Toxics, Water. Development plans for the project will include Water Quality Best Management Practices (BMPs) such as vegetated earthen channels, storm drain stenciling, street sweeping, and education. The BMPs recommended for the proposed WLCSP are described in more detail in Section 4.9.6.1, *Construction-Related Water Quality Impacts,* and Section 4.9.6.2*, Operational Water Quality Impacts*. (Detention basins will be designed to filter potential toxics from storm water. Section 4.9.6.2, *Operational Water Quality Impacts*, also requires the regular removal of any contaminated materials from the detention basins to protect downstream water quality.) These BMPs will be implemented as part of the storm water pollution prevention measures for the project, in accordance with all appropriate NPDES requirements.

Development of the project will result in the additional use of hazardous materials in limited quantities associated with normal logistics use such as janitorial and cleaning products, solvents, herbicides, and insecticides. However, compliance with regulations, standards, and guidelines established by the Environmental Protection Agency (EPA), State, County, and local agencies relating to the storage, use, and disposal of hazardous waste will reduce the potential risk of hazardous materials exposure.

Development plans for the project will include Water Quality BMPs such as vegetated earthen channels, storm drain stenciling, street sweeping, and education. Detention basins will be designed to filter potential toxics from storm water. These BMPs will be implemented as part of the storm water pollution prevention measures for the project, in accordance with all appropriate NPDES requirements.

Toxics, Air Pollution and Diesel Exhaust. Local wildlife (i.e., within the SJWA) may be exposed to vehicular exhaust and diesel particulates and toxic air contaminants from truck exhaust as the project builds out. New development will produce significant amounts of diesel-related air pollutants that will be released into the atmosphere, including gases and particles of various sizes.

Most of the available (and most applicable) research is on diesel pollutant impacts on humans. Although the physiology of many animals is very different than humans, data on health effects from diesel pollution may nonetheless be somewhat instructive when attempting to assess diesel impacts

on wildlife. Potential health effects on wildlife obviously depend on the species involved,[1] but in general health effects from air pollution/diesel exhaust include impaired cardiac and lung or respiratory function,[2] reduced heart function or longevity, decreased clutch size or hatching success, increased incidence of cancer and other mutagenic or teratogenic effects, ingestion of air deposited particulates, reduction in overall biodiversity, reproductive failure, etc. In general, impacts on higher animals are most commonly attributed to food loss and reproductive effects, rather than to direct toxic effects on adults. There are relatively few examples of higher animals suffering direct toxic effects from either atmospheric acidity or gaseous air pollution. However, a number of mammals are known to build up high levels of heavy metals and other pollutants in their systems from air pollution.[3]

Diesel emissions[4] contain thousands of pollutant species, and the composition depends on the fuel, vehicle, and driving conditions. The main public health concerns are from fine and ultrafine particulate matter, black or elemental carbon, polyaromatic hydrocarbons (PAHs) like phenanthrene, metallic ashes, gases like nitrogen dioxide, aldehydes like acetaldehyde, acrolein, and crotonaldehyde, volatile organic compounds like benzene and 1,3-butadiene, etc. One of the research limitations is that some health effects from these pollutants take a long time, in some cases even a lifetime, to exhibit themselves. These pollutant species can also be emitted from other sources, so in complex urban environments, it can be difficult to trace individual sources of air pollution. In this case, air quality is relatively good and the only major activity is agriculture, so the increase in most of these pollutant species would predominantly be the result of new warehouse uses within the project. Research[5] suggests that wildlife may be more susceptible to air pollutant impacts than humans, due to their smaller size, higher respiration rates, smaller lung capacities, ingestion of local plant materials that have also been exposed, higher metabolic rates, etc., although some factors like shorter lifespans would reduce the length of exposure over time. For these reasons and for the purposes of this analysis, it is assumed that animals within the SJWA would be at least as susceptible to health effects from air pollution, including diesel exhaust compared to humans.

In 2002, the EPA compiled a wide range of scientific studies on the health effects of diesel exhaust, including non-carcinogenic effects[6] of diesel exhaust on laboratory animals. Studies found that diesel particulate matter (diesel PM) had a limited effect on the survival and growth of rats and mice when exposed to diesel PM for short periods of time. However, rats, mice and hamsters all experienced increased lung to body-weight ratios when exposed to 1.5 mg/m^3 diesel PM concentrations for extended periods of time. Several studies looked at behavior effects in animals, and found that juvenile rats exposed to diesel emissions (DE) exhibited a decreased ability to move around on their own, and negatively affected their learning in adulthood.

Extended exposure to diesel emissions caused negative effects on the pulmonary functions of rats, hamsters, cats and monkeys. Depending on the species, DE levels of 1.5–11.7 mg/m^3 affected lung mechanical properties, diffusing capacity, lung volumes, and ventilator performance of the subject animal. The ability of rats to clear their airways was also severely impaired by diesel PM concentrations of 1 mg/m^3or greater. Data on the effect of diesel PM on airway clearance in other animals were limited, but the pathological effects of diesel PM seemed to be dependent on the relative rates of pulmonary deposition and clearance (rate of breathing) of the subject animal. The studies also showed that diesel PM can reduce an animal's resistance to respiratory infections. Diesel PM can begin to impair an animal's immune system in as little as 2–6 hours with exposures of 5–8

1 "Air Pollution and Biodiversity: A Review." 1995.
2 "Cardiovascular and thermoregulatory responses of unrestrained rats exposed to filtered or unfiltered diesel exhaust." C. Gordon et al, Inhalation Toxicology, 2012.
3 Ibid.
4 "Diesel Emissions, Toxics, and Health Implications." M. Costantini, 2006.
5 "*Exhausted by Diesel."* NRDC 1998.
6 "*Health Assessment Document for Diesel Engine Exhaust."* United States EPA. March 2002.

mg/m^3 of diesel PM. The testing data also suggested that diesel PM may be a factor in increased allergic reactions in animals.

When comparing filtered versus non-filtered DE, studies found that diesel particulates are the main cause of noncancerous health effects. However, they could not determine if diesel PM acts additively with the gas, or whether it combines with the gases to create different effects. The studies also found that other airborne contaminants (e.g., criteria pollutants) can be altered by diesel PM when absorbed by the diesel particles and increase the physical health effects caused by the diesel PM and other contaminants. These increased health risks were only found in laboratory settings. There was no evidence for DE interacting with other contaminants in normal urban atmospheric settings except for the impaired ability of animals to resist respiratory tract infections. No other noncancerous effects were found in any of the studies.

Chapter 7 of the EPA document includes studies that concluded diesel emissions also have carcinogenic effects on animals. Studies indicated that DE and/or diesel PM did result in increased cases of cancer in laboratory animals as well as humans. Rats experienced a trend of increased tumor growth when exposed to concentrations of DE exceeding 1×10^4 mg × hr/m^3. Because tumors were induced at high concentrations it is believed that they are caused by the lungs experiencing particle overload. The studies also examined the effect of filtered exhaust and discovered that it did not cause tumors. They concluded that filtered exhaust either was not a carcinogenic or had low cancer potency.

In addition to pollutants associated with diesel trucks, passenger vehicles produce additional air pollutants including carbon monoxide, nitrogen oxides, particulates,[1] etc. These pollutants will also have indirect impacts on wildlife resources of the SJWA. Two impacts of most concern would be ozone degradation (e.g., plants having an unusual dry or “burned” look) and the deposition of additional nitrogen, both of which can disrupt plant growth cycles.

Direct air pollutant impacts on wildlife within the northern end of the SJWA will be reduced somewhat because prevailing winds are mainly to the southeast with the remainder mostly to the east (i.e., very little to the south), based on data from the project air quality study (MBA 2012). However, some diesel and other project-related air pollutants will still be expected to disperse toward the SJWA, including gases and particulates, from trucks and passenger vehicles, when prevailing winds are absent.

There appears to be little academic or scientific research on the specific impacts of diesel air pollutant emissions on wildlife (i.e., not laboratory animals) in natural settings, or specific setbacks for wildlife protection areas from warehouse distribution centers or other sources of diesel pollution. Most available research is too limited or specific regarding the type of pollutant and/or the species considered to be affected (e.g., impacts of one pollutant on one species). The portion of the SJWA adjacent to the WLCSP property is upland agricultural fields which may be used by foraging birds. Indeed, the northern portion of the SJWA land serves as an existing buffer and it was acquired by the CDFW in 1994 for that purpose. Additional buffer areas imposed as mitigation are discussed below.

Based on available scientific data, it is reasonable to conclude that the proposed project, due to its size and expected amount of truck traffic, will have potentially significant impacts on wildlife within the SJWA and east across Gilman Springs Road from project air pollution, including diesel truck exhaust.

[1] “Pulmonary and cardiovascular of traffic-related particulate matter from roadside and diesel engine exhaust particles.” M. Gerlofs-Nijland et al. Inhalation Toxicology, 2010.

Research by the California Air Resources Board (CARB)[1] indicates that 80 percent of the particulates generally settle out of the atmosphere within 1,000 feet of emission sources. Therefore, diesel particulate deposition may occur within approximately 1,000 feet of truck activities within the project, which would extend part way into the CDFW Conservation Buffer Area. This demonstrates one benefit of the State acquiring this Conservation Buffer Area (i.e., to reduce potential impacts of future development to the north from the SJWA and Mystic Lake to the south). In addition, the Specific Plan establishes an additional 250-foot setback along the SJWA boundary, which provides additional buffering from potential air pollutant impacts.

Toxics, Health Risk Assessment. A Health Risk Assessment (HRA) (MBA 2012) was completed for the project primarily prepared for human health risks associated with airborne hazards. An HRA is a guide that helps to determine if current or future exposure to a chemical or substance could affect the health of a population. The State of California Office of Environmental Health Hazard Assessment (OEHHA) develops methods for conducting health risk assessments. As defined under the Air Toxics "Hotspots" Information and Assessment Act of 1987 ["AB 2588" (Chapter 1252, Statutes of 1987), California Health and Safety Code Section 44306], "A health risk assessment means a detailed comprehensive analysis prepared pursuant to Section 44361 to evaluate and predict the dispersion of hazardous substances in the environment and the potential for exposure of human populations and to assess and quantify both the individual and population-wide health risks associated with those levels of exposure" (Office of Environmental Health Hazard Assessment 1987).

The HRA of toxic air contaminants builds upon the assessment methodology described above but requires one additional step beyond that for *assessment* of the local pollutants. This step involves applying a risk characterization model to the results from the air dispersion model to estimate potential health risks at each sensitive receptor location.

Table 4 in the HRA (MBA 2012) provides a discussion on the air pollutants that could potentially be present as a result of the construction and/or operation of the proposed facilities and the most relevant effects from pollutant exposure to humans. No standards for impacts to wildlife have been established. Since air is not stationary, there is a potential that air quality concerns associated with the project will not be confined to the project site itself and thus would disperse into "wildland" areas. The primary wind direction near the project site is to the southeast, as shown in Exhibit 5 in the HRA (MBA 2012). The wind direction would send any air hazards toward the Badlands MSHCP Criteria Cells and points to the east across Gilman Springs Road.

Health risks within the context of this analysis are represented as the increase in cancer risk associated with exposure to diesel particulate matter emissions from project operations. These diesel particulate matter emissions arise from both exhaust and idling of diesel trucks while operating on and near the project site. The methodology applied in calculating cancer risk from diesel particulate matter has been published by the SCAQMD and the California OEHHA.

The methodology basically assumes that a person is exposed continuously to a project's emissions for a period of 350 days per year, 24 hours per day over a 70-year lifetime period. In this regard, cancer risk is expressed as the probability of an individual developing cancer due to exposure to diesel particulate matter emissions at the above-referenced durations from the project, out of a population of 1 million individuals. Thus, a receptor calculated to have a cancer risk of 1 in one million means that this receptor has a probability of 1 in 1 million of developing cancer from the continuous exposure to diesel particulate matter. The SCAQMD has established a significance threshold of 10 in 1 million for cancer risk attributable to exposure to a project's emissions. No such threshold exists for wildlife and a number of factors vary from the criteria established for human populations. The average

[1] *Air Quality and Land Use Handbook.* CARB and EPA. 2005.

life of migratory waterfowl ranges from 10 to 20 years. This might represent the most long-lived of the species in the vicinity of the project site. These species are also not present year round and may spend as little at 100 days in the project area on the SJWA.

Specific Plan Design Features. The Specific Plan requires a 250-foot development setback and an additional 150-foot building setback along the southern boundary of project development and the CDFW Conservation Buffer Area. In addition, the Specific Plan calls for native landscaping in the setback area and a wall along the north side of the 250-foot setback zone. The separation between planned development along the east side of Gilman Springs Road will be set back from the roadway. This setback, plus the width of the roadway and related shoulder areas, will be sufficient to separate the proposed project from the MSHCP criteria cell areas east of Gilman Springs Road, so no additional setback is needed in that area.

Mitigation Measures. The following measures are proposed to mitigate potential direct and indirect impacts to listed species due to the project's proximity to the SJWA site, even with the presence of the CDFW Conservation Buffer Area:

~~**4.4.6.1A** All development projects on lots adjacent to the CDFW property shall provide a minimum 250-foot setback between the CDFW property line and any building or vehicular circulation area (excluding emergency access drives). Permitted uses within or adjacent to this setback area include landscaping, drainage and water quality facilities, fences and walls, maintenance access drives, and similar related uses. Prior to issuance of any discretionary permit in the WLCSP for development adjacent to the CDFW Conservation Buffer Area, development plans shall establish a minimum 250-foot clear setback along the southern property line of the WLC Specific Plan, both east and west of the SDG&E natural gas compressor plant. For the purposes of this measure, the term "clear" shall refer to all existing or future roads, industrial buildings or related improvements, walls, truck travel areas, etc. The only allowed uses within the 250-foot setback area are landscaping per the WLCSP, drainage or water quality basins, or relocation of any impacted plant or animal species from development areas within the Specific Plan. In addition, development plans shall also establish a minimum 150-foot setback from the north edge of the clear zone to the closest logistics warehouse building. This will provide a total minimum building setback of 400 feet from the northern edge of the CDFW Conservation Buffer Area to new warehouse buildings within the Specific Plan.~~

~~Development adjacent to the 250-foot open space setback shall have a minimum six-foot tall chain link fence to help separate warehouse activity from the buffer area. Any chain link fencing installed on any properties adjacent to the 250-foot buffer area shall have metal mesh installed below and above ground level to prevent animals from accessing new development areas. In addition, all truck activity areas within 750 feet of the southern boundary of the site shall be enclosed by minimum 11-foot tall solid block walls to help reduce noise and lighting impacts on the CDFW Conservation Area to the south. This measure shall be implemented to the satisfaction of the City Planning Division.~~

~~A landscape plan for the 250-foot setback area shall be submitted with any development proposal for lots adjacent to the CDFW property. The landscape plan shall be prepared by a licensed landscape architect in consultation with a qualified biologist and shall be consistent with the design standards contained in the Specific Plan. No plant species listed in Section 6.1.4 of the MSHCP shall be installed within the setback area. In conjunction with development adjacent to the CDFW Conservation Buffer Area, cottonwood trees shall be planted along the southern boundary of the 250-foot "clear" setback zone, consistent with the WLCSP landscaping plan and plant palette. This~~

~~measure shall be implemented to the satisfaction of the City Planning Division in consultation with the SJWA Manager.~~

4.4.6.1A All Plot Plan applications within Planning Areas 10 and 12 (i.e. adjacent to the San Jacinto Wildlife Area as shown in Final EIR Volume 2 Figure 4.1.6B) shall provide a 250-foot setback from the southerly property line. Permitted uses within this setback area include landscaping, drainage and water quality facilities, fences and walls, utilities and utility structures, maintenance access drives, and similar related uses. No logistics buildings or truck access/parking/maneuvering facilities are permitted in this setback area.

In addition, logistics buildings within Planning Areas 10 and 12 may not be located within 400 feet of the southerly property line. All development proposals in Planning Areas 10 and 12 shall include a minimum six-foot tall chain link fence or similar barrier to separate warehouse activity from the setback area. This fence/barrier shall have metal mesh installed below and above ground level to prevent animals from moving between the development area and the setback area.

Within Planning Areas 10 and 12, all truck activity areas adjacent to the 250-foot buffer area along the southern property line shall be enclosed by minimum 11-foot tall solid walls to reduce noise and lighting impacts on the adjacent property. This measure shall be implemented to the satisfaction of the Planning Official.

A preliminary landscape plan for the 250-foot setback area shall be submitted with all Plot Plan applications for lots adjacent to the California Department of Fish and Wildlife property. Precise landscape plans shall be submitted with any grading permit for said lots and must be approved prior to the issuance of any building permit on said lots. The landscape plan shall be prepared by a licensed landscape architect in consultation with a qualified biologist and shall be consistent with the design standards contained in the World Logistics Center Specific Plan. No plant species listed in Section 6.1.4 of the Western Riverside County Multiple Species Habitat Conservation Plan shall be installed within the setback area. Cottonwood trees shall be planted within the setback area consistent with the World Logistics Center Specific Plan. This measure shall be implemented to the satisfaction of the Land Development Division Manager.

~~**4.4.6.1B** Prior to the approval of a Plot Plan for any development project, the applicant shall submit a biological assessment prepared by a qualified biologist surveying the project site for any non-covered MSHCP listed or sensitive species of plant or animal. If any such species are found, appropriate conditions shall be added to any project approval to address the treatment of such species. This measure shall be implemented to the satisfaction of the City Planning Division.~~

4.4.6.1B Each Plot Plan application in Planning Areas 10 and 12 shall provide runoff management and water quality facilities adequate to minimize downstream erosion, maintain water quality standards and retain pre-development flows in a manner meeting the approval of the City Engineer. All drainage improvements shall be designed to minimize runoff and erosional impacts on adjacent property. This measure shall be implemented to the satisfaction of the Land Development Division Manager of Public Works.

~~**4.4.6.1C** Any development projects on lots adjacent to the CDFW property shall provide runoff management and water quality facilities adequate to minimize downstream erosion, maintain water quality standards and retain pre-development flows in a manner meeting the approval of the City Engineer, in consultation with the City Planning Department. Prior~~

~~to issuance of any discretionary approvals in the WLCSP, the project developer shall demonstrate whether any detention facilities for their development area are needed in the 250-foot setback identified in Mitigation Measure 4.4.6.1A. No project developer shall install plant species listed in Section 6.1.4 of the MSHCP. Any drainage improvements constructed within this setback shall be designed to minimize runoff and erosional impacts on the SJWA land to the south, to the extent practical. This measure shall be implemented to the satisfaction of the City Planning Division.~~

The 250-foot setback identified in **Mitigation Measure 4.4.6.1A**, and the presence of the CDFW Conservation Buffer Area, will effectively mitigate potential indirect impacts of air pollutants, including diesel particulate matter, on wildlife within the SJWA. Compliance with the off-site lighting guidelines of the Specific Plan, compliance with the night lighting standards in Section 9.08.100 of the City Municipal Code, and implementation of Aesthetics **Mitigation Measure 4.1.6.4B** ~~(low pressure sodium lights on south sides of buildings facing SJWA)~~**4A** will help reduce lighting impacts on the SJWA to less than significant levels~~. In addition, Aesthetics **Mitigation Measure 4.1.6.1E** (painting the south sides of buildings facing the SJWA green) will help soften the appearance of buildings that face the SJWA, and Agricultural **Mitigation Measure 4.2.6.1A** (right to farm ordinance) will help maintain raptor and other bird foraging until the WLCSP property is developed.~~

In addition, **Mitigation Measure 4.4.6.2A** will help assure that potential impacts to listed or sensitive plant species remain at less than significant levels.

Level of Impact After Mitigation. Compliance with the Specific Plan, Municipal Code, and implementation of the recommended **Mitigation Measures 4.4.6.1A** ~~through~~and **4.4.6~~.1C~~1B** will help reduce project impacts to listed species to less than significant levels.

4.4.6.2 Adopted Habitat Conservation Plans

Impact 4.4.6.2: *Implementation of the project may conflict with portions of the MSHCP for Western Riverside County.*

Threshold	Would the proposed project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The project site is subject to the provisions of two HCPs: the SKR HCP and the MSHCP. Impacts related to these HCPs are discussed in this section.

a. Stephens' Kangaroo Rat Habitat Conservation Plan

The project site is within the SKR HCP Fee Area. The SKR is relatively widespread throughout the SKR HCP Fee Area, but the main blocks of occupied habitat are concentrated in several Core Areas that must be conserved. The proposed project site is not within an SKR Core Area. The SKR also requires species-specific monitoring and management to ensure its long-term viability in the SKR HCP, including tracking population densities and maintaining sparse, open grassland habitats.

The long-term SKR HCP provides Take Authorization for the SKR within its boundaries. The core reserves established by the SKR HCP will be managed as part of the MSHCP Conservation Area consistent with the provisions of the SKR HCP. Focused surveys for Stephens' kangaroo rat will not be required for this project because the project lies within the SKR Fee Area; therefore, no requirements under the SKR HCP other than payment of a local mitigation fee are required.

b. Summary of Western Riverside County Multiple Species Habitat Conservation Plan Impacts

The project area is located within the Reche Canyon/Badlands Area of the MSHCP. Development of the project area would not conflict with the conservation goals established by the MSHCP for Cell Group X or Cell Group E. In addition, no conflict from development would occur in relation to the Reche Canyon/Badlands Area Plan, the Area Plan Subunit 4, the Area Plan Subunit 3, Proposed Core 3, or Existing Core H.

The WLCSP and the proposed offsite facilities occur immediately adjacent and within the vicinity of Core H and proposed Core 3. RCA staff commented that they believed any increase in truck traffic associated with the proposed project along Gilman Springs Road could significantly affect wildlife movement between Core H and proposed Core 3 and requested mitigation to offset those impacts. However, the appropriate mitigation for increased traffic on Gilman Springs Road is payment of the project's fair share of the improvements to Gilman Springs Road, including provisions for wildlife movement or crossings. The design and improvement of Gilman Springs Road is a County project that is not under the control of the project applicant.

No development is proposed within the portion of the project area that lies within Cell Group D and the SJWA. This area is already owned by the State and managed by the CFDW. However, development that will be adjacent to the SJWA property may cause significant indirect impacts to species within the SJWA, which will require mitigation (i.e., designing an appropriate buffer along this "urban edge" will help minimize potential impacts on the SJWA).

The project area is not adjacent to any Cores or Linkages identified in the MSHCP. However, it is adjacent to the SJWA and is subject to the project guidelines provided in MSHCP Section 6.1.4 (Guidelines Pertaining to the Urban/Wildlands Interface). The project is also required to adhere to the Best Management Practices (BMPs) found in Appendix C of the MSHCP.

The project does not propose to alter land use in any way that would adversely affect Cores, Linkages, or Reserve Assembly within the Reche Canyon/Badlands Area Plan.

The project is not located within any Amphibian, Mammalian, or Special Linkage Areas identified by the MSHCP. The project is in an area requiring burrowing owl surveys, is within the MSHCP Criteria Area Species Survey Area (CASSA), and is within the Narrow Endemic Plant Species Survey Area (NEPSSA).

The MSHCP and its Implementation Agreement contain a fee mitigation program pursuant to which local agencies collect development impact fees and remit such fees to the Riverside Conservation Authority (RCA). These fees are in turn used to acquire lands that are suitable for habitat preservation for species covered by the MSHCP. Payment of the local MSHCP mitigation fee will be required of the project prior to the issuance of building permits.

From available information, potential indirect impacts to avian and other biological resources within Mystic Lake and the SJWA will be reduced to less than significant levels by the creation of a 250-foot on-site setback or buffer area in **Mitigation Measure 4.4.6.1A**, which will be in addition to the existing setback provided by the CDFW Conservation Buffer Area just south of the proposed development area.

Participation in the MSHCP and contribution of MSHCP provides compensation for the loss of raptor foraging habitat due to approved projects. Typically, a project proponent would participate as outlined

in the MSHCP, so that loss of raptor foraging habitat is typically considered to be less than significant and no mitigation is required.

Narrow Endemic Plant Species. No Narrow Endemic plant species are anticipated to occur in the project area, but compliance with **Mitigation Measure 4.4.6.2A** will assure there will be no significant impacts to these plant species. ~~and no additional action is required.~~

Criteria Area Plant Species. No Criteria Area plant species are anticipated to occur on the project area, but compliance with **Mitigation Measure 4.4.6.2A** will assure there will be no significant impacts to these plant species. ~~and no additional action is required.~~

Riparian/Riverine Areas and Vernal Pools. ~~A single catch basin and portions of~~ Drainage Features 7~~and~~, 8, 9, 12, and 15 contain riparian ~~plant species and are hence considered riparian~~/riverine areas, as designated by the MSHCP. The project area does not contain habitat suitable for covered riparian species, such as least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo. No vernal pools or ephemeral ponds were observed on the project area and no suitable habitat for any fairy shrimp species was identified on site. No additional mitigation regarding vernal pools or vernal pool species is required. A programmatic-level DBESP was prepared by MBA in 2013 to outline specific requirements for project related impacts to these features in the future. A project-specific DBESP will be required during each development project.

c. Nitrogen Deposition

Nitrogen deposition is the term used to describe nitrogen-based pollutants that are deposited as a result of emissions from future project related activities. The pollutants are typically in the form of nitrogen oxide (NO_x) and ammonia (NH_3)-derived pollutants, primarily nitric acid (HNO_3). Although there are many types of nitrogen-based pollutants resulting from project-related emissions, HNO3 is typically the easiest to measure and is used in determining nitrogen deposition rates. Mechanisms by which nitrogen deposition can lead to impacts on sensitive species include (1) direct toxicity, (2) changes in species composition among native plants, and (3) enhancement of invasive species (Fenn et al. 2003; Weiss 2006a). Direct toxicity refers to impacts associated with direct contact with the nitrogen pollutants. There is no scientific documentation that links direct toxicity to impacts associated with sensitive plant and wildlife species. Therefore, direct toxicity is not considered a significant impact.

An increase in available nitrogen promotes the growth of non-native weedy species, which alone is not considered a significant impact. The increased dominance and growth of invasive annual grasses is especially prevalent in low-biomass vegetation communities that are naturally nitrogen-limited, such vegetation communities that occur in the project vicinity include coastal sage scrub and vernal pools (Weiss 2006a). An increase in nitrogen deposition does not inhibit the growth of native plants, but promotes the rapid growth of non-native invasive species that could out-compete native plants for available water and nutrients. If the increase of non-native plant species is detrimental to the growth of native plants, the result may be a conversion from a native plant community to a non-native plant community. This change in habitat is only considered a significant impact if that change occurs in suitable habitat for a federally threatened or endangered species within USFWS-designated critical habitat.

In addition, vernal pools were identified by Weiss (2006a) as a California ecosystem that may be sensitive to nitrogen deposition. Nitrogen deposition in vernal pools stimulates plant growth (including non-native species in adjacent uplands) and the nitrogen is rapidly assimilated by plants and

invertebrates within the pools (biomass and dissolved organic nitrogen) (Hobson and Dahlgren 1998). Because of the isolated nature of vernal pools, the nitrogen pollutants accumulate over time and provide a more concentrated level of nitrogen for non-native plants. Since vernal pools are known to provide suitable habitat for a number of federally threatened or endangered species, impacts to vernal pools caused by nitrogen deposition may be considered a significant impact. There are no vernal pools within the project site.

Although non-native plant invasions have affected the vernal pools in the region (the closest recorded occurrence of vernal pool habitat is approximately 3.5 miles to the south), these invasions generally occur in years when precipitation is sparse. In wetter years, the number of non-native plants is reduced since the non-native upland species are intolerant of inundation and the invasion cycle may be reset in some cases. This means that the established non-native plants are not adaptable to an aquatic habitat and die-off during prolonged periods of inundation. Even though the non-native plant species will have an abundance of available nitrogen and optimum growing conditions, the prolonged inundation periods prohibit non-native invasive species growth.

The WLC will consist of mobile, non-point pollution sources (diesel trucks), which will result in a highly random dispersion of emissions that will occur in a broad, regional fashion. Because of the way in which nitrogen is generated by the WLC project, its overall patterns for dispersion, and the multi-variant parameters that would need to be taken into consideration for such an analysis, there is no established scientific basis or standards to study the effects of nitrogen dispersion for non-point pollution sources; hence, project-specific conclusions or mitigation would be overly speculative for the purposes of this EIR.

Specific Plan Design Features. The project is consistent with the major MSHCP requirements relative to core areas, criteria cells, threatened and endangered species. In addition, the project complies with the MSHCP guidelines for urban/wildland interface, riparian/riverine areas, or related buffers (with implementation of **Mitigation Measure 4.4.6.1A**). In addition, future development will be required to demonstrate that it is also consistent with all MSHCP requirements, including indirect impacts such as lighting, noise, and air pollution effects.

Regulatory Compliance. Stephens' kangaroo rats have a low potential to occur within the study area. While the study area is not within the SKR Core Reserve Area, the SKR HCP Implementing Agreement requires payment for loss of habitat within defined areas. The entire study area lies within the fee area. An assessment of individual actions for development within the WLCSP would be required prior to any implementation. The number of acres of disturbance associated with the development and any off-site improvements shall require payment to comply with the SKR HCP. In addition, prior to issuance of a grading permit on each project, applicants will be required to pay the mandatory mitigation fee for the MSHCP. The mitigation fee is a per ~~unit~~acre fee ~~based on a percubic feet fee based on~~for commercial or industrial development.

Mitigation Measures. In addition to payment of SKR and MSHCP impact fees, the following measures will help ensure that potential impacts to sensitive species are reduced to less than significant levels:

~~**4.4.6.2A** Prior to the approval of any Plot Plans for development within the project area, the applicant shall submit a biological assessment of the proposed development site prepared by a qualified biologist to identify if any of the following sensitive plants (i.e., Coulter's goldfields, smooth tarplant, or thread-leaved brodiaea) are present on the proposed development site. If plants are found in the proposed development area, they~~

~~may be relocated to the 250-foot clear setback area outlined in the Specific Plan and discussed in Mitigation Measure 4.4.6.1A. Alternatively, an appropriate impact fee may be paid to the Western Riverside County Regional Conservation Authority (RCA) or other appropriate conservation organizations to offset for the loss of these species on the WLC project site. This measure shall be implemented to the satisfaction of the City Planning Division in consultation with the County RCA.~~

4.4.6.2A Each Plot Plan application shall include a focused plant survey of the proposed development site prepared by a qualified biologist to identify if any of the following sensitive plants (i.e., Coulter's goldfields, smooth tarplant, Plummer's mariposa lily, or thread-leaved brodiaea) are present. If any of the listed plants are found, they may be relocated to the 250-foot setback area outlined in the Specific Plan and discussed in Mitigation Measure 4.4.6.1A. Alternatively, at the applicant's discretion, an impact fee may be paid to the Western Riverside County Regional Conservation Authority (RCA) or other appropriate conservation organizations to offset for the loss of these species. This measure shall be implemented to the satisfaction of the Planning Official.

~~**4.4.6.2B** Prior to the approval of any tentative maps for development within the WLCSP, the applicant shall conduct a Joint Project Review (JPR) with the Resource Conservation Agency (RCA). All cell groups shall be provided on tentative maps, and an application shall be completed and processed by the applicant.~~

4.4.6.2B Prior to the approval of any tentative maps for development including or adjacent to any Criteria Cells identified in the Western Riverside County Multiple Species Habitat Conservation Plan, the applicant shall prepare and process a Joint Project Review (JPR) with the Riverside County Resource Conservation Agency (RCA). All criteria cells shall be identified on all such tentative maps. This measure shall be implemented to the satisfaction of the City Planning Division and Riverside County Resource Conservation Agency ("RCA").

In addition, the previously outlined **Mitigation Measures 4.4.6.1A** ~~through~~**and 4.4.6.1~~C~~1B** will also help reduce potential direct and indirect impacts to biological resources covered by the MSHCP.

Level of Impact After Mitigation. With implementation of **Mitigation Measures 4.4.6.1A**~~through~~**, 4.4.6.1~~C and~~1B, 4.4.6.2A,** and **4.4.6.2B**, potential impacts related to MSHCP consistency will be reduced to less than significant levels.

4.4.6.3 Jurisdictional Delineation, Riparian Habitat or Other Sensitive Natural Communities

Impact 4.4.6.3: *The project has the potential to result in significant impacts to jurisdictional land, riparian habitat and sensitive natural communities and may require subsequent permits from various resource agencies.*

Threshold	Would the proposed project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? Would the proposed project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and

Wildlife Service?

Drainages in the project area were investigated and delineated by MBA in March 2012 and updated in 2013. A total of 15 primary drainage features were identified during this survey and a number of sub-drainages or tributaries were also identified. Jurisdiction for each drainage and/or sub-drainage or tributary was evaluated for jurisdiction under Section 404 and 401 of the CWA as administered by USACE and RWQCB, respectively; Porter Cologne as administered by the RWQCB; and Section 1600 of the Fish and Game Code as administered by the CDFW.

All 15 drainage features identified in the 2013 document were assessed to determine the jurisdictional limits. Based on current conditions, two of the 15 features is subject to the jurisdiction of the USACE and/or RWQCB. In addition, no jurisdictional wetlands or isolated wetlands were identified. Drainage Features 1, 2, 4, 12, and 13 flow to the south and then southwest of the project area. These drainage features are contained in roadside ditches or otherwise sheet flow prior to leaving the project area.

Drainage Feature 12 and 15 are likely subject to USACE jurisdiction. However, if any portion of Drainage Features 12 and 15 are affected by WLC project construction activities or flood control improvements in the future, then regulatory permitting may be required.

There are two drainage features that are completely isolated, Drainage Features 3 and 14. Drainage Feature 3 is an isolated temporary water quality facility serving the new Skechers building. This feature was created in an existing upland area and will eventually be converted into an underground storm drainage system. The second feature (consisting of two small basins) was created in an upland area to contain polluted runoff from a now-abandoned cattle operation. The eastern feature (Feature 14) is dominated by non-native tree species and contains no native riparian habitat. The western feature contains a mix of non-native trees and native riparian habitat. There is no evidence of ponding and the basin is no longer in use. These basins no longer serve any water quality function and are therefore not considered to be isolated waters of the State under the Porter Cologne Act.

The remaining seven features flow to the south and eventually revert to sheet flow conditions before reaching the San Jacinto Wildlife Area. Each drainage feature was walked until neither an ordinary high water mark (OHWM) nor a clearly defined bed and bank feature was present and the drainage course reverted to sheet flow onto open land. There was no evidence of flows downstream of the drainage where the OHWM was no longer present. Therefore, these features are hydrologically and physically isolated from any downstream RPW or TNW. Surface flows from the project area will eventually be conveyed into the SJWA. The SJWA's system of ponded areas was surveyed to document any downstream connectivity to any RPW or TNW. Based on current site conditions, the water within the SJWA is completely contained within the ponded area system with a large overflow area that conveys flows over a spillway in the southwest corner of the facility. There is no evidence of active flows within the spillway channel and all upstream flows are likely maintained within the SJWA exclusive of major flood events (50- to 100-year floods).

The MBA 2013 report concludes that two of the drainages on the project site are under the jurisdiction of the USACE (Drainages 12 and 15), and several additional drainages are under the jurisdiction of the CDFW and RWQCB (Drainages 7, 8, 9, 12, and 15).

Riparian or riverine areas are lands that contain habitat dominated by trees, shrubs, and persistent emergents, which occur close to or depend upon soil moisture from a nearby water source; or areas with fresh water flowing during all or a portion of the year. Unvegetated drainages (ephemeral streams) may be included if alterations to that drainage have the potential to affect Covered Species and Conservation Areas.

~~One catch basin and portions of~~ Drainage Feature 7~~ and~~, 8, 9~~ on~~, 12, and 15 within the WLC project are considered riparian/riverine areas, as defined by MSHCP. If impacts to any of these areas cannot be avoided, a DBESP report and relevant mitigation will be required by the RCA.

The project area does not contain habitat suitable for sensitive riparian species, such as least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo. Additionally, no vernal pools or ephemeral ponds were observed on the project area and no suitable habitat for any fairy shrimp species was identified on site.

Raptor Foraging Habitat. The WLCSP and off-site facilities contain flat, open areas with sparse vegetation, which could be considered foraging habitat for some raptor species. Due to the regular, heavy disturbance associated with the various agricultural activities in the WLCSP and off-site facilities resulting in a rather limited prey base, and the limited size of the site in relation to the expansive foraging habitat in the near vicinity including both the CDFW Conservation Buffer Area and the SJWA, ~~LSSRA~~LPSRA and the extensive Badlands to the east, the foraging habitat on site is considered marginally suitable and an adverse but not significant impact to raptor foraging habitat is anticipated.

Project or Specific Plan Design Features. The WLCSP does not contain any design features related to riparian habitat or other sensitive natural communities.

NOTE: The following changes have been made in responses to Comments A-1-1 in Letter A-1 from the U.S. Army Corps of Engineers, and A-6-12 in Letter A-6 from the U.S. Fish and Wildlife Service and et. al.

Mitigation Measures. The ~~Jurisdictional Delineation (~~JD~~)~~ prepared for the project in ~~2012~~2013 is programmatic in nature because no specific development activity or building plans are proposed at this time. The 2012 JD determined the on-site drainages were not under the jurisdiction of the USACE, but one or more may be under the jurisdiction of the CDFW. Therefore, **Mitigation Measure 4.4.6.3A** will help ensure there will be no significant impacts to riparian areas associated with Waters of the U.S. or Waters of the State as a result of future development within the project.

In addition to the previously identified **Mitigation Measures 4.4.6.1A** through **4.4.6.1C**, the following measures have been identified to reduce the significance of potential impacts to riparian/riverine habitat:

~~**4.4.6.3A** Prior to the approval of any Plot Plans proposing development adjacent to any on-site drainage channels identified in the project programmatic Jurisdictional Delineation (MBA 2012), the developer shall retain a qualified biologist to prepare a site-specific jurisdictional delineation and submit it to the U.S. Army Corps of Engineers (USACE) and California Department of Fish and Wildlife (CDFW) for review and concurrence. If the development plan will not affect identified jurisdictional areas, no USACE permitting is required. However, permitting through the Regional Water Quality Control Board (RWQCB) and CDFW (i.e., Streambed Alternation Agreement) may still be required for this development.~~

~~The applicant shall consult with USACE, CDFW and RWQCB to establish the need for permits based on the results of the 2012 jurisdictional delineation and final design plans for each of the proposed the facilities. Consultation with the three agencies shall take place and appropriate permits obtained. Compensation for losses associated with the altering of drainages on site shall be in agreement with the permit conditions.~~

~~Any development adjacent to Drainage 9 shall be designed with the channel in its relatively natural condition, and shall provide a minimum 25-foot open space setback from the top of each bank. Any landscaping of this setback area shall use only native species to help protect resources residing within or traveling through these drainages between the SJWA and the Badlands, and to protect any riparian vegetation along this drainage. This measure shall be implemented to the satisfaction of the City Planning Division.~~

4.4.6.3A Prior to the issuance of grading permits the applicant shall secure a jurisdictional determination from the United States Army Corps of Engineers (USACE) and confirm with the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (CDFW) if drainage features mapped on the property to be developed are subject to jurisdictional authority. If the features are subject to regulatory protection, the applicant will secure permit approvals with the appropriate agencies prior to initiation of construction. Compensatory riparian habitat mitigation will be provided at a minimum ratio of 1:1 (replacement riparian habitat to impacted riparian habitat) to ensure no net loss of riparian habitat or aquatic resources. It should be noted that this is a minimum recommended ratio but the actual permitting ratio may be higher. These detention basins will be oversized to accommodate the provision of areas of riparian habitat. Maintenance of the basins will be limited to that necessary to ensure their drainage and water quality functions while encouraging habitat growth. Riparian habitat mitigation will be provided concurrent to or prior to impacts. A Compensatory Mitigation Plan will be prepared for all unavoidable impacts and will be consistent with the United States Army Corps of Engineers (USACE)/United States Environmental Protection Agency's Compensatory Mitigation for Losses of Aquatic Resources; Final Rule and the United States Army Corps of Engineers Standard Operating Procedure for Determination of Mitigation Ratios.

The applicant shall consult with United States Army Corps of Engineers, California Department of Fish and Wildlife, and Regional Water Quality Control Board to establish the need for permits based on the results of a recent jurisdictional delineation and final design plans for each of the proposed the facilities. Consultation with the three agencies shall take place and appropriate permits obtained for project-level development. Compensation for losses associated with the altering of drainages on site shall be in agreement with the permit conditions and in coordination with compensation outlined below.

Mitigation will consist of onsite creation, offsite creation, or purchase of mitigation credits from an approved mitigation bank. As outlined in the WLC programmatic DBESP report, onsite riparian habitat will be created at a minimum 1:1 ratio due to the poor quality of onsite habitat. New habitat will be created within the onsite detention/infiltration basins to the extent allowed by the resource agencies to reduce storm flows, improve water quality, and reduce sediment transport. Habitat creation will include the installation of mule fat scrub or similar riparian scrub habitat to promote higher quality riparian habitat, but still maintain the basins for their primary role as detention facilities. The use of these areas as conservation areas would require consent from CDFW and the City of Moreno Valley (MM BIO-2b and MM DBESP 1 through 3).

~~**4.4.6.3B** As an alternative to Mitigation Measure 4.3.6.3A, the project developer shall retain a qualified biologist to prepare a Determination of Biologically Equivalent or Superior Project (DBESP) relative to development along Drainage 9 in order to maximize protection or preservation of the drainage, otherwise the DBESP must demonstrate why protection or preservation is not possible. This measure shall be implemented to the~~

~~satisfaction of the City Planning Division in consultation with the County Resource Conservation Agency (RCA).~~

~~The DBESP shall be prepared to document measures to reduce impacts to riparian/ riverine habitats in accordance with the MSHCP as well as CDFW and USFWS guidelines. The DBESP shall include specific measures to reduce impacts to riparian areas and provide mitigation in the form of on-site preservation of riparian areas and/or a combination of compensation through purchase and placement of lands with riparian/ riverine habitat into permanent conservation through a conservation easement and/or restoration or enhancement efforts at off-site or on-site locations.~~

4.4.6.3B As required by the Resource Conservation Agency (RCA), a program-level Determination of a Biological Equivalent or Superior Preservation (DBESP) for impacts to Riverine/Riparian habitat has been prepared and shall be approved by the Resource Conservation Agency prior to project approval. The Determination of a Biological Equivalent or Superior Preservation includes a general discussion of mitigation options for impacts to riverine/riparian areas as well as general location and size of the mitigation area and includes a monitoring program.

If impacts to riparian habitat within the World Logistics Center Specific Plan (WLCSP) cannot be avoided at the time of specific development, then a separate project-level Determination of Biologically Equivalent or Superior Preservation (DBESP) shall be prepared to identify project-specific impacts to riparian habitat and incorporate mitigation options identified in Mitigation Measure 4.4.6.3A.

A project-level Determination of a Biological Equivalent or Superior Preservation for each specific development shall be prepared to document measures to reduce impacts to riparian/riverine habitats in accordance with the Western Riverside County Multiple species Habitat Conservation Plan (MSHCP). The project-level Determination of a Biological Equivalent or Superior Preservation shall include specific measures to reduce impacts to riparian areas and provide mitigation in the form of onsite preservation of riparian areas and/or a combination of compensation through purchase and placement of lands with riparian/riverine habitat into permanent conservation through a conservation easement and/or restoration or enhancement efforts at offsite or onsite locations. Therefore, mitigation required for compensation for impacts to riparian/ riverine areas will require a minimum of 1:1 mitigation ratio of riparian/riverine mitigation land.

As outlined in the WLC programmatic DBESP, erosion control improvements will be installed within Drainage 9 to reduce sediment transport, and additional riparian habitat will be enhanced within this drainage following the installation of the erosion control improvements (MM DBESP 4 and 5).

Note: The following Mitigation Measure has been added in response to Comment F-1-6 in Letter F-1 from the Center for Biological Diversity/San Bernardino Valley Audubon Society.

4.4.6.3C Prior to issuance of any grading permit for any offsite improvements that support development within the World Logistics Center Specific Plan, the developer shall retain a qualified biologist to prepare a jurisdictional delineation (JD) for any drainage channels affected by construction of the offsite improvements. This jurisdictional delineation shall be submitted to the U.S. Army Corps of Engineers (USACE) and California Department of Fish and Wildlife (CDFW) for review and concurrence. If the offsite improvements will not affect any identified jurisdictional areas, no United States Army Corps of Engineers permitting is required. However, permitting through the Regional Water Quality Control

Board (RWQCB) and California Department of Fish and Wildlife (i.e., Streambed Alternation Agreement) may still be required for these improvements. The applicant shall consult with United States Army Corps of Engineers, California Department of Fish and Wildlife and Regional Water Quality Control Board to establish the need for permits based on the results of the 2012 jurisdictional delineation and final design plans for each of the proposed the facilities. Consultation with the three agencies shall take place and appropriate permits obtained. Compensation for losses associated with any altered offsite drainages shall be in agreement with the permit conditions. Any landscaping associated with these offsite improvements shall use only native species to help protect biological resources residing within or traveling through these drainages per Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Table 6.1.2. This measure shall be implemented to the satisfaction of the City Planning Division in consultation with the U.S. Fish and Wildlife Service, U.S. Army Corps. of Engineers, and the California Department of Fish and Wildlife.

Level of Significance after Mitigation. With implementation of **Mitigation Measures 4.4.6.1A** ~~through~~**, 4.4.6.1~~C~~ ~~and~~1B, 4.4.6.3A, and 4.4.6.3~~B~~3A** through **4.4.6.3C**, potential impacts to riparian habitat or other sensitive natural communities, including on-site drainages, will be reduced to less than significant levels.

4.4.6.4 Candidate, Non-listed Sensitive, or Special-Status Species

Impact 4.4.6.4: *The proposed project has the potential to affect the burrowing owl, designated "species of special concern" by the California Department of Fish and Wildlife.*

Threshold	Would the proposed project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Critical Habitat. No USFWS designated Critical Habitat for any species is located within the project area; therefore, no further action with regard to Critical Habitat is necessary.

Los Angeles Pocket Mouse. Focused surveys for the LAPM were conducted in August 2005, June 2010, ~~and~~ June 2012, and July 2013. Suitable habitat was found within Drainage Feature 9, one of the main drainage features located in the eastern end of the project area. In its MSHCP Consistency Report, MBA concluded that LAPM is absent from the project area. However, the Specific Plan indicates this drainage will remain in its present natural condition, except for the southern end as it becomes the Street H channel and outlets to the SJWA land to the south. Extensive surveys were completed in 2005, 2010, ~~and~~ 2012, and 2013, which concluded that Los Angeles pocket mouse was not present. ~~However, to ensure that no impacts occur, Mitigation Measure 4.4.4.6E has been added below.~~

~~**Migratory or Nesting Birds.**~~ In addition, there is no suitable habitat between the known occurrence of Los Angeles pocket mouse and the WLCSP. The known populations of Los Angeles pocket mouse are located within the southern portion of the SJWA, which is more than 2 miles from the southern WLCSP boundary. The area between the known recorded occurrences of Los Angeles pocket mouse and the WLCSP is actively disked farmland. Therefore, there is no habitat connectivity between the known occurrences of Los Angeles pocket mouse and the WLCSP. However, to ensure that no impacts occur, Mitigation Measure 4.4.6.4E has been added below.

Migratory or Nesting Birds. The 2013 MBA report found the extensive agriculture plant communities in the WLCSP and offsite facilities provide suitable nesting habitat for ground-nesting avian species such as western meadowlark (*Sturnella neglecta*) and burrowing owl. Suitable habitat for shrub and tree nesting species such as red-tailed hawk, black phoebe (*Sayornis nigricans*), and house finch occur along the edges of existing development surrounding the WLCSP and offsite facilities as well as isolated, remnant patches of vegetation in undisturbed portions of the WLCSP and offsite facilities. Therefore, portions of the WLCSP and offsite facilities and immediately adjacent to the WLCSP and off-site facilities provide suitable nesting habitat for migratory birds protected under the MBTA and California Fish and Game Code.

The project area contains suitable nesting habitat for several tree-, shrub-, and ground-nesting avian species. Therefore, MBA recommends construction activities avoid the avian nesting season, from February to August, if possible. If construction activity must take place during the nesting season, a pre-construction nesting bird survey should be conducted prior to any ground disturbance activities. The survey can be conducted in conjunction with the pre-construction survey for burrowing owl.

If passerine birds are found to be nesting or if there is evidence of nesting behavior within 250 feet of the impact area, a 250-foot setback will be required around the nest where no vegetation disturbance will be permitted. For raptor species such as hawks and owls, this buffer should be expanded to 500 feet. A qualified biologist will be required to closely monitor nests until it is determined that they are no longer active, at which time construction activity in the vicinity of nests could continue. Construction activity may proceed within the buffer area at the discretion of the biological monitor.

Burrowing Owl. For those species that are not covered by the take and incidental take provisions of the MSHCP (e.g., burrowing owl), the MSHCP requirements dictate that further protective action be taken. While no burrowing owls were identified within the project's proposed area of disturbance, because suitable habitat is present within the project area for the burrowing owl and because the species is highly mobile, a potential exists that, at some future date prior to project development, this species may occupy the development sites. This is a potentially significant impact requiring mitigation.

All burrowing owl observations within the project site are associated with artificially created berms. The recorded sightings have been within a bank of an existing drainage feature, a berm within the recently constructed detention basin associated with the Skechers Building (Drainage 3), and a roadside berm just south of Alessandro Boulevard.

The proposed detention basins will be constructed with similar manufactured berms. Based on historic observations of burrowing owl within the project site, it is reasonable to assume that construction of similar berms will continue to provide optimum burrow habitat for resident burrowing owls.

In addition, since there have been no recorded occurrences of burrowing owl in the northern portion of the SJWA there is no concern for competition with other burrowing owls. It is reasonable to assume that the created detention basins will provide more than a sufficient amount of foraging habitat to support a single pair of burrowing owl. Since the southern 250-feet of the WLCSP will not contain any building development and construction activities will be restricted to detention basins and associated access roads, it would be more appropriate to include the buffer area in a deed restriction rather than a conservation easement.

Plant Survey Areas. The project limits are within MSHCP Survey Area 10 of the NEPSSA and MSHCP Survey Area 9 of the CASSA for plant species. The MSHCP requires that a habitat site assessment (HSA) be conducted for all proposed developments within Narrow Endemic Plant Species' (NEPSSAs) and Criteria Area Sensitive Plant Species' (CASSAs). The HSA for most

NEPSSA and CASSA plants must be done during a normal rainfall year and/rainy season. If it is determined during the HSA that suitable soils and/or growing conditions are present on site to support identified NEPSSA species, a focused plant survey is required during the plant species blooming period.

Habitat suitability of the site for NEPSSA and CASSA species is detailed in the General Biological Resources and MSHCP Compliance Report (EIR Appendix E). None of the species analyzed in the NEPSSA or CASSAs is anticipated to occur on the WLC project site. The implementation of the WLC project would not affect the habitat or result in a direct impact for any special status plant species.

Project or Specific Plan Design Features. The WLCSP does not contain any design features relative to sensitive species or birds, other than the landscape palette that contains all native and/or drought-tolerant plants that may be utilized by birds tolerant of human activity.

The following mitigation measures have been changed in response to Comments A-6-17 in Letter A-6 from the U.S. Fish and Wildlife Service, and Comment B-3-33 in Letter B-3 from the California Department of Fish and Wildlife.

Mitigation Measures. The following measures have been identified to reduce the significance of potential impacts to special status bird species:

Listed or Sensitive Species:

The previously identified **Mitigation Measures 4.4.6.1A** through **4.4.6.1D** will reduce potential impacts on listed or otherwise sensitive plant or animal species or critical habitat to less than significant levels, other than the following which are addressed with additional measures:

Migratory/Nesting Birds

4.4.6.4A Pursuant to the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code (CFGC), site preparation activities (removal of trees and vegetation) shall be avoided during the nesting season of potentially occurring native and migratory bird species (generally February 1 to August 31). If site preparation activities must occur during the nesting season, a pre-activity field survey shall be conducted by a qualified biologist prior to issuance of grading permits for such development. The survey shall determine if active nests of species protected by the ~~MBTA~~Migratory Bird Treaty Act or ~~CFGC~~ California Fish and Game Code are present in the construction zone. If active nests of these species are found, the developer shall establish an appropriate buffer zone with no grading or heavy equipment activity within of 500 feet from an active listed species or raptor nest, 300 feet from other sensitive or protected bird nests (non-listed), 250 feet from passerine birds, or 100 feet for sensitive or protected songbird nests. All construction activity within the vicinity of active nests must be conducted in the presence of a qualified biological monitor. Construction activity may encroach into the buffer area at the discretion of the biological monitor in consultation with CDFW. In the event no special status avian species are identified within the limits of disturbance, no further mitigation is required. In the event such species are identified within the limits of ground disturbance, ~~Mitigation Measure~~mitigation measure 4.4.6.4B shall also apply. This measure shall be implemented to the satisfaction of the City Planning Division.

4.4.6.4B If it is determined that project-related grading or construction will affect nesting ~~special status avian~~migratory bird species, no grading or heavy equipment activity shall take place within the limits established in Mitigation Measure 4.4.6.4A until it has been determined by a qualified biologist that the nest/burrow is no longer active, and all

juveniles have fledged the nest/burrow. This measure shall be implemented to the satisfaction of the City Planning Division.

4.4.6.4C The loss of foraging habitat for golden eagle and white-tailed kite will be mitigated by payment of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) fee and the creation of a landscaped buffer area adjacent to the San Jacinto Wildlife Area property (SJWA). First, the payment of the Western Riverside County Multiple species Habitat Conservation Plan fee will be required on a project-by-project basis. Second, a 250-foot setback as described in Mitigation Measure 4.4.6.1A will be established within the World Logistics Center Specific Plan area. This area will reduce impacts to raptor species foraging in the adjacent San Jacinto Wildlife Area open space areas.

Burrowing Owl

4.4.6.4D~~C~~ ~~Prior to issuance of any grading permits, a~~ A pre-construction clearance survey for burrowing ~~owls~~owl shall be ~~prepared~~conducted by a qualified biologist ~~andsubmitted to the City. This survey shall be required and conducted~~ no more than thirty (30) days prior to ~~initiation of~~ any grading or ground disturbing activities within the project area.

In the event no burrowing owls are observed within the limits of ground disturbance, no further mitigation is required.

If construction is to be initiated during the breeding season (February 1 through August 31) and burrowing owl is determined to occupy any portion of the ~~study~~disturbance area during the 30-day pre-construction survey, ~~consultation with the CDFW and USFWS shall take place and no~~ construction activity shall ~~take place within~~maintain a 500 ~~feet of an~~ foot buffer area around any active nest/burrow until it has been determined that the nest/~~burrow~~burrow is no longer active, and all juveniles have fledged the nest/burrow. If this avoidance buffer cannot be maintained, consultation with the California Department of Fish and Wildlife (CDFW) shall take place and an appropriate avoidance distance established. No disturbance to active burrows shall occur without appropriate permitting through the ~~MBTA~~Migratory Bird Treaty Act and/or ~~CDFW~~California Department of Fish and Wildlife.

If active burrowing owl burrows are detected outside the breeding season (September through January), or within the breeding season but owls are not nesting or in the process of nesting, active and/or passive relocation may be conducted following consultation with the ~~CDFW and USFWS.~~California Department of Fish and Wildlife. A relocation plan may be required by California Department of Fish and Wildlife if active and/or passive relocation is necessary. The relocation plan will outline the basic process and provides options for avoidance and mitigation. Artificial burrows -may be constructed within the buffer area south of the World Logistics Center Specific Plan. Construction activity may occur within 500 feet of the ~~active nests~~burrows at the discretion of the biological monitor in consultation with CDFW.

~~If active nests are identified in a development area, the nests shall be avoided or the owls actively or passively relocated to the 250-foot setback area in the southern portion of the Specific Plan site (see Mitigation Measure 4.4.6.1A). This setback area shall be considered a "conservation area" for burrowing owl or other species of animals or plants that need to be relocated from the portions of the WLCSP site to be developed. In the event no burrowing owls have been identified within the limits of ground disturbance, no further mitigation is required. In the event burrowing owls are~~

~~identified within the limits of ground disturbance, Mitigation Measure 4.4.6.4D shall apply. To avoid active nests adequately, no grading or heavy equipment activity shall take place within at least 250 feet of an active nest during the breeding season (February 1 through August 31) and 160 feet during the non-breeding season. This measure shall be implemented to the satisfaction of the City Planning Division.~~

~~**4.4.6.4D** If active burrowing owl burrows are detected outside the breeding season, passive and/or active relocation may be undertaken following consultation with and approval by the CDFW and/or USFWS. The installation of one-way doors may be installed as part of a passive relocation program. Burrowing owl burrows shall be excavated with hand tools by a qualified biologist when determined to be unoccupied, and back filled to ensure that animals do not re-enter the holes/dens. Owls may also be actively relocated on site to the 250-foot clear buffer zone along the southern boundary of the WLCSP, as outlined in Mitigation Measure 4.4.6.1A. This measure shall be implemented to the satisfaction of the City Planning Division.~~

A relocation plan may be required by California Department of Fish and Wildlife if active or passive relocation is necessary. Artificial burrows may be constructed within appropriate burrowing owl habitat within the proposed open space/conservation area (Planning Area 30), a 74.3-acre area in the southwest portion of the Specific Plan. This area abuts the Lake Perris State Recreation Area (LPSRA) which is already in conservation. If suitable habitat is not present in Planning Area 30, owls may be relocated to the SJWA, the 250-foot buffer area or other suitable on-site or off-site areas. Construction activity may occur within 500 feet of the burrows at the discretion of the biological monitor

Los Angeles Pocket Mouse

4.4.6.4E Prior to the approval of any Plot Plans proposing the development of land including or adjacent to Drainage 9, a protocol survey for the Los Angeles Pocket Mouse (LAPM), including 100 feet upstream and downstream of the affected reach shall be prepared by a qualified biologist and submitted to the City. If the affected drainage is not occupied, the area is considered not to be occupied and development can continue without further action. If the species is found within the specific survey area, no development shall occur until an appropriate mitigation fee is paid or appropriate amount of land set aside on the project site or off site to compensate for any loss of occupied ~~LAPM~~Los Angeles Pocket Mouse habitat. Alternatively, individuals may be relocated to the 250-foot setback zone along the southern boundary of the property identified in Mitigation Measure 4.4.6.1A, or other appropriate areas as determined by the ~~USWFS~~United States Fish and Wildlife Service. If necessary, this measure shall also be coordinated with Mitigation Measure 4.4.6.2B regarding preparation and processing of a ~~DBESP report~~Determination of a Biological Equivalent or Superior Preservation report. This measure shall be implemented to the satisfaction of the City Planning Division.

Resource Management

4.4.6.4F Prior to approval of any discretionary permits for development ~~along the southern border of the WLCSP~~within Planning Areas 10 and 12, a Biological Resource Management Plan (BRMP) shall be prepared to prescribe how the 250-foot ~~"safe zone"~~setback area outlined in Mitigation Measure 4.4.6.1A will be ~~managed~~developed and maintained~~ to provide a buffer and resources for wildlife of the adjacent SJWA.~~ This plan will identify frequent and infrequent vegetation management requirements (i.e., removal of invasive plants) and the planting and maintaining trees ~~along both the north and south sides of the detention~~

~~basins~~ to provide roosting and nesting opportunities for raptors and other birds. ~~The BRMP~~The Biological Resource Management Plan will also describe how relocation of listed or sensitive species will occur from other locations as outlined in Mitigation Measures 4.4.6.2A, 4.4.6.4D, and 4.4.6.4E.

~~Preparation and implementation of the BRMP~~The Biological Resource Management Plan shall be ~~to~~reviewed and approved by the ~~satisfaction of the City~~ Planning ~~Division~~Official in consultation with the ~~SJWA~~ San Jacinto Wildlife Area Manager. ~~ThBRMP~~The Biological Resource Management Plan shall cover all the land within the 250-foot setback zone ~~along the entire southern boundary of the WLCSP~~within Planning Areas 10 and 12 Implementation of the plan shall be supervised by ~~the Riverside Land Conservancy or~~ a qualified ~~conservation organization or~~biologist, to the satisfaction of the City Planning Division.

4.4.6.4G Mitigation Measure 4.4.6.1A specifies that a landscape plan shall be submitted with any development proposal for lots adjacent to the ~~CDFW~~California Department of Fish and Wildlife (CDFW) San Jacinto Wildlife Area (SJWA) property prior to issuance of a precise grading permit. The landscape plan shall be prepared by a licensed landscape architect in consultation with a qualified biologist and shall be consistent with the design standards contained in the Specific Plan. No plant species listed in Section 6.1.4 or Table 6.2 of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) shall be installed within the setback area. In conjunction with development adjacent to the ~~CDFW Conservation Buffer Area~~ San Jacinto Wildlife Area (SJWA), cottonwood trees shall be planted within ~~along the southern boundary of~~ the 250-foot ~~"clear~~" setback ~~zone~~ area, consistent with the ~~WLCSP landscaping plan and~~ World Logistics Center Specific Plan plant palette (per DBESP MM 8).

During construction, the runoff leaving construction areas will be directed to onsite detention basins and away from downstream drainage features located offsite. All projects within the WLCSP will be required to prepare a Storm Water Pollution Prevention Plan (as outlined in MM 4.9.6.2B). Regarding the 250-foot setback area, pedestrian and vehicular access to areas of riparian/riverine habitat will be prohibited except for controlled maintenance access. Finally, no grading shall be permitted within conserved riparian/riverine habitat areas except for grading necessary to established or enhance habitat areas (DBESP MM 6, 7, 9, and 10).

4.4.6.4H As outlined in Mitigation Measure 4.4.6.1A, development adjacent to the 250-foot open space setback shall have a six-foot chain link fence or similar barrier to help separate human activity and the buffer area. Any chain link fencing installed on any properties adjacent to the 250-foot buffer area shall have metal mesh installed below and above ground level to prevent animals from accessing new development areas.

4.4.6.4I The individual property owner and/or Property Owners Association (POA) as appropriate shall be responsible for maintaining the various onsite landscaped areas, open improved or natural drainage channels, and detention or flood control basins in a manner that provide for fuel management and vector control pursuant to standards maintained by the City Fire Marshall and County Department of Environmental Health- Vector Control Group. This measure requires the individual owner or Property Owners Association (POA) to manage vegetation in and around these areas or improvements so as to not represent a fire hazard as defined by the City Fire Department through the substantial buildup of combustible materials. This measure also requires the individual owner or Property Owners Association to manage vegetation and standing water in drainage channels and basins such that they do not encourage or allow vectors to occur (primarily

rats and mosquitoes). Runoff shall not be allowed to stand in channels or basins for more than 72 hours without treatment or maintenance to prevent establishment of mosquitoes per published County vector control guidelines and "Best Management Practices for Mosquito Control on California State Properties" which is available from the California West Nile Virus website at http://www.westnile.ca.gov/resources. This measure shall be implemented by the Property Owners Association in consultation with the City Fire Department and Riverside County Department of Environmental Health – Vector Control Group.

4.4.6.4J A Fuel Management Plan shall be prepared on a project-by-project basis for those Planning Areas adjacent to the south and east boundary of the World Logistics Center Specific Plan adjacent to Western Riverside County Multiple Species Habitat Conservation Plan Conservation Areas. The Fuel Management Plan shall be prepared by the project proponent and submitted for approval to the prior to plot plan approval for those projects on the southern and eastern Western Riverside County Multiple Species Habitat Conservation Plan boundary. Per the Western Riverside County Multiple Species Habitat Conservation Plan guidelines, the Fuel Management Plan shall include the following:

- A plant palette of adequate plant species that may be planted within the Fuel Management Area, which will be approved by a biologist familiar with the plant requirements of the area.
- A list of non-native invasive plants that are prohibited from installation.
- Maintenance activities and a maintenance schedule.

Fuel modification zones shall be mapped and include an impact assessment as required under California Environmental Quality Act guidelines for a project-level analysis. The plan shall demonstrate that the adjacent Western Riverside County Multiple Species Habitat Conservation Plan Areas are adequately protected from expected fire risks.

4.4.6.4K Prior to approval of any plot plans for development adjacent to the SJWA, the applicant shall demonstrate that direct light rays have been contained within the development area, per requirements of the MSHCP Section 6.0 which states, "Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting." This measure shall be implemented to the satisfaction of the City Planning Division.

Level of Significance after Mitigation. Implementation of the above-listed mitigation measures would reduce impacts to burrowing owl, migratory bird species, and Los Angeles pocket mouse to less than significant levels.

4.4.7 Cumulative Impacts

The cumulative area for biological resources is the Western Riverside County MSHCP area. The MSHCP establishes a comprehensive, multi-jurisdictional program focused on the conservation of 146 species and their habitats in western Riverside County. As stated in its Conservation Element, the City reviews all public and private development and construction projects and other land use plans/activities within the MSHCP area to ensure compliance with the conservation criteria procedures and mitigation requirements set forth in the MSHCP. As a signatory to the MSHCP Implementing Agreement, the City has been issued "Take Authorization," which allows the

implementation of land use decisions consistent with the MSHCP without individual authorization by State or Federal authorities. As required by the MSHCP, focused biological resource studies have been conducted to assess potential impacts associated with development of the proposed uses. Where impacts to special status bird species and jurisdictional areas have been identified, mitigation has been identified to reduce the project specific impacts to a less than significant level. Additionally, the MSHCP and its Implementation Agreement contain a fee mitigation program pursuant to which local agencies collect development impact fees and remit such fees to the RCA. These fees are in turn used to acquire lands which are suitable for habitat preservation for species covered by the MSHCP. In fact, habitat lands created by the MSHCP also have biological benefits for species technically not covered by the MSHCP, such as the burrowing owl. Habitat acquired by the MSHCP may be suitable as owl habitat. The latest adjustment of the MSHCP fee mitigation (July 1, 2009) allows the collection of fees of $6,597 per acre of industrial development. The payment of required MSHCP is a standard requirement for all development occurring within the MSHCP area.

This EIR determined that indirect impacts of the project on the SJWA would be less than significant with mitigation, and the regional (cumulative) implications of the project can be addressed through the fee payment program of the MSHCP because it provides a regional and comprehensive approach to conservation planning. For example, future development that impacts Drainage 9 would be required to prepare a DBESP report consistent with MSHCP requirements. Through the implementation of the stated mitigation for project-specific impacts, and the payment of required MSHCP mitigation fees, no significant cumulative effect on biological resources would result from the development of the proposed uses with implementation of the identified program mitigation measures.

4.5 CULTURAL AND PALEONTOLOGICAL RESOURCES: TABLE OF CONTENTS

FIGURE

TABLE

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NOTE TO READERS. *This section has been revised in response to public comments received on the Programmatic DEIR which have resulted in project changes, updates to technical studies, and revisions to DEIR sections and proposed Mitigation Measures.*

4.5 CULTURAL AND PALEONTOLOGICAL RESOURCES

This section identifies and evaluates the potential of the proposed project to have adverse effects on archaeological, historical, and paleontological resources. The resources of concern include, but are not limited to, prehistoric and historic artifacts, burials, sites of religious or cultural significance to Native American groups, and historic structures. This section provides a detailed discussion of impacts potentially attributable to the proposed project, and criteria used to determine impact significance to cultural resources.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers ~~3,918~~ 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes ~~3,814~~ 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering ~~3,814~~. 3,714 acres, which redesignates approximately 70 percent of the area (~~2,710~~ 2,610 acres) for logistics warehousing (new LD and LL~~, LS~~ zones) and the remaining ~~30~~ 29 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the ~~2,710~~ 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*~~. The environmental impacts of all of these entitlements on the entire project area are addressed in this EIR and the accompanying technical reports and analyses~~

The analysis contained in this section is based on the following technical study prepared for the proposed project:

- Cultural Resources Assessment, Michael Brandman Associates, original dated April 12, 2012, updated September 2014 (Appendix F).

- Copies of City correspondence illustrating City compliance with SB 18 tribal consultation requirements (Appendix A).

In addition to this technical study, the analysis contained in this section is also based on the following reference documents:

- Moreno Valley General Plan Conservation Element, adopted October, 2006.
- Moreno Valley General Plan Environmental Impact Report, certified July, 2006.

4.5.1 Existing Setting

4.5.1.1 Archaeological Resources

Archaeological resources are those associated with prehistoric cultural sites, prehistoric isolates, and the remnants of historic cultural sites that lack substantive building remnants (termed "historic archaeological sites") such as roads and trails. Prehistoric cultural resources consist of those physical properties that predate the advent of written records in a particular region that are considered important to a culture, subculture, or community for scientific or humanistic reasons. These include geographic districts, structures, sites, objects, and other physical evidence of past human activity. Similar to prehistoric cultural resources, historic cultural resources in a particular geographic region are considered important to a culture, subculture, or community, and postdate the advent of written records. An archaeological records search was conducted through the Eastern Information Center (EIC) at the University of California, Riverside by the project archaeologist, Michael Brandman Associates (MBA).

The results of this records search indicated that the project site and surrounding area contain a number of Native American (NA) sites, mainly milling features and slicks associated with the uplands of the nearby Mount Russell Range. The area also contains several historic sites mainly remnant artifacts and foundations of historic homestead/farmstead buildings and/or ranch complexes.

4.5.1.2 Historic Resources

The following is excerpted and summarized from Viola Hamner's "In the Beginning", a history of life in Moreno Valley (Hamner 2003):

> *Our valley was once called San Jacinto Plains. It was so named because the land was considered a part of the huge Rancho San Jacinto, dating back to mission times. It has been described as part of the tableland that stretches between Box Springs and the San Jacinto Mountains, and between the Badlands and Temecula.*
>
> *Great bands of sheep and herds of cattle from the rancho roamed our valley and munched the grasses and weeds. Indian made trails and camped near the hills. Just as new, the hills turned brown during the summer months and into the spring, the undisturbed land became a billowy lake of blossoms…*
>
> *When the huge Alessandro Tract on the western part of our valley was recorded in August 1887, and the town of Alessandro was established, our valley became known as Alessandro Valley or Alessandro Plains. After 1890 when the town of Moreno was established, it became known as Moreno Valley as well as Alessandro Valley.*

Then in 1890 appeared Frank E. Brown and his Bear Valley and Alessandro Development Company, coming in like a great wind, and in one big swoop, changed our valley forever… Brown and his partner Edward Judson, devised a plan to build a dam and transport water to their land from Big Bear Mountain. They then founded the successful colony of Redlands. They concluded that if they built the Bear Valley Dam higher, there would be enough water in the big reservoir to establish another colony in what is now Moreno Valley.

Brown and his investors bought and subdivided thousands of acres of land throughout the valley.

In April 1891, the precious Bear Valley water finally arrived. It traveled down the mountain and through pipelines, tunnels, and ditches for a distance of forty miles… With only a promise of water, the excited settlers started to improve their parcels.

For several years, there was great hope and planting activity in the valley. Then, in 1894, a series of misfortunes befell the valley, including several years of drought and a lack of irrigation water as a result of losing a water rights decision with Redlands. It turned out the Big Bear Dam had not been built large enough to handle drought conditions.

The drought continued and by 1898, Big Bear Lake was virtually dry. Depopulation of Moreno Valley began, and some settlers moved to nearby towns, taking their houses with them. An English writer described it as a "Valley on Wheels." Even the three-story Hotel de Moreno (at the corner of Alessandro Avenue and Redlands Boulevard). "Some businesses continued to operate in the town of Moreno. The General Store and Post Office continued on for over 100 years. The town may have withered, but it never died.

Over the years, other settlers who could afford it, dug their own wells and continued to raise citrus. In the spring, the sweet smell of orange blossoms gave delightful encouragement. Olives and other crops were planted, but most of the acreage in Moreno Valley was filled with "amber fields of grain." The dry-land farming had only the winter rains to sustain them.

The author then refers to the "second coming or the second spurt of development. This began with the subdivision of the Sunnymead Orchard Tract in 1912, the establishment of Alessandro Flying Field (March Field) in 1918, and the subdivision of the Edgemont Tract in 1923."

Finally, the author refers to the "third coming when huge parcels of open land were turned into housing tracts, starting in the 1960's, resulting in an explosion of population. The city of Moreno Valley was founded in November 1984. It encompassed the Moreno, Sunnymead, and Edgemont areas. It became the 20th City in Riverside County and the second largest in population at that time."

4.5.1.3 Paleontological Resources

The project site is located at the northern end of the Peninsular Range Geomorphic Province California Geologic Survey (2002), a 900-mile long northwest-southeast trending structural block that extends from the tip of Baja California to the Transverse Ranges and includes the Los Angeles Basin. This region is characterized by a series of mountain ranges separated by northwest-trending valleys sub-parallel to faults branching from the San Andreas Fault. The trend of topography is similar to that of the Coast Ranges Geomorphic Province located to the north, but the geology is more like that of the Sierra Nevada, with granitic rock intruding on the older metamorphic rocks. It contains extensive pre-Cretaceous (greater than 65 million years ago) igneous and metamorphic rocks covered by limited exposures of post-Cretaceous sedimentary deposits.

Specifically, the project site is located on the Perris Block, which extends from the southern foot of the San Gabriel and San Bernardino Mountains southeast to the vicinity of Bachelor Mountain and Poly Butte. It is bounded on the southwest by the Elsinore Fault Zone and on the northeast by the San Jacinto Fault. The surface of the Perris Block consists of granitic exposures that have been tectonically tilted eastward, leaving granitic outcrops elevated and exposed on the west side of the Perris Block (Jurupa Hills) and allowing Pleistocene sediments to cover the east side, filling the eastern San Bernardino, Lakeview, Perris, and San Jacinto Valleys.

The project site lies between the plutonic batholith of Mt. Russell, the San Jacinto fault zone and the Pliocene-era non-marine sedimentary rocks of The Badlands.[1] Within the project limits, Holocene alluvial sediments and isolated Pleistocene alluvial sediments have been mapped across much of the site, with a small outcrop of Cretaceous granitic bedrock on the surface in the southwestern portion of the site. It is possible that deposits of middle to late Pleistocene (300,000 to 10,000 years ago) alluvium are present just below the surface in isolated locations of the site, but there are no surface expressions of this older formation on the surface within the project site.

Artificial Fill. Artificial fill consists of sediments that have been removed from one location and transported to another by human activity. Artificial fill will sometimes contain modern debris such as asphalt, wood, bricks, concrete, metal, glass, plastic, and plant material. Artificial fill can contain fossils, but since these fossils have been removed from their original location, it is unlikely to contain in-situ fossils. Artificial fill can be found in isolated areas on the project site, mainly associated with former ranch/farm sites or existing residences and farms.

Holocene Alluvial Fan Deposits. Holocene Alluvial Fan Deposits are also known as Recent to Young Alluvial Fan Deposits. They are found at the mouths of canyons or along the sides of hills that flank river and stream valleys (e.g., the Badlands to the east and northeast). They represent deposition by small streams that flow out of mountains and hills. They were deposited during the early to late Holocene and range in age from the recent to 10,000 years before the present. Although Holocene alluvium can contain remains of plants and animals, generally not enough time has passed for the remains to become fossilized. In addition, the remains are contemporaneous with modern species, and these remains are usually not considered to be significant. These deposits are too young to contain in-situ fossils and have low paleontological sensitivity; however, it should be noted that although an area may be mapped with younger alluvium on the surface, deposits of older alluvium are often encountered at shallow depths below the surface, and these older sediments can and do contain fossils.

Pleistocene Alluvial Fan Deposits. Pleistocene Alluvial Fan Deposits are also known as Old Alluvial Fan Deposits and Very Old Alluvial Fan Deposits. Like the Holocene Alluvial Fan Deposits described above, they are found at the mouths of canyons and along the sides of hills that flank river and stream valleys, they are older than the Holocene deposits. The Old Alluvial Fan Deposits were deposited during the late to middle Pleistocene (10,000–300,000 years ago) and the Very Old Alluvial Fan Deposits were deposited during the middle to Early Pleistocene (300,000–1.8 million years ago). Within the subsurface of the project area, sediments from the middle to late Pleistocene likely exist at depths (i.e., possibly as shallow as 5 feet). In addition, as early to middle Pleistocene alluvial sediments are mapped as occurring just to the east and west of the project area, it is also likely that these older sediments may be encountered as well. Fossils are known in similar Pleistocene deposits from excavations for roads, housing developments, and quarries within the Southern California area. These sediments have the potential to contain in-situ fossils and have a high paleontological sensitivity.

[1] *Cultural Resources Assessment*, Michael Brandman Associates, Inc., April 24, 2012.

Heterogeneous Granitic Rocks. Heterogeneous mixtures of granitic rocks contain some metamorphic rocks such as schist and gneiss. Granitic rocks range in composition from hornblende-rich quartz diorite to leucocratic tonalite and from potassium feldspar-free rocks to granodiorite and quartz diorite. Because of its igneous origin, granitic rocks do not contain paleontological resources. Surface bedrock deposits are found in the upland areas near the southwest portion of the project site, associated with the Mount Russell Range surrounding Lake Perris.

Summary. A paleontological locality search indicated that there was a low potential for significant paleontological resources to be encountered by construction excavation on the project site at the depths planned for the project, although it is possible that Pleistocene alluvial deposits, which have a higher potential to contain fossils, may be found in some locations during project grading.

4.5.1.4 Ethnographic Context

The Moreno Valley General Plan EIR states that the Luiseño and Cahuilla peoples occupied the region during the Late Prehistoric period. Unfortunately, there is a lack of definitive archaeological evidence linking the prehistoric site complexes located within the City limits of Moreno Valley to any single modern tribal group. It is likely that northern Luiseño and western Cahuilla peoples accessed this area during the late prehistoric period for resource gathering. Areas located at the base of Mt. Russell would have been a logical place for a trade route, as it would link prehistoric site complexes at the north end of the City with the marshy areas at the north end of the San Jacinto Valley. Serrano peoples may have also used the San Jacinto Valley to link with their more southern groups.

a. Cahuilla

The Cahuilla Indians occupied the San Timoteo valley prior to contact with Spanish Mission padres and military personnel, which places the project area near their traditional use areas. Of all the southern California Indians, the Cahuilla existed within the most geographically diverse region, constrained only by water supplies and topography. Currently, it is thought that a migration of Shoshonean peoples from the Great Basin occurred approximately 1,000 to 600 years ago, with populations moving into much of desert and coastal Southern California. Included among these migrants were the forbearers to the modern Cahuilla. The prehistoric Cahuilla were characterized by the occupation of sedentary villages in subsistence territories that permitted them to reach the majority of their resources within a day's walk. Villages were commonly located near reliable sources of water. During October to November, much of the village population moved to temporary camps in the mountains to harvest acorns and hunt game.

Inland groups also had fishing and gathering spots on the coast that they visited annually. In comparison with the Gabrielino and Luiseño, the Cahuilla appear to have had a lower population density and a less rigid social structure. The Cahuilla patterns may have been relatively stable until mission secularization in 1834, due to the policy of the Catholic Mission fathers or padres to maintain imported European traditional style settlement and economic patterns.

b. Luiseño

The Luiseño, belong to the Shoshonean linguistic family, which is also shared by Cahuilla, Gabrielino, and Serrano among others.[1] Luiseño villages could be found from the Pacific Ocean inland to the western base of the San Jacinto River and near Fallbrook. The villages were typically established near defined water and food sources and in good defensive locations, so these villages were commonly located along valley bottoms, streams, or coastal strands. The Luiseño characteristically

[1] *Cultural Resources Assessment*, Michael Brandman Associates, Inc., April 24, 2012.

lived in sedentary villages, therefore one clan or family occupied several food-gathering locations and aggressively guarded these areas against other clans.

c. Serrano

The project area is considered to be in an area historically used by the Serrano. All indigenous groups adjacent to the eastern San Bernardino Mountains were decimated by the Spanish, but some Serrano survived for many years thereafter in the far eastern San Bernardino Mountains due to the ruggedness of the terrain and the dispersed population. It is believed Serrano families inhabited the *Guachama Ranchería* or *Politana* in the early 1800s. This village apparently housed the Rancho San Bernardino *estancia* after about 1819. Their range is generally thought to have been located in and east of the Cajon Pass area of the San Bernardino Mountains, north of Yucaipa, west of Twentynine Palms and south of Victorville. Like all prehistoric Californians, the range of this group was determined by reliable water sources. A Serrano village typically consisted of a collection of families centered about a ceremonial house, with individual families inhabiting willow-framed huts with tule thatching. Considered hunter-gatherers, the Serrano exhibited a sophisticated technology devoted to hunting small animals and gathering roots, tubers, and seeds of various kinds. Today, Serrano descendants are found mostly on the Morongo and San Manuel reservations.

4.5.1.5 Local History

a. Spanish Period (A.D. 1769 to 1821)

The earliest record of exploration of the Moreno Valley area is from the journal of Juan Bautista de Anza, a Spanish explorer who traveled from Mexico City through the San Jacinto Valley, passing by Mystic Lake and through the Moreno Valley area, on his way to Monterrey and San Francisco in 1774.

Father Junipero Serra was sent to Alta California to create a chain of Missions and Mission outposts to bring Christianity to the indigenous population, and create a foundation for colonization of the region. Located between the previously established presidios in Monterey and San Diego, Serra had military assistance in his quest and the San Bernardino area came under the early control of Spanish soldier Pedro Fages and Father Francisco Garces. In 1819, Rancho San Bernardino was established. This followed a decision by the heads of the mission system to expand their agricultural holdings into the interior and later establish a chain of additional Missions in the desert interior. A decision was made to create an *estancia*, or a ranch headquarters with a chapel that was occasionally visited by padres at the *Guachama Ranchería*. Work on the San Bernardino *Asistencia* was started about 1830, and it was not yet finished when the project was abandoned in 1834. The rancho traditions were kept once Mexico established control over the area, but without the original authority of the Mission padres.

b. Mexican Period (A.D. 1821 to 1848)

After years of internal fighting, Mexico achieved its independence from Spain in 1821 and Alta California became the northern frontier of the State of Mexico. The Mission padres were then forced to swear allegiance to Mexico in 1822. Secularization of the missions took place over the next decade and the former mission lands were transferred to the large Mexican families that had settled in the area. Affiliated with Mission San Luis Rey, the Rancho San Jacinto was formed on December 21, 1842 and granted to Jose Antonio Estudillo. This rancho provided Estudillo with twice as much land, 8 square leagues, or 46,080 acres, as he had petitioned for the previous August. Lands north of the modern Alessandro Boulevard were not claimed by any family, probably because little reliable water existed in the area, except for the Mystic Lake cienega, and because it was a two-day ride from the

closest Missions, San Gabriel, and San Luis Rey. The property was petitioned for division by Estudillo's brother-in-law Miguel de Pedrorena, soon after and a small portion of The Badlands north of Hemet was added to form the Rancho San Jacinto Nuevo y Potrero.

There is historical evidence a road led from the Rancho San Jacinto headquarters northwest along the base of The Badlands to the springs in the Box Springs Mountains east of what is now Riverside, then over to roads near the Santa Ana River. The route, which likely followed the current alignment of Gilman Springs Road, has been used for travel for over 160 years. The primary purpose of the interior ranchos was to raise cattle and sheep; however, beyond the Mystic Lake *cienega* west of Eden Hot Springs, little reliable water was found north of San Jacinto. The trail likely brought travelers along the base of Mt. Russell as this would shorten the trip to Box Springs. The upper San Jacinto Valley proved marginal in terms of food production for Native Americans, a factor that limited agricultural growth expansion well into the 1950s.

c. Moreno Valley Before 1893

Theodore Street was the eastern border of the old Bear Valley and Alessandro Development Company (BV&A) development. BV&A conceptualized the town of Moreno and the community of Alessandro in 1889. Frank Elwood Brown, an engineer who moved to California in 1876, was the co-founder with ~~Hiram~~Edward Judson of the town of Redlands. In 1890, Brown and other investors formed the BV&A to "plat out new towns, bring Bear Valley water to the [Moreno] Valley, and open another large area to agricultural and town site development".[1] Brown and Judson began growing citrus in Redlands between 1878 and 1882 using meager local water supplies. Brown formed the Bear Valley Land and Water Company (BVLWC) in the early 1880s and constructed the Big Bear Dam in 1883. After successfully creating Big Bear Lake, at that time the largest man-made reservoir in the world, water began flowing from the dam through a series of flumes and canals to Redlands orchards in 1885. This demonstration led locals to believe that the area could be successfully irrigated using water brought in from the mountains to the north.

The potential for Big Bear Lake seemed enormous because the winters between 1875 and 1885 were some of the wettest winters on record. Brown assumed that the abundance of water stored in the reservoir in those years was typical and would continue as such. With little knowledge of precipitation fluctuations in southern California, water supplies appeared unlimited and Brown and others fostered grandiose schemes for attracting moneyed investors. Between 1889 and 1890, Brown began trading stocks from his own companies to develop land south of Redlands and consolidate his water rights. After organizing the BV&A in 1889, Brown and his associates bought all of the BVLWC stock individually. They then incorporated the Bear Valley Irrigation Company (BVIC), which bought all of the original BVLWC stock, including the dam, from the BV&A.[2]

Frank Brown hoped to duplicate the success of the City of Redlands, which by 1890 was a thriving commercial citrus center located along an established railroad right-of-way. Turning his attention to the valley south of Redlands, a 280-acre town site was named the Town of Moreno. Initially, the town was to have been named New Haven, after New Haven, Connecticut where many of the investors, including Brown, were from. However, to honor Brown, the name Moreno, which is the Spanish word for "brown," was chosen. North-south streets in the BV&A development in Moreno and Alessandro were named for the corporation leaders, while east-west streets were named for plant and tree species common in California at the time. Hopes were high that Moreno would prosper and local newspapers in 1891 declared that "Moreno will be a rail road town in the future [which has] every advantage of the most favored locality in Southern California and the disadvantages of none."

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1 *Cultural Resources Assessment*, Michael Brandman Associates, Inc., ~~April 24, 2012~~ September 2014.
2 Ibid.

In April 1891, it was estimated that between 1,500 and 2,000 people went to the new town site of Moreno to purchase town lots being sold at public auction. In the following eight months, a Congregational Church, four brick commercial buildings, a lumberyard, two brickyards, a cement pipe works, and a school were constructed with as many as "thirty houses being built at one time."

By 1893, the Hotel de Moreno, three stories high and encompassing an entire city block, was operational and doing a brisk business with people needing a place to stay while developing their land. Investors interested in Moreno Valley land were from nearby locations, Los Angeles, San Diego, San Bernardino, and from as far away as Wisconsin, Pennsylvania, and New York. A map was created to show potential buyers what types of irrigation systems would be built and where the land was located.[1]

d. Moreno Valley After 1893

Moreno had become a small boomtown with new businesses developing, and orchards and crops being planted on nearby fields. The success for both local businesses and the farmers depended on the availability and consistency of water. Although Brown had studied the feasibility of bringing water into the Valley and had initially been successful piping water from Bear Valley, by 1893 Brown and others realized that without a higher dam, the reservoir could not hold enough water to meet the irrigation needs of Redlands and Moreno. To worsen the situation for Moreno, Redlands was the town for whom the reservoir was initially built and therefore had first rights to the water. A legal suit won by Redlands in 1894, in effect permanently shut off the water to Moreno, although a local judge ordered that domestic water to Moreno homes must be reinstated.[2]

In addition to the lack of water, it is likely that the Recession (Panic) of 1893 forced many potential farmers in southern California to reconsider their options, and new farmers went out of business. The Panic was caused by railroad overbuilding and speculation, much of which was driven by westward expansion into California. According to several sources, over 15,000 businesses and 500 banks failed during this period, many of them in California. The Northern Pacific Railway, the Union Pacific Railroad, and the Atchison, Topeka & Santa Fe Railroad all failed. The resultant depression lasted for three years and farmers went bankrupt nationwide; good economic times did not resurface until about 1899. By that time, the speculative land boom in this part of Southern California was over.

The City remained a rural agricultural community for many decades, until after World War II. The expansion of the Federal freeway system and housing boom following the war led to the start of suburbanization in the Moreno Valley area that slowly converted agricultural land to new homes, shopping centers, etc. In the 1990s at one time, Moreno Valley was one of the fastest-growing communities in the nation. The older agriculture-oriented towns of Alessandro and Moreno gave way to suburban residential neighborhoods. By 2010, "Moreno" had suburban development to the west and agricultural fields to the east.

Alessandro Boulevard. In connection with the development of the Town of Moreno in the 1890s as part of the Bear Valley and Alessandro Development Company's real estate venture, Alessandro Boulevard was constructed across much of the project site. The roadway has been in continuous use in largely its same location since that time. In 1988, the City adopted Resolution CPAB 88-2 recognizing the landmark status of this roadway and providing for the preservation of its 120-foot right-of-way through the City.

[1] Ibid.
[2] Ibid.

4.5.1.6 NOP/Scoping Comments

The Sierra Club expressed concern about how the project would affect Native American sites in this area, as well as the agricultural history of this area. In addition, Susan Nash provided information about the route that Juan Bautista de Anza took through the San Jacinto Valley and the project site on his travels from San Diego to points north. These comments are addressed in this section of the EIR.

4.5.2 Existing Policies and Regulations

4.5.2.1 Federal Regulations

National Historic Preservation Act (NHPA) of 1966 (as amended), Section 106. The NHPA declares a national policy of historic preservation to protect, rehabilitate, restore, and reuse districts, sites, buildings, structures, and objects significant in American architecture, history, archaeology, and culture. The NHPA established the National Register of Historic Places (National Register), State Historic Preservation Offices (SHPOs) and programs, and the Advisory Council on Historic Preservation. This Act applies to all properties on or eligible for inclusion in the National Register. The Section 106 review process requires consultation to mitigate damage to "historic properties" (defined per 36 CFR 800.16[1] as places that qualify for the National Register), including Native American traditional cultural places (TCPs). Evaluation of cultural resources consists of determining whether it is significant (i.e., whether it meets one or more of the criteria for listing in the National Register). These eligibility criteria are defined in 36 CFR 60.4 as follows:

> The quality of significance in America history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association:
>
> A. That is associated with events that have made a significant contribution to the broad patterns of our history;
>
> B. That is associated with the lives of persons significant in our past;
>
> C. That embodies the distinctive characteristics of a type, period or method of construction, or that represents the work of a master, or possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction; and/or
>
> D. That has yielded, or may be likely to yield, information important to prehistory or history.

4.5.2.2 State Regulations

California Environmental Quality Act. An "historic resource" includes, but is not limited to, any object, building, site, area, place, record, or manuscript that is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.[1] CEQA mandates that lead agencies consider a resource "historically significant" if it meets the criteria for listing in the California Register of Historic Resources (California Register). Such resources meet this requirement if they (1) are associated with events that have made a significant contribution to the broad patterns of California history, (2) are associated with the lives of important persons in the past, (3) embody distinctive characteristics of a type, period, region, or method of construction, and/or (4) represent the

[1] Public Resources Code, Section 5020.1(j).

work of an important creative individual or possesses high artistic value.[1] These criteria mimic the criteria utilized to determine eligibility for the National Register.

In addition, Public Resources Code Section 21083.2 and *CEQA Guidelines* Section 15064.5(f) recognize that historical or unique archaeological resources other than potential Native American burials may be accidentally discovered during project construction. This guideline recommends that immediate evaluation defined by qualified archaeologists be included in mitigation measures. This guideline also recommends that if the find is determined to be a historical or unique archaeological resource, that contingency funding and time allotments sufficient to allow for implementation and avoidance measures be available.

Senate Bill 18. Signed into law in September 2004, and effective March 1, 2005, SB 18 permits California Native American tribes recognized by the Native American Heritage Commission (NAHC) to hold conservation easements on terms mutually satisfactory to the tribe and the landowner. The term "California Native American tribe" is defined as "a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC."

The bill also requires that, prior to the adoption or amendment of a city or county's general plan, the city or county consult with California Native American tribes for the purpose of preserving specified places, features, and objects located within the city or county's jurisdiction. SB 18 also applies to the adoption or amendment of specific plans. This bill requires the planning agency to refer to the California Native American tribes specified by the NAHC and to provide them with opportunities for involvement.

California Health and Safety Code. The California Health and Safety Code Section 7050.5 states that if human remains are discovered on site, no further disturbance shall occur until the County Coroner has made a determination of origin and disposition. If the Coroner determines that the remains are not subject to his or her authority and if the Coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the NAHC. This regulation is applicable to any project where ground disturbance would occur.

4.5.2.3 City of Moreno Valley General Plan Policies

The General Plan defines goals and policies related to cultural resources within the City of Moreno Valley. The Chapter 9 Goals and Policies section provides the following guidelines to City staff:

Objective 7.6: Identify and preserve Moreno Valley's unique historical and archaeological resources for future generations.

Policies in Response to Objective 7.6:

7.6.1) Historical, cultural and archaeological resources shall be located and preserved, or mitigated consistent with their intrinsic value.

7.6.2) Implement appropriate mitigation measures to conserve cultural resources that are uncovered during excavation and construction activities.

7.6.3) Minimize damage to the integrity of historic structures when they are altered.

7.6.4) Encourage restoration and adaptive reuse of historical buildings worthy of preservation.

[2] Public Resources Code, Section 5024.1(c).

7.6.5) Encourage documentation of historic buildings when such buildings must be demolished.

To help define when a cultural resource becomes "significant" within the context of Moreno Valley history, a professional cultural resource manager must conduct an assessment with consideration of an appropriate threshold. Certain cultural resources will have an intrinsic value to the City. City policy suggests that significant cultural resources uncovered during project-related excavation and construction activities should be preserved and/or mitigated to the extent feasible consistent with their intrinsic value.

Prehistoric sites on Mount Russell are located within lands under the jurisdiction of the City and the County of Riverside are part of an unofficial prehistoric district known as the Wolfskill Ranch North Complex, and its general location has been published in the Moreno Valley General Plan Final EIR.[1] Page 5.10-14 of the Moreno Valley General Plan Final EIR notes that the North Complex is located on Open Space and that a project's potential effect to all prehistoric cultural resources in the City, including those of the Wolfskill complex, is considered a significant impact.

4.5.3 Methodology

4.5.3.1 Phase 1 Research

a. Cultural Resource Assessment

Over the past ten years, a number of cultural resource assessments have been conducted on the project site and in surrounding areas. The following information summarizes the results of those surveys as described in Tables 1 and 2 from the Cultural Resources Assessment conducted for the project. There are 45 archaeological Native American and historical resource sites in the general area of the project, with most being milling features or slicks in the Mount Russell area.[2]

Table 4.5.A lists 11 sites were identified in the southwest portion of the project site, which is designated "Open Space" in the Specific Plan and will not be disturbed. These sites are all milling features associated with the Mount Russell Range and will not be affected by development of the project.

Table 4.5.A: Cultural Resources Identified in the Southwest Portion of the Project Site

CA-RIV-610	CA-RIV-3238	CA-RIV-3345	CA-RIV-8006
CA-RIV-860	CA-RIV-3343	CA-RIV-3346*	CA-RIV-8007**
CA-RIV-2993	CA-RIV-3344	CA-RIV-3347	

* Includes a midden.
** Renamed from CA-RIV-2775, 2776, and 2777.

It should be noted that the cultural assessments for the project do not show the specific locations of the cultural resource sites. This information is restricted from the public, and is considered confidential and protected under CEQA, to protect the resources from illegal or inappropriate damage or theft. The project's Cultural Resources Assessment fulfills the requirements of CEQA as outlined in Section 4.5.6.2, *Significant Impacts*. (*See, e.g. Clover Valley Foundation v. City of Rocklin* (2011) 197 Cal.App.4th 200.)

[1] City of Moreno Valley General Plan EIR, 2006
[2] *Cultural Resources Assessment*, Michael Brandman Associates, Inc., ~~April 24, 2012~~ September 2014.

The project's cultural assessments also found five sites within the project area during previous excavations for the MWD pipeline (four sites) and the EMWD Gilman tunnel (the fifth site CA-RIV-6200) that will not be affected by development within the project:[1]

- CA-RIV-6065 (P33-8168);
- CA-RIV-6066 (P33-8169);
- CA-RIV-6067 (P33-8170);
- CA-RIV-6068 (P33-8171); and
- CA-RIV-6200 (P33-8709).

All of these sites are buried prehistoric Native American artifacts found during trench work except CA-RIV-6200, which was a deeply buried hearth (21 feet below ground surface). All of these resources remain in their original locations and will not be disturbed by the development of the project.

Four (4) historic-era cultural resource sites were identified within the project site in areas that could be affected by development as outlined in Tables 1 and 2 from the project cultural assessment:[2]

- CA-RIV-4201H (historic foundation remnants and trash);
- CA-RIV-4210H (old farm location);
- CA-RIV-5862 (historic era 2-room farmhouse); and
- P33-11621 (historic farmstead in the open space area of the project).

CA-RIV-4201H consists of historic foundation remnants and historical trash (e.g., bottles, nails, and broken dishes) along Virginia Street. Old topographic maps and photographs show a historic farm complex here. This site was Phase 2 tested by MBA in 2011 and found to be not significant according to CEQA criteria. CA-RIV-4210H consists of a historic structure, foundations, and trash deposits. Old topographic maps and photographs show a farm complex at this location. The MBA report indicates this site was Phase II-tested and found to be not significant under CEQA. CA-RIV-5862 consists of a historic era two-room farm structure, but it is on MWD property and is not considered a significant cultural resource under CEQA. P33-11621 is a historic farmstead but is within the open space property in the southern portion of the project site and will not be directly affected by construction within the project.[3]

In addition, there are seven rural residential properties within the project site that may contain historic buildings or resources, but these are private property and MBA staff did not access them and no detailed assessment was conducted. The Specific Plan designates these properties as "Light Logistics" and they will eventually be developed. There is evidence that at least one structure located east of Redlands Boulevard and north of Brodiaea Avenue was built around 1900. These sites will be investigated in connection with any development proposals affecting these properties.

In November 1988, the Cultural Preservation Advisory Board (CPAB) of the City of Moreno Valley designated the entire length of Alessandro Boulevard as a City Historical Landmark (Resolution CPAB 88-2). At that time, the CPAB made the alignment, right-of-way, and name of Alessandro part of the historical designation. Alessandro Boulevard was first established in 1890 and over the years has served as a San Bernardino County Road, Riverside County Road, a California State Highway, part of the transcontinental U.S. Route 60, part of the "Jack Rabbit Trail," and a City boulevard

[1] Ibid.
[2] Ibid.
[3] *Cultural Resources Assessment*, Michael Brandman Associates, Inc., April 24, 2012.

(Hamner 2003). Resolution CPAB 88-2 was adopted to ensure the maintenance, enhancement, or protection of a street of historical significance. Over the years, various portions of Alessandro Boulevard have been modernized to enhance traffic flow throughout the City, but the original routing has remained unchanged.

4.5.3.2 Phase II Testing

Based on the results of Phase I survey work on a portion of project-related lands (i.e., plowed and vacant parcels) performed in August and September of 2005, Phase II testing of certain prehistoric cultural resources, located in the southwest portion of the site, was undertaken in the summer of 2006. A monitor representing the Soboba Band of Luiseño Indians was in attendance. Additional properties in the Specific Plan were surveyed in the summer and fall of 2007. The last pieces of agricultural land within the Specific Plan boundary were surveyed in July 2011. Known as the Lee Property, these exhibited two previously recorded historic-era cultural resources. MBA also re-located prehistoric archaeological site CA-RIV-3347 during the July 2011 survey. The Phase I surveys had revealed three historic-era cultural resource sites, ten prehistoric-era cultural resource sites, and six isolated artifacts located within the boundaries of the project, but not in areas planned for development within the Specific Plan. Each resource was recorded.

In early 2006, a subsurface significance-testing program (Phase II testing) on a series of nine prehistoric cultural resources located at the southwest portion of the project site was conducted to determine if these resources should be considered significant under CEQA. The Phase II-tested sites included:

- CA-RIV-610
- CA-RIV-860
- CA-RIV-3238
- CA-RIV-3343
- CA-RIV-3344
- CA-RIV-3345
- CA-RIV-3346
- CA-RIV-8006
- CA-RIV-8007

NOTE: The following changes have been made due to revision to the Specific Plan project size.

All of these sites are milling features, and CA-RIV-8006 and -8007 are milling slicks. The testing work revealed that only one of these sites exhibited evidence of intact subsurface cultural resources (CA-RIV-3346). For this reason, CA-RIV-3346 should be considered a significant cultural resource for the purposes of CEQA.[1] MBA also determined that the other eight prehistoric sites lacked additional subsurface resources.[2] The MBA report concluded that development of the Specific Plan would not impact the nine prehistoric sites, so no further research on these sites was recommended unless the project created proposed physical disturbance (grading) of these areas.[3] The 74.3 acres of open space shown in the Specific Plan (previously referenced Figure 3.8) encompasses all of the nine prehistoric sites identified by MBA. Therefore, development under the project will not have a significant impact on archaeological resources.

Several buried and isolated prehistoric resources were detected during the monitoring phase of the Highland Fairview Corporate Park Project,[4] located adjacent to the northern edge of the Specific Plan. Likewise, several buried sites adjacent to Davis Road were detected in connection with the 1998 Inland Feeder Project by MWD. Given previous finds in the project area, MBA concluded that certain portions of the project site have a “high” and “moderate” probability of containing significant

[1] Ibid.
[2] Ibid.
[3] Ibid.
[4] *Cultural Resources Assessment*, Michael Brandman Associates, Inc., April 24, 2012.

buried cultural resources, while other areas of the project site have a “low” probability of containing significant buried cultural resources. The high probability areas are within 1,000 feet of the base of the southwestern foothills, while the moderate probability areas are within 2,000 feet of the same area.

4.5.3.3 Native American Consultation (SB 18)

MBA contacted the NAHC in March 2011 requesting a Sacred Lands File search for the project area in order to determine if there were records of cultural resources in the area. The response from the NAHC was received on March 25, 2011, indicating that no sacred lands or traditional cultural properties are known to the NAHC within the 3,~~814~~714 acres of the project area, including the Specific Plan area, Conservation Areas, and Public Facilities. However, other cultural sites have been found in the uplands outside of the project area (i.e., Lake Perris National Recreation Area to the southwest and the San Jacinto Wildlife Area to the south).

Pursuant to SB 18, on February 29, 2012, MBA sent information-request letters to each of the 11 tribal entities identified by the NAHC (see previously referenced Table 2.C for a summary of the correspondence in this regard). In response, two tribes requested government-to-government consultation under SB 18 during the 90-day notification period (Pechanga and Soboba). The City met with the Pechanga Tribe on May 30, 2012, and with the Soboba Tribe on November 27, 2012. No other Native American entities requested a government-to-government consultation meeting. In addition, several tribes provided information to the City regarding cultural resources to be included in the EIR but did not include a consultation request.

4.5.3.4 Paleontological Contacts

MBA contacted Eric Scott of the Division of Geological Sciences of the San Bernardino County Museum on June 2005 requesting a paleontological records check of the original Moreno Highlands Specific Plan area. Mr. Scott’s paleontological review showed that the project area rests entirely on exposures of Holocene (Recent) alluvium and granitic bedrock. Both the alluvium and the bedrock have low potential for fossil deposits to be uncovered during grading. However, the Holocene alluvium rests upon a veneer of Older Pleistocene alluvium and San Timoteo Formation deposits, both of which are highly sensitive for fossil resources.

MBA’s monitoring work at the Highland Fairview Corporate Park project, located north and adjacent to this project area, included monitoring for paleontological resources. During construction of the Highland Fairview Corporate Park, it was shown that shallow soils (0 to 20 feet) did not contain paleontological resources. Therefore, MBA recommends that full-time paleontological monitoring on this project should take place only in those portions of the project where earthmoving occurs 20 feet or more below existing grade.

4.5.4 Thresholds of Significance

4.5.4.1 Importance of Cultural Resources

Prior to determining whether a cultural resource is significant under *CEQA Guidelines* and therefore subject to mitigation, a threshold of significance must be developed prior to testing/evaluation. This procedure is recommended by the Office of Historic Preservation (OHP)/State Prehistoric Preservation Officer (SHPO). The threshold of significance is simply a point where the qualities of significance are defined during the analysis such that the resource can be defined as a historical resource. An adverse effect to a historic resource is regarded as the physical demolition, destruction,

relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource will be reduced such that it no longer meets the significance criteria. In lay terms, should an analysis show that future development will destroy elements that make the cultural resource historical, but leave non-unique elements intact, then the significance of the resource will be lost and there must be mitigation for that loss.

CEQA Section 15064.5, Determining the Significance of Impacts to Archaeological and Historical Resources, states that:

> "Generally, a resource shall be considered by the lead agency to be 'historically significant' if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code §5024.1, Title 14 CCR, Section 4852) including the following:
>
> (A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
>
> (B) Is associated with the lives of persons important in our past;
>
> (C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
>
> (D) Has yielded, or may be likely to yield, information important in prehistory or history."

If a prehistoric cultural resource is tested, it is traditionally held that buried features such as hearths, burials, and middens could hold analytical information that will pass the significance threshold and make the site eligible for the cultural resource under Criterion D alone (listed above) For resources created after the historic period began (post-1769 AD) and which are at least 45 years old, analysis of the condition and integrity of exposed features may cause the resource to pass Criterion A, B, C, and/or D thresholds (shown above).

For buildings and other structures at least 45 years old, the completeness and integrity of the structural architecture may cause the site to pass Criterion A, B, and/or C thresholds. The threshold should be associated with the site context or theme. If sets of unusual artifacts, buried but unusual buildings, or human remains are detected during tests of cultural resources in the project site, or if a historical review of the resource finds that it was once associated with a person and/or event of historical significance at the State/National level, such resources will likely be considered potentially significant for California Register/National Register listing. In the event that the significance of the historical resource will be reduced below the threshold because of development, feasible mitigation must be developed.

4.5.4.2 Definition of Cultural Resource Sites and Isolates

Prehistoric and historic cultural resources can vary in form and function from area to area, but it is a "site" as opposed to isolated artifacts and certain features that must be considered significant. Prehistoric and historic cultural resource sites are defined in this study as three or more items, such as lithics, stone tools, glass, cans, etc., that are not from a single source or material found within a 10 square meter area. There is no limit to the physical size of a site.

Sites that could qualify as significant are typically more than 45 years old or have the potential to be more than 45 years old. These definitions assume that items found in an area with a diversity of materials can represent more than a single activity at a location. Discrete components of a site may be identified to represent repeated activity, such as milling stations, hearths, or isolated structures. Isolated artifacts and certain isolated features do not meet these minimal criteria. Isolates could

consists of one or two cans, stone flakes, one metate fragment or fence posts, brass section markers, or well heads. Potential impacts to isolates need not be mitigated.

4.5.4.3 CEQA Thresholds

Based on Appendix G of the *CEQA Guidelines*, the effects of a project on cultural resources are considered to be significant if the project would:

- Cause a substantial adverse change in the significance of a historical resource as defined in *CEQA Guidelines* Section 15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to *CEQA Guidelines* Section 15064.5;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; and/or
- Result in any disturbance of human remains, including those interred outside of formal cemeteries.

4.5.5 Less than Significant Impacts

The following impacts were determined to be less than significant. In each of the following issues, either no impact would occur (therefore, no mitigation would be required) or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level.

4.5.5.1 Human Remains

Threshold	Would the proposed project disturb any human remains, including those interred outside of formal cemeteries?

The project site is currently undeveloped. No evidence suggesting the project site has been utilized in the past for human burials has been identified. In the unlikely event that human remains are discovered during grading or construction activities within the project site, compliance with State law (Health and Safety Code § 7050.5) (HSC § 7050.5) would be required. These requirements are imposed on any construction activity in which human remains are detected, and include the following provisions:

- There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
  - The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required; and
  - If the coroner determines the remains to be Native American:
    - The coroner shall contact the Native American Heritage Commission within 24 hours.
    - The NAHC shall identify the person or persons it believes to be the most likely descended from the deceased Native American.
    - The most likely descendant may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with

appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code § 5097.98 (PRC § 5097.98), or

- Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further and future subsurface disturbance pursuant to PRC § 5097.98(e).
  - The NAHC is unable to identify a most likely descendant.
  - The most likely descendant is identified by the NAHC, fails to make a recommendation within 48 hours of being granted access to the site; or
  - The landowner or his authorized representative rejects the recommendation of the descendant, and mediation by the NAHC fails to provide measures acceptable to the landowner.

There is a small possibility that ground-disturbing activities during construction may uncover previously unknown buried human remains. In the event of an accidental discovery or recognition of any human remains, California State Health and Safety Code § 7050.5 dictates that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to CEQA regulations and PRC § 5097.98. Compliance with existing State law would ensure that impacts related to the discovery of buried human remains would be less than significant and no mitigation is required.

4.5.6 Significant Impacts

The following potential impacts were determined to be potentially significant. In each of the following issues, mitigation measures have been recommended to reduce the significance of impacts.

4.5.6.1 Archaeological Resources

Impact 4.5.6.1: *The proposed project has the potential to affect known or previously undetected subsurface archaeological resources.*

Threshold	Would the proposed project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

NOTE: The following changes have been made due to revision to the Specific Plan project size.

Review of all cultural resource factors in and near the project site suggests that the project site is sensitive for archaeological resources in the southwestern portion of the site and the Specific Plan has set aside these ~~75~~74.3 acres as open space (Planning Area 30) to permanently protect these resources. There is no evidence that any other cultural resources are located in or near the project area; however, two tribes indicated a desire to consult with the City under SB 18 regarding the potential of such resources on the site.

The nine prehistoric cultural resources located near the southwestern portion of the project site were Phase II tested for significance: CA-RIV-610, CA-RIV-860, CA-RIV-3238, CA-RIV-3343, CA-RIV-3344, CA-RIV-3345, CA-RIV-3346, CA-RIV-8006, and CA-RIV-8007. Of these nine sites, only CA-RIV-3346 (milling features and a “midden”) is considered a significant resource under *CEQA Guidelines* because it exhibited evidence of intact subsurface cultural resources (MBA ~~2012~~2014). The project cultural assessment concluded that all the identified prehistoric sites are outside of the

development area of the Specific Plan and thus there would be no significant impact to archaeological resources from the proposed development.

Unknown Cultural Resources. It is possible that unknown cultural resources could be discovered during project-related construction. The land within 1,000 feet of exposed granitic bedrock outcrop areas in the southwesterly corner of the project is considered to have "high" sensitivity, while areas located within 2,000 feet of this area are considered to have "moderate" sensitivity. The remainder of the site is considered to have "low" sensitivity for cultural resources. As set forth below, a qualified archaeologist should be retained by the City to monitor any earthmoving in the areas of high and moderate sensitivity.

In addition, a number of project-related improvements, including the SR-60/Theodore Street interchange, SR-60/Gilman Springs Road interchange, three reservoir sites, water, sewer, and storm drain connections, debris basins, etc. are off site and cultural surveys will be conducted when specific sites are identified for these off-site improvements.

Project or Specific Plan Design Features. The ~~75~~74.3-acre open space area in the southwest corner of the WLCSP encompasses the entire foothill area some of which is considered sensitive for archaeological resources. This area is designated as Open Space in the Specific Plan and only the extension of Cactus Avenue and passive open space uses ~~and a recreational trail~~ will be permitted ~~A public multi-use trail is proposed to be established~~ in this ~~Open Space~~ area. The ~~alignment of this trail will be established to avoid disturbance of these~~ updated cultural report by MBA determined that potential impacts to cultural resources from constructing Cactus Avenue through this area could be reduced to less than significant levels by the implementation of the mitigation measures already proposed for project grading (MM 4.5.6.1C through 4.5.6.1E).

The following mitigation measure had been revised in response to Comments A-3-23 in Letter A-3 from the Pechanga Temecula Band of Luiseño Mission Indians, A-5-6 in Letter A-5 from Soboba Band of Luiseño Indians, et al.

Mitigation Measures. The following measures are proposed to help reduce potential impacts on known, unknown, or potential archaeological or historical resources to less than significant levels. The wording of the measures has been changed from the Original DEIR to address specific comments made by the Pechanga Tribe. The Tribe did request that the survey area limitations outlined in Mitigation Measures 4.5.6.1C and 4.5.6.1D be removed. After consultation with the project archaeologist the measures have been modified to refer to specific planning areas within the WLC Specific Plan as shown below:

4.5.6.1A Prior to the approval of any grading ~~or other discretionary~~ permit for any of the "Light Logistics" parcels, the parcels shall be evaluated for significance by a qualified archaeologist ~~since they were not available for survey during preparation of the EIR. A Phase I1~~. A Phase 1 Cultural Resources Assessment shall be conducted by the project archaeologist and an appropriate tribal[1] representative(s) on each of the "Light Logistics" parcel ~~prior to development~~ to determine if ~~it contains~~ significant archaeological or historical resources.

A Phase ~~II2~~2 significance evaluation shall be completed for any of these sites ~~that are determined to~~ in order to determine if they contain significant archaeological or historical resources ~~based on the results of the Phase I assessment~~. Cultural resources

include but are not limited to stone artifacts, bone, wood, shell, or features, including hearths, structural remains, or historic dumpsites. ~~If a particular resource is~~ All resources determined to be ~~significant, it~~ prehistoric or historic shall be ~~adequately~~ documented using DPR523 forms for archival research/storage in the Eastern Information Center (EIC). If the particular resource is determined to be not significant, no further ~~documented~~ documentation is required. ~~Any artifacts~~ If prehistoric resources are determined to be significant, they shall be considered for relocation or archival documentation~~, as appropriate, depending on whether the building or buildings are determined to be significant under CEQA~~. If any ~~building~~ resource is determined to be significant, a Phase ~~III~~3 recovery study shall be conducted to recover remaining significant cultural artifacts. ~~If necessary, a feasibility study shall be conducted to determine if a significant structure can be relocated effectively to off-site parcels. The study shall also identify if there~~ If prehistoric archaeological/cultural resources are ~~appropriate parcels available within or close to the Moreno area of the City. If the structure~~ discovered during the Phase 1 survey and it is determined that they cannot be ~~feasibly relocated, or there is not an appropriate parcel to relocate the structure to, the structure shall be demolished after complete archival recordation~~ avoided through site design, they shall be subject to a Phase 2 testing program. The project archaeologist ~~and~~ in consultation with appropriate tribal group(s)~~,~~) shall determine the significance of the resource(s) and determine the most appropriate disposition of the resource(s) in accordance with applicable laws, regulations and professional practices (per Cultural Report MM CR-1, MM CR-2, MM CR-7 Table 3, pg.74).

4.5.6.1B Prior to the ~~approval~~ issuance of any grading or ground-disturbing permit ~~by the City~~ for construction of off-site improvements ~~for the WALKS, the developer requesting the permit shall retain~~ qualified archaeologist shall be retained to prepare a Phase I cultural resource assessment (CRA) of the project site if an up to date Phase I cultural resource assessment is not available for the site at the time of development per Cultural Report MM CR-5, Table 3, pg.74).

Appropriate tribal representatives as identified by the City shall be invited by the Project Archaeologist to participate in this assessment.

If archaeological resources are ~~uncovered or~~ discovered during construction activities, no further excavation or disturbance of the area where the resources were found shall occur until a qualified archaeologist evaluates the find. If the find is determined to be a unique archaeological resource, appropriate action shall be taken to ~~include but not be limited to: (a) planning~~: (a) plan construction to avoid the archeological sites; (the preferred alternative); (b) ~~capping~~ cap or ~~covering~~ cover archeological sites with a layer of soil before building on the affected ~~site~~ project location; or (c) ~~excavation~~ excavate the site to adequately recover the scientifically consequential information from and about the resource. ~~Work~~ At the discretion of the project archaeologist, work may continue on other parts of the project site while the unique archaeological resource mitigation takes place. This measure shall be implemented to the satisfaction of the ~~City~~ Planning ~~Division~~ Official.

If the ~~qualified~~ project archaeologist, in consultation with the monitoring Tribe(s), determines that the find is a unique archaeological resource, the resource site shall be evaluated and recorded in accordance with requirements of the State Office of Historic Preservation (OHP). If the ~~site~~ resource is determined to be significant, ~~an adequate amount of~~ data ~~at the specific site~~ shall be collected by the qualified archaeologist and the findings of the report shall be submitted to the City. If the ~~site~~ find

is ~~not~~ determined to be not significant ~~the site need not be mitigated for as described above~~no mitigation is necessary.

Should a future project-level analysis show that cultural resource site CA-RIV-3346 will be directly or partially impacted by project-level construction, an Addendum cultural resource report must be prepared and include an analysis of the alternatives associated with mitigation for impacts to this resource following CEQA Guidelines Section 15126.4(b)(3). This information must be included in any project-level CEQA compliance documentation. It should be noted that Phase 3 data recovery is an acceptable mitigation action under CEQA Guidelines Section 15126.4(b)(3)(C) (per Cultural Report MM CR-3,Table 3, pg.74).

Should it be determined through a future project-level EIR analysis that prehistoric cultural resource sites CA-RIV-2993 and/or CA-RIV-3347 shall be directly impacted by future construction, these sites must be Phase 2 tested for significance (per Cultural Report MM CR-4, Table 3, pg.74).

4.5.6.1C Prior to the issuance of any ~~discretionary approvals for development within 3,750 feet of the southwest corner of the site, the project developer shall retain~~ grading permits a qualified archaeologist shall be retained to monitor all grading~~ as this area has been identified as having moderate~~ and shall invite tribal groups ~~to high sensitivity for cultural resources~~ to participate in the monitoring. Project-related archaeological monitoring shall include the following requirements per Cultural Report MM CR-6, MM CR-8, Table 3, pg.74):

1. All ~~construction-related~~ earthmoving shall be monitored to a depth of ten (10) feet below grade by the Project Archaeologist or his/her designated representative. Once ~~50 percent~~ all areas of the~~ earth to be moved has~~ development project that have been ~~examined~~ cut to 10 feet below existing grade have been inspected by the monitor, the Project Archaeologist may, at his or her discretion, terminate monitoring if and only if no buried cultural resources have been detected;

2. If buried cultural resources are detected, monitoring shall continue until 100 percent of virgin earth within the ~~permit~~specific project area has been disturbed and inspected by the Project Archaeologist or his/her designated representative.

3. Grading shall cease in the area of a cultural artifact or potential cultural artifact as delineated by the Project Archaeologist or his/her designated representative. A buffer of at a minimum 25 feet around the cultural item shall be established to allow for assessment of the resource. Grading ~~should~~may continue in other areas of the site while the particular find are investigated; and

4. If prehistoric cultural ~~artifacts~~resources are uncovered during grading, they shall be Phase 2 tested by the Project Archaeologist, and evaluated for significance in accordance with §15064.5(f) of the CEQA Guidelines ~~, and curated in a museum chosen by the City if the resource(s) are determined to be significant~~. Appropriate actions for significant resources as determined by the Phase 2 testing include but are not limited to avoidance or capping, incorporation of the site in green space, parks, or delineation into open space. If such measures are not feasible, Phase 3 data recovery ~~excavations of the finds (Phase III recovery).~~recovery of the significant resource will be required, and curation of recovered artifacts and/or reburial, shall be required. A ~~mitigation-monitoring~~ report associated with Phase 2 testing or Phase 3

data recovery must ~~accompany~~be delivered to the City and, if necessary, the museum where any ~~archived~~ recovered artifacts have been curated.

5. No further grading shall occur in the area of the discovery until the City approves specific actions to protect identified resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution approved by the City where they would be afforded long-term preservation to allow future scientific study.

6. The developer shall make reasonable efforts to avoid, minimize, or mitigate significant adverse impacts on cultural resources ~~on the WLCSP property, and the SHPO~~ The State Historic Preservation Office (SHPO) and local Native American tribes will be consulted and the Advisory Council on Historic Preservation will be notified within 48 hours of the find in compliance with 36 CFR 800.13(b)(3). This measure shall be implemented to the satisfaction of the ~~City~~ Planning ~~Division~~ Official.

4.5.6.1D Prior to the issuance of any grading ~~within 3,750 feet of the southwest corner of the site, the City and the applicant~~ permit the project archaeologist shall invite interested Tribal Group(s) representatives to monitor grading activities. Qualified representatives of the Tribal Group(s) shall be granted access to the project site to monitor grading as long as they provide 48-hour notice to the developer of their desire to monitor, so the developer can make appropriate safety arrangements on the site. This measure shall be implemented to the satisfaction of the ~~City~~ Planning ~~Division~~ Official.

4.5.6.1E It is possible that ground-disturbing activities during construction may uncover previously unknown, buried cultural resources (archaeological or historical). In the event that buried cultural resources are discovered during grading and no Project Archaeologist or Historian is present, grading operations shall stop in the immediate vicinity of the find and a qualified archaeologist shall be retained to determine the most appropriate course of action regarding the resource. The Archaeologist shall make recommendations to the City on the actions that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with §15064.5 of the *CEQA Guidelines*. Cultural resources could consist of, but are not limited to, stone artifacts, bone, wood, shell, or features, including hearths, structural remains, or historic dumpsites. Any previously undiscovered resources found during construction within the project area ~~should~~ shall be recorded on appropriate California Department of Parks and Recreation forms and evaluated for significance in terms of CEQA criteria. If the resources are determined to be unique historic resources as defined under §15064.5 of the *CEQA Guidelines*, ~~mitigation measures shall be identified by the Archaeologist and recommended to the City. Appropriate~~appropriate protective actions for significant resources ~~could include~~ such as avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds shall be implemented by the project archaeologist and the City.

No further grading shall occur in the area of the discovery until the City and project archaeologist approve the measures to ~~protect~~address these resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution approved by the City where they would be afforded long-term preservation to allow future scientific study.

~~In addition, reasonable efforts to avoid, minimize, or mitigate adverse effects to the property will be taken and the SHPO and Native American tribes with concerns about the~~

~~property, as well as the Advisory Council on Historic Preservation will be notified within 48 hours in compliance with 36 CFR 800.13(b)(3)~~

Level of Significance After Mitigation. Adherence to **Mitigation Measures 4.5.6.1A** through **4.5.6.1E** will reduce potential impacts to archaeological resources to less than significant levels.

4.5.6.2 Historic Resources

Impact 4.5.6.2: *The proposed project has the potential to directly or indirectly affect local historical resources.*

Threshold	Would the proposed project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5 of the *State CEQA Guidelines*?

The California Register of Historical Resources. The California Register criteria are based on National Register criteria. For a property to be eligible for inclusion in the California Register, one or more of the following criteria must be met:

1. It is associated with the events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;
2. It is associated with the lives of persons important to local, California, or national history;
3. It embodies the distinctive characteristics of a type, period, region, or method or construction, or represents the work of a master, or possesses high artistic values; and/or
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

The California Register requires that a resource possess integrity, which is defined as “the authenticity of a historical resource’s physical identity evidenced by the survival of characteristics that existed during the resource’s period of significance” (California Office of Historic Preservation 1999). To retain integrity, a resource should have its original location, design, setting, materials, workmanship, feeling, and association. Which of these factors is most important depends on the particular criterion under which the resource is considered eligible for listing (California Office of Historic Preservation 1999).

The prehistoric sites recorded within or adjacent to the project boundaries are typical example of common resource type; a prehistoric milling complex lacking temporally diagnostic artifacts or a “single-use resource extraction and processing location.” Although broadly associated with prehistoric Native American occupation, the sites do not represent unique archaeological information. The sites are not associated with significant events or persons, and do not embody distinctive characteristics of a type, period, or method of construction, nor do they appear to have the potential to yield information important in prehistory. Therefore, they do not meet any of the above criteria and are not eligible for listing in the California Register. However, they do constitute locally important examples of Native American activity and are not considered a historical resource under CEQA. Impacts to these sites relative to Native American resources are addressed in more detail in Section 4.5.6.1, *Archaeological Resources*.

The project site contains two previously identified historic sites: CA-RIV-4201H and CA-RIV-4210H. Both of these are historic-era homesteads and previously contained farm buildings and related out-buildings. They were located in the eastern portion of the Specific Plan, but MBA could find no

remains of these facilities or related artifacts. The MBA report concludes the buildings were demolished and/or their materials removed for disposal or reuse at some point in the past.

There are seven rural residential structures and associated out-buildings currently present on the project site, and one (APN 478-220-009) near Redlands Boulevard contains a farm building that was built around 1900 and may be one of the oldest surviving buildings of the historic Moreno community.[1] No other evidence of past structures or unique features was identified; however, access to the seven rural residential properties was not available at the time of survey, and it appears from general observations, historical aerial photographs, and historical records that one or more of these buildings may be older than 40 years. Without more information, there is a possibility that removal of these buildings could represent a significant impact to historic structures, features, or resources, and mitigation is required.

Local Historical Resources: Alessandro Boulevard. In connection with the development of the Town of Moreno in the 1890s as part of the Bear Valley and Alessandro Development Company's real estate venture, Alessandro Boulevard was constructed across much of the project site. The roadway has been in continuous use in largely its same location since that time. In 1988, the City adopted Resolution CPAB 88-2 recognizing the landmark status of this roadway and providing for the preservation of its 120-foot right-of-way through the City. Alessandro Boulevard was designated as a City Historic Landmark in 1988 "assure the maintenance, enhancement, or protection of a street of historical significance." Over the years, various portions of Alessandro Boulevard have been modernized to enhance traffic flow throughout the City, but the original routing has remained unchanged. Alessandro Boulevard within the WLCSP would retain its original alignment but the roadway would be enhanced to serve modern traffic needs. This has been done in multiple areas along Alessandro Boulevard in the past to better serve the needs of the community (i.e., Streets C and E originally indicated in the DEIR and Specific Plan that circulated for public review). See Figure 4.5.1. Based on these project revisions, the proposed WLCSP will not affect the integrity of the landmark status, as the significance of the Landmark status is associated with the original location of the boulevard since 1890 and the retention of the original name of the boulevard across the City. These aspects would remain and the impacts would not be considered significant since the California Register requires that a resource possess integrity, which is defined as "the authenticity of a historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance" (California Office of Historic Preservation 1999). To retain integrity, a resource should have its original location, design, setting, materials, workmanship, feeling, and association. Which of these factors is most important depends on the particular criterion under which the resource is considered eligible for listing (California Office of Historic Preservation 1999). Alessandro Boulevard integrity is retained in the original location; however, design, setting, materials feeling have changed over time through modifications to the road throughout the City, and thus the impacts of the WLCSP would not be significant in the context of the overall conditions of Alessandro Boulevard.

Approximately 1,350 feet of Alessandro Boulevard east of Merwin Street would be closed to through traffic to keep trucks from using Alessandro Boulevard through the residential neighborhoods to the west of the WLC. Eliminating vehicular use of this portion of Alessandro Boulevard would not have a significant impact on the landmark status of the road, as the name and the original routing would be retained. These are the two key characters of the landmark status. This portion of road would be designed to keep access open to non-vehicular users, including pedestrians and bicyclists. Both the original route and name would be retained in keeping with the main aspects of the landmark designation.

[1] *Cultural Resources Assessment*, Michael Brandman Associates, Inc., April 24, 2012.

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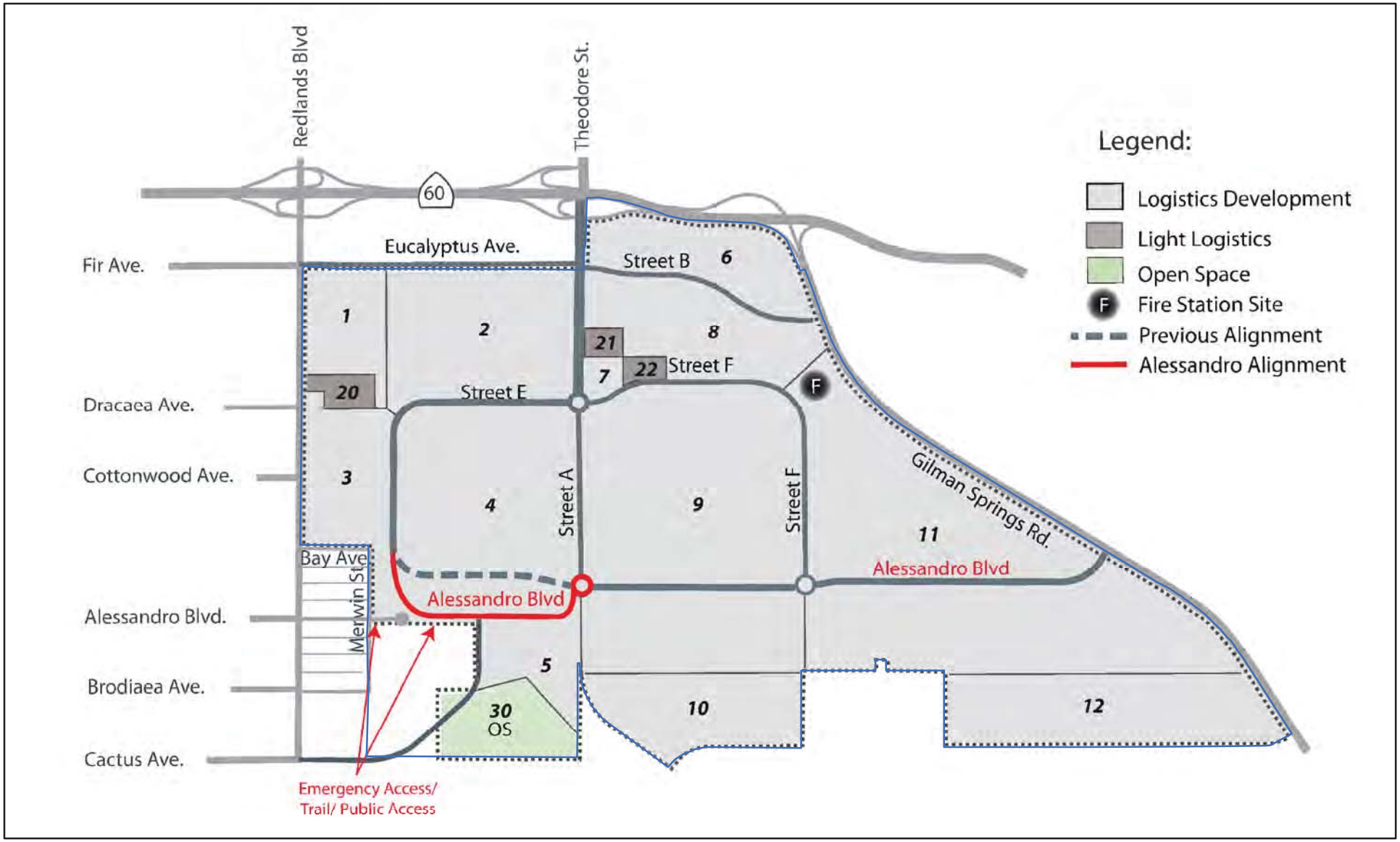

LSA

FIGURE 4.5.1

0 1,300 2,600
FEET

World Logistics Center Specific Plan Project
Environmental Impact Report

Alessandro Historical Street Alignment

SOURCE: World Logistics Center Specific Plan, Highlandfairview, September, 2014.

I:\HFV1201\Reports\EIR\fig4-5-1_AlessandroHistoricalStAlignment.mxd (9/23/2014)

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In recognition of the historical significance of Alessandro Boulevard and in compliance with Resolution CPAB 88-2, the project will retain and protect the Alessandro Boulevard right-of-way through the project. The conceptual circulation plan for the WLC contained in the Specific Plan (Exhibit 3-1) incorporates nearly all of the current Alessandro alignment. Where the ultimate roadway right-of-way varies from the historic right-of-way, the historic right-of-way will be retained and may be improved with walks, trails, landscaping or similar compatible improvements. Prior to approval of any development including or adjacent to the historic Alessandro Boulevard right-of-way, a concept plan for its entire length shall be submitted to and approved by the Planning Commission. These requirements are contained in the Specific Plan in Section 12.9 "Alessandro Boulevard – Historical Landmark." Retaining Streets C and E as proposed in the DEIR would have resulted in a potentially significant impact to a historical resource (Alessandro Boulevard), Mitigation Measure 4.5.6.2C has been introduced to keep Alessandro Boulevard in its original alignment. Therefore, any impact is less than significant.

In addition, historical evidence indicates Juan Bautista de Anza traveled through the project area (i.e., along the base of Mt. Russell from south to northwest), which should be acknowledged as part of the trail proposed within the Specific Plan.

Specific Plan Design Features. The Specific Plan was revised to show the realignment of Streets C and E to follow the historical alignment of Alessandro Boulevard and the eastern extension of Cactus Avenue through a part of the on-site Open Space area.

NOTE: The following mitigation measure had been revised in response to Comments A-3-23, A-5-6, et al (see FEIR Volume 1, Table 2.A).

Mitigation Measures. Mitigation Measure 4.5.6.1A requires surveying the seven occupied parcels for archaeological resources since these properties could not be surveyed at the time the EIR was prepared. These surveys will identify the potential for significant historical resources on these properties. In addition, the following measure will further reduce the potential impacts of the project on historical resources:

4.5.6.2A If any historic resources are found during implementation of Mitigation Measure 4.5.6.1A, the Project Archaeologist or Historian (as appropriate) shall offer any artifacts or resources to the Moreno Valley Historical Society (MVHS) or the Eastern Information Center/County Museum or the Western Science Center in Hemet as appropriate for archival storage. From the time any artifacts are turned over to the Moreno Valley Historical Society or other appropriate historical group, the developer shall have no further responsibility for their management or maintenance. ~~This measure shall be implemented to the satisfaction of the City Planning Division in consultation with the Moreno Valley Historical Society.~~

In addition, the following measure is proposed to acknowledge the route of Juan Bautista de Anza through the project area as an important historical event:

4.5.6.2B As part of construction of the trail segment connecting Redlands Boulevard to the California Department of Fish and Wildlife property, the developer shall contribute $5,000 to the City for the installation of a historical marker acknowledging the passing of Juan Bautista de Anza through this area during his exploration of California. This measure shall be incorporated into trail plans for this segment which will be subject to review and approval by the City Park and Recreation Department in consultation with the Moreno Valley Historical Society.

4.5.6.2C Streets C and E shall follow the historical alignment of Alessandro Boulevard and shall be named Alessandro Boulevard.

Level of Impact After Mitigation. Implementation of the Specific Plan as revised and **Mitigation Measures 4.5.6.1A, 4.5.6.2A, 4.5.6.2B, and 4.5.6.2C** will help reduce potential impacts to historical resources to less than significant levels.

4.5.6.3 Paleontological Resources

Impact 4.5.6.3: *The proposed project has the potential to affect previously undetected subsurface paleontological resources.*

Threshold	Would the proposed project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

As described in the *Paleontological Resources Assessment*, no paleontological resources were observed during the field survey. The majority of the project site is underlain by a thin veneer of Holocene alluvium that caps Pleistocene alluvial sediments. In addition, there is a small outcrop of Cretaceous granite that is exposed on the surface, and likely within the subsurface in some areas as well. The results of the assessment indicate that there are no known paleontological resources located within the project limits or within a one mile radius around the project site. The Holocene Alluvium that is exposed on the surface has a low sensitivity for containing paleontological resources. The Cretaceous granitic rocks that are exposed in a small area of the project have no sensitivity for containing paleontological resources. However, the Pleistocene Alluvium that exists in the subsurface of the project has produced paleontological resources in many areas of the Inland Empire and Southern California area.

The portions of the site underlain by older Pleistocene alluvium and San Timoteo Formation rock units should be assigned a “moderate” paleontological sensitivity because these deposits have yielded paleontological resources in other areas in the past. Overall, the project site is considered to have a moderate paleontological sensitivity; therefore, impacts are considered potentially significant and mitigation is required.

Specific Plan Design Features. The Specific Plan does not contain any policies regarding paleontological resources.

Mitigation Measures. The following mitigation measures have been identified to address potential impacts to paleontological resources that may be located within the project limits:

4.5.6.3A Prior to the issuance of any grading permits, ~~for development within the WLCSP, the project developer shall retain~~ a City-approved Paleontologist shall be retained to conduct paleontological monitoring as needed for all grading related to development. Development monitoring shall include the following actions:

1. Monitoring must occur in areas where excavations are expected to exceed twenty (20) feet in depth, in areas where fossil-bearing formations are found during grading, ~~This monitoring must be conducted by a qualified Project Paleontologist~~ and in all areas found to contain, or are suspected of containing, fossil-bearing formations.

2. ~~Paleontological~~ To avoid construction delays, paleontological monitors shall be equipped to salvage fossils ~~as they are unearthed to avoid construction delays and to~~ and remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates if they are unearthed.

3. Monitors shall be empowered to temporarily halt or divert equipment to allow removal of ~~abundant or large~~ specimens.

4. Monitoring may be reduced if the potentially fossiliferous units described herein are not present, or, if present, are determined upon exposure and examination by ~~aqualified~~ the Project Paleontologist to have low potential to contain fossil resources . ~~The sole discretion to reduce monitoring rests with the City.~~

This measure shall be implemented to the satisfaction of the ~~City~~ Planning Division. It ~~should be noted that the~~Official. The Project Paleontologist and the Project Archaeologist described in Mitigation Measure 4.5.6.1C may be the same person if ~~they meet~~he/she meets the qualifications of both positions per Cultural Report MM PR-1, Table 4, pg.76).

4.5.6.3B Prior to the issuance of any ~~grading~~ permits for the construction of ~~any~~ off-site improvements ~~necessary for development in the WLCSP, the project developer shall retain~~, a qualified paleontologist shall conduct an assessment for paleontological resources on each off-site improvement location. If any site is determined to have a potential for exposing paleontological resources, the project paleontologist shall monitor off-site grading/excavation, subject to coordination with the City. Development monitoring shall include the following mitigation measures: ~~monitor off-site grading/excavation, subject to coordination with the City. Development permits shall include the following mitigation measures:~~

1. Monitoring must occur in areas where excavations are expected to reach fossil-bearing formations during grading. This monitoring must be conducted by ~~aqualified~~the Project Paleontologist in all areas found to or suspected of containing fossil-bearing formations.

2. To avoid construction delays, the Project Paleontologist shall be equipped to salvage fossils ~~as they are unearthed to avoid construction delays and to~~ and remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates as they are unearthed.

3. The Project ~~Monitor~~ Paleontologist shall be empowered to temporarily halt or divert equipment to allow removal of ~~abundant or large~~ specimens.

4. Monitoring may be reduced if the potentially fossiliferous units described herein are not present, or, if present, are determined upon exposure and examination by ~~aqualified~~ the Project Paleontologist to have low potential to contain fossil resources. ~~The sole discretion to reduce monitoring rests with the City.~~

Level of Significance After Mitigation. Adherence to **Mitigation Measures 4.5.6.3A** and **4.5.6.3B** will reduce potential impacts to paleontological resources to less than significant levels.

4.5.7 Cumulative Impacts

The cumulative area for cultural resources is the City of Moreno Valley and the western portion of Riverside County. Implementation of the proposed project and related off-site improvements would require measures to identify, recover, and/or record any cultural and/or paleontological resource that may occur within the project limits. Although unlikely to occur, potential impacts associated with human remains would be reduced to a less than significant level through adherence to existing State law. With implementation of the recommended mitigation measures, potential impacts to archaeological or paleontological resources from future development will be reduced to less than significant levels. Since this region contains archaeological, historical, and paleontological resources that have been found in the past, future development in the surrounding region may impact these resources as well. However, implementation of the mitigation measures outlined in this document, and other CEQA documents for development projects in the area, will help reduce potential impacts to cultural resources to less than significant levels. With implementation of the project-level mitigation for future development identified in Section 4.5.6, the proposed project will not have significant impacts related to cultural resources, and will also not make any significant contributions to cumulatively considerable impacts relative to cultural resources. Therefore, no additional mitigation is required.

4.6 GEOLOGY AND SOILS: TABLE OF CONTENTS

FIGURE

TABLE

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NOTE TO READERS. *This section has been revised in response to public comments received on the Programmatic DEIR which have resulted in project changes, updates to technical studies and revisions to EIR sections and proposed Mitigation Measures.*

4.6 GEOLOGY AND SOILS

This section describes the location of the proposed project relative to the known geologic features and soil conditions and qualitatively evaluates potential impacts. Additionally, this chapter evaluates whether development on the proposed project site would significantly be affected by fault rupture, seismic shaking, erosion or unstable slopes, liquefaction, settlement, expansive soils, or other soil or geologic conditions.

NOTE: The following changes have been made due to revision of the Specific Plan project size.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers ~~3,918~~ 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes ~~3,814~~ 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering ~~3,814~~. 3,714 acres, which redesignates approximately 70 percent of the area (~~2,710~~ 2,610 acres) for logistics warehousing (new LD and LL~~, LS~~ zones) and the remaining ~~30~~ 29 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the ~~2,710~~ 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*. ~~The environmental impacts of all of these entitlements on the entire project area are addressed in this EIR and the accompanying technical reports and analyses.~~

The following documents were prepared to analyze the geologic impacts of the proposed WLC project:

- *Preliminary Geotechnical Evaluation for Environmental Impact Report the World Logistics Center Specific Plan South of Highway 60 Between Redlands Boulevard and Gilman Springs Road City of Moreno Valley, California.* Leighton and Associates, Inc. original dated January 23, 2013 updated September 2014. (Appendix G).

- *Response to NOP Comments for the World Logistics Center Specific Plan.* Leighton and Associates, Inc. May 2012 (Appendix G).
- *"Preliminary Geotechnical Report, Tentative Parcel Map 35629, Moreno Valley, California, Project No. 111061-108," by Leighton and Associates, Inc. June 15, 2007.*
- *"Update Preliminary Geotechnical Report, Tentative Parcel Map 35629, Highland Fairview Corporate Park, City of Moreno Valley, California, Project No. 111061-108," by Leighton and Associates, Inc. April 30, 2008.*
- *"Update Geotechnical Report, Moreno Highlands Specific Plan Area, Southeast Corner of Highway 60 and Redlands Boulevard, City of Moreno Valley, California, Project No. 111061-108," by Leighton and Associates, Inc. July 21, 2008.*
- *"Preliminary Geotechnical Evaluation for Environmental Impact Report, "The Highlands Specific Plan," South of Highway 60 between Redlands Boulevard and Gilman Springs Road, City of Moreno Valley, California, Project No. 111061-127", by Leighton and Associates, Inc. December 13, 2011.*

In addition, the analysis contained in this section is based on the following reference documents:

- Moreno Valley General Plan, Safety Element, July 11, 2006;
- U.S. Department of Agriculture, Natural Resources Conservation Service, Soil Survey Geographic (SSURGO) database for Western Riverside Area, California, September 15, 2003; and
- Geotechnical reports, comments, and responses to comments on geotechnical issues from the Westridge, Skechers, and ProLogis Environmental Impact Reports (various dates).

4.6.1 Existing Setting

The City lies within the Perris Block, a structural unit that is located within the Peninsular Range Geomorphic Province, one of the major geologic provinces of southern California. The Perris Block is a large mass of granitic rock generally bounded by the San Jacinto Fault, the Elsinore Fault, the Santa Ana River, and a non-defined southeast boundary. The Perris Block has had a history of vertical land movements of several thousand feet due to shifts in the Elsinore and San Jacinto Faults. The materials within the valley area are characterized by Pliocene-Pleistocene-aged alluvium ranging from relatively thin (20 feet to 200 feet) to intermediate thickness (up to 2,000 feet), which overlies the older granitic bedrock. The rocky, mountainous areas, including the Box Springs Mountains and the Mount Russell/Lake Perris State Recreation area, have underlying granitic bedrock that consists of quartz diorite, and displays granite rock outcrops and large boulders. The Badlands range, at the eastern end of the area, comprises deposits of what was once an inland sea later elevated and deformed by geologic processes, before becoming severely eroded to its present state. This area consists of folded semi-consolidated sedimentary sandstone, siltstone, and shale. The proposed project is located within the northern portion of the San Jacinto Valley, a fault-bounded tectonic basin that has evolved from movement along the San Jacinto fault system resulting in a down-dropped northwest-trending trough.

The existing setting for geology and soils includes faulting and seismicity, soils, and geologic and seismic hazards, which are discussed below.

4.6.1.1 Faulting and Seismicity

Pursuant to Public Resources Code Section 2690 *et seq*. Leighton & Associates prepared a geotechnical report that analyzes the seismic hazards underlying the project site. Much of the information set forth below and throughout this document is taken from that report. The proposed project site, like the rest of Southern California, is located within a seismically active region as a result of being located near the active margin between the North American and Pacific tectonic plates. The principal source of seismic activity is movement along the northwest-trending regional fault systems such as the San Andreas, San Jacinto, and Elsinore Fault Zones. Currently, these fault systems accommodate up to approximately 55 millimeters per year (mm/yr) of slip between the plates. The on-site San Jacinto Fault Zone is estimated to accommodate slip of approximately 12 mm/yr. However, geodetic measurements between 1973 and 1981 show that the San Jacinto and San Andreas Faults currently have comparable strain rates. It has been estimated that an average slip rate of as much as 20 mm/yr occurs for the San Jacinto Fault. The San Jacinto Fault zone presents a substantial seismic hazard in Southern California.

By definition of the California Geological Survey, an active fault is a fault, which has had surface displacement within Holocene time (about the last 11,000 years). This definition is used in delineating Earthquake Fault Zones as mandated by the Alquist-Priolo Geologic Hazards Zones Act of 1972 and as most recently revised in 2007 as the Alquist-Priolo Earthquake Fault Zoning Act and Earthquake Fault Zones. The intent of this act is to require fault investigations on sites located within Earthquake Fault Zones to ensure that certain inhabited structures are not constructed across the traces of active faults. The nearest Alquist-Priolo zoned “active faults” is the on-site Claremont Segment of the San Jacinto Fault Zone (see Figure 4.6.1). The western portion of the site is crossed by the City of Moreno Valley Seismic Zone and the postulated trace of the Casa Loma Fault. The nearest off-site fault zones include Casa Loma Segment of the San Jacinto Fault Zone, located 1.6 miles to the south, the San Andreas Fault Zone, located 12.7 miles northeast, and the Glen Ivy Segment of the Elsinore Fault is located approximately 22.7 miles to the southwest of the site.

4.6.1.2 Soils

Based on the *Soil Survey of Western Riverside County,* the project area contains 20 different soil-mapping units belonging to 10 different soil series. (See Table 4.6.A below and Figure 4.2.1 in Section 4.2.) A soil series is a group of soils with similar profiles. These profiles include major horizons with similar thickness, arrangement, and other distinct characteristics. The project site is dominated by San Emigdio loam (SgA and SgC) and San Emigdio fine sandy loam (SeC2), with smaller inclusions of Arbuckle loam (AkC), Badland (BaG), Gorgonio loamy sand (GhC), Greenfield sandy loam (GyA, GyD2), Hanford coarse sandy loam (HcC and HcD2), Metz loamy sand (MdC and MeD), Metz loamy fine sand (MfA), Metz gravelly sandy loam (MID), Ramona sandy loam (RdD2), Rockland (RtF), San Emigdio fine sandy loam (SeA and SeD2), and San Timoteo loam (SmE2).[1]

[1] Habitat Assessment, MSHCP Consistency Analysis, and HANS Review Highland Fairview Specific Plan City of Moreno Valley, Riverside County, California, November 10, 2011.

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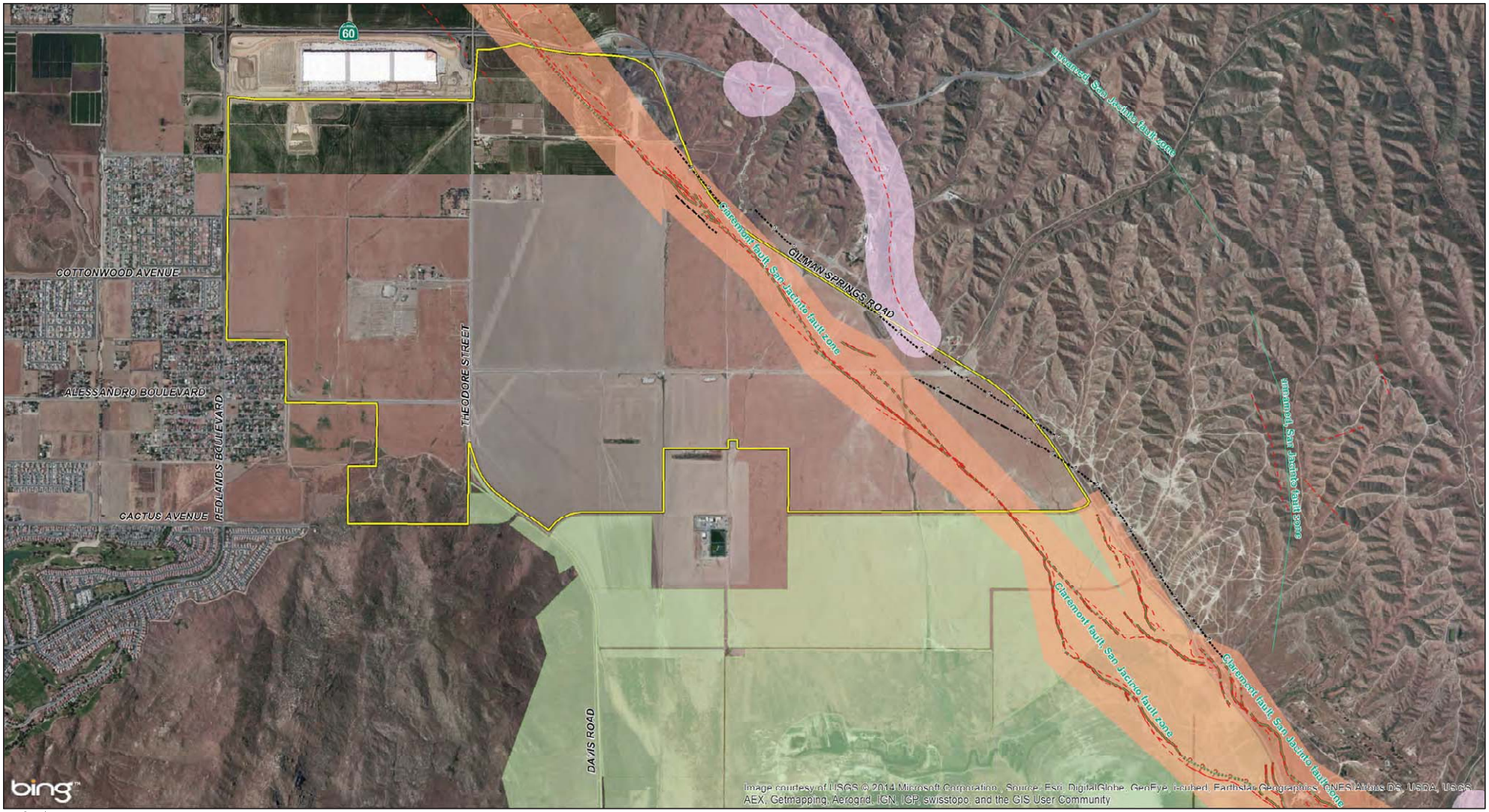

LSA

Project Boundary
CDFW Land

Alquist-Priolo Fault Zone
Alquist-Priolo Zone
Fault, Concealed
Fault, Inferred
Fault, Approximate
Fault, Certain

CGS Faults (2005)
Riverside County Fault
Riverside County Fault Zone

Approximate Location of Dibblee Mapped Fault Trace
Approximate
Concealed

0 1,000 2,000
FEET

FIGURE 4.6.1

World Logistics Center Specific Plan Project
Environmental Impact Report

Alquist-Priolo Zones and Earthquake Faults

SOURCE: County of Riverside, 2011; ESRI World Imagery & Bing Imagery, 2010; California Geological Survey, 2002 & 2005; Riverside County, 2011; Thomas Dibblee, 2003; California Dept of Fish & Wildlife. 2011.

I:\HFV120l\Reports\EIR\fig4-6-1_Faults.mxd (1/30/2014)

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Table 4.6.A: Major On-site Soil Types

Soil Name	Map Symbol	Shrink-Swell Potential	Runoff Potential	Permeability	Erosion Hazard
San Emigdio loam	SgA, SgC	Low	Slow (SgA) Moderate (SgC)	Moderate	Slight (SgA) Moderate (SgC)
San Emigdio fine sandy loam	SeC2	Low	Medium	Moderately rapid	Moderate
San Emigdio fine sandy loam	SeA, SeD2	Low	Very slow (SeA) Medium (SeD2)	Moderate	Slight(SeA) Moderate (SeD2)
Arbuckle loam	AkC	Moderate	Medium	Moderately slow	Moderate
Badland	BaG	NI	NI	NI	NI
Gorgonio loamy sand	GhC	Low	Slow	Rapid	Slight
Greenfield sandy loam	GyA, GyD2	Low	Slow (GyA) Medium (GyD2)	Moderate	Slight (GyA) Moderate (GyD2)
Hanford coarse sandy loam	HcC, HcD2	Low	Slow to Medium (HcC) Medium (HcD2)	Moderate	Slight to Moderate (HcC) Moderate (HcD2)
Metz loamy sand	MdC, MeD	Low	Slow	Rapid	Slight (MdC) High (MeD)
Metz loamy fine sand	MfA	Low	Slow	Rapid	Slight
Metz gravelly sandy loam	MID	Low	Slow to Medium	Moderately rapid	Slight to Moderate
Ramona sandy loam	RdD2	Low	Medium	Moderately slow	Moderate
Rockland	RtF	-	Slow	Slow	Moderate to High
San Timoteo loam	SmE2	Low	Rapid	Moderate	High

NI = no information
Source: Soil Survey of Western Riverside County, U.S. Soil Conservation Service

4.6.1.3 Geologic and Seismic Hazards

Geologic and seismic hazards discussed in this subsection include the following:

- Surface rupture;
- Ground shaking;
- Liquefaction;
- Subsidence and seismic settlement;
- Landslides/slope stability; and
- Compressible, expansive and collapsible soils.

Surface Rupture. Surface rupture occurs where displacement or fissuring occurs along a fault zone. While primary ground damage due to earthquake fault rupture typically results in a relatively small percentage of the total damage in an earthquake, the location of structures or facilities too close to a rupturing fault can cause profound damage. It is difficult to reduce the hazards of surface rupture through structural design. The primary method to avoid this hazard is to either set structures and facilities away from active faults, or avoid their construction in close proximity to an active fault.

Faults throughout southern California have formed over millions of years. Some of these faults are considered inactive under present geologic conditions, and other faults are known to be active.[1] Such faults have either generated earthquakes in historic times (200 years), or show geologic and geomorphic indications of movement within the last 11,000 years. Faults that have moved in the relatively recent geological past are generally presumed to be the most likely candidates to generate damaging earthquakes in the lifetimes of residents, buildings, or communities. As previously identified, the Claremont Segment of the San Jacinto Fault Zone is located on the eastern portion of the site; therefore, ground surface rupture is an identified seismic hazard within the project limits.

Ground Shaking. The vast majority of earthquake damage is caused by ground shaking. Source effects include earthquake size, location, and distance. The bigger and closer the earthquake is, the more severe the damage will be. The exact way that rocks and other earth materials move along the fault can also influence shaking, as can the subsurface orientation of the fault.

Path effects are caused by seismic waves that change direction as they travel through the earth's contrasting layers, just as light bounces (reflects) and bends (refracts) as it moves from air to water. Sometimes this can focus seismic energy at one location, and cause damage in unexpected areas.

Site effects are brought about by seismic waves that slow down in the loose sediments and weathered rock at the surface of the earth. As they slow, their energy converts from speed to amplitude, which increases shaking. This is identical to the behavior of ocean waves. As the waves slow down near shore, their crests grow higher. Sometimes, too, seismic waves get trapped at the surface and resonate. Whether resonance will occur depends on the period (the length) of the incoming waves. Waves, soils and buildings all have resonant periods. When these match, tremendous damage can occur.

The primary threat associated with on-site and the nearby faults previously identified is the intensity of ground shaking that could be generated at the project site.

Liquefaction. Liquefaction occurs primarily in saturated, loose, fine-to-medium-grained soils in areas where the groundwater table is within 50 feet of the surface. Shaking suddenly causes soils to lose strength and behave as a liquid. Excess water pressure is vented upward through fissures and soil cracks, and a water-soil slurry bubbles onto the ground surface. The resulting features are called “sand boils,” “sand blows,” or “sand volcanoes.” Liquefaction-related effects include loss of bearing strength, ground oscillations, lateral spreading, and flow failures or slumping. Based on Figure 6-3 of the Safety Element of the City’s General Plan, the project site is not located in an area identified as having a liquefaction potential. Site-specific geotechnical studies by Leighton have concluded the project site has a very low potential for liquefaction.

Subsidence and Seismic Settlement. Ground subsidence is typically a gradual settling or sinking of the ground surface with little or no horizontal movement, although fissures (cracks and separations) can result from lowering of the ground surface.

The common causes of subsidence that can produce small or local collapses to broad regional subsidence include:

- Dewatering of peat or organic soils;
- Dissolution in limestone aquifers;

[1] The Alquist-Priolo Earthquake Fault Zoning Act defines *active faults* as those that show proven displacement of the ground surface within about the last 11,000 years. *Potentially active faults* are those that show evidence of movement within the last 1.6 million years.

- First-time wetting of moisture-deficient, low-density soils (hydrocompaction);
- Natural compaction;
- Liquefaction;
- Crustal deformation;
- Ground shaking;
- Subterranean mining; and
- Withdrawal of fluids (groundwater, petroleum, or geothermal).

Most of the damage caused by subsidence is the result of oil, gas, or groundwater extraction from below the ground surface, or the organic decomposition of peat deposits. Ground subsidence may occur as a response to natural forces such as earthquake movements, which can cause abrupt elevation changes of several feet or densification of low density granular soils during an earthquake event that may cause several inches of settlement.

Landslides/Slope Stability. Significant factors that contribute to slope failure include slope height and steepness, shear strength and orientation of weak layers in the underlying geologic units, and pore water pressures. There are no known landslides within the project area; however, a large older landslide has been mapped primarily off site on the northeasterly flanks of Mount Russell, near the southwest portion of the property. The landslide appears to have originated on the higher slopes (off site) and moved northeast, partially onto the subject property.

Alluvial Soil. Alluvial soil was encountered in all exploratory borings, fault trenches, and test pits excavated at the site.[1] The alluvial soils were deposited as part of a complex depositional environment and generally include interbedded fine sands and silts with varying amounts of clay. The yellow-brown to medium gray recent alluvial soils (younger alluvium) are found in drainages and believed to constitute the upper surficial materials (upper 3 to 10 feet). The deeper materials (older alluvium and older fan-deposits) are generally dark yellow-brown to dark gray and consist of silty fine sand to sandy silt with interbedded lenses of silt clay and sandy gravel. The alluvium along the southeastern side of the site is significantly denser and contains considerable amounts of coarser sands and gravel. Pertinent engineering characteristics of the encountered alluvium are summarized below:

- **Compressibility Characteristics.** The alluvium is generally loose in the upper 10 to 15 feet in most areas. At depths greater than 15 feet, the alluvium is generally medium dense. The results of testing by Leighton also indicate a high rebound potential during unloading for some of the tested alluvium. This rebound affect may cause some elevation rise in areas of significant excavation.

- **Expansive Soils.** Expansive soils generally have a significant amount of clay particles that can give up water (shrink) or take on water (swell). The change in volume exerts stress on buildings and other loads placed on these soils. The extent of shrink/swell is influenced by the amount and kind of clay in the soil. The occurrence of these soils is often associated with geologic units having marginal stability. The majority of the site materials are expected to have a low expansive potential; however, expansive soils are known to exist on site. The more expansive soils are expected to be localized and associated with interbedded silt and clay layers.

[1] *Preliminary Geotechnical Evaluation for Environmental Impact Report World Logistics Center Specific Plan South of Highway 60 Between Redlands Boulevard and Gilman Springs Road City of Moreno Valley, California.* Leighton and Associates, Inc. January 2013.

- **Collapse Potential.** Hydroconsolidation, or soil collapse, typically occurs in recently deposited Holocene (less than 10,000 years before present time) soils that were deposited in an arid or semi-arid environment. Soils prone to collapse are commonly associated with man-made fill, wind-laid sands and silts, and alluvial fan and mudflow sediments deposited during flash floods. Particles of these soils, which typically contain minute pores and voids, may be partially supported by clay or silt, or chemically cemented with carbonates. When saturated, collapsible soils undergo a rearrangement of their grains and the water removes the cohesive (or cementing) material, and a rapid, substantial settlement may occur. An increase in surface water infiltration (such as from irrigation) or a rise in the groundwater table, combined with the weight of a building or structure, may initiate settlement, causing foundations and walls to crack. Soil borings and laboratory testing conducted by Leighton determined that on-site soils have low to moderate potential for collapse with the exemption of dispersed areas just south of the extension of Eucalyptus Avenue.[1]

4.6.1.4 Off-site Improvements

After the approximate locations of the various project-related off-site improvements were identified (e.g., reservoirs, and the Theodore Street/SR-60 interchange), the project geologist (Leighton) conducted a brief geotechnical assessment of the various off-site areas to identify the potential for geotechnical constraints (see Appendix G). Leighton concluded that none of the off-site improvement areas had substantial seismic or seismically related constraints, but did recommend additional testing and evaluation for localized soil constraints once specific improvement footprints had been established.

4.6.1.5 NOP/Scoping Comments

Several members of the public said the EIR should examine potential seismic and other impacts related to the San Jacinto Fault Zone, as well as the Casa Loma and Farm Road Faults. These comments were addressed by the project geologist and geotechnical consultant (Leighton) and are addressed in Sections 4.6.5 and 4.6.6 in relation to project impacts.

4.6.2 Policies and Regulations

4.6.2.1 State Regulations

Alquist-Priolo Earthquake Fault Zoning Act. The major State legislation regarding earthquake fault zones is the *Alquist-Priolo Earthquake Fault Zoning Act* (A-P Act). In 1972, the State of California began delineating “Earthquake Fault Zones” (called Special Studies Zones prior to 1994) around and along faults that are “sufficiently active” and “well defined” to reduce fault-rupture risks to structures for human occupancy (California Public Resources Code Sections 2621–2630). The boundary of an “Earthquake Fault Zone” is generally 500 feet from major active faults and from 200 to 300 feet from well-defined minor faults. The mapping of active faults has been completed by the State Geologist, and these maps are distributed to all affected cities, counties, and State agencies for their use in developing planning policies and controlling renovation or new construction.

Before a project can be permitted within an identified Earthquake Fault Zone, cities and counties must require a geologic investigation to demonstrate that proposed buildings will not be constructed across active faults. A site-specific evaluation and written report must be prepared by a licensed geologist. If

[1] Ibid.

an active fault is identified, a structure intended for human occupancy cannot be placed over the trace of the fault and must be set back from the fault.

The A-P Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards.

The Seismic Hazards Mapping Act. Passed in 1990, the Seismic Hazards Mapping Act (SHMA) addresses non-surface fault rupture earthquake hazards, including strong ground shaking, liquefaction, and seismically induced landslides. The California Geological Survey (CGS) is the principal State agency charged with implementing the 1990 SHMA. Pursuant to the SHMA, the CGS is directed to provide local governments with seismic hazard zone maps that identify areas susceptible to amplified shaking, liquefaction, earthquake-induced landslides, and other ground failures. The goal is to minimize loss of life and property by identifying and mitigating seismic hazards. The seismic hazard zones delineated by the CGS are referred to as “zones of required investigation.” Site-specific geotechnical hazard investigations are required by SHMA when construction projects fall within these areas.

Natural Hazards Disclosure Act. Effective June 1, 1998, the Natural Hazards Disclosure Act requires that sellers of real property and their agents provide prospective buyers with a “Natural Hazard Disclosure Statement” when the property being sold lies within one or more State-mapped hazard areas. If a property is located in a Seismic Hazard Zone as shown on a map issued by the State Geologist, the seller or the seller’s agent must disclose this fact to potential buyers.

4.6.2.2 Local Policies

City of Moreno Valley General Plan Policies. The City of Moreno Valley General Plan includes policies and goals related to geologic and seismic hazards. The following goals and policies are applicable to the proposed WLC project.

Safety Element

Goal 6.1 To achieve acceptable levels of protection from natural and man-made hazards to life, health and property.

Goal 6.2 To have emergency services which are adequate to meet minor emergency and major catastrophic situations.

Safety Element Objectives and Policies

Objective 6.1

Minimize the potential for loss of life and protect residents, workers, and visitors to the City from physical injury and property damage due to seismic ground shaking and secondary effects.

Policies:

6.1.1 Reduce the effects from fault rupture and liquefaction hazards through the identification and recognition of potentially hazardous conditions and areas as they relate to the San Jacinto fault zone and the high and very high liquefaction hazard zones. During the review of future development projects, the City shall require geologic studies and mitigation for fault rupture hazards in accordance with the Alquist-Priolo Special Study Zones Act. Additionally, future geotechnical studies shall contain calculations for seismic settlement on all alluvial sites identified as having high or very high liquefaction potential. Should the calculations show a potential for liquefaction, appropriate mitigation shall be identified and implemented.

6.1.2 Require all new developments, existing critical and essential facilities and structures to comply with the most recent Uniform Building Code seismic design standards.

4.6.3 Methodology

The analysis of potential geologic and soil-related impacts is based upon the preliminary site specific geotechnical study prepared by Leighton and Associates, the City's Safety Element of the General Plan, literature prepared by the California Department of Mines and Geology (CDMG), information from the federal Natural Resources Conservation Service (NRCS), mapping published by the United States Geological Survey (USGS), and other documents such as the City's Building Code, and the City's Standard Design Guidelines, which were reviewed and summarized to establish existing conditions. In determining the level of significance, the analysis assumes that construction and operation of the proposed project would comply with relevant Federal and State laws and regulations, as well as City General Plan policies.

4.6.4 Thresholds of Significance

The following thresholds of significance regarding potential impacts to geology and soils are based on *CEQA Guidelines* (2011). A project would have a significant impact related to geology and soils if it would:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zone Maps issued by the State Geologist for the area or based on other substantial evidence of a known fault.
  - Strong seismic ground shaking.
  - Seismic-related ground failure, including liquefaction.
  - Landslides.
- Result in substantial soil erosion or the loss of topsoil;
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse;
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994 or most current edition), creating substantial risks to life or property; and/or
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

4.6.5 Less than Significant Impacts

The following impacts were determined to be less than significant. In each of the following issues, either no impact would occur (therefore, no mitigation would be required) or adherence to established regulations, standards and policies would reduce potential impacts to a less than significant level.

4.6.5.1 Landslides and Rockfalls

Threshold	Would the proposed project expose persons or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

NOTE: The following changes have been made due to revision to the Specific Plan project size.

A large older landslide has been mapped primarily off site on the north easterly flanks of Mount Russell, near the southwest portion of the property. The landslide appears to have originated on the higher slopes off site, and moved northeast, partially onto the subject property. The Specific Plan designates ~~75~~74.3 acres in the southwestern portion of the property as open space. This ~~75~~74.3 acres includes the steepest slopes on site (i.e., the Mount Russell foothills), which will reduce the potential for significant landslide or rockfall impacts on the project to less than significant levels; therefore, no mitigation is needed.

4.6.5.2 Soil Erosion or Loss of Topsoil

Threshold	Would the proposed project result in substantial soil erosion or the loss of topsoil?

The proposed project includes the grading of approximately 2,684 acres for the construction of the proposed logistics buildings. In addition, the project proposes the construction of various infrastructure improvements both on site and off site. These improvements include the construction of on-site and off-site water, sewer, freeway interchange and roadway/intersection improvements, debris basins, reservoirs, water and sewer lines, utility substations, etc. These activities have the potential to cause erosion both on site and off site.

Development of the site would require the movement of on-site soils. Portions of the site have been and are being used for dry farming, and several rural residences are present. Prior to the issuance of grading permits, the project proponent will be required to prepare and submit detailed grading plans as each phase is developed. These plans will be prepared in conformance with applicable standards of the City's Grading Ordinance. Construction of off-site utility and roadway improvements will also result in the movement of soil. Plans are not available at this time for off-site improvements but that construction will be subject to the same permitting and plan checking processes.

Development of the site and related off-site improvements would involve the disturbance of more than one acre; therefore, the project is required to obtain a National Pollutant Discharge Elimination System (NPDES) permit. A Storm Water Pollution Prevention Plan (SWPPP) will also be required to address erosion and discharge impacts associated with the proposed on-site grading. Compliance with storm water regulations include minimizing storm water contact with potential pollutants by providing covers and secondary containment for construction materials, designating areas away from storm drain systems for storing equipment and materials and implementing good housekeeping practices at the construction site. The following SWPPP components will reduce potential impacts of soil erosion or loss of topsoil to less than significant levels:

- Protect all storm drain inlets and streams located near the construction site to prevent sediment-laden water from entering the storm drain system.
- Prevent erosion by implementing one or more of the following soil stabilization practices: mulching, surface roughening, permanent or temporary seeding.
- Limit vehicular access to and from the site. Stabilize construction entrances/exits to minimize the track out of dirt and mud onto adjacent streets. Conduct frequent street sweeping.

- Protect stockpiles and construction materials from winds and rain by storing them under a roof, secured impermeable tarp or plastic sheeting.
- Avoid storing or stockpiling materials near storm drain inlets, gullies or streams.
- Phase grading operations to limit disturbed areas and duration of exposure.
- Perform major maintenance and repairs of vehicles and equipment off site.
- Wash out concrete mixers only in designated washout areas at the construction site.
- Set-up and operate small concrete mixers on tarps or heavy plastic drop cloths.
- Keep construction sites clean by removing trash, debris, wastes, etc. on a regular basis.
- Clean up spills immediately using dry clean-up methods (e.g., absorbent materials such as cat litter, sand or rags for liquid spills; sweeping for dry spills such as cement, mortar or fertilizer) and by removing the contaminated soil from spills on dirt areas.
- Maintain all vehicles and equipment in good working condition. Inspect frequently for leaks, and repair promptly.
- Cover open dumpsters with secured tarps or plastic sheeting. Clean out dumpsters only in approved locations on the construction site.
- Arrange for an adequate debris disposal schedule to insure that dumpsters do not overflow.

A preliminary WQMP was prepared for the WLCSP and is included in Appendix J-2. The preliminary WQMP contains the following post-construction measures, which will help reduce potential impacts to soil erosion to less than significant levels and identifies measures to treat and/or limit the entry of contaminants into the storm drain system:

- *Maximize the permeable area.* A significant portion of the project will remain pervious for the purposes of landscaping, water quality treatment, and flood detention. By incorporating more pervious, lower Runoff Coefficient (C factor) surfaces into the project, lower volumes of runoff will be produced.
- *Incorporate landscaped buffer areas between sidewalks and streets.* Bioretention areas between sidewalks and streets will be incorporated and serve the dual purpose of landscaping and water quality treatment.
- *Maximize canopy interception and water conservation by preserving existing native trees and shrubs, and planting additional native or drought-tolerant trees and large shrubs.* Although most of the project area will require mass grading, some existing native trees and shrubs will be preserved where feasible.
- *Use natural drainage systems.* The majority of the project site currently sheet flows to small earthen ditches. Under the proposed condition, most of these natural ditches will be removed, with the exception of one natural drainage course. This natural drainage path, located at the eastern portion of the project, will be maintained under the proposed condition.
- *Where soils conditions are suitable, use perforated pipe or gravel filtration pits for low flow infiltration.* Infiltration basins will be proposed where soil conditions are appropriate.
- *Construct on-site ponding areas or retention facilities to increase opportunities for infiltration consistent with vector control objectives.* Detention basins and/or infiltration basins will be provided on site. The locations of these facilities will be shown in the project-specific WQMP.
- *Construct streets, sidewalks and parking lot aisles to the minimum widths necessary, provided that public safety and a walkable environment for pedestrians are not compromised.* Street,

sidewalk, and parking design will incorporate minimum street widths that still meet City requirements and emergency access requirements.

- *Reduce widths of street where off-street parking is available.* Street design will incorporate minimum street widths that still meet City requirements and emergency access requirements.
- *Minimize the use of impervious surfaces, such as decorative concrete, in the landscape design.* The use of impervious surfaces for decorative purposes will be minimized where possible.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

- *Conserve natural areas.* There are 1,205 acres of natural areas that will be designated as undisturbed open space. The proposed project designates 1,086 acres of CDFW land, and an additional 44 acres of natural areas maintained by utility companies, and ~~75~~74.3 acres within the WLC Specific Plan, for Open Space use.
- *Development sites will be designed to contain and infiltrate roof runoff, or direct roof runoff to vegetative swales or buffer areas, where feasible.* Runoff from impervious areas will sheet flow or be directed to Treatment Control BMPs.
- *Where landscaping is proposed, impervious sidewalks, walkways, and trails will be designed to drain into adjacent landscaping.* Streets, sidewalks, and parking lots will sheet flow to landscaping/bioretention areas.
- *Increase the use of vegetated drainage swales in lieu of underground piping or imperviously lined swales.* Runoff from impervious areas will sheet flow to vegetated swales, bioretention areas, infiltration basins, and/or detention basins.
- *Rural swale system: street sheet flows to vegetated swale or gravel shoulder, curbs at street corners, culverts under driveways and street crossings.* Streets will sheet flow to adjacent landscaping/bioretention areas.
- *Urban curb/swale system; street slopes to curb, periodic swale inlets drain to vegetated swale/biofilter.* Streets will sheet flow to adjacent landscaping/bioretention areas.
- *Design driveways to drain into landscaping prior to discharging to the MS4.* Driveways will sheet flow to adjacent landscaping/bioretention areas.
- *Uncovered parking may be paved with a permeable surface, or designed to drain into landscaping prior to discharging to the MS4.* Parking lots will sheet flow to adjacent landscaping/ bioretention areas.

The WQMP is incorporated by reference and/or attached to the project's SWPPP as the Post-Construction Management Plan.

As soils covering the project site have a slight-to-high erosion hazard potential and because the project would be required to adhere to the City's Grading Ordinance, obtain an NPDES Permit, and prepare an SWPPP and a WQMP, construction and operational impacts associated with soil erosion hazards are considered to be less than significant, and no mitigation is required.

Grading for off-site improvements would require subsequent grading permits or related approvals from both the City and County of Riverside, depending on the improvement and its location. Most roadway and intersection improvements will occur within existing rights-of-way or on land that has been previously disturbed. The SWPPP and the WQMP establish performance standards for future development, and implementation the identified measures in those plans will reduce potential erosion impacts to less than significant levels (See also Section 4.9, *Hydrology and Water Quality*, for a discussion of potential issues associated with soil erosion during construction and project operations).

4.6.5.3 Septic Tanks

Threshold	Would the proposed project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

All buildings within the project will be connected to existing wastewater facilities (sewer) owned and operated by the Eastern Municipal Water District. Septic tanks will not be used anywhere within the project. No mitigation is required.

4.6.5.4 Seismic-Related Ground Failure

Threshold	Would the proposed project expose persons or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic ground failure?

NOTE: The following changes have been made due to revision to the Specific Plan project size.

Development of the proposed project will result in the construction of up to ~~41~~40.6 million square feet of logistics warehouse uses. The project site is located within Seismic Zone 4 as defined by the Uniform Building Code (UBC). Exhibit S4 of the Safety Element of the City's General Plan indicates that the project site is not located in an area susceptible to landslides or slope instability.

The project site lies on relatively flat terrain (±2% grade) and no landslide areas or mass movement were observed onsite. The only steep topographical features are located in the southwest corner of the project area (see Section 4.6.6.3 below). This area is designated for Open Space uses and is not proposed for development.

The project does not propose any activity known to cause damage by subsidence (e.g., oil, gas, or groundwater extraction). Settlement generally occurs within areas of loose, granular soils with relatively low density. The project site is underlain by relatively dense alluvial and dense sedimentary bedrock materials at depth and the potential for settlement is considered low. Because the project site does not exhibit characteristics of a high potential for subsidence or settlement, impacts are considered less than significant. No mitigation is required.

The potential for liquefaction generally occurs during strong ground shaking within relatively cohesionless loose sediments where the groundwater is typically less than 50 feet below the surface. Because the project site does not exhibit characteristics of a high potential for liquefaction induced settlement (i.e., relatively dense soils with groundwater levels in excess of 100 feet), impacts are considered less than significant. No mitigation is required.

4.6.6 Significant Impacts

The following impacts were determined to be potentially significant. In each of the following issues, mitigation measures have been recommended to reduce the significance of the identified impacts.

4.6.6.1 Fault Rupture

Impact 4.6.6.1: *Future development permitted by the project would locate development in an area susceptible to fault rupture.*

Threshold	Would the proposed project expose persons or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zone Maps issued by the State Geologist for the area or based on other substantial evidence of a known fault.

Surface rupture occurs where displacement or fissuring occurs along a fault zone. While primary ground damage due to earthquake fault rupture typically results in a relatively small percentage of the total damage in an earthquake, the location of structures or facilities too close to a rupturing fault can cause profound damage. The primary method to avoid this hazard is to either set structures and facilities away from active faults, or avoid their construction in close proximity to an active fault.

Faults throughout southern California have formed over millions of years. Some of these faults are generally considered inactive under present geologic conditions and other faults are known to be active.[1] Such faults have either generated earthquakes in historic times (within the last 200 years) or show geologic and geomorphic indications of movement during the last 11,000 years. Faults that have moved in the relatively recent geological past are generally presumed to be the most likely candidates to generate damaging earthquakes in the lifetimes of residents, buildings, or communities.

The Seismic Hazards Mapping Act establishes a statewide public safety standard for mitigation of earthquake hazards. According to the Act the minimum level of mitigation for a project "should reduce the risk of ground failure during an earthquake to a level that does not cause the collapse of a building intended for human occupancy," though generally not to a level of no ground failure to all. Moreover, the California Building Code 2010 (CBC) establishes standards for seismic safety in the design and construction of buildings, and includes "significant building design and construction criteria that have been tailored for California earthquake conditions." It "provides standards that must be met to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all buildings and structures within its jurisdiction." Chapter 18 of the UBC specifies the required level of soil investigation. It contains requirements applicable to buildings and foundations, which take into consideration reduction of potential seismic hazards.

The CBC requires geologic and earthquake engineering reports for all proposed construction, prepared by a California-certified engineering geologist in consultation with a California-registered geotechnical engineer, the purpose of which is to identify geologic and seismic conditions that may require project mitigations. (Cal. Code Regs., Title 24, §§ 1802.7.1, 1802.7.2.) The report must contain data which provide an assessment of the nature of the site and potential for earthquake damage based on appropriate investigations of the regional and site geology, project foundation conditions and the potential seismic shaking at the site. (Cal. Code Regs., Title. 24, § 1802.7.2.) The CBC also requires a geotechnical report, which would provide evaluations of the soil conditions of the site and the potential geologic/seismic hazards affecting the site. The report must include site-specific evaluations of design criteria related to the nature and extent of foundation materials, groundwater conditions, liquefaction potential, settlement potential, slope stability, and potential site ground motion. (Cal. Code Regs., Title. 24, § 1802.81.)"

City Ordinance 9.08.160 states "In accordance with provisions of the Alquist-Priolo Special Studies Zone Act (Division 2, Chapter 7.5 of the Public Resource Code) and the Public Health and Safety Element of the City General Plan, a geologic investigation shall be required for any development proposal involving structures for human occupancy within the special study zone for the San Jacinto

[1] The Alquist-Priolo Earthquake Fault Zoning Act defines *active faults* as those that show proven displacement of the ground surface within about the last 11,000 years. *Potentially active faults* are those that show evidence of movement within the last 1.6 million years.

Fault, as identified on the special studies zone maps prepared by the state of California Department of Conservation, or the Casa Loma Fault, as identified on the seismic zone map in the City General Plan. Geologic investigations shall be prepared by a geologist registered in the state of California and shall be reviewed for acceptance by a geologist registered in the state of California who is either an employee or under contract to the City. Geologic investigations shall consider ground shaking as the greatest potential risk and include a thorough evaluation of potential hazards based upon soils types, slope stability, proximity to fault lines and expected magnitude. Copies of all geologic investigations shall be kept on file in the office of the City building official."

The western portion of the site is crossed by the City of Moreno Valley Seismic Zone, a postulated trace of the Casa Loma Fault and the Farm Road Strand. A detailed fault investigation was performed by Leighton for these projected faults. Although no active faulting was observed, some local discontinuous fracturing was observed and documented. Because of the potential for ground movements in this area, mitigation is required.

Specific Plan Design Features. The Specific Plan does not contain any policies that specifically address seismic limitations, but does acknowledge that all future development will require the preparation of site-specific geotechnical reports to ensure compliance with all applicable standards.

Mitigation Measures. State law prohibits the construction and placement of habitable structures[1] over the trace of an active fault pursuant to the Alquist-Priolo Act. The A-P Earthquake Fault Zone is located on the eastern border of the project site (refer to Figure 4.6.1). Trenching conducted by Leighton across the Claremont Segment of the San Jacinto Fault in the eastern area of the project site identified the location of a portion of the fault; however, the entire length of the fault through the project site was not trenched. Although no habitable structure can be located on an active fault per State law, fault rupture hazard represents a potential significant seismic hazard on site that would require mitigation. To ensure fault rupture impacts are appropriately mitigated, the following measures has been identified:

4.6.6.1A Prior to approval of any projects for ~~future~~ development between Redlands Boulevard and Theodore Street, south of Dracaea Avenue (projected east from Redlands Boulevard), and the area south of Alessandro from the western boundary along the Mount Russell toe of slope easterly into the site 1,500 feet, the City shall determine if a detailed fault study of the Casa Loma Fault Zone area is required based on available evidence. If necessary, any additional geotechnical investigations shall be prepared by a qualified geologist and determine if structural setbacks are needed, and shall identify specific remedial earthwork and/or foundation recommendations. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other

[1] California Code of Regulations, Section 3601 states, "A structure for human occupancy is any structure used or intended for supporting or sheltering any use of occupancy, which is expected to have a human occupancy rate of more than 2,000 person-hours per year."

relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur. Structures intended for human occupancy shall not be located within any structural setback zone as determined by those studies. This measure shall be implemented to the satisfaction of the City Engineer in consultation with the Project Geologist.

4.6.6.1B Prior to approval of any projects for ~~future~~ development within or adjacent to the San Jacinto Alquist-Priolo Earthquake Fault Zone, the City shall review and approve a geotechnical fault study prepared by a qualified geologist to confirm the alignment and size of any required building setbacks related to the fault zone. If necessary, this study shall identify a "special foundation or grading remediation zone" for the areas supporting structures intended for human occupancy where coseismic deformation (fractures) is observed. This zone shall be determined after subsurface evaluation based on proposed building locations. Specific remedial earthwork and foundation recommendations shall be evaluated as necessary based on proposed building locations. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur.

This study ~~will likely~~ may involve ~~future~~ trenching to adequately identify the location of the Claremont segment of the San Jacinto Fault Zone that crosses the eastern portion of the World Logistics Center Specific Plan property. This measure shall be implemented to the satisfaction of the City Engineer in consultation with the Project Geologist.

4.6.6.1C Prior to the approval of ~~project~~ grading permits, or permits for construction of off-site improvements~~, whichever comes first~~, the City shall review and approve plans confirming that the project has been designed to withstand anticipated ground shaking and other geotechnical and soil constraints (e.g., settlement). The project proponent shall submit ~~improvement~~ plans to the City ~~or County~~ as appropriate for review and approval prior to issuance of grading permits or issuance of permits for the construction of any offsite improvements ~~related to the project~~. This measure shall be implemented to the satisfaction of the City Engineer

Level of Impact After Mitigation. Adherence to the measures identified in the geotechnical investigations, as well as other requirements identified and required by the City, will ensure fault rupture hazards are reduced to a less than significant level.

4.6.6.2 Ground Shaking

Impact 4.6.6.2: *Future development permitted by the proposed project would locate development in an area susceptible to strong seismic ground shaking.*

Threshold	Would the proposed project expose persons or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong ground shaking?

Southern California is a seismically active area and, therefore, will continue to be subject to ground shaking resulting from seismic activity on regional faults. Ground shaking from earthquakes associated with nearby and more distant faults is expected to occur during the lifetime of the project. The level of potential ground motion is considered moderate to high in the City of Moreno Valley and, therefore, in the project area.

Project or Specific Plan Design Features. The Specific Plan does not contain any policies that specifically address seismic limitations, but does acknowledge that all future development will require the preparation of site-specific geotechnical reports to ensure compliance with all applicable standards.

Mitigation Measures. In accordance with the City's General Plan Safety Element (Objective 6.1),[1] project development will require geological and geotechnical investigations by State-licensed professionals. The geotechnical investigations will provide design considerations and earthwork recommendations to ensure that ground shaking impacts are appropriately mitigated. In addition, California Code of Regulations (CCR), Title 24, also known as the California Building Standards Code, contains building design and construction requirements relating to fire and life safety, and structural safety. The CBC also includes standards designed to ensure that structures within California are built to withstand expected levels of seismic activity for each earthquake region throughout the State. Specifically, Part 2 of Title 24, including Chapters 4, 16-18, and Appendix J provide guidance regarding grading, soils, and construction techniques related to seismic protection. These codes are provided to protect public safety and ensure that all structures built in the State can withstand anticipated seismic ground shaking and other related geotechnical and soils constraints.

To ensure ground shaking impacts are appropriately mitigated, the following measure is recommended:

4.6.6.2A ~~Prior to issuance of any building permits the City shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), City Building Code, and/or professional engineering standards appropriate for the seismic zone in which such construction may occur.~~

Prior to issuance of building permits for any portion of the project site, a site-specific, design level geotechnical investigation for each parcel shall be submitted to the City , which would comply with all applicable state and local code requirements, and includes an analysis of the expected ground motions at the site from known active faults using accepted methodologies. The report shall determine structural design requirements as prescribed by the most current version of the California Building Code, including applicable City amendments, to ensure that structures can withstand ground accelerations expected from known active faults. The report

[1] Moreno Valley General Plan, Chapter 9 Goals and Objectives, pg. 9-30.

shall also determine the final design parameters for walls, foundations, foundation slabs, utilities, roadways, parking lots, sidewalks, and other surrounding related improvements. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur.

In addition, adherence to **Mitigation Measure 4.6.6.1C** addresses impacts of off-site improvements in this regard.

Level of Significance After Mitigation. Adherence to the measures identified in the geotechnical investigations, as well as other requirements identified and required by the City, will ensure ground shaking hazards are reduced to a less than significant level.

4.6.6.3 Unstable Soils

Impact 4.6.6.3: *Future development permitted by the proposed project may locate development in an area with expansive soils.*

Threshold	Would the proposed project be located on expansive soil, creating substantial risks to life or property?

As previously identified, expansive soils generally have a substantial amount of clay particles, which can give up water (shrink) or absorb water (swell). The change in the volume exerts stress on buildings and other loads placed on these soils. The extent or range of the shrink/swell is influenced by the amount and kind of clay present in the soil. Expansive soils can be widely dispersed and they can occur in hillside areas as well as low-lying alluvial basins. On-site soils (Dv and Wb soils) are identified as having a moderate to low shrink-swell potential. Because the potential exists to locate development on moderately expansive soils, impacts are considered significant and mitigation is required.

Project or Specific Plan Design Features. The Specific Plan does not contain any policies that specifically address seismic limitations, but does acknowledge that all future development will require the preparation of site-specific geotechnical reports to ensure compliance with all applicable standards.

Mitigation Measures. In accordance with the City's General Plan Safety Element (Implementation Measure I.E.1) and as indicated previously, development of the project will require geological and geotechnical investigations by State-licensed professionals. To ensure impacts from expansive soils

are addressed for specific development sites, adherence to **Mitigation Measures 4.6.6.3A** through **4.6.6.3C** will be required.

4.6.6.3A ~~Prior to the approval of a~~ Each Plot Plan application for ~~any~~ development ~~project or associated off-site improvements, a~~ shall include a site-specific, design level geotechnical ~~report evaluating~~investigation for each parcel, in compliance with all applicable state and local code requirements, and including an analysis of the expected soil hazards at the site ~~and planned improvements shall be submitted to and approved~~. The report shall determine:

1. Structural design requirements as prescribed by the most current version of the California Building Code, including applicable City amendments, to ensure that structures can withstand ground accelerations expected from known active faults.

2. The final design parameters for walls, foundations, foundation slabs, utilities, roadways, parking lots, sidewalks, and other surrounding related improvements.

Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. These investigations shall identify any site-specific impacts from compressible and expansive soils based on the actual location of individual pads proposed in the future, so that differential movement can be further verified or evaluated in view of the actual foundation plan and imposed fill or structural loads. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur.

Compliance with this measure will ensure that future buildings are designed to protect the structure and occupants from on-site soil limitations, consistent with State Building Code requirements. This measure shall be implemented to the satisfaction of the City Engineer.

4.6.6.3B ~~Prior to issuance of any grading permit for development within the Specific Plan, any~~ Any cut slopes in excess of five (5) feet in vertical height shall be constructed as "replacement fill slopes" per the project geotechnical report, due to the variable nature of the onsite alluvial soils. This measure shall be implemented to the satisfaction of the City Land Development Division and the City Engineer in consultation with the Project Geologist.

~~**4.6.6.3C** Prior to issuance of any discretionary permit for development within the Specific Plan, additional geotechnical and soils site investigations will be required as appropriate~~

~~once site grading and foundations plans become available for individual building sites. These studies shall address if or to what degree compressible and/or expansive alluvium on or underlying individual pads is present, or if there is a potential for differential settlement. This measure shall be implemented to the satisfaction of the City Engineer.~~

~~**4.6.6.3D**~~ **4.6.6.3C** ~~Prior to issuance of any discretionary permit and d~~During all grading activities ~~for development within the Specific Plan~~, a geotechnical engineer shall ~~observe and/or~~ ~~supervise~~ monitor site preparation, removal of unsuitable soils, mapping of all earthwork excavations, approval of imported earth materials, fill placement, foundation installation, and other geotechnical operations. Laboratory testing of subsurface materials to confirm compacted dry density and moisture content, consolidation potential, corrosion potential, expansion potential, and resistance value (R-value) shall be performed prior to and during grading as appropriate. This measure shall be implemented to the satisfaction of the City Engineer in consultation with the Project Geologist.

Level of Impact After Mitigation. Implementation of **Mitigation Measures 4.6.6.3A** through **4.6.6.3C**, and adherence to actions identified in subsequent geotechnical investigations, as well as other requirements identified and required by the City, will ensure that the potential impact from expansive soils are reduced to a less than significant level.

4.6.7 Cumulative Impacts

The cumulative area for geologic issues is the City of Moreno Valley and western Riverside County, within the larger context of southern California due to regional seismicity. The project area has potential geotechnical and soils constraints, as the entire southern California area contains a number of major regional and local faults, including the San Andreas, San Jacinto, and Elsinore Faults.

The presence of regional faults creates the potential for damage to structures or injury to persons during seismic events. However, City, County, and State regulations provide guidelines for development in areas with geologic constraints and ensure that the design of buildings is in accordance with applicable CBC standards and other applicable standards, which reduces potential property damage and human safety risks to less than significant levels. Anticipated development in the City and surrounding area in general will not have a cumulatively considerable impact on earth resources, nor will regional geotechnical constraints have a cumulatively considerable impact on the proposed WLC project or cumulative projects, as long as proper design and engineering are implemented based on available seismic and other geotechnical data. The proposed WLC project represents an incremental portion of this potential impact, so the project will not have cumulatively significant impacts in this regard.

Because it is reasonable to conclude that all development within seismically active areas will be required to adhere to applicable State regulations, CBC standards, and the design and siting standards required by local agencies, a less than significant cumulative impact would occur with implementation of the proposed WLC project.

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4.7 GREENHOUSE GAS EMISSIONS, CLIMATE CHANGE, AND SUSTAINABILITY: TABLE OF CONTENTS

FIGURES

TABLES

NOTE TO READERS. *This section has been revised in response to public comments received on the Programmatic DEIR which have resulted in project changes, updates to technical studies and revisions to EIR sections and proposed Mitigation Measures.*

4.7 GREENHOUSE GAS EMISSIONS, CLIMATE CHANGE, AND SUSTAINABILITY

This section provides a discussion of global climate change, existing regulations pertaining to global climate change, and an analysis of greenhouse gas (GHG) emissions associated with the proposed project. This analysis examines the short-term construction and long-term operational impacts and evaluates the effectiveness of measures incorporated as part of the project design.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers ~~3,918~~ 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes ~~3,814~~ 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering ~~3,814.~~ 3,714 acres, which redesignates approximately 70 percent of the area (~~2,710~~ 2,610 acres) for logistics warehousing (new LD and LL~~, LS~~ zones) and the remaining ~~30~~ 29 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the ~~2,710~~ 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*. ~~The environmental impacts of all of these entitlements on the entire project area are addressed in this EIR and the accompanying technical reports and analyses.~~

This section analyzes the proposed project's potential climate impacts based on the following technical study:

- *Air Quality, Greenhouse Gas, and Health Risk Assessment Report World Logistics Center Specific Plan* (Michael Brandman Associates/FirstCarbon Solutions, original dated January 2013 revised dated April 2015) contained in Appendix D of this EIR.

4.7.1 Existing Setting

4.7.1.1 Global Climate Change

Global climate change is the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. The term "global climate change" is often used interchangeably with the term "global warming," but "global climate change" is preferred by some scientists and policy makers to "global warming" because it helps convey the notion that there are other changes in addition to rising temperatures.

Climate change refers to any significant change in measures of climate such as temperature, precipitation, or wind, lasting for decades or longer (U.S. Environmental Protection Agency [EPA], 2007). Climate change may result from:

- Natural factors, such as changes in the sun's intensity or slow changes in the Earth's orbit around the sun;
- Natural processes within the climate system (e.g., changes in ocean circulation); and/or
- Human activities that change the atmosphere's composition (e.g., through burning fossil fuels) and the land surface (e.g., deforestation, reforestation, urbanization, and desertification).

The primary observed effect of global climate change has been a rise in the average global tropospheric[1] temperature of 0.36 degrees Fahrenheit (°F) per decade, determined from meteorological measurements worldwide between 1990 and 2005. Climate change modeling shows that further warming could occur, which would induce additional changes in the global climate system during the current century. Changes to the global climate system, ecosystems, and the environment of California could include higher sea levels, drier or wetter weather, changes in ocean salinity, changes in wind patterns or more energetic aspects of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold and increased intensity of tropical cyclones (hurricanes). Specific effects in California might include a decline in the Sierra Nevada snowpack, erosion of California's coastline, and seawater intrusion in the Delta.

Human activities, such as fossil fuel combustion and land use changes release carbon dioxide (CO_2) and other compounds, cumulatively termed greenhouse gases (GHGs). GHGs are effective in trapping infrared radiation that otherwise would have escaped the atmosphere, thereby warming the atmosphere, the oceans, and earth's surface (EPA, 2007). Many scientists believe that "most of the warming observed over the last 50 years is attributable to human activities."[2] The increased amounts of CO_2 and other GHGs are alleged to be the primary causes of the human-induced component of warming.

GHGs are present in the atmosphere naturally, released by natural sources, or formed from secondary reactions taking place in the atmosphere. They include CO_2, methane (CH_4), nitrous oxide (N_2O), and ozone (O_3). In the last 200 years, substantial quantities of GHGs have been released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere, enhancing the natural greenhouse effect, which is believed to be causing global climate change. While human-made GHGs include CO_2, CH_4, and N_2O, some (like chlorofluorocarbons [CFCs]) are completely new to the atmosphere.

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1 The troposphere is the zone of the atmosphere characterized by water vapor, weather, winds, and decreasing temperature with increasing altitude.

2 Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2007: The Physical Science Basis*, http://www.ipcc.ch.

GHGs vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The global warming potential is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to CO_2, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. GHG emissions are typically measured in terms of metric tons of "CO_2 equivalents" (mt CO_2e or MTCO_2e).

~~Natural sources of CO2 include the respiration (breathing) of humans and animals and evaporation from the oceans. Together, these natural sources release approximately 150 billion tonnes of CO each year, far outweighing the 7 billion tonnes of human-made emissions from fossil fuel burning, waste incineration, deforestation, and cement manufacture. Nevertheless, natural removal processes such as photosynthesis by land- and ocean-dwelling plant species cannot keep pace with this extra~~

Methane is produced when organic matter decomposes in environments lacking sufficient oxygen. Natural sources include wetlands, termites, and oceans. Human-made sources include the mining and burning of fossil fuels; digestive processes in ruminant animals such as cattle; rice paddies; and the burying of waste in landfills. ~~Total annual emissions of CH_4 are approximately 500 million tonnes, with human-made emissions accounting for the majority~~ As for CO_2, the major removal process of atmospheric CH_4—chemical breakdown in the atmosphere—cannot keep pace with source emissions, and CH_4 concentrations in the atmosphere are increasing.

Worldwide emissions of GHGs in ~~2008 were 30.1 billion metric tons of CO e[3] and have increased considerably since that time. It is important to note that the global emissions inventory data are not all from the same year and may vary depending on the source of the emissions inventory data.~~2010 were approximately 47,183 million mt CO_2e[1] Emissions from the top five countries and the European Union accounted for approximately 55 percent of the total global GHG emissions, according to the most recently available data. The United States was the number two producer of GHG emissions, contributing 14 percent of the emissions. The primary GHG emitted by human activities in the United States was CO_2, representing approximately 84 percent of total GHG emissions. CO_2 from fossil fuel combustion, the largest source of GHG emissions, accounted for approximately 80 percent of the GHG emissions.[2]

In 2009, the United States emitted approximately 6.6 billion mt CO_2e or approximately 25 tons per year (tpy) per person. Of the six major sectors nationwide (electric power industry, transportation, industry, agriculture, commercial, and residential), the electric power industry and transportation sectors combined account for approximately 62 percent of the GHG emissions; the majority of the electrical power industry and all of the transportation emissions are generated from direct fossil fuel combustion. Between 1990 and 2006, total United States GHG emissions rose approximately 14.7 percent.[3]

World carbon dioxide emissions[4] are expected to increase by 1.9 percent annually between 2001 and 2025. Much of the increase in these emissions is expected to occur in the developing world where emerging economies, such as China and India, fuel economic development with fossil energy. Developing countries' emissions are expected to grow above the world average at 2.7 percent annually between 2001 and 2025; and surpass emissions of industrialized countries near 2018.

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1 World Resources Institute, CAIT 2.0. 2013. Climate Analysis Indicators Tool: WRI's Climate Data Explorer. Washington, DC. Available at: http://cait2.wri.org. Accessed February 11, 2014.

2 Ibid.

3 U.S. Environmental Protection Agency (EPA). 2011. *Inventory of U.S. Greenhouse Gas Emissions And Sinks: 1990 – 2009*. http://www.epa.gov/climatechange/emissions/usinventoryreport.html. Accessed July 2011.

4 http://www.eia.gov/oiaf/1605/ggccebro/chapter1.html.

The California Air Resources Board (CARB) is responsible for developing the California Greenhouse Gas Emission Inventory. This inventory estimates the amount of GHGs emitted into and removed from the atmosphere by human activities within the State of California and supports the Assembly Bill (AB) 32 Climate Change Program. ~~The CARB's current GHG emission inventory covers the years 1990 through 2008 and is based on fuel use, equipment activity, industrial processes, and other relevant data (e.g., housing, landfill activity, and agricultural lands).~~

~~According to CARB emission inventory estimates, California emitted approximately 454 million mt CO_2e emissions in 2009.[1] The year 2009 saw a small decrease in statewide GHG emissions from 483 million mt CO_2e in 2008 driven by a noticeable drop in on-road transportation emissions. . 2009 also reflects the beginning of the economic recession and fuel price spikes. As the economy recovers, GHG emissions are likely to rise again without other mitigation actions. California's net emissions of GHG decreased 1.3 percent from 459 mmt of CO_2e in 2000 to 453 mmt in 2009, with a maximum of 483.9 mmt in 2004.During the period from 2000 to 2009, California's GHG emissions per person decreased by 9.7 percent, but the emissions reductions were offset by the state's population increase of 9.0 percent. The CARB estimates that transportation was the source of approximately 38 percent of the State's GHG emissions in 2009, followed by electricity generation at 23 percent. Other sources of GHG emissions were industrial sources at 20 percent, residential plus commercial activities at 9 percent, and agriculture at 7 percent.~~

The most recent inventory of GHG emissions in California estimated 458.68 million mt CO_2e in 2012[1]. This is a 1.7 percent increase in GHG emissions from 2011 and the first emissions increase since 2007. This increase was driven primarily by strong economic growth, the unexpected closure of the San Onofre Nuclear Generating Station, and drought conditions that limited instate hydropower generation. Since 2000, GHG emissions have decreased by 1.6 percent (from 466 to 459 million mt CO_2e) after reaching a peak of 493 million mt CO_2e in 2004. The top contributor of emissions in 2012 was transportation, which contributed 37 percent of the emissions. The second highest sector was industrial (22 percent), which includes sources from refineries, general fuel use, oil and gas extraction, and cement plants. The CARB staff has projected statewide GHG emissions for the year 2020 will be 509.4 million mt CO_2e[2].

The methodology used to estimate the GHG emissions from transportation differs from that used to estimate the GHG emissions for the project. The California inventory is based on fuel sales in California, while the project inventory is based on trip generation rates provided by the Traffic Impact Analysis for the project and are conservative due to the fact that conservative trip generation rates were used to estimate vehicle trips.

~~The CARB staff has projected statewide GHG emissions for the year 2020, which represent the emissions that would be expected to occur with reductions anticipated from Pavley I and the Renewables Portfolio Standard (38 mmt CO_2e total), will be 507 million mt CO_2e.[2] GHG emissions from the transportation and electricity sectors as a whole are expected to increase at approximately 36 percent and 22 percent of total CO_2e emissions, respectively. The industrial sector consists of large stationary sources of GHG emissions and the percentage of the total 2020 emissions is projected to be 18 percent of total CO_2e emissions. The remaining sources of GHG emissions in 2020 are high global warming potential gases at 7 percent, residential and commercial activities at 9 percent, agriculture at 6 percent, and recycling and waste at 2 percent.~~

~~[1] CARB, Greenhouse Gas Inventory Data - 2000 to 2008. http://www.arb.ca.gov/cc/inventory/data/data.htm. Accessed July 2011~~

~~[2] CARB, Greenhouse Gas Inventory – 2020 Emissions Forecast. http://www.arb.ca.gov/cc/inventory/data/forecast.htm. Accessed January 2013.~~

[1] California Air Resources Board. California Greenhouse Gas Inventory: 2000-2012. 2014 edition. www.arb.ca.gov/cc/inventory/pubs/reports/ghg_inventory_00-12_report.pdf

[2] California Air Resources Board. Forecast for Updated Scoping Plan. May 27, 2014. www.arb.ca.gov/cc/inventory/data/tables/2020_bau_forecast_by_scoping_category_2014-05-22.pdf

4.7.1.2 Effects of Global Climate Change

Climate change is a change in the average weather of the earth that is measured by alterations in wind patterns, storms, precipitation, and temperature. These changes are assessed using historical records of temperature changes occurring in the past, such as during previous ice ages. Many of the concerns regarding climate change use these data to extrapolate a level of statistical significance specifically focusing on temperature records from the last 150 years (the Industrial Age) that differ from previous climate changes in rate and magnitude.

The International Panel on Climate Change (IPCC) constructed several emission trajectories of greenhouse gases needed to stabilize global temperatures and climate change impacts. In its Fourth Assessment Report, the IPCC predicted that the global mean temperature change from 1990 to 2100, given six scenarios, could range from 1.1 degrees Celsius (°C) to 6.4 °C. Regardless of analytical methodology, global average temperatures and sea levels are expected to rise under all scenarios (IPCC 2007a). The IPCC concluded that global climate change was largely the result of human activity, mainly the burning of fossil fuels. However, the scientific literature is not consistent regarding many of the aspects of global warming or climate change, including actual temperature changes during the 20th century, the accuracy of the IPCC report, and contributions of human versus non-human activities.

Effects from global climate change may arise from temperature increases, climate-sensitive diseases, extreme weather events, and degradation of air quality. There may be direct temperature effects through increases in average temperature leading to more extreme heat waves and less extreme cold spells. Those living in warmer climates are likely to experience more stress and heat-related problems. Heat-related problems include heat rash and heat stroke. In addition, climate-sensitive diseases may increase, such as those spread by mosquitoes and other disease-carrying insects. Such diseases include malaria, dengue fever, yellow fever, and encephalitis. Extreme events such as flooding and hurricanes can displace people and agriculture. Global warming may also contribute to air quality problems from increased frequency of smog and particulate air pollution.

Additionally, ~~according to the 2006 California Climate Action Team (CAT) Report~~ the following climate change effects, which are based on trends established by the IPCC, can be expected in California over the course of the next century:

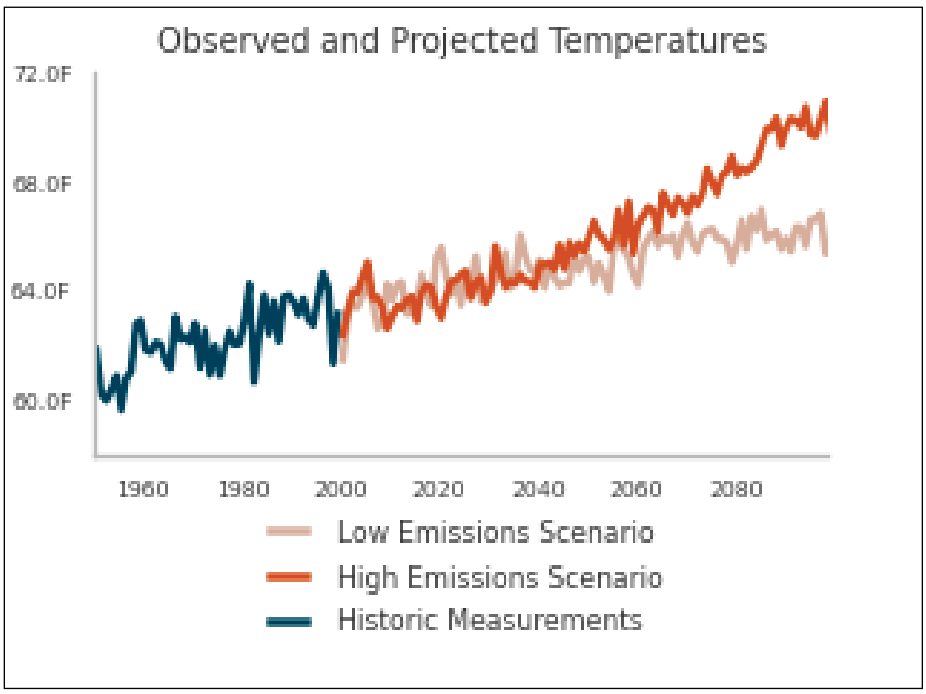
- A diminishing Sierra snowpack declining by 70 percent to 90 percent, threatening the State's water supply. <u>If GHG emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier.</u>
- A rise in sea levels resulting in the displacement of coastal businesses and residences. During the past century, sea levels along California's coast have risen about seven inches. If emissions continue unabated and temperatures rise into the higher anticipated warming range, sea level is expected to rise an additional 22 to 35 inches by the end of the century. Elevations of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. (Note: This condition would not affect the project area as it is a significant distance away from coastal areas.)
- An increase temperature and extreme weather events. Climate change is expected to lead to increases in the frequency, intensity, and duration of extreme heat events and heat waves in California. More heat waves can exacerbate chronic disease or heat-related illness.
- Increased risk of large wildfires if rain increases as temperatures rise. <u>Precipitation, winds, temperature, and vegetation influence wildfire risk; therefore, wildfire risk is not uniform throughout the state. Changes in current precipitation patterns could influence that risk. As an example, wildfires</u> in the grasslands and chaparral ecosystems of *southern* California are estimated to increase by approximately 30 percent toward the end of the 21st century because

more winter rain will stimulate the growth of more plant fuel available to burn in the fall. In contrast, a hotter, drier climate could promote up to 90 percent more *northern* California fires by the end of the century by drying out and increasing the flammability of forest vegetation.

- Increasing temperatures from 8 to 10.4°F under the higher emission scenarios, leading to a 25 percent to 35 percent increase in the number of days ozone pollution levels are exceeded in most urban areas (see below).
- Increased vulnerability of forests due to forest fires, pest infestation, and increased temperatures.
- Reductions in the quality and quantity of certain agricultural products. The crops and products likely to be adversely affected include wine grapes, fruit, nuts, and milk.
- Exacerbation of air quality problems. If temperatures rise to the medium warming range, there could be 75 to 85 percent more days with weather conducive to ozone formation in Los Angeles and the San Joaquin Valley, relative to today's conditions. This is more than twice the increase expected if rising temperatures remain in the lower warming range. This increase in air quality problems could result in an increase in asthma and other health-related problems.
- A decrease in the health and productivity of California's forests. Climate change can cause an increase in wildfires, an enhanced insect population, and establishment of non-native species.
- Increased electricity demand, particularly in the hot summer months.
- Increased ground-level ozone formation due to higher reaction rates of ozone precursors.

Note: The following text regarding specific consequences of climate change in Moreno Valley was in the 2013 report; minor revisions were made and it has been added to this section.

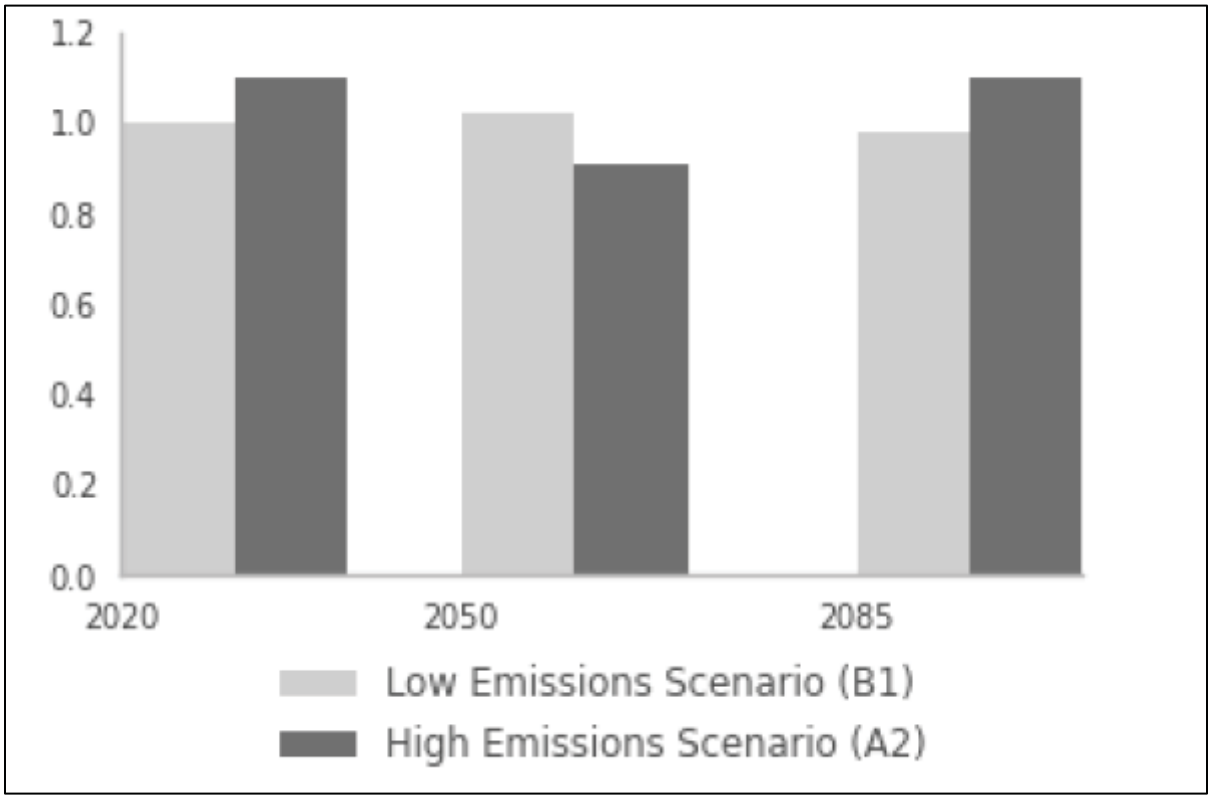
Consequences of Climate Change in Moreno Valley. The figure below displays a chart of measured historical and projected annual average temperatures in the Moreno Valley area. As shown in the figure, temperatures are expected to rise in the low and high GHG emissions scenarios.



Water for the project would be provided by the Eastern Municipal Water Department (EMWD). The EMWD 2010 Urban Water Management Plan considered the impact of climate change on water supplies as part of its long-term strategic planning. One of the outcomes of climate change could be more frequent limitations on imported supplies. To limit the impact of climate change, EMWD's long-term planning focuses on the development of reliable local resources and the implementation of water use efficiency. This includes the full utilization of recycled water and the recharge of local groundwater basins to increase supply reliability during periods of water shortage. EMWD is also focused on reducing demand for water supplies, especially outdoors. Increasing the use of local resource and reducing the need for imported water has the dual benefit of not only improving water quality reliability, but reducing the energy required to import water to EMWD's service area.

The figure below displays the fire risk in Moreno Valley relative to 2010 levels. The figure displays the projected increase in potential area burned given three different 30-year averaging periods ending in 2020, 2050, and 2085 and two different scenarios (A2, B1). The data are modeled solely on climate projections and do not take landscape and fuel sources into account (there is very little combustible material in the project area). The data modeled the ratio of additional fire risk for an area as compared to the expected burned area. The data are shown in the figure below and indicate that under the low-emissions scenario, the additional wildfire risk is about 1, which means that wildfire risk is expected to remain about the same. Under the high-emission scenario, additional risk is variable with a slight increase. Other areas in California, such as the area near the border with Oregon, are projected to have a 9-fold increase in potential area burned.

Wildfire Risk in Moreno Valley



4.7.1.3 Greenhouse Gases

The most common greenhouse gases include water vapor, carbon dioxide, methane, nitrous oxides, chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, ozone, and aerosols. Greenhouse gases defined by AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

Natural processes and human activities emit greenhouse gases. The presence of greenhouse gases in the atmosphere affects the earth's temperature. Many scientists believe that emissions from human activities, such as electricity production and vehicle use, have led to elevated concentrations of these gases in the atmosphere beyond the level of naturally occurring concentrations. Table 4.7.A lists greenhouse gases, the effects of each greenhouse gas, and some of the sources for each of the greenhouse gases.

Climate change is driven by radiative forcings and feedbacks. Radiative forcing is the difference between the incoming energy and outgoing energy in the climate system. In other terms, radiative forcing is the energy absorbed by the greenhouse gas that would otherwise be lost to space. Positive forcing tends to warm the surface while negative forcing tends to cool it. A feedback is a climate process that can strengthen or weaken a forcing. For example, when ice or snow melts, it reveals darker land underneath, which absorbs more radiation and causes more warming.

In order to attempt to quantify the impact of greenhouse gases, the gases are assigned global warming potentials. Individual greenhouse gas compounds have varying global warming potential and atmospheric lifetimes. Carbon dioxide, the reference gas for global warming potential, has a global warming potential of one. The global warming potential of a greenhouse gas ~~measure~~potential of ~~how much~~ a ~~given mass of a greenhouse~~ gas ~~is estimated~~or aerosol to ~~contribute~~trap heat in the atmosphere compared to ~~global~~ the reference gas, carbon dioxide, and is a measurement of the radiative forcing of a gas. There are positive (warming) and negative (cooling) forcings. To describe how much global warming a given type and amount of greenhouse gas may cause, the carbon dioxide equivalent is used. The calculation of the carbon dioxide equivalent is a consistent methodology for comparing greenhouse gas emissions since it normalizes various greenhouse gas emissions to a consistent reference gas, carbon dioxide. Carbon dioxide as a molecule has a certain potential for warming; other molecules have a different potential. For example, methane's warming potential of 21 indicates that methane has 21 times greater warming effect than carbon dioxide on a molecule per molecule basis. A carbon dioxide equivalent is the mass emissions of an individual greenhouse gas multiplied by its global warming potential.

Note: The following information is added in response to comments received on the Draft EIR. In addition, black carbon is now estimated in the GHG inventory.

Black Carbon. A specific aerosol of concern is black carbon. Black carbon is a light absorbing component of particulate matter and is formed by the incomplete combustion of fossil fuels, biofuels, and biomass. The following is additional information on black carbon:

- Black carbon is emitted directly into the atmosphere in the form of fine particles ($PM_{2.5}$).
- Black carbon contributes to the adverse impacts on human health, ecosystems, and visibility associated with $PM_{2.5}$.
- Black carbon influences climate by: 1) directly absorbing light, 2) reducing the reflectivity ("albedo") of snow and ice through deposition, and 3) interacting with clouds.
- The direct and snow/ice albedo effects of black carbon are widely understood to lead to climate warming. However, the globally averaged net climate effect of black carbon also includes the effects associated with cloud interactions, which are not well quantified and may cause either

warming or cooling. Therefore, though most estimates indicate that black carbon has a net warming influence, a net cooling effect cannot be ruled out.

- Sensitive regions such as the Arctic and the Himalayas are particularly vulnerable to the warming and melting effects of black carbon.
- Black carbon is emitted with other particles and gases, many of which exert a cooling influence on climate. Therefore, estimates of the net effect of black carbon emissions sources on climate should include the offsetting effects of these co-emitted pollutants. This is particularly important for evaluating mitigation options.
- Black carbon's short atmospheric lifetime (days to weeks), combined with its strong warming potential, means that targeted strategies to reduce black carbon emissions can be expected to provide climate benefits within the next several decades.
- The different climate attributes of black carbon and long-lived GHGs make it difficult to interpret comparisons of their relative climate impacts based on common metrics.
- Based on recent emissions inventories, the majority of global black carbon emissions come from Asia, Latin America, and Africa. Emissions patterns and trends across regions, countries and sources vary significantly.
- Control technologies are available to reduce black carbon emissions from a number of source categories.
- Black carbon mitigation strategies, which lead to reductions in $PM_{2.5}$, can provide substantial public health and environmental benefits.

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Properties, Effects, and Sources

Description and Physical Properties	Health Effects	Sources
$_2O$) is the most abundant, important, and variable greenhouse gas in the ater vapor is not considered a pollutant; in the atmosphere it maintains a climate e. Changes in its concentration are primarily considered to be a result of climate ted to the warming of the atmosphere rather than a direct result of	There are no health effects from water vapor. When some pollutants come in contact with water vapor, they can dissolve and then the water vapor can be a transport mechanism to enter the human body.	The main source of water vapor is evaporation from the o sources include evaporation from other water bodies, sub from sea ice and snow, and transpiration from plant leaves.
(CO_2) is an odorless, colorless natural greenhouse gas.	Outdoor levels of carbon dioxide are not high enough to result in negative health effects.	Carbon dioxide is emitted from natural and anthropocentric include decomposition of dead organic matter; respiratio fungus; evaporation from oceans; and volcanic out gassin burning coal, oil, natural gas, and wood.
s an extremely effective GHG with a global warming potential of 21, though its ncentration is less than carbon dioxide and its lifetime in the atmosphere is brief ompared to other greenhouse gases.	There are no health effects from methane.	Methane has both natural and anthropogenic sources. It i processes in low oxygen environments, such as in swam roots of the plants). Over the last 50 years, human activities using natural gas, and mining coal have added to the atm Other anthropocentric sources include fossil-fuel combustio
$_2O$), also known as laughing gas, is a colorless greenhouse gas. It has a ears. Its global warming potential is 310.	Nitrous oxide can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses it is harmless. In some cases, heavy and extended use can cause Olney's Lesions (brain damage).	Concentrations of nitrous oxide also began to rise at the be In 1998, the global concentration was 314 ppb. Nitrou processes in soil and water, including those reactions that c In addition to agricultural sources, some industrial proces nylon production, nitric acid production, and vehicle atmospheric load. It is used as an aerosol spray propellant, also used in potato chip bags to keep chips fresh. It is used
ons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in thane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nsoluble, and chemically unreactive in the troposphere (the level of air at the Global warming potentials range from 3,800 to 8,100.	In confirmed indoor locations, working with CFC-113 or other CFCs is thought to have resulted in death by cardiac arrhythmia (heart frequency too high or too low) or asphyxiation.	CFCs have no natural source, but were first synthesiz refrigerants, aerosol propellants, and cleaning solvents. Du to destroy stratospheric ozone, a global effort to halt their p extremely successful, so much so that levels of the majo declining. However, their long atmospheric lifetimes mean t the atmosphere for over 100 years.
ons (HFCs) are synthetic man-made chemicals that are used as a substitute for l the greenhouse gases, they are one of three groups with the highest global al (depending on the gas, ranges from 140 to 11,700). Prior to 1990, the only sions were HFC-23. HFC-134a use is increasing due to its use as a refrigerant.	None.	HFCs are man-made for applications such as automobile ai
s (PFCs) have stable molecular structures and do not break down through the sses in the lower atmosphere. Because of this, PFCs have very long lifetimes, and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and e (C_2F_6). Global warming potentials range from 6,500 to 9,200.	None.	The two main sources of PFCs are primary aluminu manufacture.
ide (SF_6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It ghest GWP of any gas evaluated, 23,900. Concentrations in the 1990s were as a lifetime of 3,200 years.	In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing.	Sulfur hexafluoride is used for insulation in electric po equipment, in the magnesium industry, in semiconductor ma leak detection.
rticles emitted into the air through burning biomass (plant material) and fossil can warm the atmosphere by absorbing and emitting heat and can cool the eflecting light. Cloud formation can also be affected by aerosols.	Similar health effects associated with particulate matter (see Section 4.3, Air Quality, for a description of the health effects of particulate matter).	Sulfate aerosols are emitted when fuel containing sulfur is (in the form of black carbon or soot) is the result of incom burning of fossil fuels. Although particulate matter regu concentrations in the United States, global concentrations other sources around the world.

rized from the *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*. 2015

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4.7.1.4 Greenhouse Gas Inventories

The City of Moreno Valley estimated greenhouse gas emissions for the community for 2007 and 2010 and projected emissions for 2020 are shown in Table 4.7.B, which shows the reduced 2020 emissions are below the reduction target. The emissions shown are not actual emissions but are estimated using calculations and assumptions. The emissions represent emissions from the community of Moreno Valley (as opposed to the city government operations). Only select years were estimated based on data available.

Table 4.7.B: City of Moreno Valley Projected Greenhouse Gas Emissions

Source Category	Moreno Valley Greenhouse Gas Emissions (mt CO_2e per year)			
	2007	2010	BAU 2020	Reduced 2020
Transportation	517,098	513,581	788,267	421,561
Energy	287,261	277,230	356,192	251,372
Area	69,390	69,437	84,665	73,046
Water and Wastewater	21,595	16,831	20,216	14,158
Solid Waste	44,294	43,633	49,203	38,000
Total	**939,638**	**920,712**	**1,298,543**	**798,137**
Reduction Target	—	—	**798,693**	**798,693**

Notes: mt CO_2e = metric tons of carbon dioxide equivalents BAU = business as usual
Source: Table 9, City of Moreno Valley Greenhouse Gas Analysis, 2012.

The existing WLC project site is largely vacant with scattered dry farming that generates minimal greenhouse gas emissions. For the purposes of this analysis, a zero baseline will be assumed to identify the "worst case" emissions (i.e., GHG emissions from the entire WLC project without removal of any existing GHG emissions).

4.7.2 Regulatory Setting

4.7.2.1 International Regulation of Climate Change

Intergovernmental Panel on Climate Change (IPCC). In 1988, the United Nations created the IPCC to provide independent scientific information regarding climate change to policymakers. The IPCC does not conduct research itself, but rather compiles information from a variety of sources into reports regarding climate change and its impacts. The IPCC has thereafter periodically released reports on climate change, and in 2007 released its Fourth Assessment Report which concluded most global climate change was the result of human activity, mainly the burning of fossil fuels (see Section 4.7.1.1).

United Nations Framework Convention on Climate Change. On March 21, 1994, the United States joined a number of countries around the world in signing the United Nations Framework Convention on Climate Change (Convention). Under the Convention, governments gather and share information on greenhouse gas emissions, national policies, and best practices; launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

Kyoto Protocol. The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change. The major feature of the Kyoto Protocol is that it sets binding targets for 37 industrialized countries and the European community for reducing greenhouse gas emissions at average of five per cent against 1990 levels over the five-year period 2008-2012.

The Convention (discussed above) encouraged industrialized countries to stabilize emissions; however, the Protocol commits them to do so. Developed countries have contributed more emissions over the last 150 years; therefore, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities." The United States has not entered into force of the Kyoto Protocol.

Moreover, since the United States declined to ratify the Kyoto Protocol in 1995, it has become increasingly clear that global climate change cannot be addressed without limiting GHG emissions from developing, as well as developed, countries. According to many sources, China has already surpassed the United States as the world's largest GHG emitter and is building new coal-fired power plants at a rate of approximately one per week. A recent study conducted by economists at the UC Berkeley and UC San Diego estimated that China's CO_2 emissions are growing by as much as 11 percent annually. In 2007, China released its first national plan on climate change, which includes goals related to increasing energy efficiency and increasing use of renewable resources. The plan, however, makes no commitments regarding reduction of GHG emissions.

Like China, India is already one of the top emitters of GHGs and continues to grow rapidly. India has recently pledged to take more action to fight global warming, for example, by pursuing solar energy, urging energy efficiency, and conservation, but it has not set any concrete goals in these areas, let alone pledged to reduce its carbon emissions. To the contrary, India's emissions are projected to increase fourfold by 2030 (see "Melting Asia," *The Economist*, June 5, 2008). Similarly, Brazil, the largest economy in South America, and another rapidly developing country, has no national policy requiring it to reduce carbon emissions. Brazil's carbon emissions increased by more than 60 percent between 1990 and 2004, and are projected to continue to rise at a similar pace (see International Energy Agency, World Energy Outlook 2006).

The Kyoto Protocol expired in 2012. Formal negotiations to replace the protocol officially began in December 2007 at the UNFCCC Climate Change Conference in Bali, Indonesia (http://unfccc.int/2860.php). Whether a workable agreement can be reached, however, remains to be seen, as the United States continues to press for an agreement that requires firm commitments from developing nations, and countries like China and India continue to oppose binding targets (see http://news.bbc.co.uk/2/hi/science/nature/7145608.stm).

In addition, it should be noted that most mitigation measures that address greenhouse gas reduction typically parallel those that reduce the consumption of energy (i.e., electricity and natural gas). Reducing energy use in a market economy typically reduces the cost of energy. However, a reduced cost of energy can release pent-up demand (latent demand) for energy use, particularly in less developed portions of the world, such as Africa and Asia. As such, it is not clear how much energy use reduction in California or the U.S. would actually reduce worldwide energy use. The same would apply to measures to reduce greenhouse gas emissions.

4.7.2.2 Federal Regulations/Standards

Prior to the last decade, there have been no concrete Federal regulations of greenhouse gases or major planning for climate change adaptation. The following are actions regarding the Federal government, greenhouse gases, and fuel efficiency.

Greenhouse Gas Endangerment. *Massachusetts v. EPA* (Supreme Court Case 05-1120) was argued before the United States Supreme Court on November 29, 2006, in which it was petitioned that the EPA regulate four greenhouse gases, including carbon dioxide, under Section 202(a)(1) of the Clean Air Act. A decision was made on April 2, 2007, in which the Supreme Court found that greenhouse gases are air pollutants covered by the Clean Air Act. The Court held that the EPA

Administrator must determine whether emissions of greenhouse gases from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the EPA Administrator signed two distinct findings regarding greenhouse gases under section 202(a) of the Clean Air Act:

- *Endangerment Finding:* The Administrator finds that the current and projected concentrations of the six key well-mixed greenhouse gases—carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride—in the atmosphere threaten the public health and welfare of current and future generations.

- *Cause or Contribute Finding:* The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution, which threatens public health and welfare.

These findings do not impose requirements on industry or other entities. However, this was a prerequisite for implementing greenhouse gas emissions standards for vehicles, as discussed in the section “Clean Vehicles” below.

~~The EPA denied ten petitions for Reconsideration of the Endangerment and Cause or Contribute Findings in 2010. Some of the petitioners included the Ohio Coal Association, Peabody Energy Company, and the State of Texas~~

In September 2011, the EPA Office of Inspector General evaluated the EPA’s compliance with established policy and procedures in the development of the endangerment finding, including processes for ensuring information quality. The evaluation concluded that the technical support document should have had more rigorous EPA peer review.

In June 2012, a Federal appeals court rejected a lawsuit against the EPA. The suit alleged that the EPA violated the law by relying almost exclusively on data from the United Nations IPCC rather than doing its own research or testing data according to Federal standards. ~~The states include Virginia, Texas, Alabama, Florida, Hawaii, Indiana, Kentucky, Louisiana, Mississippi, Nebraska, North Dakota, Oklahoma, South Carolina, South Dakota, and Utah. Virginia intends to petition the Supreme Court to review the case~~ The U.S. Chamber of Commerce and the National Association of Manufacturers (with others) filed petitions to the U.S. Court of Appeals – D.C. Circuit to rehear the case. The EPA and Department of Justice provided a response on October 12, 2012.

Clean Vehicles. Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the EPA and the Department of Transportation’s Highway Traffic and Safety Administration (NHTSA) announced a joint final rule establishing a national program that would reduce greenhouse gas emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program would apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The vehicles must meet an estimated combined average emissions level of 250 grams of carbon dioxide per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this carbon dioxide level solely through fuel economy improvements. Together, these standards would cut carbon dioxide emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). The EPA and the National Highway Safety

Administration are working on a second-phase rule to establish national standards for light-duty vehicles for model years 2017 and beyond.

On October 25, 2010, the EPA and the U.S. Department of Transportation proposed the first national standards to reduce greenhouse gas emissions and improve fuel efficiency of heavy-duty trucks and buses. For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20 percent reduction in carbon dioxide emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10 percent reduction for gasoline vehicles and up to a 15 percent reduction for diesel vehicles by 2018 model year (12% and 17% respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles (includes other vehicles like buses, refuse trucks, concrete mixers; everything except for combination tractors and heavy-duty pickups and vans), the agencies are proposing engine and vehicle standards starting in the 2014 model year, which would achieve up to a 10 percent reduction in fuel consumption and carbon dioxide emissions by the 2018 model year.

Mandatory Reporting of GHG. The Consolidated Appropriations Act of 2008, passed in December 2007, requires the establishment of mandatory GHG reporting requirements. On September 22, 2009, the EPA issued the Final Mandatory Reporting of Greenhouse Gases rule. The rule requires reporting of GHG emissions from large sources and suppliers in the United States, and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions, are required to submit annual reports to the EPA.

This rule does not apply to high cube logistics developers within the WLC Project because, although the project would emit more than 25,000 mt CO_2e per year of GHGs, the rule only applies to the following categories: fossil fuel suppliers and industrial gas suppliers, direct GHG emitters, and manufacturers of heavy-duty and off-road vehicles and engines. The EPA's Applicability Tool was used to determine if the project developer would need to report the GHG emissions. The source categories that are required to report GHG emissions (i.e., production, manufacturing, electricity generation, and industrial waste landfills) did not apply to the project.

New Source Review Prevention of Significant Deterioration (GHG Tailoring Rule). The EPA issued a final rule on May 13, 2010, that establishes thresholds for greenhouse gases that define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. Operating permits are legally enforceable documents that permitting authorities issue to air pollution sources after the source has begun to operate. Title V Operating Permits are required from Title V of the Clean Air Act. This final rule "tailors" the requirements of these Clean Air Act permitting programs to limit which facilities will be required to obtain Prevention of Significant Deterioration and Title V permits. In the preamble to the revisions to the Federal Code of Regulations, the EPA states:

> *This rulemaking is necessary because without it the Prevention of Significant Deterioration and Title V requirements would apply, as of January 2, 2011, at the 100 or 250 tons per year levels provided under the Clean Air Act, greatly increasing the number of required permits, imposing undue costs on small sources, overwhelming the resources of permitting authorities, and severely impairing the functioning of the programs. EPA is relieving these resource burdens by phasing in the applicability of these programs to greenhouse gas sources, starting with the largest greenhouse gas emitters. This rule establishes two initial steps of the phase-in. The rule also commits the agency to take certain actions on future steps addressing smaller sources, but excludes certain smaller sources from Prevention of*

Significant Deterioration and Title V permitting for greenhouse gas emissions until at least April 30, 2016.

EPA estimates that facilities responsible for nearly 70 percent of the national greenhouse gas emissions from stationary sources will be subject to permitting requirements under this rule. This includes the nation's largest greenhouse gas emitters—power plants, refineries, and cement production facilities.

On December 23, 2010, the EPA issued a series of rules that put the necessary regulatory framework in place to ensure that 1) industrial facilities can get Clean Air Act permits covering their GHG emissions when needed and 2) facilities emitting GHGs at levels below those established in the Tailoring Rule do not need to obtain Clean Air Act permits.

Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units. As required by a settlement agreement, the EPA proposed new performance standards for emissions of carbon dioxide for new affected fossil fuel-fired electric utility generating units on March 27, 2012. New sources greater than 25 megawatt would be required to meet an output based standard of 1,000 pounds of carbon dioxide per megawatt-hour. ~~, based on the performance of widely used natural gas combined cycle technology~~.

Cap and Trade. Cap and trade refers to a policy tool where emissions are limited to a certain amount and can be traded, or provides flexibility on how the emitter can comply. Successful examples in the United States include the Acid Rain Program and the NO_X Budget Trading Program in the northeast. There is no Federal cap and trade program currently and no pending legislation exists to establish a cap and trade program.

Energy Policy and Conservation Act. The Energy Policy and Conservation Act of 1975 sought to ensure that all vehicles sold in the U.S. would meet certain fuel economy goals. Through this Act, Congress established the first fuel economy standards for on-road motor vehicles in the U.S. Pursuant to the Act, the National Highway Traffic and Safety Administration (NHTSA), which is part of the U.S. Department of Transportation (USDOT), is responsible for establishing additional vehicle standards and for revising existing standards. Since 1990, the fuel economy standard for new passenger cars has been 27.5 miles per gallon (mpg). Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 mpg. The Corporate Average Fuel Economy (CAFE) program, administered by the EPA, was created to determine vehicle manufacturers' compliance with the fuel economy standards. The EPA calculates a CAFE value for each manufacturer based on city and highway fuel economy test results and vehicle sales. Based on the information generated under the CAFE program, the USDOT is authorized to assess penalties for noncompliance. Please also refer to the subsection, "Clean Vehicles," above.

Energy Policy Act of 1992. The Energy Policy Act (EPAct) of 1992 was passed to reduce the country's dependence on foreign petroleum and improve air quality. EPAct includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. EPAct requires certain Federal, State, and local governments and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are also included in EPAct. Federal tax deductions will be allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the Act to consider a variety of incentive programs to help promote AFVs.

Energy Policy Act of 2005. The Energy Policy Act of 2005 includes provisions for renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and

rural community electrification; and establishes a Federal purchase requirement for renewable energy.

~~**Federal Regulation of Climate Change.** The United States has historically had a voluntary approach to reducing GHG emissions. However, on April 2, 2007, the United States Supreme Court ruled that the EPA has the authority to regulate CO_2 emissions under the Federal Clean Air Act (CAA). While there currently are no adopted Federal regulations for the control or reduction of GHG emissions, the EPA commenced several actions in 2009 that are required to implement a regulatory approach to global climate change.~~

~~On December 7, 2009, the EPA Administrator signed a final action under the CAA, finding that six greenhouse gases – CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6 – constitute a threat to public health and welfare, and that the combined emissions from motor vehicles cause and contribute to global climate change. This EPA action does not impose any requirements on industry or other entities. However, the findings are a prerequisite to finalizing the GHG emission standards for light-duty vehicles mentioned below~~

~~On April 1, 2010, the EPA and NHTSA announced a final joint rule to establish a national program consisting of new standards for model year 2012 through 2016 light-duty vehicles that will reduce GHG emissions and improve fuel economy. EPA is finalizing the first-ever national GHG emissions standards under the CAA, and NHTSA is finalizing CAFE standards under the EPAct. The EPA GHG standards require these vehicles to meet an estimated combined average emissions level of 250 grams of CO_2~~ per mile in model year 2016, equivalent to 35.5 mpg

4.7.2.3 State Regulations/Standards

California Code of Regulations Title 24, Part 6. Enacted in 1978, this part of the California Code established energy efficiency standards for residential and nonresidential buildings in response to a legislative mandate to reduce California's energy consumption. These standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The most recent standards (2013 Building Energy Efficiency Standards) were adopted and went into effect ~~January 1, 2010~~ July 1, 2014.[1] Such standards include the provision of cool roofs, demand control ventilation, skylights for day-lighting in buildings, thermal breaks for metal building roofs, and lighting power limits. These standards are expected to reduce the growth in electricity use of residential and non-residential buildings. Continual updates to Title 24 along with the State's implementation of AB 1493 and SB 1368 will have a major impact on the State's attainment of the AB 32 goals.

California Code of Regulations Title 24, Part 11. This part of the California Code is known as the California Green Building Standards Code (CALGreen Code) and was enacted to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts with positive environmental impacts and through encouragement of sustainable construction practices. The CALGreen Code is not intended to substitute for or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC). This update to Part 11 of Title 24 of the California Code of Regulations was effective January 1, 2011. Key

[1] ~~*Nonresidential Compliance Manual for California's 2008 Energy Efficiency Standards*, California Energy Commission, effective January 1, 2010, http://www.energy.ca.gov/title24/2008standards/index.html, website accessed on March 4, 2010.~~
2013 Building Energy Efficiency Standards for Residential and Nonresidential Buildings, California Energy Commission, effective July 1, 2014, http://www.energy.ca.gov/title24/2013standards/

provisions of the CALGreen Code that apply to the type of new non-residential development proposed for the project site are as follows:

Division 5.1—Planning and Design

Section 5.106 Site Development

5.106.4 Bicycle Parking and Changing Rooms:

~~5.106.5 Clean Air Vehicle Parking~~

Short-term bicycle parking. If the new project or an addition or alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5 percent of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1).

Long-term bicycle parking. For buildings with over 10 tenant-occupants or alterations that add 10 or more tenant vehicular parking spaces, provide secure bicycle parking for 5 percent of tenant vehicular parking spaces being added, with a minimum of one space. Acceptable parking facilities shall be convenient from the street and shall meet the following: 1. Covered, lockable enclosures with permanently anchored racks for bicycles; 2. Lockable bicycle rooms with permanently anchored racks; or 3. Lockable, permanently anchored bicycle lockers (5.106.4.2).

5.106.5 Clean Air Vehicle Parking: For new projects or additions or alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles [201 spaces and over require at least 8 percent] (5.106.5.2).

5.106.8 Light Pollution Reduction (specific backlight, uplight, and glare ratings)

5.106.10 Grading and Paving: Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings.

Division 5.2—Energy Efficiency

Section 5.201.1 Energy Efficiency (~~15 percent reduction in energy usage when compared to the mandator~~ Mandatory energy efficiency standards through California Code of Regulations, Title 24, Part 6)

Division 5.3—Water Efficiency and Conservation

Section 5.303 Indoor Water Use

~~5.303.1 Meters~~

5.303.1 Meters: Separate water meters for buildings in excess of 50,000 sq. ft or buildings projected to consume more than 1,000 gallons per day.

5.303.2 Twenty Percent Savings: Use of plumbing fixtures and fittings that will reduce the overall use of potable water within the building by 20 percent, based on the maximum allowable water use per fixture and fitting as required by the California Building Code (California Code of Regulations, Title 24, Part 2)

~~5.303.4 Wastewater Reduction~~

5.304.3 Irrigation design: Automatic irrigation system controllers installed at the time of final inspection shall be weather- or soil moisture-based controllers that adjust irrigation in response to changes in plant needs; weather-based controllers.

5.303.4 Wastewater Reduction: Each building shall reduce by 20 percent wastewater by one of the following methods: 1. The installation of water-conserving fixtures or 2. Use of non-potable water systems (5.303.4).

5.303.6 Plumbing Fixtures and Fittings

Section 5.304 Outdoor Water Use

~~5.304.1 Water Budget~~

5.304.1 Water Budget: A water budget shall be developed for landscape irrigation use that conforms to the local water efficient landscape ordinance or to the California Department of Water Resources Model Water Efficient Landscape Ordinance where no local ordinance is applicable.

5.304.2 Outdoor Water Use (separate submeters or metering devices)

5.304.3 Irrigation Design (irrigation controllers and sensors)

Division 5.4—Material Conservation and Resource Efficiency

Section 5.407 Water Resistance and Moisture Management

Section 5.408 Construction Waste Reduction, Disposal and Recycling

~~5.408.1 Construction Waste Diversion~~

5.408.1 and 5.408.3 Construction Waste Diversion: Recycle and/or salvage for reuse a minimum 50 percent of the nonhazardous construction and demolition waste. 100 percent of trees, stumps, rocks and associated vegetation and soils resulting from land clearing shall be reused or recycled.

5.408.2 Construction Waste Management Plan

~~5.408.3 Construction Waste Diversion of at Least 50 Percent~~

Section 5.410 Building Maintenance and Operation

~~5.410.1 Recycling by Occupants~~

5.410.1 and 5.713.10 Recycling by Occupants: Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling.

Division 5.5—Environmental Quality

Section 5.504 Pollutant Control

5.504.3 Covering of Duct Openings and Protection of Mechanical Equipment During Construction

5.504.4 Finish Material Pollutant Control: Low-pollutant emitting interior finish materials such as adhesives, paints, carpet, and flooring

5.404.5.3 Filters: Minimum Efficiency Reporting Value (MERV) of 8 or higher in mechanically ventilated buildings.

California Code of Regulations Titles 14 and 27. These parts of the California Code require energy-efficient practices as part of solid and hazardous waste handling and disposal.

Pavley Regulations and Fuel Efficiency Standards. California AB 1493, enacted on July 22, 2002, required the CARB to develop and adopt regulations that reduce greenhouse gases emitted by passenger vehicles and light duty trucks. The regulation was stalled by automaker lawsuits and by

the EPA's denial of an implementation waiver. On January 21, 2009, the CARB requested that the EPA reconsider its previous waiver denial. On January 26, 2009, President Obama directed that the EPA assess whether the denial of the waiver was appropriate. On June 30, 2009, the EPA granted the waiver request. On September 8, 2009, the U.S. Chamber of Commerce and the National Automobile Dealers Association sued the EPA to challenge its granting of the waiver to California for its standards. California assisted the EPA in defending the waiver decision. The U.S. District Court for the District of Columbia denied the Chamber's petition on April 29, 2011.

The standards phase in during the 2009 through 2016 model years. When fully phased in, the near term (2009–2012) standards will result in about a 22 percent reduction compared with the 2002 fleet, and the mid-term (2013–2016) standards will result in about a 30 percent reduction. Several technologies stand out as providing significant reductions in emissions at favorable costs. These include discrete variable valve lift or camless valve actuation to optimize valve operation rather than relying on fixed valve timing and lift as has historically been done; turbocharging to boost power and allow for engine downsizing; improved multi-speed transmissions; and improved air conditioning systems that operate optimally, leak less, and/or use an alternative refrigerant.

Low Carbon Fuel Standard, Executive Order S-01-07. The Governor signed Executive Order S-01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. In particular, the executive order established a Low Carbon Fuel Standard and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission (CEC), the CARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. ~~This analysis supporting development of the protocols was included in the State Implementation Plan (SIP) for alternative fuels (State Alternative Fuels Plan adopted by the CEC on December 24, 2007) and was submitted to the CARB for consideration as an "early action" item under AB 32. The CARB adopted the Low Carbon Fuel Standard on April 23, 2009.~~The CARB adopted the Low Carbon Fuel Standard on April 23, 2009. The Low Carbon Fuel Standard requires producers of petroleum based fuels to reduce the carbon intensity of their products, beginning with a quarter of a percent in 2011, ending in a 10 percent total reduction in 2020. Petroleum importers, refiners and wholesalers can either develop their own low carbon fuel products, or buy LCFS Credits from other companies that develop and sell low carbon alternative fuels, such as biofuels, electricity, natural gas or hydrogen. The Low Carbon Fuel Standard was challenged in the United States District Court in Fresno in 2011. The court's ruling issued on December 29, 2011, included a preliminary injunction against the CARB's implementation of the rule. The Ninth Circuit Court of Appeals stayed the injunction on April 23, 2012 pending final ruling on appeal, allowing the CARB to continue to implement and enforce the regulation and vacated the injunction on September 18, 2013, and remanded the case to the district court for further consideration.

Senate Bill (SB) 1368. In 2006, the State Legislature adopted SB 1368, which was subsequently signed into law by the Governor. SB 1368 directs the California Public Utilities Commission (CPUC) to adopt a performance standard for greenhouse gas emissions for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than 5 years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. Because of the carbon content of its fuel source, a coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as combined cycle natural gas power plants. Accordingly, the new law will effectively prevent California's utilities from investing in, financially supporting, or purchasing power from new coal plants located in or out of the State. Thus, SB 1368 will lead to dramatically lower greenhouse gas emissions associated with California's energy demand, as SB 1368 will effectively prohibit California utilities from purchasing power from out-of-state

producers that cannot satisfy the performance standard for greenhouse gas emissions required by SB 1368. The CPUC adopted the regulations required by SB 1368 on August 29, 2007.

SB 97 and the *CEQA Guidelines* Update. Passed in August 2007, SB 97 added Section 21083.05 to the Public Resources Code. The code states "(a) On or before July 1, 2009, the Office of Planning and Research shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the California Governor's Office of Planning and Research (OPR) pursuant to subdivision (a)." Section 21097 was also added to the Public Resources Code. It provided CEQA protection until January 1, 2010, for transportation projects funded by the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 or projects funded by the Disaster Preparedness and Flood Prevention Bond Act of 2006, in stating that the failure to analyze adequately the effects of greenhouse gases would not violate CEQA.

On April 13, 2009, the OPR submitted to the Secretary for Natural Resources its recommended amendments to the *CEQA Guidelines* for addressing greenhouse gas emissions. On July 3, 2009, the Natural Resources Agency commenced the Administrative Procedure Act rulemaking process for certifying and adopting these amendments pursuant to Public Resources Code section 21083.05. Following a 55-day public comment period and two public hearings, the Natural Resources Agency proposed revisions to the text of the *CEQA Guidelines* amendments. The Natural Resources Agency transmitted the adopted amendments and the entire rulemaking file to the Office of Administrative Law on December 31, 2009. On February 16, 2010, the Office of Administrative Law approved the Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The Amendments became effective on March 18, 2010.

The CEQA Amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of greenhouse gas emissions in CEQA documents. The CEQA Amendments fit within the existing CEQA framework by amending existing *CEQA Guidelines* to reference climate change.

A new section, *CEQA Guidelines* Section 15064.4, was added to assist agencies in determining the significance of GHG emissions. The new section allows agencies the discretion to determine whether a quantitative or qualitative analysis is best for a particular project. However, the *CEQA Guidelines* offer little guidance on the crucial next step in this assessment process—how to determine whether the project's estimated greenhouse gas emissions are significant or cumulatively considerable.

Also amended were *CEQA Guidelines* Sections 15126.4 and 15130, which address mitigation measures and cumulative impacts respectively. Greenhouse gas mitigation measures are referenced in general terms, but no specific measures are championed. The revision to the cumulative impact discussion requirement (Section 15130) simply directs agencies to analyze greenhouse gas emissions in an EIR when a project's incremental contribution of emissions may be cumulatively considerable; however, it does not answer the question of how to determine whether emissions are cumulatively considerable.

Section 15183.5 permits programmatic greenhouse gas analysis and later project-specific tiering. A tiered project is a project that was addressed in a certified program document, such as an EIR or Mitigated Negative Declaration. The *CEQA Guidelines* state the following:

> Lead agencies may analyze and mitigate the significant effects of greenhouse gas emissions at a programmatic level, such as in a general plan, a long range development plan, or a separate plan to reduce greenhouse gas emissions. Later project-specific environmental documents may tier from and/or incorporate by reference that existing programmatic review.

Project-specific environmental documents may rely on an EIR containing a programmatic analysis of greenhouse gas emissions (Section 15183.5(a)).

Compliance with plans for the reduction of GHG emissions can support a determination that a project's cumulative effect is not cumulatively considerable, according to proposed Section 15183.5(b).

In addition, the amendments revised Appendix F of the *CEQA Guidelines*, which focuses on energy conservation. The sample environmental checklist in the *CEQA Guidelines'* Appendix G was amended to include greenhouse gas impact questions, which are used in this analysis (see Section 4.7.4).

Executive Order S-3-05. Executive Order S-3-05 was signed by Governor Schwarzenegger in 2005 proclaiming California is vulnerable to the impacts of climate change. It states that increased temperatures could reduce the Sierra Nevada's snowpack, worsen California's air quality problems, and potentially cause a rise in sea levels. The Executive Order establishes total GHG emission targets including emissions reductions to the 2000 level by 2010, and the 1990 level by 2020, and to 80 percent below the 1990 level by 2050. The 2050 reduction goal represents what scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be an aggressive, but achievable, mid-term target.

Assembly Bill 32 (AB 32). California's major initiative for reducing GHG emissions is outlined in AB 32, the "Global Warming Solutions Act," passed by the California State legislature on August 31, 2006. This effort aims at reducing GHG emissions to 1990 levels by 2020. The original 2020 GHG emissions limit was 427 million mt CO_2e. The current 2020 GHG emissions limit is 431 million mt CO_2e.~~The CARB has established the level of GHG emissions in 1990 at 427 million mt CO_2e. The emissions target of 427 million mt requires the reduction of 169 million mt from the State's projected business as usual (BAU) 2020 emissions.~~ AB 32 requires the CARB to prepare a Scoping Plan that outlines the main State strategies for meeting the 2020 deadline and to reduce GHGs that contribute to global climate change.

The Scoping Plan was approved by the CARB on December 11, 2008, and includes measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures.[1] ~~Emission reductions that are projected to result from the recommended measures in the Scoping Plan are expected to total 174 million mt CO_2e, which would allow California to attain the emissions goal of 427 million mt CO_2e by 2020.~~ The Scoping Plan includes a range of GHG reduction actions that may include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. The Scoping Plan, even after Board approval, remains a recommendation. The measures in the Scoping Plan will not be binding until after they are adopted through the normal rulemaking process. The CARB rule-making process includes preparation and release of each of the draft measures, public input through workshops and a public comment period, followed by a CARB hearing and rule adoption.

Pursuant to AB 32, ~~requires~~ the CARB and the Climate Action Team (CAT)[2] ~~to~~ did the following:

- Adopted a list of discrete early action measures ~~by July 1, 2007, that can be implemented before January 1, 2010~~;

[1] CARB, *Climate Change Proposed Scoping Plan: a Framework for Change,* October 2008.
[2] CAT is a consortium of representatives from State agencies who have been charged with coordinating and implementing GHG emission reduction programs that fall outside of CARB's jurisdiction.

- Established a statewide GHG emissions cap for 2020 based on 1990 emissions and adopted mandatory reporting rules for significant sources of GHG ~~by January 1, 2008~~;
- Indicated how emission reductions will be achieved from significant GHG sources via regulations, market mechanisms and other actions ~~by January 1, 2009~~; and
- Adopted regulations ~~by January 1, 2011~~, to achieve the maximum technologically feasible and cost-effective reductions in GHG, including provisions for using both market mechanisms and alternative compliance mechanisms.

In June 2007, the CARB approved a list of 37 early action measures, including three discrete early action measures (Low Carbon Fuel Standard, Restrictions on High Global Warming Potential Refrigerants, and Landfill Methane Capture). Discrete early action measures are measures that were required to be adopted as regulations and made effective no later than January 1, 2010, the date established by Health and Safety Code (HSC) Section 38560.5. The CARB adopted additional early action measures in October 2007[1] that tripled the number of discrete early action measures. These measures relate to truck efficiency, port electrification, reduction of perfluorocarbons from the semiconductor industry, reduction of propellants in consumer products, proper tire inflation, and sulfur hexafluoride (SF_6) reductions from the non-electricity sector. The combination of early action measures ~~is~~ was estimated to reduce statewide GHG emissions by nearly 16 million mt CO_2e.[2]

AB 32 codifies Executive Order S-3-05's[3] year 2020 goal by requiring that statewide GHG emissions be reduced to 1990 levels by the year 2020. ~~This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be implemented no later than January 1, 2012. To effectively implement the cap, AB 32 directs the CARB to develop appropriate regulations and establish a mandatory reporting system to track and monitor global warming emissions levels.~~

The AB 32 Scoping Plan identifies a cap-and-trade program as one of the strategies California will employ to reduce the GHG emissions that cause climate change. The program is a central element of AB 32 and covers major sources of GHG emissions in the State such as refineries, power plants, industrial facilities, and transportation fuels. The regulation includes an enforceable GHG cap that will decline over time. The CARB will distribute allowances, which are tradable permits, equal to the emission allowed under the cap. The program started on January 1, 2012, with the first offset credit auctions in November 2012 and an enforceable compliance obligation beginning with 2013 GHG emissions. For the first two years of the program, large industrial emitters will receive 90 percent of their allowances for free in a soft start meant to give companies time to reduce emissions through new technologies or other means. The cap, or number of allowances, will decline over time in an effort to drastically reduce greenhouse gas emissions by 2050.

The California Chamber of Commerce filed suit[4] challenging the validity of the state's cap-and-trade program. The suit challenges the California Air Resources Board's authority as stated under AB 32 to sell the permits, called "allowances," for the purpose of generating revenue for the state. It is also challenging the sale of allowances as an illegal tax, arguing that taxes need a two-thirds vote by the Legislature. ~~The chamber's challenge is the latest lawsuit filed over AB 32, which so far has survived myriad legal challenges~~ The suit was rejected on November 12, 2013, by the California Superior Court.

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1 CARB. 2007. *Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California Recommended for Board Consideration*. October.

2 CARB. 2007. "ARB approves tripling of early action measures required under AB 32." News Release 07-46. http://www.arb.ca.gov/newsrel/nr102507.htm. October 25.

3 Executive Order S-3-05 establishes greenhouse gas emission reduction targets for California.

4 The Huffington Post, November 14, 2012, http://www.huffingtonpost.com/2012/11/14/californias-cap-and-trade_n_2131251.html).

~~**Senate Bill 1368 (SB 1368).** In September 2006, Governor Arnold Schwarzenegger signed Senate Bill 1368, which calls for the adoption of a GHG performance standard for in-State and imported electricity generators to mitigate climate change.~~

Scoping Plan. The California State Legislature adopted AB 32 in 2006 which focuses on reducing greenhouse gases (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) to 1990 levels by the year 2020. Pursuant to the requirements in AB 32, the CARB adopted the Climate Change Scoping Plan (Scoping Plan) in 2008, which outlines actions recommended to obtain that goal. The Scoping Plan calls for an "ambitious but achievable" reduction in California's greenhouse gas emissions, cutting approximately 30 percent from BAU emission levels projected for 2020, or about 10 percent from today's levels. On a per-capita basis, that means reducing annual emissions of 14 tons of carbon dioxide for every man, woman, and child in California down to about 10 tons per person by 2020.

The Scoping Plan[1] contains the following 18 strategies to reduce the State's emissions:

1. *California Cap-and-Trade Program Linked to Western Climate Initiative.* Implement a broad-based California Cap-and-Trade program to provide a firm limit on emissions. Link the California cap-and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California. Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms.

2. *California Light-Duty Vehicle Greenhouse Gas Standards.* Implement adopted standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.

3. *Energy Efficiency.* Maximize energy efficiency building and appliance standards; pursue additional efficiency including new technologies, policy, and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California.

4. *Renewable Portfolio Standard.* Achieve 33 percent renewable energy mix statewide. Renewable energy sources include (but are not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas.

5. *Low Carbon Fuel Standard.* Develop and adopt the Low Carbon Fuel Standard.

6. *Regional Transportation-Related Greenhouse Gas Targets.* Develop regional greenhouse gas emissions reduction targets for passenger vehicles. This measure refers to SB 375.

7. *Vehicle Efficiency Measures.* Implement light-duty vehicle efficiency measures.

8. *Goods Movement.* Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities.

9. *Million Solar Roofs Program.* Install 3,000 MW of solar-electric capacity under California's existing solar programs.

10. *Medium/Heavy-Duty Vehicles.* Adopt medium and heavy-duty vehicle efficiency measures.

[1] Scoping Plan Reduction Measures from California Air Resources Board 2008.

11. *Industrial Emissions.* Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce greenhouse gas emissions and provide other pollution reduction co-benefits. Reduce greenhouse gas emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive methane emissions and reduce flaring at refineries.

12. *High Speed Rail.* Support implementation of a high-speed rail system.

13. *Green Building Strategy.* Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.

14. *High Global Warming Potential Gases.* Adopt measures to reduce high global warming potential gases.

15. *Recycling and Waste.* Reduce methane emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero-waste.

16. *Sustainable Forests.* Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation.

17. *Water.* Continue efficiency programs and use cleaner energy sources to move and treat water.

18. *Agriculture.* In the near-term, encourage investment in manure digesters and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020.

The First Update to the Scoping Plan was approved by the CARB on May 22, 2014. The First Update builds upon the initial Scoping Plan with new strategies and recommendations. The Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The Update defines CARB's climate change priorities for the next five years and sets the groundwork to reach California's post-2020 climate goals set forth in Executive Orders S-3-05 and B-16-2012. The Update highlights California's progress toward meeting the near-term 2020 GHG emission reduction goals defined in the initial Scoping Plan. It will also evaluate how to align the State's longer-term GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use.

Executive Order B-16-2012 (Zero-Emission Vehicles). This executive order indicates that all State entities under the Governor's control support and facilitate the rapid commercialization of zero-emission vehicles. The order contains a target similar to Executive Order S-3-05, but for the transportation sector instead of all sectors: that California target for 2050 a reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels. Executive order B-16-2012 also indicates that the CARB, the California Energy Commission, the Public Utilities Commission and other relevant agencies are ordered to work with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve the following:

- By 2015: The State's major metropolitan areas able to accommodate zero-emission vehicles, each with infrastructure plans and streamlined permitting; the State's manufacturing sector expend zero-emission vehicle and component manufacturing; an increase in the private sector's investment in zero-emission vehicle infrastructure; and the State's academic and research institutions contributing to zero-emission vehicle research, innovation and education.

- By 2020: The State's zero-emission vehicle infrastructure ability to support up to one million vehicles; the costs of zero-emission vehicles competitive with conventional combustion vehicles; zero-emission vehicles accessible to mainstream consumers; widespread use of zero-emission vehicles for public transportation and freight transport; and a decrease in transportation sector GHG emissions as a result of the switch to zero-emission vehicles; electric vehicle charging integrated into the electricity grid.

- By 2025: over 1.5 million zero-emission vehicles on California roads; easy access to zero-emission vehicle infrastructure in California; the zero-emission vehicle industry strong and sustainable part of California's economy; and California's vehicles displace at least 1.5 billion gallons of petroleum fuels per year.

Greenhouse Gas Emissions Performance Standard for Power Plants. On January 25, 2007, the CPUC adopted an interim GHG emissions performance standard. This standard is a facility-based emissions standard requiring all new long-term commitments for baseload generation to serve California consumers with power plants that have emissions no greater than a combined cycle gas turbine plant. The established level is 1,100 pounds of CO_2 per megawatt-hour.

~~**Executive Order S-01-07.** Executive Order S-01-07 was signed by Governor Schwarzenegger on January 18, 2007, mandating a statewide goal to reduce the carbon intensity of California's transportation fuel by at least ten percent by 2020. The order also requires that a California specific Low Carbon Fuel Standard be established for transportation fuels.~~

~~**Senate Bill 97 (SB 97).** Senate Bill 97 was approved on August 25, 2007, to address GHG analysis under CEQA. This legislation mandates that the OPR prepare and submit guidelines to the California Resource Agency (CRA) for the mitigation of GHG emissions and their effects by July 1, 2009, and their adoption by January 1, 2010. This legislation does not provide for any guidance for non- exempted projects in the interim period between the passage of SB 97 and the adoption of guidelines by the OPR.~~

~~As directed by SB 97, the Natural Resources Agency adopted Amendments to the *CEQA Guidelines* for greenhouse gas emissions on December 30, 2009. On February 16, 2010, the Office of Administrative Law approved the Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations (CCR). The Amendments became effective on March 18, 2010. Proposed changes to the guidelines included new questions in Appendix G regarding Greenhouse Gas Emissions and major changes to the Transportation/Traffic checklist questions (Appendix A-3, CEQA Guidelines changes).~~

Senate Bill 375. SB 375 was signed into law on October 1, 2008. SB 375 provides emissions-reduction goals around which regions can plan, integrates disjointed planning activities, and provides incentives for local governments and developers to implement "smart growth" planning and development strategies, including reducing the average VMT to reduce commuting distances and reduce criteria and greenhouse gas air pollutant emissions. SB 375 has three major components:

- Using the regional transportation planning process to achieve reductions in GHG emissions consistent with AB 32's goals;

- Offering CEQA incentives to encourage projects that are consistent with a regional plan that achieves GHG emission reductions; and

- Coordinating the regional housing needs allocation process with the regional transportation process while maintaining local authority over land use decisions.

SB 375 requires each Metropolitan Planning Organization (MPO) to include a Sustainable Communities Strategy (SCS) in the regional transportation plan that demonstrates how the region will meet the greenhouse gas emission targets and creates CEQA streamlining incentives for projects that are consistent with the regional SCS. The focus of SB 375 is on placement of new residential projects and coordinated transportation planning.

~~**Senate Bill 1078 (SB 1078), Senate Bill 107 (SB 107), Executive Order S-14-08, and Senate Bill X1-2 (SB X1-2).** Established in 2002, SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. Established in 2006, SB 107 (Chapter 464, Statutes of 2006) accelerated this requirement to the year 2010. In November 2008, Governor Schwarzenegger signed Executive Order S-14-08, which expanded the State's renewable energy standard from 20 percent to 33 percent by the year 2020. In an effort to codify the 33 percent by 2020 goal, SB X1-2 was signed by Governor Edmund G. Brown Jr. in April 2011 preempting the CARB's 33 percent Renewable Electricity Standard, which applies to all electricity retailers in the State including publicly owned utilities (POUs), investor-owned utilities, electricity service providers, and community choice aggregators. All of these entities must adopt the new goals of 20 percent of retails sales from renewables by the end of 2013, 25 percent by the end of 2016, and the 33 percent requirement being met by the end of 2020.~~

Renewable Electricity Standards. There have been several renewable electricity senate bills in California. On September 12, 2002, Governor Gray Davis signed SB 1078 requiring California to generate 20 percent of its electricity from renewable energy by 2017. SB 107 changed the due date to 2010 instead of 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08, which established a Renewable Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Governor Schwarzenegger also directed the CARB (Executive Order S-21-09) to adopt a regulation by July 31, 2010, requiring the state's load serving entities to meet a 33 percent renewable energy target by 2020. The CARB approved the Renewable Electricity Standard on September 23, 2010, by Resolution 10-23. Senate Bill X1-2 (2011) codifies the Renewable Electricity Standard into law.

SmartWay Partners. SmartWay effectively refers to aerodynamic and rolling resistance requirements geared toward reducing fuel consumption. Most large trucking fleets driving newer vehicles are compliant with SmartWay design requirements. ~~Moreover, over time, all heavy-duty trucks will have to comply with the CARB Greenhouse Gas Regulation that is designed with the SmartWay Program in mind to reduce greenhouse gas emissions by making them more fuel efficient. For instance~~ CARB's Tractor-Trailer Greenhouse Gas Regulation requires that all 2010 and older model year tractors that pull 53-foot or longer box type trailers must use SmartWay verified low rolling resistance tires beginning January 1, 2013.

The EPA has evaluated the fuel saving benefits of various devices through emissions and fuel economy testing, demonstration projects and technical literature review. As a result, EPA has determined the following types of technologies provide fuel saving and/or emission reducing benefits when used properly in their designed applications:

- **Idle Reduction Technologies** allow engine operators to refrain from long-duration idling of the main propulsion engine by using an alternative technology. An idle reduction technology is generally defined as the installation of a technology or device that:

  ~~o Is installed on a vehicle (e.g., bus, truck, locomotive, automobile, or marine vessel, equipment) or at a location;~~

  - Reduces unnecessary main engine idling of the vehicle or equipment; and/or
  - Is designed to provide services (e.g., heat, air conditioning, and/or electricity) to the vehicle or equipment that would otherwise require the operation of the main drive engine while the vehicle or equipment is temporarily parked or remains stationary.
- **Aerodynamic Technologies** minimize drag and improve airflow over the entire tractor-trailer vehicle. Aerodynamic technologies include gap fairings that reduce turbulence between the tractor and trailer, side skirts that minimize wind under the trailer, and rear fairings that reduce turbulence and pressure drop at the rear of the trailer.
- **Low Rolling Resistance Tires:** Certain tire models can reduce NO_X emissions and fuel use by 3 percent or more, relative to the best-selling new tires for line haul class 8 tractor trailers. These improvements are achieved under the following conditions:
  - Tires are used on the axle positions stated on the list below.
  - Verified low rolling resistance tires are installed on all of the axle positions of the tractor and trailer.
  - All tires must be properly inflated according to the manufacturer's specifications.
- **Retrofit Technologies:** Diesel retrofit technologies that the EPA has approved or conditionally approved, such as:
  - Diesel Particulate Filter (DPF);
  - CMX Catalyst Muffler;
  - Selective Catalytic Reduction (SCR) System;
  - Diesel Oxidation Catalyst (DOC); and
  - Diesel Oxidation Catalyst (DOC) plus CDTi Closed Crankcase Ventilation (CCV) System.

Within each of these categories, the EPA has verified specific products and continues to evaluate and verify new products. Although the EPA has verified the fuel saving and/or emission reducing benefits of the listed products, it does not endorse the purchase of products or services from any specific vendor.

4.7.2.4 Regional Regulations

Note: the subsection "Scoping Plan" was moved from this section to the California Regulation section following AB 32, because it is not a regional plan but a state plan.

Southern California Association of Governments (SCAG) Sustainable Communities Strategy (SCS) within Regional Transportation Plan (RTP) demonstrates the region's ability to attain and exceed the GHG emission reduction targets set by the CARB. The SCS outlines the plan for integrating the transportation network and related strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. The regional vision of the SCS maximizes current voluntary local efforts that support the goals of SB 375, as evidenced by several Compass Blueprint Demonstration Projects and various county transportation improvements. The SCS focuses the majority of new housing and job growth in high-quality transit areas and other opportunity areas in existing main streets, downtowns, and commercial corridors, resulting in an improved jobs-housing balance and more opportunity for transit-oriented development. This overall land use development pattern supports and complements the proposed transportation network, which emphasizes system preservation, active transportation, and transportation demand management measures.

The RTP/SCS exceeds its greenhouse gas emission-reduction targets set by the CARB by achieving a 9 percent reduction by 2020 and 16 percent reduction by 2035 compared to the 2005 level on a per capita basis. Table 4.7.C shows the assumptions regarding Moreno Valley that SCAG used in its analysis.

Table 4.7.C: SCAG Assumptions for Moreno Valley

Year	Population	Households	Employment
2008	187,400	51,100	32,300
2020	213,700	60,000	48,000
2035	255,200	72,800	64,400

Source: Southern California Association of Governments 2012 and the *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015. ~~Michael Brandman Associates~~

The RTP also includes an appendix on the Goods Movement, which provides an overview of the regional goods movement and initiatives to facilitate it. Strategies in the RTP that include the Local Jurisdiction as a responsible party, that could be applicable to the project, and that pertain to air quality or greenhouse gases are shown in Table 4.7.D. Many of the strategies are similar to the project's mitigation measures (see Section 4.7.~~6~~.51) and project design features.

Table 4.7.D: Select Regional Transportation Plan Strategies

Strategy	Responsible Party*	Project Consistency
Encourage the use of range-limited battery electric and other alternative fueled vehicles through policies and programs, such as, but not limited to, neighborhood oriented development, complete streets, and electric (and other alternative fuel) vehicle supply equipment in public parking lots.	Local Jurisdictions, COGs, SCAG, CTCs	Consistent with **Mitigation Measures 4.3.6.3B** (non-diesel yard trucks), **4.3.6.3C** (alternative fuel station), and **4.3.6.4A** (electric vehicle charging stations).
Support projects, programs, and policies that support active and healthy community environments that encourage safe walking, bicycling, and physical activity by children, including, but not limited to development of complete streets, school siting policies, joint use agreements, and bicycle and pedestrian safety education.	Local Jurisdictions and CTCs	Consistent with **Mitigation Measure 4.3.6.4A** (bicycle lanes, storage lockers, and pedestrian connections/pathways).
Engage in a strategic planning process to determine the critical components and implementation steps for identifying and addressing open space resources, including increasing and preserving park space, specifically in park-poor communities.	Local Jurisdictions and CTCs	The project is consistent with City's goal of conserving open space. As compared to the Moreno Highlands Specific Plan, the proposed project would change the zoning on 910 acres of the CDFW Conservation Buffer Area from residential to open space. In addition, the proposed project preserves the zoning of 74 acres of open space in the southwest corner of the project site for passive open space and recreation uses. Finally, a network of trails has been proposed within the project site to provide public trail access to the Lake Perris Recreational Area and the San Jacinto Wildlife Area.

Table 4.7.D: Select Regional Transportation Plan Strategies

Strategy	Responsible Party*	Project Consistency
Develop first-mile/last-mile strategies on a local level to provide an incentive for making trips by transit, bicycling, walking, or neighborhood electric vehicle or other zero emission vehicle options.	Local Jurisdictions and CTCs	Consistent with **Mitigation Measure 4.3.6.4A** (Riverside County's Rideshare Program), bicycle lanes, and pedestrian access.
Encourage transit fare discounts and local vendor product and service discounts for residents and employees of transit oriented development/high quality transit areas or for a jurisdiction's local residents in general who have fare media	Local Jurisdictions	Not applicable. This measure is for areas in transit-oriented development.
Encourage the implementation of a Complete Streets policy that meets the needs of all users of the streets, roads and highways—including bicyclists, children, persons with disabilities, motorists, neighborhood electric vehicle (NEVs) users, movers of commercial goods, pedestrians, users of public transportation and seniors—for safe and convenient travel in a manner that is suitable to the suburban and urban contexts within the region.	Local Jurisdictions, COGs, SCAG, CTCs	Although the project is not implementing what is labeled as a "Complete Streets" policy, the project would include bicycle lanes and pedestrian access (**Mitigation Measure 4.3.6.4A**) and would implement handicapped access pursuant to current regulations.
Support work-based programs that encourage emission reduction strategies and incentivize active transportation commuting or ride-share modes.	SCAG, Local Jurisdictions	Consistent through **Mitigation Measure 4.3.6.4A** (Riverside County's Rideshare Program; designated parking for carpool/van pools).
Develop infrastructure plans and educational programs to promote active transportation options and other alternative fueled vehicles, such as neighborhood electric vehicles, and consider collaboration with local public health departments, walking/biking coalitions, and/or Safe Routes to School initiatives, which may already have components of such educational programs in place.	Local Jurisdictions	Consistent with **Mitigation Measures 4.3.6.4A** (bicycle lanes, pedestrian access, electric vehicle charging) and **4.3.6.3C** (alternative fueling infrastructure).
Encourage the development of telecommuting programs by employers through review and revision of policies that may discourage alternative work options.	Local Jurisdictions and CTCs	Not applicable. Tenants may choose to implement telecommuting if feasible.
Emphasize active transportation and alternative fueled vehicle projects as part of complying with the Complete Streets Act (AB 1358).	State, SCAG, Local Jurisdictions	Consistent with **Mitigation Measure 4.3.6.3C** (alternative fueling station) and **Mitigation Measure 4.3.6.4A** (electric vehicle charging stations)

* Abbreviations:
SCAG = Southern California Association of Governments
CTCs = county transportation commissions
COGs = subregional councils of governments
Source: Southern California Association of Governments 2012 and the *Air Quality, Greenhouse Gas, and Health Risk Assessment*, 2015. ~~Michael Brandman Associates | FirstCarbon Solutions~~

SB 375 took effect in 2009 and required regional municipal planning organizations to develop regional land use plans that demonstrate how the regions will achieve compliance with the GHG reduction goals of AB 32. Cities located within these regions are then required, in turn, to update their General Plans in accordance with the regional plans. Non-compliance with SB 375 will result in transportation funds being withheld from the regional and/or local agency. To date, the regional municipal planning organization for Riverside County (the Western Riverside Council of Governments, or WRCOG) has not adopted a regional plan that is in compliance with SB 375.

South Coast Air Quality Management District. In April 2008, the SCAQMD, in order to provide guidance to local lead agencies on determining the significance of GHG emissions identified in CEQA documents, convened a "GHG CEQA Significance Threshold Working Group."[1] The goal of the working group is to develop and reach consensus on an acceptable CEQA significance threshold for GHG emissions that would be utilized on an interim basis until the CARB (or some other State agency) develops statewide guidance on assessing the significance of GHG emissions under CEQA.

Initially, SCAQMD staff presented the working group with a significance threshold that could be applied to various types of projects—residential, non-residential, industrial, etc. However, the threshold is still under development. In December 2008, staff presented the SCAQMD Governing Board with a significance threshold for stationary source projects in which it is the lead agency. This threshold uses a tiered approach to determine a project's significance, with 10,000 metric tons (mt) of carbon dioxide equivalent (CO_2e) as a screening numerical threshold.

In September 2010, the Working Group released additional revisions, which recommended a project-level efficiency target of 4.8 mt CO_2e per service population (SP) as a 2020 target and 3.0 mt CO_2e, per SP as a 2035 target. The recommended plan-level target for 2020 was 6.6 mt CO_2e and the plan level target for 2035 was 4.1 mt CO_2e. The SCAQMD has not announced when staff is expecting to present a finalized version of these thresholds to the Governing Board.

The SCAQMD has also adopted Rules 2700, 2701, and 2702 to establish a voluntary program to encourage, quantify, and certify voluntary GHG emission reductions in the SCAQMD's jurisdiction. The CARB adopted a resolution regarding the adoption of GHG accounting protocols that distinguishes between the offset certification programs that were developed for the voluntary market, and the program that must be developed to certify offsets to be used under CARB's cap-and-trade rule. This resolution withdrew CARB approval of voluntary protocols but would not impact the use of these protocols for voluntary purposes. Protocols in Rules 2701 and 2702 are voluntary protocols, which no longer have CARB's approval.

4.7.2.5 City of Moreno Valley General Plan Policies

The City adopted its General Plan in 2006. The General Plan does not contain policies directly related to greenhouse gases; however, it does have some air quality[2] policies applicable to the proposed project that are related to reducing greenhouse gases, as shown below:

Objective 6.6 Promote land use patterns that reduce daily automotive trips and reduce trip distance for work, shopping, school, and recreation.

Objective 6.7 Reduce mobile and stationary source air pollutant emissions.

Policy 6.7.1 Cooperate with regional efforts to establish and implement regional air quality strategies and tactics.

[1] For more information see: http://www.aqmd.gov/ceqa/handbook/GHG/GHG.html.
[2] Policies 6.7.4 and 6.7.5 are discussed in the Air Quality EIR Section, 4.3.

Policy 6.7.2 Encourage the financing and construction of park-and-ride facilities.

Policy 6.7.3 Encourage express transit service from Moreno Valley to the greater metropolitan areas of Riverside, San Bernardino, Orange and Los Angeles Counties.

Policy 6.7.6 Require building construction to comply with the energy conservation requirements of Title 24 of the California Administrative Code.

4.7.2.6 City of Moreno Valley Climate Action Strategy

The City of Moreno Valley approved the Energy Efficiency and Climate Action Strategy (Strategy) in October 2012. The Strategy identifies ways that the City can reduce energy and water consumption and greenhouse gas emissions as an organization (its employees and the operation of its facilities) and outlines the actions that the City can encourage and community members can employ to reduce their own energy and water consumption and greenhouse gas emissions. The Strategy contains the following policies to reduce greenhouse gas emissions in 2010 by 15 percent by 2020:

R2-T1 *Land Use Based Trips and VMT Reduction Policies.* Encourage the development of Transit Priority Projects along High Quality Transit Corridors identified in the SCAG Sustainable Communities Plan, to allow a reduction in vehicle miles traveled.

R2-T3 *Employment-Based Trip Reductions.* Require a Transportation Demand Management (TDM) program for new development to reduce automobile travel by encouraging ride-sharing, carpooling, and alternative modes of transportation.

R2-E1 *New Construction Residential Energy Efficiency Requirements.* Require energy efficient design for all new residential buildings to be 10 percent beyond the current Title 24 standards.

R2-E2 *New Construction Residential Renewable Energy.* Facilitate the use of renewable energy (such as solar [photovoltaic] panels or small wind turbines) for new residential developments. Alternative approach would be the purchase of renewable energy resources off site.

R2-E5 *New Construction Commercial Energy Efficiency Requirements.* Require energy efficient design for all new commercial buildings to be 10 percent beyond the current Title 24 standards.

R3-E1 *Energy Efficient Development, and Renewable Energy Deployment Facilitation and Streamlining.* Updating of codes and zoning requirements and guidelines to further implement green building practices. This could include incentives for energy-efficient projects.

R3-L2 *Heat Island Plan.* Develop measures that address “heat islands.” Potential measures include using strategically placed shade trees, using paving materials with a Solar Reflective Index of at least 29, an open grid pavement system, or covered parking.

R2-W1 *Water Use Reduction Initiative.* Consider adopting a per capita water use reduction goal which mandates the reduction of water use of 20 percent per capita with requirements applicable to new development and with cooperative support of the water agencies.

R3-W1 *Water Efficiency Training and Education.* Work with EMWD and local water companies to implement a public information and education program that promotes water conservation.

R2-S1 *City Diversion Program.* For solid waste, consider a target of increasing the waste diverted from the landfill to a total of 75 percent by 2020.

4.7.3 Methodology

Bearing in mind that CEQA does not require "perfection" but instead "adequacy, completeness, and a good faith effort at full disclosure," the analysis of project GHG emissions and climate change is based on methodologies and information available at the time this EIR was prepared~~. Estimation of GHG emissions in the future does not account for changes in technology that may reduce such emissions; therefore, the estimates are based on past performance and represent a scenario that is worse than that which is likely to be encountered. Additionally, as explained in greater detail below, m~~Many uncertainties exist regarding the precise relationship between specific levels of GHG emissions and the ultimate impact on global climate. Significant uncertainties also exist regarding the reduction potential of mitigation strategies. Thus, while information is presented below to assist the public and the City's decision-makers in understanding the project's potential contribution to global climate change impacts, the information available to the City is not sufficiently detailed to allow a direct comparison between particular project characteristics and particular climate change impacts, nor between any particular proposed mitigation measure and any reduction in climate change impacts.

The recommended approach for GHG analysis included in the California Governor's Office of Planning and Research (OPR's) June 2008 release is to: (1) identify and quantify GHG emissions, (2) assess the significance of the impact on climate change, and (3) if significant, identify alternatives and/or mitigation measures to reduce the impact below a level of significance.[1] Neither the CEQA statute nor Guidelines prescribe quantitative thresholds of significance or a particular methodology for performing an impact analysis; as with most environmental topics, significance criteria are left to the judgment and discretion of the lead agency.

The June 2008 OPR guidance provides some additional direction regarding planning documents as follows: "CEQA can be a more effective tool for GHG emissions analysis and mitigation if it is supported and supplemented by sound development policies and practices that will reduce GHG emissions on a broad planning scale and that can provide the basis for a programmatic approach to project-specific CEQA analysis and mitigation. For local government lead agencies, adoption of General Plan policies and certification of General Plan EIRs that analyze broad jurisdiction-wide impacts of GHG emissions can be part of an effective strategy for addressing cumulative impacts and for streamlining later project-specific CEQA reviews."

Pursuant to SB 97, the OPR is in the process of developing guidelines for analysis of the effects of GHG emissions. As part of this process, the OPR has asked CARB technical staff to recommend statewide interim thresholds of significance for GHGs. The CARB released a preliminary draft staff proposal in October 2008 that included initial suggestions for significance criteria related to industrial, commercial, and residential projects.

In March 2010, *CEQA Guidelines* amendments were adopted and include the following direction regarding determination of significant impacts from GHG emissions (Section 15064.4):

(a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in Section 15064. A lead agency should make a good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

[1] State of California, 2008. Governor's Office of Planning and Research. *CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act Review*. June 19.

(1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; or

(2) Rely on a qualitative analysis or performance based standards.

(b) A lead agency may consider the following when assessing the significance of impacts from greenhouse gas emissions on the environment:

(1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.

(2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.

(3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

CEQA Guidelines Section 15064(b) provides that the "determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data," and further, states that an "ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting."

On February 3, 2011 the SCAQMD released the California Emissions Estimator Model (CalEEMod) Emissions Inventory Model. CalEEMod was updated in July 2013, after publication of the Draft EIR; therefore, the emissions were remodeled using the new version for the Final EIR~~. The purpose of this new model is to calculate air quality and GHG emissions more accurately from direct and indirect sources and quantify applicable air quality and GHG reductions achieved from mitigation measures.~~ The latest version of CalEEMod was utilized to calculate GHG emissions from the following source categories: construction, energy, waste, land use change, and water. For a detailed description of the assumptions used to estimate the GHG emissions, refer to the Air Quality, Greenhouse Gas, and Health Risk Assessment Report.

As a result of comments on the Draft EIR, the GHG inventory was revised as follows:

- **Revisions to Construction Assumptions.** Construction related GHG emissions were estimated using the same procedures as for air quality. For a list of the changes to the construction emissions methodology, please refer to Section 4.3.3.1 in the Air Quality Final EIR or the revised Air Quality, Greenhouse Gas, and Health Risk Assessment (2015).
- **Revisions to Operational Mobile Assumptions**. Operational mobile GHG emissions were estimated using the same procedures for the air quality analysis. The new emission factors model was used (EMFAC2014). Please refer to Section 4.3.3.2 in the Air Quality Final EIR or the revised Air Quality, Greenhouse Gas, and Health Risk Assessment (2015). for a list of those changes.

- **Addition of Onsite Equipment Emissions.** During operation of the project, there would be on-site equipment operating on the project site. Yard trucks are trucks that are used in moving trailers and containers short distances around the warehouses. Emergency generators would be run for testing purposes. Fuel powered forklifts are assumed for the light industrial uses; however, the warehouse and distribution centers would use electric forklifts, which would not have emissions.
- **Addition of Black Carbon Emissions Estimation.** The analysis in the Draft EIR did not estimate black carbon emissions, which may contribute to climate change. This analysis includes an estimate of black carbon emissions for both construction and operation.
- **New Waste Generation Factors**. The new version of CalEEMod has revised operational waste generation factors, which results in less estimated waste generated during operation and less greenhouse gas emissions.
- **Land Use Change.** In the Draft EIR, the GHG emissions from the land use change (conversion of dry farming to a built up environment), was included as a one-time occurrence in the construction emissions. For the Final EIR, these emissions are operational and occur every year.

4.7.4 Thresholds of Significance

Based on Appendix G of the *CEQA Guidelines*, climate change/greenhouse gas emissions impacts would occur if the proposed project would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment (i.e., exceeds the SCAQMD's 10,000 mt CO_2e emissions screening threshold of significance); and/or
- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

Global climate change may result in significant adverse effects to the environment that will be experienced worldwide, with some specific effects observed in California. AB 32 requires statewide GHG emissions reductions to 1990 levels by 2020. Although these statewide reductions are now mandated by law, no generally applicable GHG emission threshold has yet been established.

State CEQA Guidelines Section 15064(b) provides that "…the determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data," and further, that an "ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting." The *State CEQA Guidelines* further indicate that even when thresholds are established, they may include "identifiable quantitative, qualitative or performance level of a particular environmental effect" (*State CEQA Guidelines*, Section 15064.7).

Some policymakers and regulators suggest that a zero emissions threshold would be appropriate when evaluating GHGs and their potential effect on climate change. Such a rule appears inconsistent with the State's approach to mitigation of climate change impacts. AB 32 does not prohibit all new GHG emissions; rather, it requires a reduction in statewide emissions to a given level. Thus, AB 32 recognizes that GHG emissions will continue to occur; increases will result from certain activities, but reductions must occur elsewhere.

Individual projects incrementally contribute toward the potential for global climate change (GCC) on a cumulative basis in concert with all other past, present, and probable future projects. While individual projects are unlikely to measurably affect GCC, each of these projects incrementally contributes

toward the potential for GCC on a cumulative basis, in concert with all other past, present, and probable future projects. This analysis examines whether the project's emissions should be considered cumulatively significant.

In order to evaluate the significance of a proposed project's environmental impacts related to GHG emissions, it is necessary to identify quantitative or qualitative thresholds which, if exceeded, would constitute a finding of significance. As previously described, while project-related GHG emissions can be estimated the direct impact of such emissions on climate change and global warming cannot be determined on the basis of available science. There is no evidence at this time that the proposed project would directly affect GCC. The SCAQMD has adopted a quantitative GHG emission significance threshold to assess direct impacts from industrial projects where the SCAQMD is the lead agency. The SCAQMD and other air quality agencies agree that GHG and GCC should be assessed as a potentially significant cumulative impact rather than a project-specific impact.

The following is an excerpt from the SCAQMD (*Draft Guidance Document – Interim CEQA Greenhouse Gas [GHG] Significance Threshold,* October 2008):

> *"The overarching policy objective with regard to establishing a GHG significance threshold for the purposes of analyzing GHG impacts pursuant to CEQA is to establish a performance standard or target GHG reduction objective that will ultimate contribute to reducing GHG emissions to stabilize climate change. Full implementation of the Governor's Executive Order S-3-05 would reduce GHG emissions 80 percent below 1990 levels or 90 percent below current levels by 2050. It is anticipated that achieving the Executive Order's objective would contribute to worldwide efforts to cap GHG concentrations at 450 ppm, thus, stabilizing global climate.*
>
> *As described below, staff's recommended interim GHG significance threshold proposal uses a tiered approach to determining significance. Tier 3, which is expected to be the primary tier by which the AQMD will determine significance for projects where it is the lead agency, uses the Executive Order S-3-05 goal as the basis for deriving the screening level."*

This project utilizes Tier 3 of the SCAQMD's draft threshold and compares the project's uncapped greenhouse gas emissions to the SCAQMD's threshold for industrial projects, 10,000 mt CO_2e per year. Therefore, the threshold used for this project was based on the goal in Executive Order S-3-05. If the project's uncapped emissions are under the threshold, then the project would be in compliance with Executive Order S-3-05.

In September 2013, the SCAQMD adopted two Negative Declarations last year stating that GHG emissions subject to the ARB Cap-and-Trade Program do not count against the 10,000 MT CO2e significance threshold the SCAQMD applies when acting as a lead agency. In addition, the San Joaquin Valley Air Pollution Control District (SJVAPCD) has recently taken this one issue step further and adopted a policy: "CEQA Determinations of Significance for Projects Subject to ARB's GHG Cap-and-Trade Regulation." This policy applies when the SJVAPCD is the lead agency and when it is a responsible agency. In short, the SJVAPCD "has determined that GHG emissions increases that are covered under ARB's Cap-and-Trade regulation cannot constitute significant increases under CEQA…." The SJVAPCD classifies ARB's Cap-and-Trade Program as an approved GHG emission reduction plan or GHG mitigation program under CEQA Guidelines Section 15064(h) (3). Here are some other pertinent excerpts from that policy:

- "Consistent with CCR §15064(h)(3), the District finds that compliance with ARB's Cap-and-Trade regulation would avoid or substantially lessen the impact of project-specific GHG emissions on global climate change."

- "The District therefore concludes that GHG emissions increases subject to ARB's Cap-and-Trade regulation would have a less than significant individual and cumulative impact on global climate change."

- "[I]t is reasonable to conclude that implementation of the Cap-and-Trade program will and must fully mitigate project-specific GHG emissions for emissions that are covered by the Cap-and-Trade regulation."

- "[T]he District finds that, through compliance with the Cap-and-Trade regulation, project-specific GHG emissions that are covered by the regulation will be fully mitigated."

The policy acknowledges that "combustion of fossil fuels including transportation fuels used in California (on and off road including locomotives), not directly covered at large sources, are subject to Cap-and-Trade requirements, with compliance obligations starting in 2015." As such, the SJVAPCD concludes that GHG emissions associated with vehicle miles traveled (VMT) cannot constitute significant increases under CEQA. This regulatory conclusion is therefore directly applicable to the WLC project because VMT is by far the largest source of project GHG emissions.

In the IPCC Assessment Report (IPCC 2007b, Synthesis Report), the IPCC acknowledges that man-made warming and sea level rise would continue for centuries due to the time scales associated with climate processes and feedback even if GHG concentration were to be stabilized. The IPCC further found that both past and future man-made CO_2 emissions will continue to contribute to warming and sea level rise for more than a millennium, due to the time scales required for the removal of CO_2 from the atmosphere. Furthermore, the IPCC assessment noted that the definition of what is a dangerous man-made interference with the climate system and, consequently, the limits to be set for policy purposes are complex tasks that can only be partially based on science, as such definitions inherently involve normative judgments (IPCC 2007b – Working Group III).

4.7.5 Less than Significant Impacts

Due to the size of the project, all potential impacts related to greenhouse gas emissions are considered to be potentially significant.

4.7.6 Significant Impacts

4.7.6.1 Greenhouse Gas Emissions

Threshold	Would the proposed project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Future development that could occur within the proposed project site could generate GHG emissions during both construction and operation activities. The following activities are associated with the proposed project and could directly or indirectly contribute to the generation of GHG emissions:

- **Removal of Vegetation (Land Use Change) and Sequestration:** Carbon sequestration is the process of capture and storage of carbon dioxide; trees, vegetation, and soil store carbon in their tissues and wood. The net removal of vegetation for construction from land use change results in a loss of the carbon sequestration in plants. However, planting additional vegetation (sequestration) would result in additional carbon sequestration and would lower the carbon footprint of the project.

- **Construction Activities:** During construction of the project, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O. ~~Furthermore, CH_4 is emitted during the fueling of heavy equipment.~~
- **Gas, Electric, and Water Use:** Natural gas use results in the emissions of CH_4 (the major component of natural gas) and CO_2 from the combustion of natural gas. Electricity use can result in GHG production if the electricity is generated by combusting fossil fuel. ~~California's water conveyance system is energy-intensive. Preliminary estimates indicate that the total energy used to pump and treat this water exceeds 6.5 percent of the total electricity used in the State per year.~~[1] Conveying water to the project and treating wastewater also uses electricity.
- **Solid Waste Disposal:** Solid waste generated by the project could contribute to GHG emissions in a variety of ways. Landfilling and other methods of disposal use energy for transporting and managing the waste, and they produce additional GHGs to varying degrees. Landfilling, the most common waste management practice, results in the release of CH_4 from the anaerobic decomposition of organic materials. CH_4 is approximately 25 ~~21~~ times more potent than CO_2. Landfill CH_4 can also be a source of energy. In addition, many materials in landfills do not decompose fully, and the carbon that remains is sequestered in the landfill and not released into the atmosphere.
- **Motor Vehicle Use:** Transportation associated with the proposed project would result in GHG emissions from the combustion of fossil fuels in daily automobile and truck trips.
- **On-site Equipment:** During operation of the project, there would be on-site equipment operating, including yard trucks, emergency generators, and forklifts.

Construction Emissions. The project would emit GHGs mainly from direct sources such as combustion of fuels from worker vehicles and construction equipment, as shown in Table 4.7.E. The GHG emissions are from all phases of construction. ~~The project may also generate construction waste, which in turn, could emit greenhouse gases. These emissions are not estimated because it is unknown how much construction waste the project would generate the California Green Building Standards require that the project divert at least 50 percent of construction waste.~~

Table 4.7.E: Construction Greenhouse Gas Emissions (without mitigation) Table Revised

Year	Annual Emissions (mt CO_2e)
2015	14,315~~17,029~~
2016	14,396~~17,129~~
2017	19,052~~22,667~~
2018	14,515~~17,253~~
2019	25,605~~30,429~~
2020	16,655~~19,744~~
2021	18,318~~21,796~~
2022	15,582~~18,321~~
2023	18,028~~20,783~~
2024	16,792~~19,540~~
2025	18,041~~20,800~~
2026	14,491~~17,228~~
2027	17,097~~20,340~~
2028	15,686~~18,679~~

Table 4.7.E: Construction Greenhouse Gas Emissions (without mitigation) Table Revised

Year	Annual Emissions (mt CO_2e)
2029	11,789~~14,027~~
2030	14,500~~17,294~~
Total	**264,861~~313,059~~**
Averaged over 30 years	**8,829~~10,435~~**
Capped: Fuel-Based Emission Sources Averaged over 30 years	**8,823~~10,418~~**
Uncapped: Refrigerant Installation Averaged over 30 years	**6~~17~~**

mt CO_2e = metric tons of carbon dioxide equivalents.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015 ~~Michael Brandman Associates | FirstCarbon Solutions (MBA 2014, Appendix D)~~
Sources include onsite construction equipment, worker trips, haul trips, vendor trips, refrigerant installation for the air conditioning in the offices, construction waste and water use.

Operational Emissions, Worst-Case Scenario. Operational or long-term emissions occur over the life of the project. ~~However, CEQA requires an analysis of project buildout superimposed over existing (baseline) conditions. Therefore,~~ Operational emissions for a worst-case buildout condition are shown in Table 4.7.F. The emissions are presented by greenhouse gas (in tons per year), which was also converted to metric tons of carbon dioxide equivalents (mt CO_2e). The vehicle emissions in the table represent travel within the South Coast Air Basin. ~~; the long-haul trucks travel an average of 50 miles per trip and the local vehicles travel between 9.6 and 15.4 miles per trip~~ The emissions do not take into account mitigation measures to reduce emissions, such as the use of model year 2010 and later medium and heavy-heavy duty trucks on the project site. As shown in the table, the project's uncapped emissions are ~~well~~ over the SCAQMD's significance threshold of 10,000 mt CO_2e per year. Therefore, emissions are potentially significant.

The analysis presented in Table 4.7.F also represents a worst-case analysis because the emission factors do not take into account full reductions from regulation or reductions from newer trucks and cars. The emissions are estimated using emission factors from EMFAC2014, CARB's emission factor model, for the year 2012.

Table 4.7.F: Project Operational GHG Emissions (Worst-Case 2012 Analysis at Buildout) Table Revised

Source	Individual Emissions (tons/year)					Greenhouse Gas Emissions (mt CO_2e)
	Carbon Dioxide	Methane	Nitrous Oxide	Hydrofluoro-carbons	Black Carbon	
AB 32 Capped Emissions						
Mobile	~~350,639~~ 370,445	~~6.91~~ 9.75	~~63.96~~ 2.18	0.00	~~35.03~~ 37.19	~~360,370~~ 362,507
Other	137,884	8.11	1.16	0.00	2.65	127,503
Total	~~488,523~~ 508,329	~~15.02~~ 17.86	~~65.12~~ 3.34	0.00	~~37.68~~ 39.84	~~487,873~~ 490,010
Uncapped Emissions	**9,689**	**~~504.66~~ 504.08**	**0.00**	**0.62**	**0.00**	**~~19,248~~ 19,237**
					Threshold	**10,000**
					Significant?	**Yes**

Table 4.7.F: Project Operational GHG Emissions (Worst-Case 2012 Analysis at Buildout) Table Revised

Source	Individual Emissions (tons/year)					Greenhouse Gas Emissions (mt CO_2e)
	Carbon Dioxide	Methane	Nitrous Oxide	Hydrofluoro-carbons	Black Carbon	

Notes:
mt CO_2e = metric tons of carbon dioxide equivalents, which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.
The "other" emissions include the non-mobile capped emissions as presented in Table 4.7.G below.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report* ~~2015Michael Brandman Associates | FirstCarbon Solutions September 2014~~

Operational Emissions, Annual Reasonable Scenario. The emissions presented herein are a reasonable scenario, because unlike the worst-case scenario displayed above, the mobile emissions use emission factors for the actual year assessed. The motor vehicle and truck emissions for Phase 1 (2016 to 2022) use emission factors for the year 2022, whereas motor vehicle and truck emissions for Phase 2 (2023 to buildout, 2031) use emission factors for the year 2035.

CARB has designed a California cap-and-trade program that is enforceable and meets the requirements of AB 32. The program began on January 1, 2012, with an enforceable compliance obligation beginning with its 2013 GHG emissions inventory. Some of the project's GHG emissions are subject to the requirements of the AB 32 Cap and Trade Program and will have a GHG allocation based on current GHG emissions levels. The AB32 Cap-and-Trade Program has divided allocations into sectors. The transportation and electricity sectors would be covered by the cap-and-trade program.

Table 4.7.G shows the unmitigated project emissions at buildout by individual GHG (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, and black carbon). Those emissions are converted to mt CO_2e based on the global warming potential of the gas/aerosol. The table also shows the emissions divided by AB 32 capped and uncapped emissions. AB 32 capped emissions are shown for informational purposes, as those emissions are not compared with the SCAQMD's significance threshold. As shown in the table, the uncapped emissions exceed the threshold and are significant.

Table 4.7.G: Project GHG Emissions at Buildout by GHG (Unmitigated) New Table

Source	Emissions (tons per year)					GHG Emissions (mt CO_2e)
	Carbon Dioxide	Methane	Nitrous Oxide	HFCs	Black Carbon	
AB 32 Capped Emissions						
Mobile	*297,342~~356,270~~*	*1.54 ~~3.37~~*	*2.17~~13.68~~*	*0.00*	*0.66 ~~8.52~~*	*270,846~~332,992~~*
Electricity	*118,844~~118,745~~*	*5.46*	*1.13*	*0.00*	*0.00*	*108,237*
*Construction fuel**	*8,325 ~~9,798~~*	*2.12 ~~2.51~~*	*<0.01~~0.00~~*	*0.00*	*1.78 ~~2.12~~*	*8,823 ~~10,418~~*
Yard trucks	*5,631*	*0.00*	*0.00*	*0.00*	*0.00*	*5,108*
Electricity-convey water	*2,346*	*0.11*	*0.02*	*0.00*	*0.00*	*2,136*
Natural gas	*885*	*0.02*	*0.01*	*0.00*	*0.02*	*823*
Generator	*266*	*0.01*	*0.00*	*0.00*	*0.50*	*583*
Forklifts	*213*	*0.00*	*0.00*	*0.00*	*0.01*	*198*

Table 4.7.G: Project GHG Emissions at Buildout by GHG (Unmitigated) New Table

Source	Emissions (tons per year)					GHG Emissions (mt CO_2e)
	Carbon Dioxide	Methane	Nitrous Oxide	HFCs	Black Carbon	
Total AB 32 Capped	*433,852 494,154*	*9.26 11.48*	*3.33 14.84*	*0.00*	*2.97 11.17*	*396,754 440,495*
Significant?	--	--	--	--	--	*No*
Uncapped Emissions						
Waste	8,539	504.66	0.00	0.00	0.00	17,361
Land use change	1,272	0.00	0.00	0.00	0.00	1,154
Refrigerants	0	0.00	0.00	0.61	0.00	827
Construction refrigerant*	0	0.58 0.00	0.00	0.01	0.00	6 17
Sequestration	-122	0.00	0.00	0.00	0.00	-111
Total Uncapped	**9,689**	**504.08 504.66**	**0.00**	**0.62**	**0.00**	**19,237 19,248**
Threshold	--	--	--	--	--	10,000
Significant impact?	--	--	--	--	--	Yes

mt CO_2e = metric tons of carbon dioxide equivalents which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons [HFC] – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072. <0.01 = less than 0.01
*Construction emissions are the average over 30 years. Construction uncapped emissions are from refrigerants and construction waste.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015 Michael Brandman Associates | FirstCarbon Solutions September 2014

Table 4.7.H shows a summary of AB 32 capped and uncapped project emissions for each year between 2015 2014 and buildout. The emissions do not take into account the project design features, regulation, or mitigation. As shown in the table, the uncapped emissions in the year 2022 and after are over the SCAQMD's significance threshold of 10,000 mt CO_2e per year. Therefore, emissions are potentially significant.

Table 4.7.H-a: Project Operational GHG Emissions (Year by Year without Mitigation) Revised

Source	GHG Unmitigated Emissions (mt CO_2e/year)							
	2015	2016	2017	2018	2019	2020	2021	2022
AB 32 Capped Emissions								
Mobile	0	15,982~~17,682~~	31,964~~35,363~~	53,274~~58,938~~	74,584~~82,514~~	114,159~~126,297~~	153,734~~170,921~~	174,629~~193,234~~
Electricity	0	5,598	11,197	18,662	26,126	39,989	54,119	61,183
Construction fuel*	14,306~~17,003~~	14,388~~17,103~~	19,040~~22,633~~	14,503~~17,219~~	25,584~~30,365~~	16,663~~19,679~~	18,307~~21,764~~	15,578~~18,307~~
Yard trucks	0	264	528	881	1233	1,887	2,554	2,888
Electricity to convey water	0	110	221	368	516	789	1,068	1,207
Natural gas	0	43	85	142	199	304	411	465
Generator	0	30	60	101	141	216	292	330
Forklifts	0	10	20	34	48	73	99	112
Total AB 32 Capped Emissions	14,306~~17,003~~	36,425~~40,840~~	63,115~~70,107~~	87,965~~96,345~~	128,431~~141,142~~	174,050~~189,234~~	230,584~~251,228~~	256,392~~277,726~~
Uncapped Emissions								
Waste	0	898	1,796	2,993	4,191	6,414	8,681	9,814
Land use change	0	60	119	199	279	426	577	652
Refrigerants	0	43	86	143	200	306	414	467
Construction refrigerant install And waste*	9 ~~26~~	9 ~~26~~	11 ~~34~~	11 ~~34~~	21 ~~64~~	22 ~~65~~	11 ~~33~~	4 ~~13~~
Sequestration	0	-6	-11	-19	-27	-41	-56	-63
Total Uncapped Emissions	**9 ~~26~~**	**1,004 ~~1,021~~**	**2,001 ~~2,024~~**	**3,327 ~~3,350~~**	**4,664 ~~4,707~~**	**7,127 ~~7,170~~**	**9,627 ~~9,649~~**	**10,874 ~~10,883~~**
Threshold	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Significant impact?	No	No	No	No	No	No	No	Yes

Table 4.7.H-a: Project Operational GHG Emissions (Year by Year without Mitigation) Revised

Source	GHG Unmitigated Emissions (mt CO_2e/year)							
	2015	2016	2017	2018	2019	2020	2021	2022

Notes:
mt CO_2e = metric tons of carbon dioxide equivalents which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.
~~* Construction would not occur at buildout; however, according to SCAQMD recommendations, it is included at buildout as the average over 30 years~~.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015~~Michael Brandman Associates | FirstCarbon Solutions September 2014.~~

Table 4.7.H-b: Project Operational GHG Emissions (Year by Year without Mitigation) Revised Table

Source	Emissions (mt CO_2e/year)								
	2023	2024	2025	2026	2027	2028	2029	2030	Buildout
AB 32 Capped Emissions									
Mobile	183,616~~197,253~~	192,604~~215,297~~	205,429~~234,571~~	219,972~~256,40~~	234,515 ~~278,286~~	249,059 ~~300,185~~	258,591 ~~314,538~~	268,123 ~~328,891~~	270,846 ~~332,992~~
Electricity	64,116	69,981	76,246	83,364	90,455	97,573	102,239	106,904	108,237
Construction fuel*	18,019 ~~20,756~~	16,783 ~~19,511~~	18,030 ~~20,767~~	14,480 ~~17,196~~	17,086 ~~20,307~~	15,679 ~~18,657~~	11,782 ~~14,005~~	14,497 ~~17,288~~	8,823 ~~10,418~~
Yard trucks	3,026	3,303	3,599	3,935	4,269	4,605	4,825	5,046	5,108
Electricity to convey water	1,265	1,381	1,505	1,645	1,785	1,926	2,018	2,110	2,136
Natural gas	487	532	580	634	688	742	777	813	823
Generator	346	377	411	449	488	526	551	576	583
Forklifts	117	128	139	152	165	178	187	196	198
Total AB 32 Capped Emissions	270,992 ~~287,366~~	285,089 ~~310,510~~	305,939 ~~337,818~~	324,631 ~~363,845~~	349,451 ~~396,443~~	370,288 ~~424,392~~	380,970 ~~439,140~~	398,265 ~~461,824~~	396,754 ~~460,495~~
Uncapped Emissions									
Waste	10,284	11,225	12,230	13,371	14,509	15,651	16,399	17,147	17,361
Land use change	684	746	813	889	964	1040	1,090	1,140	1,154
Refrigerants	490	535	583	637	691	746	781	817	827
Construction refrigerant install and waste*	9 ~~27~~	10 ~~29~~	11 ~~33~~	11 ~~33~~	11 ~~33~~	7 ~~21~~	7 ~~21~~	2 ~~6~~	6 ~~17~~
Sequestration	-66	-72	-78	-85	-93	-100	-105	-110	-111
Total Uncapped Emissions	**11,401** ~~**11,419**~~	**12,444** ~~**12,463**~~	**13,559** ~~**13,581**~~	**14,823** ~~**14,845**~~	**16,082** ~~**16,104**~~	**17,344** ~~**17,358**~~	**18,172** ~~**18,186**~~	**18,996** ~~**19,000**~~	**19,237** ~~**19,248**~~
Threshold	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000

Table 4.7.H-b: Project Operational GHG Emissions (Year by Year without Mitigation) Revised Table

Source	Emissions (mt CO_2e/year)								
	2023	2024	2025	2026	2027	2028	2029	2030	Buildout
Significant impact?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes:
mt CO_2e = metric tons of carbon dioxide equivalents which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.
* Construction would not occur at buildout; however, according to SCAQMD recommendations, it is included at buildout as the average over 30 years.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015 ~~Michael Brandman Associates | FirstCarbon Solutions September 2014.~~

Compared with emissions as estimated in the DEIR, motor vehicle emissions at buildout were reduced by about 164,000 mt CO_2e/year (435,000 to 271,000) for the following reasons. First, the emission factors used in the revised analysis are from EMFAC2014 instead of EMFAC2007 (as used in the DEIR). Secondly, the unmitigated emissions in the revised analysis include reductions from current regulation; in the DEIR, only the mitigated emissions accounted for regulation. Finally, the total vehicle miles traveled decreased from 1,249,400 miles per day to 1,034,800 miles per day (a reduction of 214,600 miles/day). This decrease reflects more realistic vehicle and truck patterns provided by the revised Traffic Impact Analysis which modeled the expected vehicle trips and volumes from the project instead of a general average of 50 miles per truck trip.

Waste emissions were reduced by approximately 136,000 mt CO_2e/year because the new version of CalEEMod (2013) lowered its waste generation rates for warehouse development.

Use of Cap-and-Trade Program Benefits for Project Impacts. The SCAQMD issued Negative Declarations last year stating that GHG emissions subject to the ARB Cap-and-Trade Program do not count against the 10,000 MT CO2e significance threshold the SCAQMD applies when acting as a lead agency. In addition, the San Joaquin Valley Air Pollution Control District (SJVAPCD) has recently taken this one issue step further and adopted a policy: "CEQA Determinations of Significance for Projects Subject to ARB's GHG Cap-and-Trade Regulation." This policy applies when the SJVAPCD is the lead agency and when it is a responsible agency. In short, the SJVAPCD "has determined that GHG emissions increases that are covered under ARB's Cap-and-Trade regulation cannot constitute significant increases under CEQA…." The SJVAPCD classifies ARB's Cap-and-Trade Program as an approved GHG emission reduction plan or GHG mitigation program under CEQA Guidelines Section 15064(h)(3). Here are some other pertinent excerpts from that policy:

- "Consistent with CCR §15064(h)(3), the District finds that compliance with ARB's Cap-and-Trade regulation would avoid or substantially lessen the impact of project-specific GHG emissions on global climate change."
- "The District therefore concludes that GHG emissions increases subject to ARB's Cap-and-Trade regulation would have a less than significant individual and cumulative impact on global climate change."
- "[I]t is reasonable to conclude that implementation of the Cap-and-Trade program will and must fully mitigate project-specific GHG emissions for emissions that are covered by the Cap-and-Trade regulation."
- "[T]he District finds that, through compliance with the Cap-and-Trade regulation, project-specific GHG emissions that are covered by the regulation will be fully mitigated."

The policy acknowledges that "combustion of fossil fuels including transportation fuels used in California (on and off road including locomotives), not directly covered at large sources, are subject to Cap-and-Trade requirements, with compliance obligations starting in 2015." As such, the SJVAPCD concludes that GHG emissions associated with vehicle miles traveled (VMT) cannot constitute significant increases under CEQA. This regulatory conclusion is therefore directly applicable to the WLC project because VMT is by far the largest source of project GHG emissions.

Specific Plan Design Features. The WLCSP incorporates site and building designs that emphasize conservation of water and energy, ~~(including allowance for rooftop solar electricity generation systems~~ which in turn help reduce greenhouse gas emissions (WLCSP September 2014, Section 1.3.2, Green Building-Sustainable Development). Table 4.7.I evaluates to what degree various design features of the proposed project will reduce potential GHG emissions.

Mitigation Measures. Table 4.7.I evaluates to what degree the mitigation measures recommended in other impact sections will reduce potential GHG emissions. The only mitigation measure that is required is the following.

4.7.6.1A The project shall implement the following requirements to reduce solid waste and greenhouse gas emissions from construction and operation of project development:

a) Prior to ~~issuance~~ January 1, 2020, divert a minimum of 50 percent of landfill waste generated by operation of the project. After January 1, 2020, development shall divert a minimum of 75 percent of landfill waste. In January of each calendar year after project approval the developer and/or Property Owners Association shall certify the percentage of landfill waste diverted on an annual basis.

b) Prior to January 1, 2020, recycle and/or salvage at least 50 percent of non-hazardous construction and demolition debris. After January 1, 2020, recycle and/or salvage at least 75 percent of non-hazardous construction and demolition debris. In January of each calendar year after project approval the developer and/or Property Owners Association shall certify the percentage of landfill waste diverted on an annual basis.

Develop and implement a construction waste management plan that, at a minimum, identifies the materials to be diverted from disposal and whether the materials will be sorted on-site or co-mingled. Calculations can be done by weight or volume, but must be consistent throughout.

c) The applicant shall submit a Recyclables Collection and Loading Area Plan for ~~review and comment to the City Building and Safety Division for~~ construction related materials prior to issuance of a ~~grading~~ building permit ~~and to~~with the ~~City Public Works Department~~Building Division and for operational aspects of the project prior to the issuance of the occupancy permit ~~that shall indicate how the trash and recycling enclosures would be accessed by the hauler~~ to the Public Works Department. The plan shall conform to the Riverside County Waste Management Department's Design Guidelines for Recyclable Collection and Loading Areas.

d) Prior to issuance of certificate of occupancy, the recyclables collection and loading area shall be constructed in compliance with the Recyclables Collection and Loading Area plan.

e) Prior to issuance of certificate of occupancy, documentation shall be provided to the City confirming that recycling is available for each building.

f) Within six months after occupancy of a building, the City shall confirm that all tenants have recycling procedures set in place to recycle all items that are recyclable, including but not limited to paper, cardboard, glass, plastics, and metals.

g) The ~~City~~property owner shall advise all tenants of the availability of community recycling and composting services.

h) Existing onsite street material shall be recycled for new project streets to the extent feasible.

Level of Impact After Mitigation. Less than significant (original DEIR conclusion was significant).

Figure 4.7.1 below displays the unmitigated and mitigated uncapped GHG emissions. As shown in the figure, the mitigated uncapped emissions are less than the significance threshold and are less than significant.

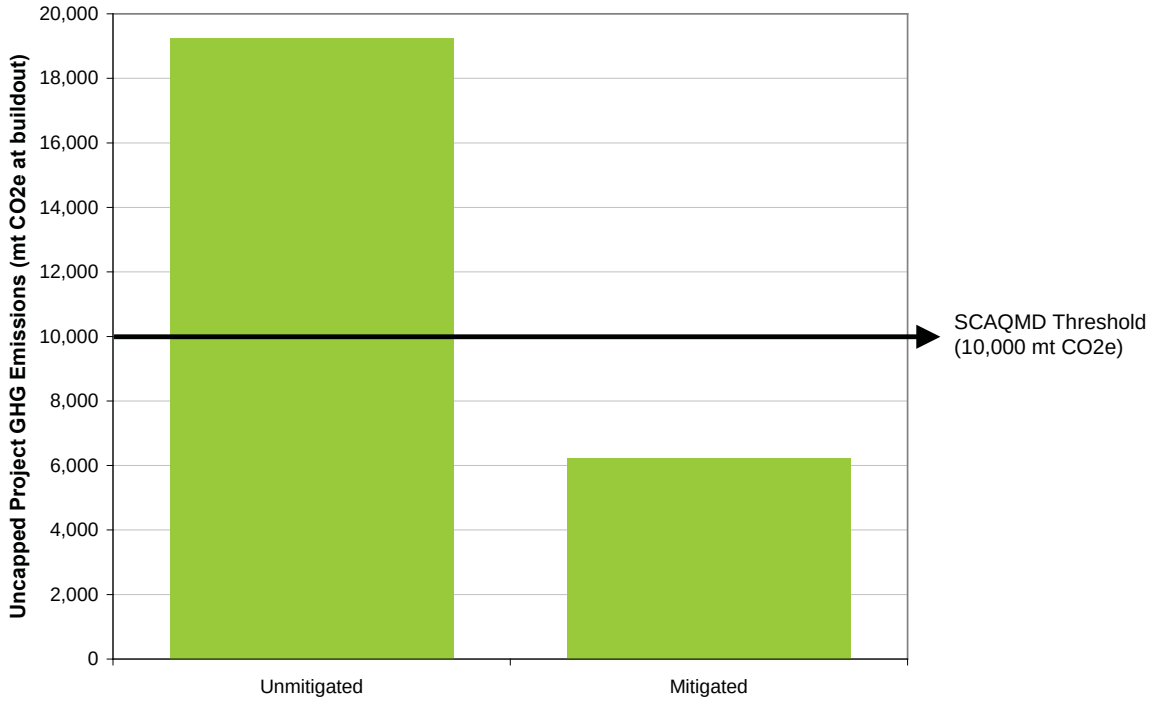

Figure 4.7.1: Uncapped Project GHG Emissions at Buildout

Table 4.7.J shows the GHG emissions and mitigation reductions after implementation of mitigation at buildout only. Table 4.7.K shows the mitigated GHG emissions through construction of the project to buildout.

AB 32 capped emissions are shown for informational purposes, as those emissions are not compared with the SCAQMD's significance threshold. The tables indicate that after implementation of **Mitigation Measure 4.7.6.1A**, the uncapped emissions would not exceed the significance threshold. GHG emissions are less than significant after mitigation.

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Table 4.7.I: ~~Operational~~ Greenhouse Gas Emissions Reduction Analysis Table Revised

Category	Operational Mitigation Measure or Project Design Feature[1]	Calculation Method and Reductions
Construction Fuel	**Mitigation Measure 4.3.6.2A** would require that construction equipment be ~~Tier 3 or~~ Tier 4.	This reduction was estimated in CalEEMod. ~~Tier 3 and~~ Tier 4 construction equipment would have fewer PM2.5 emissions, and therefore black carbon emissions.
Construction Waste	Regulation in the California Green Building Standards require that projects divert (reduce or recycle) at least 50 percent of waste.	This reduction was estimated using the U.S. EPA's Waste Reduction Model (WARM) version 13.
Vehicles: Local	*Project Design Feature:* Local bus service to the area is provided by the Riverside Transit Agency. Local bus routes would typically be extended into the project area when adequate demand is generated from this employment center. Future bus routes could circulate on available looped routes with adequate right-of-way along the major arterial roadways of Redlands Boulevard, Theodore Street, and Alessandro Boulevard. Likewise, the industrial collector roadways provide access to locations nearest building front entrances. Due to building scale, bus stops may be spread out by grouped entrances or centralized gateway drive areas as compared to individual business entries.	The California Air Pollution Control Officer's Association (CAPCOA) report's reduction measure TRT-1 indicates a 5.2 percent reduction in commute vehicle miles traveled for low-density suburbs for inclusion of a commute trip reduction program. However, this reduction is not used in this analysis. The trip generation rates for which the unmitigated emissions were based are not necessarily based on development with pedestrian connections. Therefore, CalEEMod includes pedestrian connections as part of its mitigation module. In the Draft EIR, the measures shown to the left were estimated to reduce local vehicle emissions by 3 percent. However, with the revised methods for estimating the motor vehicle and truck emissions (calculations are now based on more realistic trip lengths), this reduction would be more difficult to quantify. Therefore, no reductions are taken for these measures in order to provide a conservative analysis.
	Mitigation Measure 4.3.6.4A: Class II bike lanes.	
	Mitigation Measure 4.3.6.4A: Participate in Riverside County's rideshare program	
	Mitigation Measure 4.3.6.4A: Lockers for employees.	
	Mitigation Measure 4.3.6.4A: Bicycle storage and changing rooms	
	Project Design Features: The project would have pedestrian circulation (, sidewalks, and a multiuse trail.	
	Mitigation Measure 4.3.6.4A*:* Safe pedestrian connections	
	Mitigation Measure 4.3.6.4A: Parking for fuel-efficient vehicles	
Long haul trucks	**Mitigation Measure 4.3.6.3B:** Require model year 2010 medium-heavy duty and heavy-heavy duty trucks or later.	This ~~feature~~ was implemented by changing the emission factors for medium-heavy duty and heavy-heavy duty trucks from the CalEEMod default to the EMFAC20~~11~~14 for year 2010 and after.

Table 4.7.I: ~~Operational~~ Greenhouse Gas Emissions Reduction Analysis Table Revised

Category	Operational Mitigation Measure or Project Design Feature[1]	Calculation Method and Reductions
Vehicles and Trucks	*Pavley-I Regulation:* A clean-car standard to reduce greenhouse gas emissions from new passenger vehicles (light duty automobiles and medium duty vehicles) from 2009 through 2016. *Low Carbon Fuel Standard:* A fuel standard that requires a reduction of at least 10 percent in the carbon intensity of California's transportation fuels by 2020.	EMFAC20~~11~~14 provides ~~two sets of~~ emission factors for carbon dioxide: that include these regulations. Therefore, both the unmitigated and mitigated emissions account for these regulations~~.one without these regulations and one with these regulations. The unmitigated emissions estimates used the emission factors that did not include this regulation. The mitigated/with reduction emissions use the emission factors that incorporate the Pavley I and Low Carbon Fuel Standard regulations. Project mitigation, including providing electric vehicle charging stations would help bring about these reductions.~~
Electricity and Natural Gas: Title 24	**Mitigation Measures 4.16.4.6.1A** and **4.16.4.6.1B** would reduce electricity related emissions. In addition, the project would require LEED certification for buildings and would require buildings to exceed Title 24 (2008 version) by 10 percent or comply with the current version in place.	This measure was applied in CalEEMod through its mitigation measure module (10 percent beyond Title 24 checkbox).
Electricity, Lighting	**Mitigation Measures 4.16.4.6.1B** (lighting efficiency) and **4.16.4.6.1C** (Title 24) would reduce electricity from lighting.	These ~~This~~ measures are ~~is~~ accounted for in CalEEMod by using its mitigation measure module, "Install High Efficiency Lighting," with a reduction of 10 percent. ~~Title 24 has lighting components; therefore, a reduction in Title 24 would also reduce lighting (**Mitigation Measure 4.16.4.6.1C**). In addition, **Mitigation Measure 4.16.4.6.1B** contains lighting efficiency measures.~~
Solar	**Mitigation Measure 4.16.4.6.1C** requires that the project install solar panels.	The estimated electricity generation from onsite solar is 19,739 MWh per year, which is 5.2 percent of the electricity demand at buildout (376,426 MWh). Therefore, 5.2 percent of the unmitigated GHG emissions are reduced by solar generation.
Water	**Mitigation Measure 4.16.1.6.1A** would reduce outdoor water usage	CalEEMod mitigation for water-efficient irrigation systems (6.1% reduction, CalEEMod default)
	Mitigation Measure 4.16.1.6.1B would reduce interior water usage, including low flow fittings, fixtures and equipment.	CalEEMod mitigation for: - low-flow toilet (20% reduction in flow, CalEEMod default) - low flow bathroom faucet (32% reduction in flow, CalEEMod default) - low-flow kitchen faucet (18% reduction in flow, CalEEMod default) - low-flow shower (20% reduction in flow, CalEEMod default)
	Mitigation Measure 4.16.1.6.1C would allow reclaimed water to be used for irrigation.	No reductions are taken for the potential use of reclaimed water.
Waste	**Mitigation Measure 4.7.6.1A***:* Recycling and composting availability and reduce operational waste by at least 25 percent before 2020 and 75 percent after.	The project would commit to reducing operational waste by 25 percent prior 2020 and 75 percent after; therefore, a percent reduction is applied.

Table 4.7.I: ~~Operational~~ Greenhouse Gas Emissions Reduction Analysis Table Revised

Category	Operational Mitigation Measure or Project Design Feature[1]	Calculation Method and Reductions
	Project Design Feature: Specific Plan (Section 5.1.6) requires that all development within the project provide enclosures or compactors for trash and recyclable materials.	

[1] Project design features are from the Project Description, mitigation measures are shown in Section 1.0, Table 1.B.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015 ~~Michael Brandman Associates 2014.~~

Table 4.7.J: GHG Reductions at Buildout Table Revised

Type of Emissions	Source	GHG Emissions (mt CO_2e) at Buildout			
		Unmitigated	~~Reductions from Regulation~~	Reductions from Mitigation	With Reductions (Mitigated)
AB 32 Capped Emissions	*Mobile*	*270,846~~332,992~~*	*~~-53,444~~*	*-466~~0~~*	*270,380 ~~279,548~~*
	Electricity	*108,237*	*~~0~~*	*-9,131*	*99,106*
	*Construction fuel**	*8,823~~10,418~~*	*~~0~~*	*-1,072~~-579~~*	*7,751 ~~9,839~~*
	Yard trucks	*5,108*	*~~0~~*	*0*	*5,108*
	Electricity to convey water	*2,136*	*~~0~~*	*-207*	*1,929*
	Natural Gas	*823*	*~~0~~*	*-80*	*743*
	Generator	*583*	*~~0~~*	*-298*	*285*
	Forklifts	*198*	*~~0~~*	*0*	*198*
	Solar (electricity)	*0*	*~~0~~*	*-5,676*	*-5,676*
	Total	***396,754~~460,495~~***	***~~-53,444~~***	***-16,930~~-15,971~~***	***379,824~~391,080~~***
	Significant?	*No*	*—*	*—*	*—*
Uncapped Emissions	Waste	17,361	~~0~~	-13,021	4,340
	Land use change	1,154	~~0~~	0	1,154
	Refrigerants	827	~~0~~	0	827
	Construction refrigerant install*	6 ~~17~~	~~0~~	441 ~~0~~	435 ~~17~~
	Sequestration	-111	~~0~~	0	-111
	Total	**19,237 ~~19,248~~**	**~~0~~**	**-13,462 ~~-13,021~~**	**5,775 ~~6,227~~**
	Threshold	10,000	—	—	10,000
	Significant?	Yes	—	—	No

Notes:
mt CO_2e = metric tons of carbon dioxide equivalents which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.
* Construction would not occur at buildout; however, according to SCAQMD recommendations, it is included as the average over 30 years. Construction uncapped emissions include emissions from refrigerant installation and construction waste.
For information on the regulation and mitigation calculations, please refer to Table 4.7.I.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015 ~~Michael Brandman Associates | FirstCarbon Solutions September 2014.~~

Table 4.7.K-a: Project Operational GHG Emissions (Year by Year with Mitigation ~~and Regulation~~) Table Revised

Source	GHG Mitigated Emissions (mt CO_2e/year)							
	2015	2016	2017	2018	2019	2020	2021	2022
AB 32 Capped Emissions								
Mobile	0	15,596~~14,975~~	31,192~~29,950~~	51,988~~49,917~~	72,783~~69,884~~	111,403~~106,965~~	150,023~~144,759~~	170,413~~163,656~~
Electricity	0	5,126	10,252	17,087	23,922	36,616	49,553	56,022
*Construction fuel**	12,267~~15,903~~	12,227~~15,992~~	16,203~~21,094~~	12,343~~16,108~~	22,003~~28,502~~	1,887~~18,318~~	15,647~~20,408~~	13,279~~17,154~~
Yard trucks	0	264	528	881	1233	1,887	2,554	2,888
Electricity to convey water	0	100	200	333	466	713	965	1,090
Natural gas	0	38	77	128	179	274	371	420
Generator	0	15	30	49	69	105	143	161
Forklifts	0	10	20	34	48	73	99	112
Solar (electricity)	0	-294	-587	-979	-1,370	-2,097	-2,838	-3,208
Total AB 32 Capped Emissions	*12,267~~15,903~~*	*33,082~~36,226~~*	*57,916~~61,564~~*	*81,864~~83,558~~*	*119,333~~122,933~~*	*163,100~~162,854~~*	*216,517~~216,142~~*	*241,177~~238,295~~*
Uncapped Emissions								
Waste	0	673	1,347	2,245	3,143	1,603	2,170	2,453
Land use change	0	60	119	199	279	426	577	652
Refrigerants	0	43	86	143	200	306	414	467
Construction refrigerant install*	675 ~~26~~	675 ~~26~~	900 ~~34~~	900 ~~34~~	1,671 ~~64~~	1,704 ~~65~~	852 ~~33~~	354 ~~13~~
Sequestration	0	-6	-11	-19	-27	-41	-56	-63
Total Uncapped Emissions	**675 ~~26~~**	**95 ~~796~~**	**641 ~~1,575~~**	**1,668 ~~2,602~~**	**1,924 ~~3,659~~**	**590 ~~2,359~~**	**2,253 ~~3,138~~**	**3,155 ~~3,522~~**
Threshold	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Significant impact?	No	No	No	No	No	No	No	No

Table 4.7.K-a: Project Operational GHG Emissions (Year by Year with Mitigation ~~and Regulation~~) Table Revised

Source	GHG Mitigated Emissions (mt CO_2e/year)							
	2015	2016	2017	2018	2019	2020	2021	2022

mt CO_2e = metric tons of carbon dioxide equivalents, which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.
* Estimated construction emissions are included prior to buildout; at buildout, the total construction averaged over 30 years is shown.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015 ~~Michael Brandman Associates | FirstCarbon Solutions September 2014.~~

Table 4.7.K-b: Project Operational GHG Emissions (Year by Year with Mitigation ~~and Regulation~~) Revised Table

Source	GHG Mitigated Emissions ~~Emissions with Mitigation and Regulation~~ (mt CO_2e/year)								
	2023	2024	2025	2026	2027	2028	2029	2030	Buildout
AB 32 Capped Emissions									
Mobile	*179,751* ~~*165,594*~~	*189,088* ~~*180,742*~~	*202,413* ~~*196,923*~~	*217,523* ~~*215,307*~~	*232,633* ~~*233,622*~~	*247,743* ~~*252,006*~~	*257,647* ~~*264,056*~~	*267,550* ~~*276,105*~~	*270,380* ~~*279,548*~~
Electricity	*58,707*	*64,077*	*69,814*	*76,331*	*82,824*	*89,342*	*93,614*	*97,885*	*99,106*
*Construction fuel**	*15,497* ~~*19,559*~~	*14,405* ~~*18,361*~~	*15,580* ~~*19,641*~~	*12,320* ~~*16,085*~~	*16,251* ~~*19,604*~~	*14,981* ~~*18,058*~~	*11,396* ~~*13,549*~~	*14,006* ~~*16,821*~~	*7,751* ~~*9,839*~~
Yard trucks	*3,026*	*3,303*	*3,599*	*3,935*	*4,269*	*4,605*	*4,825*	*5,046*	*5,108*
Electricity to convey water	*1,143*	*1,247*	*1,359*	*1,486*	*1,612*	*1,739*	*1,822*	*1,905*	*1,929*
Natural gas	*440*	*480*	*523*	*572*	*621*	*669*	*701*	*733*	*743*
Generator	*169*	*184*	*201*	*220*	*238*	*257*	*269*	*282*	*285*
Forklifts	*117*	*128*	*139*	*152*	*165*	*178*	*187*	*196*	*198*
Solar	-3,362	-3,670	-3,998	-4,371	-4,743	-5,117	-5,361	-5,606	-5,676
Total AB 32 Capped Emissions	*255,488* ~~*245,393*~~	*269,242* ~~*264,852*~~	*289,630* ~~*288,201*~~	*308,168* ~~*309,717*~~	*333,870* ~~*338,212*~~	*354,397* ~~*361,737*~~	*365,100* ~~*373,662*~~	*381,997* ~~*393,367*~~	*379,824* ~~*391,080*~~
Uncapped Emissions									
Waste	2,571	2,806	3,057	3,343	3,627	3,912	4,099	4,287	4,340
Land use change	684	746	813	889	964	1,040	1,090	1,140	1,154
Refrigerants	490	535	583	637	691	746	781	817	827
Construction refrigerants and waste ~~install~~*	707 ~~27~~	755 ~~29~~	858 ~~33~~	855 ~~33~~	858 ~~33~~	562 ~~21~~	562 ~~21~~	161 ~~6~~	435 ~~17~~
Sequestration	-66	-72	-78	-85	-93	-100	-105	-110	-111
Total Uncapped Emissions	**2,972** ~~**3,706**~~	**3,260** ~~**4,044**~~	**3,517** ~~**4,408**~~	**3,929** ~~**4,817**~~	**4,331** ~~**5,222**~~	**5,036** ~~**5,619**~~	**5,303** ~~**5,886**~~	**5,973** ~~**6,140**~~	**5,775** ~~**6,227**~~
Threshold	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Significant impact?	No	No	No	No	No	No	No	No	No

Table 4.7.K-b: Project Operational GHG Emissions (Year by Year with Mitigation ~~and Regulation~~) Revised Table

Source	GHG Mitigated Emissions ~~Emissions with Mitigation and Regulation~~ (mt CO_2e/year)								
	2023	2024	2025	2026	2027	2028	2029	2030	Buildout

mt CO_2e = metric tons of carbon dioxide equivalents, which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.
* Estimated construction emissions are included prior to buildout; at buildout, the total construction averaged over 30 years is shown.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015 ~~Michael Brandman Associates | FirstCarbon Solutions September 2014.~~

4.7.6.2 Greenhouse Gas Plan, Policy, Regulation Consistency

Threshold	Would the proposed project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

This impact assesses whether the project would conflict with any applicable plans, policies, or regulations, as discussed below.

Federal and State Reduction Strategies. Table 4.7.L evaluates the consistency of the proposed project with the various Federal and State energy conservation and other regulations related to GHG emissions.

Table 4.7.L: Project Compliance with Federal/State Greenhouse Gas Reduction Strategies

Strategy	Project Compliance
Mandatory Codes	
California Green Building Code. The Cal Green Code prescribes a wide array of measures that would directly and indirectly result in reduction of GHG emissions from the Business as Usual Scenario (California Building Code). The mandatory measures that are applicable to nonresidential projects include site selection, energy efficiency, water efficiency, materials conservation and resource efficiency, and environmental quality measures.	**Compliant.** The project will be required to adhere to the non-residential mandatory measures as required by the Cal Green Code.
Energy Efficiency Measures	
Energy Efficiency. Maximize energy efficiency building and appliance standards, and pursue additional efficiency efforts including new technologies, and new policy and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California (including both investor-owned and publicly owned utilities).	**Compliant with Mitigation Incorporated.** The proposed project will comply with current California Building Code (CBC) requirements for building construction, including the Title 24 energy conservation standards, which will help reduce GHG emissions. In addition, the project will include various energy-efficient building design features and mitigation (**Mitigation Measures 4.16.4.6.1A, B,** and **C**) to help further reduce GHG emissions.
Renewables Portfolio Standard. Achieve a 33 percent renewable energy mix statewide. This means that 33 percent of the electricity sold in California must be generated by renewable energy (solar, wind, etc.).	**Not applicable.** The project is not part of the State's power generation grid, but would install solar photovoltaic panels on project roofs ~~()~~ pursuant to **Mitigation Measure 4.16.4.6.1C**. The solar would reduce the project's electricity related emissions by approximately 5.2 percent. In addition, Moreno Valley Electric Utility purchases its power from Southern California Edison, which is subject to the Renewable Portfolio Standard.
Green Building Strategy. Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.	**Compliant.** The proposed project will comply with current CBC requirements for building construction, including the Title 24 energy conservation standards.

Table 4.7.L: Project Compliance with Federal/State Greenhouse Gas Reduction Strategies

Strategy	Project Compliance
Water Conservation and Efficiency Measures	
Water Use Efficiency. Continue efficiency programs and use cleaner energy sources to move and treat water. Approximately 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions.	**Compliant with Mitigation Incorporated.** The Specific Plan outlines a number of water conservation measures, and **Mitigation Measures 4.16.1.6.1A** through **4.16.1.6.1C** will help reduce potential water use even further.
Solid Waste Reduction Measures	
Increase Waste Diversion, Composting, and Commercial Recycling, and Move Toward Zero-Waste. Increase waste diversion from landfills beyond the 50 percent mandate to provide for additional recovery of recyclable materials. Composting and commercial recycling could have substantial GHG reduction benefits. In the long term, zero-waste policies that would require manufacturers to design products to be fully recyclable may be necessary.	**Compliant with Mitigation Incorporated.** Data available from the California Integrated Waste Management Board (CIWMB) indicate that the City of Moreno Valley has not achieved the 50 percent diversion rate. The project will comply with **Mitigation Measure 4.7.6.1A** to help increase solid waste diversion, composting, and recycling. The measure would also have a goal to reduce waste by 75 percent by 2020.
Transportation and Motor Vehicle Measures	
Vehicle Climate Change Standards. AB 1493 (Pavley) required the State to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of GHG emissions from passenger vehicles and light-duty trucks. Regulations were adopted by the CARB in September 2004.	**Compliant.** The project does not involve the manufacture of vehicles. However, vehicles that are purchased and used within the project site would comply with any vehicle and fuel standards that the CARB adopts or has adopted. In addition, the project would require medium-heavy and heavy-heavy duty trucks be 2010 or newer (**Mitigation Measure 4.3.6.3B**).
Light-Duty Vehicle Efficiency Measures. Implement additional measures that could reduce light-duty vehicle GHG emissions. For example, measures to ensure that tires are properly inflated can both reduce GHG emissions and improve fuel efficiency.	
Adopt Heavy- and Medium-Duty Fuel and Engine Efficiency Measures. Regulations to require retrofits to improve the fuel efficiency of heavy-duty trucks that could include devices that reduce aerodynamic drag and rolling resistance. This measure could also include hybridization of and increased engine efficiency of vehicles.	
Low Carbon Fuel Standard. The CARB identified this measure as a Discrete Early Action Measure. This measure would reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020.	
Regional Transportation-Related Greenhouse Gas Targets. Develop regional GHG emissions reduction targets for passenger vehicles. Local governments will play a significant role in the regional planning process to reach passenger vehicle GHG emissions reduction targets. Local governments have the ability to directly influence both the siting and design of new residential and commercial developments in a way that reduces GHGs associated with vehicle travel.	**Compliant.** Specific regional emission targets for transportation emissions do not directly apply to this project; regional GHG reduction target development is outside the scope of this project. The project will comply with any plans developed by the City.

Table 4.7.L: Project Compliance with Federal/State Greenhouse Gas Reduction Strategies

Strategy	Project Compliance
Measures to Reduce High Global Warming Potential (GWP) Gases. The CARB has identified Discrete Early Action measures to reduce GHG emissions from the refrigerants used in car air conditioners, semiconductor manufacturing, and consumer products. The CARB has also identified potential reduction opportunities for future commercial and industrial refrigeration, changing the refrigerants used in auto air conditioning systems, and ensuring that existing car air conditioning systems do not leak.	**Compliant.** New products used or serviced on the project site (after implementation of the reduction of GHG gases) would comply with future CARB rules and regulations.

AB = Assembly Bill CARB = California Air Resources Board GHG = greenhouse gas
Source: based on analysis in the *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015 ~~Michael Brandman Associates | FirstCarbon Solutions~~ 2014~~.~~

With implementation of applicable strategies/measures project design features, and mitigation measures, the project's contribution to cumulative GHG emissions would be reduced. In order to ensure that the proposed project complies with and would not conflict with or impede the implementation of reduction goals identified in AB 32, ~~Governor's EO S-3-05, and other strategies to help reduce GHGs to the level proposed by the Governor,~~ ~~**Mitigation Measures 4.3.6.4A** and **4.7.6.1A** shall be implemented. Many of the individual elements of this measure are already included as part of the proposed project within the Specific Plan or are required as part of project-specific mitigation measures~~ the Mitigation Measures listed in the above table shall be implemented.

CARB Scoping Plan. AB 32 focuses on reducing GHG emissions (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) to 1990 levels by the year 2020. Pursuant to the requirements in AB 32, the CARB adopted the Climate Change Scoping Plan (Scoping Plan) in 2008, which contains a variety of strategies to reduce the State's emissions. The First Update to the Scoping Plan was approved in 2014. The project will comply with existing State and Federal regulations regarding the energy efficiency of buildings, appliances, and lighting. The warehouse buildings will be built in compliance with the California Building Code to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices. In addition, ~~Specific Plan~~ **Mitigation Measure 4.16.4.6.1A** states the project will exceed the Title 24 energy conservation standards (2008 version) by 10 percent or comply with the current version. As shown in Table 4.7.M, the strategies are either consistent with or not applicable to the project; therefore, the project does not conflict with the Scoping Plan.

Table 4.7.M: Analysis of Scoping Plan Reduction Measures

Scoping Plan Reduction Measure	Consistency Analysis
1. *California Cap-and-Trade Program Linked to Western Climate Initiative.* Implement a broad-based California Cap-and-Trade program to provide a firm limit on emissions. Link the California cap-and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California. Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms.	**Not Applicable.** This cap-and-trade system covers products or services (such as electricity) and the cost of the cap-and-trade system would be transferred to the consumers. Large industrial uses are the most likely source of participants for this program, and it is not likely individual logistics warehousing will be an active participant in this program. Under AB 32, emissions from natural gas use, transportation fuel use, and electricity generation are covered under the cap-and-trade program and subject to the program's emission reduction requirements.
2. *California Light-Duty Vehicle Greenhouse Gas Standards.* Implement adopted standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.	**Applicable.** This is a statewide measure that cannot be implemented by an individual project applicant or lead agency. When this measure is initiated, the standards would be applicable to the light-duty vehicles that would access the project site.
3. *Energy Efficiency.* Maximize energy efficiency building and appliance standards; pursue additional efficiency including new technologies, policy, and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California.	**Applicable.** This is a measure for the state to increase its energy efficiency standards. However, the project will increase its energy efficiency through existing regulation and project design by implementing current Title 24 energy standards and green building characteristics. In addition, **Mitigation Measures 4.16.4.6.1A** and **B** would increase energy efficiency and **Mitigation Measures 4.16.4.6.1C** would require exceeding Title 24 (2008 version) by 10 percent or comply with the version in place at the time.
4. *Renewable Portfolio Standard.* Achieve 33 percent renewable energy mix statewide. Renewable energy sources include (but are not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas.	**Partially Applicable.** This is a measure applicable to the utility provider for the project. However, the project would provide on-site solar (**Mitigation Measure 4.16.4.6.1C**).
5. *Low Carbon Fuel Standard.* Develop and adopt the Low Carbon Fuel Standard.	**Applicable.** This is a statewide measure that cannot be implemented by an individual project applicant or lead agency. However, when this measure is initiated, the standard would be applicable to the fuel used by vehicles that would access the project site.
6. *Regional Transportation-Related Greenhouse Gas Targets.* Develop regional greenhouse gas emissions reduction targets for passenger vehicles. This measure refers to SB 375.	**Applicable.** The project is not directly related to developing greenhouse gas emission reduction targets. However, this project will improve the jobs/ housing ratio for the City and thereby help reduce commuter-related emissions. For a discussion of the Regional Transportation Plan and the Sustainable Communities Strategy, refer to ~~the Air Quality, Greenhouse Gas, and Health Risk Assessment Report in the appendix~~ Table 4.7.D above.
7. *Vehicle Efficiency Measures.* Implement light-duty vehicle efficiency measures.	**Applicable.** When this measure is initiated, the standards would be applicable to the light-duty vehicles that would access the project site.

Table 4.7.M: Analysis of Scoping Plan Reduction Measures

Scoping Plan Reduction Measure	Consistency Analysis
8. *Goods Movement.* Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities.	**Not Applicable.** The project does not propose any changes to maritime, rail, or intermodal facilities or forms of transportation. However, the project is related to goods movement and provides logistics warehousing away from port areas.
9. Million Solar Roofs Program. Install 3,000 MW of solar-electric capacity under California's existing solar programs.	**Applicable.** This measure is to increase solar throughout California, which is being done by various electricity providers and existing solar programs. ~~Although this project will not participate in this particular program, it will allow for future implement of on-site solar. The buildings in the development will be constructed to be solar ready. Therefore, solar can be~~ Pursuant to **Mitigation Measure 4.16.4.6.1C**, the project will be incorporating onsite solar panels.
10. Medium/Heavy-Duty Vehicles. Adopt medium and heavy-duty vehicle efficiency measures.	**Applicable.** This is a statewide measure that cannot be implemented by an individual project applicant or lead agency. However, when this measure is initiated, the standards would be applicable to the vehicles that access the project site. In addition**, Mitigation Measure 4.3.6.3B** requires that trucks be model year 2010 or newer.
11. *Industrial Emissions.* Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce greenhouse gas emissions and provide other pollution reduction co-benefits. Reduce greenhouse gas emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive methane emissions and reduce flaring at refineries.	**Not Applicable.** This measure would apply to the direct greenhouse gas emissions at major industrial facilities emitting more than 0.5 million mt CO_2e (500,000 mt CO_2e) per year. ~~Although the project could~~ It is not anticipated that the project would emit more than 500,000 mt CO_2e per year, however, the project is not considered a single facility but would consist of multiple warehouse buildings. The project is a "project" under CEQA but not one facility, which is why a programmatic EIR is being prepared. This measure would be applicable to power plants, refineries, cement plants, and other related sources. In addition, most emissions from the project are indirect since the majority of the emissions are from trucks and motor vehicles.
12. High Speed Rail. Support implementation of a high-speed rail system.	**Not Applicable.** This is a statewide measure that cannot be implemented by a project applicant or lead agency.
13. Green Building Strategy. Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.	**Applicable.** The State now requires development to use various green building practices. The project will implement green building strategies through existing regulation. In addition, **Mitigation Measures 4.16.4.6.1A** and **B** would increase energy efficiency. **Mitigation Measure 4.16.4.6.**1**C** would require that the project exceed Title 24 (2008 version) by 10 percent or comply with the current version.
14. High Global Warming Potential Gases. Adopt measures to reduce high global warming potential gases.	**Applicable.** When this measure is initiated, it would be applicable to the high global warming potential gases that would be used by the project (such as in air conditioning).

Table 4.7.M: Analysis of Scoping Plan Reduction Measures

Scoping Plan Reduction Measure	Consistency Analysis
15. Recycling and Waste. Reduce methane emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero-waste.	**Not Applicable.** The project would not contain a landfill. The State wishes to help increase waste diversion, and the project would reduce waste with implementation of mitigation.
16. *Sustainable Forests.* Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation.	**Not Applicable.** No forested lands exist on site.
17. *Water.* Continue efficiency programs and use cleaner energy sources to move and treat water.	**Not Applicable.** This is a measure for State and local agencies. However, the project would reduce water through project design (i.e., implementation of the Specific Plan) and **Mitigation Measures 4.16.6.1A** through **4.16.6.1C.**
18. *Agriculture.* In the near term, encourage investment in manure digesters and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020.	**Not Applicable.** No grazing, feedlot, or other agricultural activities that generate manure occur on site or are proposed to be implemented by the project.

Sources: California Air Resources Board 2008, *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015 ~~Michael Brandman Associates~~

City General Plan Policies. The project must also be evaluated against the City's General Plan policies that relate to greenhouse gas emissions, as shown in Table 4.7.N. This analysis shows that the project is consistent with the applicable General Plan objectives and policies, or the particular objective or policy is not applicable to the proposed WLC project.

Table 4.7.N: Consistency with City General Plan Air Quality Policies

Objective or Policy	Project Consistency
Objective 6.6. Promote land use patterns that reduce daily automotive trips and reduce trip distance for work, shopping, school, and recreation.	**Consistent.** The project is providing employment opportunities to Moreno Valley and the surrounding area.
Policy 6.6.1. Provide sites for new neighborhood commercial facilities within close proximity to the residential areas they serve.	**Not Applicable.** The project does not propose the development of neighborhood commercial facilities or residential dwellings.
Policy 6.6.2. Provide multifamily residential development sites in close proximity to neighborhood commercial centers in order to encourage pedestrian instead of vehicular travel.	**Not Applicable.** The project is industrial and does not propose the development of residential uses.
Policy 6.6.3. Locate neighborhood parks in close proximity to the appropriate concentration of residents in order to encourage pedestrian and bicycle travel to local recreation areas.	**Not Applicable.** The project is industrial and does not propose the development of residential uses.
Objective 6.7. Reduce mobile and stationary source air pollutant emissions.	~~**Not**~~ **Consistent. .** ~~As shown in the air quality and greenhouse gas analyses, the~~The project would result in significant air pollutant and greenhouse gas The project would be implementing feasible Mitigation Measures to reduce mobile and stationary emissions (**Mitigation Measures 4.3.6.3B, 4.3.6.3C, 4.3.6.3D,** and **4.3.6.4A**).
Policy 6.7.1. Cooperate with regional efforts to establish and implement regional air quality strategies and tactics.	**Not Applicable.** This measure is beyond the scope of the project; the City will continue to work with the SCAQMD in regional planning efforts.

Table 4.7.N: Consistency with City General Plan Air Quality Policies

Objective or Policy	Project Consistency
Policy 6.7.2. Encourage the financing and construction of park-and-ride facilities.	**Not Applicable.** The project consists of industrial uses; a park and ride on the project would not be feasible.
Policy 6.7.3. Encourage express transit service from Moreno Valley to the greater metropolitan areas of Riverside, San Bernardino, Orange and Los Angeles Counties.	**Not Applicable.** No express mass transit facilities are designated on the project site or planned on the project site; therefore, this measure is beyond the scope of the project.
Policy 6.7.6. Require building construction to comply with the energy conservation requirements of Title 24 of the California Administrative Code.	**Consistent.** The project will comply with Title 24 requirements.

Policies 6.7.4 and 6.7.5 are discussed in the air quality EIR section, Section 4.3).
Source of objective and policy: Moreno Valley General Plan (2006).
Source of project consistency: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015 ~~Michael Brandman Associates.~~

City Climate Action Strategy. Finally, Table 4.7.O evaluates the consistency of the proposed project with the policies of the City's Climate Action Strategy approved in October 2012. As shown below and in Appendix D of the revised Air Quality, Greenhouse Gas, and Health Risk Assessment, the project is consistent with the requirements of the Strategy for non-residential development with implementation of project design features and ~~Mitigation Measures 4.3.6.4A and 4.7.6.1A (with the exception of Strategy R2-E5, which requires a 10 percent reduction in energy use over Title 24 requirements for commercial buildings).~~mitigation measures.

Table 4.7.O: Consistency with City Climate Action Strategy

Strategy Items	Project Consistency
R2-T1: Land Use Based Trips and VMT Reduction Policies. Encourage the development of Transit Priority Projects along High Quality Transit Corridors identified in the SCAG Sustainable Communities Plan, to allow a reduction in vehicle miles traveled.	**Not Applicable.** ~~**Consistent** with implementation of Mitigation Measure 4.3.6.4A (MBA Measure AQ-7).~~A Transit Priority Project is one that has at least 50 percent residential use based on area, at least 20 units per acre and is within a ½ mile of a major transit stop or High Quality Transit Corridor. A High Quality Transit Corridor is defined as one with 15-minute frequencies during peak commute hours. The proposed project does not include a residential component and is not along a High Quality Transit Corridor nor are there any High Quality Transit Corridors or major transit stops in the vicinity of the project area. As a result, the strategy is not applicable.
R2-T3: Employment-Based Trip Reductions. Require a Transportation Demand Management (TDM) program for new development to reduce automobile travel by encouraging ride-sharing, carpooling, and alternative modes of transportation.	**Consistent** with implementation of **Mitigation Measure 4.3.6.4A.**
R2-E1: New Construction Residential Energy Efficiency Requirements. Require energy efficient design for all new residential buildings to be 10 percent beyond the current Title 24 standards.	**Not Applicable.** This measure applies to residential projects.
R2-E2: New Construction Residential Renewable Energy. Facilitate the use of renewable energy (such as solar (photovoltaic) panels or small wind turbines) for new residential developments. Alternative approach would be the purchase of renewable energy resources offsite.	**Not Applicable.** This measure applies to residential projects.

Table 4.7.O: Consistency with City Climate Action Strategy

Strategy Items	Project Consistency
R2-E5: New Construction Commercial Energy Efficiency Requirements. Require energy efficient design for all new commercial buildings to be 10% beyond the current Title 24 standards.	~~**Not Consistent** Although this measure applies to commercial buildings, the project will comply with current applicable Title 24 energy standards but will not comply with the indicated 10 percent reduction beyond Title 24.~~**Consistent** with **Mitigation Measure 4.16.4.6.1C.**
R3-E1: Energy Efficient Development, and Renewable Energy Deployment Facilitation and Streamlining. Updating of codes and zoning requirements and guidelines to further implement green building practices. This could include incentives for energy efficient projects.	**Not Applicable.** This refers to updating building and zoning codes and does not apply to this warehousing development plan.
R3-L2: Heat Island Plan. Develop measures that address "heat islands." Potential measures include using strategically placed shade trees, using paving materials with a Solar Reflective Index of at least 29, an open grid pavement system, or covered parking.	**Consistent.** The Specific Plan indicates that vehicle parking areas are to be landscaped to provide a shade canopy (50 percent coverage at maturity).
R2-W1: Water Use Reduction Initiative. Consider adopting a per capita water use reduction goal which mandates the reduction of water use of 20 percent per capita with requirements applicable to new development and with cooperative support of the water agencies.	**Consistent.** California Green Building Standards Code, Chapter 5, Division 5.3, Section 5.303.2 requires that indoor water use be reduced by 20 percent. Section 5.304.3 requires irrigation controllers and sensors. The Specific Plan also contains a variety of water conservation features. **Mitigation Measures 4.16.1.6.1A, B,** and **C** also provide water reduction measures.
R3-W1: Water Efficiency Training and Education. Work with EMWD and local water companies to implement a public information and education program that promotes water conservation.	**Consistent.** Tenants and owners within the WLCSP will provide water conservation information from EMWD and other sources to workers on a regular basis.
R2-S1: City Diversion Program. For Solid Waste, consider a target of increasing the waste diverted from the landfill to a total of 75 percent by 2020.	**Consistent.** The project would incorporate standard City waste reduction features and **Mitigation Measure 4.7.~~6~~5.1A** (has a target to reduce waste by 75 percent by 2020).
C11: Require that developer recycle existing street material for use as base for new streets.	**Consistent.** Project will implement **Mitigation Measure 4.7.~~6~~5.1A** where feasible.

Executive Order S-3-05. As discussed in Section 4.7.4, the SCAQMD developed its thresholds based on consistency with California Executive Order S-3-05. As shown in Impact 4.7.6.1, the project's uncapped GHG emissions would not exceed the SCAQMD's industrial threshold. Therefore, the project would not conflict with Executive Order S-3-05. This impact is less than significant.

Specific Plan Design Features. The WLCSP contains a sustainability section that emphasizes water and energy conservation throughout the project design, which in turn will help reduce GHG emissions (Section 1.3.2, Green Building-Sustainable Development).

Mitigation Measures. Implementation of previously referenced **Mitigation Measures 4.3.6.3B, 4.3.6.4A, 4.3.6.3C, 4.3.6.3D, 4.7.6.1A, 4.16.1.6.1A, 4.16.1.6.1B, 4.16.1.6.1C, 4.16.4.6.1A, 4.16.4.6.1B,** and **4.16.4.6.1C** will help reduce project-related GHG emissions and therefore make it more consistent with GHG reduction plans, policies, and/or regulations.

Level of Significance After Mitigation. Less than significant (original DEIR conclusion was significant). As previously identified, implementation of the proposed project could result in the development of an approximately 40.6 million square foot high cube-logistics distribution logistics. The proposed project includes a variety of physical attributes and operational programs that would help reduce operational-source pollutant emissions from worker commuting, including GHG emissions. Future development that would occur under the proposed project would be consistent with greenhouse gas emission reduction strategies and policies, including the City's Climate Change Strategy. The project would implement the Mitigation Measures listed above to reduce its contribution to GHG emissions and to ensure it does not conflict with or impede implementation of reduction goals identified in AB 32, Governor's Executive Order S-3-05, and other strategies to help reduce GHGs to the level proposed by the Governor. In addition, the project would also be subject to all applicable regulatory requirements, which would also reduce the GHG emissions of the project. Therefore, the proposed project would not conflict with any applicable plan, program, policy, or regulation related to the reduction of GHG emissions. Impacts are considered less than significant.

Similar to the discussion of cumulative air quality impacts, the project may employ workers locally from the City. This has the benefit of improving the local jobs/housing balance leading to air quality benefits in terms of shorter trip lengths, which lead to lower emissions than if the workforce was derived from distant locations.

This analysis has concluded that the project's contributions to climate change are less than significant ~~and unavoidable~~. Given (i) the global nature of climate change; (ii) uncertainty regarding the extent to which anthropogenic sources are the true causes of any increase in the earth's temperatures; and (iii) the lack of emissions controls being imposed by the world's most rapidly developing nations, even if there is a causal relationship between anthropogenic emissions and an increase in the world's temperature, it is ~~possible~~ difficult to argue that an individual project's cumulative contribution to climate change is ~~not~~ foreseeable and ~~is not~~ cumulatively considerable. Nonetheless, the State of California has adopted a number of policies, including AB32, Governor's Executive Order S-3-05, and Pavley I, that provide the structure and commitment to address California's contribution to global climate change. Since the proposed project is consistent with these policies, including being below the SCAQMD threshold for greenhouse gases that was structured in accordance with these State policies, the project is consistent with greenhouse gas plans, policies and regulations.

~~For example, according to a forecast by the California Air Resources Board, if no actions are taken to reduce greenhouse gas emissions other than Pavley I and the Renewable Portfolio Standards, California emissions would be approximately 506 million mt CO_2e by the year 2020, up from approximately 427 million mt CO_2e in 1990. Reductions from Scoping Plan Measures would be approximately 62 million mt CO_2e.~~

~~The project may bring cargo containers from the Port of Los Angeles or the Port of Long Beach. The cargo containers likely originate in another country. The transportation of those goods from another country (such as China) to the ports is not included in this analysis because the emissions are speculative at this time. The emissions that occur in other countries and in international waters are not under the jurisdiction of this project or the United States. It is speculative to determine if the project has any influence over the quantity of cargo containers brought to the United States; that is more likely a result of consumer choice or other factors.~~

4.7.7 CUMULATIVE IMPACTS

Given the findings of AB 32, of SB 97, and the requirements of CEQA, the Lead Agency must determine whether a project will or will not have a cumulatively considerable contribution to greenhouse gas emissions and global climate change. Due to the lack of guidance for determining

the significance of cumulative impacts to climate change from projects, and out of an overabundance of caution, the project has been evaluated to determine whether emissions of greenhouse gases have been minimized to the extent feasible with current technology and measures.

While it is not possible for any one development project to have a significant impact on global warming or climate change, the proposed project will contribute to cumulative GHG emissions in California. Cumulatively, the buildout of the proposed project would contribute approximately from ~~115,257~~ 12,000 metric tons of CO_2e in ~~2014~~ its first year of construction up to ~~568,944~~ 386,000 mt CO_2e per year ~~in 2035~~ at buildout (with mitigation). Of those emissions at buildout, the majority, 98 percent, are within the AB 32 cap meaning that total emissions will not increase due to the cap-and-trade program. The remainder, approximately 6,000 mt CO_2e per year at buildout, represents an increase in uncapped emissions, which is 0.001 percent of California's total emissions of ~~547~~ 458.68 million mt of CO_2e in ~~2009~~ 2012 for the entire State. Comparing the state inventory to the project's inventory is not a straightforward comparison because different methods are utilized in each inventory. The mitigation measures discussed above will reduce the project's emissions of GHGs ~~; however, due to the size of the project, it is likely that its GHG emissions will be cumulatively considerable within the meaning of *CEQA Guidelines* Sections 15065(a)(3) and 15130~~ to below significance. The CARB is currently in the process of designing regulations to monitor, limit, and ultimately reduce California GHG emissions, but there are as yet no adopted numerical or quantifiable standards for assessing the significance of cumulative impacts from projects in the South Coast Air Basin.

Cumulatively, the emissions from electricity production (which are capped under the requirements of AB 32) would comprise approximately ~~3.4~~ 26 percent of the project's total CO_2e emissions. Water usage and solid waste disposal emissions comprise approximately ~~18~~ 2 percent of the project's total CO_2e emissions while the emissions from vehicle exhaust would comprise approximately ~~77~~ 70 percent of the project's total CO_2e emissions. The emissions from vehicle exhaust are controlled by the State and Federal governments and are outside the control of the City. The remaining CO_2e emissions are primarily associated with building systems. The proposed project is required to comply with existing State and Federal regulations regarding the energy efficiency of buildings, appliances, and lighting, which would reduce the project's electricity demand. The new buildings constructed in accordance with current energy efficiency standards would be more energy-efficient than older buildings.

With implementation of the strategies and programs described previously, the project is consistent with the strategies to reduce California's emissions to the levels proposed in Executive Order S-3-05. ~~However, given the uncertainty of data and appropriate methodology to analyze accurately, and the inability to quantify the reduction achieved through implementation of strategies and programs previously identified, the proposed project's GHG emissions would result in a cumulative impact regarding global climate change, and the cumulative impacts of the proposed project on global climate change are considered to be significant and unavoidable.~~ In addition, emissions not covered or capped by AB 32 are below the significance threshold. Therefore, cumulative impacts are less than significant.

4.8 HAZARDS AND HAZARDOUS MATERIALS: TABLE OF CONTENTS

TABLE

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NOTE TO READERS. *A number of comments were made regarding hazardous materials, mainly potential pesticide contamination[1]. In response, the mitigation measures in this section have been revised. Otherwise, no major revisions have been made to this section in response to comments.*

4.8 HAZARDS AND HAZARDOUS MATERIALS

This section describes and analyzes the potential impact to human health and the environment due to the exposure to hazardous materials or conditions that could be encountered as a result of the construction activities within the WLC project area and also the operational activities of the project. Potential effects include those associated with the routine transport, use, or disposal of hazardous materials; reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment; safety hazards associated with the project's existing agricultural use, impairment/interference with adopted emergency response plans or emergency evacuation plans, and exposure of people or structures to risks involving wildland fires.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers ~~3,918~~ 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes ~~3,814~~ 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering ~~3,814.~~ 3,714 acres, which redesignates approximately 70 percent of the area (~~2,710~~ 2,610 acres) for logistics warehousing (new LD and LL~~, LS~~ zones) and the remaining ~~30~~ 29 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the ~~2,710~~ 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*. ~~The environmental impacts of all of these entitlements on the entire project area are addressed in this EIR and the accompanying technical reports and analyses.~~

[1] *Letters F-7A and F-7B from Lozeau Drury LLP (Comments F-7A-18, -21 and -22 and F-7B-2) and in Letter F-8 from Shute Mihaly.*

The evaluation was based on review of available information included with the application, review of previous Phase I Environmental Site Assessments for the WLC project area, and review of other published materials. This section is based in part on the following reports, which are included as Appendix I of this EIR:

- *Phase I Environmental Site Assessment Reports,* World Logistic Center Specific Plan WLC project area - approximately 3,820 acres in the WLC planning area, south of State Route 60 (SR-60) between Redlands Boulevard and Gilman Springs Road, extending to the southerly City Limit, LOR Geotechnical Group, Inc., 18 reports for various locations within the WLC project area prepared between June 10, 2003–May 28, 2008, plus one comprehensive Phase 1 as recent as January 2013.

4.8.1 Existing Setting

4.8.1.1 Project Site History

The project area is approximately 3,~~814~~714 acres and is located in Rancho Belago, the eastern portion of the City of Moreno Valley, in northwestern Riverside County. The area is bounded by State Route 60 (SR-60) to the north, Gilman Springs Road to the east, Redlands Boulevard to the west, and the City boundary to the south.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

Within the project area, 2,~~710~~610acres will be covered by the World Logistics Center Specific Plan, which is planned to be developed with up to ~~41~~40.6 million square feet of modern logistics facilities. The remainder of the project area, approximately 1,104 acres is owned by the State and by existing utility facilities. This area will be designated as permanent open space and will allow the continued operation of the utility facilities.

The majority of the project area is vacant undeveloped land. There are seven existing single-family homes with associated ranch/farm buildings located throughout the project area. The project area has been historically used for dry-farming and livestock grazing, and portions of it are currently being dry farmed. There are currently no flood control facilities that are owned, operated, or maintained by the Riverside County Flood Control and Water Conservation District (RCFCWCD). Over the years, 18 separate Phase I Environmental Site Assessments (ESAs) have been conducted covering a large majority of the property (Table 4.8.A).

Table 4.8.A: Project-Related Phase 1 Hazmat Reports

Location	Date	Conclusion and Follow Up Action
Group A Properties consisting of 352 acres located between Redlands Boulevard and Gilman Hot Springs Road to the east and west and Eucalyptus and Davis Roads to the north and south.	6/10/03	*No Further Action:* No recognized environmental conditions associated with the site.
Colville Property, 17.8 acres (2 parcels, APNs 478-240-006 and 007) located on the southwest corner of Alessandro Boulevard and Theodore Street.	2/23/04	*No Further Action:* No recognized environmental conditions associated with the site.
13241 Theodore Street.	2/11/05	Clean up of one empty 55-gallon metal drum and trash and debris for disposal in a Class III municipal landfill; no further remedial action necessary.

Table 4.8.A: Project-Related Phase 1 Hazmat Reports

Location	Date	Conclusion and Follow Up Action
Kerr Stock Farm Properties: 12600 and 12560 Sinclair Street; 4 parcels, 120± acres, located southeast of Redlands Boulevard and SR-60; *Triana Property*, 12540 Sinclair Street (APN: 477-090-001), southeast of Redlands Boulevard and SR-60; *Smith Property*, 0.88-acre property at 12550 Sinclair Street (APN 477-090-013).	5/5/03	Several 55-gallon and smaller containers of paint, both latex and oil base containers, and waste oil found; containers and stained soil are to be removed and properly disposed of. Dumped green waste and household trash and debris to be removed; two aboveground fuel tanks to be removed. Based on the age of structures, an asbestos and lead-based paint survey should be conducted prior to demolition. No further remedial action necessary upon removal of above-noted items.
Sanindon Property, 19± acres (APNs 477-090-004 and 006) located southeast of Sinclair Street and SR-60.	9/10/03	*No Further Action:* No recognized environmental conditions associated with the site.
APNs 478-240-011, 017, 026, 027, and 030, 46.5+-acre vacant property, located on the southeast corner of Brodiaea Avenue and Sinclair Street.	4/30/04	*No Further Action:* No recognized environmental conditions associated with the site.
Chehade Property, 2 parcels (APNs 478-240-24 and 29) 18.75 acres, southwest of Alessandro Boulevard and Theodore Street.	12/29/04	Removal of one 55-gallon waste oil drum. Surface-stained surrounding soil to be removed and properly disposed of. No further remediation necessary.
APNs 478-240-019, 025, and 028.	4/11/05	Significant illegal dumping of trash and debris, but all appears suitable for disposal in a Class III municipal landfill; ten tires present, additional disposal fees may be incurred; metal 5-gallon bucket about half full with racing fuel, located in the southeast portion of Parcel 028 west of the east boundary and southeast of the old borrow pit quarry area; bucket should be lawfully transported off site and properly disposed of or recycled. No further remedial action required.
Mabon Property (APN 477-080-042) 8.8+ acres.	2/28/05	*No Further Action:* No recognized environmental conditions associated with the site.
APNs 477-090-008 through 012 and 477-100-011 through 014, 69.5± acres.	11/30/04	Trash and debris present appeared suitable for disposal in a Class III municipal landfill, but forty tires, including some large-sized tires, may require special disposal fees. A black 5-gallon bucket, approximately one-third full of waste oil, observed at north end of the drainage channel. Very minor oil-stained soil and organic debris was noted. The oil stained soil is insignificant in extent and is of no environmental concern, the 5-gallon bucket of waste oil should be properly disposed of or recycled. No further remedial action required.
APN 477-090-007, northeast corner of Sinclair Street and Fir Avenue.	4/25/07	*No Further Action:* No recognized environmental conditions associated with the site.
APNs 477-080-027, 028, 029, and 030, 36.7+ acres of vacant land, southeast corner of Ironwood Avenue and Sinclair Street.	3/24/05	*No Further Action:* No recognized environmental conditions associated with the site.

Table 4.8.A: Project-Related Phase 1 Hazmat Reports

Location	Date	Conclusion and Follow Up Action
APNs 478-240-005 and 008.	3/1/06	Illegal dumping of trash and debris, especially on the south end near the boundary. All of the trash and debris observed appear to be suitable for disposal in a Class III municipal landfill. No further remedial action required.
Himada Property, 30050 Dracaea Avenue, (APN 422-070-033)	7/9/07	Significant amounts of trash and debris are present and appear suitable for disposal in a Class III municipal landfill. No drums, barrels, or other containers were observed; one partially crushed vehicle battery and minor oil-stained soils were observed, battery should be properly transported off site for recycling or disposal. The minor oil stained soils is a *de minimis* condition and should be mitigated as a result of normal grading activities. No further remedial action required.
Sunnymead Poultry Group "C" Properties consisting of 421 acres east of Theodore Street and north of Alessandro Boulevard.	5/5/03	A former chicken ranch made up 75 acres and the remainder was dry-farmed. Former underground storage tanks (USTs) converted to aboveground storage tanks (ASTs) were present at the chicken ranch, which was undergoing demolition. Soil samples collected during and after demolition activities confirmed the removal of hydrocarbon-affected soil. Soil samples collected from beneath the location of the two former USTs at 6, 8, and 10 feet deep had no reported concentrations of petroleum hydrocarbons. Pesticide sampling (42 samples) indicated all results below residential limits. No further action.

Source: Phase 1 Environmental Site Assessment Reports (various), LOR Geotechnical.

Historic land uses noted for the WLC project area included tree farms (olives/citrus), rural residential uses, a horse ranch, minor auto repair related to residential users, two dairies, and a chicken ranch. However, the tree orchards were not sustained and the horse, dairy, and chicken ranches ceased operating several years ago as well. Present land use is limited to dry farming, undeveloped vacant land, and seven residential structures. In 1992, the City approved a master-planned, mixed-use community called "Moreno Highlands" on most of the project site but no uses within this community were ever built.

Dry-land farming does not typically apply pesticides or other agricultural chemicals. The ESAs did not find significant residual pesticides within the project area. Soil sampling conducted within limited site characterizations revealed trace concentrations of pesticides present in the near-surface soils at some of the sampling locations. However, the sample results showed concentrations of pesticides to be below the Environmental Protection Agency's (EPA's) Preliminary Remediation Goals for residential properties, which indicated that no further sampling was necessary and unrestricted use of the property was allowed.

NOTE: The following information was added to clarify or expand on the issue of agricultural chemicals raised in Letter F-7A, F-7B, and F-8.

The commenters all expressed the opinion that the Phase 1 documents for the project site did not provide an accurate assessment of current soil conditions. The many Phase 1 reports done on many parcels throughout the WLC property and over a long period of time constitutes an extensive random

sampling of the onsite soils, and demonstrate the site does not contain widespread soil contamination from pesticides. Dry farming does not use a variety of agricultural chemicals because it relies on ambient rainfall and other conditions to support the limited crops grown on the site. Many of the organo-chloro-phosphate (OCP) based chemicals used for more intensive irrigated crops are not used in dry farming due to their cost and lack of irrigation to distribute the chemicals. In addition, the chemicals used in dry farming typically break down quickly in the soil and are not broadcast but rather applied by hand sprayers, so any applications would be necessarily limited. There is no practical reason why intense crop herbicides or pesticides like DDT would be used in conjunction with dry farming in general, and there is no evidence such chemicals were used on the WLC site in the past. In fact, onsite soil sampling conducted for the Phase 1 reports found no evidence of significant OCP contamination on the WLC site. The chicken ranch and related facilities that were on the site for a time are in the process of being removed, including any surficial materials with waste products. There has been no empirical evidence presented that would demonstrate there is actual contamination by agricultural chemicals or wastes on the WLC site.

According to records from the State Department of Toxic Substances Control (DTSC), dry farmed agricultural properties of the WLC project site have had pesticides like 2,4-Dichlorophenoxyacetic acid, commonly called 2, 4, D applied in the past. 2, 4 D is the 3rd most common herbicide used in the US and can be purchased at retailers like Home Depot and Lowes. 2,4 D has a half-life of a few days to two weeks, depending on site conditions (available water, sun etc.). Within a few months after application, the residual amount of pesticide is less than 1 percent. Dry farming operations, and any pesticide application, will have ceased well before the actual grading of the site, and any current pesticide application, will have biodegraded to less than significant levels. 2,4 D was the most common pesticide applied to the site, often combined with Agri-Dex (as indicated in the DTSC records) which is used as a wetting agent to increase absorption of the 2, 4 D. The DTSC records indicate these chemicals were applied to grapes on the site, but there are no areas of cultivated grapes at present on the WLC site. It is possible some of these materials were used on the rural residences on the site, however the 2, 4 D and Agri-Dex were by far the most common chemical used on the site by weight in 2010, which accounted for almost a thousand pounds of chemical applied. Other chemicals applied to properties within the WLC site during that time include pyrethrins, spinosad, beta-cyfluthrin, sulfur, “Roundup” (glyphosate), “scythe, and rimsuffuron mainly as herbicides and fungicides, but less than one pound of each of these materials was typically applied at a given time, so the overall potential exposure is considered to be relatively minor at present. Therefore, there is no evidence there will be adverse environmental impacts on adjacent property owners or WLC site workers from past pesticide applications at the site, including 2, 4 D. However, to err on the side of caution, Mitigation Measure 4.8.6.1A has been modified to include soil sampling for agricultural chemicals prior to grading of the 7 rural residential lots where it is possible more chemical materials were applied in more concentrated locations than broadcast on large wheat fields.

The Phase I ESAs noted some illegal dumping of trash and debris, including paints, tires and trash, which has occurred on and around the project area. Most of the trash and debris observed appeared to be suitable for disposal in a Class III municipal landfill. Prior to development, all containers of hazardous materials and waste will need to be lawfully transported off site for disposal or recycling by a licensed hazardous waste transporter.

Former aboveground and belowground fuel storage tanks associated with the former chicken ranch were removed. Hydrocarbon-affected soil associated with the aboveground storage tanks (ASTs) and other chicken ranch operations were removed during demolition activities at the site. During the demolition activities, hazardous waste in 55-gallon drums and smaller, and hydrocarbon-affected soil were removed and transported off site by a licensed hazardous waste hauler for proper disposal.

Given that some of the residential and rural farming-related structures date back to the 1930s and 1940s, it is likely that some of them contain asbestos and lead-based paint. Therefore, it is

recommended that the demolition of the structures at the site be performed in accordance with all applicable regulations for the handling of such materials.

The Phase I ESAs revealed no evidence of recognized environmental conditions indicative of releases or threatened releases of hazardous substances on, at, in, or to the WLC project area. A recognized environmental condition is defined as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substance or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property.

Several natural gas pipelines (16-inch to 36-inch diameter) cross the site (see also Section 4.16, *Utilities and Service Systems*). At present, the San Diego Gas and Electric Company (SDG&E) company and the Southern California Gas Company (SCGC) maintain these natural gas pipelines under medium and high pressure across the central and southern portions of the site. None of the rural residences on site is located adjacent to any of these existing regional gas lines.

4.8.1.2 Surrounding Area

Major access to the project area is from State Route 60, Redlands Boulevard, Alessandro Boulevard, Gilman Springs Road, and Theodore Street. Redlands Boulevard, Theodore Street, and Gilman Springs Road are north-south roadways that intersect with SR-60.

There is little development adjacent to the eastern and southern boundaries of the project area. The area to the east of the project area is commonly referred to as the Badlands, a rugged area that separates the City of Moreno Valley from San Timoteo Canyon and the City of Beaumont. Due to its steep slopes and canyons, the Badlands area has experienced little development; however, there are approximately ten single-family homes in the area east of Gillman Springs Road adjacent to the project site. The Badlands Sanitary Landfill, operated by the County of Riverside Waste Management Department, is located approximately 1.5 miles northeast of the WLC project area. The area south of the project area is known as the San Jacinto Wildlife Area (SJWA), which includes an “Upland Game Hunting Area”. The SJWA is owned and operated by the California Department of Fish and Wildlife (CDFW) and contains approximately 20,000 acres of restored wetlands and ponds. Hunting is allowed, with the proper state hunting license. Depending on the time of year, hunting in this area includes jackrabbits, rabbits, waterfowl as well as pheasants, chukar, and quail. The SJWA is accessed from Davis Road, off of Ramona Expressway. In addition to the hunting allowed at the SJWA, there are private hunting clubs that abut the SJWA, including the Mystic Lake Duck Club and the Four Winds Pheasant Club.

The Lake Perris State Recreation Area is immediately southwest of the project site and is owned and operated by the California State Parks Department. It contains approximately 6,000 acres of open space land, which is used both for recreation and preservation of the natural southern California landscape.

A large logistics facility (1.8 million-square foot Skechers facility) is located northwest of the project area. Other developed properties include residential neighborhoods along Redlands Boulevard along the western boundary of the project area. An area of the City known as Old Moreno is adjacent to the southwest portion of the project site (at the intersection of Redlands Boulevard and Alessandro Boulevard). The homes along Merwin Street and Bay Street and east of Redlands Boulevard are the closest sensitive receptors to the project site.

There are two future commercial sites located immediately north of the project area. One is located at the northwest corner of Theodore Street and Eucalyptus Avenue (approved for 80,000 square feet), and

the other is at the northeast corner of Redlands Boulevard and Eucalyptus Avenue (approved for 120,000 square feet). The nearest large-scale commercial development is located on the south side of SR-60 at Moreno Beach Drive, approximately 1.25 miles to the west of the proposed project. This shopping complex includes Walmart and Target along with restaurants and ancillary commercial and service uses, as well as the Moreno Valley Auto Center. The central core of Moreno Valley, which includes other residential neighborhoods and commercial activity, is located approximately three miles west of the project area.

There are no airports in the vicinity of the project area. The nearest airport is March Air Reserve Base (MARB) located approximately seven miles southwesterly of the project area. The MARB is under the authority of the March Joint Powers Authority (MJPA), which acts as the land use authority, in addition to the Redevelopment Agency as well as the March Inland Port Airport Authority are involved in the reuse of the former March Air Force Base. The March Air Field is a joint-use airport, used both for military and civilian purposes. March Inland Port (MIP)[1] is the civilian portion of the airport. The proposed project area is not located within the Airport Influence Area.

There are no existing school facilities within one-quarter of a mile of the project area. Calvary Chapel Christian School is the closest existing school, located approximately 1.17 miles northwest of the project area, north of SR-60. There is a site for a proposed public elementary school, Wilmot Elementary School, located approximately one-quarter of a mile from the project area located on Bay Avenue at Wilmot Street. A Preliminary Environmental Assessment Report (PEA) was prepared for the proposed elementary school site in July 2007.

4.8.1.3 NOP/Scoping Comments

Several residents commented during the NOP period that there are major natural gas facilities located on the WLCSP project site, and were concerned about safety during construction, relocation, and operation of the pipelines. During the scoping meeting, a conservation group representative encouraged the City to look at freeway accident data involving trucks and expressed concern that accidents on the freeway would cause truck drivers to divert off the freeway and onto local streets in Moreno Valley. The WLC project biology report also warned of risks to new project buildings and employees from errant gunfire from the Mystic Lake area (i.e., hunting clubs) (MBA 2013). Several residents also commented that there are major natural gas facilities and pipelines located on the WLCSP project site. These comments are addressed in the following analysis of potential hazards.

4.8.2 Existing Policies and Regulations

4.8.2.1 Federal Regulations

Comprehensive Environmental Response, Compensation, and Liability Act. Discovery of environmental health damage from disposal sites prompted the U.S. Congress to pass the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund). The purpose of the CERCLA is to identify and clean up chemically contaminated sites that pose a significant environmental health threat. The Hazard Ranking System is used to determine whether a site should be placed on the National Priorities List for cleanup activities.

Superfund Amendments and Reauthorization Act. The Superfund Amendments and Reauthorization Act (SARA) pertain primarily to emergency management of accidental releases. It requires formation of State and local emergency planning committees, which are responsible for

[1] March Inland Port was previously called March Air Reserve Base.

collecting, material handling, and transportation data for use as a basis for planning. Chemical inventory data are made available to the community at large under the "right-to-know" provision of the law. In addition, SARA also requires annual reporting of continuous emissions and accidental releases of specified compounds. These annual submissions are compiled into a nationwide Toxics Release Inventory (TRI).

Resource Conservation and Recovery Act. The Resource Conservation and Recovery Act (RCRA) Subtitle C addresses hazardous waste generation, handling, transportation, storage, treatment, and disposal. It includes requirements for a system that uses hazardous waste manifests to track the movement of waste from its site of generation to its ultimate disposition. The 1984 amendments to the RCRA created a national priority for waste minimization. Subtitle D establishes national minimum requirements for solid waste disposal sites and practices. It requires states to develop plans for the management of wastes within their jurisdictions. Subtitle I requires monitoring and containment systems for underground storage tanks that hold hazardous materials. Owners of tanks must demonstrate financial assurance for the cleanup of a potential leaking tank.

Hazardous Materials Transportation Act. The Hazardous Materials Transportation Act is the statutory basis for the extensive body of regulations aimed at ensuring the safe transport of hazardous materials on water, rail, highways, in the sky, or in pipelines. It includes provisions for materials classification, packaging, marking, labeling, placarding, and shipping documentation.

4.8.2.2 State Regulations

California Code of Regulations. Most State and Federal regulations and requirements that apply to generators of hazardous waste are spelled out in the California Code of Regulations (CCR), Title 22, Division 4.5. Title 22 contains the detailed compliance requirements for hazardous waste generators, transporters, treatment, storage, and disposal facilities. Because California is a fully authorized State according to RCRA, most RCRA regulations (those contained in 40 Code of Federal Regulations [CFR] 260, et seq.) have been duplicated and integrated into Title 22. However, because the Department of Toxic Substance Control (DTSC) regulates hazardous waste more stringently than the U.S. EPA, the integration of California and Federal hazardous waste regulations that make up Title 22 do not contain as many exemptions or exclusions as does 40 CFR 260. As with the California Health and Safety Code, Title 22 also regulates a wider range of waste types and waste management activities than do the RCRA regulations in 40 CFR 260. To aid the regulated community, California compiled the hazardous materials, waste and toxics-related regulations contained in CCR, Titles 3, 8, 13, 17, 19, 22, 23, 24, and 27 into one consolidated CCR, Title 26 "Toxics." However, the California hazardous waste regulations are still commonly referred to as Title 22. For the purposes of clarity, because of the extensive reach of Title 22 and Title 26, many common household products sold in grocery stores and home improvement warehouses qualify as hazardous materials. These items include household cleaners, detergents, paint, motor oil, lubricants, glues, pesticides, etc. The term "hazardous materials" is also defined to include many on site materials as well, such as lubricants, fuel, etc. Thus, when this section of the EIR discusses the transport and storage of "hazardous materials," it is referring to the potential transport of bulk products to the project locations and to the temporary storage of such materials at the project sites prior to re-package and transport to subsequent destinations.

Cortese List: Section 65962.5(a). Government Code Section 65962.5 requires the California Environmental Protection Agency (CalEPA) to develop at least annually an updated Hazardous Waste and Substances Sites list (Cortese List). The Cortese List is a planning document used by the State, local agencies, and developers to comply with CEQA requirements in providing information

about the location of hazardous materials release sites. Release sites include or hazardous materials release sites may include the following:

- All hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code.
- All land designated as hazardous waste property or border zone property pursuant to Article 11 (commencing with Section 25220) of Chapter 6.5 of Division 20 of the Health and Safety Code.
- All information received by the Department of Toxic Substances Control pursuant to Section 25242 of the Health and Safety Code on hazardous waste disposals on public land.
- All sites listed pursuant to Section 25356 of the Health and Safety Code.
- All sites included in the Abandoned Site Assessment Program.

The California DTSC is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List.

The California Hazardous Material Management Act. The Hazardous Materials Management Act (HMMA) requires that businesses handling or storing certain amounts of hazardous materials prepare a Hazardous Materials Business Emergency Plan (HMBEP), which includes an inventory of hazardous materials stored on site (above specified quantities), an emergency response plan, and an employee training program. An HMBEP is a written set of procedures and information created to help minimize the effects and extent of a release or threatened release of a hazardous material. The intent of the HMBEP is to satisfy Federal and State Community Right-to-Know laws and to provide detailed information for use by emergency responders.

Per the California Health and Safety Code (HSC), Chapter 6.95, Section 25500–25532, an HMBEP must be submitted by any business that handles a hazardous material or a mixture containing a hazardous material in quantities equal to, or greater than:

- A total weight of 500 pounds or a total volume of 55 gallons;
- 200 cubic feet of a compressed gas at standard temperature and pressure; and/or
- A radioactive material handled in quantities for which an emergency plan is required pursuant to Parts 30, 40, or 70 of Chapter 10, Title 10, CFR, or equal to or greater than the amounts specified above, whichever amount is less.

An HMBEP must be prepared prior to facility operation. Any business subject to HMBEP requirements shall submit an amendment of its HMBEP to the local implementing agency when there is:

- A 100 percent or more increase in the quantity of a previously disclosed hazardous material;
- Any handling of a previously undisclosed hazardous material subject to the inventory requirements;
- Change of business address;

- Change of ownership;
- Change of business name; and/or
- Change of contact information.

In addition, any business subject to HMBEP requirements is also required to certify the inventory of hazardous materials handled at the business every year. Businesses are also required to review their HMBEP at least once every three years to determine if a revision is necessary. Once the review has been conducted, the business must certify in writing to the local implementing agency that a review has been completed and necessary changes were made. For businesses within the City of Moreno Valley, HMBEPs are submitted to and approved by the County of Riverside Community Health Agency, Department of Environmental Health.

The California Hazardous Waste Control Law. The Hazardous Waste Control Law (HWCL) is the primary hazardous waste statute in the State of California. The HWCL requires a hazardous waste generator, which stores or accumulates hazardous waste for periods greater than 90 days at an on-site facility or for periods greater than 144 hours at an off-site or transfer facility, which treats, or transports hazardous waste, to obtain a permit to conduct such activities. The HWCL implements RCRA as a “cradle-to-grave” waste management system in the State of California. HWCL specifies that generators have the primary duty to determine whether their wastes are hazardous and to ensure their proper management. The HWCL also establishes criteria for the reuse and recycling of hazardous wastes used or reused as raw materials. The HWCL exceeds Federal requirements by mandating source reduction planning and a much broader requirement for permitting facilities that treat hazardous waste. It also regulates the number of types of wastes and waste management activities that are not covered by federal law with RCRA.

State Aeronautics Act (Public Utilities Code Section 21670, et seq.). The Public Utilities Code (PUC) establishes the requirement for the creation of airport land use commissions for every county in which there is located an airport that is served by a scheduled airline. Additionally, these sections of the Code mandate the preparation of Comprehensive Land Use Plans (CLUP) to provide for the orderly growth of each public airport and the area surrounding the airport. The purpose of CLUPs includes the protection of the general welfare of inhabitants within the vicinity of the airport and the general public.

California Emergency Services Act. Government Code 8550–8692 provides for the assignment of functions to be performed by various agencies during an emergency so that the most effective use may be made of all manpower, resources, and facilities for dealing with any emergency that may occur. The coordination of all emergency services is recognized by the State to mitigate the effects of natural, man-made, or war-caused emergencies which result in conditions of disaster or extreme peril to life, property, and the resources of the State, and generally, to protect the health and safety and preserve the lives and property of the people of the State.

State Fire Plan. The State Board of Forestry and the California Department of Forestry and Fire Protection have drafted a comprehensive update of the State Fire Plan for wildland fire protection in California. The planning process defines a level of service measurement, considers assets at risk, incorporates the cooperative interdependent relationships of wildland fire protection providers, provides for public stakeholder involvement, and creates a fiscal framework for policy analysis.

4.8.2.3 County of Riverside Regulations

Riverside County Department of Community Health. The Department of Environmental Health (DEH) of the Riverside County Community Health Agency is responsible for regulation the operations of businesses and institutions that handle hazardous materials or generate hazardous wastes in the City of Moreno Valley.[1] As part of the State-mandated Certified Unified Programs administered by the CalEPA, the DEH coordinates regulatory and enforcement of the following programs: Household Hazardous Waste, Hazardous Waste Minimization, Underground Storage Tanks (USTs), Hazardous Waste Generator Permits, and Hazardous Materials Handlers Program.

Riverside County Airport Land Use Plan. The Riverside County Airport Land Use Commission (ALUC) assists local agencies by ensuring the development of compatible land uses in the vicinity of existing airports. The ALUC adopted the Airport Land Use Plan (ALUP) for MIP on April 26, 1984. A new ALUC is currently in the process of updating the 1984 ALUP for MIP;[2] however, the portion of this document that pertains to MARB is not available for public review at this time. The ALUP specifies land use restrictions for areas falling within an airport's Influence Area boundaries.

2005 Air Installation Compatible Use Zone (AICUZ) Study. March Air Field is a joint-use airport, used for both military and civilian (MIP) purposes. The airport is owned and regulated by the military. Military installations prepare AICUZ studies to protect vicinity land uses from hazard and noise impacts associated with military airports. The Air Force Reserve (AFRES) completed a new AICUZ for March Air Field in 2005. The AICUZ delineates the clear zones and accident potential zones for the joint use airfield, as well as the noise contours based upon the project flight operations and use of the aviation field. The noise contours include both military and civilian use, as projected in the Federal Aviation Administration (FAA) conformity determination.

4.8.2.4 City of Moreno Valley

General Plan Policies. The Safety Element and the Land Use Element of the General Plan define the following issues and opportunities related to hazards that are relevant to the proposed project:

- **Safety Element**
  - **Issues and Opportunities Section 6.2.8:** Acknowledge natural topography, terrain, volatile fuel types, and local climatic conditions that have resulted in large and damaging wildfires, particularly when the Santa Ana winds blow, increasing the potential for wildland fires. Consider these factors during the planning phases of devolvement and include mitigation measures to reduce potential life safety and other consequences of these types of fires.
  - **Issues and Opportunities Section 6.2.10:** Require the use of automatic sprinkler systems in new and existing structures to control future demand for fire protection services, and to reduce fire losses. Continue annual fire inspections of all occupancies by the Fire Prevention Bureau to reduce the potential for fire code violations and to inspect sprinkler systems.
  - **Issues and Opportunities Section 6.2.13:** Emphasize planning, training, disaster drills and public education and awareness programs to prepare for emergency and disaster response.
  - **Issues and Opportunities Section 6.9.2:** The City has the ability to establish land use patterns that minimize the hazards associated with the use, storage and transport of hazardous materials. The Household Hazardous Waste Element and the Hazardous Waste Management Plan for the City of Moreno Valley contains programs on the reduction of

[1] *Section 5.5 Hazards,* Moreno Valley General Plan, Final Program EIR, July 2006.
[2] Riverside County Airport Land Use Commission New Compatibility Plans, http://www.rcaluc.org/plan_new.asp, website accessed April 23, 2012.

hazardous waste and criteria for the siting of hazardous waste facilities. These plans should be updated from time to time to reflect changing conditions.

- **Land Use Element**
  - **Issues and Opportunities Section 2.8.2:** Fees will need to be collected in conjunction with new development to ensure that new development pays its fair share toward the future expansion of City facilities.

NOTE: The following changes have been made in response to Comment F-13-32 in Letter F-13 from Johnson & Sedlack on Behalf of Sierra Club, Moreno Valley Group & Residents for a Livable Moreno Valley.

- **Safety Element Goal**

  Goal 6.1 To achieve acceptable levels of protection from natural and man-made hazards to life, health, and property

Local Hazard Mitigation Plan. The City of Moreno Valley prepared a Local Hazard Mitigation Plan (LHMP) to develop an understanding of the natural and man-made hazards to the City and to determine ways to reduce those risks, prioritize and implement mitigation strategies.

4.8.3 Methodology

Evaluation of hazards and hazardous material impacts associated with the proposed project included a focus on the use, generation, management, transport, and disposal of hazardous or potentially hazardous materials on the project site. Phase I ESAs were prepared to document existing site conditions involving the presence or absence of hazardous materials that may have been deposited through previous land uses. In addition, the City of Moreno Valley's LHMP was consulted to identify existing known hazards that may affect the project area. For airport hazards, the County of Riverside ALUC was consulted to determine if the proposed WLC project would increase air hazards. In determining the level of significance, the analysis assumes that construction and operation of the proposed project would be in compliance with relevant local, State, and Federal laws and regulations pertaining to the use, storage, and disposal of hazardous materials.

4.8.4 Thresholds of Significance

Based on Appendix G of the *CEQA Guidelines*, the proposed WLC project would result in a significant adverse impact with regard to hazards if it were to:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;

- For a project located within an airport land use plan or where such a plan has not been adopted within two miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area;
- For a project located within the vicinity of a private airstrip, result in a safety hazard for people working in the project area;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation; and/or
- Result in the exposure of people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

4.8.5 Less than Significant Impacts

In each of the following issues, either no impact would occur (therefore, no mitigation would be required) or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level.

4.8.5.1 Within Two Miles of a Private Airport or Within an Airport Land Use Plan or Within Two Miles of a Public Airport

Threshold	For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the proposed project area? Would the project be located within an airport land use plan or where such a plan has not been adopted within two miles of a public airport or public use airport, resulting in a safety hazard for people residing or working in the project area?

The nearest airport to the project area is MARB, approximately 7 miles to the southwest. The airfield is operated by two entities, March Air Reserve Base (military) and March Inland Port Airport Authority (quasi-governmental/private). In addition, Perris Valley Airport is located approximate 15 miles southwest of the project area. Perris Valley Airport is a private airport that is open to the public, and is utilized for skydiving and ballooning activities. The WLC project area is not located within the Airport Influence Area for either airport. Given the distance of the WLC project area to both airports in the vicinity, the development of the WLC project area as proposed would not result in private airport safety hazards for people working in the WLC project area. No impacts associated with this issue would occur and no mitigation is required.

4.8.5.2 Existing or Proposed School

Threshold	Would the proposed project emit hazardous emissions or handle acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

There are no existing school facilities within one-quarter of a mile of the project area. The nearest existing school is Calvary Chapel Christian School which is located approximately 1.17 miles northwest of the project. There is one proposed elementary school site that is located within one-quarter mile of the WLC project area. The site for proposed Wilmot Elementary School is located on Bay Avenue at Wilmot Street, approximately 0.25 mile west of the project area. A PEA was prepared for the proposed elementary school in 2007; however, there has been no further discussion by the

Moreno Valley Unified School District (MVUSD) since then.[1] The City does not have jurisdiction with respect to the location, design, or construction of school facilities. The City works with each school district concerning the design of roads and other public improvements in and around school sites. The City also notifies any school district of development proposals that might affect school facilities.[2]

The amount and type of materials that would be used during project construction (building and infrastructure) or stored in the high-cube logistics distribution center after construction is unknown at this time. The emission of air pollutants is discussed in the Air Quality Section of the EIR. While the warehouse facilities themselves are not expected to utilize acutely hazardous materials, the possibility exists that such materials could be stored or transported to and from the project site. For the purposes of this analysis, it is assumed that the project will handle substances that may be acutely hazardous. The handling of hazardous materials or emission of hazardous substances in accordance with the Hazardous Materials Business Emergency Plan (HMBEP) as required by applicable local, State, and Federal standards, ordinances, and regulations will ensure that impacts associated with environmental and health hazards related to an accidental release of hazardous materials or emissions of hazardous substance near existing or proposed schools are less than significant and no mitigation is required.

4.8.5.3 Routine Transport, Use, or Disposal of Hazardous Materials and Reasonable Foreseeable Upset and Accident Conditions

Threshold	Would the proposed project create a significant hazard to the public through the routine transport, use, or disposal of hazardous materials? Would the proposed project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident?

The proposed project area includes the development of ~~41~~40.6 million square feet of high-cube logistics warehouse space. These warehouses would be used primarily for the storage and/or consolidation of manufactured goods, with minimal assembly and no manufacturing activities, prior to their distribution to secondary retail outlets.

Truck-Related Risks. Truck activities would frequently occur during off-peak hours. Deliveries to the project area would come from the Ports of Long Beach and Los Angeles as well as from other locations. Goods sorted for re-distribution would then be delivered via truck to both in and out of state locations. The exact tenants of the warehouse buildings are unknown at this time and will likely change over time so there is the potential that hazardous materials such as petroleum products, pesticides, fertilizer, and other household hazardous products such as paint products, solvents, and cleaning products may be stored and transported in conjunction with the proposed warehouse uses. These hazardous materials would only be stored and transported to and from the site. Manufacturing and other chemical processing will not be permitted under the provisions of the Specific Plan. Exposure to hazardous materials during the operation of the proposed on-site uses may result from (1) the improper handling or use of hazardous substances; (2) transportation accidents; or (3) an unforeseen event (e.g., fire, flood, or earthquake). The severity of any such exposure is dependent upon the type and amount of the hazardous material involved; the timing, location, and nature of the event; and the sensitivity of the individual or environment affected.

The City of Moreno Valley has no direct authority to regulate the transport of hazardous materials on State highways.[3] This activity is governed by the United States Department of Transportation

[1] Moreno Valley Unified School District, Minutes for Regular Meeting of the Board of Education, July 17, 2007.
[2] City of Moreno Valley General Plan, Land Use Element, Section 2.5.0.
[3] Moreno Valley General Plan, Safety Element, 6.9.1

(USDOT), as described in Title 49 of the Code of Federal Regulations[1] and by Title 13 of the California Code of Regulations. The State Office of Hazardous Materials Safety enforces regulations for the safe transportation of hazardous materials. It is possible that vendors may bring hazardous materials to and from the project site. Appropriate documentation for all hazardous waste that is transported in connection with project site activities would be provided as required by hazardous materials regulations. Hazardous waste produced on site is subject to requirements associated with accumulation time limits, proper storage locations and containers, and proper labeling. Additionally, for removal of hazardous waste from the site, hazardous waste generators are required to use a certified hazardous waste transportation company, which must ship hazardous waste to a permitted facility for treatment, storage, recycling, or disposal. Compliance with applicable regulations would reduce impacts associated with the use, transport, storage, and sale of hazardous materials. For example, the California Hazardous Materials Management Act requires that businesses handling or storing certain amounts of hazardous materials prepare a Hazardous Materials Business Emergency Plan, which includes an inventory of hazardous materials stored on site (above specified quantities), an emergency response plan, and an employee training program.

The enforcement of applicable local, State, and Federal standards, ordinances, and regulations will ensure that potential impacts associated with environmental and health hazards related to an accidental release of hazardous materials are less than significant and no mitigation is required.

Freeway Accident Risks. The following information is provided in response to NOP/Scoping comments regarding freeway accidents. According to the California Department of Transportation's Traffic Accident Surveillance and Analysis System (TASAS) report, there are approximately 105 accidents per year along a 3.75-mile stretch of SR-60 between Nason Street and Gilman Springs Road in the general vicinity of the project area. The data were derived for the three-year span of January 1, 2008, to December 31, 2010[2]. During this period, there were 316 accidents (average of 105 per year) along SR-60 (both westbound and eastbound). Of the 316 accidents, approximately 15.8 percent involved trucks (tractor/trailer). There were 127 eastbound accidents (19 or 15% involving trucks) and 189 westbound accidents (31 or 16.4% involving trucks). It is possible that congestion on the freeway might result in some WLCSP-related trucks exiting the freeway at off-ramps other than Theodore Street, or attempting to enter the freeway at on-ramps if the drivers see or hear on their radios that the freeway is congested. In most instances, drivers will use the shortest route indicated on GPS system maps or the route(s) they have used previously, regardless of traffic conditions at the time. In addition, due to the type of uses planned within the WLCSP, much of the project-related traffic will be accessing the WLC site during off-peak times, so the changes of congestion or accidents occurring during the time they are accessing the site would be reduced. The accident database contains no information on whether the truck was the cause of a particular accident or the time of day, the vehicles involved, if hazmat spills occurred, if trucks or other vehicles detoured off the freeway, etc. Without these data, it is overly speculative to extrapolate any particular conclusions. Despite the lack of specific evidence regarding freeway accidents, it is reasonable to conclude that potential environmental impacts in this regard will be less than significant given the regulation of truck traffic on freeways according to State and Federal laws, and truck restrictions on local streets according to City municipal code (i.e., truck route enforcement) and no mitigation is necessary.

Land Use-Related Hazmat Risks. Both the Federal Government and the State of California require all businesses that handle more than a specified amount of hazardous materials or extremely hazardous materials, to submit an HMBEP to the local Certified Unified Program Agency (CUPA). The CUPA with responsibility for the City of Moreno Valley is the County of Riverside Community

[1] Code of Federal Regulations, Title 49—Transportation, Pipeline and Hazardous Materials Safety Administration, Department of Transportation, http://ecfr.gpoaccess.gov/cgi/t/text/text idx?c=ecfr&tpl=/ecfrbrowse/Title49/49tab_02.tpl, site accessed April 23, 2012.

[2] California Department of Transportation, TSAR – Accident Summary 1/1/08-12/31/10.

Health Agency, Department of Environmental Health.[1] The HMBEP must include an inventory of the hazardous materials used in the facility, and emergency response plans and procedures to be used in the event of a significant or threatened significant release of a hazardous material. The HMBEP must also include the Material Safety Data Sheet for each hazardous and potentially hazardous substance used. The Material Safety Data Sheets summarize the physical and chemical properties of the substances and their health impacts. The plan also requires immediate notification to all appropriate agencies and personnel of a release, identification of local emergency medical assistance appropriate for potential accident scenarios, contact information of all company emergency coordinators of the business, a listing and location of emergency equipment at the business, an evacuation plan, and a training program for business personnel.

HMBEPs are designed to be used by responding agencies, such as the Moreno Valley Fire Department, to allow for a quick and accurate evaluation of each situation for an appropriate response. HMBEPs are also used during a fire to quickly assess the types of chemical hazards that firefighting personnel may have to deal with, and to make decisions as to whether or not the surrounding areas need to be evacuated. Compliance with existing law will ensure that no significant impacts pertaining to the creation of hazards affecting the public will occur. The handling of hazardous materials in accordance with the HMBEP as required by applicable local, State, and Federal standards, ordinances, and regulations will ensure that impacts associated with environmental and health hazards related to an accidental release of hazardous materials are less than significant and no mitigation is required.

The Moreno Valley Fire Department will likely be first responders in the event of the release of hazard materials. The City of Moreno Valley contracts with the Riverside County Fire Department for fire services. The Riverside County Fire Department is administered and operated by the California Department of Forestry and Fire Protection (CalFire) per an agreement with the County of Riverside. The Fire Department has indicated it will need one or more fire stations in the area, and the project will mitigate impacts in this regard to less than significant levels (see Section 4.14, *Public Services and Facilities*).

Though the uses in the project area are not expected to utilize acutely hazardous materials in their daily operation, a potential for an accidental release of hazardous materials into the environment is present at the project site as it is at any commercial, retail, or industrial site. Compliance with the identified State and Federal transportation safety standards will govern the handling of hazardous materials during truck and freight transfer operations. These standards include procedures to contain, report, and remediate any accidental spill or release of hazardous materials. The handling of hazardous materials in accordance with all applicable local, State, and Federal standards, ordinances, and regulations will ensure that impacts associated with environmental and health hazards related to an accidental release of hazardous materials at the project site will be less than significant and no mitigation is required.

Hazardous On-site Facilities. The project site contains a regional natural gas compressor station operated by SDG&E. The Moreno Compressor Plant has been in operation for many years in the southeastern portion of the project area (see Section 4.16, *Utilities and Service Systems* and Section 4.5, *Biological Resources*). At present, the plant occupies a 19-acre site, surrounded by 174 acres of SDG&E-owned open space. There is additional open space around the plant, consisting of land owned by the CDFW as part of the SJWA. There are no plans to expand or otherwise modify the plant and/or its open space zone, which is considered adequate at this time to protect public health and safety, including users of the SJWA and new employees and users of the new warehouses associated with the WLCSP. ~~The WLCSP Land Use Plan (previously referenced Figure 3.8) and the proposed Circulation Plan/Road Cross-sections (Figure 3.11) show that construction of Street G will~~

[1] *CUPA Directory Search,* http://www.calepa.ca.gov/CUPA/Directory/default.aspx, website accessed April 24, 2012.

~~provide a minimum 104 feet of additional separation from the plant and future warehouses within the WLCSP north of Street G.~~

~~New warehouse uses east and west of the plant will not have this additional setback, but there~~There will be sufficient setback from the plant to future warehouse uses (e.g., 1,000 feet ~~to east and 1,500 feet to the west~~). No development or change in operation has been announced for the property within the SJWA. Existing safety conditions will continue relative to the gas facility as it relates to the SJWA. Compliance with established safety laws and regulations regarding the natural gas facilities will reduce the potential impact to a less than significant level and no mitigation is required.

SCGC operates a natural gas metering station on a one-acre site located one-quarter mile north of the Moreno Compressor Plant. ~~This station is south of the proposed Street G, which will provide a minimum 104 feet setback from the SCGC facility for new warehouse uses north of Street G. In addition, the distance between the north SDG&E plant property and the new Street G is insufficient to place new warehouse buildings, so the~~ The land plan will provide 1,000 feet ~~to east and 1,500~~ ~~feet to the west~~ setback from the SCGC station as an additional setback between these uses. These setbacks appear sufficient to protect future uses/users within the WLCSP if upset conditions were to occur at this station. Compliance with established safety laws and regulations regarding natural gas plants is expected to reduce this potential impact to a less than significant level and no mitigation is required.

The site also contains two natural gas lines that cross the central and southern portions of the site in an east-west direction (Figure 3.17). They range in size from 16 to 36 inches in diameter and carry natural gas under medium and high pressure. The high pressure lines are managed by SDG&E while the moderate pressure lines are managed by SCGC. The utility companies that own and/or maintain these pipelines are responsible for the physical conditions of the pipelines. As development occurs in areas with buried natural gas lines, the project proponent will be required to negotiate with the involved utility provider as to whether these pipelines can be relocated or need to be protected in place. Future development is required to maintain clearance for pipelines depending on their contents and size, in consultation with the serving utility provider. As long as these design restrictions are implemented during the site design and construction process, no significant impacts are expected. However, if a catastrophic accident were to occur involving one or more natural gas lines on site, there could be property damage and loss of life. While the chance of occurrence is low, there are potential safety risks, mainly to project employees, if such an accident were to occur. Compliance with established safety laws and regulations regarding pipelines is expected to reduce this potential impact to a less than significant level and no mitigation is required.

Off-site Improvements. A number of off-site improvements will be needed to serve the project, including three reservoirs, various water, sewer, and drainage improvements within existing rights-of-way, and the SR-60/Theodore Street interchange. None of these facilities is expected to create significant hazards or risks to public health or safety. These facilities will require standard improvement plan approvals through the City of Moreno Valley and/or County of Riverside. Based on these plan reviews, no significant hazard-related impacts are expected and no mitigation is required.

Hunting Accidents. Based on comments received during the NOP/Scoping period, this section explores the possible hazards or risks that could result from stray gunfire from hunters on the adjacent SJWA property as a result of the proposed change in land use from dry-land farming to high-cube logistics warehouses. Immediately south of the project area is the SJWA, where limited hunting is permitted. Hunting in the area is generally pheasant hunting, but also includes waterfowl (such as ducks) as well as jackrabbits, rabbits and quail. Hunting in these areas requires a hunting license issued by the State. The Fish and Game Code provides strict regulations on hunting, including limits on hours, time of year, quantity, and firearms. Hunting on State lands, such as the SJWA, can only be done with shotguns that are smaller in size (higher in gauge) than 10-gauge shotguns. In addition,

Federal law allows no more than three shells in the chamber of the shotgun at any given time during hunting. The SJWA is patrolled by CDFW wardens to ensure that all hunting rules and regulations are followed. The private hunt clubs are also governed by similar rules and regulations to ensure the safety of their members and the general public.

Given the proximity of the project area to the nearby hunting areas, it is appropriate to consider the possibility of stray gunfire as a possible risk to future employees, visitors, and facilities on the project site. Accident conditions that could arise from the nearby hunting activities are expected to be less than significant for the following reasons: the most intensive operations at the proposed high-cube logistics center would be during off-peak hours when there is no hunting; the hunting on the adjacent areas to the south of the WLC project area is in accordance with all applicable local, State, and Federal standards and regulations; and the range for the allowed firearms (shotguns smaller than 10-gauge) would be 60 yards or less providing a safe distance for development to occur in the WLC project area, which would be a safe distance from the actual hunting areas. It should also be noted that the Specific Plan provides for a minimum 250-foot setback along the southern boundary of the Specific Plan property, which is greater than the minimum safe distance described above.

Valley Fever. During processing of the Highland Fairview Corporate Park EIR, a local resident expressed concern regarding Valley Fever (*Coccidiomycosis*), a disease caused by fungus spores (*Coccidioides immitis*). Since the project site is adjacent to the Highland Fairview Corporate Park site, this issue will be addressed in this EIR as well. These fungal spores most typically lie dormant in relatively undisturbed soil with native vegetation cover in the Central Valley of California.

The likelihood of these spores to occur at this site is remote. The soil at the project site is not undisturbed and has little, if any, native vegetation cover. The site consists primarily of disturbed agricultural soils (i.e., regularly tilled and occasionally irrigated) and had virtually no native vegetative cover. The local soils will be extensively disturbed during grading and would be regularly watered to control dust. Erosion control measures will be implemented immediately following grading. Under these conditions, it is unlikely that *Coccidioides immitis* spores would survive in the soil. This potential impact appears minimal and no mitigation is required.

4.8.5.4 Located on a List of Hazardous Materials Sites

Threshold	Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?

As detailed in the *Phase I Environmental Site Assessment Reports*, the project area is not listed in any of the searched regulatory databases provided by Environmental Data Resources (EDR). This included a review of Federal, State, and local environmental databases for information pertaining to documented and/or suspected contaminated sites, known handlers or generators of hazardous waste, waste disposal facilities, releases of regulated hazardous substances and/or petroleum products within specified search distances. Analysis of soil samples obtained during the limited site characterizations conducted as part of the Phase I ESAs, indicated there were trace concentrations of pesticides present in near surface soils at some of the sample locations. However, the pesticide concentrations were below the EPA's Preliminary Remediation Goals, for residential properties. No further sampling was deemed necessary and unrestricted use of the property is warranted. Since neither the project site nor areas in the vicinity of the project site are listed on any of the hazardous materials sites as defined by Government Code Section 65962.5, there would be a less than significant impact and no mitigation is required.

4.8.5.5 Conflict with Emergency Response Plans

Threshold	Would the project impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation?

The City of Moreno Valley adopted its Local Hazard Mitigation Plan (LHMP) on October 4, 2011. This document identifies known hazards throughout the community and identifies strategies for which to prepare for and respond to these hazards if and when it is necessary. Figure 12-2 of the LHMP maps primary and alternative evacuations routes out of Moreno Valley. There are three (3) routes that either run through or along the project area that are identified as primary evacuation routes: Redlands Boulevard, Theodore Street, and Alessandro Boulevard. The proposed project will be designed, constructed, and maintained in accordance with applicable standards associated with vehicular access, ensuring that adequate emergency access and evacuation will be provided. Construction activities that may temporarily restrict vehicular traffic would be required to implement appropriate measures to facilitate the passage of persons and vehicles through/around any required road closures. Compliance with existing regulations for emergency access and evacuation will ensure that impacts related to this issue are less than significant and no mitigation is required.

4.8.5.6 Wildland Fire Risks

Threshold	Expose people or structures to a significant risk or loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

The City of Moreno Valley is subject to both wildland and urban fires. Wildfires in particular pose a threat to the northern and eastern portions of the City, near the WLC project area. Moreno Valley's LHMP documents that three wildland fires have occurred within the WLC project area since 2003. Although the project area is not within a mapped fire hazard area, the Badlands directly east of the project area are considered a High Fire Hazard Area.[1] Development of the eastern portion of the project could expose persons or property to wildland fire risks given the proximity of the project area adjacent to a High Fire Hazard Area. Regardless of this proximity, all new structures in the project area must be constructed in compliance with Title 24 of the California Code of Regulations to safeguard life and property from fire hazards, including the installation of automated fire suppression systems. Compliance with these standards would be enforced during building permit review and the construction inspection period. In addition, no development will be allowed within the San Jacinto Fault Zone, which runs parallel and just west of Gilman Springs Road; this area of limited development will provide a fuel or fire break to help protect future occupied uses within the WLCSP.

Six fire stations presently serve the City of Moreno Valley. Station No. 58, the Moreno Beach station, is the closest station to the project area (approximately a quarter of a mile directly west). Given the proximity of Station No. 58 and with all new structures constructed in compliance with Fire and Building Code regulations, the susceptibility and exposure of the project to wildland fires would be limited. **Mitigation Measures 4.14.2.6A** and **4.14.2.6B** in the Public Services and Facilities section will address potential impacts related to future fire protection services for this area. Implementation of these measures will help reduce potential wildland fire risks to a less than significant level, and no additional mitigation is required.

[1] City of Moreno Valley General Plan, Final Program EIR, Section 5.5 Hazards, Figure 5.5-2.

4.8.6 Significant Impacts

4.8.6.1 On-site Conditions Involving Hazardous Materials

Impact 4.8.6.1A: *Demolition of the existing on-site rural residential structures may involve hazardous materials (ACM and LBP) and possibly soil contamination from past agricultural chemical use.*

Impact 4.8.6.1B: *Demolition of the existing on-site rural residential structures may involve hazardous materials (LNG/CNG).*

Threshold	Would the proposed project create a significant hazard to the public through the routine transport, use, or disposal of hazardous materials?

Due to the suspected age of the rural residential structures on the site, it is possible that demolition of these structures may involve asbestos-containing materials (ACMs) and/or lead-based paint (LBP). Demolition of these structures may need to be supervised or conducted by contractors certified to remove and dispose of ACMs and/or LBP.

During the comment period on the DEIR, several commenters suggested there may be soil contamination on the WLC site, and evidence from the State Department of Toxic Substances Control (DTSC) indicates organo-phosphate based herbicide and pesticide materials may have been applied on or near the 7 existing rural residences on the site. Prior to grading, soil testing should be performed to determine if in fact these areas contain any significant levels of agricultural chemicals in the soil, and, if so, they should be remediated by a licensed contractor.

In addition, the Specific Plan proposes a liquefied natural gas/compressed natural gas (LNG/CNG) fueling station to be constructed on approximately ~~20~~ 3,000 square feet somewhere in the eastern portion of the Logistics Development (LD) land use area of the Specific Plan. This LNG/CNG facility is referred to as "logistics support" ~~(LS)~~ in the Specific Plan land uses. It would provide natural gas to fuel heavy and light-duty trucks serving the project.

Since this facility would store natural gas under liquefied and compressed conditions, there is a potential for fire and/or explosion involving natural gas. Therefore, this is a potentially significant hazards impact requiring mitigation.

NOTE: The following changes were made based on the revised WLC Specific Plan.

Project or Specific Design Features. It is anticipated that the LNG/CNG fueling facility proposed ~~under Logistics Support~~ in the LD zone will be constructed in Planning Area 7, in the northeastern portion of the project area. ~~Section 2.1 of the Specific Plan states:~~

~~*The LS designation is a "floating zone" which provides for the establishment of a single site that will include fueling facilities and limited service commercial uses oriented to trucking serving the World Logistics Center. The exact location and size of this facility will be determined along with the design of the eastern portion of the project in order to optimize its functionality within the project and to ensure that it will be compatible with the design and aesthetic elements of the Specific Plan. Development standards for the Logistics Support site are included in Section 2.4 of this Specific Plan*~~

The Specific Plan does not provide any design specifications for this facility. Eventually, the seven existing rural residences are developed into some industrial use consistent with the LL designation. Until they are all converted, it is possible the construction of an alternative fueling station in Planning

Area 7 could be proximate to one or more rural residences. This is a potentially significant impact requiring mitigation (see Mitigation Measure 4.8.6.1B).

NOTE: The following mitigation measures have been revised in response to Comment F-7B-2 in letter F-7B from Lozeau Drury and Comment F-8-79 in Letter F-8 from Shute, Mihaly & Weinberger.

Mitigation Measures. Implementation of the following measure will ensure there will be no significant impacts from demolition of on-site buildings as a result of hazardous materials:

4.8.6.1A Prior to demolition of any existing ~~rural residences or associated~~ structures on the project site, a qualified contractor shall be retained to ~~survey structures proposed for demolition to~~ determine if asbestos-containing materials (ACMs) and/or lead-based paint (LBP) are present. If asbestos-containing materials and/or lead-based paint are present, prior to commencement of demolition, these materials shall be removed and transported to an appropriate landfill by a licensed contractor. In addition, onsite soils shall be tested for contamination by agricultural chemicals. If present, these materials shall be removed and transported to an appropriate landfill by a licensed contractor. This measure shall be implemented to the satisfaction of the ~~City~~ Building Division including written documentation of the disposal of any asbestos-containing materials, lead-based paint, or agricultural chemical residue in conformance with all applicable regulations.

The following measure is proposed to help ensure that the LNG/CNG natural gas fueling facility proposed in the "logistics support" area ~~LS zone~~ of the Specific Plan is constructed in a safe location to protect public health and safety:

4.8.6.1B Prior to the issuance of any discretionary permits associated with the ~~natural gas~~ proposed fueling facility ("~~L~~logistic ~~S~~support" site in the LD zone), ~~the applicant shall provide~~ a risk assessment or safety study that identifies the potential public health and safety risks from accidents at the facility (e.g., fire, tank rupture, boiling liquid, or expanding vapor explosion) shall be submitted to the City for review and approval This study shall be prepared to industry standards and demonstrate that the facility will not create any significant public health or safety impacts or risks, to the satisfaction of the City ~~Community Development Director and the City Building Official~~ Building and Safety Division and the Fire Prevention Bureau.

4.8.6.1C Prior to grading for any discretionary permits for development in Planning Areas 9-12 adjacent to the natural gas compressor plant, the applicant shall prepare a risk assessment report analyzing safety conditions relative to the existing compressor plant and planned development. The report must be based on appropriate industry standards and identify the potential hazards from the compressor plant (e.g., fire, explosion) and determine that the distance from the plant to the closest planned buildings in Planning Areas 9-12 is sufficient to protect the safety of workers from accidents that could occur (see Final EIR Volume 2 Figure 4.1.6B) at the compressor plant. This measure shall be implemented to the satisfaction of the City Building and Safety Division and the Fire Prevention Bureau.

4.8.6.1D Prior to the issuance of any grading permit, the developer shall inform the City of any existing solid waste materials within the development area. In conjunction with grading activities, all solid waste matter within the development area shall be removed by a licensed contractor and disposed of in an approved landfill. A record of the removal and disposal of any waste materials, in compliance with applicable laws

and regulations, shall be submitted to the City prior to the issuance of any building permits.

Level of Impact After Mitigation. With implementation of **Mitigation Measures 4.8.6.1A** through **4.8.6.1D**, impacts associated with potential hazardous materials in existing rural residential structures or from the proposed natural gas fueling facility will be reduced to less than significant levels.

4.8.7 Cumulative Impacts

The cumulative impact analysis considers development of the proposed project in conjunction with other development in the City and this portion of Riverside County. Significant cumulative impacts associated with the routine transport, use, and disposal of hazardous materials would occur as the proposed project would increase the amount of truck traffic in the area as well as the number of trucks potentially transporting hazardous materials. The proposed project, in combination with other projects of a similar nature, has the potential to create a significant cumulative impact related to this issue. Some of these risks are site-specific and localized, such as businesses that handle hazardous materials within their facilities (i.e., on site); these types of hazmat impacts are generally limited to the project site. It is also possible there will be incrementally increased impacts by the transport and disposal of hazardous materials related to warehouse operations on the project site. For example, the substantial increase in trucks in and around the WLC site would incrementally increase the risks of accidents involving truck-related fuels (e.g., fire or explosion).[1] However, the number of trucks containing hazardous materials on the road in a given area at any given time would be difficult if not impossible to calculate, and it would be likewise difficult to estimate the number and/or location of accidental spills and leaks, which, by their nature, are accidental or unplanned occurrences, it would be impossible to predict the specific occurrence of such events on the project site. Despite these uncertainties, it is reasonable to assume that with an increase in vehicles transporting hazardous materials would incrementally increase the potential for accidents on a regional basis.

As anticipated in the City's General Plan, demographic increases, and the availability of vacant property in the City would lead to the new industrial development in the City and surrounding area. While the project-specific hazardous material impacts of individual development projects will be addressed separately in future CEQA documents, anticipated future development will contribute, through increases in population and the number of outlets that transport, or dispose of hazardous materials, to a cumulative increase in risk for hazardous material incidents. Although each project has unique hazardous materials considerations, it is anticipated that future cumulative projects would comply with the local, State, and Federal regulations and requirements as these are required for all development projects. As a result, cumulative impacts associated with hazardous materials would be less than significant.

Cumulative impacts involving wildfires consists of future development adjacent to a High Fire Hazard Area. The risk to each future project is based on the location and interface between urbanized area and wildland areas. The risks associated with development in these area can only be reduced through conformance with Fire and Building Code regulations, it is anticipated that cumulative development within the project area would not create a significant and cumulative impact associated with wildland fire hazards.

[1] *Statement added in response to Comment F-13-74 in Letter F-13 from the Sierra Club et al.*

4.9 HYDROLOGY AND WATER QUALITY: TABLE OF CONTENTS

FIGURES

TABLES

NOTE TO READERS. *Various small revisions in this section have been made due to changes in the project description, related changes to the Draft Master Plan of Drainage Report, the Preliminary WQMP,[1] and in response to comments B-3-39 Letter B-3 from the California Department of Fish and Wildlife, and Comment B-6-5 from Letter B-6 from the Santa Ana Regional Water Quality Control Board.*

4.9 HYDROLOGY AND WATER QUALITY

This section describes the hydrologic conditions on and adjacent to the project site and evaluates potential impacts to surface and groundwater resources associated with the proposed project.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers ~~3,918~~ 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes ~~3,814~~ 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering ~~3,814.~~ 3,714 acres, which redesignates approximately ~~71~~ 70 percent of the area (~~2,710~~ 2,610 acres) for logistics warehousing (new LD and LL~~, LS~~ zones) and the remaining ~~29~~ 30 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the ~~2,710~~ 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*. ~~The environmental impacts of all of these entitlements on the entire project area are addressed in this EIR and the accompanying technical reports and analyses~~

The analysis contained in this section is based on the following technical studies prepared for the proposed WLC project:

- *Draft Drainage Report for World Logistics Center Specific Plan and Environmental Impact Import,* CH2MHILL, ~~November 2012~~ September 2014 (Appendix J-1 of this EIR).

[1] FEIR Volume 2 Appendix J-1 and J-2).

- *Preliminary Project Specific Water Quality Management Plan for World Logistics Center Specific Plan,* CH2MHILL, ~~November 2012~~ September 2014 (Appendix J-2 of this EIR).
- *Water Supply Assessment Report for the World Logistics Center Specific Plan in Moreno Valley,* Eastern Municipal Water District, March 21, 2012 (Appendix M-1 of this EIR).

In addition to these project-specific technical studies, the analysis contained in this section is also based on the following reference documents:

- 2012 Water Quality Management Plan – A Guidance Document for the Santa Ana Region of Riverside County.
- 2011 Design Handbook for Low Impact Development Best Management Practices.
- 2009 California Stormwater Quality Association [CASQA] Construction Best Management Practices (BMP) Handbook, effective July 1, 2010.

A detailed discussion of jurisdictional waters and riparian/wetland impacts as it relates to the proposed WLC project is included in Section 4.4 (Biological Resources).

4.9.1 Existing Setting

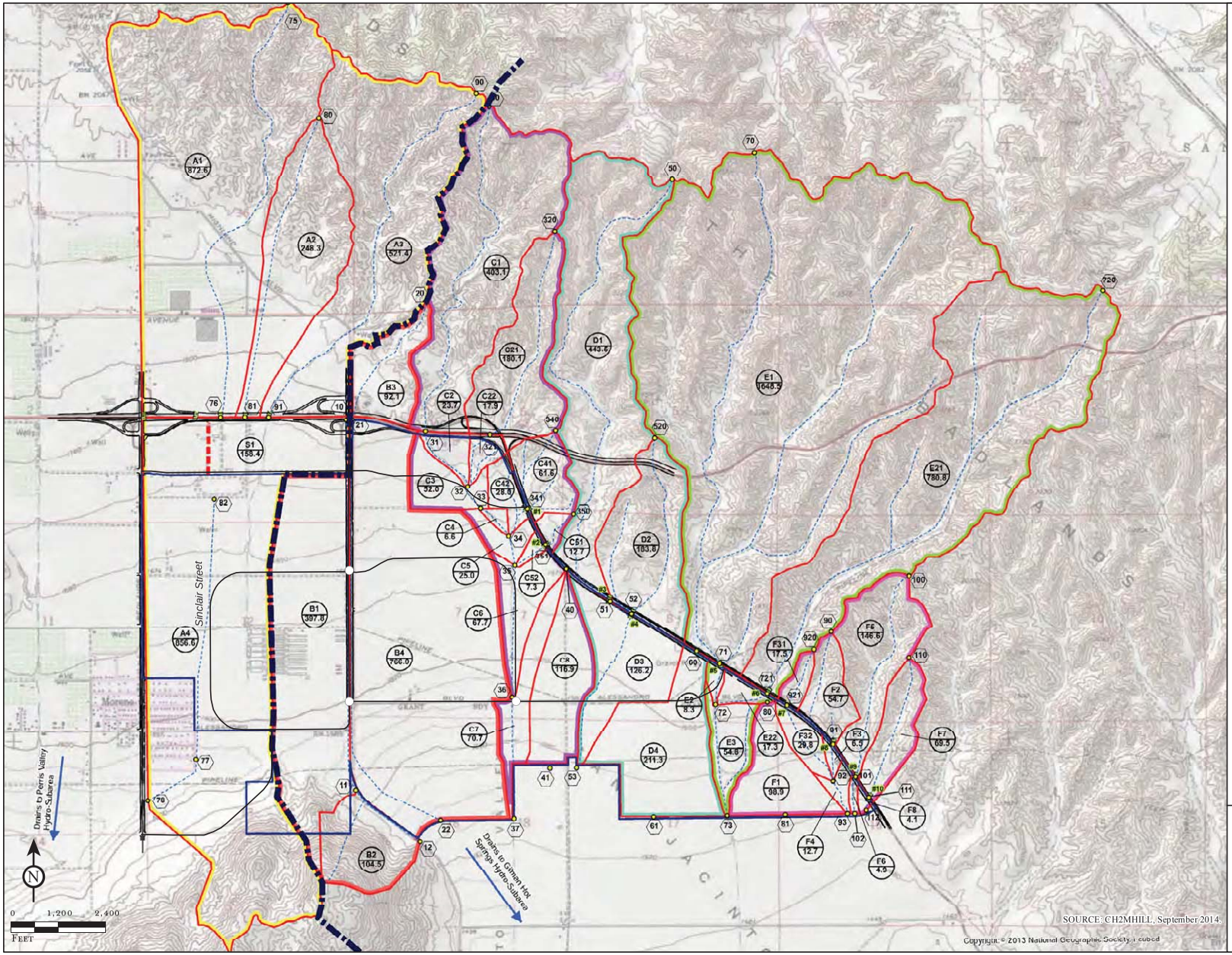
The proposed project site is located in Rancho Belago in the eastern portion of the City of Moreno Valley in Riverside County. Geologically, the project area is located in the Peninsular Ranges Geomorphic Province of southern California, which extends southeastward from the San Bernardino and San Gabriel Mountains to the tip of the Baja California peninsula and is composed of alluvial deposits resulting from the erosion of nearby granitic mountain ranges.

The project site is located in the Santa Ana River Basin, which includes the upper and lower Santa Ana River watersheds, the San Jacinto watershed, and several other small drainage areas. The Santa Ana region covers parts of southwestern San Bernardino County, western Riverside County, and northeastern Orange County. Of the approximately ~~3,814~~2,610 acres within the project area, over 90 percent consists of dry-farmed agricultural fields.

NOTE: The following changes have been made in response to Comments B-3-38 in Letter B-3 from the California Department of Fish and Wildlife, B-6-5 in Letter B-6 from the Santa Ana Regional Water Quality Control Board, et al.

4.9.1.1 Drainage

The area is generally undeveloped with storm water runoff from the project area generally flowing in a southerly direction to the San Jacinto River. As illustrated in Figure 4.9.1, a topographic divide generally located west of Theodore Street separates storm water flows to the San Jacinto River in two directions. Runoff east of the divide flows through the San Jacinto Valley at a gradient ranging from 1 to 2 percent to the San Jacinto Wildlife Area (SJWA). Ultimately these flows drain to the Gilman Hot Springs Hydrologic Subarea (HSA). Runoff west of the divide flows to the Perris Valley Storm Drain at a gradient ranging from 1 to 2 percent. This runoff ultimately drains toward the Perris Valley HSA. Both the Gilman Hot Springs and Perris Valley HSAs eventually flow to the San Jacinto River, approximately 10 miles south of the project site. Flows are then conveyed through the San Jacinto River, Canyon Lake, again to the San Jacinto River (Reach 1), and ultimately to Lake Elsinore. In the event Lake Elsinore is at or beyond capacity, flows would continue through Temescal Creek, the Santa Ana River (Reaches 1–3), and then to the Pacific Ocean.



Subarea Designation
Subarea Area (acres)
Hydrology Node
Project Boundary
Existing Natural Drainage Course
Existing Culvert
Roads
Hydro-Subarea Boundry
Existing RCB
Watershed Boundary
A
B
C
D
E
F
Watershed Subarea

LSA

FIGURE 4.9.1

World Logistics Center Specific Plan Project
Environmental Impact Report
Existing Drainage Subareas

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As illustrated in Figure 4.9.1, off-site flows tributary to the project area originate from the upstream foothill area known as the Badlands as well as a small portion of moderately developed area and open space. Flows from the upstream watershed collect in natural drainage courses and flow southerly across SR-60 and Gilman Springs Road through existing drainage culverts and onto the project site. These natural drainage courses are tributary to six (6) sub watersheds, named Watershed "A", Watershed "B", Watershed "C", Watershed "D", Watershed "E", and Watershed "F" as shown on Figure 4.9.1. As identified in the hydrology and drainage report prepared for the project, the tributary drainage area includes the drainage area north of SR-60. The project site receives flow from SR-60 and culverts crossing the freeway. The project drainage plan takes into account this flow entering the project site and appropriate mitigation to downstream drainage facilities is provided. The existing capacity of the SR-60 culverts and drainage systems will not be affected by the project since the project is located downstream of these facilities. The following paragraphs describe the natural drainage courses and existing conditions of each sub watershed and capacities of the existing culverts at the SR-60 and Gilman Springs Road.

Watershed "A"

Watershed "A" is located within Riverside County Flood Control and Water Conservation District (RCFCWCD) Moreno Master Drainage Plan (MMDP) area. RCFCWCD is currently preparing a revised MMDP. The MMDP indicates that storm flows north of SR-60 will be routed to the proposed Sinclair Basin and Quincy Basin. Flows released from the proposed basins will pass under SR-60 and be conveyed to MMDP Line "F". Because it is unknown as to when these basins will be constructed, this study is prepared with the assumption that the basins are not in place prior to this project, and the offsite flows will be conveyed to MMDP Line "F" directly.

Downstream of SR-60 MMDP Line "F" is a 12-foot wide by 8-foot high reinforced concrete box (RCB) that conveys runoff from the existing culverts under SR-60: one triple 4-foot × 2-foot RCB, two double 48-inch corrugated metal pipe (CMP), one double 72-inch CMP, and one 42-inch reinforced concrete pipe (RCP) (with a 36-inch Riser). The capacity of the existing culverts are summarized in Table 4.9.A. Runoff north of SR-60, in excess of the capacities of the existing culverts, ponds north of SR-60 and flows towards the intersection of SR-60 and Redlands Boulevard. An existing 42-inch RCP conveys the runoff into the existing ditch along Redlands Blvd. Since the 42-inch RCP does not have enough capacity to convey all of the offsite flows, the flows then sheet flow to the south. As a result, the interchange of SR-60 and Redlands Boulevard may be flooded. Ultimately the flows upstream of SR-60 will be less once RCFC&WCD constructs the master plan detention basins located north of SR-60.

Table 4.9.A: SR-60 Culverts (new table)

Culvert	Size/Material	Node	Capacity* (cfs)	100-year Flow (cfs)	Adequate to Convey 100-year flow
1	Triple 4' by 2' RCB	91	265	213	Yes
2	Double 48" CMP	76	250	715	No
3	Double 48" CMP	81	300	285	Yes
4	Double 72" CMP	81	805	557	Yes
5	42" RCP (36" Riser)		177	**	
Total			1797	1770	Yes

* Hydrology calculations based on a 100-year Water Surface Elevation of 1768.7 for all 5 culverts. ** Excess flows from Culvert 2 will pond at Culvert 2.

Source: ~~*Preliminary Project Specific Water Quality Management Plan for World Logistics Center Specific Plan*~~ Master Plan of Drainage Report, CH2MHILL, ~~November 2012~~ September 2014.

The outflow from Line "F" south of Eucalyptus Avenue sheet flows via a spreading area into the agricultural land downstream. Flows then sheet flow across the agricultural land to the southwest corner of the project at Alessandro Boulevard and Merwin Street. Flows leave the project boundary via a culvert under Alessandro Boulevard which outlets to an existing ditch, as shown on Figure 4.9.1.

The capacity of the existing ditch south of Alessandro Boulevard was evaluated and varies from 75 cubic feet per second (cfs) to 390 cfs. Just south of the culvert at Alessandro Blvd, the existing ditch is trapezoidal with a depth of approximately 4 feet and capacity of 390 cfs. The capacity of the ditch is 75 cfs about 70 feet south of the Alessandro culvert where the ditch is 2 feet deep. The ditch capacity remains at 75 cfs with a depth of 2 feet until after it crosses Cactus Avenue. About 160 feet downstream of the culvert, the ditch transitions to a v-ditch 3 feet deep with a capacity of 165 cfs. The v-ditch extends southwest for approximately 100 feet and crosses Redlands Blvd. Flows unable to be contained in the ditch will overtop the ditch into the agricultural area on the east and along Merwin Street on the west. Flows will flow south in Merwin Street and turn west into the residential area. Further downstream, the runoff flows to the Greenbelt Channel located south of Cactus Avenue. The Greenbelt channel ultimately drains to the Perris Valley Storm Drain.

Watershed "B"

Watershed "B" drains a total of 1,361 acres, of which 92 acres is offsite flow from north of SR-60 and 104 acres is offsite flow at the southerly end of the project. The total onsite area is 1,165 acres, of which approximately 90 percent is pervious and 10 percent is impervious. The drainage area is divided into two sub areas by Theodore Street. Flows to the west of Theodore Street, consisting of 398 acres of onsite area and 104 acres of offsite area, drain to the ditch on the west side of Theodore street. The 92 acres of offsite area flows to the ditch along the east side of Theodore Street. Onsite flows on the east side of Theodore Street sheet flow in a southerly direction through the project area. The ditches are vegetated with bottom widths varying from 1 to 2 feet and depths varying from 1 to 3 feet. The existing capacity of the ditch at the project boundary is 55 cfs. Flows greater than 55 cfs will sheet flow through the project area and leave the project boundary in a sheet flow condition.

Watershed "C"

Watershed "C" drains a total of 1,061 acres, of which 658 acres is offsite flow from north of SR-60 and Gilman Springs Road. The total onsite area is 403 acres, of which approximately 90 percent is pervious and 10 percent is impervious. The drainage area is divided into two watershed areas. The majority of the watershed, 944 acres, drains to a watercourse which exits the project area. A small portion of onsite flow, 117 acres, sheet flows offsite. The natural drainage course in Watershed "C" is vegetated, with an average bottom width of approximately 3 feet and a depth of approximately 2 feet. The existing capacity of the drainage course is 165 cfs. Flows greater than 165 cfs will sheet flow across the area. The drainage course drains southerly through the project boundary.

Watershed "D"

Watershed "D" drains a total of 965 acres, of which 627 acres is offsite flow from north of Gilman Springs Road. The total onsite area is 338 acres, of which approximately 90 percent is pervious and 10 percent is impervious. The drainage area is divided into two sub watersheds. The majority of the watershed, 754 acres, drains to a watercourse which exits the project area. A portion of onsite flow, 211 acres, sheet flows offsite. The natural drainage course in Watershed "D" is also vegetated. Its bottom width varies from approximately 1 to 3 feet, and its depth varies from approximately 1 to 2 feet. The existing capacity of the drainage course is 65 cfs. Flows greater than 65 cfs will sheet flow across the area. The drainage course ends east of the existing gas facility. It is estimated that when significant storm events occur, the runoff ponds locally and eventually drains southwest.

Watershed "E"

Watershed "E" drains a total of 2,510 acres, of which 2,430 acres is offsite flow from north of Gilman Springs Road. The total onsite area is 80 acres, of which approximately 90 percent is pervious and 10 percent is impervious. The natural drainage course in Watershed "E" has a bottom width varying from approximately 20 to 30 feet and depths varying from approximately 10 to 15 feet. The majority of this channel is vegetated, with a few locations of erosion. Approximately 1,500 feet north of the southerly project boundary, another natural drainage course confluences with the earthen channel forming a "V" shape junction. The junction is moderately eroded.

Watershed "F"

Watershed "F" drains a total of 445 acres, of which 288 acres is offsite flow from north of Gilman Springs Road. The total onsite area is 157 acres, of which approximately 90 percent is pervious and 10 percent is impervious. The drainage area is divided into four sub areas. The first sub area, 99 acres consists entirely of onsite flow which sheet flows off site. The second sub area drains 121 acres, of which 72 acres is offsite area. The third subarea drains 151 acres, including 146 acres of offsite area. The last sub area drains 74 acres, of which 70 is offsite area. The flow from these sub areas will ultimately drain to the San Jacinto Wildlife Area. The main natural drainage course in Watershed "F" is located approximately 500 feet west of Gilman Springs Road. The drainage course is vegetated, with bottom widths varying from approximately 5 to 10 feet, and depths varying from approximately 1 to 3 feet. The capacity of the existing water course is 70 cfs. The remaining flow sheet flows offsite.

These natural drainage courses in Watersheds "B" through "F" drain into the San Jacinto Wildlife Area downstream. The majority of the project site sheet flows through the project's southerly boundary.

Existing Culverts along Gilman Springs Road

Within the project vicinity, there are ten (10) existing cross culverts located in Gilman Springs Road, as shown on Figure 4.9.2. Field visits by CH2M HILL staff found that most of the existing culverts were partially or completely blocked by sediment and debris allowing little flow from the culverts to enter the project site. In order to confirm if the existing culverts are sized appropriately to convey the offsite flow, the existing culvert capacities were analyzed using the inlet control capacity analysis chart. The results of the analysis are included in Appendix J of the DEIR, and summarized in Table 4.9.B. The analysis indicated that many of these culverts are undersized to convey the tributary 100-year flows even with proper maintenance, exclusive of culverts No. 2 and No. 7. Storm water unable to be conveyed by the culverts will flow to the existing ditches along the road, overtop the road and flow into the downstream natural drainage courses. The detailed flow patterns at these culverts were analyzed and summarized in Table 4.9.C and shown on Figure 4.9.2.

At Culvert No. 1, there is no existing ditch on either side of road. A total of 60 cfs offsite flow is tributary to the culvert, 20 cfs of the flow is conveyed through the 24-inch CMP, and 40 cfs overtops the road and flows to the natural drainage channel downstream. The impact to the downstream ditch is negligible due to the small amount of flow.

At Culvert No. 3, a total of 370 cfs flow is generated from offsite, 40 cfs is conveyed through the 36-inch CMP, and 330 cfs is conveyed along the existing ditch on the north side of the road, eventually flowing to Culvert No. 4.

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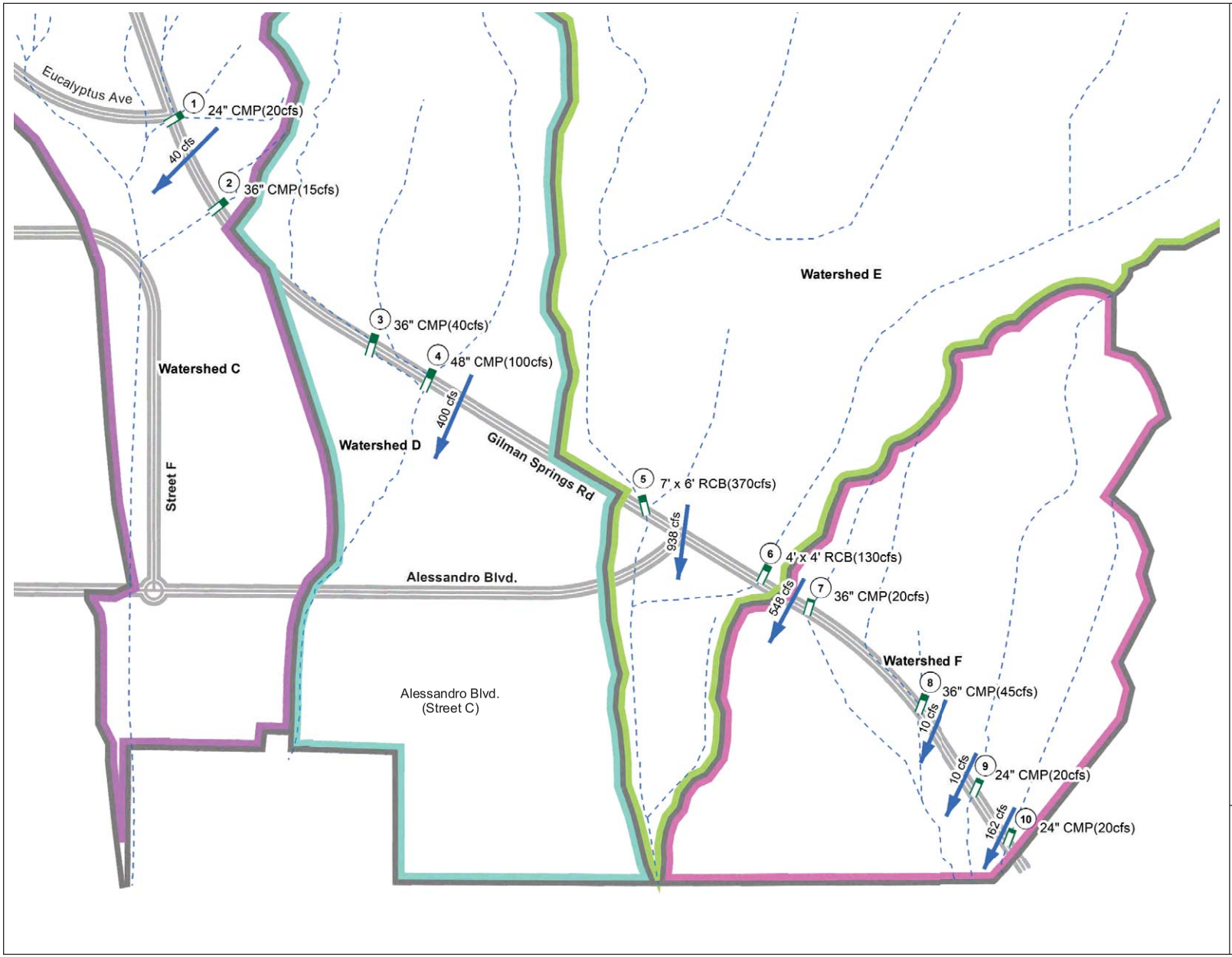

Roads
Existing Culverts
Natural Drainage Course
1 Culvert No. (Size Capacity)
Flow Overtopping Gilman Springs Road (Flow Rate)
Watershed Boundary
C
D
E
F

Note: For the specific alignment of Alessandro Boulevard, see circulation Master Plan Figure 3.10.

N
0 500 1,000
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FIGURE 4.9.2

World Logistics Center Specific Plan Project Environmental Impact Report

Gilman Springs Road Culvert Flow Pattern

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SOURCE: HF, 2014.

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At Culvert No. 4, a total of 170 cfs of flow comes from the offsite tributary area. One hundred (100) cfs is conveyed through the 48-inch CMP. The remaining 70 cfs combines with the 330 cfs of flow from Culvert No. 3 and 400 cfs overtops the road, draining to the natural channel downstream. The natural channel has a capacity of 365 cfs, therefore the flow will be spread beyond the top of bank.

At Culvert No. 5, a total of 1,370 cfs is generated from offsite, 370 cfs is conveyed through the 7-foot × 6-foot RCB, 52 cfs flow south ~~along~~within the existing ditch towards Culvert No. 6, and 938 cfs overtop the road draining to the natural channel downstream. The natural channel has a capacity of 330 cfs, the additional flow will overtop the channel at Alessandro Boulevard, and then sheet flow to the south.

At Culvert No. 6, with a total of 650 cfs offsite flow, 130 cfs is conveyed through the 4-foot × 4-foot RCB, and 24 cfs is conveyed along the existing ditch along the road. The remaining flow combines with the flow of 52 cfs from Culvert No. 5 and 548 cfs overtop the road flowing to the downstream channel. Due to the large amount of offsite flow and small capacity of the existing channel, the flow will overtop the existing Alessandro Boulevard.

At Culvert No. 8, with a total of 55 cfs offsite flow, 45 cfs is conveyed through the 24-inch CMP, and 10 cfs overtop the road draining to the downstream natural channel. The downstream channel has a capacity of 75 cfs. Therefore the excess flow will be contained within the natural channel.

At Culvert No. 9, with a total of 140 cfs offsite flow, 20 cfs flow is conveyed through the 24-inch CMP, 112 cfs is conveyed along the existing ditch on the north side of the street, and 8 cfs overtop the road and drain to the existing natural channel downstream. The channel has a capacity of 1,600 cfs; therefore the impact of 8 cfs is considered negligible.

At Culvert No. 10, with a total of 70 cfs offsite flow, 20 cfs are conveyed through the 24-inch CMP, the remaining 50 cfs combine with the 112 cfs flow from the upstream ditch which overtop the road, 6 cfs drains to the existing ditch on the south side of the road, and the remaining flows to the natural drainage channel downstream, which has a capacity of 1,000 cfs. When larger storm events occur, Gilman Springs Road may be flooded. Even with proper maintenance to remove the existing sediment and debris to operate at full capacities, there will be excessive offsite flow overtopping the road and entering the project site in a 100-year storm.

Table 4.9.B: Gilman Springs Road Culvert Capacity Analysis (new table)

Culvert	Size/Material	Node	100-yr Flow (cfs)	Culvert Capacity * (cfs)	Adequate to Convey the 100-year flow?
1	24” CMP	341	60	20	No
2	36” CMP	351	15	50	Yes
3	36” CMP	51	370	40	No
4	48” CMP	52	170	100	No
5	7’×6’ RCB	71	1,360	370	No
6	4’×4’ RCB	721	650	130	No
7	36” CMP	921	20	70	Yes
8	36” CMP	91	55	45	No
9	24” CMP	101	140	20	No

Table 4.9.B: Gilman Springs Road Culvert Capacity Analysis (new table)

Culvert	Size/Material	Node	100-yr Flow (cfs)	Culvert Capacity * (cfs)	Adequate to Convey the 100-year flow?
1	24” CMP	341	60	20	No
2	36” CMP	351	15	50	Yes
10	24” CMP	111	70	20	No

Note: see Figure 4.9.1 for the locations of existing culverts.
* Assuming culverts cleared of sediment and debris.

Source: ~~*Preliminary Project Specific Water Quality Management Plan for World Logistics Center Specific Plan*~~ Master Plan of Drainage Report, CH2MHILL, ~~November 2012~~ September 2014.

Table 4.9.C: Gilman Springs Road Flow Analysis (new table)

Culvert	Size/ Material	100-yr Flow (cfs)	Culvert Capacity[1] (cfs)	Delta flow[2] (cfs)	Flow in Ditch @ North Side of Road (cfs)	Flow @ South Side of Road (cfs)	Flow over Road (cfs)
1	24” CMP	60	20	40	—	—	40
2	36” CMP	15	50	—	—	—	—
3	36” CMP	370	40	330	330	—	—
4	48” CMP	170	100	~~70~~ 400[2]	—	—	400
5	7’×6’ RCB	1360	370	990	~~44~~ 52	65	~~900~~ 938
6	4’×4’ RCB	650	130	~~520~~ 572[2]	24	—	~~540~~ 548
7	36” CMP	20	70	—	24	—	—
8	36” CMP	55	45	10	-	—	10
9	24” CMP	140	20	120	112	—	~~10~~8
10	24” CMP	70	20	~~50~~ 162[2]	—	6	~~160~~ 162

[1] Assuming culverts cleared of sediment and debris.
[2] Includes flow in ditch at north side of road from upstream culvert

Source: ~~*Preliminary Project Specific Water Quality Management Plan for World Logistics Center Specific Plan*~~ Master Plan of Drainage Report, CH2MHILL, ~~November 2012~~ September 2014.

4.9.1.2 Water Quality

The project area is within Region 8 (Santa Ana Region) of the Regional Water Quality Control Board (RWQCB), which encompasses the watersheds of the Santa Ana and San Jacinto Rivers. The 24-mile long San Jacinto River flows into southern Moreno Valley from the San Jacinto Mountains, across the San Jacinto Valley, through a portion of the City of Moreno Valley, to Railroad Canyon Reservoir, and finally to its terminus in Lake Elsinore, southwest of Moreno Valley. Table 4.9.D identifies receiving waters that receive urban storm water runoff from the project area.

NOTE: The following changes have been made to in response to Comment F-7A-59 in Letter F-7A from Lozeau Drury.

Table 4.9.D: Receiving Waters from the Project Site

Receiving Water	303(d) List Impairments	Designated Beneficial Use	Proximity to RARE Use* Designation
San Jacinto River Reach 3 (Hydrologic Units 802.11, 802.14 and 802.21)	None	Intermittent: MUN, AGR, GWR, REC1, REC2, WARM, WILD	Approximately 2 miles to RARE designated San Jacinto Wildlife Area
Canyon Lake (Railroad Canyon Reservoir), San Jacinto River Reach 2 (Hydrologic Unit 802.11)	Nutrients, Pathogens	MUN, AGR, GWR, REC1, REC2, WARM, WILD	Not Rare
San Jacinto River Reach 1 (Hydrologic Units 802.32 and 802.31)	None	Intermittent: MUN, AGR, GWR, REC1, REC2, WARM, WILD	Not Rare
Lake Elsinore (Hydrologic Unit 802.31)	Nutrients, Organic Enrichment/ Low Dissolved Oxygen, PCBs (polychlorinated biphenyls), sediment toxicity Unknown Toxicity	MUN, REC1, REC2, WARM, WILD	Not Rare

* Rare, Threatened or Endangered Species (RARE) waters support habitats necessary for the survival and successful maintenance of plant or animal species designated under State or Federal law as rare, threatened, or endangered.

Source: *Preliminary Project Specific Water Quality Management Plan for World Logistics Center Specific Plan*, CH2MHILL, ~~November 2012~~ September 2014.

According to the Santa Ana Region Basin Plan, water quality in the project area is affected by a number of factors including but not limited to consumptive use, importation of water high in dissolved solids, runoff from urban and agricultural areas, and the recycling of water within the basin. In general, water quality in the Santa Ana Region becomes progressively poorer as water moves along hydraulic flow-paths. The highest quality water is typically associated with tributaries flowing from surrounding mountains and groundwater recharged by these streams. As indicated in the Preliminary Water Quality Management Plan (WQMP)[1] prepared for the proposed project, two receiving waters downstream of the project site are included in the most recent Federal Clean Water Act (CWA) Section 303(d) list of impaired water bodies. Canyon Lake is listed for pathogens and nutrients while Lake Elsinore is listed for nutrients, organic enrichment/low dissolved oxygen, polychlorinated biphenyls (PCBs), and unknown toxicity. As indicated in Table 4.9.D, each of the receiving waters has multiple designated beneficial uses. These designations provide a description of how the water is used and what beneficial purposes it serves. Table 4.9.E provides a description of each of these beneficial water uses.

Table 4.9.E: Beneficial Uses of Receiving Waters

Designated Beneficial Use	Description of Beneficial Use
Agricultural Supply (AGR)	Waters used for farming, horticulture, or ranching, including, but not limited to, irrigation, stock watering, and support of vegetation.

[1] *Preliminary Project Specific Water Quality Management Plan for World Logistics Center Specific Plan*, CH2MHILL, ~~November 2012~~ September 2014.

Table 4.9.E: Beneficial Uses of Receiving Waters

Designated Beneficial Use	Description of Beneficial Use
Groundwater Recharge (GWR)	Waters used for natural or artificial recharge of groundwater proposed for future extraction, maintenance of water quality, or halting of saltwater intrusion into freshwater aquifers.
Municipal and Domestic Supply (MUN)	Waters used for community, military, or individual water supply systems including, but not limited to, drinking water supply.
(RARE)	Waters support habitats necessary for the survival and successful maintenance of plant or animal species designated under State or Federal law as rare, threatened, or endangered.
Water Contact Recreation (REC1)	Waters used for recreational activities involving body contact with water where ingestion of water is reasonably possible. Uses include, but are not limited to, swimming, water-skiing, whitewater activities, fishing, and use of natural hot springs.
Non-contact Water Recreation (REC2)	Waters used for recreational activities involving proximity to water, but not normally involving body contact with water where ingestion of water is reasonably possible. Uses include, but are not limited to, picnicking, sunbathing, hiking, camping, boating, hunting, sightseeing, and aesthetic enjoyment.
Warm Freshwater Habitat (WARM)	Waters that support warm water ecosystems including, but not limited to, preservation and enhancement of aquatic habitats, vegetation, fish, and wildlife, including invertebrates.
Wildlife Habitat (WILD)	Water that support wildlife habitats including, but not limited to, the preservation and enhancement of vegetation and prey species used by wildlife, such as waterfowl.

Source: Water Quality Control Plan for the Santa Ana River Basin, 1995.

4.9.1.3 Water Sources

Water resources in the City and throughout Riverside County are sustained by substantial groundwater basins, which are used as reservoirs to store water during wet years. These underground reservoirs are tapped throughout the year according to the demand for water. Groundwater conditions in these basins are influenced by natural hydrologic conditions such as percolation of precipitation, groundwater seepage, and ephemeral stream flow within the watershed areas. The project site lies within the Perris North and San Jacinto Lower Pressure Management Zones of the West San Jacinto Groundwater Management Plan (Plan) area, which covers approximately 164,200 acres.[1] This Plan area is bounded by the San Jacinto Mountains on the east, the San Timoteo Badlands on the northeast, the Box Mountains on the north, the Santa Rosa Hills and Bell Mountain on the south, and unnamed hills on the west. Groundwater conditions in these basins are influenced by natural hydrologic conditions such as percolation of precipitation, groundwater seepage, and ephemeral stream flow within the watershed areas. Currently, the City does not identify any major groundwater recharge areas within the project site.[2]

[1] The West San Jacinto Groundwater Management Plan identifies groundwater areas as “management zones” which may not match the area or configuration of subbasins.

[2] *Section 5.7 Hydrology/Water Quality*, City of Moreno Valley General Plan Final Program EIR, City of Moreno Valley, July 2006.

4.9.1.4 Water Supply

The project area is located within the service boundary of the Eastern Municipal Water District (EMWD), which serves the eastern portion of the watershed in Riverside County. The EMWD has a 555-square mile service area that provides water for a population of about 630,000. Without easy access to an ocean outfall for effluent, the EMWD has developed into one of the State's largest reclaimed water providers, having a combined capacity from its five sewage treatment plants of more than 43 million gallons per day (mgd). Reclaimed water has become extremely important in managing local water resources, and helps extend potable supplies by substituting reclaimed water for potable water typically used by certain facilities (e.g., golf courses and landscape irrigation). The EMWD utilizes an aggressive program of developing local groundwater resources, including desalination, water harvesting, and additional storage of surplus imported and reclaimed water.

The EMWD adopted the West San Jacinto Groundwater Basin Management Plan (Plan) in June 1995. The Plan serves to protect the interests of existing groundwater producers and to provide a framework for new water supply projects within the 256-square mile Management Plan area. This plan encompasses more than 164,200 acres and includes the groundwater management zones, as well as essentially non-water bearing areas such as the Lakeview Mountains, the Bernasconi Hills around Lake Perris, the Double Butte area near Winchester, and areas in the extreme northern, western, and southern portions of the EMWD.[1]

A Water Supply Assessment (WSA) was prepared for this project and approved by the EMWD on February 21, 2012, which indicated that water service to the project site will be provided by the EMWD and that the EMWD has the supplies available to provide water to the proposed project.

The water supply available to the EMWD in 2010 totals approximately 154,700 acre-feet (AF).[2] Water sources for the EMWD include imported water purchased from the Metropolitan Water District of Southern California (Metropolitan), groundwater sources, desalted groundwater, and recycled water from the EMWD's five regional water reclamation facilities. Imported water from Metropolitan is delivered in three ways: as potable water, as raw water and treated at two local EMWD filtration plants, or as raw water for non-potable use.

~~Approximately 80 percent of the EMWD's water is imported from Metropolitan and the remaining 20 percent is supplied by groundwater wells. Approximately 33 percent of the water produced by the EMWD is recycled water. Groundwater supplies are drawn from EMWD wells located in the Hemet, San Jacinto, Moreno Valley, Perris Valley, and Murrieta areas.~~

EMWD has four (4) sources of water supply: imported water purchased from MWD, local potable groundwater, local desalted groundwater and recycled water. Imported water accounts for approximately 65 percent, local potable groundwater is approximately 11 percent, desalted groundwater is 3 percent, and recycled water is 21 percent of supply (page 5, project WSA).

In June 2011, the EMWD adopted its *2010 Urban Water Management Plan* (UWMP), which details the reliability of its current and future water supply. The document found that with all of its existing and planned supplies, the EMWD can meet 100 percent of projected supplemental demand through 2035, even with a repeat of a severe drought. In addition, the UWMP addresses conservation, local supplies and reliability of imported supplies. Table 4.16.A (q.v.) identifies EWMD's projected water supplies and demand.

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1 *West San Jacinto Groundwater Basin Management Plan 2010 Annual Report*, Eastern Municipal Water District, June 2011.

2 An acre-foot covers one acre to a depth of one foot. An acre foot is approximately 326,000 gallons, which is enough to meet the needs of two average southern California households a year.

The water supply demands of the proposed project have been assessed in the WSA and a determination was made that there is adequate water to serve the proposed WLC project. More information on this topic is provided in Section 4.16, *Utilities and Service Systems*, of the DEIR.

4.9.1.5 Storm Drain Infrastructure

The following revisions have been made in response to on Comment G-95-70 in Letter G-95 from Thomas Thornsley.

A portion of the project site is located within the Moreno Master Drainage Plan (MMDP) of the Riverside County Flood Control and Water Conservation District (RCFCWCD). The MMDP provides guidance for the construction of the master plan drainage system, and regional retention/detention basins. RCFCWCD is currently preparing a revised MMDP. The existing 12-foot wide by 8-foot high reinforced concrete box (RCB) east of Redlands Boulevard is owned by RCFCWCD and is designated as Line "F" in the MMDP. This facility conveys runoff from the existing culverts under SR-60 and through developed property to its current terminus immediately south of Eucalyptus Avenue. (Note: This RCB is located farther west than depicted on the MMDP to accommodate the existing logistics building south of SR-60.) The existing MMDP provides for storm flows north of SR-60 to be routed to the proposed Sinclair Detention Basin. Flows released from the proposed basin would pass under SR-60 through the existing culverts and be conveyed to the drainage systems identified as Line "F" in the MMDP. ~~An additional Basin, identified as the Redlands Basin, north of SR-60 is proposed in the revised MMDP.~~

4.9.1.6 NOP/Scoping Comments

A number of residents and representatives of local conservation groups expressed concerns regarding impacts the project might have on local drainage, especially historic localized flooding, groundwater quantity and quality, and water quality, especially related to the San Jacinto Wildlife Area immediately south of the project site to serve as a transition area or buffer. Sections 4.9.5 and 4.9.6 of the DEIR thoroughly analyze these issues.

4.9.2 Existing Policies and Regulations

In the past, the effort to control the discharge of storm water has focused on managing the quantity of storm water (e.g., flood control) and only to a limited extent on managing the quality of storm water. In recent years, awareness of the need to improve water quality has increased. With this awareness, an extensive body of Federal, State, and local laws and regulatory programs has been established to pursue the goal of reducing pollutants contained in storm water discharges to waterways. The emphasis of these programs is to promote the concept and the practice of preventing pollution at the source, before it can cause environmental harm.

4.9.2.1 Federal Regulations

Clean Water Act. The CWA was amended in 1972 to prevent discharge of pollutants to waters of the United States from any point source unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The 1987 amendments to the CWA added Section 402(p), which establishes the NPDES, a permitting system for the regulation of discharges of any pollutant into waters of the United States. Regional Water Quality Control Boards (RWQCBs) administer this permitting program in California. In November 1990, the EPA published final regulations that establish application requirements for storm water permits. The regulations require

NPDES permits for discharges of storm water from industrial/construction and Municipal Separate Storm Sewer Systems (MS4s). To comply with the permits, storm water pollution controls must be implemented for construction and industrial activity that discharges either directly to surface waters or indirectly through separate municipal storm drains. Pollution control is achieved by establishing engineering measures that have been designed, tested and successfully implemented throughout the past decades, such as detention basins and sediment traps, during both the construction period and the operational phases of a project.

Pursuant to the requirements of the State Water Resources Control Board (SWRCB), the NPDES General Permit No. CAS000002 applies to all construction activities that result in the disturbance of at least one acre of total land area, or activity which is part of a larger common plan of development of one acre or greater. General Permit No. CAS000002 is issued by the SWRCB as part of the Federal delegation responsibilities under this section of the CWA. The RWQCB regulates hydromodification[1] as well as surface and groundwater quality through adoption of water quality plans and standards, and issuance of water quality permits and waivers. The NPDES permit deals with both the construction phase and operational phase of development projects. For the construction phase of a project, the NPDES permit identifies the preparation of an SWPPP.

The implementation of NPDES permits ensures that the state's mandatory standards for the maintenance of clean water and the Federal minimum standards are met. Coverage under an NPDES permit regulates sedimentation and soil erosion through implementation of an SWPPP and periodic inspections by RWQCB staff. An SWPPP is a written document that describes the construction operator's activities to comply with the requirements in the NPDES permit. The SWPPP establishes a process whereby the operator evaluates potential pollutant sources at the site and implements Best Management Practices (BMPs) designed to prevent or control the discharge of pollutants in storm water runoff.

Storm water control measures during construction and grading will be outlined in the construction NPDES permit and SWPPP prepared for each proposed phase of the project. Examples of such BMP control measures include but are not limited to the following:

- Temporary detention basins for runoff and silt containment;
- Regular street-sweeping and truck washing prior to exiting construction areas;
- Covering of soil hauling trucks to minimize dust generation (and silt buildup on project roads;
- Dirt rockers at project exits to reduce soil transported out of construction areas;
- Monitoring of runoff and protection devices during storm events;
- Use of silt fencing, gravel bags, and/or straw bales to channel runoff to temporary basins; and
- Identification of emergency procedures in case of hazardous materials spills.

The project proponent will be required to obtain a construction NPDES permit prior to any site grading. In addition, the NPDES permit will require the identification of post-construction BMPs to be incorporated into the project WQMP and any subsequent site-specific WQMP. The WQMP identifies measures to control the post-construction entry of contaminants into storm flows.

In addition, pursuant to Section 404 of the CWA, the U.S. Army Corps of Engineers (USACE) regulates discharges of dredged or fill material into waters of the United States. These waters include

[1] Hydromodification is the alteration of the hydrologic characteristics of coastal and non-coastal waters, which, in turn, could cause degradation of water resources.

wetlands and non-wetland bodies of water that meet specific criteria, including a direct or indirect connection to interstate commerce. The USACE regulatory jurisdiction pursuant to Section 404 of the CWA is founded on a connection, or nexus, between the water body in question and interstate commerce. This connection may be direct (through a tributary system linking a stream channel with traditional navigable waters used in interstate or foreign commerce) or may be indirect (through a nexus identified in the USACE regulations). The USACE typically regulates as non-wetland waters of the U.S. any body of water displaying an ordinary high water mark (OHWM). In order to be considered a jurisdictional wetland under Section 404, an area must possess three wetland characteristics: hydrophytic vegetation, hydric soils, and wetland hydrology. Each characteristic has a specific set of mandatory wetland criteria that must be satisfied in order for that particular wetland characteristic to be met. A project-specific discussion regarding Section 404 issues is provided in Section 4.4, *Biological Resources*, of this EIR.

National Flood Insurance Program. The National Flood Insurance Program (NFIP) is a relatively recent Federal program. The Federal government has been actively involved in flood control since 1927 following major floods on the Mississippi River. Beginning with the Flood Control Act of 1936, Congress assigned the USACE the responsibility for flood control engineering works and later for floodplain information services. Flood control was provided through the construction of dams and reservoirs. Despite these programs and rapidly rising Federal expenditures for flood control, flood losses continued to rise. In 1968, Congress passed the National Flood Insurance Act, which created the NFIP. The Flood Disaster Protection Act of 1973, which amended the 1968 Act, required the purchase of flood insurance by property owners who were located in special flood hazard areas and were being assisted by Federal programs, or by federally supervised, regulated, or insured agencies or institutions.

National Flood Insurance Program Reform Act of 1994. In 1994, the National Flood Insurance Program Reform Act went through its first major revision since its inception. Included in this revision were provisions that if a lender were to escrow an account and if the structure were in the floodplain, then the lender *must* escrow for flood insurance. The revised legislation also included increased flood insurance limits and the elimination of the 1962 buy-out program. However, the legislation did initiate the Hazard Mitigation Fund as part of the flood insurance policy. Also included in this legislation was the increase from a 5-day to a 30-day waiting period for a new policy to become effective. It also prohibits the waiver of flood insurance purchase requirements as a condition of receiving Federal disaster assistance. If the flood insurance policy were not maintained, in the event of another disaster, no disaster assistance would be made available for that structure.

Executive Order 11988, Floodplain Management. Executive Order 11988 requires the USACE to provide leadership and to take action to:

- Reduce the hazards and risk associated with floods;
- Minimize the impact of floods on human health, safety, and welfare; and
- Restore and preserve the natural and beneficial values of the current floodplain.

To comply with Executive Order 11988, the policy of the USACE is to develop projects that, to the extent possible, avoid or minimize adverse effects associated with use of the floodplain and that avoid development (or the inducement of development) in an existing floodplain unless there is no practicable alternative.

4.9.2.2 State Regulations

Porter-Cologne Water Quality Control Act. The California Water Code (CWC) is the principal state law regulating water quality in California. The CWC contains provisions regulating water and its use. This portion of the CWC, Division 7 (Porter-Cologne Act), establishes a program to protect water quality and beneficial uses of the State water resources and includes groundwater and surface water. The SWRCB is the principal State agency responsible for control of water quality. It establishes waste discharge requirements, water quality control planning and monitoring, enforcement of discharge permits, and ground and surface water quality objectives. It also prevents waste and unreasonable use of water, and adjudicates water rights.

Pursuant to requirements of the SWRCB, the NPDES Construction General Permit (CGP) No. CAS000002 applies to all construction activities that result in the disturbance of at least one acre of total land area, or activity which is part of a larger common plan of development of one acre or greater. The CGP is issued by the SWRCB as part of the Federal delegation responsibilities under Section 402 of the CWA. For all projects subject to the CGP, applicants are required to develop and implement an effective Storm Water Pollution Prevention Plan (SWPPP); to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the CGP. The CGP separates projects into Risk Levels 1, 2, or 3. Risk Levels are determined during the planning and design phases, and are based on potential erosion and transport to receiving waters. Requirements apply according to the Risk Level determined.

The BMPs for this project contained in the Preliminary Water Quality Management Plan (PWQMP, see DEIR Appendix J) have been developed by the project engineers to address project-specific water quality impacts. See Section 4.9.2.3 for more information on the MS4 Permit System as it applies to the project. For additional information on the major BMPs recommended in the PWQMP prepared by CH2MHill for the project that are consistent with these regulations, see Section 4.9.6.2, *Construction-Related Water Quality Impacts*, and Section 4.9.6.3, *Operational Water Quality Impacts*. The BMPs for the project are described in Section 4.9.3.2 and 4.9.6.3 for treatment control BMPs, and in Section 4.9.6.2 for construction site BMPs.

California Fish and Game Code. The California Fish and Game Code has provisions to prevent unauthorized diversions of any surface water and discharge of any substance that may be deleterious to fish, plant, animal, or bird life. The California Department of Fish and Wildlife (CDFW), through provisions of the California Fish and Game Code (§1601 through §1603), is empowered to regulate any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. The presence of a channel bed and banks, and at least an intermittent flow of water define streams (and rivers), is one of the most important factor in establishing CDFW jurisdiction. The CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by the CDFW. Discussion of jurisdictional waters and riparian/wetland resources is provided in Section 4.4, *Biological Resources*, of this EIR.

California Code of Regulations. The California Code of Regulations (CCR) contains administrative procedures for the State and the nine Regional Water Quality Control Boards (RWQCBs) in Title 23, and for water quality for domestic uses, wastewater reclamation, and hazardous waste management in Title 22.

Health and Safety Code. The Health and Safety Code provides for protection of ground and surface waters from hazardous waste and other toxic substances.

Groundwater Management Act (AB 3030) [Sections 10750–10756 of the California Water Code]. The availability of groundwater and issues involving the adequacy of recharge capability are regional in nature. The Groundwater Management Act[1] (AB 3030) provides a systematic procedure for an existing local agency to develop a groundwater management plan. AB 3030 allows a local agency whose service includes a groundwater basin that is not already subject to groundwater management pursuant to law or court order to adopt and implement a groundwater management plan and includes plans to mitigate overdraft conditions, control brackish water, and to monitor and replenish groundwater.

There are currently few domestic uses for groundwater in the project area as the City of Moreno Valley primarily relies upon imported water from the EMWD for domestic use. Water sources for the EMWD include imported water purchased from Metropolitan, groundwater sources, and recycled water from the EMWD's five regional water reclamation facilities. Approximately ~~75 percent~~ two thirds of the EMWD's water is imported from Metropolitan, with the remaining ~~25 percent~~ water supplied by groundwater wells.[2] Groundwater supplies are drawn from the EMWD wells located in the Hemet, San Jacinto, Moreno Valley, Perris Valley, and Murrieta areas.

Cobey-Alquist Flood Plain Management Act (California Water Code Section). This Act states that a large portion of land resources of the State of California is subject to recurrent flooding. The public interest necessitates sound development of land use, as land is a limited, valuable, and irreplaceable resource, and the floodplains of the State are a land resource to be developed in a manner that, in conjunction with economically justified structural measures for flood control, would result in prevention of loss of life and of economic loss caused by excessive flooding. The primary responsibility for planning, adoption, and enforcement of land use regulations to accomplish floodplain management rests with local levels of government. It is policy of the State of California to encourage local government to plan land use regulations to accomplish floodplain management and to provide state assistance and guidance. As part of its discretionary review process, the City must determine how the project will comply with this Act and not create flooding impacts on new occupied land uses.

California Toxics Rule. On May 18, 2000, the State Environmental Protection Agency (CalEPA) promulgated numeric water quality criteria for priority toxic pollutants and other provisions for water quality standards to be applied to waters in the State of California. The CalEPA promulgated this rule based on the Administrator's determination that the numeric criteria are necessary in California to protect human health and the environment. The rule fills a gap in California water quality standards that was created in 1994 when a State court overturned the State's water quality control plans containing water quality criteria for priority toxic pollutants. Thus, the State of California has been without numeric water quality criteria for many priority toxic pollutants as required by the CWA, necessitating this action by CalEPA. These Federal criteria are legally applicable in the State of California for inland surface waters, enclosed bays, and estuaries for all purposes and programs under the CWA.

4.9.2.3 Local Regulations

Municipal Separate Storm Sewer System (MS4) Permit System. The City of Moreno Valley is a co-permittee under the NPDES MS4 Permit No. CAS 618033, adopted on January 29, 2010. The NPDES MS4 permit is intended to regulate the discharge of urban runoff from the MS4 within Riverside County. Under the NPDES MS4 permit, the City is responsible for the management of

[1] Sections 10750–10756 of the California Water Code.
[2] EMWD History and Mission, http://www.emwd.org, Eastern Municipal Water District, website accessed April 20, 2012.

storm drain systems within its jurisdiction. Cities are required to implement management programs, monitoring programs, implementation plans, and all BMPs outlined in the Riverside County Water Drainage Area Management Plan (DAMP) and Riverside County Water Quality Management Plan for Urban Runoff (WQMP). The current approved WQMP, dated October 22, 2012, addresses the 2010 MS4 NPDES permit.

Projects identified as a 'Priority Development Project' will be required to prepare a Project-Specific WQMP. The 2010 MS4 Permit mandates a Low Impact Development (LID) approach to storm water treatment and management of runoff discharges. The project site should be designed to minimize imperviousness, detain runoff, and infiltrate, reuse or evapotranspirate runoff where feasible. LID BMPs should be used to infiltrate, evapotranspirate, harvest and use, or treat runoff from impervious surfaces, in accordance with the Design Handbook for Low Impact Development Practices. The project must ensure that runoff does not create a hydrologic condition of concern. The RWQCB continuously updates impairments as studies are completed. The most current version of impairment data will be reviewed and implemented prior to the preparation of Preliminary and Final Project-Specific WQMPs for future phases of the project. As part of its discretionary review process, the City must ensure that each phase of the project complies with the MS4 requirements.

Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The MSHCP is an element of the Riverside County Integrated Project (RCIP), which is an integration of land use, transportation, and conservation planning and implementation to develop a consensus for the future development of Riverside County. The MSHCP is designed to protect over 150 species and conserve over 500,000 acres of land in western Riverside County. The MSHCP was adopted in 2003 and is being implemented specifically to address the direct, indirect, cumulative, and growth-related effects on covered species resulting from build out of planned land use and infrastructure, including the proposed project. The MSHCP involves efforts by the county, State, and Federal governments, the fourteen cities in western Riverside County, and private and public entities engaged in construction activities that potentially affect the species covered under the MSHCP. The plan specifies an obligation of local projects, both public and private, to mitigate their impacts on species. The MSHCP includes incentives for conservation or the purchase of properties from willing sellers and will eventually result in a Conservation Area in excess of 500,000 acres, focusing on conservation of 150 species. The MSHCP Conservation Area includes approximately 347,000 acres of existing Public/ Quasi-Public Lands and approximately 153,000 acres of Additional Reserve Land. The MSHCP requires a proposed development project to evaluate any impacts to riparian or riverine resources on the project site, as well as what is referred to as the "urban/wildlands interface" when present. This analysis includes design features and measures related to drainage features, toxics, lighting, noise, invasive plants, barriers, and grading/land development.

The MSHCP requires new development to determine if a project site contains riparian or riverine resources/processes prior to development. If they are present, the MSHCP requires projects to protect these resources to the extent possible with creative project design, setbacks, etc. If such resources, or any other important resources identified in the MSHCP will be affected by development, the developer is required to submit a Determination of Biologically Equivalent or Superior Preservation (DBESP) report indicating how impacts to these resources will be mitigated or compensated for by the developer. For more information on the MSHCP and DBESP processes, see Section 4.4, *Biological Resources*.

4.9.2.4 City of Moreno Valley General Plan Policies

The following General Plan objectives, policies, and programs are applicable to the proposed project:

Objectives, Policies, and Programs

Objective 6.2 Minimize the potential for loss of life and protect residents, workers, and visitors to the City from physical injury and property damage, and to minimize nuisances due to flooding.

Policy 5.5.11 Implement National Pollutant Discharge Elimination System Best Management Practices relating to construction of roadways to control runoff contamination from affecting water resources.

Objective 7.2 Maintain surface water quality and the supply and quality of groundwater.

Program 7-2 Advocate for natural drainage channels to the Riverside County Flood Control District, in order to assure the maximum recovery of local water, and to protect riparian habitats and wildlife.

Policy 7.4.3 Preserve natural drainage courses in their natural state and the natural hydrology, unless the protection of life and property necessitate improvement as concrete channels.

NOTE: The following changes have been made in response to Comment F-13-32 in Letter F-13 from Johnson & Sedlack on Behalf of Sierra Club, Moreno Valley Group & Residents for a Livable Moreno Valley.

Ultimate Goals

VII Emphasizes public health and safety, including, but not limited to, police, fire, emergency and animal services and protection from floods and other hazards.

4.9.3 Methodology

Evaluation of hydrology and water quality impacts associated with the proposed project includes the following:

- Determine the construction phase water quality impacts based on NPDES standards;
- Determine the construction impacts on drainage patterns and drainage capacity;
- Determine the operational water quality impacts based on NPDES standards;
- Determine the operational impacts on drainage patterns and drainage capacity; and
- Determine the impacts on local groundwater table levels.

A PWQMP (included as Appendix J-2 of this EIR) has been prepared for the proposed project and evaluates impacts associated with operational activities. Drainage pattern and capacity impacts were evaluated by calculating existing and proposed flow condition rates using the rational method in accordance with the methods described in the Riverside County Flood Control and Water Conservation District Hydrology Manual. The peak 100-year storm runoff was utilized to preliminarily size storm drain pipes as indicated in the Draft Drainage Report conducted for this project (Appendix J-1 of this EIR).

Due to the land use change associated with the land development, a number of drainage systems are proposed to mitigate the changes of hydrologic characteristics of the watershed. The design guidelines for this project are in accordance with RCFCWCD requirements and City of Moreno Valley guidelines. The design guidelines and local flood protection requirements are summarized as the following:

- Drainage facilities shall be designed in accordance with the Riverside County Hydrology Manual and Design Manual Standard Drawings. The drainage systems shall be designed to provide 100-year level of flood protection through a combined hydraulic conveyance of the underground storm drains and detention basins;
- Proposed drainage systems, which are connecting to the existing downstream facilities, shall be designed properly so the proposed discharge does not exceed the existing discharge to the downstream facilities; and
- Provisions for maintenance and/or easement shall be incorporated in the proposed drainage systems.

4.9.3.1 Pollutants of Concern and Assessment Methodology

The pollutants of concern for the water quality analysis have been identified based on the previously described regulations and the pollutants identified by regulatory agencies that potentially could be generated by the proposed project. The potential pollutants associated with the project are reflected in Table 4.9.F. Table 4.9.G describes these pollutants (bacterial indicators, metals, nutrients, pesticides, toxic organic compounds, sediments, trash & debris, and oil & grease) and their general impact on water quality and aquatic habitat.

The project's priority pollutants of concern are defined as the pollutants associated with the project that are also present in impaired receiving waters. Based on the WQMP prepared for the proposed project, impaired receiving waters downstream from the project include Canyon Lake and Lake Elsinore. Canyon Lake is impaired for nutrients and pathogens, and Lake Elsinore is impaired for nutrients, organic enrichment/low dissolved oxygen, PCBs, and unknown toxicity. Therefore, the priority pollutants of concern for this project include pathogenic indicators, nutrients, pesticides, and toxic organic compounds.

4.9.3.2 Treatment Control BMPs and Assessment Methodology

The treatment control BMP strategy is to select Low Impact Development (LID) BMPs that promote infiltration and evapotranspiration, including infiltration basins, bioretention facilities, and extended detention basins. Generally infiltration BMPs have advantages over other types of BMPs, including reduction of the volume and rate of runoff, as well as full treatment of all potential pollutants potentially contained in the storm water runoff. It is recognized however that infiltration may not be feasible on sites with low infiltration rates, or located on compacted engineered fill. If the BMP is considered in a fill condition, and the infiltration surface of the BMP cannot extend down into native soils, or if the BMP is considered in a cut condition, and there is no practicable way to verify infiltration rates at the final BMP elevation, infiltration BMPs will not be used. Prior to final design of each phase of the project, infiltration tests shall be performed within the boundaries of the proposed infiltration BMP and at the bottom elevation (infiltration surface) of the proposed infiltration BMP to confirm the suitability of infiltration. In situations where infiltration BMPs are not appropriate, bioretention and/or biotreatment BMPs (including extended detention basins, bioswales, and constructed wetlands) that provide opportunity for evapotranspiration and incidental infiltration will be considered. Harvest and use BMPs will also be considered as a treatment control BMP to store runoff for later non-potable uses.

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Table 4.9.F: Anticipated and Potential Pollutants Generated by Land Use Type

Priority Project Categories	General Pollutant Categories							
	Bacterial Indicators	Metals	Nutrients	Pesticides	Toxic Organic Compounds	Sediments	Trash & Debris	Oil & Grease
Commercial/Industrial Development	P[3]	P	P[1]	P[1]	P[5]	P[1]	P	P
Parking Lots (>5,000 ft^2)	P[6]	P	P[1]	P[1]	P[4]	P[1]	P	P
Retail Gasoline Outlets	N	P	N	N	P	N	P	P

P = Potential N= Not Potential
[1] A potential pollutant if non-native landscaping exists or is proposed onsite; otherwise not expected.
[2] A potential pollutant if the project includes uncovered parking areas; otherwise not expected.
[3] A potential pollutant if land use involves animal waste.
[4] Specifically petroleum hydrocarbons.
[5] Specifically solvents.
[6] Bacterial indicators are routinely detected in pavement runoff
Source: *Preliminary Project Specific Water Quality Management Plan for World Logistics Center Specific Plan (2014)*

Table 4.9.G: Pollutants and General Water Quality Impacts

Pollutant	Water Quality Impact
Bacterial Indicators	May result in water body impairments, can exceed public health standards for water contact recreation, creating a harmful environment. Can alter the aquatic habitat and create a harmful environment for aquatic life.
Metals	Bio-available forms of trace metals are toxic to aquatic life, potential of groundwater contamination, bio-accumulation in aquatic life, affect beneficial uses of a water body.
Nutrients	Elevated nutrient levels in surface waters cause algal blooms, excessive vegetative growth, and dissolved oxygen levels, which is detrimental to aquatic life.
Pesticides	Elevated levels can indirectly or directly constitute a hazard to life or health. During cleaning activities, these compounds can be washed off into storm drains creating runoff containing toxic levels of the pesticides active component. Dirt, grease, and grime may adsorb concentrations that are harmful or hazardous to aquatic life.
Toxic Organic Compounds	May contain levels that are harmful or hazardous to aquatic life.
Sediments	Excessive sediment can be detrimental to aquatic life by interfering with photosynthesis, respiration, growth, and reproduction.
Trash and Debris	Detrimental effect on recreational value of a water body and aquatic habitat; interferes with aquatic life respiration and can be harmful or hazardous to aquatic animals that mistakenly ingest floating debris.
Oil and Grease	Can accumulate in aquatic life from contaminated water, sediments, and food and are toxic at low concentrations. Can persist in sediments for long periods of time and result in adverse impacts on the diversity and abundance of existing bio-communities and can affect the aesthetic value of a water body.

Table 4.9.H: BMP Characteristics

BMP	General Characteristics
Biofilters	Includes grass swales, grass strips, wetland vegetation swales, and bioretention. Pollutants are removed by bioretention or biofiltration, and provide opportunity for evapotranspiration and incidental infiltration.
Water Quality Inlet	Pollutants are removed through sedimentation and separation as the design flow passes through one or more chambers. Generally used for pretreatment before discharging into another type of BMP.
Extended Detention Basin	Basin sized to detain and slowly release the design volume of urban runoff, allowing particles and associated pollutants to settle out. Maintenance efforts would need to be directed toward vegetation management, vector control, and removal of debris accumulations.
Infiltration Basins	Basin sized to detain and infiltrate runoff, allowing particles and associated pollutants to settle out. Maintenance efforts would be directed toward vegetation management, vector control, and removal of debris accumulations. This BMP may require groundwater monitoring.
Hydrodynamic Separator System	Device treats storm water by creating a whirlpool of water within a concrete chamber in which solids fall to the bottom of the chamber while buoyant debris, oil, and grease rise to the surface, allowing water to pass through a flow control opening.

Proprietary BMPs combined with traditionally accepted BMPs may assist with the treatment of project pollutants. Proprietary BMPs combined with traditionally accepted BMPs may be employed on a site-specific basis as approved by the City of Moreno Valley. The appropriate BMP(s) for each phase of the project will be determined based on the size of the project area, the types of pollutants that would be found in the development runoff, and pollutants of concern. Table 4.9.H describes these BMPs (infiltration basins, biofilters, detention basins, water quality inlets, and hydrodynamic separators) and their general characteristics.

4.9.4 Thresholds of Significance

The following thresholds of significance regarding potential impacts to hydrology and water quality are based on *CEQA Guidelines* (2012). A project would have a significant impact on surface hydrology, water quality, and/or groundwater if it would:

- Result in violations of any water quality standards or waste discharge requirements of the City of Moreno Valley or the Regional Water Quality Control Board;
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion, siltation on site or off site;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff which would result in on-site or off-site flooding;
- Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff;
- Otherwise substantially degrade water quality;
- Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;
- Place within a 100-year flood hazard area structures which would impede or redirect flood flows;
- Expose people or structures to a significant risk of loss injury or death involving flooding, including flooding as a result of the failure of a levee or dam; and/or
- Expose people or structures to inundation by seiche, tsunami, or mudflow.

4.9.5 No Impacts/Less than Significant Impacts

The following potential impacts were determined to be less than significant. In each of the following issues, either no impact would occur (therefore, no mitigation would be required) or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level.

4.9.5.1 Seismic Flooding-Related Impacts

Threshold	Would the project expose people or structure to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

The project site and the off-site improvement areas are not identified as being located within the City's mapped inundation area;[1] therefore, the proposed project would not result in the exposure of people or structures to risk of loss, injury, or death involving flooding as a result of failure of either the Poorman Reservoir (Pigeon Pass Dam) or Lake Perris Dam. Impacts related to this issue would be less than significant, and no mitigation is required.

4.9.5.2 Seismic-Related Impacts

Threshold	Would the project expose people or structure to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow?

A tsunami is a series of waves generated in a body of water by a pulsating or abrupt disturbance that vertically displaces water. Seiches are oscillations in enclosed bodies of water that are caused by a number of factors, most often wind or seismic activity. Lakes in seismically active areas such as Lake Perris are at risk from seiches. A mudslide (also known as a mudflow) occurs when there is fast-moving water and a great volume of sediment and debris that surges down a slope, stream, canyon, arroyo, or gulch. Mudslides are similar to flash floods and can occur suddenly without time for adequate warning. Mudflows can ruin substantial improvements with the force of the flow itself and the burying or erosion of improvements by mud and debris.

The project area is not at risk of inundation by a tsunami as it is located approximately 56 miles from the Pacific Ocean. The project area is located approximately 2.5 miles northeast of Lake Perris. Lake Perris is an enclosed body of water and could be subject to a seiche during a seismic event. However, a seiche event would not affect the project area because water levels in the lake are not high enough to overtop the Perris Dam in the event of a seiche.[2] The Perris Dam has been designed to prevent seiche phenomena due to the region's high seismicity. In addition, the topography between the Specific Plan area and Lake Perris has multiple hills and valleys. Given these factors, impacts associated with seiche events are less than significant for the proposed WLC project.

Except for the far southwest corner, the project site is located in a gently sloping area where landslides and mudslides would not occur. No development is proposed on the steep slopes of Mount Russell in the southwesterly portion of the property, which is included in the ~~75~~74.3 acres of open space designated within the WLCSP other than the eastern extension of Cactus Avenue. Therefore, a less than significant impact associated with landslides, rockfalls, or mudslides would occur, and no mitigation is required.

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1 *Figure 5.5-2 Floodplains and Fire Hazard Areas*, City of Moreno Valley General Plan Final Program EIR. July 2006.

2 The existing earthen wall is approximately 128 feet high with the highest elevation at 1,628 feet. Normal operating water levels for Lake Perris are at 1,588 feet (leaving 40 feet of excess height between the water level and the top of the dam). Restricted operating water levels for Lake Perris are at 1,563 feet (leaving 65 feet of excess height between the water level and the top of the dam).

4.9.5.3 Groundwater

Threshold	Would the proposed WLC project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level?

Based on the WSA prepared for the proposed project by the EMWD, water demand for the proposed on-site uses would total approximately 1,991.25 acre-feet per year (AFY).[1] The EMWD considers this a worst-case estimate based on the total acres and amount of square footage of high cube logistics uses proposed by the project. This estimate does not take into account the proposed project landscaping design with xeriscape drought-tolerant landscaping and on-site collection of runoff and channeling it to landscaped areas to minimize irrigation on the interior of the project site. Thus, the water demand analysis conducted by the EMWD and in this EIR is somewhat conservative in its estimate of the actual water usage of the proposed project as it builds out. For the purposes of analysis in this EIR, the EMWD's estimate of 1,991 AFY figure will be used relative to water consumption.

As identified in Section 4.16, *Utilities and Service Systems*, of this EIR, the proposed project will obtain water service from the EMWD. It is anticipated that the proposed project would primarily utilize imported water purchased from Metropolitan. In the event that the supply of imported water is reduced, it would be supplemented with new local supply projects during multiple dry years, if needed.

The WSA prepared for the proposed project indicates that development of the project will not include groundwater for water supply. Rather, this project, as well as other new developments in the EMWD's service area, will be supplied exclusively with imported water provided by MWD. The imported water may be treated by MWD, provided by Metropolitan as untreated water and subsequently treated by the EMWD, or recharged into the basin for later withdrawal.

NOTE: The following changes were made in Responses to Comments F-5-10 and F-5-23 in Letter F-5 from the Inland Empire Waterkeeper.

The proposed project will not substantially interfere with groundwater recharge ~~as any decreased groundwater recharge due to increased impervious surface area will be offset by~~due to the project implementation of bioretention areas and detention basins with infiltration capacity that mitigates the impact of reduced pervious areas. Bioretention areas and detention basins will be implemented in addition to the remaining impervious areas. The only use of groundwater may be to support continued agriculture on portions of the WLCSP property that have not yet been developed. The EMWD developed the West San Jacinto Groundwater Basin Management Plan to help ensure that local groundwater resources are conserved and groundwater overdraft does not occur, based on projections of future growth and expected water supply conditions. The Plan projects the water consumption demands of existing and future development based on rates of growth assumed by regional planning organizations (i.e., SCAG and WRCOG) and estimates water demand versus available supply under different water supply scenarios (e.g., multiple dry years).

The Specific Plan requires future development to minimize water use by installing drought-tolerant landscaping (Specific Plan Section 4.2, Offsite Landscaping, and Section 5.4, Onsite Landscaping), by designing buildings and hardscape areas to capture and reuse water on-site for landscape

[1] *Water Supply Assessment Report for the World Logistics Center Specific Plan in Moreno Valley,* Eastern Municipal Water District, March 21, 2012.

irrigation (Specific Plan Section 5.4, *On-Site Landscaping*), and installing water-conserving building fixtures such as sinks, toilets, etc. (Specific Plan Section 6.0, *Sustainability*).

State Water Supply Reliability. Based on the Water Allocation analysis released by the California Department of Water Resources (DWR) on March 22, 2010, export restriction could reduce Metropolitan deliveries by 150 to 200 thousand acre-feet (TAF) under mean hydrologic conditions, and operations could remain restricted until a long-term solution is found to improve the stability of the Bay-Delta region.

The State Water Project (SWP) and Central Valley Project (CVP) are the responsible partners for operation of the DWR and Bureau of Reclamation (Reclamation), respectively. In November 1986, DWR and Reclamation signed the Coordinated Operations Agreement (COA). The COA was subsequently authorized and approved by the California State Legislature and Congress. Under COA, DWR and Reclamation agree to operate the SWP and CVP in a balanced manner to coordinate releases from upstream reservoirs and unregulated flows to meet Sacramento Valley in-basin and in-Delta uses, including water quality standards established by the SWRCB.

Reclamation, as a Federal agency is required to consult with National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS) under Section 7 of the Federal Endangered Species Act (FESA) to determine if a Federal action that they authorize, fund, or implement could jeopardize the continued existence of a listed species in the wild, or destroy or modify the species' critical habitat. Because the SWP and CVP are operated in a balanced manner, the findings under Section 7 of the FESA affect operations of both the SWP and CVP.

The initial biological opinions related to long-term operations of the SWP and CVP were issued in 1993 by NMFS for protection of the winter-run Chinook salmon and by USFWS for protection of delta smelt. Operations of the SWP and CVP were modified to reduce potential adverse impacts to these species primarily through:

1) Increased storage volumes of water in upstream reservoirs to provide adequate flows with appropriate temperatures for the winter-run Chinook salmon and adequate flows in the Delta for both species;

2) Flows released from upstream reservoirs to provide adequate in-Delta flows and Delta outflows for these species; and

3) Modification of periods of time when water can be diverted at the SWP and CVP south Delta intakes to reduce the potential for reverse flows, reduce the potential for high salinity in the south Delta, and reduce the potential for entrainment and entrapment of fish in the SWP and CVP south Delta intake facilities.

The biological opinions were modified as DWR and Reclamation modified operations of the SWP and CVP and new information related to aquatic resources became available. During this period, NMFS redesignated the Sacramento River winter-run Chinook salmon as "endangered" and designated two species as "threatened" (i.e., Central Valley spring-run Chinook salmon and Central Valley steelhead). Therefore, the consultations under Section 7 of the FESA were modified and new biological opinions were issued between 2000 and 2004. In 2005, the Department of the Interior was sued with respect to the 2004 biological opinion issued by USFWS. Subsequently, USFWS re-issued the biological opinion in 2005; however, the Department of the Interior was sued in 2005 with respect to the reissued biological opinion. The 2005 USFWS biological opinion was invalidated and the United States District Court for the Eastern District of California (the Court) ordered a new biological opinion and issued interim operations orders to protect delta smelt until a new biological opinion could

be issued in 2008. The interim operations criteria included limitations for operation of the SWP and CVP south Delta intakes to protect delta smelt.

In response to these actions, Reclamation requested consultation with USFWS and NMFS in August 2008 with respect to the coordinated long-term operation of the SWP and CVP. In December 2008, the USFWS issued a new biological opinion on the coordinated long-term operation of the SWP and CVP on the effects to delta smelt. In June 2009, the NMFS issued a new biological opinion on the coordinated long-term operation of the SWP and CVP on the effects to currently listed species (e.g., Central Valley spring-run Chinook salmon, Central Valley steelhead, Southern District Population Segment of North American green sturgeon, and Southern Resident killer whale). Reclamation provisionally accepted and then implemented the Reasonable and Prudent Alternatives included in these biological opinions. The operational criteria included in the Reasonable and Prudent Alternatives resulted in changes to operations of upstream reservoirs, stream flows, Delta outflow, and SWP and CVP south Delta intakes.

Several lawsuits were filed in the Court related to various aspects of the USFWS and NMFS biological opinions, and to the acceptance and implementation of the associated Reasonable and Prudent Alternatives by Reclamation. Between 2009 and 2010, the Court ruled that Reclamation failed to conduct an environmental analysis under the National Environmental Policy Act (NEPA) of potential impacts to the human environment before provisionally accepting and implementing the Biological Opinion Reasonable and Prudent Alternatives. In 2010, the Court found certain portions of the USFWS biological opinion to be arbitrary and capricious, and remanded those portions of the biological opinion to the USFWS. The Court ordered Reclamation to review the biological opinion and Reasonable and Prudent Alternative in accordance with NEPA. In 2011, the Court remanded the biological opinion to the NMFS.

Reclamation has continued the consultation with USFWS and NMFS for modification of the biological opinions, and has initiated the NEPA process through publication of the Notice of Intent on March 28, 2012. The Court order required completion by Reclamation of the Environmental Impact Statement (EIS) and the USFWS biological opinion related to delta smelt by December 1, 2013. The Court order also required completion by Reclamation of the EIS and the NMFS biological opinion related to Central Valley spring-run Chinook salmon, Central Valley steelhead, Southern District Population Segment of North American green sturgeon, and Southern Resident killer whale by February 1, 2016. The Court did not vacate the biological opinions, and therefore, SWP and CVP operations are analyzed each year with respect to the Reasonable and Prudent Alternatives.

The most recent Metropolitan Regional Urban Water Management Plan (RUWMP) (Metropolitan November 2010, page 1-18) indicates that operational constraints similar to the most recent biological opinions and associated Reasonable and Prudent Alternatives would likely be continued until future long-term plans, such as the Bay Delta Conservation Plan (BDCP), would be implemented. A similar discussion was included in the EMWD Urban Water Management Plan (UWMP) (2010, page 38).

To address potential constraints on the SWP, Metropolitan has developed near and long-term action plans to increase water supply reliability. Metropolitan is also working with stakeholders throughout the state to develop and implement long term solution to the problem in the Bay Delta. The BDCP developed by State and Federal resource agencies, aimed at addressing ecosystem needs and securing long-term operating permits for the SWP. A working draft of the BDCP was released in November of 2010 and reflects significant progress toward consensus on a plan to restoring the Bay-Delta ecosystem and associated sensitive species and provides for improved water supply and reliability.

Conclusion. Based on this analysis, the proposed WLC project is not expected to interfere with groundwater recharge activities or groundwater supplies. Impacts associated with this issue are less than significant, and no mitigation is required.

4.9.5.4 100-Year Flooding-Related Impacts

Threshold	Would the proposed project place within a 100-year flood hazard area structures that would impede or redirect flood flows? Would the proposed WLC project place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) identify areas subject to flooding during the 100-year storm.[1] Based on these FIRM maps, the project site does not fall within a 100-year flood zone.[2] Because the project site does not lie within a 100-year floodplain, impacts related to this issue are less than significant. No further discussion or mitigation is required.

4.9.6 Significant Impacts

4.9.6.1 Drainage Pattern and Capacity-Related Impacts

Impact 4.9.6.1: *The project may significantly increase off-site runoff.*

Threshold	Would the proposed WLC project substantially alter the existing local drainage patterns of the site and substantially increase the rate or amount of surface runoff in a manner which would result in substantial erosion, siltation, or flooding on site or off site? Would the proposed WLC project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

In general, runoff from the western portion of the site flows west toward the Perris Valley Storm Drain, while runoff from the eastern portion of the WLC site flows south into Mystic Lake, and (during times of high storm flow), reaches the San Jacinto River south of the San Jacinto Wildlife Area. As previously illustrated in Figure 4.9.1, the Specific Plan area is divided into six off-site and on-site HSAs. In general, existing storm water flows coming onto the Specific Plan area from the Badlands (Drainage Subarea A) are conveyed through a 12 foot by 8 foot reinforced concrete box (RCB). The RCB drains to the south through the existing Highland Fairview Corporate Park site (a 36-inch and 42-inch storm drain underlying Eucalyptus Avenue outlets to the RCB). Flows from the RCB sheet flow into a spreading area south of Eucalyptus Avenue and is dispersed onto the downstream agricultural land in its historical pattern. Further south, flows coming from the adjacent agricultural land are routed to an existing RCFCWCD earthen channel, identified as Line “F” in the MMDP, located along Redlands Boulevard and ultimately routed to the Perris Valley Storm Drain.

For the eastern portion of the Specific Plan Area (Drainage Subareas B, C, D, E, and F), there currently is no master plan of drainage. Open ditches and drainage culverts along Theodore Street

[1] The term “100-year” is a measure of the size of the flood, not how often it occurs. The “100-year flood” is a flooding event that has a one percent chance of occurring in any given year.
[2] FEMA DFIRM Data, 2008.

and Gilman Springs Road convey off-site runoff from adjacent areas to the north and east. The drainage culverts along Gilman Springs Road drain into the San Jacinto Wildlife Area. The land uses and roadway facilities proposed under the Specific Plan would require modifications to the existing hydrologic patterns within the project vicinity to accommodate and manage these flows.

As part of the Specific Plan, a Master Plan of Drainage for the project area was developed (see Drainage Report). Figure 4.9.3 outlines the drainage areas identified in this Master Plan of Drainage and indicates that, with implementation of the proposed project, the Specific Plan area would be divided into six drainage subareas. Table 4.9.I provides a summary of each of the proposed drainage subareas.

As identified in Table 4.9.I, the majority of the existing Line "E" will remain as is; with ~~three~~four exceptions:

1) Where Line "E" crosses the proposed Alessandro Boulevard ~~Street C,~~ a bridge or culvert will be provided at the crossing;
2) Where the proposed Lateral E-1 will connect with Line E. ~~A lateral connected with Line "E" will be realigned and improved.~~
3) Removal of the concrete at Alessandro Boulevard and lowering the grade above to match the downstream portion.
4) Installation of energy dissipating devices to slow water flow in order to reduce erosion and increase available moisture.

Storm water flows from the westerly portion of the project will be routed to Line "F" of the RCFCWCD MMDP similar to existing drainage patterns in the project area. Line "F" flows in a southwesterly direction and joins the Kitching Street Channel near Iris Avenue and Lasselle Street. Kitching Street Channel flows in a southerly direction and joins the Perris Valley Storm Drain south of Kramer~~n~~ria Avenue. Once the storm water flows reach the Perris Valley Storm Drain, they will travel approximately 5.4 miles until joining Reach 3 of the San Jacinto River. This river travels 5.6 miles to Canyon Lake (Reach 2) and another 7.1 miles through Canyon Lake to Lake Elsinore (Reach 1). Lake Elsinore is essentially the terminus for the San Jacinto River and the San Jacinto Watershed. Although Temescal Creek and the Santa Ana River were included in the ultimate flow path from the project site, flows that reach Lake Elsinore rarely spill into Temescal Creek or into the Santa Ana River due to local topography.

The Perris Valley Storm Drain Master Plan identifies future improvement needs of the channel based on future growth, including development of the WLCSP area. The backbone of the regional storm drainage system south of the City is the 250-foot wide earthen Perris Valley Storm Channel (PVSC). The PVSC is the primary collector of storm water in the northern part of Perris and the southern end of Moreno Valley. The PVSC was built and is currently owned and maintained by the RCFCWCD. The PVSC collects runoff from this area and transports the flows through Perris Valley and to the San Jacinto River. The 24-mile long San Jacinto River enters southern Perris from the east, at approximately the intersection of I-215 and Ellis Avenue, and runs approximately six miles to the extreme southwesterly boundary of the City. The PVSC is a major part of the Master Drainage Plan adopted as part of the Perris Valley Commerce Center Specific Plan.

The PVSC is part of the regional flood control system intended to convey regional flood flows from the upper watershed in Moreno Valley to the confluence with the San Jacinto River in the southern portion of the City. The Perris Valley Storm Channel Specific Plan (PVSCSP) Master Drainage Plan reduces the 100-year floodplain and accommodates 100-year flood events in the area. The PVSC regional system consists of several miles of open channel, several bridge crossings, and a number of retention basins to help capture storm water during seasonal and peak storm events.

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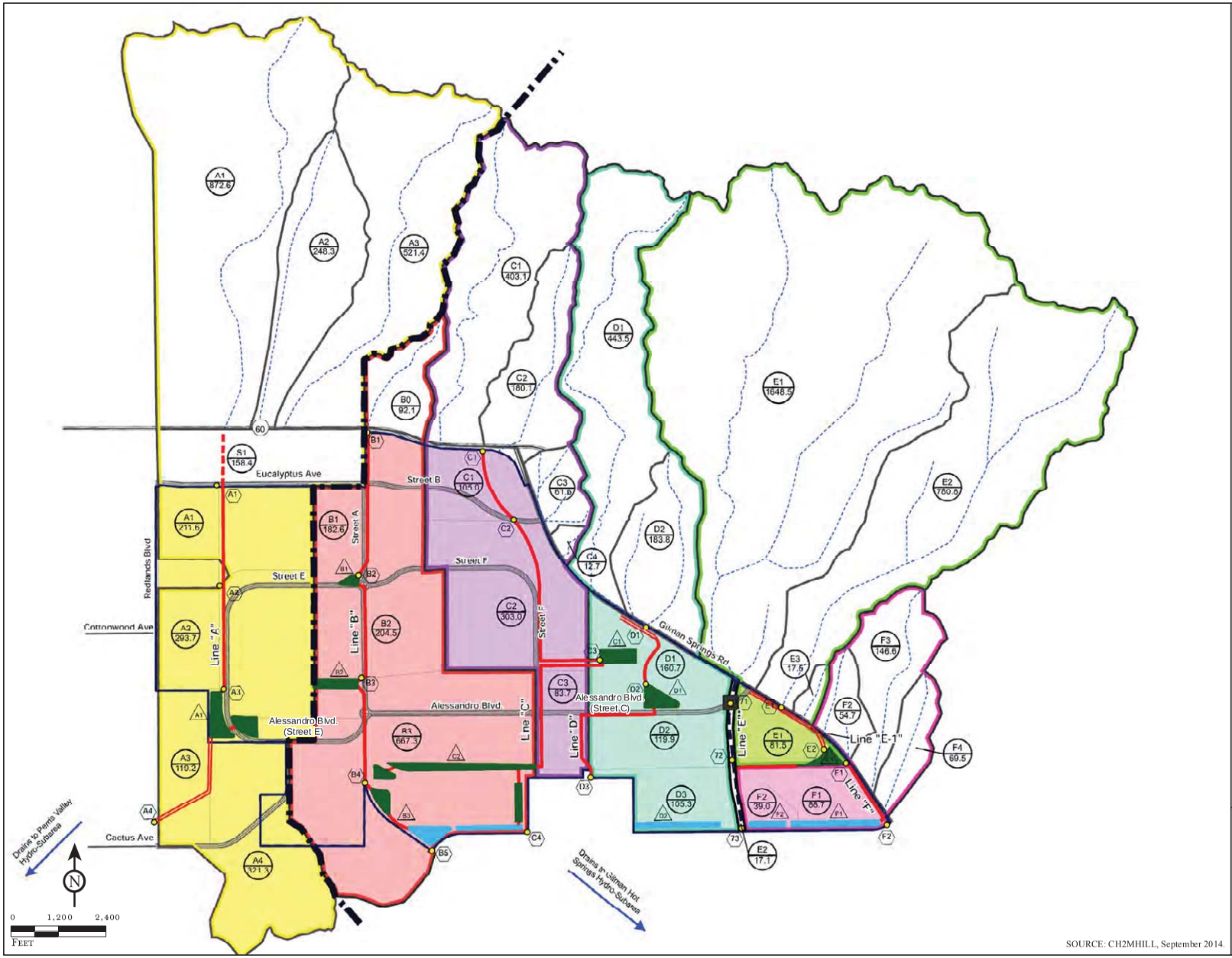

For the specific alignment of Alessandro Boulevard, see circulation Master Plan Figure 3.10.

SOURCE: CH2MHILL, September 2014.

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FIGURE 4.9.3

World Logistics Center Specific Plan Project
Environmental Impact Report

Proposed Drainage Subareas

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Table 4.9.l: Summary of Drainage Areas

Watershed	Area (acres)		HSA	Description
	Without Project	With Project		
A	2,657	2,746	Perris Valley	Storm water runoff coming from north of SR-60 would be routed to the proposed Sinclair Detention Basin. Since the proposed Sinclair Detention Basin is not expected to be constructed prior to the proposed WLC project, the existing 12-foot by 8-foot RCB will need to be extended southerly as proposed Line "F" (referred as Line "F" in MMDP) to convey the off-site flow. The project also proposes one on-site detention basin to mitigate on-site flows and then outlet to Line "F." Ultimately, Line "F" would flow to the discharge point Node 4 at Redlands Boulevard and eventually drain to the RCFCWCD regional facility.
B	1,361	1,147	Gilman Hot Springs	Storm water runoff coming from north of SR-60 would be conveyed to the proposed Line "B" along Theodore Street. The WLCSP proposes three (3) detention basins to mitigate the on-site flows. The outflow from the basins will be conveyed to Line "B" and routed to the proposed spreading area.
C	1,061	1,149	Gilman Hot Springs	Storm water runoff coming from north of SR-60 and north of Gilman Springs Road would be conveyed to the proposed Line "C" and routed to the proposed spreading area. The project proposes two (2) detention basins to mitigate the on-site flows. The outflow from the detention basin along with the off-site flow will sheet flow through the spreading area and then exit the project boundary.
D	965	1,013	Gilman Hot Springs	Off-site storm water runoff from north of Gilman Springs Road would be conveyed to the proposed Line "D." The WLCSP proposes two detention basins to mitigate the on-site flows. The outflow from the basins will be conveyed to Line "D" and the spreading area.
E	2,510	2,545	Gilman Hot Springs	Off-site runoff from north of SR-60 would be routed to the existing earthen channel Line "E." The majority of Line "E" will be protected in place. Easement on either side of the channel is provided for the floodplain. Where Line "E" crosses the proposed Street C a bridge or culvert will be provided. Line "E-1" conveys flows to and from one (1) detention basin. ~~and the lateral~~ Line "E-1" within proposed Street C, will connect~~ed~~ to Line "E"~~ will be realigned and improved~~. The concrete portion of Alessandro Boulevard will be removed and grades lowered to match downstream, and energy dissipating devices will be installed. The runoff exits the project southerly boundary at discharge point Node 73.
F	445	399	Gilman Hot Springs	Off-site runoff from north of Gilman Springs Road would be conveyed to the proposed Line "F." The WLCSP proposes two (2) detention basins to mitigate the on-site flows. The outflow from the basins will be conveyed to Line "F" and exit the project southerly boundary at discharge point Node 3.
Total	**8,999 acres**	**8,999 acres**		

Source: Table 4.1, Master Plan of Drainage Report, CH2M HILL, ~~November 2012~~ September 2014.

Historically, flooding in this part of the Perris Valley has been a longstanding issue. To manage seasonal, peak, and 100-year flooding events, in the late 1980s and early 1990s, Riverside County and the RCFCWCD adopted several Master Drainage Plans that were periodically refined. However, these Master Drainage Plans were adopted during the time period in which the land areas covered by the Master Drainage Plans were utilized primarily for agricultural uses. In the late 1990s, increasing urban development occurred in these areas and it became evident that variations to the precise Master Drainage Plans adopted by the County and RCFCWCD would be required to facilitate the construction of needed infrastructure. The adoption of the PVSCSP in 2012 by the City of Perris included refinements to the facilities necessary to control flooding in the PVSCSP planning area.

Engineering of these ultimate PVSC improvements has been designed to handle storm water flows from 100-year storm events. Within the City of Perris, the majority of the PVSC flood control system is not constructed to the ultimate condition envisioned by the PVSCSP. As a result, the reduced capacity within the existing channel causes regional flood flows to exceed the banks of the channel and flood the surrounding area. With the construction of the ultimate system, the 100-year storm floodplain will be reduced by several hundred acres, and the surrounding properties and roadways will be protected from flooding.

Although the PVSC has not yet been widened to its ultimate width, expected runoff from the proposed WLC project will not exceed current levels because on site detention and infiltration basins will be provided to mitigate and control runoff and drainage patterns to pre-project levels in accordance with **Mitigation Measure 4.9.6.1A**. Flow characteristics and locations of the detention and infiltration basins are outlined in the project hydrology study prepared by CH2MHill (see Appendix J). See Table 4.9.I and Figure 4.9.4. These proposed basins will be located and designed such that the existing sub-watersheds and the existing drainage pattern and flows leaving the project boundary mimic existing conditions. Therefore, development of the WLC project will not have significant impacts on regional flood control, even prior to ultimate buildout of the PVSC.

The development of this project will include the construction of buildings, parking areas, sidewalks, roads and other infrastructure such as storm water, water, and sewer facilities. Because the development of the proposed project will substantially increase the amount of impervious surfaces, the post-development flow volumes that will be generated on site are anticipated to be substantially higher than the pre-development flows.

Conditions resulting from this change will include increased runoff volumes and velocity; reduced infiltration; increased flow frequency, duration, and peak; shorter time to reach peak flow; and degradation in water quality. The project site currently has a low runoff coefficient, meaning that runoff during storms represents a relatively small portion of the total rainfall. The majority of the precipitation, particularly in smaller storms, infiltrates into the subsurface. The development of the Specific Plan area with impervious surfaces (such as roadways, parking lots, and buildings) would result in a condition in which nearly all rainfall becomes runoff.

NOTE: The following changes have been made in response to Comment B-3-39 in Letter B-3 from the California Department of Fish and Wildlife and Comment B-6-5 from Letter B-6 from the Santa Ana Regional Water Quality Control Board.

A significant impact would be deemed to have occurred in the event that post-development storm water flows, volumes or velocities are greater than pre-development storm water flows leaving the site. However, flows, volumes, and velocities will not increase because volume is stored in the basins and infiltrated or released at a controlled rate after the storms (CH2MHill ~~2012~~ 2014). Each detention basin has 2 feet of dead storage so that flows will infiltrate in the ground. Table 4.9.J presents the sizes of each of the basins. Figures 4.9.5 and 4.9.6 show typical sections for the basins.

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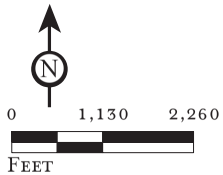

Proposed Basin Number
Exist Culvert
Bridge/Culvert
Proposed Basin
Proposed Spreading Basin
Existing Storm Drain
Existing RCB
Proposed Storm Drain
Proposed Open Channel; LINE D OPEN CHAN
Natural Flow (Line "E")
Project Boundary

Note: For the specific alignment of Alessandro Boulevard, see circulation Master Plan Figure 3.10.

FIGURE 4.9.4

World Logistics Center Specific Plan Project Environmental Impact Report

Master Drainage System

SOURCE: World Logistics Center Specific Plan, Highlandfairview, September, 2014.

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Table 4.9.J: Proposed Basins (new table)

Basin No.	Approx. Basin Length (ft)	Basin Top Width (ft)	Basin Depth (ft)	Basin Detention Depth (ft)	Basin Infiltration Depth (ft)	Side Slope	Basin Detention Volume (ac-ft)	Basin Infiltration Volume (ac-ft)	Total Basin Volume (ac-ft)
A1	1,200	1,260	8	6	2	2	97	32	129
B1	540	240	8	6	2	2	12	4	16
B2	1,140	240	8	6	2	2	41	14	55
B3*	2,520	360	5	3	2	2	45	30	75
C1	1100	360	8	6	2	2	80	27	107
C2*	6,120	120	5	3	2	2	73	49	122
D1	960	600	6	4	2	2	42	14	56
D2*	2200	120	5	3	2	2	28	18	46
E1	960	480	6	4	2	2	26	8	34
F1*	2300	120	5	3	2	2	18	12	30
F2*	840	120	5	3	2	2	7	4	11

**spreading basin*
Source: Master Plan of Drainage Report, CH2MHILL, September 2014.

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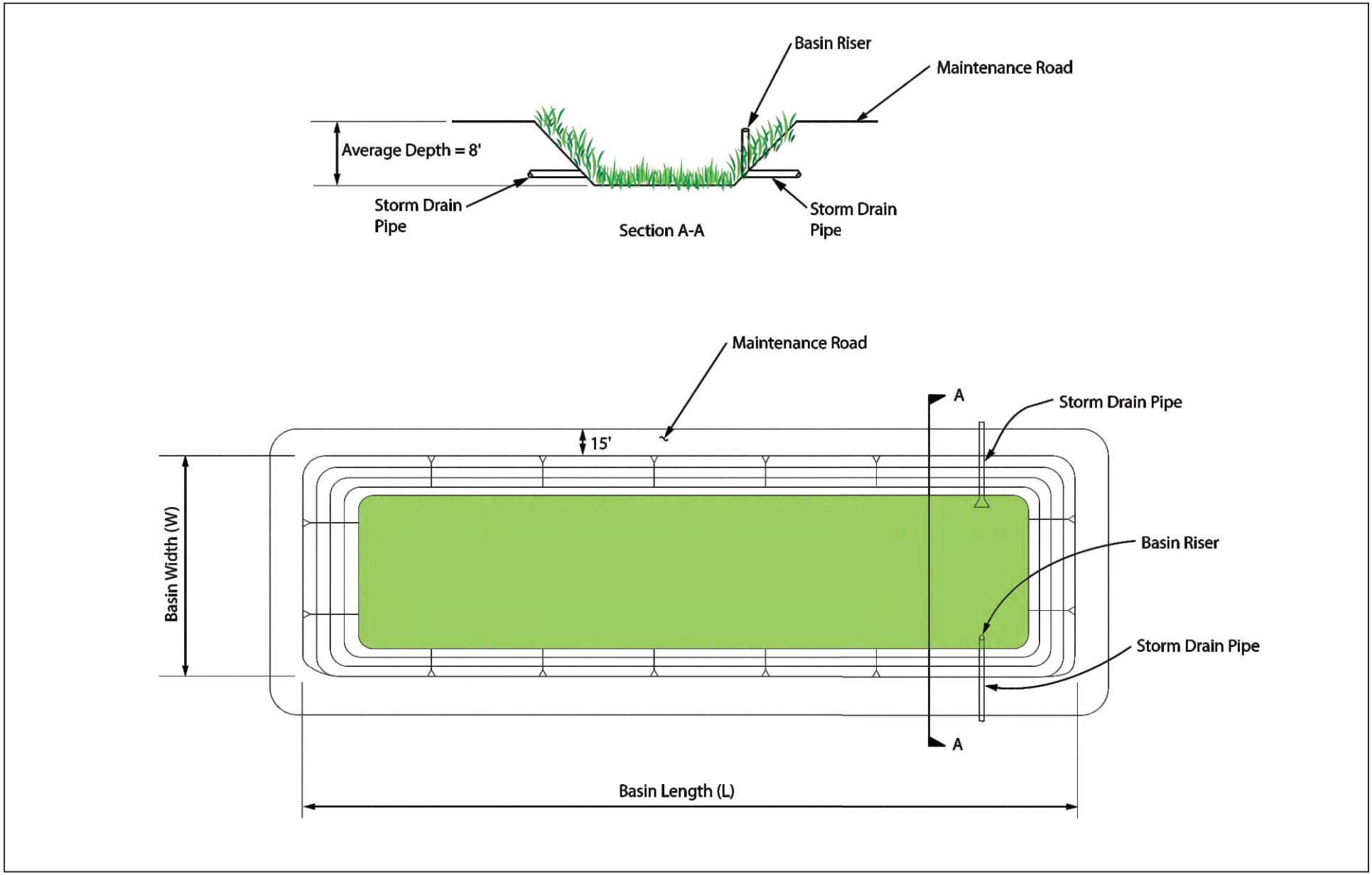

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FIGURE 4.9.5

World Logistics Center Specific Plan Project
Environmental Impact Report

Typical Detention Basin Sections

SOURCE: HF, 2014.

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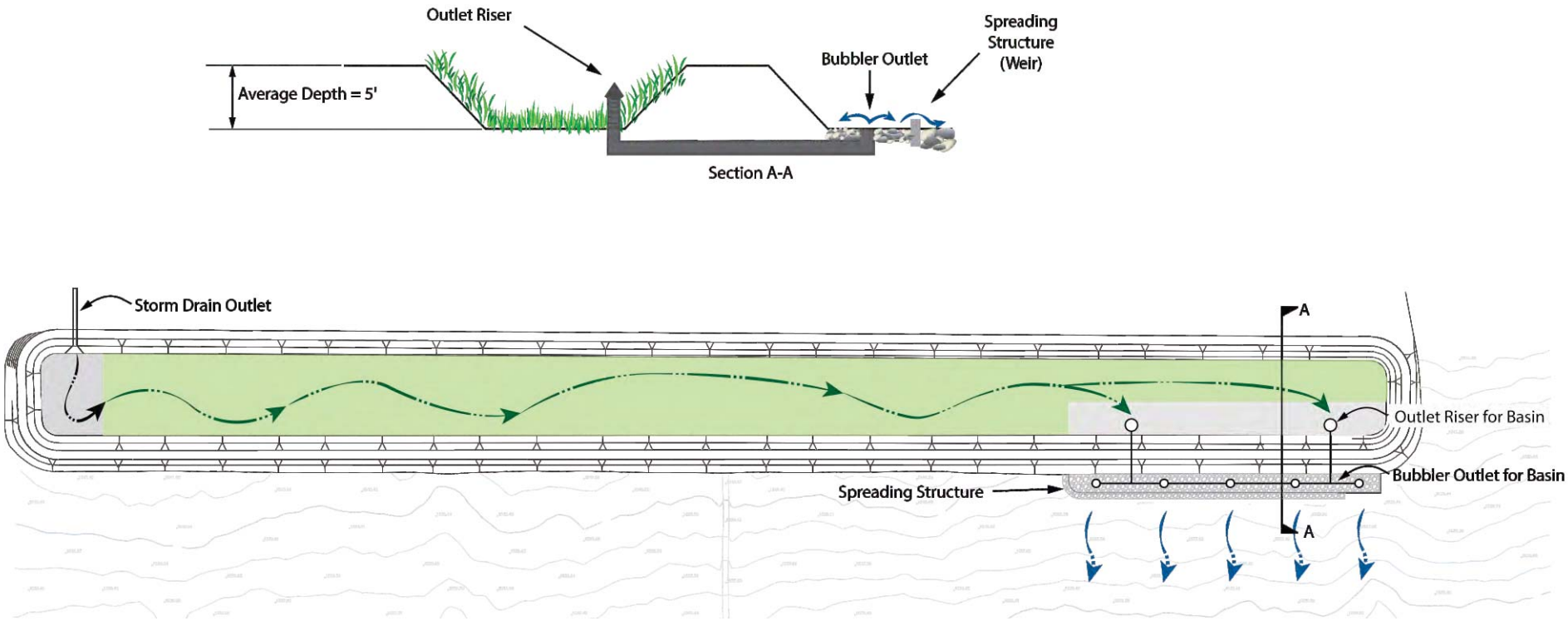

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FIGURE 4.9.6

World Logistics Center Specific Plan Project
Environmental Impact Report

Typical Detention Basin With Drainage Spreading Structure

SOURCE: HF, 2014.

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Two separate analyses were performed for the detention and infiltration basins. The first analysis was part of the drainage system analysis to size the basins to mitigate the flow from the 100-year 3 and 24-hour storms. In this analysis the bottom 2 feet of the basins (identified as Basin Infiltration Depth in Table 4.9.J) is infiltration storage and assumed to be full prior to the storm. The second analysis was performed to analyze the pre and post project infiltration for the project. This is a water balance model analysis of historical daily runoff.

The project hydrology study used local hydrographs and flood routing models to simulate the proposed condition. Based on the modeling results, the 100-year, 3-hour storm provides the highest peak flows, and the 100-year, 24-hour storm provides the highest flow volumes. The 100-year, 3-hour peak flows are used to preliminarily size the proposed drainage systems. Table 4.9.K provides the modeled peak flows for the 100-year, 3-hour storm scenario.

Table 4.9.K: Existing and Proposed Storm Water Runoff for 100-Year, 3-Hour Storm Event

Watershed	Peak Flow (cfs)	
	Existing	Proposed[1]
A	2,470	2,170
B	1,130	930
C	820	750
D	815	795
E	1,990	1,800
F	495	390

Source: Master Plan of Drainage Report, ~~and Preliminary Project Specific Water Quality Management Plan for World Logistics Center Specific Plan,~~ CH2MHILL, ~~November 2012~~ September 2014.

Flows at Project Boundary. Flows exiting the project's boundary in the proposed condition will mimic existing conditions. There are six watershed areas and drainage courses that deliver flow through the project area. These are identified as watershed areas "A" through "F" on Figure 4.9.3. The existing capacity of these drainage courses at the project boundary was determined. Flows in excess of this capacity would flow overland and sheet flow across the project boundary in the existing condition. Detention Basins and spreading area facilities are proposed to reduce the proposed conditions flow to pre-project conditions at the project boundary. Table 4.9.L identifies the existing and proposed 100-year flow, the drainage course capacity, and the sheet flow at the project boundary.

Table 4.9.L: Comparison of Existing and Proposed Flows at Project Boundary (new table)

Water-shed	Existing Conditions at Project Boundary			Proposed Conditions at Project Boundary		
	Existing 100-year Flow (cfs)	Existing Drainage Course Capacity (cfs)	Existing 100-year sheet flow (cfs)	Proposed 100-year Flow (cfs)	100-year flow from Basin to Drainage Course (cfs)	Proposed 100-year sheet flow from Basin (cfs)
A[1]	2,470	2,200	270	2,170	N/A	N/A
B	1,130	55	1,075	930	55	875
C	820	165	655	750	165	585
D	815	65	750	795	65	730
E[2]	1,990	6,220	0	1,800	N/A	N/A
F	495	70	425	390	70	320

[1] Flows to improved channel - No sheet flow proposed in proposed conditions.
[2] Existing facility has capacity for flow – No detention basin proposed.
Source: Master Plan of Drainage Report, CH2MHILL, September 2014.

Flow Velocities at Project Boundary. This project proposes a number of open space, detention basins and spreading areas to mitigate the increased runoff, volumes and flow velocities. As a result, the flow velocities at the project boundary for the proposed condition are less than the existing condition, as illustrated in Table 4.9.M. For the watersheds "A" and "E" in the proposed condition, the runoff will flow to the existing Green Belt Channel and existing earth channel, respectively. Therefore, sheet flow would not occur at the project boundary. The flow velocities in the watersheds "B," "C," "D," and "F" for the proposed and existing conditions were analyzed. For the proposed condition, the runoff will flow to the basins and spreading areas, then weir flow over a level curb, and eventually flow to the existing channels downstream of the project's boundary. Flows in excess of channel capacity would flow overland and sheet flow across the project's boundary. For the existing condition, the runoff would flow in to the existing drainage channels, and the flow in excess of channel capacity would flow overland and sheet flow across the project's boundary.

Table 4.9.M: Comparison of Existing and Proposed Flow Velocities at Project Boundary (new table)

Existing Watershed	Node*	Velocity (fps)	Prop Watershed	Node*	Velocity (fps)
B	12	5.16	B	B5	2.19
	22	4.40			2.19
C	37	8.80	C	C4	2.01
	41	3.60			2.01
D	53	4.77	D	D3	2.10
	61	4.45			2.10
F	81	3.33	F	F2	1.78
	83	6.29			1.78
	102	3.61			1.78
	112	3.83			1.78

Source: Master Plan of Drainage Report
CH2MHILL, September 2014.

Runoff and Infiltration Volumes Comparison. An analysis and comparison of the volume of runoff and infiltration for the pre and post project conditions was performed. A total of three scenarios were analyzed, baseline plus the following two project scenarios:~~. The scenarios are described below:~~

- Baseline or Pre Project conditions, where most of the land use is agricultural and the crop is considered to be dry wheat.
- Scenarios of Post Project Conditions, where the development of the site will happen and the impervious area will increase. Two scenarios were considered under the Post development conditions, those are:

Scenario 1) Detention Basins and bioretention areas with 0.15 in/hr infiltration rate. This scenario considers the use of detention basins not only for storm peak attenuation but also for infiltration. The lower end of the minimum infiltration rate for soil type B is considered. The detention basins are assumed to take 3 days to empty and total dead storage currently assumed at 212 acre-feet (AF). In reality the amount of dead storage needed will be a function of the measured infiltration rate at the site. The bioretention areas are areas where the runoff is directed to prior to the detention basins. The bioretention areas consist of landscaped areas that provide treatment and infiltration.

Scenario 2) Detention Basins and bioretention areas with 0.3 in/hr infiltration rate. This scenario considers the use of detention basins not only for storm peak attenuation but also for infiltration. The higher end of the minimum infiltration rate for soil type B is considered. The detention basins are assumed to take 3 days to empty and dead storage is assumed at 212 acre-feet.

The results are summarized on Table 4.9.N

Table 4.9.N: Model Results for Runoff and Infiltration and the Percentage Change from Baseline Conditions (new table)

Scenario	Runoff		Infiltration	
	1990-2012 Average(AF/yr)	Percent Change from Baseline	1990-2012 Average(AF/yr)	Percent Change from Baseline
Baseline	59	—	1,649	—
Scenario 1	125	110%	1,850	12%
Scenario 2	40	-33%	1,945	18%

Source: Master Plan of Drainage Report CH2MHILL, September 2014.

The project's impacts will be mitigated with the implementation of Scenario 2. The volume of runoff after the project is constructed will be less than the existing volume of runoff and the amount of infiltration will increase. Infiltration tests to refine Scenarios 1 and 2 will be performed in final design so runoff and infiltration will mimic existing conditions.

To the degree possible, the project will site basins in areas of cut that do not require over excavation, this should result in acceptable infiltration rates. In the event the soil at a basin site does not meet the required infiltration rate, dry wells, hybrid bioretention/dry wells or infiltration trenches will be used to achieve the target infiltration rate. All three of these BMP's will reach past impervious clay or compacted fill area to deeper more pervious soils. Dry wells are considered Class V wells and require submission of an "Inventory Form" to the EPA. Infiltration tests will be done prior to design of basins so that the proper BMP's can be incorporated into the basins. It should also be noted that groundwater levels in the project area are in excess of 100 feet below ground surface (DEIR Section 4.6.5.4, Geology and Soils).

Due to the construction of impervious surfaces on the project site, post-development flows will be higher than the pre-development flows. To avoid a significant impact to the existing drainage capacity, the post-development flows, volumes, and velocities coming from the proposed project site must be managed to be equal to or less than pre-development flows, volumes, and velocities.[1] As required by **Mitigation Measure 4.9.6.1A**, flows will be reduced to below or equal to pre-development conditions by routing the on-site storm water flows through a series of on-site detention and infiltration basins before flows are released off site. The existing storm water runoff discharge rate for the undeveloped project site is ~~8,060~~ 7,720 cubic feet per second (cfs). With the installation of the on-site detention basins, culverts, and energy dissipaters included in the project, expected discharges would be at a rate of ~~7,210~~ 6,835 cfs, which is less than the existing condition. With the installation of the storm drain system facilities outlined in CH2M Hill's hydrology reports (see Appendix J) and implementation of the recommended mitigation measures, the buildout of the project will convey storm flows safely through the region in accordance with Riverside County Flood Control requirements and will not result in flooding or additional erosion within the project area or any downstream areas, including the Perris Valley Storm Drain Channel.

[1] As part of the MS4 Permit issuance requirements, projects must identify any Hydrologic Conditions of Concern and demonstrate that changes to hydrology are minimized to ensure that post-development runoff rates and velocities from a site do not adversely impact downstream erosion, sedimentation or stream habitat.

For additional analysis regarding anticipated construction and operational pollutants, please refer to Section 4.9.6.2, *Construction-Related Water Quality Impacts,* and Section 4.9.6.3, *Operational-Related Water Quality Impacts*.

Development of the proposed WLC project site will increase impervious surfaces on the project site due to the construction of the project's buildings, roadways, and associated improvements. While the resultant increase in impervious surfaces would contribute to a greater volume and higher velocities of storm flow, **Mitigation Measure 4.9.6.1A** requires the WLC project site's drainage system be designed to accept and accommodate runoff that would result from the project construction at or better than historic, or pre-development, conditions, as outlined in the project's Master Plan of Drainage shown in previously referenced Figure 4.9.4. **Mitigation Measure 4.9.6.1B** provides for the operation and maintenance of these facilities to ensure that they will be maintained.

Ultimately, for the proposed condition, the peak flows at downstream discharge points where the flows exiting the southerly project boundary, will not exceed the peak flows for the existing condition. As the WLC project develops and regional drainage improvements are installed as anticipated (e.g., Perris Valley Storm Drain Master Plan), there should be no long-term significant impacts related to storm drainage or flood control. Overall, current experiences with flooding in the general project vicinity should decrease as on-site drainage is contained or controlled in planned improvements and detention basins. Section 4.16, *Utilities and Service Systems,* provides additional analysis of on-site drainage capacity relative to planned storm drain improvements.

NOTE: The following changes have been made in response to Comment F-1-77 in Letter F-1 from Center for Biological Diversity/San Bernardino Valley Audubon Society and Comment F-11-44 in Letter F-11 from the Sierra Club.

Project or Specific Plan Design Features. The Drainage Master Plan (DMP) and creation and maintenance of the proposed combined detention and infiltration basins in the southern portion of the project according to the DMP will help ensure that there will be no significant off-site impacts related to runoff from the proposed project. These facilities will be designed based on the most up–to-date hydrology based on the latest rainfall to runoff patterns in compliance with local, state, and federal regulations. The design of the drainage facilities include a factor of safety in the form of freeboard to account for uncertainties due to climate change, rainfall patterns, friction factors and other uncertainties. One foot of freeboard was included in the detention basins and drainage facilities to account for these uncertainties. At the time of final design the amount of freeboard to account for these uncertainties will be finalized. The facilities are being designed to provide both detention and infiltration to mitigate increases in runoff volume, velocity and peak discharge as outlined in the following mitigation measure.

The changes to the following mitigation measures have been made in response to Comment B-3-39 in Letter B-3 from the California Department of Fish and Wildlife, Comment F-1-77 in Letter F-1 from Center for Biological Diversity/San Bernardino Valley Audubon Society, Comments F-5-13 and –F-5-23 in Letter F-5 from the Inland Empire Waterkeeper, Comment F-11-41 in Letter F-11 from the Sierra Club et al, and other related comments.

Mitigation Measures. The following measure is proposed to help ensure that runoff from the proposed project site does not have significant impacts on downstream off-site properties, including the SJWA:

4.9.6.1A Prior to issuance of ~~any development~~ any building permit within the Specific Plan area, the developer shall ~~place~~ construct storm drain pipes and conveyances, as well

as, combined detention and infiltration basin(s), bioretention areas, and spreading area(s)~~ as appropriate~~ within each proposed watershed, as outlined in the project hydrology plan, to mitigate the impacts of increased peak flow rate, velocity, flow volume and reduce the time of concentration by storing ~~increased runoff for a limited period of a time and release the outflow at a rate that does not exceed the pre-development condition~~ and infiltrating increased runoff for a limited period of time and release the outflow at a rate that does not exceed the pre-development peak flows and velocities for the 2, 5, 10, 25, and 100-year storms and volumes as assessed in the water balance model for historical conditions. For the purpose of this mitigation measure, the term "construct" shall mean to substantially complete construction so as to function for its intended purpose during construction with complete construction prior to occupancy. Field investigations will be conducted to determine the infiltration rate of soils underlying the proposed locations of bioretention areas and detention basins. The infiltration rate of the underlying soils will be used to properly size the bioretention areas and detention basins/infiltration basins to ensure that adequate volumes of runoff, in cumulative total for all bioretention areas and detention basins are captured and infiltrated. The water balance model will be updated and rerun for the site-specific conditions encountered to confirm the water balance. This measure shall be implemented to the satisfaction of the City Engineer. Energy dissipaters shall be used as the spillways of basins to reduce the runoff velocity and dissipate the flow energy. Drainage weir structures shall be constructed at the downstream end of the watersheds flowing to the San Jacinto Wildlife Area to control the runoff and spread the flow ~~in~~ such~~ a way~~ that the flows exiting the project boundary will return to the sheet flow pattern similar to the existing condition. Detention basins and spreading areas shall be designed to account for the amount of the sediment transported through the project boundary so that the existing sediment carrying capacity is maintained.

4.9.6.1B The bioretention areas and detention/infiltration basins shall be designed to assure infiltrations rates. The monitoring plan will follow the guidelines presented by the California Storm Water Quality Association (CASQA) in the California Storm Water Best Management Program (BMP) Handbook, Municipal, January 2003 Section 4, Treatment Control Best Management Programs Fact Sheets TC-11 Infiltration Basin and TC-30 Vegetated Swale).

For the Bioretention areas, as needed maintenance activities shall be conducted to remove accumulated sediment that may obstruct flow through the swale. Bioretention areas shall be monitored at the beginning and end of each wet season to assess any degradation in infiltration rates. The maintenance activities should occur when sediment on channels and culverts builds up to more than 3 inches (CASQA 2003). The swales will need to be cultivated or rototilled if drawdown takes more than ~~48~~ 72 hours.

For the detention/infiltration basins, a 3-5 year maintenance program shall be implemented mainly to keep infiltration rates close to original values since sediment accumulation could reduce original infiltration rate by 25-50%. Infiltration rates in detention basins will be monitored at the beginning and end of each wet season to assess any degradation in infiltration rates. If cumulative infiltration rates of all detention basins drops below the minimum required rates, then the detention basins will be reconditioned to improve infiltration capacity by scraping the bottom of the detention basin, seed or sod to restore groundcover, aerate bottom and dethatch basin bottom (CASQA 2003).

Level of Significance after Mitigation. Implementation of the Master Drainage Plan of the Specific Plan and **Mitigation Measures 4.9.6.1A** and **4.9.6.1B** will reduce potential impacts associated with runoff from the project site to less than significant levels.

4.9.6.2 Construction-Related Water Quality Impacts

Impact 4.9.6.2: *The project may cause surface water pollution during construction.*

Threshold	Would the proposed project violate any water quality standards or waste discharge requirements during construction phases of the project in form of increased soil erosion, sedimentation, or storm water discharges?

The grading phases of any portion of the project will require temporary disturbance of surface soils and removal of vegetative cover, which could potentially result in erosion and sedimentation, major visible water quality impacts attributable to construction activities. Stockpiles and excavated areas would be susceptible to high rates of erosion from wind and rain and, if not managed properly, could result in increased sedimentation in local watercourses.

By volume, sediment is the principal component in most storm runoff. The delivery, handling, and storage of construction materials and wastes, as well as the use of on-site construction equipment will also introduce a risk for storm water contamination. Spills and leaks could occur from the use of construction equipment and could originate from construction staging areas. Once released, substances such as fuels, oils, paints, and solvents can be transported to nearby surface waterways and/or to groundwater in storm water runoff, wash water, and dust control water, potentially reducing the quality of the receiving waters. The anticipated and potential pollutants in storm water or urban runoff for various land uses are reflected in previously referenced Table 4.9.F.

Short-term storm water pollutant discharges from each development site within the project will be mitigated through compliance with the required NPDES permits, resulting in a less than significant impact. The NPDES permit program was established under Section 402 of the CWA, which prohibits the unauthorized discharge of pollutants, including municipal, commercial, and industrial wastewater discharges, from point sources to U.S. waters. Permittees must verify compliance with permit requirements by monitoring their effluent, maintaining records, and filing periodic reports. An NPDES permit specifies an acceptable level of a pollutant or pollutant parameter in a discharge (for example, a certain level of bacteria) and the permittee selects an appropriate process or technology to achieve that level. Some permits, however, do contain certain generic BMPs. Table 4.9.O lists possible construction site BMPs for runoff control, sediment control, erosion control, and housekeeping that may be used during the construction phases of the proposed WLC project. These construction site BMPs are only examples of what should be considered and should not preclude new or innovative approaches currently available or being developed.

The implementation of NPDES permits, including the General Construction permit, ensures that the Federal and State standards for clean water are met. Enforcement of required NPDES permit requirements will prevent sedimentation and soil erosion through implementation of an SWPPP and periodic inspections by RWQCB staff. An SWPPP is a written document that describes the construction operator's activities to comply with the requirements in the NPDES General Construction permit. Required elements of an SWPPP include (1) site description addressing the elements and characteristics specific to the project site; (2) descriptions of BMPs for erosion and sediment controls; (3) BMPs for construction waste handling and disposal; (4) implementation of approved local plans; and (5) proposed post-construction controls, including a description of local post-construction erosion and sediment control requirements. The SWPPP establishes a plan whereby the operator evaluates

potential pollutant sources at the site and selects and implements BMPs designed specifically to prevent or control the discharge of the identified pollutants into storm water runoff.

Table 4.9.O: General Construction Site Best Management Practices

Runoff Control	Sediment Control	Erosion Control	Good Housekeeping
• Minimize clearing • Preserve natural vegetation • Stabilize drainage ways • Install check dams • Install diversion dikes	• Install perimeter controls (e.g., silt fences) • Install sediment trapping devices (e.g. straw wattles, hay bales, gravel bags) • Inlet protection (e.g. check dams) • Install fiber rolls	• Stabilize exposed soils (e.g., hydroseed, soil binders) • Protect steep slopes(e.g., geotextiles, compost blankets) • Cover stockpiles with blankets • Complete construction in phases	• Create waste collection area • Put lids on containers • Clean up spills immediately

Source: National Pollutant Discharge Elimination System, *Construction Site Storm Water Runoff Control*, http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm, site accessed April 20, 2012.

Project or Specific Plan Design Features. The Specific Plan itself does not contain any features that address water quality issues related to construction, but the WQMP (see Appendix J), the DMP, and the landscaping plan will help reduce long-term water consumption and water quality impacts within the project. However, additional information has been added to the *Hydrology and Water Quality Master Plan of Drainage Report* (FEIR Volume 2 Appendix J) to provide specific and detailed plans for the drainage systems to include the size, capacity, design, function and maintenance requirements of the detention basins. The detention basins have been modified to combine detention and infiltration. Additional analysis has been performed to detail the infiltration capacity of the basins and indicates that runoff leaving the project site will be less than or equal to the existing condition. Infiltration after the project will be greater than the existing condition. Additional details on the spreading areas and mitigation of flow volumes and velocities at the project boundary have been added to the *Master Plan of Drainage Report* and are summarized in the Response to Comment B-3-37 from the CDFW to address similar comments regarding drainage and water quality impacts of the project.

Mitigation Measures. Although adherence to NPDES requirements is required of all development within the City, the incorporation of these requirements as **Mitigation Measures 4.9.6.2A** and **4.9.6.~~1~~2B** are designed to ensure that any future development within the WLC Specific Plan area obtains coverage under the NPDES General Construction permit, and to track compliance with these requirements as part of the Mitigation Monitoring and Reporting Plan or Program (MMRP):

4.9.6.2A Prior to issuance of any grading permit for development in the World Logistics Center Specific Plan, the project developer shall file a Notice of Intent (NOI) with the Santa Ana Regional Water Quality Control Board to be covered under the National Pollutant Discharge Elimination System (NPDES) General Construction Permit for discharge of storm water associated with construction activities. The project developer shall submit to the City the Waste Discharge Identification Number issued by the State Water Quality Control Board (SWQCB) as proof that the project's Notice of Intent is to be covered by the General Construction Permit has been filed with the State Water

Quality Control Board. This measure shall be implemented to the satisfaction of the City Engineer.

4.9.6.2B Prior to issuance of any grading permit for development in the World Logistics Center Specific Plan, the project developer shall submit to the State Water Quality Control Board (SWQCB) ~~and receive approval for~~ a project-specific Storm Water Pollution Prevention Plan (SWPPP). The Storm Water Pollution Prevention Plan shall include a surface water control plan and erosion control plan citing specific measures to control on-site and off-site erosion during the entire grading and construction period. In addition, the Storm Water Pollution Prevention Plan shall emphasize structural and nonstructural best management practices (BMPs) to control sediment and non-visible discharges from the site. Best Management Practices to be implemented may include (but shall not be limited to) the following:

(a) Sediment discharges from the site may be controlled by the following: sandbags, silt fences, straw wattles and temporary debris basins (if deemed necessary), and other discharge control devices. The construction and condition of the Best Management Practices are to be periodically inspected by the Regional Water Quality Control Board during construction, and repairs would be made as required.

(b) Materials that have the potential to contribute non-visible pollutants to storm water must not be placed in drainage ways and must be placed in temporary storage containment areas.

(c) All loose soil, silt, clay, sand, debris, and other earthen material shall be controlled to eliminate discharge from the site. Temporary soil stabilization measures to be considered include: covering disturbed areas with mulch, temporary seeding, soil stabilizing binders, fiber rolls or blankets, temporary vegetation, and permanent seeding. Stockpiles shall be surrounded by silt fences and covered with plastic tarps.

(d) The Storm Water Pollution Prevention Plan shall include inspection forms for routine monitoring of the site during the construction phase.

(e) Additional required Best Management Practices and erosion control measures shall be documented in the Storm Water Pollution Prevention Plan.

(f) The Storm Water Pollution Prevention Plan would be kept on site for the duration of project construction and shall be available to the local Regional Water Quality Control Board for inspection at any time.

The developer and/or construction contractor for each development area shall be responsible for performing and documenting the application of Best Management Practices identified in the project-specific Storm Water Pollution Prevention Plan. Regular inspections shall be performed on sediment control measures called for in the Storm Water Pollution Prevention Plan. Monthly reports shall be maintained and available for City inspection. An inspection log shall be maintained for the project and shall be available at the site for review by the City of Moreno Valley and the Regional Water Quality Control Board.

Level of Significance after Mitigation. While on-site grading and development activities will increase the potential for the erosion of soils, adherence to the BMPs mandated by **Mitigation Measures 4.9.6.2A** and **4.9.6.2B** will reduce impacts associated with short-term (construction) storm water discharges during project construction to a less than significant level.

4.9.6.3 Operational-Related Water Quality Impacts

Impact 4.9.6.3: *The project may result in surface water pollution during operation.*

Threshold	Would the proposed project violate any water quality standards or waste discharge requirements during the operational phases of the project in the form of increased soil erosion, sedimentation, or urban runoff?

During the operational phase of any urban use, the major source of pollution in storm water runoff will be contaminants that have accumulated on the land surface over which runoff passes. Storm runoff from the roadways, parking lots, and commercial and industrial buildings can carry a variety of pollutants such as sediment, petroleum products, commonly utilized construction materials, landscaping chemicals, and (to a lesser extent) trace metals such as zinc, copper, lead, cadmium, and iron, which may lead to the degradation of storm water in downstream channels. Runoff from landscaped areas may contain elevated levels of phosphorus, nitrogen, and suspended solids. Oil and other hydrocarbons from vehicles are also expected in storm water runoff.

Pollutant concentrations in urban runoff are variable depending on storm intensity, land use, elapsed time since previous storms, and the volume of runoff generated in a given area that reaches receiving waters. Pollutant concentrations are typically highest during the first major rainfall event after the dry season, known as the "first-flush." The WQMP prepared for the project identifies pollutants and hydrologic conditions of concern that may be associated with the implementation of the project. Table 4.9.P identifies the receiving waters for post-development runoff from the site and states if the receiving water is listed as impaired or has a total maximum daily load (TMDL) adopted for a certain type of pollutant. Table 4.9.Q provides a summary of pollutants associated with proposed land uses within the Specific Plan area.

Table 4.9.P: Pollutant Stressors in Receiving Waters

Receiving Waters	Receiving Water Classification	303(d) Listing		Adopted TMDL Pollutants
	Proximate	Listed?	Pollutant Causing Impairment	
San Jacinto River	Yes	No	None	None
Canyon Lake (Railroad Canyon Reservoir)	No	Yes	Nutrients, Pathogens	Phosphorus, Nitrogen
Lake Elsinore	No	Yes	Nutrients, Organic Enrichment/Low Dissolved Oxygen, PCBs, Sediment Toxicity, Unknown Toxicity	Phosphorus, Nitrogen, Dissolved Oxygen

Source: *Preliminary Water Quality Management Plan for World Logistics Center Specific Plan*, CH2MHILL, ~~November 2012~~ September 2014. .

As identified in Table 4.9.Q, pollutants associated with the operations of the proposed logistics land uses include sediments, nutrients, toxic organic compounds, trash and debris, bacterial indicators, oil and grease, pesticides, and metals. Based on the WQMP, all downstream receiving waters to which a project directly or indirectly discharges have been identified. The selection of treatment controls for the project shall be based primarily on the potential pollutants associated with the project that are also present in impaired receiving waters.

As specific developments within the project are developed, updates to the Master WQMP for the World Logistics Center Specific Plan will be required to ensure that water quality treatment is being maintained per City requirements.

Table 4.9.Q: WLC Specific Plan Potential Pollutants

Pollutants	Specific Plan Land Use	Is/Does the Pollutant?	
		Have a Potential to Occur?	Impaired in Receiving Waters?
Sediments	Landscape/Open Areas	Yes	No
Nutrients	Industrial/Commercial Areas	Yes	Yes
Toxic Organic Compounds	Industrial/Commercial Areas	Yes	Yes
Trash and Debris	Industrial/Commercial Areas	Yes	No
Bacterial Indicators	Industrial/Commercial Areas	Yes	Yes
Oil and Grease	Industrial/Commercial Areas	Yes	No
Pesticides	Industrial/Commercial Areas	Yes	Yes
Metals	Industrial/Commercial Areas	Yes	No

Source: *Preliminary Water Quality Management Plan for World Logistics Center Specific Plan*, CH2MHILL, ~~November 2012~~ September 2014.

The WQMP prepared for the project (Appendix J) identifies the following BMPs to be implemented that will minimize the project's effects on site hydrology, urban runoff flow rates, and pollutant loads. This comprehensive water quality approach will be implemented throughout the project and will establish a three-tier program for achieving water quality goals through the enforcement of site design, source control, and treatment control BMPs. These project-specific site design, source control, and treatment control BMPs are listed below.

Site Design BMPs. Site design BMPs are implemented to create a hydrologically-functional project design that attempts to mimic the natural hydrologic regime. In accordance with the Riverside County WQMP, projects shall implement site design concepts that achieve each of the following:

1. Minimize Urban Runoff
   a. Maximize the permeable area.
   b. Incorporate landscaped buffer areas between sidewalks and streets.
   c. Maximize canopy interception and water conservation by planting native or drought-tolerant trees and large shrubs.
   d. Use natural drainage systems.
   e. Where soil conditions are suitable, use perforated pipe or gravel filtration pits for low flow infiltration.
   f. Construct on-site ponding areas or retention facilities to increase opportunities for infiltration consistent with vector control objectives.
2. Minimize Impervious Footprint
   a. Maximize the permeable area.
   b. Construct streets, sidewalks and parking lot aisles to the minimum widths necessary, provided that public safety and a walk able environment for pedestrians are not compromised.
   c. Reduce widths of street where off-street parking is available.

   d. Minimize the use of impervious surfaces such as decorative concrete, in the landscape design.

3. Conserve Natural Areas
   a. Conserve natural areas.
   b. Maximize canopy interception and water conservation by planting native or drought-tolerant trees and large shrubs.
   c. Use natural drainage systems.

4. Minimize Directly Connected Impervious Areas (DCIAs)
   a. Runoff from impervious areas will sheet flow or be directed to treatment control BMPs.
   b. Streets, sidewalks, and parking lots will sheet flow to landscaping/bioretention areas.

Source Control BMPs. Source control BMPs are implemented to eliminate the presence of pollutants through prevention. Such measures can be both non-structural and structural.

1. Non-structural operational source control BMPs include:
   a. Education for property owners, operator, tenants, occupants, or employees;
   b. Activity restrictions;
   c. Irrigation system and landscape maintenance;
   d. Common area litter control;
   e. Street sweeping private streets and parking lots; and
   f. Drainage facility inspection and maintenance.

2. Structural source control BMPs include:
   a. MS4 stenciling and signage;
   b. Landscape and irrigation system design;
   c. Protect slopes and channels; and
   d. Properly design fueling areas, refuse areas, loading docks, and outdoor material storage areas.

Treatment Control BMPs. Treatment control BMPs supplement the pollution prevention and source control measures by treating the water to remove pollutants before it is released from the project site. The treatment control BMP strategy for the project is to select LID BMPs that promote infiltration and evapotranspiration, including the construction of infiltration basins, bioretention facilities, and extended detention basins. Where infiltration BMPs are not appropriate, bioretention, and/or biotreatment BMPs (including extended detention basins, bioswales, and constructed wetlands) that provide opportunity for evapotranspiration and incidental infiltration may be utilized. Harvest and use BMPs (i.e., storage pods) may be used as a treatment control BMP to store runoff for later non-potable uses.

NOTE: The following changes have been made in response to Comment F-1-78 in Letter F-1 from the Center for Biological Diversity/San Bernardino Valley Audubon Society and F-11-44 in Letter F-11 from the Sierra Club.

Site-specific WQMPs have not been prepared at this time as no site-specific development project has been submitted to the City for approval. When specific projects within the project are developed, BMPs will be implemented consistent with the goals contained in the master WQMP. All development within the project will be required to incorporate on-site water quality features to meet or exceed the approved Master WQMP's water quality requirements identified previously. This would include the

design based on the appropriate pollutant loads for the project from all sources including climate change.

The project will comply with the *Water Quality Management Plan for the Santa Ana Region of Riverside County* (approved by the Santa Ana Regional Water Quality Control Board October 22, 2012), which requires the use of Low Impact Development (LID) BMPs that maximize infiltration, harvest and use, evapotranspiration and/or bio-treatment. Flows from the project will be treated first by LID BMPs where the flow will be infiltrated, evapotranspired, or treated. As required by **Mitigation Measure 4.9.6.1A**, the treated flows will then be reduced to below or equal to pre-development conditions by routing the on-site storm water flows through a series of on-site detention and infiltration basins before flows are released off site. These basins will provide incidental infiltration and secondary treatment downstream of the LID BMPs. All runoff from the site will be treated by LID BMPs and then routed through the detention and infiltration basins before it leaves the project area and into Mystic Lake and the San Jacinto Wildlife Area.

The Water Quality Management Plan Guidance Document for the Santa Ana Region of Riverside County discusses water quality impacts and the use of LID BMPs:

> *"LID BMPs have been shown in studies throughout the country to be effective and reliable at treating a wide range of Pollutants that can be found in urban runoff, including those listed above, and those subject to adopted TMDLs in the Santa Ana Region of Riverside County (Bacteria and Nutrients). As such, the LID BMPs required in this WQMP are expected to treat discharges of urban-sourced 303(d) listed Pollutants from subject projects to an impaired waterbody on the 303(d) list such that the discharge from the project would not cause or contribute to an exceedance of Receiving Water Quality Objectives."* ~~(page 19)~~

The project will comply with the Nutrient TMDL for Lake Elsinore and Canyon Lake by implementing LID-based BMPs. According to the *Comprehensive Nutrient Reduction Plan for Lake Elsinore and Canyon Lake* (prepared for Riverside County Flood Control and Water Conservation District by CDM Smith, January 28, 2013 in compliance with Order No. R8-2010-0033, NPDES Permit No. CAS618033), "Post construction LID based BMPs required for new development and significant redevelopment projects are the only structural watershed based BMPs currently included in the CNRP. The newly developed WQMP requirements ensure that a portion of the wet weather runoff will be contained onsite for all future development projects subject to WQMP requirements. Implementation of WQMP requirements over time coupled with the in lake remediation projects are expected to provide sufficient mitigation of nutrients." ~~(p. 2-3).~~

Specific Plan Design Features. Long-term water quality design is addressed in Section 5.4, *On-site Landscaping*, of the Specific Plan and encourages (a) minimization of urban runoff; (b) minimization of impervious footprint of development; (c) conservation of natural areas; and (d) minimization of directly connected impervious areas. The previous section outlined the BMPs from the Specific Plan that include the following:

1. Maximize the permeable area;
2. Incorporate landscaped buffer areas between sidewalks and streets;
3. Maximize canopy interception and water conservation by preserving existing native trees and shrubs, and planting additional native or drought tolerant trees and large shrubs;
4. Use natural drainage systems;

5. Where soils conditions are suitable, use perforated pipe or gravel filtration pits for low flow infiltration;
6. Construct ponding areas or retention facilities to increase opportunities for infiltration consistent with vector control objectives;
7. Minimize the use of impervious surfaces, such as decorative concrete, in the landscape design;
8. Sites must be designed to contain and infiltrate roof runoff, or direct roof runoff to vegetative swales or buffer areas, where feasible;
9. Where landscaping is proposed, drain impervious sidewalks, walkways, trails, and patios into adjacent landscaping;
10. Increase the use of vegetated drainage swales in lieu of underground piping or imperviously lined swales;
11. Parking areas may be paved with a permeable surface, or designed to drain into landscaping prior to discharging to the MS4; and
12. Where landscaping is proposed in parking areas, incorporate landscape areas into the drainage design.

Figure 4.9.7 summarizes how protection of water quality is incorporated into the project design.

NOTE: The changes to the following mitigation measures have been made in response to Comment B-6-3 in Letter B-6 from the Santa Ana Regional Water Quality Control Board.

Mitigation Measures. To address potential impacts to water quality during the project's long-term operations, the following measures have been identified:

4.9.6.3A Prior to ~~issuance of any grading or building permits~~ discretionary permit approval for individual plot plans, a site-specific Water Quality Management Plan (WQMP) shall be submitted to the City Land Development Division for review and approval. The Water Quality Management Plan shall specifically identify site design, source control, and treatment control Best Management Practices that shall be used on site to control pollutant runoff and to reduce impacts to water quality to the maximum extent practicable. The Water Quality Management Plan shall be consistent with the Water Quality Management Plan approved for the overall World Logistics Center Specific Plan project. At a minimum, the site developer shall implement the following site design, source control, and treatment control Best Management Practices as appropriate:

Site Design Best Management Practices

(a) Minimize urban runoff.
(b) Maximize the permeable area.
(c) Incorporate landscaped buffer areas between sidewalks and streets.
(d) Maximize canopy interception and water conservation by planting native or drought-tolerant trees and large shrubs.
(e) Use natural drainage systems.
(f) Where soil conditions are suitable, use perforated pipe or gravel filtration pits for low flow infiltration.

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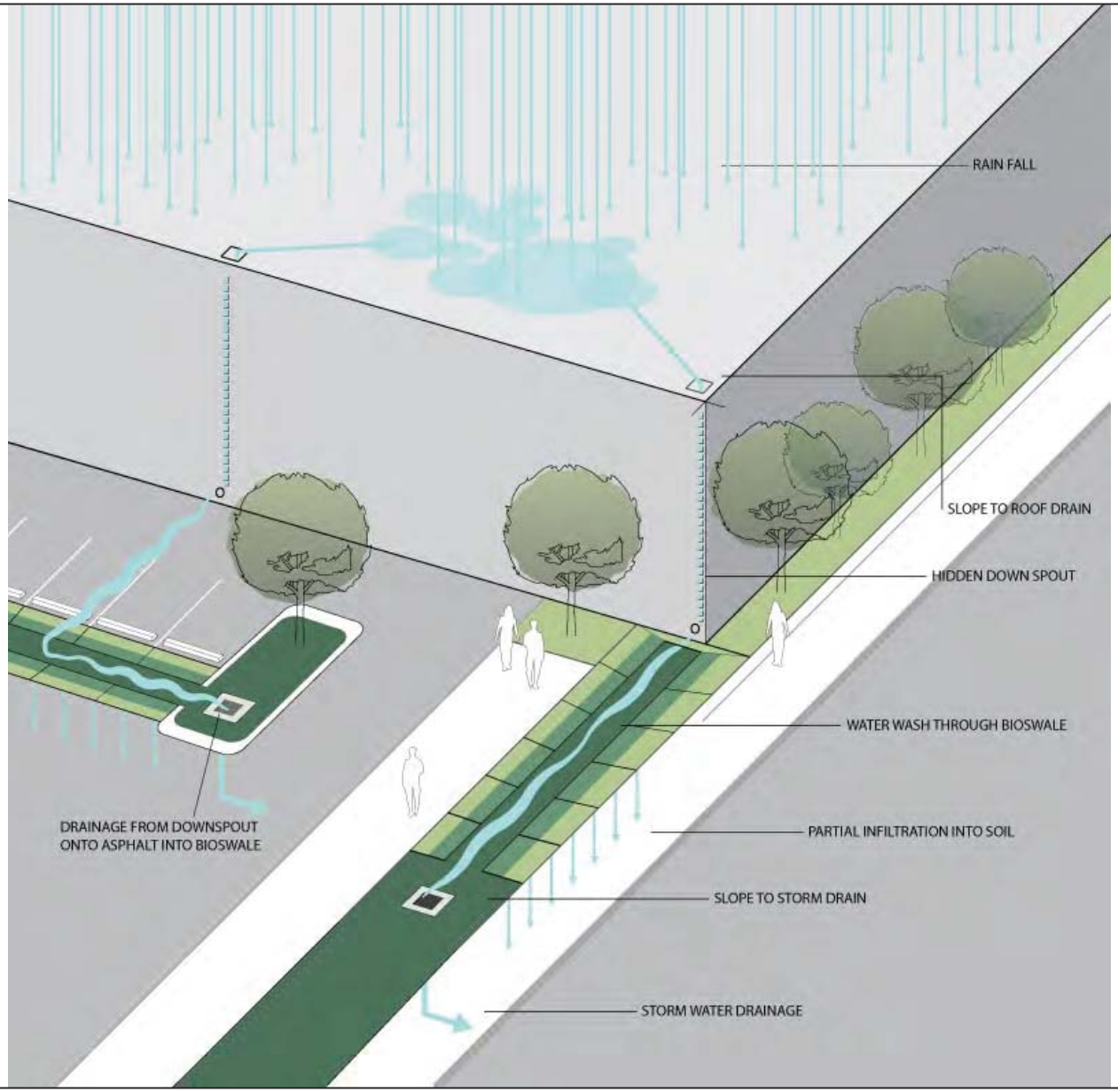

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FIGURE 4.9.7

World Logistics Center Specific Plan Project
Environmental Impact Report

Water Quality Management Diagram

SOURCE: World Logistics Center Specific Plan, Highlandfairview, November, 2012.

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(g) Construct on-site ponding areas or retention facilities to increase opportunities for infiltration consistent with vector control objectives.
(h) Minimize impervious footprint.
~~(i) Maximize the permeable area.~~
(j) Construct streets, sidewalks and parking lot aisles to the minimum widths necessary, provided that public safety and a walkable environment for pedestrians are not compromised.
(k) Reduce widths of street where off-street parking is available.
(l) Minimize the use of impervious surfaces such as decorative concrete, in the landscape design.
(m) Conserve natural areas.
~~(n) Maximize canopy interception and water conservation by planting native or drought tolerant trees and large shrubs.~~
~~(o) Use natural drainage systems.~~
(p) Minimize Directly Connected Impervious Areas (DCIAs).
(q) Runoff from impervious areas will sheet flow or be directed to treatment control Best Management Practices.
(r) Streets, sidewalks, and parking lots will sheet flow to landscaping/ bioretention areas <u>that are planted with native or drought tolerant trees and large shrubs</u>.

Source Control Best Management Practices

Source control Best Management Practices are implemented to eliminate the presence of pollutants through prevention. Such measures can be both non-structural and structural:

<u>Non-structural source control Best Management Practices include:</u>

(a) Education for property owners, operator, tenants, occupants, or employees;
(b) Activity restrictions;
(c) Irrigation system and landscape maintenance;
(d) Common area litter control;
(e) Street sweeping private streets and parking lots; and
(f) Drainage facility inspection and maintenance.

<u>Structural source control Best Management Practices include:</u>

(g) MS4 stenciling and signage;
(h) Landscape and irrigation system design;
(i) Protect slopes and channels; and
(j) Properly design fueling areas, trash storage areas, loading docks, and outdoor material storage areas.

Treatment Control Best Management Practices

Treatment control Best Management Practices supplement the pollution prevention and source control measures by treating the water to remove pollutants before it is released from the project site. The treatment control Best Management Practice strategy for the project is to select Low Impact Development (LID) Best Management Practices that promote infiltration and evapotranspiration, including the construction of infiltration basins, bioretention facilities, and extended detention basins. Where infiltration Best Management Practices are not appropriate, bioretention and/or biotreatment Best Management Practices (including extended detention basins, bioswales, and constructed wetlands) that provide opportunity for evapotranspiration

and incidental infiltration may be utilized. Harvest and Reuse Best Management ~~Practices (i.e., storage pods) may be used as a treatment control Best Management~~ Practice will be used to store runoff for later non-potable uses.

Site-specific Water Quality Management Plans have not been prepared at this time as no site-specific development project has been submitted to the City for approval. When specific projects within the project are developed, Best Management Practices will be implemented consistent with the goals contained in the ~~m~~ Master Water Quality Management Plan. All development within the project will be required to incorporate on-site water quality features to meet or exceed the approved Master Water Quality Management Plan's water quality requirements identified previously.

4.9.6.3B The Property Owners Association (POA) and all property owners shall be responsible to maintain all onsite water quality basins according to requirements in the guidance Water Quality Management Plan and/or subsequent site-specific Water Quality Management Plans, and established guidelines of the Regional Water Quality Control Board. Failure to properly maintain such basins shall be grounds for suspension or revocation of discretionary operating permits, and/or referral to the Regional Water Quality Control Board for review and possible action. This measure shall be implemented to the satisfaction of the City Land Development Division, in consultation with the City Engineer, and Regional Water Quality Control Board.

The changes to the following mitigation measure has been made in response to Comment B-3-39 in Letter B-3 from the California Department of Fish and Wildlife, Comment B-6-3 in Letter B-6 from the Santa Ana Regional Water Quality Control Board, and other similar comments.

4.9.6.3C Prior to issuance of future discretionary permits for any development along the southern boundary of the World Logistics Center Specific Plan (WLCSP), the project developer of such sites, in cooperation with the Property Owners Association (POA), shall establish and annually fund a Water Quality Mitigation Monitoring Plan (WQMMP) to confirm that project runoff will not have deleterious effects on the adjacent San Jacinto Wildlife Area (SJWA). This program shall include at least quarterly sampling along the southern boundary of the site (i.e., at the identified outlet structures of the project detention basins) during wet season flows and/or when water is present, as well as sampling of any dry-season flows that are observed entering the San Jacinto Wildlife Area property from the project property, including Drainage ~~"H,"~~ 9, which is planned to convey only clean off-site flows from north of the World Logistics Center Specific Plan site across Gilman Springs Road. The program shall also include at least twice yearly sampling after completion of construction, and a pre-construction survey must be completed to determine general water quality baseline conditions prior to and during development of the southern portion of the World Logistics Center Specific Plan. This sampling shall be consistent with and/or comply with the requirements of applicable Storm Water Pollution Prevention Plans (SWPPPs) for the development site.

The project developer of sites along the southern border of the World Logistics Center Specific Plan shall be responsible for preventing or eliminating any toxic pollutant (not including sediment) found to exceed applicable established public health standards. In addition, the discharge from the project shall not cause or contribute to an exceedance of Receiving Water Quality Objectives for the potential pollutants associated with the project as identified in Table 4.9.J. Once development is complete, the developer shall retain qualified personnel to conduct regular (i.e., at least quarterly) water sampling/testing of any basins and their outfalls to ensure the

San Jacinto Wildlife Area will not be affected by water pollution from the project site. ~~The City Planning and/or Land Development Division shall file an annual water quality report with the Moreno Valley City Council, State Department of Recreation (Mystic Lake Manager), and Eastern Municipal Water District.~~ This measure shall be implemented to the satisfaction of the City ~~Planning Official~~ Land Development Division Manager based on consultation with the project developer, Eastern Municipal Water District, the Regional Water Quality Control Board-Santa Ana Region, and the Mystic Lake Manager.

Level of Significance After Mitigation. The proposed project incorporates on-site drainage control structures and programs sufficient to meet the applicable Federal, State, and local water quality requirements. Through the use of site design BMPs, source control BMPs (e.g., street and parking lot sweeping and vacuuming), and treatment control BMPs (e.g., infiltration basins, bioretention areas, and pervious pavement), the resulting pollutant loads coming from the project will be reduced, thereby reducing pollutants discharged from urban storm water runoff to surface water bodies. Compliance with the requirements of the NPDES permit, which include implementation of the BMPs outlined in the WQMP, will be enforced by the City during the ongoing operation of the project. Implementation of **Mitigation Measures 4.9.6.3A** through **4.9.6.3C** will help to reduce potential water quality impacts resulting from storm water and urban runoff to less than significant levels.

4.9.7 Cumulative Impacts

Cumulatively, development within the watershed will result in an increase in impervious surfaces in addition to changes in land use and associated pollutant runoff characteristics. Increased impervious surfaces are likely to alter existing hydrology and increase potential pollutant loads. However, all future development in the City and throughout the Santa Ana RWQCB will be required to comply with the requirements of the NPDES permit program. Continued growth is anticipated to occur in the City and surrounding areas and all new development and significant redevelopment will be required to minimize its individual impacts to water quality and pollutant transport through implementation of BMPs. Therefore, since all new developments will be required to mitigate for impacts to water quality, a less than significant cumulative impact to water quality will occur.

Cumulatively, continued development within the West San Jacinto Groundwater Management Plan area will result in an increase in demand on water sources, including both surface and groundwater supplies. Since the majority of the projects within the Plan area obtain water service from the EMWD, most of the cumulative development will rely on imported water purchased from Metropolitan with supplements from local groundwater sources. As stated in the previous Section 4.9.5.3, there has been a shift in the water demand patterns in the last 15 years, as a residential market has replaced an agricultural market, with a resulting incremental increase in urban-related surface and groundwater pollution. The proposed project will make an incremental contribution to production of urban pollutants, but the site-specific water quality Best Management Practices will help ensure that these contributions will not make a significant contribution to any cumulatively considerable regional water quality impacts.

The EMWD's Urban Water Management Plan (UWMP) concludes that the EMWD has sufficient supplies of local groundwater and imported surface water to accommodate existing and planned development, including the proposed project, as documented in the project's Water Supply Assessment (see Appendix M). For these reasons, the proposed project will not make a significant contribution to any cumulatively considerable surface water or groundwater supply impacts.

The drainage system for the proposed project will be designed so that peak flows from post-development runoff are equal to or less than historic conditions at any given off-site discharge

location and no additional mitigation measures are proposed for cumulative impacts. This same requirement will be placed on all other development in the vicinity of the project site by the City of Moreno Valley. The proposed project, including implementation of its master drainage plan, will not make a significant contribution to any cumulatively considerable impacts related to drainage or water quality on a local or regional basis.

4.10 LAND USE AND PLANNING: TABLE OF CONTENTS

FIGURES

TABLES

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NOTE TO READERS. *Although there were numerous questions about potential impacts to the City Housing Element, no major revisions have been made to this section based on the response to comments in Final Programmatic EIR Volume 1.*

4.10 LAND USE AND PLANNING

This section of the EIR addresses the land use impacts that will result from the change from the existing on-site land uses to the proposed land uses. In addition, this section analyzes the consistency of the proposed WLC project with the goals and policies of the City of Moreno Valley General Plan, applicable community plans, and the Zoning Code, and compatibility within local and regional plans. This section also identifies and evaluates the compatibility of the proposed WLC project with existing land uses and the potential land use impacts that may result during or subsequent to development of the proposed on-site uses.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers ~~3,918~~ 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes ~~3,814~~ 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering ~~3,814.~~ 3,714 acres, which redesignates approximately ~~71~~70 percent of the area (~~2,710~~ 2,610 acres) for logistics warehousing (new LD and LL~~, LS~~ zones) and the remaining ~~29~~30 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the ~~2,710~~ 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*. ~~The environmental impacts of all of these entitlements on the entire project area are addressed in this EIR and the accompanying technical reports and analyses.~~

The following technical study was prepared to support the analysis of potential impacts in this section:

- David Taussig and Associates, Inc. (DTAA). *Fiscal and Economic Impact Study*, Draft dated March 13, 2012, revised report dated ~~January 15, 2013~~ September 2014.

The analysis contained in this section is also based on the following reference documents:

- *City of Moreno Valley General Plan*, City of Moreno Valley, 2006;
- *Updated and Certified City of Moreno Valley Housing Element,* 2011;
- *Municipal Code*, City of Moreno Valley, codified through February 12, 2012;
- *Final Sustainable Communities Strategies Plan,* Southern California Association of Governments (SCAG), April 2012;
- *Final 2008 Regional Comprehensive Plan,* SCAG, October 2008;
- *Final 2012 Regional Transportation Plan*, SCAG, adopted April 2012;
- *Final 2010 Urban Water Management Plan*, Eastern Municipal Water District (EMWD), approved December 2010;
- *Riverside County Airport Land Use Compatibility Plan, Volume 1,* Riverside County Airport Land Use Commission (ALUC), October 14, 2004;
- *Water Quality Control Plan Santa Ana River Basin (8),* California Regional Water Quality Control Board (RWQCB), approved January 24, 1995;
- *Western Riverside County Multiple Species Habitat Conservation Plan*, Volume I, Part I, Dudek & Associates, June 17, 2003; and
- *Draft Environmental Impact Report, Highland Fairview Corporate Park*. (Skechers), Michael Brandman Associates, August 4, 2008.

4.10.1 Existing Setting

The project area includes two adjacent areas, the WLC Specific Plan Area and the General Plan Amendment Area. The two areas combined make up most of the older Moreno Highlands Specific Plan.

4.10.1.1 Project Location

The proposed WLC project area is located in the northwestern Riverside County, within the eastern portion of the City of Moreno Valley. The proposed WLC project is situated generally south of SR-60, between Redlands Boulevard and Gilman Springs Road (the easterly City limit), extending to the southerly City limit. Previously referenced Figure 1.2 in Section 1.0, *Executive Summary*, depicts the proposed WLC project boundary on the applicable U.S. Geological Survey (USGS) Quad sheets.

4.10.1.2 Existing On-site Land Uses

The project area is largely undeveloped land and Figure 4.10.1 shows an aerial view of existing land uses. Presently, there are seven single-family homes in various locations on the property along with associated ranch/farm buildings. Most of the site has been used for dry farming at one time or another since the early 1900s, and much of the site continues to be used for dry farming at the present time. San Diego Gas & Electric (SDG&E) operates a natural gas compressor station, known as the Moreno Compressor Station, on 18 acres in the southern portion of the site. Southern California Gas Company (SCGC) operates a valving, metering, and pipe cleaning station on a one-acre parcel in the south-central portion of the site.

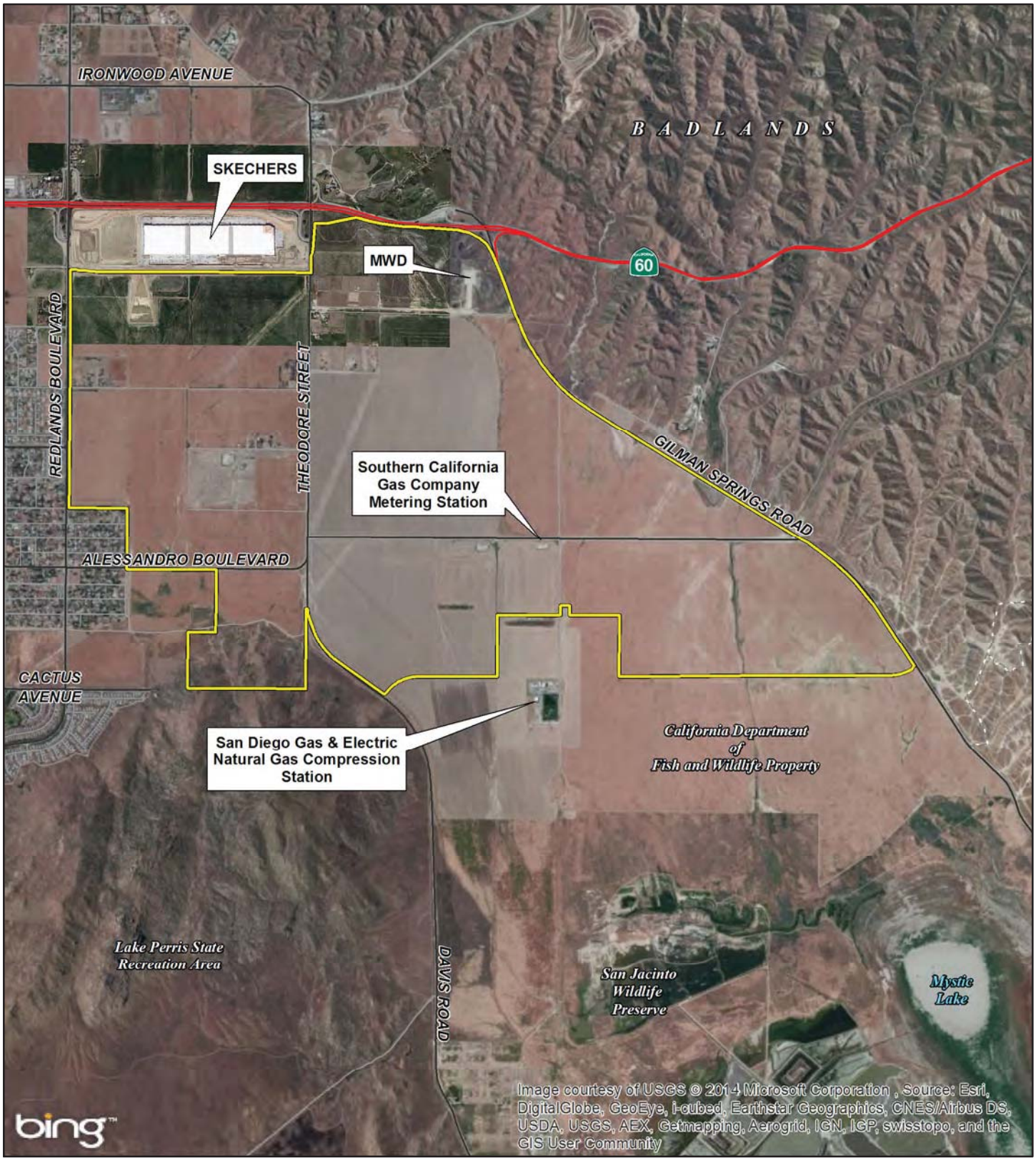

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FIGURE 4.10.1

Project Boundary

N

0 1,500 3,000

FEET

World Logistics Center Specific Plan Project
Environmental Impact Report

Aerial Photograph

SOURCE: ESRI World Imagery, 2010; Bing Maps, 2010; Google Maps, 2011.

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4.10.1.3 Existing Roadways

The major roadways that currently provide access to the WLC project area are SR-60 (the Moreno Valley Freeway), Redlands Boulevard, Alessandro Boulevard, Gilman Springs Road, and Theodore Street. Redlands Boulevard and Theodore Street are north-south collector roadways that intersect with SR-60. Alessandro Boulevard is an east-west thoroughfare that runs through Moreno Valley from Interstate 215 (I-215) on the west to Gilman Springs Road on the east. Gilman Springs Road runs in a northwesterly-southeasterly direction connecting SR-60 to the Hemet-San Jacinto area and State Route 79 (SR-79).

4.10.1.4 General Surrounding Land Uses

To the west of the proposed WLC project area are more developed portions of the City of Moreno Valley. Near the southern and western boundaries of the proposed project are existing residential neighborhoods along the west sides of Redlands Boulevard and Merwin Street; a small market and a Post Office are also located near Redlands and Alessandro Boulevards. A new industrial warehouse project (Westridge) was recently approved just west of Redlands Boulevard and south of SR-60 but it has been challenged in court. Another large warehouse project (ProLogis Eucalyptus Industrial Park) is currently being processed by the City just west of the Westridge project and is due to be considered by the City Council in December 2014. Farther to the west, there is a variety of commercial and auto sales uses along Moreno Beach Drive.

Highland Fairview Corporate Park (HFCP), located north and west of the project area between Redlands Boulevard and Theodore Street, is currently under development and the first phase was completed in late 2011 (Skechers). The area north of SR-60 is largely undeveloped with clusters of low-density residential development within the Moreno Valley city limits.

There is little development adjacent to the east and south boundaries of the project area. The area easterly of the project, commonly referred to as the Badlands, is a rugged area that separates the City of Moreno Valley from San Timoteo Canyon and the City of Beaumont. Most of the Badlands area north of SR-60 is incorporated into the Norton Younglove Reserve. Due to its reserve status, steep slopes and canyons, the Badlands area has experienced little development; however, there are scattered single-family homes in the area east of Gilman Springs Road. The Badlands Sanitary Landfill, operated by the County of Riverside Waste Management Department, is located approximately 1.5 miles northeasterly of the project area in the Badlands.

The area south of the proposed project site is the San Jacinto Wildlife Area (SJWA), which includes an Upland Game Hunting Area and is adjacent to the Lake Perris State Recreation Area. These lands are State-owned and access to these areas is restricted. The SJWA is owned and operated by the California Department of Fish and Wildlife (CDFW) and contains approximately 9,000 acres of restored wetland and ponds. The Lake Perris State Recreation Area is owned and operated by the California State Parks Department and contains approximately 6,000 acres of open space land, which is used both for recreation and preservation of the natural southern California landscape.

In 1981–82, the State Wildlife Conservation Board initially purchased 15,000 acres of the Mystic Lake area as mitigation for habitat impacts associated with the construction of the State Water Project. This area was designated as the SJWA. In 1995, the Board acquired an additional 921 acres of upland farmland within the southern portion of the Moreno Highlands Specific Plan (MHSP) property to incorporate into the SJWA. In 2001, the Board acquired an additional 274 acres in this same area. This land was purchased to provide a buffer between the land surrounding Mystic Lake and the planned urban development within Moreno Valley. The Board action on this purchase indicated the land was to “facilitate restoration of historic water flows back into the lake bed and allow for reversion back to wetlands during wet years, and areas of low vegetation cover during dry years, all providing

significant habitat for species using the SJWA, including a number of state and federally listed species."[1]

Most of the State-owned land south of the project area is referred to as the SJWA. However, the land purchased out of the Moreno Highlands Specific Plan is referred to in this EIR as the CDFW Conservation Buffer Area to denote the reason for its original purchase. The 1,195 acres acquired by the Wildlife Board during the past 20 years was intended to serve as an effective buffer between the SJWA and the development expected to occur north of the SJWA area (the present mixed-use Moreno Highlands Specific Plan). Currently, this acreage provides not only a buffer area, but also provides open space for raptor and bird foraging habitat, and is actively farmed under CDFW contract. The proposed project will permanently designate this CDFW Conservation Buffer Area as Open Space under the City General Plan. It is anticipated the State would maintain its function as a buffer and also as foraging habitat for raptors as long as it is regularly tilled. There are no plans to alter the current agricultural use of the property.

There are two future commercial areas located immediately north of the project area. The first is located at the northwest corner of Theodore Street and Eucalyptus Avenue (proposed 80,000 square feet) and the second is at the northeast corner of Redlands Boulevard and Eucalyptus Avenue (proposed 120,000 square feet). The nearest large-scale commercial development is located on the south side of SR-60 at Moreno Beach Drive approximately 1.25 miles to the west of the proposed WLC project; this shopping complex includes Walmart and Target along with restaurants and ancillary commercial and service uses, as well as the Moreno Valley Auto Center. The central core of Moreno Valley, which includes residential neighborhoods and commercial activity, is located approximately three miles west of the project area.

March Air Reserve Base (MARB) is located approximately seven miles southwesterly of the WLC planning area. The MARB is under the authority of the March Joint Powers Authority, which acts as the land use authority, the Redevelopment Agency and Airport Authority (the March Inland Port Airport Authority) for reuse of the former March Air Force Base.

4.10.1.5 Existing General Plan, Specific Plan, and Zoning Land Use Designations Applicable to the Proposed WLC Project Site

The Community Development Element of the City's General Plan currently designates the project area as a mix of residential and associated uses, commercial, business park, and open space land uses. In 1992, the City approved the 3,038-acre Moreno Highland Specific Plan (MHSP) as a master planned, mixed-use community, consisting of up to 7,~~283~~763 residential dwelling units and associated uses (on approximately 2,435 acres) and approximately 603 acres of business, retail, institutional, and other uses. The Moreno Highland Specific Plan is incorporated into the City's General Plan (see Table 4.10.A).

The MHSP called for the development of an approximately 7,300 new residential units in the City of Moreno Valley. However, as discussed below, the City of Moreno Valley already has a very low jobs-to-housing ratio, meaning that the City has a surplus of housing as compared to jobs. This reduces the demand for new housing in the area, and implementation of the MHSP would further lower the jobs/housing ratio. In addition, the 2008–2009 recession resulted in a substantial reduction of housing prices in the Inland Empire, the State of California, and throughout most of the U.S. As is well documented in the press, foreclosure rates became very high, and the demand for newly constructed housing has been greatly reduced. Therefore, the current demand for housing development on the site is greatly limited. As such, none of the MHSP has been implemented.

[1] Wildlife Conservation Board minutes from May 18, 2001.

Table 4.10.A: Moreno Highlands Specific Plan (Current Land Use Designations)

Land Use	Acreage
Residential Community	
Residential (7,763 dwelling units)	1,359.3
Parks and Open Space	701.9
Neighborhood Commercial	10.0
Cemetery	16.5
Public Facilities	347.7
Planned Business Center	
Business Park	360.8
Mixed Use	80.5
Community Commercial	16.0
Parks and Open Space	77.9
Public Facilities	67.4
Project Total	**3,038**

Adopted by City Council March 17, 1992

In February 2011, the City adopted an updated Housing Element that identified the MHSP project area as a potential location for future jobs-producing land uses, rather than residential uses. In April 2011, the City adopted its Economic Development Action Plan, which identified eastern Moreno Valley as a potential area for major job-producing land uses. The proposed WLC Specific Plan project is consistent with this planning prerogative, and seeks to comprehensively plan the project area for jobs-producing land uses.

4.10.1.6 Surrounding Land Uses

South of SR-60/East of Redlands Boulevard. The HFCP project is currently under development. Phase 1 (Skechers' North American Operational Headquarters) was completed in late 2011. HFCP is located immediately north and west of the project area, on the north side of Eucalyptus Avenue between Redlands Boulevard and Theodore Street. The HFCP project was approved by the City of Moreno Valley in 2009. The City General Plan land use designation for the site is Commercial (C) and Business Park/Light Industrial (BP/LI).

North of SR-60. The land located on the north side of SR-60 and westerly of Theodore Street is within the City of Moreno Valley and has a land use designation of Office (O) and Residential (R1-density of one dwelling unit per acre). The area easterly of Theodore Street is unincorporated within the County of Riverside with land use designations of Scenic Highway Commercial (C-P-S) and Controlled Development Area (W-2). The W-2 area allows single-family residential and light agriculture (the suffix indicates a 2-acre minimum parcel size); and the C-P-S district allows certain wholesale and retail commercial uses. This County territory is within the City's Sphere of Influence; the City land use designation for the area is Rural Residential (RR) and Residential (R1).

East of Gilman Springs Road. The Badlands area, easterly of Gilman Springs Road, is unincorporated within the jurisdiction of the County of Riverside and has a land use designation of Controlled Development Area (W-2, W-2-1, and W-2-20); allowed uses include single-family residential and light agriculture (the suffix indicates minimum parcel size in acres). This County territory is also within the City's Sphere of Influence and the City land use designation for the area is Rural Residential (RR).

Southern Boundary. The land area to the south of the project is within the SJWA and the Lake Perris State Recreation Area. Portions of these facilities are within the City limits and have a City General Plan land use designation of Open Space (OS).

West of Redlands Boulevard. The City land use designations for the residential areas west of Redlands Boulevard are Residential R2 and R3 (maximum density of 2 and 3 dwelling units per acre, respectively). Residential areas southerly of the site along Alessandro Boulevard are subject to City land use designations of R2 and R5 (maximum density of 2 and 5 dwelling units per acre).

4.10.1.7 Project Components

The project components are described in detail in Section 3.4, *Project Characteristics*. The City of Moreno Valley is the Lead Agency for the proposed WLC project. The entitlements necessary for the proposed WLC project include approval of the following:

- General Plan Amendment(s) for the former MHSP site to Business Park/Light Industrial (BP/LI);
- World Logistics Center Specific Plan with Logistics Development (LD) and Light Logistics (LL) zones;
- Corresponding Zone Change to Specific Plan for the WLCSP and redesignate the CDFW Conservation Buffer Area as Open Space and the natural gas facilities as Public Facilities
- Development Agreement for parcels owned by the project applicant;
- Tentative Parcel Map (for financing purposes only); and
- Annexation of an 85-acre parcel along Gilman Springs Road.

In addition, the project will require other associated actions and approvals by other public entities in order to construct and operate the proposed WLC project.

General Plan Amendment. The General Plan Amendment proposes a revision to the City General Plan land use designations for the entire MHSP area, including the project area as set forth in the proposed WLC Specific Plan. The General Plan Amendment also includes amendments to the following elements: (a) Community Development; (b) Parks, Recreation and Open Space; (c) Circulation; (d) Environmental Safety; and (e) Conservation. With these amendments, these elements will be modified to authorize ~~the World Logistics Center General Plan Land Use designations and~~ the World Logistics Center Specific Plan and designate the WLC property for Business Park/Light Industrial (BP/LI) land uses.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

Specific Plan. The proposed WLC project includes the 2,~~710~~610-acre World Logistics Specific Plan to implement the logistics and industrial portion of the General Plan Amendment and to set forth comprehensive land use regulations governing the proposed WLC project. The World Logistics Center Specific Plan is a master plan for the development of approximately ~~41~~40.6 million square feet of modern high-cube logistics warehouse distribution facilities and up to 200,000 square feet of light logistics uses.

The Specific Plan establishes the master plan of development for the project area, including development standards and use regulations, a master plan for circulation and infrastructure, architectural, landscape and design guidelines and sustainability goals, all of which will be applicable to all development within the developable project area.

Within the Specific Plan, the primary land use category will be Logistics Development. This use will provide for high-cube logistics warehouse space consisting of buildings of 500,000 square feet or greater, with ceiling heights of approximately 60–80 feet. Warehousing and logistics activities consistent with the storage and processing of manufactured goods and materials prior to their distribution to other facilities and retail outlets will be permitted within this category. Ancillary office and maintenance space will be permitted, along with the outdoor storage of trucks, trailers, and shipping containers.

Change of Zone. The Change of Zone will establish the World Logistics Center Specific Plan, which will replace most of the Moreno Highlands Specific Plan and rezone several other properties. It will also redesignate the CDFW Conservation Buffer Area as Open Space and the natural gas facilities as Public Facilities. The WLCSP property will have two new land use zones, Logistics Development (LD) and Light Logistics (LL).

Annexation. The project includes the annexation by the City of an 85-acre parcel located on the north side of Alessandro Boulevard at Gilman Springs Road. This parcel is already within the City's Sphere of Influence. The proposed project includes pre-annexation General Plan land use designations and zoning for this parcel, and the EIR will be the environmental documentation used by the Local Agency Formation Commission (LAFCO) to complete the annexation process. The County's land use designation currently applicable to this parcel is W-2-2½. The W-2 area allows single-family residential and light agriculture (the suffix indicates minimum parcel size in acres) and the City's current General Plan land use designation for the site is Business Park (BP). This project proposes to incorporate this property into the World Logistics Center Specific Plan.

4.10.1.8 General Plan and Zoning Designations

Table 4.10.B compares the existing and proposed land uses in the project vicinity.

Table 4.10.B: Existing and Proposed Land Uses in the Project Vicinity

Location	Current Land Uses	Existing General Plan Land Uses	Proposed General Plan and Specific Plan/ Zoning Designations
On-site	Agricultural/ undeveloped	Moreno Highlands Specific Plan with Residential, Commercial, Public Facilities, Business Park, Open Space, Mixed Use	Business Park/Light Industrial (BP/LI) with the World Logistics Center Specific Plan Specific Plan including Logistics Development (LD), Light Logistics (LL), ~~Logistics Support (LS),~~ and Open Space (OS).
North of Site/ South of SR-60	Highland/ Fairview Corporate Park	Commercial/Light Industrial	No Change
North of Site/ North of SR-60	Low Density Residential/ Agriculture	Low Density Residential/ Office Strip along freeway	No Change
South	Open Space	Open Space	No Change
East	Open Space	Open Space	No Change
West	Residential/ Undeveloped	Residential	No Change

4.10.2 Applicable Regulations

The following goals, objectives, and policies of the City of Moreno Valley General Plan are applicable to the proposed WLC project:

Section 9.2.2 Community Development

Goal 2.1 A pattern of land uses which organizes future growth, minimizes conflicts between land uses, and which promotes the rational utilization of presently underdeveloped and undeveloped parcels.

Goal 2.2 An organized, well-designed, high quality, and functional balance of urban and rural land uses that will meet the needs of a diverse population, and promote the optimum degree of health, safety, well-being, and beauty for all areas of the community, while maintaining a sound economic base.

Goal 2.3 Achieves an overall design statement that will establish a visually unique image throughout the City.

Objective 2.1 Balance the provision of urban and rural lands within Moreno Valley by providing adequate land for present and future urban and economic development needs, while retaining the significant natural features and the rural character and lifestyle of the northeastern portion of the community.

Objective 2.5 Promote a mix of industrial uses which provide a sound and diversified economic base and ample employment opportunities for the citizens of Moreno Valley with the establishment of industrial activities that have good access to the regional transportation system, accommodate the personal needs of workers and business visitors; and which meets the service needs of local businesses.

Policy 2.5.1 The primary purpose of areas designated Business Park/Industrial is to provide for manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities. The zoning regulations shall identify the particular uses permitted on each parcel of land. Development intensity should not exceed a Floor Area Ratio of 1.00 and the average floor area ratio should be significantly less.

Policy 2.5.2 Locate manufacturing and industrial uses to avoid adverse impacts on surrounding land uses.

Policy 2.5.3 Screen manufacturing and industrial uses where necessary to reduce glare, noise, dust, vibrations and unsightly views.

Policy 2.5.4 Design industrial development to discourage access through residential areas.

Section 9.6.2 Safety Element

Objective 6.6 Promote land use patterns that reduce daily automotive trips and reduce trip distance for work, shopping, school, and recreation.

4.10.3 Methodology

The focus of the land use analysis is on land use impacts that would result from implementation of the proposed WLC project. Land use conflicts are identified and evaluated based on existing land uses, land uses proposed as part of the project, land use designations, and standards and policies related to land use. Land use compatibility is based on the intensity and patterns of land use to determine whether a project would result in incompatible uses or nuisance impacts to sensitive receptors (e.g., residences, medical facilities, or schools).

An evaluation of the potential land use impacts associated with implementation of the proposed WLC project is based on review of the Moreno Valley General Plan and associated Final EIR, the Moreno Valley Municipal Code, SCAG Regional Comprehensive Plan, SCAG Regional Transportation Plan,

SCAG Compass Growth Vision, SCAQMD Air Quality Management Plan, Santa Ana Water Quality Control Plan, Riverside County Drainage Area Management Plan, and the EMWD Urban Water Management Plan. Compatibility of the proposed WLC project with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) is discussed in Section 4.4, *Biological Resources*.

4.10.4 Thresholds of Significance

Appendix G of the *CEQA Guidelines* recognizes the following significance thresholds related to land use. Based on these significance thresholds, potential impacts to land use could be considered significant if the proposed WLC project would result in the following:

- Physically divide an established community;
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the General Plan, Specific Plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; and/or
- Conflict with any applicable habitat conservation plan or natural community conservation plan.

4.10.5 Less than Significant Impacts

The following potential impacts were determined to be less than significant. In each of the following issues, either no impact would occur (therefore, no mitigation would be required) or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level.

4.10.5.1 Conflict with Any Applicable Habitat or Natural Community Conservation Plan

Threshold	Would the proposed WLC project conflict with any applicable habitat conservation plan or natural community conservation plan?

Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The project site is located within the MSHCP area, Mead Valley and Reche Canyon/Badlands Plan Area.[1] The MSHCP is a comprehensive, multi-jurisdictional effort that includes Riverside County and fourteen cities to provide a regional approach to conservation planning. ~~However, the study area is not located in any Criteria Cells; therefore, the proposed WLC project is not subject to cell criteria identified in the MSHCP, and is not located within any special linkage areas identified by the MSHCP. However,~~ the Portions of the project area occur in 14 criteria cells of the MSHCP. The project site is not located within any special linkage areas identified by the MSHCP. The project applicant, the City, and the County[2] are required to use the Joint Project Review (JPR) process established in the MSHCP to identify and acquire habitat as part of the development review process. The JPR process involves negotiations between a landowner and the Western Riverside County Regional Conservation Authority (RCA) so the County can acquire land with important habitat or other biological resources while providing fair compensation and/or reasonable development opportunities on the remaining land for the landowner.

[1] *Multiple Species Habitat Conservation Plan Compliance Report*, Michael Brandman Associates. ~~April 23, 2012~~ September 20, 2014.
[2] Western Riverside County Regional Conservation Authority (RCA)

The project site is located within areas requiring burrowing owl surveys, within the MSHCP Criteria Area Species Survey Area (CASSA), and Narrow Endemic Plant Species Survey Area (NEPSSA).

Because the project site is within an MSHCP CASSA and is considered to be a covered activity, the project is subject to provisions of the MSHCP. In particular, the project proponent will be required to provide payment of mitigation fees and adhere to the BMPs found in Appendix C of the MSHCP. Pursuant to agreements with the U.S. Fish and Wildlife Service (USFWS) and the CDFW, the payment of the mitigation fees and compliance provisions of the MSHCP provides full mitigation under CEQA, the Federal Endangered Species Act (FESA), and the California Endangered Species Act (CESA) for impacts to the species and habitats covered by the MSHCP. Since the City has adopted the MSHCP and its requirements and provisions, and since the project is within Moreno Valley, the proposed WLC project would be required to adhere to applicable MSHCP requirements and fees. Therefore, the WLC project was determined to be consistent with the MSHCP proposed WLC project (see Section 4.4, *Biological Resources*).

4.10.5.2 Conflict with Applicable Land Use Plans, Policies, or Regulations (Regional)

Threshold	Conflict with any applicable regional land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the General Plan, Specific Plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Section 15125 (d) of the *CEQA Guidelines* requires EIRs to “discuss any inconsistencies between the proposed project and applicable general plans and regional plans.” The objective of such a discussion is to find ways to modify a project, if warranted, to eliminate any identified inconsistencies with relevant plans and policies, and thereby avoid creating an impact to the environment that consistency with the plan would otherwise mitigate. Pursuant to *CEQA Guidelines* Section 15125 (d), this EIR section includes an evaluation of the consistency of the proposed WLC project with pertinent goals and policies of relevant adopted local and regional plans. Because certain plans are more specifically tailored to other issue areas, such as air quality, transportation, biology, hazards, water quality, and water supply, the local and regional plans identified below are addressed in detail in other sections of this EIR. The following analysis evaluates the proposed project against all the applicable regional planning documents and processes, while the following Section 4.10.6.1 evaluates the project relative to the City of Moreno Valley General Plan.

Airport Regulations. MARB is a joint-use airport, used for military and civilian purposes, located seven miles west of the project site. The project area is outside of any Federal or State regulation related to MARB. The project is also outside of any areas regulated by the Riverside County Airport Land Use Plan (ALUP). Therefore, the project does not have a conflict with the ALUP and no impact will occur.

SCAG Applicable Regional Plans. On April 4, 2012, the SCAG approved the year 2012 Regional Transportation Plan (RTP)/Sustainable Communities Plan (SCS). ~~As of this writing, the 2012 RTP has not yet been approved by the Federal agencies with jurisdiction. As such, this~~ This section evaluates consistency with both the SCAG 2008 RTP and the SCAG 2012 RTP.

SCAG 2008 Regional Comprehensive Plan (RCP), Regional Transportation Plan (RTP), and Compass Growth Vision (Compass): The SCAG (the designated Metropolitan Planning Organization [MPO] for the Counties of Ventura, Orange, San Bernardino, Riverside, Imperial, and Los Angeles) is federally mandated to develop plans for transportation, growth management, hazardous waste management, and air quality. With its members and other regional planning entities, the SCAG prepared the 2008 RCP to serve as a framework to guide decision-making with respect to

the growth and changes that can be anticipated in the region for the 2008–2012 timeframe. The RCP is a major advisory plan prepared by the SCAG that addresses important regional issues like housing, traffic/transportation, water, and air quality. The RCP serves as an advisory document to local agencies in the Southern California region for their information and voluntary use for preparing local plans and handling local issues of regional significance.

The RCP identifies voluntary best practices to approach growth and infrastructure challenges in an integrated and comprehensive way. It also includes goals and outcomes to measure progress toward a more sustainable region. The RCP includes nine chapters, each based on specific areas of planning or resource management. Each of the nine chapters contains goals, policies, implementation, and strategies to achieve the SCAG's overall goals of improving the standard of living for all; improving the quality of life for all; and enhancing equity and access to government. Local governments are required to use the RCP as the basis for their own plans and are required to discuss the consistency of projects of "regional significance" with the RCP.

Regional Comprehensive Plan: The RCP's overall goal is to reinvigorate the region's economy, avoid social and economic inequities and the geographical dislocation of communities, and to maintain the region's quality of life. The document is described as a regional policy framework for future land use decisions in the SCAG area that respects the need for strong local control, but that also recognizes the importance of regional comprehensive planning for issues of regional significance. The RCP is laid out much like a General Plan and organizes recommended policies into nine chapters. The highlight of each chapter is the regional strategy that addresses the RCP's vision for that resource area. As such, each chapter includes three levels of recommendations for the region:

- *Goals.* Each goal will help define how sustainability is defined for that resource area.
- *Outcomes.* These focus on quantitative targets that define progress toward meeting the RCP's Goals. Where possible, they are clearly defined (e.g., a 20% reduction in greenhouse gas emissions from 2007 levels), capable of being monitored with existing or reasonably foreseeable resources, and have a strong link to sustainability goals.
- *Action Plan.* This critical part of the RCP lays out a comprehensive implementation strategy that recommends how the region can systematically move to meet the RCP's quantitative Outcomes and achieve its Goals, Guiding Principles, and Vision. Each Action Plan contains:
    - *Constrained Policies.* This includes a series of recommended near-term, feasible policies that stakeholders should consider for implementation. For example, the RCP calls on the SCAG to adopt policies that reflect its role as a planning agency, council of governments, and metropolitan planning organization. The RCP also recommends voluntary policies for consideration by local governments and other key stakeholders.
    - *Strategic Initiatives.* This encompasses longer-term strategies that require significant effort to implement but are necessary to achieve the RCP's desired Goals and Outcomes. For example, identifying technological breakthroughs that can reduce air pollution from the transportation sector requires both commitment and time. Most of these initiatives are not constrained and will require political will, enabling legislation, new funding sources, and other key developments to become a reality. In most cases, this tier of strategies is the key to achieving the region's sustainability Goals and Outcomes.

Other policies contained within the 2008 RCP were either not applicable to the proposed WLC project or are directed at the SCAG and actions that the SCAG would undertake at the regional level that would not pertain directly to the proposed WLC project. Policies within the 2008 RCP that are applicable to the proposed WLC project were identified and are discussed below.

Land Use and Housing Chapter

Goal *Focusing growth in existing and emerging centers and along major transportation corridors.*

Consistent. The proposed WLC project site is currently either underdeveloped or used for agriculture. Regional access to the City and project area is provided from SR-60, which runs east-west just north of the project site. SR-60 provides direct access to the site via interchanges at Redlands Boulevard, Theodore Street, and Gilman Springs Road.

According to the City's "Rancho Belago Development Strategy" adopted in 2011, the proposed WLC project would occur in an area acknowledged by the City as appropriate for this type of development. The existing roadway system and infrastructure surrounding the project site will be utilized to the maximum extent possible, and the proposed WLC project will install improvements and/or pay necessary fees to facilitate the continuation of satisfactory operation. The proposed WLC project is consistent with this SCAG policy in that it exists along a major transportation corridor of the City and will be connecting to the existing utilities underlying the arterial roadways.

Goal *Targeting growth in housing, employment, and commercial development within walking distance of existing and planned transit stations.*

Consistent. The proposed WLC project would comply with all City development policies, standards, and programs pertaining to supporting alternative modes of transportation included in the General Plan Circulation Element. In addition, the proposed WLC project is located within an urbanizing area of the City. As provided in the discussion on cumulative projects (Section 4.10.7), the approved and planned development in the project area includes residential, commercial, and industrial uses. As such, the project site is in an area that is developing with projects that have already been approved and constructed, or are in the various stages of the planning process.

Transit service in Moreno Valley is provided by the Riverside Transit Authority (RTA), which provides two routes in the vicinity of the proposed development:

- Route 35, which runs along Eucalyptus Street, Moreno Beach Boulevard, and SR-60; while this route does not directly serve the project site, it could be readily rerouted through the site.
- Route 20, which runs along the southerly portion of Moreno Beach Boulevard, approximately one mile west of the site.

Because the project site is located in close proximity existing RTA routes,[1] the proposed WLC project could be accessible to existing transit systems. As the project site is located adjacent to an area where commercial, residential, and industrial uses are planned or approved, and because the project site is readily accessible from SR-60 and from existing RTA bus routes, the proposed WLC project would be consistent with this SCAG Policy.

Goal *Inject new life into underused areas by creating vibrant new business districts, redeveloping old buildings, and building new businesses and housing on vacant lots.*

Consistent. The proposed WLC project site is currently used for agriculture. The proposed WLC project would introduce new high-cube logistics warehouse uses on vacant lots.

Outcome *Significantly increase the number and percentage of new housing units and jobs created within the Compass Blueprint 2% Strategy Opportunity Areas by 2012 and improve the regional jobs-housing balance. (Tracking the number of new units will*

[1] Riverside Transit Agency, http://www.riversidetransit.com, website accessed April 15, 2012.

measure the region's progress in accommodating forecast growth. The percentage of housing and jobs developed within the Opportunity Areas will indicate the locational efficiency of growth.)

Consistent. The project is designed to address the City of Moreno Valley jobs/housing imbalance; the City has a scarcity of jobs compared to the number of residents.

Direct population increases are generally associated with residential developments and as there are no residential uses proposed for the project, there would be no direct increase in population. As most of the new employment opportunities are anticipated to be filled by existing local area residents, a large influx of new residents to the City would not occur. The City's current population per the 2010 Census is 195,216 and the SCAG projects the City's population will grow by 59,984 persons by the year 2035 (+31%). A City or sub-region with a jobs-to-housing ratio lower than the overall standard would be considered a "jobs poor" area, indicating that many of the residents must commute to places of employment outside the sub-area. The ~~2010~~2011 estimated jobs-to-housing ratios for the City, County, and SCAG region are 0.~~49~~45, 0.~~81~~69, and 1.~~02~~14, respectively. These ratios indicate that both Western Riverside County and the City of Moreno Valley are "jobs poor" because the jobs-to-housing ratios are below that of the Southern California region (as defined by SCAG).

It is anticipated that any new employment opportunities created by the proposed development would be filled by persons already residing in the local area. The proposed WLC project would serve the existing and continuing growth in the City and would not result in any direct increase to the population or households not previously anticipated in the City of Moreno Valley. In fact, it would result in a decrease in projected population in favor of an increase in anticipated job growth. As such, the proposed WLC project would be within the SCAG and Western Riverside Council of Governments (WRCOG) growth projection forecasts and would be consistent with this SCAG policy.

Outcome *Reduce total regional vehicle miles traveled (VMT) to 1990 levels by 2020. (The Land Use and Housing Action Plan can be expected to result in a 10% reduction in VMT in 2035 when compared to current trends. VMT serves as a proxy for jobs/housing balance, urban design, transit accessibility, and other urban form issues. VMT per household will decrease with Compass Blueprint implementation.)*

Consistent. As previously identified, the proposed WLC project would comply with all City development policies, standards, and programs pertaining to supporting alternative modes of transportation included in the General Plan Circulation Element. In addition, the proposed WLC project would result in the development of employment opportunities in fairly close proximity to existing residential development. The type of uses proposed and their proximity to each other allow for increased pedestrian and bicycle activity, limiting the need for vehicle travel. Because the project site is located adjacent to existing RTA Route 35[1] the proposed WLC project would be accessible to existing transit systems. Through consultation with the RTA, the project applicant will coordinate and facilitate the use of public transit to access the project site. The provision of additional employment options in proximity to existing residential development has the potential to reduce VMT; therefore, the proposed WLC project is consistent with this policy.

Section 4.15 of the EIR, *Traffic and Transportation*, indicates that Moreno Valley currently has a jobs/ housing imbalance resulting in long westbound commutes for thousands of City residents every workday. The Specific Plan would eventually create approximately 25,000 new jobs, nearly doubling the number of jobs in Moreno Valley. This would have several effects on commute patterns over the long-term:

[1] Riverside Transit Agency, http://www.riversidetransit.com, website accessed April 15, 2012.

- Many existing and future residents of Moreno Valley would be able to work locally with very short commute trips.
- Residents of neighboring cities who work within the Specific Plan area would have short commutes and be able to access the site using the local arterial road network rather than the freeway. This is consistent with the policies of the WRCOG and the Riverside County Transportation Commission (RCTC) to promote use of the arterial road network as an alternative to freeways. The traffic study indicates that nearly half of auto traffic associated with the project would be on surface streets (i.e., not on freeways).
- Workers coming from more distant residences would, in most cases, be traveling on freeways in the off-peak direction; i.e. commuters traveling to the project from Los Angeles or Orange Counties would be headed eastbound in the morning and westbound in the evening. This would enable them to take advantage of the existing unused off-peak capacity of facilities that were sized for flows in the peak direction. The traffic study determined that, although the project would increase freeway auto traffic eastbound in the morning, it would decrease the traffic in the more congested westbound direction (Figure ~~14~~40, TIA 201~~2~~4). In the evening, this pattern would reverse, with the project relieving traffic in the congested eastbound direction (Figure ~~15~~41, TIA 201~~2~~4). Therefore, it appears the proposed project will have a net beneficial impact on the regional freeway auto traffic. This is consistent with the policies of the SCAG, WRCOG, and other regional bodies to encourage better jobs/housing balances as a way to reduce peak flow on the freeway system. It will also help the project and City comply with the requirements of SB 375 regarding long-term land use patterns to achieve a better regional balance of jobs/housing, which in turn will help reduce traffic congestion on regional freeways.

It should also be noted that this project will help reduce VMT within the City of Moreno Valley over the long term since it will add thousands of new jobs to the local workforce instead of new housing, thus improving the City's jobs to housing ratio.

Policy LU-6.2 *Developers and local governments should integrate green building measures into project design and zoning such as those identified in the U.S. Green Building Council's Leadership in Energy and Environmental Design, Energy Star Homes, Green Point Rated Homes, and the California Green Builder Program.*

Consistent. According to Section 1.3.2 of the WLC Specific Plan, the project will be in conformance with California's CALGreen building regulations. The Specific Plan states that 1) these are "the most stringent, environmentally friendly building codes in the U.S.;" and 2) "CALGreen is a comprehensive, far-reaching set of regulations which mandate environmentally advanced building practices and regulations designed to conserve natural resources and reduce greenhouse gas emissions, energy use, and water use."

In addition to compliance with the CALGreen building regulations, WLCSP Section 1.3.2, *Green Building – Sustainable Development*, indicates the project proposes to incorporate the following sustainable design features to further reduce its environmental footprint, including:

- Allow the installation of solar photovoltaic panels on each building (i.e., ~~WLCSP will have "solar ready" buildings~~ Mitigation Measure 4.16.4.6.1C requires that the project install solar panels to provide electricity for the office demands.) to help offset each building's annual electrical demand;
- ~~Building design to reduce energy consumption by complying with the most current version of Title 24 energy conservation standards~~
- The project would require LEED certification for buildings and would require buildings to exceed Title 24 by 10 percent;
- Channelizing street runoff into landscape areas instead of storm drains;

- Use of recycled and/or locally sourced building materials to the extent feasible;
- Reduction in the use of impervious surfaces throughout the project;
- The WLCSP provides for an alternative fueling station on the site;
- Provide for site access via existing transit systems (WLCSP Section 3.3.4, Mass Transit Circulation); and
- Provide for internal circulation via bicycles and walking (WLCSP Section 3.4, Non-Vehicular Circulation).

Therefore, the proposed WLC project is consistent with this SCAG policy.

Open Space and Habitat Chapter

Policy OSC-8 *Local governments should encourage patterns of urban development and land use, which reduce costs of infrastructure and make better use of existing facilities.*

Consistent. The proposed WLC project is adjacent to existing developed in areas that are presently served by various existing water, sewer, storm drainage, electrical, natural gas, and transportation services. During the construction of the project and as needed throughout the process, necessary utility and roadway improvements will be installed or extended to the project site from adjacent existing facilities. The supply of electricity and natural gas is demand-responsive and the project proponent would be required to meet the service requirements of these utility providers. By maximizing the use of existing facilities, the costs of expanding infrastructure would be minimized. Because the proposed WLC project would be located in close proximity to existing industrial, commercial, and residential structures requiring a similar type of infrastructure, it is consistent with this growth management policy.

Policy OSC-12 *Developers and local governments should promote water-efficient land use and development.*

Consistent. As identified in Section 4.17 of this EIR, pursuant to Assembly Bill 325 (AB 325), the City of Moreno Valley implements landscape and irrigation design standards (Chapter 9.17 of the City's Municipal Code), which establishes water conservation requirements for new or rehabilitated landscapes.[1] The proposed WLC project is subject to this ordinance and will be required to implement water-efficient landscaping design (i.e., drought-tolerant landscaping) within the project site. In addition, a major design concept of the Specific Plan is water conservation through the careful selection and maintenance of drought-tolerant native plants. For example, Section 1.3.1 of the Specific Plan indicates a major goal of the project will be to minimize water consumption as outlined in Specific Plan Section 5.2.3 *Sustainable Design*, Section 5.4, *Onsite Landscaping,* and Section 6.0, *Sustainability*. All of these sections call for the project to minimize water use through installation of drought-tolerant landscaping and irrigating with runoff from building roofs and ground-level hardscape areas. Therefore, the proposed WLC project would be consistent with this SCAG policy.

Water Chapter

Policy WA-11 *Developers and local governments should encourage urban development and land uses to make greater use of existing and upgraded facilities prior to incurring new infrastructure costs.*

Consistent. Existing warehousing development is located in the immediate vicinity of the project site where infrastructure for water, sewer, storm drainage, electrical, natural gas, and transportation facilities currently exist. During the construction of the project and as needed throughout the process,

[1] *City of Moreno Valley Municipal Code.*

necessary utility and roadway improvements will be installed or extended to the project site from adjacent existing facilities. The utility and roadway improvements will facilitate future growth in the surrounding area. The availability of this infrastructure would reduce the cost to public agencies that would provide services to the project area. The proposed WLC project would be developed in an area where such infrastructure is accessible. Furthermore, the project applicant would pay all applicable development fees for the necessary infrastructure and public service improvements, including those associated with water, sewer, drainage, roadways, fire, and police; therefore, the proposed WLC project is consistent with this policy.

Policy WA-12 *Developers and local governments should reduce exterior uses of water in public areas, and should promote reduced use in private homes and businesses by shifting to drought-tolerant native landscape plants (xeriscaping), using weather-based irrigation systems, educating other public agencies about water use, and installing related water pricing incentives.*

Consistent. As identified in earlier in this section, pursuant to Assembly Bill 325 (AB 325), the City of Moreno Valley implements landscape and irrigation design standards (Chapter 9.17 of the City's Municipal Code), which establishes water conservation requirements for new or rehabilitated landscapes.[1] The proposed WLC project is subject to this ordinance and will be required to implement water-efficient landscaping design (i.e., drought-tolerant landscaping) within the project site. Therefore, the proposed WLC project would be consistent with this SCAG policy.

Energy Chapter

Policy EN-10 *Developers and local governments should integrate green building measures into project design and zoning such as those identified in the U.S. Green Building Council's Leadership in Energy and Environmental Design, Energy Star Homes, Green Point Rated Homes, and the California Green Builder Program. Energy-saving measures that should be explored for new and remodeled buildings include:*

- *Using energy-efficient materials in building design, construction, rehabilitation, and retrofit.*
- *Encouraging new development to exceed Title 24 energy efficiency requirements.*
- *Developing Cool Communities measures including tree planting and light-colored roofs. These measures focus on reducing ambient heat, which reduces energy consumption related to air conditioning and other cooling equipment.*
- *Utilizing efficient commercial/residential space and water heaters. This could include the advertisement of existing and/or development of additional incentives for energy-efficient appliance purchases to reduce excess energy use and save money. Federal tax incentives are provided online at http://www.energystar.gov/index.cfm?c=Products.pr_tax_credits.*
- *Encouraging landscaping that requires no additional irrigation; utilizing native, drought-tolerant plants can reduce water usage up to 60 percent compared to traditional lawns.*
- *Encouraging combined heating and cooling (CHC), also known as cogeneration, in all buildings.*
- *Encouraging neighborhood energy systems, which allow communities to generate their own electricity.*

[1] *City of Moreno Valley Municipal Code*.

- *Orienting streets and buildings for best solar access.*
- *Encouraging buildings to obtain at least 20 percent of their electric load from renewable energy.*

Consistent. According to Section 5.2.3 of the WLC Specific Plan (Sustainable Design), the project will be in conformance with California's "CALGreen" building regulations which are considered the most stringent, environmentally friendly building codes in the U.S. In addition to compliance with the CALGreen building regulations, the project proposes to incorporate the following additional sustainable design features to further reduce its environmental footprint, including:

- The project would require LEED certification for buildings and would require buildings ~~by complying with the most current version of State~~ to exceed Title 24 by 10 percent;
- Allow the future installation of solar photovoltaic panels on each building (i.e., Mitigation Measure 4.16.4.6.1C requires that the project install solar ~~ready") panels~~ to provide electricity with a minimum capacity equal to office electrical demand.) to help offset annual electrical energy consumption;
- Substantially reduced water use for landscape irrigation;
- Channelizing street runoff into landscape areas instead of storm drains;
- Use of recycled and/or locally sourced building;
- Reduction in the use of impervious surfaces throughout the project;
- The WLCSP provides for an alternative fueling station on the site;
- Provide for site access via existing transit systems (WLCSP Section 3.3.4, Mass Transit Circulation); and
- Provide for internal circulation via bicycles and walking (WLCSP Section 3.4, Non-Vehicular Circulation).

In addition, the strategies listed in Section 4.7, *Greenhouse Gases and Global Climate Change*, of this EIR are considered to be greenhouse gas emission reduction strategies, which include green building measures. These strategies are either part of the project, required mitigation measures, or requirements under local or State ordinances. Since the project would implement these strategies into project design and operation, the project would be consistent with this SCAG policy.

Solid Waste Chapter

Policy SW-14 *Developers and local governments should integrate green building measures into project design and zoning including, but not limited to, those identified in the U.S. Green Building Council's Leadership in Energy and Environmental Design, Energy Star Homes, Green Point Rated Homes, and the California Green Builder Program. Construction reduction measures to be explored for new and remodeled buildings include:*

- *Reuse and minimization of construction and demolition (C&D) debris and diversion of C&D waste from landfills to recycling facilities.*
- *An ordinance that requires the inclusion of a waste management plan that promotes maximum C&D diversion.*
- *Source reduction through (1) use of building materials that are more durable and easier to repair and maintain, (2) design to generate less scrap material through dimensional planning, (3) increased recycled content, (4) use of reclaimed*

building materials, and (5) use of structural materials in a dual role as finish material (e.g., stained concrete flooring, unfinished ceilings).

- *Reuse of existing building structure and shell in renovation projects.*

Building lifetime waste reduction measures that should be explored for new and remodeled buildings include:

- *Development of indoor recycling program and space;*
- *Design for deconstruction; and*
- *Design for flexibility through use of moveable walls, raised floors, modular furniture, moveable task lighting, and other reusable components.*

Consistent. As noted above, according to Section 5.2.3 of the WLC Specific Plan, *Sustainable Design*, the project will be in conformance with California's "CALGreen" building regulations. In addition to compliance with the CALGreen building regulations, the project proposes to incorporate the following additional sustainable design features to further reduce its environmental footprint, including:

- Substantially reduced water use for landscape irrigation;
- Channelizing street runoff into landscape areas instead of storm drains;
- Use of recycled and/or locally sourced building materials to the extent feasible;
- Reduction in the use of impervious surfaces throughout the project;
- Provide for site access via existing transit systems; and
- Provide for internal circulation via bicycles and walking.

The strategies listed in Section 4.7 *Greenhouse Gases and Global Climate Change* of this EIR are considered to be greenhouse gas emission reduction strategies, which include green building measures. These strategies are either part of the project, required mitigation measures, or requirements under local or State ordinances. With implementation of these strategies/measures, the project would be consistent with this SCAG policy.

Transportation Chapter

Goal *A more efficient transportation system that reduces and better manages vehicle activity.*

Consistent. The proposed WLC project would result in the development of employment opportunities in close proximity to housing. In addition, the project proposes sidewalks, bicycle routes, and landscaping treatments to provide for pedestrian and bicycle access throughout the project site. The type of uses proposed and their proximity to each other allow for increased pedestrian and bicycle activity, limiting the need for vehicle travel. At present, Moreno Valley has a jobs/housing imbalance that results in long westbound commutes for thousands of city residents every workday. The WLC would create approximately ~~25~~24,000[1] permanent new jobs within the City (20,307 direct jobs and 3,693 indirect jobs); nearly doubling the number of jobs in Moreno Valley. This would have several effects on commute patterns:

[1] ~~Based on a ratio of 0.6 employee per 1000 square feet of logistics. This ratio is taken from *DTA Public Works Database; confirmed by "Employment Density Study," SCAG (2001), and "Logistics Trends and Specific Industries," NAIOP Research Foundation (March 2010).San Bernardino Planning Department.*~~ *Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California, David Taussig & Associates, Inc., original dated January 2012, updated September, 2014.*

- Many existing and future residents of Moreno Valley would be able to work locally with very short commute trips.
- Residents of neighboring cities who work at the WLC would have short commutes and, importantly, be able to access the site using the arterial road network. This is consistent with the policies of the WRCOG and the RCTC to promote use of the arterial road network as an alternative to freeways. Tests with the Riverside County Traffic Analysis Model (RivTAM) model suggest that nearly half of auto traffic associated with the WLC would be on surface streets (i.e., not on freeways).
- Workers coming from more distant residences would, in most cases, be traveling on freeways in the off-peak direction; i.e. commuters traveling to the WLC from Los Angeles or Orange Counties would be headed eastbound in the morning and westbound in the evening. This would enable them to take advantage of the existing unused off-peak capacity of facilities that were sized for flows in the peak direction. Although the project would increase freeway auto traffic eastbound in the morning, it would decrease the traffic in the more congested westbound direction. In the evening, the pattern would reverse, with the project relieving traffic in the congested eastbound direction. Therefore the WLC project will have a net beneficial impact on the regional freeway auto traffic. This is consistent with the policies of SCAG, WRCOG, and other regional bodies to encourage better jobs/housing balances as a way to reduce peak flow on the freeway system.

Therefore, this project is consistent with this transportation goal.

Security and Emergency Preparedness Chapter

Goal *Ensure transportation safety, security, and reliability for all people and goods in the region.*

Consistent. The proposed WLC project is consistent with this goal in that the proposed WLC project would be required to adhere to the City of Moreno Valley's General Plan. The General Plan contains goals and policies that aim to provide adequate and reliable transportation facilities. The goals and policies identified in the City's General Plan resemble those of the RCP that address mobility, traffic safety, environmental concerns, and land use consistency as the major traffic study factors to identify existing traffic conditions and to assess the future effects on area traffic patterns/flow.

Economy Chapter

Goal *Enable business to be profitable and competitive (locally, regionally, nationally, and internationally).*

Consistent. The proposed WLC project would add to the City's portfolio of industrial and logistics services. Through the addition of the proposed WLC project, the City would also expand its economic competitiveness with other areas in the region. Therefore, the proposed WLC project is consistent with this policy.

Goal *Promote sustained economic health through diversifying the region's economy, strengthening local self-reliance and expanding competitiveness.*

Consistent. As previously stated, the proposed WLC project would add to the City's portfolio of industrial and logistic services, which would enable the City to be more self-reliant through the provision of goods and services to residents within the City. Through the addition of the proposed WLC project, the City would also expand its economic competitiveness with other areas in the region. Therefore, the proposed WLC project is consistent with this policy.

Goal *Ensure a healthy, flourishing economy that provides sufficient employment opportunities to decrease poverty and meet the basic needs of all the people who participate in our economy by promoting education and workforce training policies that give residents an opportunity to compete for the full range of jobs available with good wages and benefits.*

Consistent. The proposed WLC project would provide additional employment opportunities in a community with a low jobs/housing ratio. In addition, the proposed WLC project would meet the basic needs of those who participate in the economy through the use of training in the workforce. Therefore, the proposed WLC project is consistent with this policy.

Outcome *Increase job growth to add three million jobs to the regional economy by 2035.*

Consistent. The proposed WLC project would result in additional jobs in the City and indirect jobs in the County and City, which would contribute to job growth in the regional economy. Therefore, the proposed WLC project is consistent with this policy.

Outcome *Increase the region's economic vitality and attractiveness by focusing housing and job additions in urban centers, employment centers, and transportation corridors, such that there will be a minimum of 35 percent of the region's household growth and 32 percent of employment growth in these areas from their levels in 2005 by 2035.*

Consistent. Development of the proposed on-site uses would increase the number of jobs in the City by approximately ~~16,640~~24,000 at full development. The ~~2010~~2011 estimated jobs-to-housing ratios for the City, sub-region, and region are 0.45, 0.69, and 1.14, ~~1.18, and 1.43,~~ respectively. The ~~2030~~2035 future jobs-to-housing ratios for the City, sub-region, and region are 0.88, 1.~~03, 1.20~~14, and 1.~~37~~29, respectively. These ratios indicate that both western Riverside County and the City of Moreno Valley are "jobs poor" because the jobs-to-housing ratios are below the Southern California region (as defined by SCAG). A city or sub-region with a jobs-to-housing ratio lower than the overall standard would be considered a "jobs poor" area, indicating that many of the residents must commute to places of employment outside the sub-area. Since the proposed WLC project would add jobs to a "jobs poor" region, the proposed WLC project would increase the region's economic vitality and attractiveness by job additions in urban centers and along transportation corridors. Therefore, the proposed WLC project is consistent with this SCAG policy.

2008 Regional Transportation Plan: The 2008 RTP adopted by the SCAG in May 2008 contains a set of existing socioeconomic projections used as the basis for the SCAG's transportation planning efforts. They include projections of population, housing, and employment at the regional, county, sub-regional, jurisdictional, Census tract, and transportation analysis zone levels. The RTP includes policies and regulations set forth to ensure development within the SCAG regional area is within planned and forecast socioeconomic projections. Goals established within the RTP include the following:

- Maximize mobility and accessibility for all people and goods in the region (discussed in Section 4.15, *Traffic and Circulation*);
- Ensure travel safety and reliability for all people and goods in the region (discussed in Section 4.15, *Traffic and Circulation*);
- Preserve and ensure a sustainable regional transportation system (discussed in Section 4.15, *Traffic and Circulation*);
- Maximize the productivity of our transportation system (discussed in Section 4.15, *Traffic and Circulation*);

- Protect the environment, improve air quality, and promote energy efficiency (discussed in Section 4.3, *Air Quality*);
- Encourage land use and growth patterns that complement our transportation investments and improve the cost-effectiveness of expenditures (discussed in Section 4.15, *Traffic and Circulation*); and
- Maximize the security of our transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies (discussed in Section 4.15, *Traffic and Circulation*).

The proposed WLC project is consistent with the RTP in that it would be required to adhere to the City of Moreno Valley's General Plan. The General Plan contains goals and policies that aim to minimize traffic congestion, provide adequate transportation facilities, and require development to pay its share of costs. The goals and policies identified in the City's General Plan resemble those of the RTP that address mobility, traffic safety, environmental concerns, and land use consistency as the major traffic study factors to identify existing traffic conditions and to assess the future effects on area traffic patterns/flow.

Compass Growth Vision: The Compass Growth Vision plan provides a framework for local and regional decision-making regarding growth, transportation, land use, and economic development. The framework includes principles and a specific set of strategies intended to achieve and improve a quality of life that promotes and sustains for future generations the region's mobility, livability, and prosperity. The main objective of the Compass Growth Vision is to manage the forecast growth while improving future living conditions for all people within the SCAG area, including live, work, and play activities.

The following discussion includes the principles within the Compass Growth Vision plan and their association to the proposed WLC project.

- ***Principle 1:*** Improve mobility for all residents.
- ***Principle 2:*** Foster livability in all communities.
- ***Principle 3:*** Enable prosperity for all people.
- ***Principle 4:*** Promote sustainability for future generations.

The proposed WLC project is consistent with the four principles identified above. The nature of the proposed WLC project allows the transport of commodities from a single area rather than multiple areas, minimizing vehicle trip generation. The proposed WLC project supports the prosperity for all people by providing employment opportunities close to existing housing within the City of Moreno Valley. The proposed WLC project is located in an area that is already developing with urban uses and where existing infrastructure (freeway, sewer, electrical, water, etc.) is accessible. During the construction of the project and as needed throughout the process, necessary utility and roadway improvements will be installed or extended to the project site from adjacent existing facilities. The utility and roadway improvements will facilitate future growth in the surrounding area. The development of the proposed WLC project is consistent with the land use vision for the site and will augment existing services available in the City and region.

SCAG 2012 Regional Transportation Plan and Sustainable Communities Plan. As part of the adoption of the 2012 RTP, SCAG developed an SCS, which was required as part of SB 375. According to SB 375, each metropolitan planning organization shall prepare a sustainable communities strategy, including the requirement utilizing the most recent planning assumptions considering local general plans and other factors. The Sustainable Communities Strategy shall:

1. Identify the general location of uses, residential densities, and building intensities within the region;
2. Identify areas within the region sufficient to house all the population of the region, including all economic segments of the population, over the course of the planning period of the regional transportation plan taking into account net migration into the region, population growth, household formation and employment growth;
3. Identify areas within the region sufficient to house an eight-year projection of the regional housing need for the region;
4. Identify a transportation network to service the transportation needs of the region;
5. Gather and consider the best practically available scientific information regarding resource areas and farmland in the region;
6. Consider the State housing goals specified in Sections 65580 and 65581;
7. Set forth a forecast development pattern for the region, which, when integrated with the transportation network, and other transportation measures and policies, will reduce the greenhouse gas emissions from automobiles and light trucks to achieve, if there is a feasible way to do so, the greenhouse gas emission reduction targets approved by the State Board; and
8. Allow the regional transportation plan to comply with the Federal Clean Air Act.

The SCS and the 2012 RTP contain new regional growth projections for each city in the Southern California region. Table 4.10.C contains the population and employment forecasts for the City of Moreno Valley.

Table 4.10.C: SCAG Population and Employment Projections, 2008–2035

Population			Employment			Increase 2008–2035	
2008 per Census	2020 Projection	2035 Projection	2008 per Census	2020 Projection	2035 Projection	Population	Employment
187,400	213,700	255,200	32,300	48,000	64,400	36%	99%

Source: SCAG 2012 RTP

The 2012–2035 RTP/SCS contains a number of "Outcome and Performance Measures/Indicators"[1] that are used to evaluate various regional land use plan alternatives, with the objective being an improvement over the No Project (i.e., no SCS) baseline. These measures are applied on a regional basis, and are not necessarily applicable to individual projects like the World Logistics Center. However, the following general discussion of consistency with the relevant measures shown in Table 4.10.D can be provided.

Table 4.10.D: Discussion of RTP Outcomes and Performance Measures/Indicators

Performance Measure/Indicator	Definition	Consistency of Proposed WLC project
Share of growth in High Quality Transit Areas (HQTAs)	Increase share of the region's growth in households and employment in HQTAs	**Consistent.** The project is not currently located in an SCAG-defined HQTA. However, the project is located adjacent to existing transit routes and makes provisions for future bus service through the relocation of existing routes. By developing a focused employment center, the project can attract more frequent transit service to the area. Given the potential for readily providing transit

[1] http://rtpscs.scag.ca.gov/Documents/2012/final/SR/2012fRTP_PerformanceMeasures.pdf, Table 2.

Table 4.10.D: Discussion of RTP Outcomes and Performance Measures/Indicators

Performance Measure/Indicator	Definition	Consistency of Proposed WLC project
		service to the site, the project is generally consistent with this goal.
Land consumption	Reduce additional land needed for development that has not previously been developed or otherwise affected, including agricultural land, forest land, desert land, and other virgin sites.	**Consistent.** The SCAG plan calls for reducing the amount of virgin land converted to development, as compared to the "No Project" condition. The project would develop land long planned for suburban level development, but would replace the approved mixed-use residential project with a logistics warehousing project that would add employment instead of housing to the City which has long been considered by SCAG to be "housing rich." The EIR does note that the WLC project would convert agricultural land to other uses.
Average distance for work or non-work trips	Decrease the average distance traveled for work or non-work trips separately.	**Consistent.** The City of Moreno Valley is "jobs-poor," which forces many Moreno Valley residents to commute long distances from their homes to work. By providing employment opportunities closer to existing population centers, the project should reduce the length of work related trips.*
Percentage of work trips less than 3 miles.	Increase the share of total work trips that are fewer than 3 miles.	**Consistent.** As noted above, the City of Moreno Valley needs additional jobs for its residents. The project will increase the ability of Moreno Valley residents to find work closer to home and thereby reduce travel times. Approximately 50% of the City of Moreno Valley is within three miles of the project site. To the extent that Moreno Valley residents are employed at the project site, the share of work-related trips less than three miles should increase.
Work trip length distribution.	Reduce the statistical distribution of work trip length in the region.	**Consistent.** In addition to the discussion above, the project traffic study indicates that nearly half of auto traffic associated with the project would be on surface streets (i.e., not on freeways). The traffic study determined that, although the project would increase freeway auto traffic eastbound in the morning, it would decrease the traffic in the more congested westbound direction. In the evening, this pattern would reverse, with the project relieving traffic in the congested eastbound direction. Therefore, it appears the proposed project will have a net beneficial impact on the regional freeway auto traffic.
Criteria pollutants and greenhouse gas emissions.	Reduce CO, NO_X, $PM_{2.5}$, PM_{10}, VOC, and per capita greenhouse gas emissions (CO_2).	**Consistent.** To the extent that total work-related trip lengths are reduced, the project would reduce such emissions.
Annual household transportation cost.	Reduce annual household spending on transportation costs of vehicle ownership, operation, and maintenance, and public transportation.	**Consistent.** To the extent that total work-related trip lengths are reduced, the project would reduce such costs.
Percentage of jobs within 15 minutes'	Increase the number of jobs within 15 minutes' walk of public	**Consistent.** Assuming the bus service revisions as described above, all of the WLCSP site would

Table 4.10.D: Discussion of RTP Outcomes and Performance Measures/Indicators

Performance Measure/Indicator	Definition	Consistency of Proposed WLC project
walk of transit.	transportation.	be within 15 minutes' walk of public transportation.

* Market conditions at the time that employers move into the site will determine the actual match of jobs within the project to the then current employment needs of Moreno Valley residents.
Source: http://rtpscs.scag.ca.gov/Documents/2012/final/SR/2012fRTP_PerformanceMeasures.pdf

As Table 4.10.D shows, the project is generally consistent with the SCAG RTP/SCS Performance measures. It should be noted that the WLCSP project will significantly improve the jobs/housing ratio for the City, which will assist SCAG in achieving its regional RTP growth goals, as well as a number of RTP performance standards regarding sub-regional jobs/housing ratios (i.e., regional goal is to add housing in jobs rich areas and add jobs in housing rich areas like Moreno Valley). Additional information and analysis in this regard is provided in Section 4.13, *Population, Housing, and Employment.*

Santa Ana Water Quality Control Plan (Basin Plan). The Santa Ana Basin Plan, which is implemented by the Santa Ana RWQCB, specifically (1) designates beneficial uses for surface and ground waters, (2) sets qualitative and quantitative objectives that must be attained and maintained at that level in order to protect the designated beneficial uses and conform to the State's anti-degradation policy, and (3) describes implementation policies and programs to protect all waters in the region. In cases where the Basin Plan does not contain a standard for a particular pollutant, other criteria are used to establish a standard. Storm water runoff from approximately the western half of the project drains toward the west, into the Perris Valley Storm Drain, then flows into the San Jacinto River and eventually into Canyon Lake and Lake Elsinore. The eastern half of the project drains south into Mystic Lake when flows are high, and runoff eventually makes its way to the San Jacinto River. Because the proposed WLC project is required to comply with all applicable water quality standards and requirements established by the RWQCB, and is therefore in compliance with the NPDES permitting system, the proposed WLC project would be consistent with the Basin Plan.

Riverside County Drainage Area Management Plan (DAMP). Like the Basin Plan, the Drainage Area Management Plan deals primarily with the Santa Ana Region. The DAMP describes a wide range of continuing and enhanced Best Management Practices (BMPs) and control techniques for development projects within a municipality and are being implemented during the five-year terms of the third-term MS4 permits. In essence, the DAMP describes the overall urban runoff management strategies planned by the permittees in the Santa Ana Region. The proposed WLC project is required to comply with all applicable drainage standards and requirements designed to protect water resources and enhance water quality and would therefore, be consistent with the DAMP.

Eastern Municipal Water District Urban Water Management Plan (EMWD UWMP). A UWMP is required of every urban water supplier in order to be in compliance with the Urban Water Management Plan Act. The UWMP includes assessment of current and projected water supplies, evaluation of water demand, customer types, and reliability of water supplies, description of conservation measures, a response plan for water shortage, and a comparison of demand and supply projections. The proposed WLC project is required to comply with all applicable standards and requirements designed to conserve water supplies and ensure water source reliability for future years prior to the approval of the project. As such, the proposed WLC project would be consistent with the EMWD UWMP. A comprehensive Water Supply Assessment (WSA) was prepared for this project by the EMWD that determined there were sufficient water supplies, including during multiple drought years, to supply the WLCSP project.

Summary of Impact 4.10.5.2: Conflict with Applicable Regional Land Use Plans, Policies, or Regulations. The preceding analysis demonstrates that the proposed project is generally consistent with the goals of SCAG's Regional Comprehensive Plan, Compass Plan and Regional Transportation

Plan in that it seeks to add employment in an area that has historically been "jobs poor," which will help reduce worker commute trips from Moreno Valley over the long term. The WLCSP project is generally consistent with these plans because the WLCSP will generate fewer emissions than the currently approved Moreno Highland Specific Plan, and it will provide for a better balance of jobs versus housing in Moreno Valley, which will incrementally improve regional commuting directions and distances by providing almost 24,000 new jobs in an area currently planned for housing.

4.10.5.3 Conflict with Applicable Land Use Plans, Policies, or Regulations (Local)

Threshold	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the General Plan, Specific Plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Section 15125 (d) of the *CEQA Guidelines* requires EIRs to "discuss any inconsistencies between the proposed project and applicable general plans and regional plans." The objective of such a discussion is to find ways to modify a project, if warranted, to eliminate any identified inconsistencies with relevant plans and policies, and thereby avoid creating an impact to the environmental that consistency with the plan would otherwise mitigate. Pursuant to *CEQA Guidelines* Section 15125 (d), this EIR section includes an evaluation of the consistency of the proposed project with pertinent goals and policies of the adopted City of Moreno Valley General Plan (see Figure 4.10.2).

The project proposes to amend the existing City of Moreno Valley General Plan Land Use Plan for the project area. By definition, the project is inconsistent with the existing General Plan and approval of the project would correct the inconsistency by amending the General Plan Land Use and other Elements to be consistent with the WLC project and Specific Plan. Figures 4.10.2 and 4.10.3 show the existing General Plan land uses and the proposed land uses. Table 4.10.E compares the land uses allowed under the current General Plan with those allowed under the proposed amended General Plan.

While the project would amend the General Plan Land Use Map, the project also needs to be assessed against the Goals, Policies, and Objectives of the adopted General Plan, as contained in Section 9 of the General Plan. The potentially relevant policies have been extracted in Table 4.10.E, and the project's consistency with said policies is assessed.

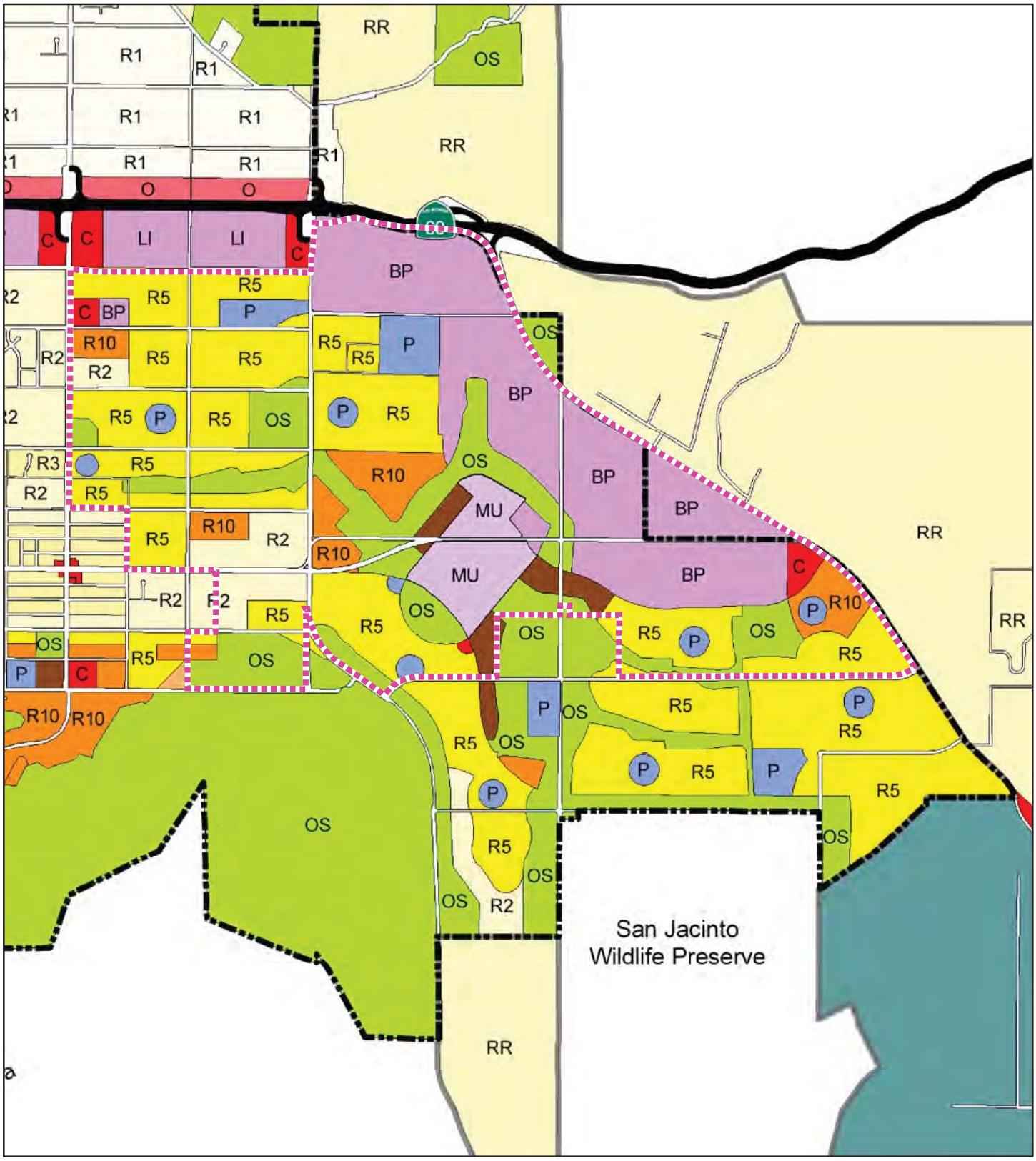
With the implementation of the General Plan amendment that is part of the project approvals being sought, the project will be consistent with the City's General Plan.

In summary, the project is consistent with the goals, objectives, and policies of the City of Moreno Valley General Plan, except Objective 2.1 and Community Development Policy 2.5.2. As proposed, the Specific Plan represents a fundamental land use change for the Rancho Belago area, the eastern portion of Moreno Valley. The land is currently planned for a mixed-use residential community, but the WLC project will introduce 40.6 million square feet of logistics warehousing onto existing agricultural land that is adjacent to existing residential uses to the west and the San Jacinto Wildlife Area to the south.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

Moreno Valley. The land is currently planned for a mixed-use residential community, but the WLC project will introduce 40.6 million square feet of logistics warehousing onto existing agricultural land that is adjacent to existing residential uses to the west and the San Jacinto Wildlife Area to the south.

Housing Element. During the NOP period, several group representatives expressed concern that the WLCSP would eliminate 7,700 housing units in the Moreno Highlands Specific Plan that would have to be replaced elsewhere in the City. The City adopted an updated Housing Element in February 2011 identifying the Moreno Highlands area as a potential location for future jobs-producing land uses rather than housing (affordable or otherwise).



LSA

FIGURE 4.10.2

N

0 1,500 3,000
FEET

Project Boundary
Highways
City Boundary
Sphere of Influence

Land Use

Residential: Max. 1 du/ac
Mixed Use
Residential: Max. 2 du/ac
Residential: Max. 3 du/ac
Residential: Max. 5 du/ac
Residential: Max. 10 du/ac
Residential: Max. 20 du/ac
Office
Commercial
Business Park/Light Industrial
Open Space
Public Facilities
Floodplain

World Logistics Center Specific Plan Project
Environmental Impact Report

General Plan Land Uses

SOURCE: Riverside County and City of Moreno Valley, August, 2010.

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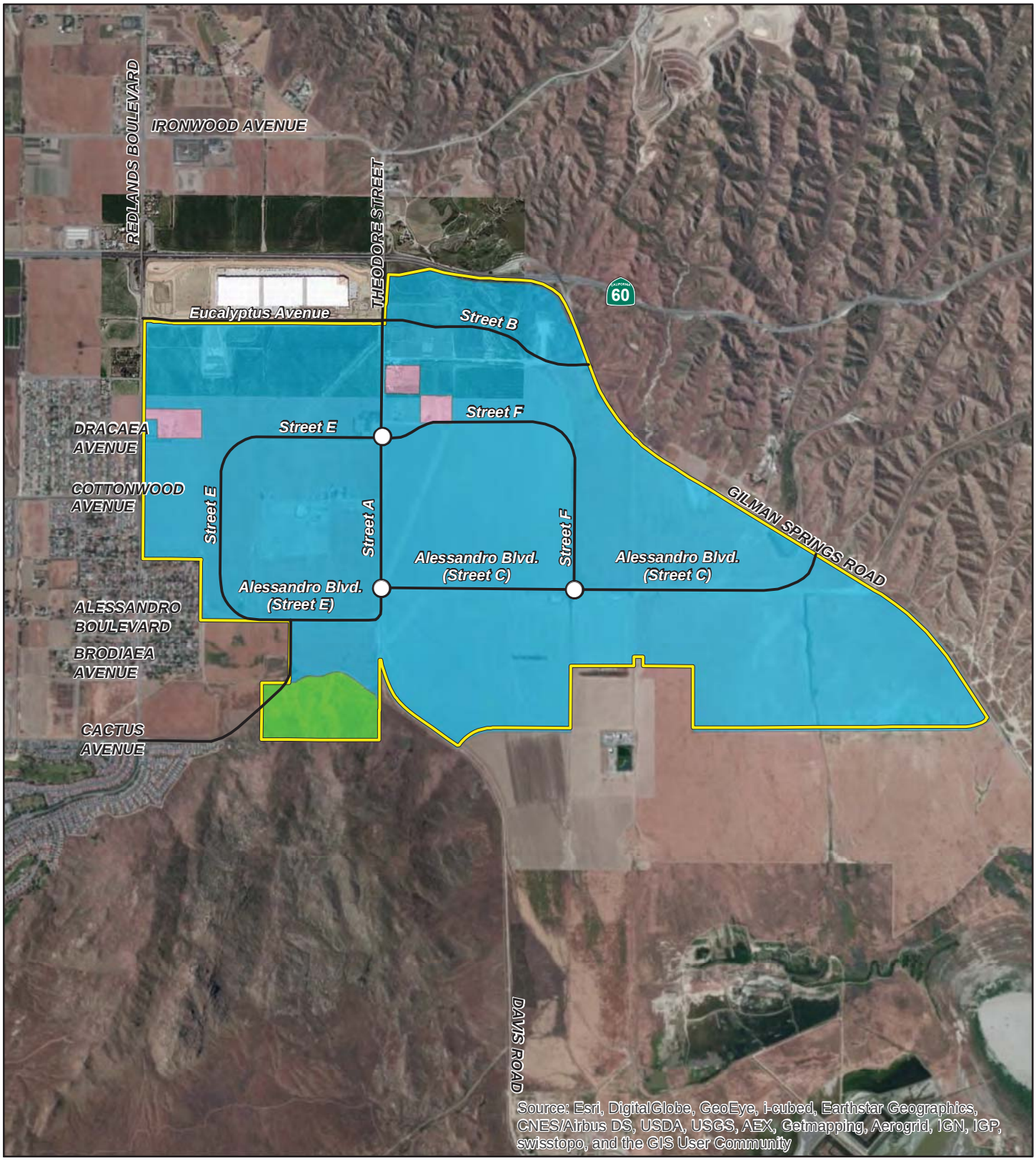

LSA

FIGURE 4.10.3

Project Boundary
Light Logistics
Logistics Development
Open Space

N

0 1,500 3,000
FEET

World Logistics Center Specific Plan Project
Environmental Impact Report

Specific Plan Land Uses

SOURCE: ESRI World Imagery, 2010; Bing Maps, 2010; Google Maps, 2011.

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Table 4.10.E: City of Moreno Valley General Plan Consistency Analysis

Goals, Policies and Objectives	Project Consistency Analysis
Ultimate Goal IV: Enjoys a healthy economic climate that benefits both residents and businesses.	**Consistent:** The City has determined that its low jobs/ housing ratio limits the job opportunities for local residents, and creates economic challenges for the City. By increasing employment opportunities and potentially increasing the jobs/housing ratio, the project will enhance the economic climate for both businesses and residents.
Ultimate Goal VI: Enjoys a circulation system that fosters traffic safety and the efficient movement of motor vehicles, bicycles, and pedestrians.	**Consistent:** The WLCSP circulation will be designed to modern safety standards, and provide for efficient movement and motor vehicles, both on the local streets and freeway. To the extent that the project increases job opportunities for local residents, it should decrease the length of employment trips, increasing the efficiency of the local transportation system. However, it will result in substantial additional traffic, including trucks, on SR-60 and Gilman Springs Road. The project will make various roadway and intersection improvements, and make fair share contributions to local Development Impact Fee (DIF) and regional Transportation Uniform Mitigation Fee (TUMF) traffic mitigation programs.
Community Development Goal 2.1: Develop a pattern of land uses, which organizes future growth, minimizes conflicts between land uses, and which promotes the rational utilization of presently underdeveloped and undeveloped parcels.	**Consistent:** The project proposes a major industrial/ logistics center on agricultural land in the eastern end of the City. With proposed mitigation, these land uses will have adequate setbacks or be buffered from adjacent residential land uses. The property was planned for a mixed use residential master planned community (i.e. Moreno Highlands Specific Plan) and so the proposed WLCSP project will require a General Plan Amendment. In addition, although this is a fundamental change from previous planned land uses, it will provide a substantial amount of new employment consistent with the City's Economic Development Strategy and the 2011 Housing Element. Therefore, the WLC project is considered to be consistent with the General Plan in this regard.
Objective 2.1: Balance the provision of urban and rural lands within Moreno Valley by providing adequate land for present and future urban and economic development needs, while retaining the significant natural features and the rural character and lifestyle of the northeastern portion of the community.	**Consistent:** The proposed WLCSP will provide logistics-related employment to help balance out the historical abundance of housing developed in the City. It would not affect the northeastern portion of the City (i.e., north of SR-60).
Community Development Objective 2.5: Promote a mix of industrial uses that provides a sound and diversified economic base and ample employment opportunities for the citizens of Moreno Valley with the establishment of industrial activities that have good access to the regional transportation system, accommodate the personal needs of workers and business visitors; and which meets the service needs of local businesses.	*NOTE: The following changes have been made due to revision to the Specific Plan project size.* **Consistent:** The project will provide 40.6 million square feet of logistics-related warehousing and supporting office space. This development will enhance the economic base and provide increased employment opportunities for the citizens of Moreno Valley in a limited number of worker categories. The project site has direct access to two interchanges on SR-60, along with arterial access to the balance of Moreno Valley, and access to the San Jacinto/Hemet Valley via Gilman Springs Road. It is therefore consistent with the General Plan.

Table 4.10.E: City of Moreno Valley General Plan Consistency Analysis

Goals, Policies and Objectives	Project Consistency Analysis
Community Development Policy 2.5.1: The primary purpose of areas designated Business Park/ Industrial is to provide for manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities. The zoning regulations shall identify the particular uses permitted on each parcel of land. Development intensity should not exceed a Floor Area Ratio of 1.00 and the average floor area ratio should be significantly less.	**Consistent**: The project is consistent with policies applicable to the Business Park/Industrial designation. The project will primarily provide opportunities for warehousing/logistics distribution, along with additional opportunities for manufacturing and research and development, along with associated office space. The Specific Plan will become the zoning regulations for the site, and designates the land uses allowed on each parcel. The net Floor Area Ratio is estimated to be 0.5, which is considered significantly less that the General Plan maximum of 1.0.
Community Development Policy 2.5.2: Locate manufacturing and industrial uses to avoid adverse impacts on surrounding land uses.	**Consistent:** The project proposes to locate logistics warehouses in the far eastern portion of the City, and residential uses are adjacent to the southwest portion of the project site. The Specific Plan addresses these adjacency impacts with setbacks and landscaping, berms, walls, etc. so the project will be compatible with surrounding uses.
Community Development Policy 2.5.3: Screen manufacturing and industrial uses where necessary to reduce glare, noise, dust, vibrations and unsightly views.	**Consistent:** The Specific Plan will provide visual and physical screening where planned uses are adjacent to existing residential uses.
Community Development Policy 2.5.4: Design industrial developments to discourage access through residential areas.	**Consistent:** The proposed circulations network provides primary project access directly from SR-60, and does not rely on residential streets. Trucks will generally access the site off SR-60 by using the Theodore Street Interchange. Truck access along ~~Street D~~the Cactus Avenue Extension to Cactus Avenue and along Redlands Boulevard south of Eucalyptus Avenue will be prohibited.
Community Development Objective 2.10: Ensure that all development within the City of Moreno Valley is of high quality, yields a pleasant living and working environment for existing and future residents, and attracts business as the result of consistent exemplary design.	**Consistent:** The Specific Plan includes contemporary design standards, which will provide a pleasant working environment.
Community Development Policy 2.10.1: Encourage a design theme for each new development that is compatible with surrounding existing and planned developments.	**Consistent:** Section 5.0 of the Specific Plan provides the architectural theme for the development.
Community Development Policy 2.10.12: Screen parking areas from streets to the extent consistent with surveillance needs (e.g., mounding, landscaping, low profile walls, and/or grade separations).	**Consistent:** Section 6.0 of the Specific Plan provides for mounding and screening of parking lots.

The 2011 Housing Element update indicated the Moreno Highlands area would likely be rezoned to support employment-generating uses rather than housing. It also stated that “pursuing any land use changes with the Moreno Highlands Specific Plan area will not hinder the City’s ability to meet its RHNA obligations.” The term RHNA refers to the Regional Housing Needs Allocation (affordable housing allocations) from the SCAG. The State Department of Housing and Community Development (HCD) certified the City’s Housing Element on May 31, 2011.

In April 2011, the City adopted its Economic Development Action Plan, which also identified the eastern part of the City as a potential area for major job-producing land uses. The *Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California* ("Study") prepared by David Taussig & Associates, Inc., in ~~2012~~2014 concluded that the proposed WLC project would generate ~~34,039~~24,000 jobs/employees to the area, which includes the creation of direct, indirect, and induced jobs/employees to the City ~~County, and region~~.

The City's 2006 Housing Element identified the Moreno Highlands Specific Plan as a potential source of vacant land that could accommodate possible future residential growth in the City. However, in 2011 the City updated its Housing Element and (i) anticipated possible land use changes from mixed use and residential to jobs producing warehouses in the eastern part of the City, and (ii) concluded that redesignating the entire land east of Redlands to the eastern City border for warehouse uses would not impede the City's Housing Element Objectives. As stated in the City's Housing Element:

> *The City will likely consider undertaking future planning efforts to achieve an improved jobs-housing balance. These future planning efforts could include the consideration of future proposals to re-designate areas south of SR 60 and east of Redlands Boulevard to the City's eastern border to jobs-producing commercial and/or industrial-type uses.*
>
> *The Moreno Highlands Specific Plan is an older, mixed use residential and industrial land use plan originally conceived and approved nearly twenty years ago and therefore may not be representative of the current economic environment and may not be viable. The plan does not specify unit types, thus allowing the City and the developer to tailor the unit mix to the community's needs at the time the project is actually developed.*
>
> *Moreno Highlands does make provisions for the phasing of the residential units. The plan does not specifically address the phasing of the affordable units, but merely notes the total number of units that will be developed in each of the three phases.*
>
> *As noted above, the current economic recession has severely and negatively affected the residents of the City. Unemployment in the City is extraordinarily high, and many City residents have expressed a desire that the City consider job-producing land uses that create an improved jobs-housing balance.*
>
> *As shown in Table 8-19.5, even with the elimination of all residential uses from the land area approximately south of SR 60 and east of Redlands Boulevard and extending to the City's eastern and southern boundaries, the City is still fully capable of and is expected to achieve its RHNA obligations for the 2008-2014 planning period.*

Table 8-19.5

AFTER removing sites south of SR 60 and east of Redlands, the Amended Inventory accommodates:
4,100 Low and Very Low Income units which is 1.3 times the RHNA number (3,045) (deleting sites south of SR 60 and east of Redlands has no effect on low and very low income housing opportunities)
2,600 Moderate Income units which is 2.1 times the RHNA number (1,239)
7,828 Above Moderate Income units which is 2.5 times the RHNA number (3,068)
14,528 total identified units which is 1.94 times the total RHNA number (7,474)

The HCD certified the City's Housing Element as compliant with State law on May 31, 2011. This means that approval of the proposed project will not impede the City's housing goals as set forth in its Housing Element, and no mitigation is required.

4.10.6 Significant Impacts

4.10.6.1 Physically Divide an Established Community

Impact 4.10.6.1: *The proposed project may adversely affect existing rural residences on the project site.*

Threshold	Would the proposed WLC project physically divide an established community?

The adjacent properties surrounding the proposed WLC project are residential, light industrial, open space and undeveloped. Essentially, the project site is located along the eastern urban boundary of the City of Moreno Valley with development only adjacent to the western boundary and northwest corner of the site. As it is located at the edge of the community, its development could not physically divide the community and no impact would occur relative to residences near the southwest corner of the site.

At present, there are seven rural residences on the project site. These properties vary in size from 0.5 to 5 acres and are located on the east side of Redlands Boulevard and Theodore Street. The WLC Specific Plan designates these properties as “Light Logistics” and allows various logistics-related uses but not actual development of logistics warehousing since none of the properties are large enough to support a warehouse building of 500,000 square feet or more. It is believed these properties are currently occupied. It is possible that, as development of the project site occurs according to the WLCSP, large warehouse buildings may eventually be located in close proximity to existing residences. It would be ineffective and inefficient to try to incorporate these residences into the WLCSP land plan of large logistics warehouses to accommodate these residences. In addition, logistics operations would cause air pollutant, noise, lighting, and health risk impacts on residents living in these units if they were adjacent to operating warehouses. This is a significant land use impact.

Specific Plan Design Features. The WLCSP currently shows a 250-foot buffer or setback along the western boundary of the site to separate existing residences from the proposed warehouse buildings. However, it would be similarly ineffective and inefficient to try incorporate residences with similar buffers or setbacks into the WLCSP land plan.

Mitigation Measures. Installation of solid block walls around the warehouse building or the existing residence would help reduce noise and lighting impacts, but they would not help reduce air pollutant or health risk impacts. Therefore, there is no effective mitigation available to protect or separate these existing residences from future warehousing buildings and operations.

Level of Impact After Mitigation. Since there is no effective means of mitigating these onsite residences from the planned logistics warehouses, this land use impact is significant and unavoidable.

4.10.7 Cumulative Impacts

As discussed in this section, the WLC project would not have significant project-related impacts related to conflicts with applicable land use plans, policies, or regulations with approval of the proposed GPA, or conflict with an approved habitat conservation plan. While the project would represent a shift in land use policy for the eastern portion of the City, this policy shift does not represent a significant cumulative land use impact under CEQA. Section 4.10.6 determined the proposed project would have significant land use impacts on existing rural residences (“dividing an established community”), but this conflict does not rise to the level of a cumulative impact since the potential land use impacts to all adjacent residences will be less than significant, as discussed in Section 4.10.5.

4.11 MINERAL RESOURCES: TABLE OF CONTENTS

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NOTE TO READERS. *No major revisions have been made to this section in response to comments.*

4.11 MINERAL RESOURCES

This chapter evaluates potential impacts related to known mineral resources that may result from the proposed project.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers ~~3,918~~ 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes ~~3,814~~ 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering ~~3,814.~~ 3,714 acres, which redesignates approximately ~~71~~70 percent of the area (~~2,710~~ 2,610 acres) for logistics warehousing (new LD and LL~~, LS~~ zones) and the remaining ~~29~~30 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the ~~2,710~~ 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*~~. The environmental impacts of all of these entitlements on the entire project area are addressed in this EIR and the accompanying technical reports and analyses.~~

This chapter is based in part on the following document, which is incorporated by reference:

- *City of Moreno Valley General Plan*, City of Moreno Valley, adopted July 2006.

4.11.1 Existing Setting

There are no lands within the City of Moreno Valley designated by the California Department of Conservation as known significant resource areas, defined by the State as Mineral Resources Zone 2 areas. As identified in the City's General Plan, lands within the City of Moreno Valley and its Sphere

of Influence are designated MRZ-3 and MRZ-4, which are not defined as significant mineral resource areas.

4.11.1.1 NOP/Scoping Comments

No comments were received from public agencies or the public regarding mineral resources.

4.11.2 Policies and Regulations

4.11.2.1 State Regulations

Surface Mining and Reclamation Act. The Surface Mining and Reclamation Act of 1975 (SMARA) requires classification of land into mineral resource zones (MRZs) according to the known or inferred mineral potential of the area. Construction aggregate resources (sand and gravel) deposits were the first commodity selected for classification by the State Mining and Geology Board. Once mapped, the State Mining and Geology Board is required to designate for future use those areas that contain aggregate deposits that are of prime importance in meeting the region's future need for construction-quality aggregates. There are three key objectives of SMARA regulations:

- Adverse environmental effects are prevented or minimized, and mined lands are reclaimed to a usable condition that is readily adaptable for alternative uses;
- The production and conservation of minerals are encouraged, while consideration is given to values relating to recreation, watershed, wildlife, range and forage, and aesthetic enjoyment; and
- Residual hazards to the public health and safety are eliminated.

The primary objective of the SMARA is for each jurisdiction to develop policies that will conserve important mineral resources, where feasible, that might otherwise be unavailable when needed. The SMARA requires that once policies are adopted, local agency land use decisions must be in accordance with its mineral resource management policies. These decisions must also balance the mineral value of the resource to the market region as a whole, not just their importance to the local jurisdiction. Under SMARA, areas are categorized into four MRZs as follows:

MRZ-1 Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their production.

MRZ-2 Areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists.

MRZ-3 Areas containing mineral deposits, the significance of which cannot be evaluated from available data.

MRZ-4 Areas where available information is inadequate for assignment to any other MRZ zone.

4.11.2.2 City of Moreno Valley General Plan Policies

No policies related to mineral resources are identified within the City's General Plan.

4.11.3 Methodology

The California Geological Survey (CGS) provides objective geologic information about California's diverse non-fuel mineral resources. Maps, reports, and other data products developed by CGS were

used to locate mineral extraction areas in the project area. In addition, the City of Moreno Valley's General Plan was used to determine the location of possible mineral extraction areas in the project area.

4.11.4 Thresholds of Significance

Appendix G of the *State CEQA Guidelines* recognizes the following thresholds related to mineral resources. Based on these significance thresholds, potential impacts to mineral resources could be considered significant if the proposed project:

- Resulted in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State;
- Resulted in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plans.

4.11.5 Less than Significant Impacts

The following potential impacts were determined to be less than significant. In both of the following issues, either no impact would occur or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level. In both instances, no mitigation is required.

4.11.5.1 Loss of Statewide, Regional, or Locally Important Mineral Resources

Thresholds	Would the proposed project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State? Would the proposed project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plans?

Lands within the City of Moreno Valley and its Sphere of Influence are designated MRZ-3 and MRZ-4, which are not defined as significant mineral resource areas. No sites have been designated as locally-important mineral resource recovery sites on any local plan.[1] In addition, Figure OS-5 of the Riverside County General Plan shows that the proposed project area is also located within MRZ-3. The development of the project site would not result in the loss of identified regional or local mineral resources, conversion of an identified mineral resource use, or conflict with existing mineral resource extraction activities. Therefore, the development of the project site would not result in a loss of statewide, regional, or locally important mineral resources. No impacts associated with this issue would occur and no mitigation is required.

4.11.6 Significant Impacts

Based on the analysis in Section 4.11.5, the project will have no significant impacts related to mineral resources, and no mitigation is required.

[1] *Section 6.10 Mineral Resources, Section 6.0 Issues Found Not To Be Significant*, Draft Environmental Impact Report for City of Moreno Valley General Plan 2030, State Clearinghouse #2004031135, City of Moreno Valley, October 2004.

4.11.7 Cumulative Impacts

CEQA requires that an EIR discuss the project's incremental effects to determine if they are cumulatively considerable. The discussion of cumulative impacts must reflect the severity of the impacts and the likelihood of their occurrence; however, the discussion need not be as detailed as the discussion of environmental impacts attributable to the project alone. The discussion must demonstrate practicality and reasonableness.

The cumulative area for mineral resources is the City of Moreno Valley and this part of western Riverside County. As population levels increase in the region, greater demand for aggregate and other mineral materials will be placed on mineral resources, especially sand and gravel. Similarly, development pressures in areas where these materials are known or expected to occur would result in the loss of availability of these mineral resources. However, because the project site is not identified as a significant source of sand/gravel deposits and development subsequent to the adoption of the proposed land use actions on any of the sites would not decrease the local or regional availability of mineral resources, potential future development of any of the sites would have no significant cumulative mineral resources impact.

4.12 NOISE: TABLE OF CONTENTS

FIGURES

TABLES

NOTE TO READERS. *This section has been revised due to the following changes from the project characteristics analyzed in the original DEIR:*

- *Loss of 100 acres from the Specific Plan (in the southwest corner);*
- *Changes to the Traffic Impact Assessment (TIA, see Section 4.15); and*
- *Change in project construction phasing (from 10 to 15 years).*

These changes also resulted in updates to the traffic impact assessment and proposed mitigation measures. In addition, this section has been revised in response to public comments received on the Programmatic DEIR.

The original DEIR determined that 14 road or freeway segments would result in a significant noise increase attributable to the project, resulting in a significant cumulative impact requiring mitigation. These 14 segments were included in the original noise study, and all other impacts identified in the original noise study are unchanged except as noted below.

Revisions have been made to this section to address changes in the Specific Plan, revisions to the project noise study (assessment tables), and in responses to comments mainly regarding mitigation.[1] *Three street names have changed (Street C, D, and E) and may still be referenced in the section. For correct street names see Circulation Master Plan Figure 3.10. Due to a reduction in size of the Specific Plan, some impacts in this section have been reduced to less than significant levels.*

4.12 NOISE

Changes from January 24, 2013, Noise Analysis

The Noise Assessment report included in the Programmatic Draft EIR was issued in January 2013. Comments have been received from various public and private groups and individuals. The Noise Assessment report has been modified in response to these comments and to clarify the description of the analysis. In addition, the Traffic Impact Analysis contained in the Draft EIR has been revised to reflect a downsizing of the project and other factors, resulting in a reduction in associated traffic volumes for the "with project scenarios." The updated traffic volumes were used in the revised Noise Assessment report. The noise analysis procedures and significance thresholds have not been changed from the January 2013 noise assessment.

In the Noise Assessment report included in the Draft EIR, 33 roadway segments were identified where a significant noise impact would occur for at least one of the impact scenarios. In the revised Noise Assessment report for the Final EIR, 21 roadway segments have been identified as having a significant noise impact. The reduction in noise impact areas is a direct result of the revised traffic analysis which reflects a downsizing of the project and associated traffic volumes for the "plus project" traffic scenarios.

The roadway links that were previously identified as being impacted in the January 2013 noise analysis contained in the Draft EIR and are not directly affected in the revised noise analysis for the Final EIR are listed below:

- *Day Street between Cottonwood Avenue and Alessandro Boulevard (#109);*
- *Fir Avenue between Quincy Drive and Redlands Boulevard (#62);*
- *Moreno Beach Drive between Locust Avenue and Ironwood Avenue (#56);*

[1] *Mainly Comments C-4-2 and F-13-9 and F-13-84.*

- *Perris Boulevard between John F. Kennedy Drive and Iris Avenue (#303);*
- *Placentia Avenue from El Nido Avenue to Evans Road and on to Water Avenue (#431, #432);*
- *Quincy Drive from Cactus Avenue to Alessandro Boulevard and to Cottonwood Avenue (#502, #503);*
- *Reche Canyon Road from Keissel Road to Reche Vista Drive and on to High Country Drive (#205, #206);*
- *Redlands Boulevard from Eucalyptus Avenue to Dracaea Avenue (#12); and*
- *State Route 60 from Perris Boulevard to Nason Street (#31).*

There are five roadway segments that were previously identified in the January 2013 noise analysis contained in the Draft EIR that had a direct and cumulative impact. In the revised noise analysis for the Final EIR, these five roadway segments do not have a direct impact but have a cumulative impact only. These roadways are as follows:

- *Fir Avenue between Quincy Drive and Redlands Boulevard (#62);*
- *Gilman Springs Road between Eucalyptus Avenue and Street C (#31); and between Jack Rabbit Trail and Bridge Street (#191);*
- *Moreno Beach Drive between Locust Avenue and Ironwood Avenue (#56); and*
- *State Route 60 from Perris Boulevard to Nason Street (#31).*

The roadway link that was previously identified in the January 2013 noise analysis contained in the Draft EIR as being impacted and mitigation was considered infeasible is mitigated below a level of significance with feasible mitigation as shown in the revised noise analysis for the Final EIR:

- *Cactus Avenue west of Redlands Boulevard.*

This section of the EIR is intended to satisfy the City's requirements for a project-specific noise impact analysis by examining the short-term and long-term noise impacts of the proposed project on sensitive uses adjacent to the proposed project area and by evaluating the effectiveness of mitigation measures. This includes the potential for the proposed project to result in impacts associated with a substantial temporary and/or permanent increase in ambient noise levels in the vicinity of the project area; exposure of people to excessive noise levels, groundborne vibration, or groundborne noise levels.

CEQA requires an analysis of the proposed project's impacts on the existing environment; not an analysis on the existing environment's impacts on the proposed project. The occasional blow downs that occur at the Southern California Gas Company (SCGC) are part of the existing conditions and have been part of the existing conditions for years. Thus, for purposes of clarity, it should be noted that the impact analysis below goes beyond the requirements of CEQA and provided as part of an analysis to ensure worker safety. All mitigation measures imposed in this analysis are the responsibility of future developers and not SCGC.

Note: The following changes have been made due to revision to the Specific Plan project size.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers ~~3,918~~ 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes ~~3,814~~ 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

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In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*. ~~The environmental impacts of all of these entitlements on the entire project area are addressed in this EIR and the accompanying technical reports and analyses.~~

The analysis contained in this section is based on the following technical study prepared for the proposed project:

- *Noise Assessment for the World Logistic Center Specific Plan,* Mestre Greve Associates, original dated January 24, 2013, revised dated September 2014 (Appendix K of this ~~EIR); and~~Revised DEIR).

In addition to these project-specific technical studies, the analysis contained in this section is also based on the following reference documents:

- *California Noise Insulation Standards,* California Code of Regulations, Title 24, Part 2, §3501;
- *Highway Traffic Noise Prediction Model (FHWA-RD-77-108)*, Federal Highway Administration (FHWA);
- *City of Moreno Valley General Plan*, City of Moreno Valley, July 2006;
- *Moreno Valley Municipal Code,* City of Moreno Valley, current through Ordinance 836 and the February 2012 code supplement; and
- *State of California General Plan Guidelines*, Governor's Office of Planning and Research, October 2003, pages 249 and 250.

4.12.1 Existing Setting

4.12.1.1 Background

Characteristics of Noise. To the human ear, sound is technically described in terms of its loudness (amplitude) and pitch (frequency). Pitch is generally an annoyance, while loudness can affect our

ability to hear. Noise is usually defined as unwanted sound; it consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep.

Measurement of Noise. The standard unit of measurement of the loudness of sound is the decibel (dB). Decibels are based on a logarithmic scale. The logarithmic scale compresses the wide range in sound levels resulting in a more usable range of sound level values, similar to the Richter scale used to measure earthquakes. To humans, a sound 10 dB higher than another is considered to be twice as loud; a sound 20 dB higher than another is considered four times as loud; etc. Typical daily sounds in the environmental range from 30 dB (very quiet) to 100 dB (very loud).

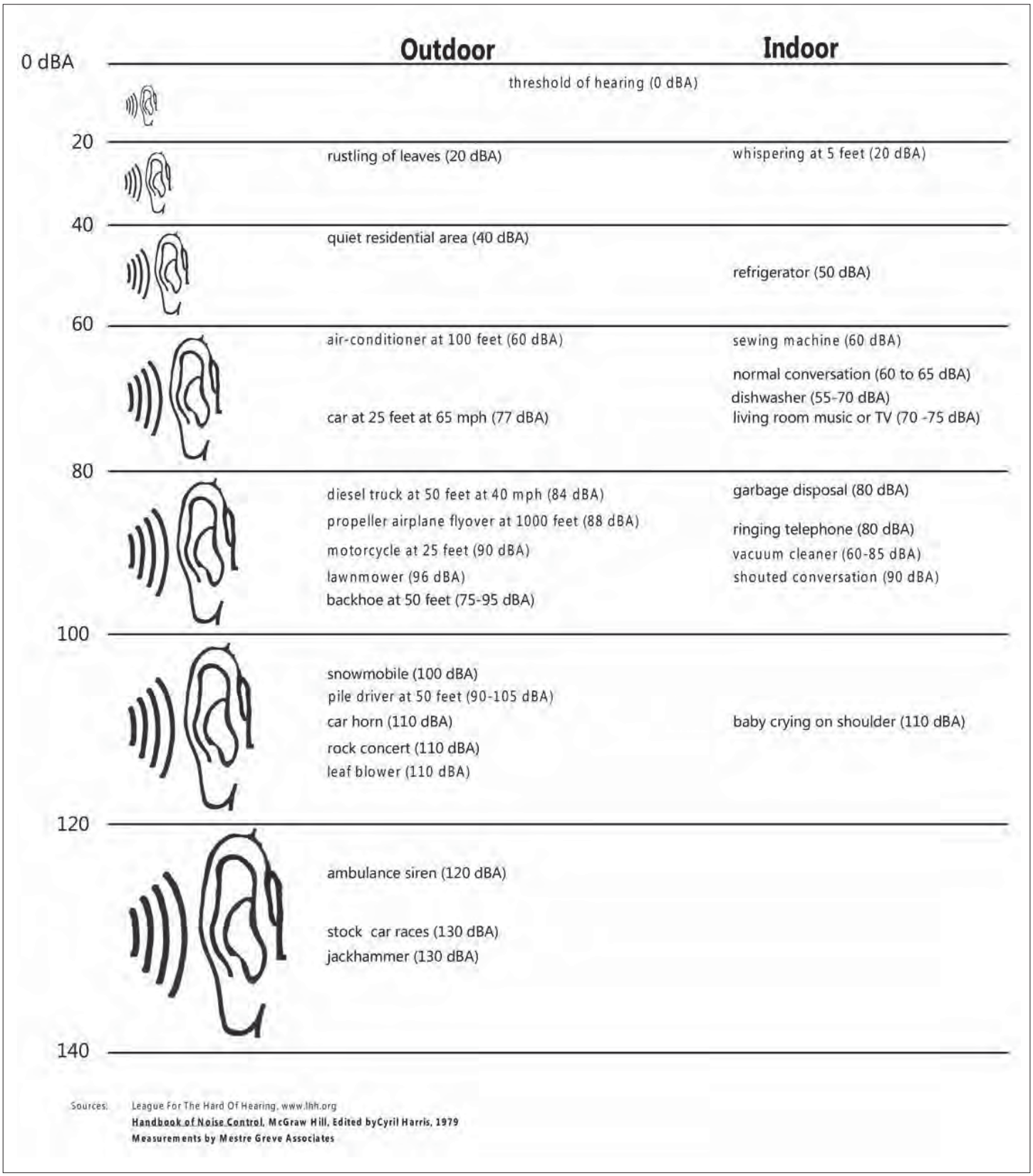
Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel (dBA) scale performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear. Community noise levels are measured in terms of the dBA. Figure 4.12.1 shows examples of various noises sources and their typical dBA noise level.

There are two categories of noise that are measured to characterize noise conditions: single event noise and community or cumulative noise. Single event measurements describe the noise levels from an individual event such as a passing airplane or a heavy-duty truck. Cumulative measurements average the total noise in a community over a specific time period, which is typically 1 or 24-hours.

The noise impact analysis performed for this EIR is based on assessment of both single event noise and community or cumulative noise. Several rating scales have been developed for measurement of community noise. These account for: (1) the parameters of noise that have been shown to contribute to the effects of noise on humans; (2) the variety of noises found in the environment; (3) the variations in noise levels that occur as a person moves through the environment; and (4) the variations associated with the time of day. They are designed to account for the known health effects of noise on people described previously. Based on these effects, the observation has been made that the potential for a noise to affect people is dependent on the total acoustical energy content of the noise. A number of noise scales have been developed to account for this observation. Two of the predominant noise scales are the Equivalent Noise Level (L_{eq}) and the Community Noise Equivalent Level (CNEL). L_{eq} is the sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. L_{eq} is the “energy” average noise level during the time period of the sample. L_{eq} can be measured for any time period, but is typically measured for 1 hour. This 1-hour noise level can also be referred to as the Hourly Noise Level (HNL). It is the energy sum of all the events and background noise levels that occur during that time period.

CNEL is the predominant rating scale now in use in California for land use noise compatibility assessment. The CNEL scale represents a time weighted 24-hour average noise level based on the dBA. Time weighted refers to the inclusion of penalties for noise that occurs during certain noise-sensitive time periods. The evening time period (7 p.m. to 10 p.m.) penalizes noises by 5 dBA, while nighttime (10 p.m. to 7 a.m.) noises are penalized by 10 dBA, reflecting people’s increased sensitivity to noise during these time periods. A CNEL noise level may be reported as a CNEL of 60 dBA, 60 dBA CNEL, or simply 60 CNEL.

L(%) is a statistical method of describing noise which accounts for variance in noise levels throughout a given measurement period. L(%) is a way of expressing the noise level exceeded for a percentage of time in a given measurement period. For example, since 5 minutes is 25 percent of 20 minutes, L(25) is the noise level that is equal to or exceeded for five minutes in a twenty-minute measurement period.



LSA

FIGURE 4.12.1

World Logistics Center Specific Plan Project
Environmental Impact Report

Typical A-Weighted Noise Levels

Source: Mestre Greve Associates, Division of Landrum & Brown, 2012

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It is L(%) that is used for most Noise Ordinance standards. For example most daytime County, State and City noise ordinances use a standard of 55 dBA for 30 minutes per hour, or an L(50) level of 55 dBA. In other words, the noise ordinance may state that no noise level should exceed 55 dBA for more than fifty percent of a given period.

The maximum noise level (L_{max}) is the highest exponential time averaged sound level that occurs during a stated time period. The noise levels discussed in this analysis for short-term noise impacts are specified in terms of maximum levels denoted by L_{max}, which reflects peak noise conditions and addresses the annoying aspects of intermittent noise. It is often used together with another noise scale, or noise standards in terms of percentile noise levels, in noise ordinances for enforcement purposes. For example, the L_{10} noise level represents the noise level exceeded 10 percent of the time during a stated period. The L_{50} noise level represents the median noise level. Half the time the noise level exceeds this level, and half the time it is less than this level. The L_{90} noise level represents the noise level exceeded 90 percent of the time and is considered the background noise level during a monitoring period. For a relatively constant noise source, the L_{eq} and L_{50} are approximately the same.

Fundamentals of Groundborne Vibration. Vibration refers to groundborne noise and perceptible motion of the earth. Similar to noise, vibration is transmitted in noise-like waves through the earth and solid objects.

There are several ways to categorize vibration sources. One way is to divide vibration into natural sources (e.g., earthquakes, volcanic eruptions, sea waves, and landslides) and human sources (e.g., explosions, machinery, traffic, trains, and construction equipment). Similar to noise sources, vibration sources can also be described as continuous (e.g., operating factory machinery) or transient (e.g., explosions).

As with noise, ground vibrations can be described by amplitude and frequency. Vibration amplitude is characterized by its displacement, velocity, and acceleration. Displacement is the distance that soil particles travel from their original location as a result of vibration, as measured in inches or millimeters. Velocity is the speed of the soil particles measured in inches per second or millimeters per second. Acceleration is the acceleration of the soil particles measured in inches per second per second or millimeters per second per second. Particle velocity is the most commonly used vibration attribute used to describe vibration. Table 4.12.A presents the human reaction to various levels of peak particle velocity. Vibrations also vary in frequency. Traffic vibrations generally range in frequencies from 10 to 30 hertz (Hz), and tend to average around 15 Hz. As a point of reference, city buses often generate frequencies around 3 Hz at high vehicle speeds, due to their suspension systems.

Table 4.12.A: Human Reaction to Typical Vibration Levels

Vibration Level Peak Particle Velocity (inches/second)	Human Reaction
0.0059–0.0188	Threshold of perception, possibility of intrusion.
0.0787	Vibrations readily perceptible.
0.0984	Level at which continuous vibrations begin to annoy people.
0.1968	Vibrations annoying to people in buildings.
0.3937–0.5905	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges.

Source: Caltrans 1992.

Groundborne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors, where the motion may be discernable. However, without the effects associated with the shaking of a building, there is less adverse reaction. Building vibration may be perceived by the occupants as motion of building surfaces, rattling of items on shelves or hanging on walls, or as a

low-frequency rumbling noise. Building damage is not a factor for normal projects, with the occasional exception of blasting and pile driving during construction or mining. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by up to 10 decibels. This is an order of magnitude below the damage threshold for normal buildings.

Typical sources of groundborne vibration are construction activities (e.g., blasting, pile driving, and operating heavy-duty earthmoving equipment), steel-wheeled trains, and occasional traffic on rough roads. Problems with groundborne vibration and noise from these sources are usually localized to within about 100 feet of the vibration source, although there are examples of groundborne vibration causing interference out to distances greater than 200 feet, as described in the FTA Transit Noise and Vibration Impact Assessment (FTA, May 2006). When roadways are smooth, vibration from traffic, even heavy trucks, is rarely perceptible.

Factors that influence groundborne vibration and noise include the following:

- *Vibration Source:* Vehicle suspension, wheel types and condition, track/roadway surface, track support system, speed, transit structure, and depth of vibration source.
- *Vibration Path:* Soil type, rock layers, soil layering, depth to water table, and frost depth.
- *Vibration Receiver:* Foundation type, building construction, and acoustical absorption.

Among the factors listed above, there are significant differences in the vibration characteristics when the source is underground versus at ground surface. In addition, soil conditions are known to have a strong influence on the levels of groundborne vibration. Among the most important factors are the stiffness and internal damping of the soil and the depth to bedrock. Vibration propagation is more efficient in stiff clay soils than in loose sandy soils, and shallow rock seems to concentrate the vibration energy close to the surface and can result in groundborne vibration problems at a great distance from the track. Factors such as layering of the soil and depth to water table can have significant effects on the propagation of groundborne vibration. Soft, loose, sandy soils tend to attenuate more vibration energy than hard, rocky materials. Vibration propagation through groundwater is more efficient than through sandy soils.

4.12.1.2 Sensitive Land Uses in the Project Vicinity

Certain land uses are considered more sensitive to noise than others. Examples include residential areas, educational facilities, hospitals, childcare facilities, and senior housing. The project vicinity and Specific Plan area are characterized by a mix of developed and undeveloped properties. Developed properties in the vicinity include an industrial/warehouse building in Moreno Valley to the northwest (Skechers) and several residential neighborhoods along Redlands Boulevard along the western boundary of the project site. An area of the City known as “Old Moreno” is situated near the southwest portion of the project site, around the intersection of Redlands and Alessandro Boulevards. The homes along Merwin Street, east of Redlands Boulevard, constitute the closest sensitive receptors to the project site (i.e., they are adjacent to the property).

4.12.1.3 Existing Noise Measurements

Existing noise levels in the vicinity of the proposed project are used establish baseline noise levels in key areas. Noise measurements within the project site and in the surrounding area were taken. The noise measurement locations were selected to provide coverage of the project’s potential noise impact area. The noise measurement locations are shown Figure 4.12.2.

Noise measurements were taken at sixteen sites in the project vicinity during the daytime hours (between 7 a.m. and 10 p.m.) and during nighttime hours (between 10 p.m. and 7 a.m.). For each measurement site and time period, noise levels were measured for 15 minutes and calibrated to ensure that the measured sound level readings were accurate. The measurements were used to calculate existing L_{eq}, L_{min}, L_{max}, $L_{1.7}$, $L_{8.3}$, L_{25} and L_{50} values for the measurement locations. Table 4.12.B shows the results for the daytime measurements, and Table 4.12.C shows the nighttime measurements.

4.12.1.4 Existing Traffic Noise Environment

The primary existing noise sources in the project area are transportation facilities. Traffic on SR-60, Redlands Boulevard, Theodore Street, Gilman Springs Road, and other local streets is the dominant source contributing to the ambient noise levels in the project vicinity. Noise from motor vehicles is generated by engine vibrations, the interaction between the tires and the road, and the exhaust system. Table 4.12.D identifies the existing (2012) traffic noise levels adjacent to roadway segments in the project vicinity.

4.12.1.5 Existing SDG&E and SCGC Facilities

The proposed World Logistics Center Specific Plan area is currently occupied by one San Diego Gas and Electric Company (SDG&E) compressor station and two Southern California Gas Company (SCGC) facilities. These facilities are located within the boundaries of the Specific Plan as shown in previously referenced Figure 4.12.2. The SDG&E compressor station recompresses natural gas received from interstate gas pipelines and delivers the gas to Southern California via transmission pipelines. The two SCGC facilities contain flow valve and metering equipment facilities. The southern SCGC facility contains a maintenance functions as well. All of these facilities contain gas pipeline blow-down equipment. This equipment includes exhaust stacks that vent the high pressure gas into the atmosphere occur during emergencies, scheduled maintenance, and annual testing of the blow-down systems.

The SDG&E and SCGC facilities produce noise from three different sources that could affect future development within the proposed project: 1) the operation of the compressor station; 2) blow-down events at the compressor station; and 3) blow-down events at the SCGC facilities. The blow-down events generate infrequent high noise levels for relatively short periods. The compressor station generates a relatively constant noise level, although noise levels vary slightly when the compressors are turned on and off when the gas is conveyed to the transmission pipelines.

The SDG&E compressors are the primary source of operational noise generated by the compressor station. The facility contains two sets of three reciprocating natural gas combustion engines and one set of four natural gas-fired turbines, for a total of ten compressors with power ranging from 995 to 3,400 horsepower. The compressors are located within noise attenuation structures and are equipped with intake and exhaust silencers. The facility routinely operates at maximum capacity 24 hours per day. It is anticipated that demand on the compressor station will increase in the future to the point where the facility operates 24 hours a day, year round.

The CNEL levels for the SDG&E compressor station presented in Figure 4.12.3 are based on a worst-case assumption that the compressor station is in full operation 24 hours a day. Figure 4.12.4 presents the average (L_{eq}) noise levels generated by the compressor station during full operation. Both the CNEL and L_{eq} metrics are used to assess the noise impacts from the facility.

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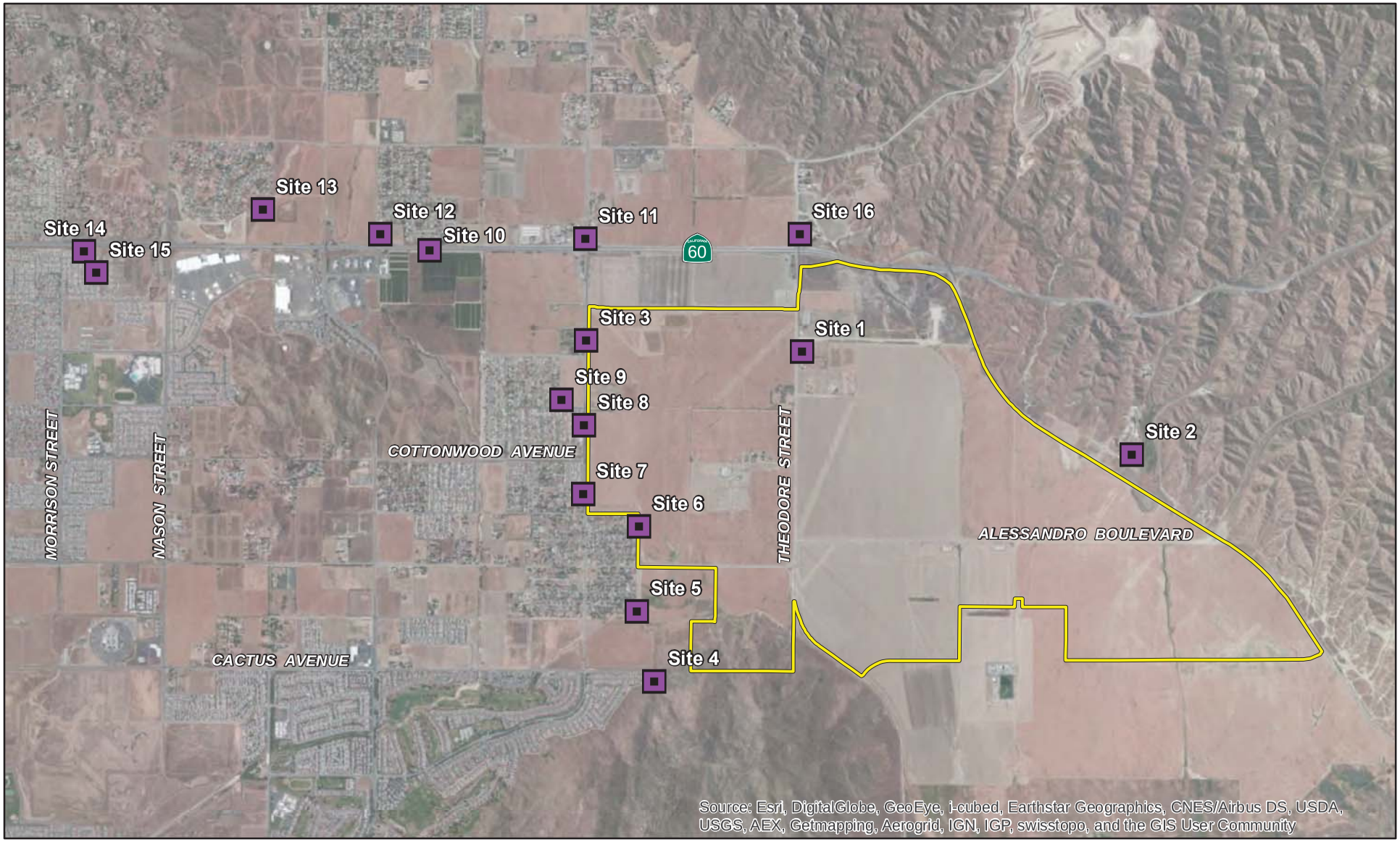

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FIGURE 4.12.2

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Specific Plan Boundary

Noise Measurement Location

World Logistics Center Specific Plan Project
Environmental Impact Report

Noise Measurement Locations

SOURCE: Mestre Greve Associates, 2014.

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Table 4.12.B: Existing Daytime Noise Measurements (dBA)

Site	Date	Start Time	L_{eq}	L_{max}	$L_{1.7}$	$L_{8.3}$	L_{25}	L_{50}	L_{min}
1	1-25-12	9:38 a.m.	55.4	72.0	63.0	56.5	54.0	53.0	48.7
2	1-25-12	10:15 a.m.	53.6	68.8	61.0	57.0	53.5	50.5	44.0
3	1-25-12	10:42 a.m.	66.3	73.7	73.0	71.5	68.0	61.5	43.5
4	1-25-12	11:04 a.m.	40.8	50.3	46.0	43.5	41.0	39.5	35.9
5	1-25-12	11:27 a.m.	40.4	56.9	48.0	44.5	39.5	36.0	31.4
6	1-25-12	11:48 a.m.	46.1	68.3	51.5	41.0	37.5	34.0	30.0
7	1-25-12	12:08 p.m.	57.7	75.3	66.5	63.0	55.5	47.5	34.8
8	1-25-12	12:30 p.m.	65.1	85.5	73.5	70.0	63.0	56.5	39.0
9	1-25-12	12:50 p.m.	42.9	55.8	53.0	46.0	41.5	37.5	33.5
10	1-25-12	1:48 p.m.	49.2	68.0	56.0	48.0	46.5	45.0	40.5
11	1-25-12	2:10 p.m.	60.4	73.0	66.5	64.5	61.0	58.0	47.2
12	1-25-12	2:32 p.m.	51.2	58.4	55.5	53.5	51.5	50.5	44.7
13	1-25-12	2:52 p.m.	45.8	59.8	52.0	48.0	45.5	44.0	39.9
14	1-25-12	3:15 p.m.	65.5	73.3	70.0	68.5	66.5	64.5	54.4
15	1-25-12	3:39 p.m.	52.6	72.1	59.5	55.5	51.5	49.5	42.9
16	1-25-12	4:08 p.m.	58.7	75.2	67.0	59.0	57.0	55.0	50.5

Table 4.12.C: Existing Nighttime Noise Measurements (dBA)

Site	Date	Start Time	L_{eq}	L_{max}	$L_{1.7}$	$L_{8.3}$	L_{25}	L_{50}	L_{min}
1	2-8-12	11:51 p.m.	50.6	64.5	59.0	54.5	50.5	45.5	36.0
2	2-6-12	10:30 p.m.	47.4	65.1	52.5	50.0	48.0	45.5	37.5
3	2-6-12	10:55 p.m.	61.8	75.9	71.0	67.5	58.0	54.0	45.9
4	2-6-12	11:33 p.m.	35.8	51.1	44.0	39.0	34.5	32.0	30.0
5	2-9-12	12:15 a.m.	36.4	46.6	42.5	39.5	36.0	35.0	31.5
6	2-7-12	12:15 a.m.	43.2	51.0	49.5	46.5	44.0	41.5	35.3
7	2-7-12	12:35 a.m.	51.5	66.9	64.0	54.0	41.5	37.5	32.6
8	2-7-12	12:55 a.m.	56.0	74.1	68.0	57.0	42.5	38.5	33.6
9	2-9-12	12:35 a.m.	41.5	57.1	50.5	44.5	38.0	36.0	30.4
10	2-9-12	1:01 a.m.	46.7	63.8	50.5	48.5	46.5	45.0	38.1
11	2-9-12	1:25 a.m.	59.6	68.3	67.5	64.5	60.5	54.0	46.3
12	2-9-12	1:48 a.m.	51.8	63.9	58.0	55.0	52.0	50.0	39.2
13	2-9-12	2:09 a.m.	48.0	59.7	55.5	52.0	47.5	45.0	38.6
14	2-9-12	2:33 a.m.	60.8	72.3	68.0	65.5	61.0	57.5	44.9
15	2-9-12	2:56 a.m.	48.2	59.9	54.5	52.5	49.0	45.0	35.4
16	2-9-12	3:20 a.m.	54.3	62.7	60.0	58.5	55.5	52.0	38.8

~~4.12.1.4 Existing Traffic Noise Environment~~

Table 4.12.D: Existing Traffic Noise Levels (dBA)

Roadway Segment	CNEL (dBA) at 100 feet
Alessandro Boulevard (Lasselle Street and Morrison Street)	55.5
Alessandro Boulevard (Morrison Street to Nason Street)	56.8
Alessandro Boulevard (Nason Street to Oliver Street)	64.4
Cactus Avenue (Nason Street to Oliver Street)	64.3
Cactus Avenue (Oliver Street to Moreno Beach Drive)	58.2
Cactus Avenue (Redlands Boulevard to Street D)	50.2
Cactus Avenue (west of Redlands Boulevard)	57.5
Canyon Crest Drive (Alessandro Boulevard to Sandtrack Road)	41.8
Canyon Crest Drive (Central Avenue to Country Club Drive)	67.0
Country Club Drive (Chicago Avenue to Canyon Crest Drive)	57.5
Crescent Avenue (west of Alessandro Road)	57.1
Day Street (Cottonwood Avenue to Alessandro Boulevard)	57.7
Elsworth Street (Cottonwood Avenue to Alessandro Boulevard)	62.9
Evans Road (Marbella Gate to Ramona Expressway)	56.9
Gilman Springs Road (Bridge Street to Beaumont Avenue)	61.0
Gilman Springs Road (Bridge Street to SR-79 Southbound Ramps)	61.0
Gilman Springs Road (Eucalyptus Avenue to Street C)	46.1
Gilman Springs Road (Jack Rabbit Trail to Bridge Street)	62.7
Gilman Springs Road (south of Street C)	56.1
Gilman Springs Road (SR-79 Northbound Ramps to Record Road)	60.7
Heacock Street (Alessandro Boulevard to Cactus Avenue)	59.7
Heacock Street (Cactus Avenue to John F Kennedy Drive)	62.6
Indian Street (Alessandro Boulevard to Cactus Avenue)	59.9
Indian Street (Cactus Avenue to John F Kennedy Drive)	59.3
Iris Avenue (Kitching Street to Lasselle Street)	6031
Iris Avenue (Lasselle Street to Nason Street)	57.0
Iris Avenue (Nason Street to Oliver Street)	60.0
Iris Avenue (Perris Boulevard to Kitching Street)	60.8
Ironwood Avenue (Moreno Beach Drive to Redlands Boulevard)	55.6
Ironwood Avenue (Redlands Boulevard to Highland Boulevard)	46.3
John F Kennedy Drive (south of Cactus Avenue)	61.5
Kitching Street (Alessandro Boulevard to Cactus Avenue)	58.2
Kitching Street (Cactus Avenue to John F Kennedy Drive)	59.1
Kitching Street (Iris Avenue to Ivory Avenue)	61.1
Kitching Street (Krameria Avenue to Lurin Avenue)	62.4
Krameria Avenue (Perris Boulevard to Lasselle Street)	57.5
Lasselle Street (Cahuilla Drive to Krameria Avenue)	60.5
Lasselle Street (Cottonwood Avenue to Alessandro Boulevard)	64.4
Lasselle Street (Krameria Avenue to Arroyo Park Drive)	56.4
Live Oak Canyon Road (San Timoteo Canyon Road to I-10)	56.5
Lochmoor Drive (Central Avenue to Fair Isle Drive)	52.1
Locust Avenue (Moreno Beach Drive to Redlands Boulevard)	55.7
Locust Avenue (Moreno Beach Drive to Smiley Boulevard)	46.2

Table 4.12.D: Existing Traffic Noise Levels (dBA)

Roadway Segment	CNEL (dBA) at 100 feet
Mission Grove Parkway (Alessandro Boulevard to Northrop Drive)	58.1
Mission Grove Parkway (Cannon Road to Alessandro Boulevard)	62.5
Moreno Beach Drive (John F Kennedy Drive to Cactus Avenue)	57.6
Moreno Beach Drive (John F Kennedy Drive to Oliver Street)	55.2
Moreno Beach Drive (Locust Avenue to Ironwood Avenue)	55.3
Old 215 Frontage Road (Eucalyptus Avenue to Alessandro Boulevard)	61.4
Orange Avenue (Evans Road to Foothill Drive)	55.3
Perris Boulevard (Alessandro Boulevard to Cactus Avenue)	61.0
Perris Boulevard (Alessandro Boulevard to Cottonwood Avenue)	61.9
Perris Boulevard (Cactus Avenue to John F Kennedy Drive)	62.0
Perris Boulevard (Iris Avenue to Krameria Avenue)	60.8
Perris Boulevard (John F Kennedy Drive to Iris Avenue)	67.2
Perris Boulevard (Krameria Avenue to Harley Knox Boulevard)	60.7
Perris Boulevard (Krameria Avenue to Harley Knox Boulevard)	59.6
Perris Boulevard (Sunnymead Boulevard to Fir Avenue)	69.0
Ramona Expressway (Evans Road to Rider Street)	59.2
Reche Canyon Road (Keissel Road to Reche Vista Drove)	62.7
Reche Vista Drive (Heacock Street to Reche Canyon Road)	66.7
Redlands Boulevard (Ironwood Avenue to San Timoteo Canyon Road)	67.8
Redlands Boulevard (Ironwood Avenue to SR-60)	68.3
Redlands Boulevard (SR-60 to Eucalyptus Avenue)	58.8
San Timoteo Canyon Road (Alessandro Road to Live Oak Canyon Road)	62.0
San Timoteo Canyon Road (Live Oak Canyon Road to Redlands Boulevard)	62.7
Street A (Eucalyptus Avenue to Street F)	47.0
Sunset Drive (Alessandro Road to Cameo Drive)	52.5
Sunset Drive (Crown Street to Alessandro Road)	49.0
Sycamore Canyon Boulevard (Central Avenue to College Boulevard)	62.8
Theodore Street (SR-60 to Highland Boulevard)	53.6
Freeways	
SR-60 (Heacock Street to Perris Boulevard)	65.2
SR-60 (Moreno Beach Drive to Redlands Boulevard)	62.5
SR-60 (Perris Boulevard to Nason Street)	64.6
SR-60 (Pigeon Pass Road/Frederick Street to Heacock Street)	66.5
SR-60 (Redlands Boulevard to Theodore Street)	60.2

Source: Mestre Greve Associates, ~~November 2012~~September 2014.

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FIGURE 4.12.3

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Environmental Impact Report

Existing CNEL Noise Contours for the SDG & E Compressor Station

SOURCE: Mestre Greve Associates, 2013.

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FIGURE 4.12.4

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World Logistics Center Specific Plan Project
Environmental Impact Report

Existing Leq Noise Levels for the SDG & E Compressor Station

SOURCE: Mestre Greve Associates, 2013.

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There are several blow-down points within the SDG&E compressor station. As stated previously, these blow-down points allow for the release of pressurized gas during emergencies, scheduled maintenance, and annual testing. Blow-down events at the compressor station vent gas and last between 30 and 90 seconds. The maximum sound levels (L_{max} dBA) generated by the blow-down events is presented in Figure 4.12.5.

There are blow-down points in the SCGC facilities. Blow-down events at the SCGC facilities vent gas from miles of pipeline and are much longer than those at the compressor station, and can last up to 90 minutes. Approximately four blow-down events occur annually at the SCGC facilities. L_{max} noise levels (dBA) are shown in in Figure 4.12.6. The noise level will be at or near the L_{max} level during the entire blow-down event. It should also be noted that blow-down events generate ground vibrations and natural gas odors in the vicinity in the surrounding area when events occur. Again, it must be noted that these blow-down events are part of the existing conditions of the project site, and any impacts caused by development of new warehousing near these facilities, and any mitigation necessary, are not the responsibility of SCGC or SDG&E.

4.12.2 Existing Policies and Regulations

The applicable noise standards governing the project site are the criteria in the City of Moreno Valley General Plan Safety Element (Environmental Safety, Noise) and Municipal Code (Noise Ordinance). The City's Safety Element of the General Plan does not contain specific noise standards or significance thresholds. However, the General Plan does cite applicable State standards including the California Administrative Code, Section 1092 of Title 25, Chapter 1, Subchapter 1, Article 4 and Section 5014 of Title 21, Subchapter 6, Article 2. In addition, other applicable standards identified in the *California Noise Insulation Standards*[1] and the *State of California Vehicular Code*[2] are included below. The following sections list the General Plan policies, Municipal Code, and State standards relevant to noise for the proposed project.

4.12.2.1 City of Moreno Valley General Plan Policies

Chapter 9 of the *City of Moreno Valley General Plan*[3] defines goals, objectives, policies, and action items related to noise conditions in the City. The specific policies related to noise that are relevant to the proposed project are as follows:

Objective 6.3 Provide noise compatible land use relationships by establishing noise standards utilized for design and siting purposes.

Policy 6.3.5 Enforce the California Administrative Code, Title 24 noise insulation standards for new multi-family housing developments, motels and hotels.

Policy 6.3.6 Building shall be limited in areas of sensitive receptors.

Objective 6.4 Review noise issues during the planning process and require noise attenuation measures to minimize acoustic impacts to existing and future surrounding land uses.

Policy 6.4.1 Site, landscape and architectural design features shall be encouraged to mitigate noise impacts for new developments, with a preference for noise barriers that avoid freeway sound barrier walls.

---

1 California Code of Regulations, Title 24, Part 2, §3501, *California Noise Insulation Standards.*
2 Governor's Office of Planning and Research, *State of California General Plan Guidelines*, October 2003, pages 249 and 250.
3 *City of Moreno Valley General Plan*, City of Moreno Valley, July 2006.

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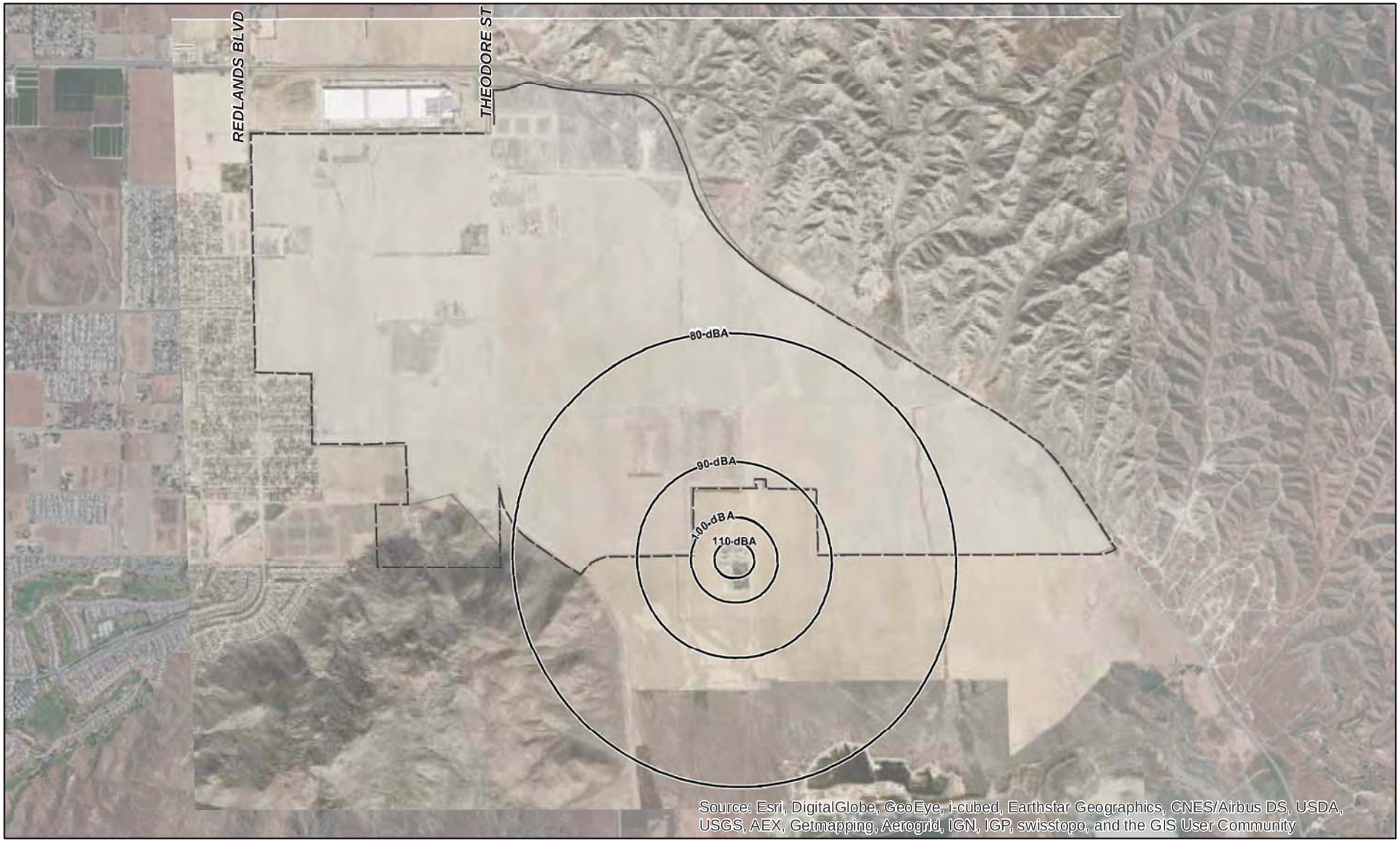

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FIGURE 4.12.5

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SOURCE: Mestre Greve Associates, 2013.

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World Logistics Center Specific Plan Project
Environmental Impact Report

Existing Lmax Levels for SDG&E Blow-Down

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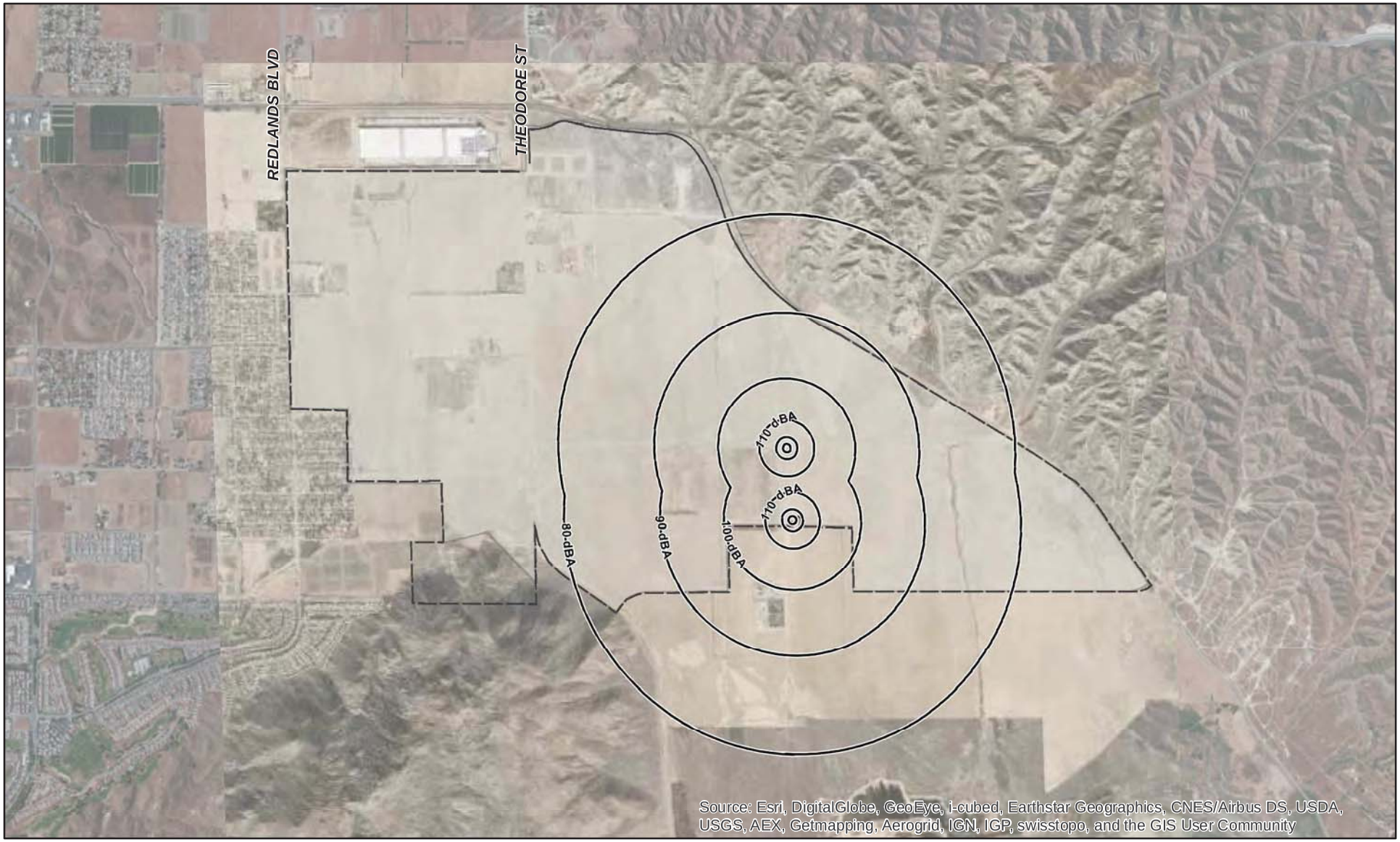

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FIGURE 4.12.6

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SOURCE: Mestre Greve Associates, 2013.

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World Logistics Center Specific Plan Project
Environmental Impact Report

Existing Lmax Noise Levels for the SCE Blow Down Event

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Objective 6.5 Minimize noise impacts from significant noise generators such as, but not limited to, motor vehicles, trains, aircraft, commercial, industrial, construction, and other activities.

Policy 6.5.1 New commercial and industrial activities (including the placement of mechanical equipment) shall be evaluated and designed to mitigate noise impacts on adjacent uses.

Policy 6.5.2 Construction activities shall be operated in a manner that limits noise impacts on surrounding uses.

4.12.2.2 City of Moreno Valley Municipal Code

The *Moreno Valley Municipal Code*[1] establishes a Noise Ordinance that describes the noise standards within the City. Chapter 11.80.030 (Title 11) lists specific prohibited acts.

The City's residential site development standards, as identified in Chapter 9.03.040 of the City's Planning and Zoning Code, state that in all residential districts, air conditioners, heating, cooling, and ventilating equipment and all other mechanical lighting or electrical devices shall be operated so that noise levels do not exceed 60 dBA (L_{dn}) at the property line.

The City's Municipal Code, Section 6.04.030.J states that "to create, allow or maintain any loud or unusual noise or operate or maintain any device, instrument, vehicle, or machinery in such a manner as to create loud or unusual noise, cause vibrations, or unreasonable light spillage or glare which causes discomfort or annoyance to reasonable persons of normal sensitivity, or which endangers the comfort, repose, health or peace of the public or of any person using or occupying other property in the vicinity" is prohibited.

The City's Municipal Code, Section 9.10.140, specifies that all commercial and industrial uses shall be operated so that noise created by any loudspeaker, bells, gongs, buzzers, or other noise attenuation or attracting devices shall not exceed 55 dBA at any one time beyond the boundaries of the property.

Chapter 11.80.030 of the City's Municipal Code also states:

> *Based on statistics from the Center for Disease Control and Prevention and the National Institute for Occupational Safety and Health, Table 1 and Table 1-A specify sound level limits which, if exceeded, will have a high probability of producing permanent hearing loss in anyone in the area where the sound levels are being exceeded. No sound shall be permitted within the City which exceeds the parameters set forth in Table 11.80.030-1* [Table 4.12.E] *and 11.80.030-1-A* [Table 4.12.F] *of this chapter.*
>
> *No person shall maintain, create, operate or cause to be operated on private property any source of sound in such a manner as to create any nonimpulsive sound which exceeds the limits set forth for the source land use category (as defined in Section 11.80.020) in Table 11.80.030-2* [Table 4.12.F] *when measured at a distance of two hundred (200) feet or more from the real property line of the source of the sound, if the sound occurs on privately owned property, or from the source of the sound, if the sound occurs on public right-of-way, public space or other publicly owned property. Any source of sound in violation of this subsection shall be deemed prima facie to be a noise disturbance.*
>
> *The following uses and activities shall be exempt from the sound level regulations except the maximum sound levels provided in Tables 11.80.030-1* [Table 4.12.E] *and 11.80.030-1A* [Table 4.12.F]*:*

[1] *Moreno Valley Municipal Code,* City of Moreno Valley, current through Ordinance 836 and the November 2012 code supplement.

1. *Sounds resulting from any authorized emergency vehicle when responding to an emergency call or acting in time of an emergency.*
2. *Sounds resulting from emergency work as defined in Section 11.80.020.*
3. *Any aircraft operated in conformity with, or pursuant to, federal law, federal air regulations and air traffic control instruction used pursuant to and within the duly adopted federal air regulations; and any aircraft operating under technical difficulties in any kind of distress, under emergency orders or air traffic control, or being operated pursuant to and subsequent to the declaration of an emergency under federal air regulations.*
4. *All sounds coming from the normal operations of interstate motor and rail carriers, to the extent that local regulation of sound levels of such vehicles has been preempted by the Noise Control Act of 1972 (42 U.S.C. § 4901 et seq.) or other applicable federal laws or regulations.*
5. *Sounds from the operation of motor vehicles, to the extent they are regulated by the California Vehicle Code.*
6. *Any constitutionally protected noncommercial speech or expression conducted within or upon any public right-of-way, public space or other publicly owned property constituting an open or a designated public forum in compliance with any applicable reasonable time, place and manner restriction on such speech or expression or otherwise pursuant to legal authority.*
7. *Sounds produced at otherwise lawful and permitted city-sponsored events, organized sporting events, school assemblies, school playground activities, by permitted fireworks, and by permitted parades on public right-of-way, public space, or other publicly owned property.*
8. *An event for which a temporary use permit or special event permit has been issued under other provisions of this code, where the provision of Section 11.80.010 are met, the permit granted expressly grants an exemption from specific standards contained in this chapter, and the permittee and all persons under the permitt~~t~~ee's reasonable control actually comply with all conditions of such permit. Violation of any condition of such permit related to sound or sound equipment shall be in violation of this chapter and punishable as such.*

Table 4.12.E and Table 4.12.F show the maximum sound levels that are permitted in the City for continuous and impulsive sounds, respectively.

Table 4.12.E: Maximum Continuous Sound Levels*

Duration Per Day Continuous Hours	Sound Level (dBA)
8	90
6	92
4	95
3	97
2	100
1.5	102
1	105
0.5	110
0.25	115

* When the daily sound exposure is composed of two or more periods of sound exposure at different levels, the combined effect of all such periods shall constitute a violation of this section if the sum of the percentage of allowed period of sound exposure at each level exceeds 100 percent.

Source: Chapter 11.80.030 Table 11.80.030-1, City of Moreno Valley Municipal Code, City of Moreno Valley.

Table 4.12.F: Maximum Impulsive Sound Levels

Number of Repetitions Per 24-Hour Period	Sound Level (dBA)
1	145
10	135
100	125

Source: Chapter 11.80.030 Table 11.80.030-1A, City of Moreno Valley Municipal Code, City of Moreno Valley.

The City also restricts the sound levels for non-impulsive sound on lands designated for residential and commercial land uses during the daytime and nighttime time periods. These levels are shown in Table 4.12.G. Section 11.80.050 (3) clearly identifies the measurement as an "average" noise level, and therefore, the noise limits shown in Table 4.12.G are interpreted as the L_{eq} noise level.

Table 4.12.G: Maximum Sound Levels (in dBA) for Source Land Uses

Residential		Commercial	
Daytime	Nighttime	Daytime	Nighttime
60	55	65	60

Source: Chapter 11.80.030 Table 11.80.030-2, City of Moreno Valley Municipal Code, City of Moreno Valley.

The City prohibits all construction and demolition activities between the hours of 8:00 p.m. and 7:00 a.m. the day following a noise disturbance. A noise disturbance is defined as any sound which that disturbs a reasonable person of normal sensitivities, exceeds the sound level limits set forth in the Noise Ordinance, or is plainly audible. A noise disturbance is defined as plainly audible measured at a distance of 200 feet from the real property line of the source of the sound if the sound occurs on privately owned property, or from the source of the sound, if the sound occurs on public right-of-way, public space or other publicly owned property.

4.12.2.3 State of California Vehicle Code

Recent studies have shown that the most objectionable feature of traffic noise is the sound produced by vehicles equipped with illegal or faulty exhaust systems. In addition, such vehicles are often operated in a manner that causes tire squeal and excessively loud exhaust noise. A number of California State vehicle noise regulations can be enforced by local authorities as well as the California Highway Patrol. These include § 27150 (mufflers) of the California Vehicle Code (CVC), as well as excessive speed laws, which may be applied to curtail traffic noise. The California Highway Patrol and the Department of Health Services (through local health departments) are available to aid local authorities in code enforcement and training pursuant to proper vehicle sound level measurements.

4.12.2.4 State of California Noise Compatibility Guidelines

The State of California Noise Compatibility Guidelines, published by the Department of Health, Services provides guidance for use when siting land uses. The compatibility guidelines are shown in Figure 4.12.7. The guidelines will be used to evaluate the compatibility of the proposed land uses with the noise environment. The guidelines show compatibility of various land uses with different noise environments. The guidelines show that industrial uses are normally acceptable in noise environments up to 75 CNEL.

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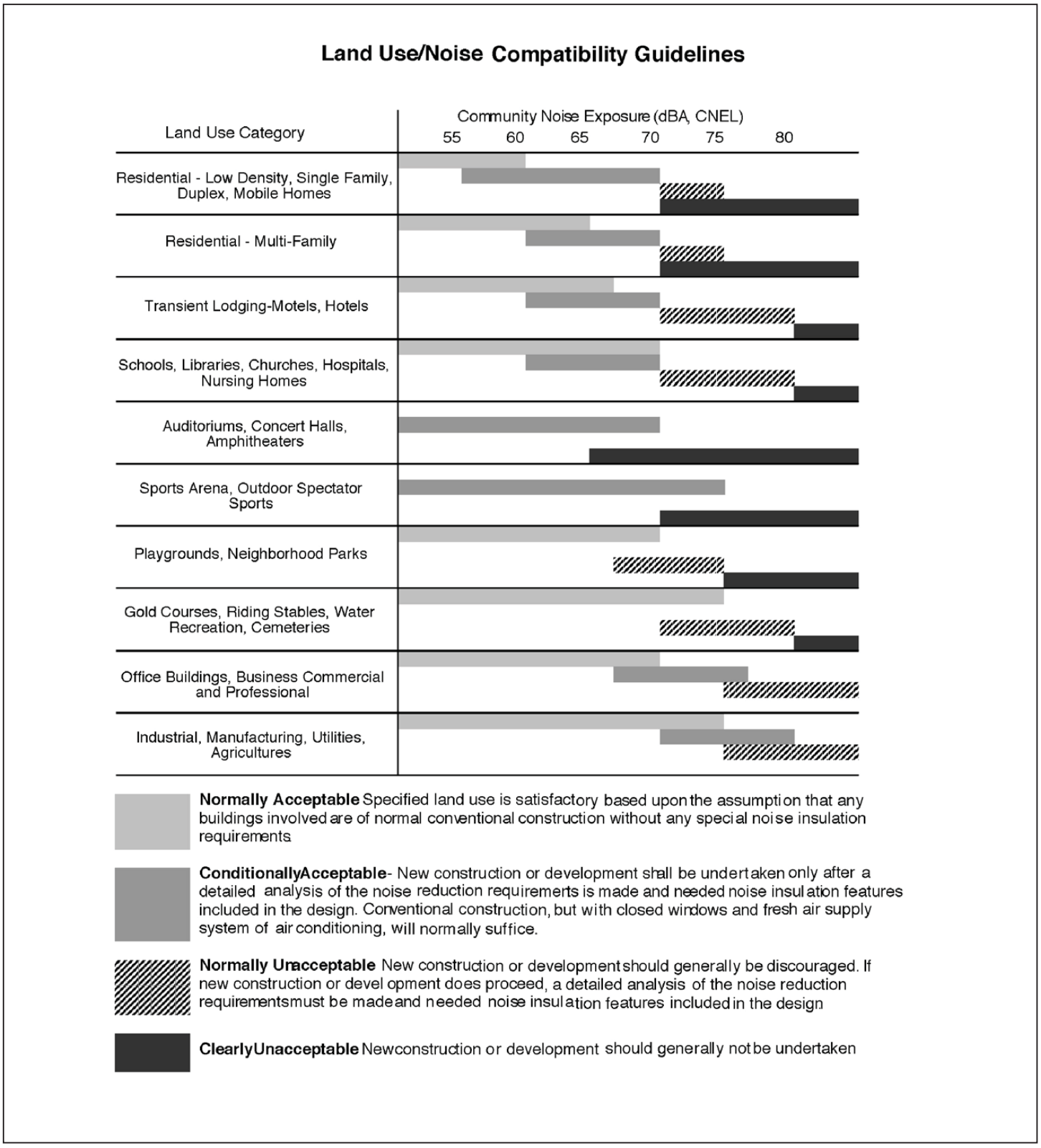

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FIGURE 4.12.7

World Logistics Center Specific Plan Project
Environmental Impact Report

California Noise Compatibility Guidelines

SOURCE: Mestre Greve Associates, 2012

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4.12.3 Methodology

Evaluation of noise impacts associated with the proposed project includes the following:

- Determination of the short-term construction noise impacts on off-site noise-sensitive uses;
- Determination of the long-term noise impacts, including vehicular traffic and stationary noise sources, on on-site and off-site noise-sensitive uses; and
- Determination of the required mitigation measures to reduce long-term noise impacts from all sources.

Because of the location of noise-sensitive receptors, the noise analysis evaluates the noise effects of the industrial development on the existing residential development (sensitive receptors) near the southwest portion of the proposed project area.

There are no Federal Highway Administration (FHWA), State, or local standards for vibration. According to the FHWA, highway traffic and construction vibrations pose no threat to buildings and structures; and annoyance to people is not considered any worse than other discomforts experienced from living near highways. However, a substantial amount of research has been completed to compare vibrations from single events such as dynamite blasts with architectural and structural damage. The U.S. Bureau of Mines has set a safe limit of 0.5 inch per second peak particle velocity to avoid structure damage in residential structures (U.S. Bureau of Mines 1980). Below this level, there is virtually no risk of building damage.

4.12.4 Thresholds of Significance

A project would have a significant effect on the environment related to noise if it would substantially increase the ambient noise levels for adjoining areas or if it would conflict with adopted environmental plans and goals of the community in which it is located.

The applicable noise standards and guidelines governing the project are those specified previously in Sections 4.12.2.1 through 4.12.2.4. In summary, these criteria are contained within the Safety Element of the General Plan, the Municipal Code, the California Vehicle Code, and the State Noise Compatibility Guidelines.

For this project, a noise impact is considered significant if the project would result in:

- Exposure of persons to or generation of noise levels in excess of standards established in the *City of Moreno Valley General Plan*, *Moreno Valley Municipal Code*, or applicable standards of other agencies;
- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;
- A substantial temporary, periodic, and/or permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels; and/or
- For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

The standards within the *City of Moreno Valley General Plan* and *Moreno Valley Municipal Code* determine the acceptable noise environment for proposed project and its vicinity. The standards are as follows:

- To the extent feasible, ensure through the design review process that exterior noise levels at commercial and industrial areas do not exceed 75 dBA CNEL.
- Consider the following uses noise-sensitive and discourage them in areas where exterior noise levels exceed 65 dBA CNEL unless measures are implemented that reduce the noise exposure below this level: single-family and multiple-family residential uses, group homes, hospitals, schools and other learning institutions, and parks and open space areas where quiet is a basis for use.

Long-term impacts from the project's traffic noise that affect existing sensitive land uses are considered to be substantial and, therefore, constitute a significant noise impact if the project would:

- Increase noise levels by 5 dB or more where the no project noise level is less than 60 CNEL;
- Increase noise level by 3 dB or more where the no project noise level is 60 CNEL to 65 CNEL; or
- Increase noise levels by 1.5 dB or more where the no project noise level is greater than 65 CNEL.

The project's incremental contribution to a cumulative noise increase would be considered cumulatively considerable and significant when ambient noise levels affect noise-sensitive land uses and when the project increases noise levels by 1 dB or more over pre-project conditions and the predicted future cumulative with project noise levels cause the following cumulative increases:

- Increase noise levels by 5 dB or more where the existing noise level is less than 60 CNEL;
- Increase noise levels by 3 dB or more where the existing noise level is 60 to 65 CNEL; or
- Increase noise levels by 1.5 dB or more where the existing noise level is greater than 65 CNEL.

4.12.5 No Impact/Less than Significant Impacts

The following impacts were identified as having a less than significant impact or no impact on the environment with implementation of the proposed project.

4.12.5.1 Groundborne Vibration Impacts

Threshold	Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Roadways in the vicinity of the project area are either paved or would be paved as the area develops, and would not result in project traffic driving over rough or dirt roads. Well maintained roads typically do not result in substantial vibration levels. Even roads with irregularities typically only generate substantial levels of vibration very near, less than 50 feet from the irregularity. Construction activities that would occur within the WLCSP area are not anticipated to require blasting or pile driving. Roadway vibrations are typically not perceptible more than 50 feet from the roadway except in very unusual circumstances. Generally, the interface between the soft tire of a truck or automobile will not generate significant vibration unless the road is in poor shape (e.g., potholes or pavement joints) Therefore, impacts associated with this issue are anticipated to be less than significant, and no mitigation is required.

4.12.5.2 Airport Noise Impacts

Threshold	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, results in exposure of people residing or working in the project area to excessive noise levels. For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

The project area is located approximately 5.5 miles northeast of the March Airfield (MAF) and is not located within two miles of a private airstrip. The MAF is a joint-use airport, used for both military and civilian purposes. The March Air Reserve Base (MARB) is the military operator of the MAF and March Inland Port (MIP) is the civilian operator of the airport. This facility is anticipated to play an increasingly important role in the transportation of goods and cargo for the Southern California region. Existing flight patterns affect a large portion of the City of Moreno Valley, along a path that affects the western portion of the City in a northwest/southeast alignment. Aircraft operations from the airport currently contribute intermittent single-event noise.

There is potential for single-event noise exposure levels from MAF activity to affect the proposed project. The exposure levels will vary dependent upon the type of aircraft and flight track flown for each operation at MAF. However, the proposed project is not identified as being within the noise or safety contours delineated for the MARB Airport.[1] In addition, the proposed project is not considered to contain sensitive receivers and, therefore, the impacts from these single-event noise levels are considered to be below the level of significance. The City's exterior noise standard for industrial uses is 70 dBA CNEL. MAF noise levels are less than 60 dB CNEL within the project area. Therefore, the proposed project would not have the potential to expose people to excessive noise levels from airport operations. Therefore, no significant noise impacts would occur regarding these issues from implementation of the proposed project, and no mitigation is required.

4.12.6 Significant Impacts

4.12.6.1 Short-Term Construction Noise Impacts

Threshold	Would the project result in a substantial temporary, periodic, and/or permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Short-term noise would occur during the construction of the WLCSP. First, construction crew commutes and the transport of construction equipment and materials to the site for the proposed WLC project would incrementally increase noise levels on access roads in the WLC planning area. In addition, noise would be generated during excavation, grading, and building construction on various portions of the Specific Plan site. Construction is completed in discrete steps, each of which has its own mix of equipment, and consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on the site and, therefore, the noise levels surrounding the site as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. The site preparation phase, which includes excavation and grading of the site, tends to generate the highest noise levels, because the noisiest construction equipment is earthmoving equipment, which includes excavating machinery such as backfillers, bulldozers, draglines, and front loaders. Earthmoving and compacting equipment includes

[1] *Figure 5.4-1 March Reserve Air Base Noise Impact Area*, City of Moreno Valley General Plan EIR, July 2006.

compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve one or two minutes of full-power operation followed by three to four minutes at lower power settings. Implementation of the Specific Plan would result in construction activities that would require the use of scrapers, bulldozers, and water and pickup trucks within the WLCSP area.

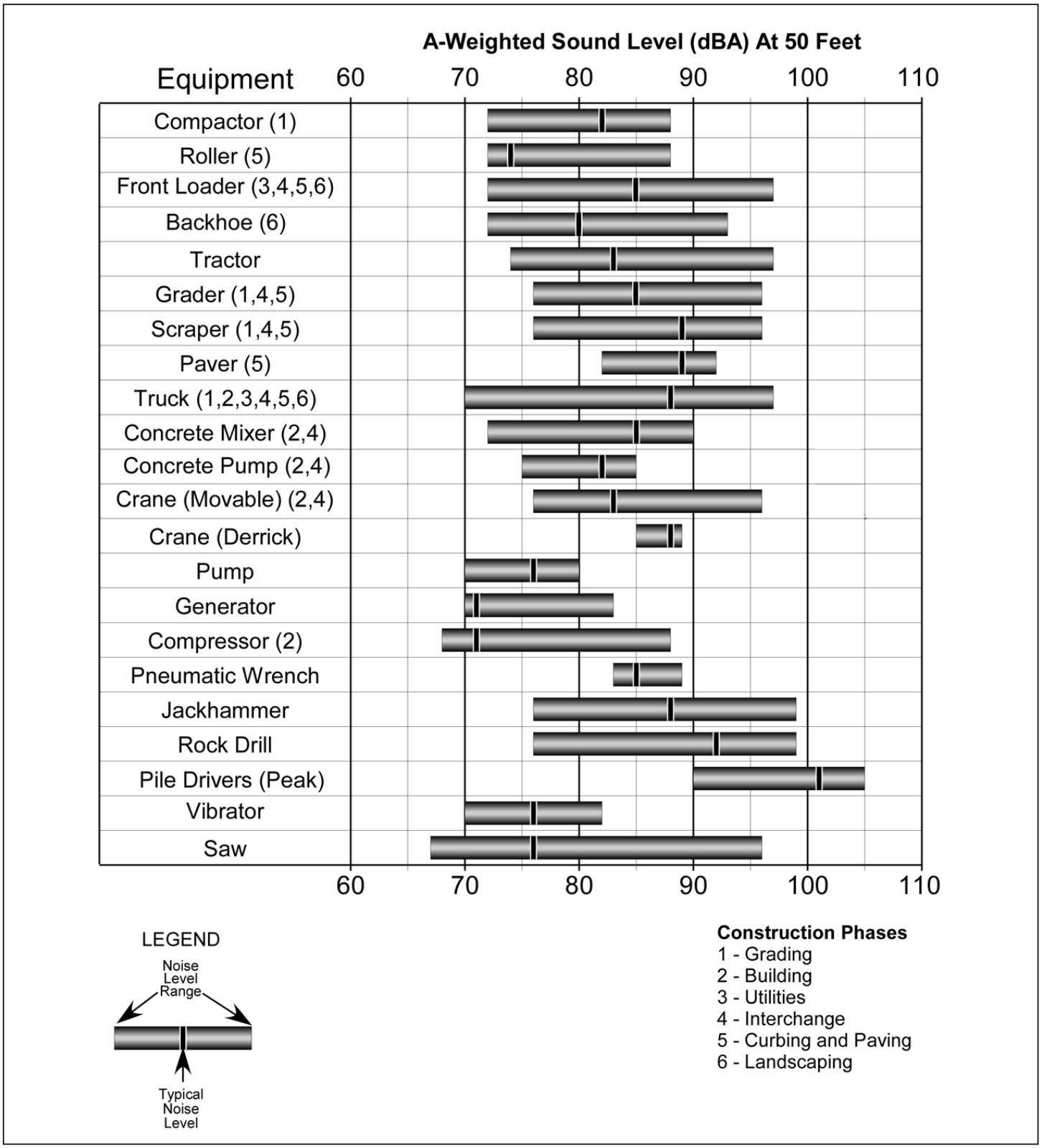
Figure 4.12.8 presents construction noise levels measured at 50 feet. The peak noise level for the majority of the equipment that will be used during construction of the proposed project will range from 70 to 95 dBA. Based on the fact that noise levels dissipate with increases in distance from the noise source due to noise divergence, noise levels at greater distances are less than those presented in Figure 4.12.8. Noise measurements made by Mestre Greve Associates demonstrate that the noise levels generated by commonly used grading equipment (e.g., loaders, graders, and trucks) generate noise levels that typically do not exceed the middle of the range shown in Figure 4.12.8.[1] However, the noise levels shown in Figure 4.12.8 have been used as the basis for the noise analysis estimates presented in this EIR.

Construction activities that are associated with the proposed WLCSP project would occur in two general areas: on-site and off-site. Some phases of the on-site construction would occur for 24 hours a day for 7 days a week. It is anticipated that on-site construction would occur periodically over a nine-year period with a potential start year of ~~2013~~2015 and ending in ~~2021~~2030. Off-site construction (which would involve minor grading, drainage, interchange, utility, and roadway improvements) is anticipated to only during the daytime weekday hours and would have a shorter construction duration.

On-site Construction. Sensitive receptors that would be potentially affected by on-site construction activities would include residences located within and adjacent to the WLCSP area as well as residences located on the north side of SR-60. For residences on the opposite side of SR-60, existing daytime and nighttime freeway noise is anticipated to be greater than the noise generated by the construction activities that would occur within the WLCSP area. Although certain conditions at night, such as low inversions and very calm conditions, can increase the ability of construction noise to travel to the residences north of the freeway, these same conditions would also amplify the noise generated on the freeway. Since freeway noise would continue to be the dominant noise source in the area for these residences along SR-60, construction noise impacts on the residents north of the freeway will be less than significant and no mitigation is required.

Existing residences within the WLCSP area or adjacent to the Specific Plan area~~, such as those along Redlands Boulevard, Merwin Street, Bay Avenue, Cactus Avenue, and Gilman Springs Road,~~ may be located within 50 feet or less from areas where intense construction (24 hours a day, 7 days a week) would occur. Although residential properties located within the WLCSP would be rezoned as Light Logistics, the existing residences are considered to be noise-sensitive uses that would be affected by intense construction activities. Similarly, residences located adjacent to the project site (i.e., along Redlands Boulevard, Merwin Street, Bay Avenue, Cactus Avenue, and Gilman Springs Road) would also be affected by intense construction activities. Based on a 50-foot noise attenuation distance, these residences may experience worst-case unmitigated peak construction noise levels (L_{max}) up to 97 dBA. The average noise levels are typically 5 to 15 dB lower than the peak noise levels. Average noise levels (L_{eq}) at 50 feet could easily be in the range of 82 to 92 dBA during most phases of construction.

[1] *Noise Assessment for the World Logistic Center Specific Plan*, page 27, Mestre Greve Associates, Division of Landrum & Brown, ~~November 2012.~~September 2014.



LSA

FIGURE 4.12.8

World Logistics Center Specific Plan Project
Environmental Impact Report

Typical Construction Equipment Noise Levels

SOURCE: Mestre Greve Associates, 2012

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The City of Moreno Valley Municipal Code does not include any exemptions for construction noise. Therefore, construction would be subject the limitations of 60 dBA during daytime and 55 dBA at nighttime measured at residential areas. According to Section 3.4.14, *Project Description*, WLC project construction may occur 24 hours a day, 7 days a week for certain activities. Significant noise impacts would be expected, especially if work with high noise levels occurs between 8:00 p.m. and 6:00 a.m.

Based on these projections, anticipated worst-case construction noise levels would regularly be exceeded during daytime and nighttime hours at residences within the Specific Plan area. Based on an L_{eq} noise level of 90 dBA at 50 feet, an observer would need to be 1,580 feet from the construction to experience a noise level of 60 dBA (L_{eq}), or 2,800 feet for a noise level of 55 dBA (L_{eq}). Therefore, a residence within 1,580 feet during active construction during the daytime would be affected. Similarly, a residence within 2,800 feet during the nighttime would be affected by construction noise.

As set forth in Section 3.4.14 and as stated by the project applicant, construction could occur 24 hours per day, 7 days per week for these construction activities. Therefore, noise levels at the nearest residences would exceed the City's exterior noise standard of the 60 dBA[1] CNEL daytime standard and 55 dBA CNEL nighttime standard for residential uses. This is a significant impact requiring mitigation.

Off-site Construction. Construction activities associated with off-site construction include road improvements along Cactus Avenue and Redlands Boulevard, water and utility improvements, construction of a detention basin, debris basins, and interchange improvements. Roadway and interchange improvements are planned along Cactus Avenue, Redlands Boulevard, State Route 60, and Gilman Springs Road. Often the loudest pieces of equipment associated with this type of construction are the graders/scraper equipment. Peak noise levels at 50 feet can reach 96 dBA, with average noise levels (L_{eq}) in the 85 dBA range. Noise levels of 60 dBA (L_{eq}) could be exceeded for up to 900 feet from the construction area. Existing residences are located within 900 feet of the off-site construction areas and would be exposed to noise levels that would exceed of the Moreno Valley noise criteria for residential uses.

Other off-site construction improvements such as drainage, sewer, water, and utility features would also generate noise in close proximity to existing sensitive uses. However, these activities typically utilize less construction equipment, which results in lower noise levels. These construction activities may commonly employ a backhoe as the loudest piece of equipment. A backhoe may have a peak noise level that exceeds 90 dBA at 50 feet, but has an average noise level around 80 dBA (L_{eq}) at 50 feet. However, at this noise level one would need to be more than 500 feet away to experience a noise level (L_{eq}) of less than 60 dBA. This noise level would exceed the City's daytime criteria at the nearest existing residences and mitigation measures would be required.

Specific Plan Design Features. The WLCSP does not contain any design features that specifically address noise. Other features, such as perimeter setback requirements, will have the effect of reducing noise to certain residential areas.

Note: The following changes to the mitigation measures were made as a result of the revised project noise assessment (Appendix K in FEIR Volume 2) and in responses to Comments C-4-2 in Letter C-4 from Sempra Energy and Comments F-13-9 and F-13-84 in Letter F-13 from Johnson & Sedlack on behalf of the Sierra Club, Moreno Valley Group & Residents for a Livable Moreno Valley.

[1] *Chapter 11.80.030 Table 11.80.030-2, City of Moreno Valley Municipal Code,* City of Moreno Valley.

Mitigation Measures. Construction of the proposed project would result in noise levels at the closest residences exceeding the maximum noise level allowed under the City's Municipal Code. The following measures[1] would reduce short-term construction-related noise impacts associated with the proposed WLC project:

~~**4.12.6.1A** Prior to issuance of any discretionary approvals for development in the WLCSP, the project applicant shall submit a Noise Reduction Compliance Plan (NRCP) to the City of Moreno Valley for review and approval. The NRCP shall show the limits of nighttime construction in relation to any then-occupied residential dwellings. Conditions shall be added to any discretionary projects requiring that the limits of nighttime grading be shown on the NRCP and all grading plans submitted to the City. The limits of construction allowed at night shall be clearly staked on site, and contractors will be provided with a copy of the plan showing the limits of nighttime construction.~~

4.12.6.1A Prior to issuance of any discretionary project approvals, a Noise Reduction Compliance Plan (NRCP) shall be submitted to and approved by the City. The Noise Reduction Compliance Plan shall show the limits of nighttime construction in relation to any then-occupied residential dwellings and shall be in conformance with City standards. Conditions shall be added to any discretionary projects requiring that the limits of nighttime grading be shown on the Noise Reduction Compliance Plan and all grading plans submitted to the City (per Noise Study MM N-2, pg. 51).

4.12.6.1B ~~During all project site grading, all~~ All construction equipment, fixed or mobile, shall be equipped with operating and maintained mufflers consistent with manufacturers' standards.

~~**4.12.6.1C** All discretionary approvals for development in the WLCSP shall prohibit construction vehicles from using Redlands Boulevard south of Fir Avenue during on-site construction for all phases of the Specific Plan.~~

4.12.6.1C Construction vehicles shall be prohibited from using Redlands Boulevard south of Eucalyptus Avenue to access on-site construction for all phases of development of the Specific Plan (per Noise Study MM N-1, pg. 51).

~~**4.12.6.1D** All discretionary approvals for development in the WLCSP shall include conditions of approval stating that no nighttime grading shall occur within 2,800 feet of residences south of SR-60 (between 8 p.m. and 6 a.m. on weekends and 8 p.m. and 7 a.m. on weekends or holidays). These restrictions shall be included as part of the Noise Reduction Compliance Plan. As an alternative to this requirement, a temporary construction sound barrier may be used in lieu of the construction buffer, per Mitigation Measure 4.12.6.1E.~~

4.12.6.1D No grading shall occur within 2,800 feet of residences south of State Route-60 between 8 p.m. and 6 a.m. on weekdays and between 8 p.m. and 7 a.m. on weekends. These restrictions shall be included as part of the Noise Reduction Compliance Plan per Mitigation Measure 4.12.6.1A (per Noise Study MM N-2, pg. 51).

4.12.6.1E As an alternative to Mitigation Measure 4.12.6.1D, a 12-foot tall temporary construction sound barrier may be installed for residences within 1,580 feet of active nighttime construction areas. The temporary sound barrier shall be constructed of plywood with a

[1] Measures 4.12.6.1B-F corresponds to the noise study measures N-1 through N-5.

total thickness of 1~~ to 1.~~5 inches, or a sound blanket wall may be used. If sound blankets are used, ~~the curtains~~ they must have a Sound Transmission Class (STC) rating of 27 or greater. This shall be included as part of the Noise Reduction Compliance Plan required in Mitigation Measure 4.12.6.1A, which shall be reviewed and approved by the City prior to implementation (per Noise Study MM N-2 and N-3, pg. 51 and pg. 52).

4.12.6.1F As an alternative to Mitigation Measure 4.12.6.1D~~, actual~~ and 4.12.6.1E, on-site noise measurements of construction areas may be taken by qualified personnel and ~~recommend~~ specific buffer distances between construction activities and existing residences may be proposed based on actual noise levels. These measurements will be incorporated into the Noise Reduction Compliance Plan required in Mitigation Measure 4.12.6.1A, which shall be reviewed and approved by the City prior to implementation (per Noise Study MM N-2, pg. 51).

4.12.6.1G Any discretionary approvals for development that proposes grading within 1,580 feet of occupied residential units shall require that all grading equipment be equipped with residential grade mufflers (or better). All stationary construction equipment shall be placed so that emitted noise is directed away from noise-sensitive receptors nearest the site. Additionally, stationary construction equipment shall have all standard acoustic covers in place during operation (per Noise Study MM N-4, pg. 52).

4.12.6.1H All material stockpiles in connection with any grading operations shall be located at least 1,200 feet from existing residences (per Noise Study MM N-5, pg. 52).

4.12.6.1I All project-related off-site construction shall be limited to 6 a.m. and 8 p.m. on weekdays only. Construction during weekends and City holidays shall not be permitted (per Noise Study MM N-6, pg. 53) to the satisfaction of the Land Development Division/Public Works.

4.12.6.1J Prior to ~~the~~ issuance/approval of any grading permits~~ for~~, off-site construction activities ~~in support of development in the WLCSP, the project developer shall provide evidence to the City that any off-site construction area~~ adjacent to ~~occupied~~ residential ~~units~~uses shall ~~have~~ provide for installation of 12-foot temporary sound ~~barrier installed~~barriers for construction activities lasting more than one month. The sound barrier will reduce noise levels by approximately 10 dB. The temporary sound barrier may be constructed of plywood with a total thickness of 1.5 inches, or a sound blanket wall may be used. If sound blankets are used, the curtains must have a Sound Transmission Class (STC) rating of 27 or greater. No off-site construction is permitted during weekday nighttime hours (8 p.m. to 6 a.m.) or during weekends and City holidays except for emergencies (per Noise Study MM N-7, pg. 53).

Level of Significance after Mitigation. *On-site Construction*. Elimination of nighttime construction within 2,800 feet of residences would lower the noise levels to 55 dBA (L_{eq}) at the closest residences. The noise levels would just meet the 55 dBA (L_{eq}) nighttime criteria contained in the Moreno Valley Noise Ordinance resulting in a less than significant impact. With the implementation of **Mitigation Measures 4.12.6.1A** through **4.12.6.1J**, the loudest noise level that would be experienced at any developed residential parcel would be less than the 55 dBA (L_{eq}) nighttime threshold and would be consistent with the limits established in the City's Noise Ordinance resulting in a less than significant impact. In addition, implementation of **Mitigation Measure 4.12.6.1H**, would reduce the noise experienced at existing residences, resulting in a less than significant impact.

As previously stated, construction within 1,580 feet of residential areas south of the freeway has the potential to exceed the daytime Moreno Valley Noise Ordinance criteria of 60 dBA (L_{eq}). With implementation of **Mitigation Measure 4.12.6.1E**, any existing residences within 1,580 feet of a construction area would be shielded from construction noise with a 12-foot temporary sound barrier. A sound barrier will reduce the noise levels by about 10 dB resulting in a reduction of noise below City thresholds at residences 500 feet or further from the construction area. Although the installation of the temporary sound barrier would reduce noise levels experienced at the closest residences, those residences that are located within 500 feet of a construction area would still be exposed to noise levels greater than 60 dBA (L_{eq}). Therefore, impacts associated with this issue would remain significant and unavoidable.

Off-site Construction. With the implementation of **Mitigation Measure 4.12.6.1I**, off-site construction activities would be limited to daytime hours while **Mitigation Measure 4.12.6.1J** would require the installation of a temporary sound barrier. With these mitigation measures in place, residences adjacent to construction activities (depending on the loudness of the construction equipment) could experience noise levels greater than 60 dBA (L_{eq}) for off-site construction projects lasting less than one month. These impacts would only occur during weekday daytime hours. However, even with implementation of these mitigation measures, noise levels experienced at these residences would be above the City's threshold. Therefore, impacts would remain significant and unavoidable.

4.12.6.2 Long-Term Traffic Noise Impacts

Threshold	Would the project result in a substantial temporary, periodic, and/or permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

The January 2013 noise analysis contained in the Draft EIR identified 33 roadway segments where a significant noise impact would occur for at least one of the impact scenarios. In the revised noise analysis for the Final EIR, 21 roadway segments have been identified as having a significant noise impact. The reduction in noise impact areas is a direct result of the revised traffic analysis which reflects a downsizing of the project and associated traffic volumes for the "plus project" traffic scenarios. The roadway links that were previously identified as being impacted in the January 2013 noise analysis contained in the Draft EIR and are not impacted in the revised noise analysis for the Final EIR are listed below:

- Day Street between Cottonwood Avenue and Alessandro Boulevard (#109);
- Fir Avenue between Quincy Drive and Redlands Boulevard (#62);
- Moreno Beach Drive between Locust Avenue and Ironwood Avenue (#56);
- Perris Boulevard between John F. Kennedy Drive and Iris Avenue (#303);
- Placentia Avenue from El Nido Avenue to Evans Road and on to Water Avenue (#431, #432);
- Quincy Drive from Cactus Avenue to Alessandro Boulevard and to Cottonwood Avenue (#502, #503);
- Reche Canyon Road from Keissel Road to Reche Vista Drive and on to High Country Drive (#205, #206);
- Redlands Boulevard from Eucalyptus Avenue to Dracaea Avenue (#12); and
- State Route 60 from Perris Boulevard to Nason Street (#31).

The noise analysis for the proposed project is based on the traffic volume data contained in the revised Traffic Impact Analysis (TIA) prepared for the project (contained in its entirety as EIR Appendix L). The TIA addressed the intersections of surface streets in Moreno Valley of a collector or higher classification street with another collector or higher classification street, at which the proposed project will add 50 or more peak hour trips. The study area also included the main travel routes between the project and the neighboring cities of Riverside, Perris, Beaumont, San Jacinto, and Redlands. The study area extended west to the nearest ramps on SR-91 and as far south as the I-215 ramps at Redlands Avenue in Perris. The study area for freeways was selected to cover the freeway routes radiating from the project site to the north, south, east, and west. The traffic analysis covered SR-60 from SR-62 in the east to SR-71 in the west, SR-91 from I-215 in the east to I-15 in the west, and I-215 from SR-210 in the north to the Scott Road interchange in the south.

Three hundred and thirty nine (339) roadway links and eighty ~~(80~~nine (89) freeway segments were analyzed in the noise analysis. The change in noise level was calculated for all ~~419~~428 roadway and freeway links with and without the project for the existing case (2012), ~~2017,~~ 2022, and 2035 time horizons. Links with noise increases less than 1.5 dB would not have a substantial noise increase and were not presented in the main body of the noise report (i.e., the tables and figures). Similarly, any links that do not have sensitive receptors (e.g., residential uses) were also not presented in the main body of the noise report. Based on this filtering process, of the ~~419~~428 links analyzed, ~~72~~44 links have sensitive receptors and an increase of 1.5 dB for at least one time horizon and were therefore addressed in the analysis.

The projected future daily traffic volumes (Parsons Brinckerhoff, Inc., ~~December, 2012~~September 2014) for roadway segments in the project vicinity were used in the traffic noise impact analysis. Modeled noise levels represent the worst-case scenario, which assumes that no shielding is provided between the traffic and the location where the noise contours are drawn. As previously identified, the threshold for traffic noise is 65 dBA CNEL for sensitive receptors.

Operation of development that could occur within the proposed project area would generate traffic along roadways in the project vicinity. Table 4.12.H identifies existing with project roadway traffic noise levels with the project.

Note: Table 4.12.H has been replaced in its entirety. Please refer to Final EIR Volume IV for the original Table 4.12.H, which can be found in section 4.12.6.2.

Table 4.12.H: Existing Year (2012) Plus Project Traffic Noise Levels (dBA)

Roadway Segment	CNEL (dBA) at 100 feet			
	Without Project	With Project	Change	Substantial Increase?
Alessandro Road (Crescent Avenue to Sunset Drive)	63.3	65.1	1.8	No
Alessandro Road (Sunset Drive to San Timoteo Canyon Road)	63.3	65.3	2.0	No
Cactus Avenue (Oliver Street to Moreno Beach Drive)	58.2	59.7	1.5	No
Cactus Avenue (Redlands Boulevard to Street D)	51.3	68.3	17.0	Yes
Cactus Avenue (west of Redlands Boulevard)	60.5	62.7	2.2	No
Crescent Avenue (west of Alessandro Boulevard)	57.1	59.6	2.6	No
Fir Avenue (Quincy Drive to Redlands Boulevard)	0.0	0.0	0.0	No
Gilman Springs Road (Bridge Street to Beaumont Avenue)	61.0	62.2	1.2	No
Gilman Springs Road (Bridge Street to SR-79 Southbound Ramps)	—	73.9	1.2	No
Gilman Springs Road (Eucalyptus Avenue to Street C)	49.6	55.0	5.4	Yes

Table 4.12.H: Existing Year (2012) Plus Project Traffic Noise Levels (dBA)

Roadway Segment	CNEL (dBA) at 100 feet			
	Without Project	With Project	Change	Substantial Increase?
Gilman Springs Road (Jack Rabbit Trail to Bridge Street)	62.7	63.9	1.2	No
Iris Avenue (Kitching Street to Lasselle Street)	60.1	61.6	1.~~5~~6	No
Iris Avenue (Lasselle Street to Nason Street)	60.0	62.4	2.4	No
Iris Avenue (Nason Street to Oliver Street)	63.0	65.9	2.9	No
Ironwood Avenue (Redlands Boulevard to Highland Boulevard)	46.3	57.3	11.0	Yes
John F Kennedy Drive (south of Cactus Avenue)	61.5	66.9	5.4	Yes
Krameria Avenue (Perris Boulevard to Lasselle Street)	57.5	60.6	3.1	No
Lasselle Street (Krameria Avenue to Arroyo Park Drive)	56.4	58.9	2.5	No
Live Oak Canyon Road (north of San Timoteo Canyon Road)	63.2	~~—~~65.2	~~—~~2.1	No
Live Oak Canyon Road (San Timoteo Canyon Road to I-10)	56.5	58.5	2.0	No
Locust Avenue (Moreno Beach Drive to Smiley Boulevard)	46.2	46.2	0.1	No
Locust Avenue (Moreno Beach Drive to Redlands Boulevard)	55.7	58.9	3.2	No
Moreno Beach Drive (John F Kennedy to Oliver Street)	55.2	58.7	3.5	No
Moreno Beach Drive (Locust Avenue to Ironwood Avenue)	55.3	57.2	1.9	No
Oliver Street (Alessandro Boulevard to Cactus Avenue)	54.1	56.4	2.2	No
Redlands Boulevard (Eucalyptus Avenue to Dracaea Avenue)	47.1	48.8	1.7	No
Redlands Boulevard (Ironwood Avenue to SR-60)	68.3	71.0	2.7	Yes
Redlands Boulevard (Ironwood Avenue to San Timoteo)	67.8	70.0	2.2	Yes
Redlands Boulevard (SR-60 to Eucalyptus Avenue)	60.9	64.5	3.4	Yes
San Timoteo Canyon Road (Alessandro Road to Live Oak Canyon Road)	62.0	65.1	3.1	Yes
San Timoteo Canyon Road (Live Oak Canyon Road to Redlands Boulevard)	62.7	65.7	3.0	Yes
Street A (Eucalyptus Avenue to Street F)	50.2	73.2	22.9	Yes
Street D (Street E to Cactus Avenue)	0.0	69.5	69.5	Yes
Street E (north of Alessandro Boulevard)	0.0	65.4	65.4	Yes
Street F (east of Street A)	0.0	68.4	68.4	Yes
Sunset Drive (Alessandro Road to Cameo Drive)	52.5	55.2	2.7	No
Sunset Drive (Crown Street to Alessandro Road)	49.0	51.4	2.3	No
Theodore Street (SR-60 to Highland Boulevard)	57.8	65.0	7.1	Yes
Freeways				
SR-60 (Pigeon Pass Road/Frederick Street to Heacock Street)	66.5	68.0	1.5	Yes
SR-60 (Heacock Street to Perris Boulevard)	65.2	66.9	1.7	Yes
SR-60 (Perris Boulevard to Nason Street)	64.6	66.7	2.1	No
SR-60 (Nason Street to Moreno Beach Drive)	52.0	54.3	2.3	No
SR-60 (Moreno Beach Drive to Redlands Boulevard)	62.5	65.5	3.1	Yes
SR-60 (Redlands Boulevard to Theodore Street)	60.2	63.5	3.4	Yes

Source: Mestre Greve Associates,~~November 2012~~ September 2014.

As identified in Table 4.12.H, build out of the proposed WLC project would result in relatively minor changes in traffic noise levels in the Existing plus Project scenario case. The largest project-related

increase in traffic noise would be along Streets D, E, and F where increases of greater than 65 dBA are predicted. The increase associated with these roadway segments is attributable in part to Streets D, E and F being new roads that will be constructed by the proposed project. A total of 18 road or freeway segments would result in a significant noise increase attributable to the project, resulting in a significant project direct impact requiring mitigation.

Year ~~2017~~2022 (Phase I) with and without project scenarios projected daily traffic volumes on roadway segments in the project vicinity were used to conduct the traffic noise modeling. The projected daily traffic volumes in the area were taken from the TIA prepared for the proposed project. Table 4.12.I identifies year ~~2017~~2022 without project and with project traffic noise levels.

Note: Table 4.12.I has been replaced in its entirety. Please refer to Final EIR Volume IV for the original Table 4.12.I, which can be found in section 4.12.6.2.

Table 4.12.I: Phase I (2022) Plus Project Traffic Noise Levels (dBA)

Roadway Segment	CNEL (dBA) at 100 feet			
	Without Project	With Project	Change	Substantial Increase?
Alessandro Road (Crescent Avenue to Sunset Drive)	64.6	65.4	0.8	No
Alessandro Road (Sunset Drive to San Timoteo Canyon Road)	65.0	65.8	0.8	No
Cactus Avenue (Oliver Street to Moreno Beach Drive)	58.9	59.8	0.9	No
Cactus Avenue (Redlands Boulevard to Street D)	51.3	66.8	15.5	Yes
Cactus Avenue (west of Redlands Boulevard)	61.3	62.5	1.2	No
Crescent Avenue (west of Alessandro Boulevard)	58.5	59.8	1.3	No
Fir Avenue (Quincy Drive to Redlands Boulevard)	0.0	0.0	0.0	No
Gilman Springs Road (Bridge Street to Beaumont Avenue)	61.2	62.1	0.9	No
Gilman Springs Road (Bridge Street to SR-79 Southbound Ramps)	72.9	73.8	0.9	No
Gilman Springs Road (Eucalyptus Avenue to Street C)	49.9	49.9	0.0	No
Gilman Springs Road (Jack Rabbit Trail to Bridge Street)	63.0	63.9	1.0	No
Iris Avenue (Kitching Street to Lasselle Street)	61.0	61.7	0.7	No
Iris Avenue (Lasselle Street to Nason Street)	61.1	62.3	1.2	No
Iris Avenue (Nason Street to Oliver Street)	63.8	65.5	1.6	No
Ironwood Avenue (Redlands Boulevard to Highland Boulevard)	51.9	56.1	4.2	No
John F Kennedy Drive (south of Cactus Avenue)	62.8	66.1	3.3	Yes
Krameria Avenue (Perris Boulevard to Lasselle Street)	60.5	61.2	0.7	No
Lasselle Street (Krameria Avenue to Arroyo Park Drive)	59.2	60.1	0.9	No
Live Oak Canyon Road (North of San Timoteo Canyon Road)	64.9	65.7	0.9	No
Live Oak Canyon Road (San Timoteo Canyon Road to I-10)	58.0	59.2	1.2	No
Locust Avenue (Moreno Beach Drive to Smiley Boulevard)	46.2	46.2	0.0	No
Locust Avenue (Moreno Beach Drive to Redlands Boulevard)	60.7	61.4	0.7	No
Moreno Beach Drive (John F Kennedy to Oliver Street)	56.1	58.2	2.1	No
Moreno Beach Drive (Locust Avenue to Ironwood Avenue)	58.8	59.3	0.5	No

Table 4.12.I: Phase I (2022) Plus Project Traffic Noise Levels (dBA)

Roadway Segment	CNEL (dBA) at 100 feet			
	Without Project	With Project	Change	Substantial Increase?
Oliver Street (Alessandro Boulevard to Cactus Avenue)	58.9	59.1	0.2	No
Redlands Boulevard (Eucalyptus Avenue to Dracaea Avenue)	49.1	47.1	-2.0	No
Redlands Boulevard (Ironwood Avenue to SR-60)	69.2	70.7	1.5	No
Redlands Boulevard (Ironwood Avenue to San Timoteo Canyon Road)	69.1	70.5	1.4	No
Redlands Boulevard (SR-60 to Eucalyptus Avenue)	62.9	65.3	2.4	No
San Timoteo Canyon Road (Alessandro Road to Live Oak Canyon Road)	63.4	65.3	1.9	No
San Timoteo Canyon Road (Live Oak Canyon Road to Redlands Boulevard)	64.2	66.0	1.8	No
Street A (Eucalyptus Avenue to Street F)	52.5	72.1	19.6	Yes
Street D (Street E to Cactus Avenue)	0.0	68.0	68.0	Yes
Street E (north of Alessandro Boulevard)	0.0	65.9	65.9	Yes
Street F (east of Street A)	0.0	43.6	43.6	Yes
Sunset Drive (Alessandro Road to Cameo Drive)	55.3	56.3	1.0	No
Sunset Drive (Crown Street to Alessandro Road)	49.0	49.0	0.0	No
Theodore Street (SR-60 to Highland Boulevard)	60.7	63.8	3.1	Yes
Freeways				
SR-60 (Pigeon Pass Road/Frederick Street to Heacock Street)	67.2	67.9	0.7	No
SR-60 (Heacock Street to Perris Boulevard)	66.1	66.9	0.8	No
SR-60 (Perris Boulevard to Nason Street)	65.6	66.6	1.0	No
SR-60 (Nason Street to Moreno Beach Drive)	53.1	54.2	1.1	No
SR-60 (Moreno Beach Drive to Redlands Boulevard)	63.8	65.3	1.5	No
SR-60 (Redlands Boulevard to Theodore Street)	61.7	63.2	1.5	No

Source: Mestre Greve Associates, ~~November 2012~~September 2014.

As identified in Table 4.12.I, implementation of the proposed WLC project would result in relatively minor changes in traffic noise levels in Year ~~2017~~2022 (Phase I). The largest project-related increase in traffic noise would be along Street D (Street E to Cactus Avenue) and Street E (north of Alessandro Boulevard), where increases of greater than 65 dBA are predicted for the ~~2017~~2022 With Project scenario over the Year ~~2017~~2022 without project scenario. The increase associated with these roadway segments is attributable in part to Streets D and E being new roads that will be constructed by the proposed project. A total of 7 road segments would result in a significant noise increase attributable to the project, resulting in a significant cumulative impact requiring mitigation.

~~Future Year (2022) with and without project scenarios projected daily traffic volumes on roadway segments in the project vicinity were used to conduct the traffic noise modeling. The projected daily traffic volumes in the area were taken from the TIA prepared for the proposed project. Table 4.12.J identifies the future year (2022) without project and with project traffic noise levels.~~

Note: Table 4.12.J has been deleted in its entirety. Please refer to Final EIR Volume IV for the original Table 4.12.J, which can be found in section 4.12.6.2.

~~As identified in Table 4.12.J, implementation of the proposed WLC project would result in relatively minor changes in traffic noise levels in Future Year 2022. The largest project-related increase in traffic noise would be along Street D (Street E to Cactus Avenue), Street E (north of Alessandro Boulevard), and Street F west (of Street A), where increases of greater than 65 dBA are predicted for the Future Year 2022 With Project scenario over the Future Year 2022 Without Project scenario. The increase associated with these roadway segments is attributable in part to Streets D, E, and F being new roads that will be constructed by the proposed project.~~

Operation of the proposed project would generate traffic along roadways in the surrounding area during the buildout year (2035) scenario. Buildout Year (2035) with and without project scenarios projected daily traffic volumes on roadway segments in the project vicinity were used to conduct the traffic noise modeling. The projected daily traffic volumes in the area were taken from the TIA prepared for the proposed project. Table 4.12.~~K~~J identifies the Buildout Year (2035) without project and with project traffic noise levels.

Note: Table 4.12.K (now table 4.12.J) has been replaced in its entirety. Please refer to Final EIR Volume IV for the original Table 4.12.K, which can be found in section 4.12.6.2.

Table 4.12.J: Buildout Year (2035) Plus Project Traffic Noise Levels (dBA)

Roadway Segment	CNEL (dBA) at 100 feet			
	Without Project	With Project	Change	Substantial Increase?
Alessandro Road (Crescent Avenue to Sunset Drive)	64.6	65.4	0.9	No
Alessandro Road (Sunset Drive to San Timoteo Canyon Road)	65.0	66.0	1.0	No
Cactus Avenue (Oliver Street to Moreno Beach Drive)	60.5	62.0	1.5	No
Cactus Avenue (Redlands Boulevard to Street D)	55.1	69.2	14.1	Yes
Cactus Avenue (west of Redlands Boulevard.)	62.0	66.2	4.2	Yes
Crescent Avenue (west of Alessandro Boulevard)	58.9	60.1	1.2	No
Fir Avenue (Quincy Drive to Redlands Boulevard)	64.7	67.1	2.4	No
Gilman Springs Road (Bridge Street to Beaumont Avenue)	63.5	65.2	1.7	No
Gilman Springs Road (Bridge Street to SR-79 Southbound Ramps)	75.4	77.1	1.6	Yes
Gilman Springs Road (Eucalyptus Avenue to Street C)	55.2	57.6	2.4	No
Gilman Springs Road (Jack Rabbit Trail to Bridge Street)	65.8	67.6	1.8	Yes
Iris Avenue (Kitching Street to Lasselle Street)	63.2	64.1	0.9	No
Iris Avenue (Lasselle Street to Nason Street)	63.1	64.3	1.2	No
Iris Avenue (Nason Street to Oliver Street)	64.7	66.6	2.0	No
Ironwood Avenue (Redlands Boulevard to Highland Boulevard)	58.7	60.8	2.1	No
John F Kennedy Drive (south of Cactus Avenue)	64.5	67.5	3.0	Yes
Krameria Avenue (Perris Boulevard to Lasselle Street)	57.6	58.5	0.9	No
Lasselle Street (Krameria Avenue to Arroyo Park Drive)	60.0	61.0	0.9	No
Live Oak Canyon Road (North of San Timoteo Canyon Road)	64.9	65.9	1.0	No
Live Oak Canyon Road (San Timoteo Canyon Road to I-10)	57.5	59.0	1.5	No
Locust Avenue (Moreno Beach Drive to Smiley Boulevard)	65.4	66.9	1.5	Yes

Table 4.12.J: Buildout Year (2035) Plus Project Traffic Noise Levels (dBA)

Roadway Segment	CNEL (dBA) at 100 feet			
	Without Project	With Project	Change	Substantial Increase?
Locust Avenue (Moreno Beach Drive to Redlands Boulevard)	60.9	62.9	2.0	No
Moreno Beach Drive (John F Kennedy to Oliver Street)	56.9	59.4	2.6	No
Moreno Beach Drive (Locust Avenue to Ironwood Avenue)	63.4	65.1	1.7	No
Oliver Street (Alessandro Boulevard to Cactus Avenue)	54.1	54.3	0.2	No
Redlands Boulevard (Eucalyptus Avenue to Dracaea Avenue)	46.5	48.1	1.6	No
Redlands Boulevard (Ironwood Avenue to SR-60)	69.5	71.0	1.5	Yes
Redlands Boulevard (Ironwood Avenue to San Timoteo Canyon Road)	68.8	70.9	2.1	Yes
Redlands Boulevard (SR-60 to Eucalyptus Avenue)	63.8	67.4	3.6	Yes
San Timoteo Canyon Road (Alessandro Road to Live Oak Canyon Road)	63.6	66.2	2.7	No
San Timoteo Canyon Road (Live Oak Canyon Road to Redlands Boulevard)	64.2	66.7	2.5	No
Street A (Eucalyptus Avenue to Street F)	57.2	73.1	16.0	Yes
Street D (Street E to Cactus Avenue)	0.0	70.6	70.6	Yes
Street E (north of Alessandro Boulevard)	0.0	65.7	65.7	Yes
Street F (east of Street A)	0.0	69.1	69.1	Yes
Sunset Drive (Alessandro Road to Cameo Drive)	57.0	58.2	1.2	No
Sunset Drive (Crown Street to Alessandro Road)	50.7	51.3	0.6	No
Theodore Street (SR-60 to Highland Boulevard)	65.2	66.3	1.2	No
Freeways				
SR-60 (Pigeon Pass Road/Frederick Street to Heacock Street)	67.6	68.6	1.0	No
SR-60 (Heacock Street to Perris Boulevard)	66.6	67.7	1.1	No
SR-60 (Perris Boulevard to Nason Street)	66.5	67.8	1.3	No
SR-60 (Nason Street to Moreno Beach Drive)	54.3	55.6	1.3	No
SR-60 (Moreno Beach Drive to Redlands Boulevard)	65.5	67.1	1.6	Yes
SR-60 (Redlands Boulevard to Theodore Street)	63.7	65.1	1.4	No

Source: Mestre Greve Associates, ~~November 2012~~September 2014.

Increases in noise levels associated with Buildout Year (2035) traffic conditions on area roadways range from 0.1 to 68.0 dBA. As identified in the Table 4.12.~~K~~J, the greatest increase in noise levels would be along Street D (Street E to Cactus Avenue), Street E (north of Alessandro Boulevard), and Street F west (of Street A), where increases of greater than 65 dBA are predicted for the Buildout Year 2035 With Project scenario over the Buildout Year 2035 Without Project scenario. The increase associated with these roadway segments is attributable in part to Streets D, E, and F being new roads that will be constructed by the proposed project.

Note: A total of 14 road or freeway segments would result in a significant noise increase attributable to the project, resulting in a significant cumulative impact requiring mitigation. These 14 segments

were included in the original noise study, and all other impacts identified in the original noise study are unchanged except as noted below.

Tables 4.12.H through 4.12.~~K~~J identify the noise increases directly caused by the proposed project. These numbers represent the distance from the centerline of the road to the contour value shown. Note that the values given in Tables 4.12.H through 4.12.~~I~~J do not take into account the effect of any existing noise attenuation in the form of barriers, soundwalls, or topography that may affect ambient noise levels.

For the reader's convenience, the significance threshold for a project-specific roadway noise impact as defined previously is:

- Project induced increase in noise levels by 5 dB or more where the no project noise level is less than 60 CNEL;
- Project induced increase in noise level by 3 dB or more where the no project noise level is 60 CNEL to 65 CNEL; or
- Project induced increase in noise levels by 1.5 dB or more where the no project noise level is greater than 65 CNEL.

For the reader's convenience, the significance threshold for a project's incremental contribution to a cumulative noise increase as defined previously is:

- A project increase of the ambient (cumulative without project) noise level by 1 dB or more, and the predicted future cumulative with project noise levels cause the following cumulative increases:
    - Increase noise levels by 5 dB or more where the existing noise level is less than 60 CNEL;
    - Increase noise levels by 3 dB or more where the existing noise level is 60 to 65 CNEL; or
    - Increase noise levels by 1.5 dB or more where the existing noise level is greater than 65 CNEL.

It should be noted that the same noise increase occurs at all locations along a roadway link. ~~In other words, the same increase will occur at 50 feet from a roadway as it does at 100 feet.~~ In addition, the noise contours cover a wider area around the local roadways than does the existing condition. State Route 60, however, continues to be the dominant noise source in the area.

In general, the project proposes logistics uses and will not be affected by these noise increases. However, there are a few scattered residences within the project area and adjacent to the WLCSP area that would be affected by the proposed logistics uses.

Within the Specific Plan Area. ~~For locations~~Existing noise-sensitive uses within the WLCSP area~~these~~ include three groups of residences that may remain with the implementation of the proposed project. The Specific Plan would rezone the properties as Light Logistics, but it is anticipated that the residences may remain for some time. The Light Logistics use is not sensitive to noise. However, the existing residences, as long as they remain, must be considered sensitive land uses.

- *Redlands Boulevard (north of Brodiaea Avenue).* The first group of homes is located east of Redlands Boulevard north of the intersection with Brodiaea Avenue. The traffic on Redlands Boulevard will not increase significantly as a result of the project. Future Street E is proposed to be constructed west of these existing residences. However, as stated in the Noise Study conducted for the Specific Plan, it is likely that there will be intervening buildings and that the

distance from Street E will be so great that these homes will not experience significant noise from public roadways. Therefore, impacts are anticipated to be less than significant and no mitigation is required.

- *Street A/Theodore Street (Street B to Street F).* The second group of residences within the Specific Plan area is located on the east side of Street A (Theodore Street) midway between the future Street B and Street F. There are currently two residences in this area. These residences are anticipated to experience noise increases up to ~~18~~16 dB due to the implementation of the Specific Plan. As a result, existing noise levels at these two residences will be changed significantly. The exact alignment of the roadway is yet to be determined, but the homes may be roughly 100 feet from the centerline on the roadway. As identified in Table 4.12.J, at this distance, the noise level by future year (~~2022~~2035) could be as high as 73.1 CNEL. This level of noise would be above the 65 CNEL threshold and would result in a greater than 1.5 dB noise increase when compared to without project conditions. This is a significant impact requiring mitigation.
- *Street F/Dracaea Avenue (east of Theodore Street).* The third area is a single residence located east of Theodore Street along what is currently Dracaea Avenue (future Street F). Existing conditions identify low levels of traffic noise on Dracaea Avenue. ~~The 65 CNEL contour is projected to lie 84 feet from the centerline of Street F and it is likely that the one residence would lie within this zone.~~With build out of the project, noise levels would reach as high as 68.1 CNEL. This level of noise would be above the 65 CNEL threshold and result in a greater than 1.5 dB noise increase when compared to without project conditions. Therefore, this is a significant impact requiring mitigation.

Off-Site Areas Adjacent to the Specific Plan Area. For areas adjacent to the Specific Plan area, ~~22~~18 segments would experience a noise increase that would be greater than significance criteria specified previously. These seven areas are described below.

- *Cactus Avenue (Redlands Boulevard to Street D).* This area is occupied by a small group of single-family homes along Cactus Avenue between the future Street D and Redlands Boulevard. A significant noise increase is projected for all ~~four~~ time horizons. Currently, there is no soundwall along these homes. Therefore, this is a significant impact requiring mitigation.
- *Cactus Avenue (west of Redlands Boulevard).* As identified in the noise study, this area shows noise increases ranging from ~~1.5~~0.7 dB to ~~5.1~~4.2 dB depending on the time horizon. Only the 2035 case results in a significant noise increase.

  Existing residences are located along Redlands Boulevard with rear yards facing Cactus Avenue. Existing 6-foot high soundwalls are located along the residences and rear yard areas are approximately 60 feet from the centerline of the roadway. In buildout year (2035), the noise levels projected for ~~60 feet from~~ the ~~centerline of the roadway~~yard area including the effects of the soundwall are projected to be ~~64.8~~66.2 CNEL. This is ~~below~~above the City criteria of 65 CNEL~~and, therefore,~~, resulting in a ~~less than~~ significant impact ~~will occur~~ and ~~no~~ mitigation is required.
- ~~*Day Street (between Cottonwood Avenue and Alessandro Boulevard).* There are scattered single-family homes along this roadway that front onto Day Street. Only the 2035 time horizon results in a significant noise increase for this area. In 2035, the project is projected to increase noise levels by 1.7 dB, bringing the noise level up to 69.4 CNEL. Therefore, this is a significant impact requiring mitigation.~~
- ~~*Fir Avenue (between Quincy Drive and Redlands Boulevard).* There is one single-family home along this roadway fronting Fir Avenue. Only the 2035 time horizon results in a significant noise increase for this area. In 2035, the project is projected to increase noise levels by 6.7 dB, bringing the noise level up to 68.3 CNEL. Therefore, this is a significant impact requiring mitigation.~~

- *Gilman Springs Road (between Eucalyptus Avenue and Street C, ~~and~~ between Jack Rabbit Trail and Bridge Street, and between Bridge Street and SR-79 SB Ramps).* There are three single-family homes scattered along these roadway segments. All of the houses are set back from the roadway, but none has soundwalls. A significant noise increase is projected for at least one of these segments in ~~three of the four case years.~~ all time horizons. Therefore, this is a significant impact requiring mitigation.
- *Ironwood Avenue (between Redlands Boulevard and Highland Boulevard).* There are two single-family homes that front onto Ironwood Avenue. There are also two churches along this roadway. A significant noise increase is projected for ~~all four study years. In 2035, the project is projected to increase noise levels by 5 dB, bringing the noise level to 63.6 CNEL~~2012 with full project build out. Therefore, this is a significant impact requiring mitigation.
- *John F. Kennedy Drive (south of Cactus Avenue).* The residences along John F. Kennedy Drive south of Cactus Avenue will experience significant noise increases in all four time horizons. Similar to the area along Cactus Avenue, this noise increase will be due to cars and light vehicles, and not heavy trucks. The residences along the west side of the roadway are generally depressed with respect to the road and have existing 6-foot soundwalls. Due to the presence of the existing soundwalls and slope conditions, noise levels would be reduced by 6 to 10 dB. This would result in noise levels being below the City threshold of 65 CNEL for residential uses. Therefore, residences on the west side of the street will not be affected. Impacts are considered to be less than significant and no mitigation is required.

  The residences on the east side of the roadway are elevated with respect to the roadway and do not have soundwalls. Rear yards areas on both sides of the street are approximately 60 to 90 feet from the centerline of the roadway and are bordered by wrought iron fencing. As identified in Tables 4.12.H through 4.12.~~K~~J, the greatest noise levels that would be experienced at these residences would range up to 67.~~9~~5 CNEL, which is above the City threshold of 65 CNEL. This is a significant impact requiring mitigation.
- *Locust Avenue (between Moreno Beach Drive and Smiley Boulevard).* There are three single-family homes along this roadway and they front onto the roadway. The 2035 time horizon results in a significant noise increase for this area. In 2035, the project will increase noise levels by ~~3~~1.5 dB, bringing the noise level to ~~68~~66.9 CNEL. This is a significant impact requiring mitigation.
- ~~*Moreno Beach Drive (between Locust Avenue and Ironwood Avenue).* There are 18 single-family homes along this roadway. Some homes front onto the roadway, but most back up to the roadway. The 2035 time horizon results in a significant noise increase for this area. In 2035, the project will increase noise levels by 3.3 dB, bringing the noise level to 66.6 CNEL. This is a significant impact requiring mitigation.~~
- ~~*Perris Boulevard (between John F. Kennedy Drive and Iris Avenue).* This is a mixed area in terms of residential land use. There are approximately 36 single-family homes along this roadway, some with a soundwall and some without. There is also a large multifamily development without a soundwall. Most of the homes either back up to the roadway or side-on to the roadway, making a soundwall feasible. Approximately half of the homes along this roadway do have a soundwall in place. The 2035 time horizon results in a significant noise increase for this area. In 2035, the project will increase noise levels by 1.7 dB, bringing the noise level up to 72.2 CNEL for areas without a soundwall. For the homes with a soundwall, there would not be a significant noise impact since the year 2035 the noise would increase by 1.7 dB and reaching up to 66.2 CNEL. For the homes on this roadway that do not have a soundwall, there would be a significant noise impact and mitigation is required.~~
- ~~*Placentia Avenue (from El Nido Avenue to Evans Road, and on to Water Avenue).* There are scattered single-family homes along this roadway that front onto the roadway. The 2035 time horizon results in a significant noise increase for this area. In 2035, the project will increase noise~~

~~levels by 10 to 14 dB, bringing the noise level up to 68 CNEL. This is a significant impact requiring mitigation.~~

- ~~*Quincy Drive (from Cactus Avenue to Alessandro Boulevard, and on to Cottonwood Avenue).* The existing single-family homes along Quincy Drive have a soundwall. Quincy Drive currently only exists from Cottonwood to Bay Avenue, which is north of Alessandro Boulevard. The 2035 time horizon results in a significant noise increase. This is a significant impact requiring mitigation.~~
- ~~*Reche Canyon Road (from Keissel Road to Reche Vista Drive, and on to High Country Drive).* There are roughly 22 single-family homes scattered along these two roadway segments. These homes are scattered along the roadway and front onto Reche Canyon Road. The 2035 time horizon results in a significant noise increase for this area. In 2035, the project will increase noise levels by 1.8 to 3.3 dB with resulting noise levels in the 67 to 68 CNEL range. This is a significant impact requiring mitigation.~~
- *Redlands Boulevard (from ~~Dracaea~~Eucalyptus Avenue to State Route 60).* There are scattered homes in this area that either face Redlands Boulevard (or Shubert Street) or are on Redlands Boulevard. The 2012~~, 2022,~~ and 2035 time horizons result in a significant noise increase for this area. This is a significant impact requiring mitigation.
- *Redlands Boulevard (from Ironwood Avenue to State Route 60 and Ironwood Avenue to San Timoteo Canyon Road).* There are approximately 28 homes along this roadway that would be affected. The single-family homes are scattered and generally front the roadway. ~~The 2012, 2022, and 2035~~All time horizons result in a significant noise increase for this area. The increases in noise are around 2 dB with a resultant noise level in the 70 to 71 ~~to 72~~ CNEL range. This is a significant impact requiring mitigation.
- *San Timoteo Canyon Road (from Alessandro Road to Live Oak Canyon Road to Redlands Boulevard).* There are about four scattered residences along this roadway that would be affected. The existing baseline plus project time horizon results in a significant noise increase for this area. The noise increases by up to 3.~~3~~1 dB with resultant noise levels in the 65 to 66 CNEL range. This is a significant impact requiring mitigation.
- *Theodore Street (State Route 60 to Highland Boulevard).* There are four existing homes on Theodore Street that front onto the roadway. Implementation of the Specific Plan would result in a ~~10.~~7.1 dB increase over baseline conditions (2012), and a ~~7.4~~3.1 dB increase in Opening Year (~~2017), and a 3.8 dB increase in future year (2022).~~2022). By Buildout Year (2035), the noise increase associated with the proposed project is anticipated to be 1.~~2.9~~ dB, which would not be significant. ~~In future year (2022), the 65 CNEL contour for this roadway link would lie approximately 138 feet from the centerline of the roadway. The four existing residences on Theodore Street are within 138 feet of the roadway. As a result, these~~These existing residences could experience noise levels of 65.0 CNEL in the baseline and 66.3 CNEL in the Year 2035 time horizons which is above the ~~65 CNEL~~City threshold ~~during all time horizens~~of 65 CNEL. This is a significant impact requiring mitigation.
- ~~*Street D (from Street E to Cactus Avenue).* Street D~~*Street A from Eucalyptus Avenue to Street F; Street E north of Alessandro Boulevard; and Street F east of Street A (2, 4, 19).* There are three groups of homes that may remain within the project area. The analysis shows significant noise increases for all four cases. The proposed Specific Plan designates these properties for Light Logistics uses, but the residences may remain indefinitely. The future Light Logistics use is not sensitive to noise. However, the existing residences, as long as they remain as a non-conforming use, must be considered as a sensitive land use. The first group of homes is east of Redlands Boulevard north of the intersection with Brodiaea Avenue. Street E will be constructed west of these homes. It is likely that there will be intervening buildings and that the distance from Street E will be so great that these homes will not experience significant noise from public roadways.

The second group of homes is on the east side of Street A (Theodore Street) midway between the future Street B and Street F. There are two homes in this area. Their noise environment will be changed significantly. The exact alignment of the roadway is to be determined, but noise levels could exceed 70 CNEL at the residences. The noise levels at these homes would be unacceptable to the residents, and a significant impact would occur.

The third area is a single home and lies east of Street A and along Street F. Currently there is essentially no traffic on this street. There is one residence in this area. Depending on the alignment for the street noise levels could exceed 70 CNEL. Since this home will experience a substantial noise increase, this is considered a significant impact.

It should be noted these homes were evaluated in the original DEIR and their impacts were disclosed on DEIR page 4.12-47.

- *Cactus Avenue Extension (from Street E to Cactus Avenue).* Cactus Avenue Extension, as shown in the Specific Plan, will come down the western side of the project parallel to Merwin Street. It then merges with Cactus Avenue traveling to the west until Redlands Boulevard. A specific alignment has not been determined for this roadway. There are approximately 14 homes that side-on to Merwin Street that could be affected by traffic on ~~Street D.~~Cactus Avenue Extension. There are no soundwalls along these homes. There would be limited or no heavy trucks using this roadway. The 65 CNEL contour will lie 114 feet from the centerline of ~~Street D.~~Cactus Avenue Extension. If the centerline of ~~Street D~~Cactus Avenue Extension is located closer than 114 feet to the residences, then a significant impact would occur. Outdoor living spaces for homes along Merwin Street would experience noise levels greater than 65 CNEL, and this would not be consistent with City criteria. This is a significant impact requiring mitigation.
- *State Route 60 (from Pigeon Pass Road to Perris Boulevard).* All residential areas along this stretch of freeway have soundwalls in place. The 2012 time horizon results in a significant noise increase for this area. The noise levels are projected to increase by 1.5 to 1.7 dB in this area with resultant noise levels in the 66.9 to 68.~~1~~0 CNEL range. ~~This is a significant impact requiring mitigation.~~
- ~~*State Route 60 (from Perris Boulevard to Nason Street).* All residential areas along this stretch of freeway have soundwalls in place. The 2022 time horizon results in a significant noise increase for this area. The noise level will go up by 1.6 dB with the project up to a level of 67.2 CNEL.~~ This is a significant impact requiring mitigation.
- *State Route 60 (from Moreno Beach Drive to Redlands Boulevard).* There are soundwalls in place for all residences in this area. The existing 2012 and 2035 time horizons result in a significant noise increase for this area, reaching 67.1 CNEL by 2035. This is a significant impact requiring mitigation.
- *State Route 60 (from Redlands Boulevard to Theodore Street).* No soundwalls are present in this area. The residential area is set back from the freeway and is clustered along Redlands Boulevard north of the freeway. The existing 2012 time horizon results in a significant noise increase for this area. The resultant noise level will be 63.5 CNEL with an increase due to the project of 3.4 dB. This is a significant impact requiring mitigation.

Specific Plan Design Features. The WLCSP indicates there will be a 250-foot setback from existing housing along Redlands Boulevard. No additional design features to attenuate noise impacts are planned as part of the WLCSP.

Note: Due to changes in the Specific Plan, Project Traffic Impact Assessment, Project Noise Study, and in response to comments in Letter C-4-2 and F-13-9 and F-13-84, the following mitigation measures have been revised.

Mitigation Measures. Construction of the proposed WLC project would result in noise levels at the closest residences within and adjacent to the WLCSP area exceeding the maximum noise level allowed under the City's Municipal Code. The following measures would reduce long-term traffic related noise impacts associated with the proposed project:

~~**4.12.6.2A** Within the WLCSP, Street D shall be designed such that exterior noise levels at existing residential areas shall not exceed 65 CNEL, which may require installation of a soundwall or other noise attenuation improvements. The design and calculations of such improvements shall be incorporated into a report that shall be submitted to the City for review and approval prior to the issuance of construction permits for Street D.~~

4.12.6.2A When processing future individual buildings under the World Logistics Center Specific Plan, as part of the City's approval process, the City shall require the Applicant to take the following three actions for each building prior to approval of discretionary permits for individual plot plans for the requested development:

Action 1: Perform a building-specific noise study to ensure that the assumptions set forth in the FEIR prepared for the programmatic level entitlement remain valid. These procedure used to conduct these noise analyses shall be consistent with the noise analysis conducted in the programmatic FEIR and shall be used to impose building-specific mitigation on the individually-proposed buildings.

Action 2: If the building-specific analyses identify that the proposed development triggers the need for mitigation from the proposed building, including all preceding developments in the specific plan area, the Applicant shall implement the mitigation identified in the WLC FEIR. Prior to implementing the mitigation, the Applicant shall send letters by registered mail to all property owners and non-owner occupants of properties that would benefit from the proposed mitigation asking them to provide a position either in favor of or in opposition to the proposed noise abatement mitigation within 45 days. Each property shall be entitled to one vote on behalf of owners and one vote per dwelling on behalf of non-owner occupants.

If more than 50% of the votes from responding benefited receptors oppose the abatement, the abatement will not be considered reasonable. Additionally, for noise abatement to be located on private property, 100% of owners of property upon which the abatement is to be placed must support the proposed abatement. In the case of proposed noise abatement on private property, no response from a property owner, after three attempts by registered mail, is considered a *no* vote.

At the completion of the vote at the end of the 45 day period, the Applicant shall provide the tentative results of the vote to all property owners by registered mail. During the next 15 calendar days following the date of the mailing, property owners may change their vote. Following the 15-day period, the results of the vote will be finalized and made public.

Action 3: Upon consent from benefited receptors and property owners, the Applicant shall post a bond for the cost of the construction of the necessary mitigation as estimated by the City Engineer to ensure completion of the mitigation. The certificate of occupancy permits shall be issued upon posting of the bond or demonstration that 50% of the votes from responding benefited receptors oppose the abatement or, if the abatement is located on private property, any property owners oppose the abatement (per Noise Study MM N-8, pg.53).

~~**4.12.6.2B** Prior to issuance of any discretionary approvals for development in the WLCSP, a WLC Noise Development Impact Fee study shall be submitted to the City for review and approval. The City shall require future development within the WLCSP to participate in a WLC Noise Development Impact Fee program to include soundwall attenuation to mitigate impacts from the proposed project based on the collection of fair-share fee payments from each increment of development and the implementation of each soundwall in accordance with Mitigation Measure 4.12.6.2C. The update to the DIF shall be based on a nexus study in conformance with State law (i.e., AB 1600). The Nexus study shall examine the soundwalls specified below, shall include detailed cost estimates for each soundwall, and shall establish a pro-rated fee to be paid per square foot by all development proposals within the WLCSP. The soundwalls to be included in this study include:~~

~~**Cactus Avenue Soundwall from Redlands Boulevard to Street D.** Construct an approximately 1,000-foot long, 6-foot high soundwall at the top of slope. The existing wrought-iron fencing will be removed and replaced with the soundwall (e.g., masonry wall, berming, glass barrier, or combinations of these barriers). The soundwall would need to measure 6 feet as measured from the rear yard of the residences.~~

~~**John F. Kennedy Drive, east side, Soundwall from Cactus Avenue to Bay Hill Drive.** Construct an approximately 5,000-foot long, 6-foot high soundwall at the top of slope for the existing residences that are on the east side of John F. Kennedy Drive. The existing wrought-iron fencing will be removed and replaced with the soundwall (e.g., masonry wall, berming, glass barrier, or combinations of these barriers). The soundwall would need to measure 6 feet as measured from the rear yard of the residences.~~

~~**Moreno Beach Drive Soundwall between Locust Avenue and Ironwood Avenue.** Construct an approximately 2,000-foot long, 6-foot high soundwall at the top of slope for the existing residences that are on the east side of John F. Kennedy Drive. The soundwall would need to measure 6 feet as measured from the rear yard of the residences.~~

~~**Perris Boulevard Soundwall between John F. Kennedy Drive and Iris Avenue.** Construct an approximately 1,500-foot long, 6-foot high soundwall at the top of slope for the existing residences that are on the east side of John F. Kennedy Drive. The soundwall would need to measure 6 feet as measured from the rear yard of the residences.~~

~~**State Route 60 Soundwall from Redlands Boulevard to Theodore Street.** Construct an approximately 580-foot long, 6-foot high soundwall for the existing residences. The soundwall would need to measure 6 feet as measured from the rear yard of the residences.~~

~~**Iris Avenue Soundwall from Nason Street to Oliver Street.** Construct an approximately 3,000-foot long, 6-foot high soundwall along the property line for the existing residences.~~

~~**Sycamore Canyon Boulevard Soundwall from College Boulevard and Central Avenue**. Construct an approximately 1,000-foot long, 6-foot high soundwall at the top of slope for the existing residences. The soundwall would need to measure 6 feet as measured from the rear yard of the residences.~~

4.12.6.2B Prior to issuance/approval of any building permits, the centerline of Cactus Avenue Extension will be located no closer than 114 feet to the residential property lines along Merwin Street. An alternative is to locate the roadway closer to the residences and provide a soundwall along Cactus Avenue Extension. The soundwall location and height should be determined by a Registered Engineer, and the soundwall shall be designed to reduce noise levels to less than 65 CNEL at the residences. The Engineer shall provide calculations and supporting information in a report that will be required to be submitted to and approved by the City prior to issuing permits to construct the road (per Noise Study, pg. 51, Cactus Avenue Extension, ID #50).

~~**4.12.6.2C** Prior to issuance of any building permits for development in the WLCSP, the City shall collect the Development Impact Fee (DIF) as modified in accordance with Mitigation Measure 4.12.6.2B. The City shall establish a schedule for installing the specific soundwalls listed in Mitigation Measure 4.12.6.2B consistent with the WLC Noise DIF program.~~

4.12.6.2C Prior to the approval of any discretionary permits, cumulative impact areas shown in the WLC EIR Noise Study shall be included in the soundwall mitigation program outlined in Mitigation Measures 4.12.6.2A and 4.12.6.2D (per Noise Study MM N-9, pg. 62).

4.12.6.2D Prior to issuance of a building permit, the applicant shall demonstrate that the development maintains a buffer with soundwall for noise attenuation at residential/warehousing interface (i.e., western and southwestern boundaries of the project site). To keep the noise levels at nearby residential areas less than typical ambient conditions, the warehousing property line shall be located a minimum of 250 feet from the residential zone boundary , and a 12-foot noise barrier shall be located along the perimeter of the property that faces any residential areas. The 12 foot noise barrier may be a soundwall, berm, or combination of the two. The height shall be measured relative to the pad of the warehouse. This requirement shall be implemented anytime residential areas are within 600 feet of the warehousing property line to insure that a noise level of 45 dBA (Leq) will not be exceeded at the residential zone. This requirement is consistent with Item 10 of Municipal Code Section 9.16.160 Business park/industrial that states, “All manufacturing and industrial uses adjacent to residential land uses shall include a buffer zone and/or noise attenuation wall to reduce outside noise levels” (per Noise Study MM N-10, pg.62).

Level of Significance after Mitigation. *Within the WLC Specific Plan Area.* For areas within the WLCSP area, ~~these include~~ three groups of residences ~~that~~ may ~~remain~~exceed the noise standard with the implementation of the proposed project. The level of significance after mitigation is provided for each of the two areas for which a significant impact has been identified.

- *Redlands Boulevard (north of Brodiaea Avenue).* A group of homes is located east of Redlands Boulevard north of the intersection with Brodiaea Avenue. The traffic on Redlands Boulevard will not increase significantly as a result of the project. Future Street E is proposed to be constructed west of these existing residences. It is likely that there will be intervening buildings and that the distance from Street E will be so great that these homes will not experience significant noise from public roadways. Therefore, impacts are anticipated to be less than significant and no mitigation is required.
- *Theodore Street/Street A (Street B to Street F).* There are two residences in this area. These residences are anticipated to experience noise increases up to ~~18~~16 dB due to the implementation of the Specific Plan. As a result, existing noise levels at these two residences will

be changed significantly. The exact alignment of the roadway is to be determined, but the homes may be roughly 100 feet from the centerline on the roadway. One residence fronts onto Street A (Theodore Street), and the driveway access would make a soundwall ineffective. The other residence is on to Street A. It is difficult to determine where an outdoor living area is for this residence. However, since it is a single residence, a soundwall would have a limited effectiveness. Since mitigation is not feasible, impacts remain significant and unavoidable.

- *Dracaea Avenue/Street F (east of Theodore Street).* There is one residence in this area fronting onto the future alignment of Street F (currently Dracaea Avenue). Existing conditions identify low levels of traffic noise on Dracaea Avenue. The 65 CNEL contour is projected to lie 84 feet from the centerline of Street F and it is likely that the one residence would lie within this zone. With build out of the project, noise levels would reach as high as 68.1 CNEL, which exceeds the City's 65 CNEL threshold. Installation of a soundwall would not be effective in reducing noise levels due to the opening for the driveway. Since mitigation is not feasible, impacts remain significant and unavoidable.

Off-Site Areas Adjacent to the Specific Plan Area. For areas adjacent to the WLCSP area, ~~eight~~seven areas would experience noise increases that would be mitigated to a less than significant level with implementation of **Mitigation Measures 4.12.6.2A** ~~through~~and **4.12.6.~~2C~~2D**. These areas are as follows:

- Cactus Avenue west of Redlands Boulevard;
- Cactus Avenue from Redlands Boulevard to Street D;
- John F. Kennedy Drive, ~~west side, from~~ south of Cactus Avenue~~ to Bay Hill Drive~~;
- Moreno Beach Drive between Locust Avenue and Ironwood Avenue (15 of 18 homes);
- ~~Perris Boulevard between John F. Kennedy Drive and Iris Avenue;~~
- State Route 60 from Redlands Boulevard to Theodore Street;
- Iris Avenue from Nason Street to Oliver Street; and
- ~~Sycamore Canyon Boulevard from College Boulevard and Central Avenue; and~~
- Street D from Street E to Cactus Avenue (8).

For the remaining noise impact locations adjacent to the WLCSP area for which significant noise impacts have been identified, mitigation measures are not feasible or will not fully reduce the impact to less than significant levels. Each location that will remain significant and unavoidable with ~~implementation of the proposed project is discussed below.~~

- ~~*Cactus Avenue (west of Redlands Boulevard).* Existing soundwalls will reduce noise levels by an estimated 6 dB, lowering the ultimate noise levels to 64.8 CNEL in the rear yard areas along Cactus Avenue. This is below the City criteria of 65 CNEL. It is not feasible to modify the existing residential block wall to reduce the project increase in noise levels because the block walls are designed for the height that they are built. In addition, the projected noise levels in year 2035 are within the City's exterior noise level for residences. Therefore, the significant impact cannot be feasibly mitigated and it will remain significant and unavoidable.~~
- ~~*Day Street (between Cottonwood Avenue and Alessandro Boulevard).* The scattered single-family homes along this roadway front onto Day Street. In 2035, the project is projected to increase noise levels by 1.7 dB, bringing the noise level up to 69.4 CNEL. Homes that are widely separated from other homes cannot be effectively mitigated with a soundwall. Therefore, the significant impact cannot be feasibly mitigated and it will remain significant and unavoidable.~~

- ~~*Fir Avenue (between Quincy Drive and Redlands Boulevard).* There is one single-family home along this roadway fronting Fir Avenue. Only the 2035 time horizon results in a significant noise increase for this area. In 2035, the project is projected to increase noise levels by 6.7 dB, bringing the noise level up to 68.3 CNEL. A single home that fronts on a roadway cannot be effectively mitigated with a soundwall. Therefore, the significant impact cannot be feasibly mitigated and it will remain significant and unavoidable.~~
- *Gilman Springs Road (between Eucalyptus Avenue and Street C, and between Jack Rabbit Trail and Bridge Street).* There are three single-family homes scattered along these roadway segments. All of the houses are set back from the roadway, but none has soundwalls. A significant noise increase is projected for at least one of these segments in three of the four case years. Homes that are widely separated from other homes cannot be effectively mitigated with a soundwall. Therefore, the significant impact cannot be feasibly mitigated and it will remain significant and unavoidable.
- *Ironwood Avenue (between Redlands Boulevard and Highland Boulevard).* There are two single-family homes that front onto Ironwood Avenue. There are also two churches along this roadway. A significant noise increase is projected for ~~all four study years.~~the 2012 time horizon. In 2035, the project is projected to increase noise levels by ~~5~~2.1 dB, bringing the noise level to ~~63.6~~60.8 CNEL. Land uses that are widely separated from one another cannot be effectively mitigated with a soundwall. Therefore, the significant impact cannot be feasibly mitigated and it will remain significant and unavoidable.
- *Locust Avenue (between Moreno Beach Drive and Smiley Boulevard).* There are three single-family homes along this roadway and they front onto the roadway. The 2035 time horizon results in a significant noise increase for this area. In 2035, the project will increase noise levels by 1.5 dB, bringing the noise level to ~~68~~66.9 CNEL. As discussed above, homes that are scattered and front onto a street cannot be effectively mitigated with a soundwall. Therefore, the significant impact cannot be feasibly mitigated and it will remain significant and unavoidable.
- ~~*Moreno Beach Drive (between Locust Avenue and Ironwood Avenue.* There are 18 single-family homes along this roadway. Some homes front onto the roadway, but most back up to the roadway. The 2035 time horizon results in a significant noise increase for this area. In 2035, the project will increase noise levels by 3.3 dB, bringing the noise level to 66.6 CNEL. This is a significant impact requiring mitigation. Even with the soundwall that would be implemented as part of **Mitigation Measures 4.12.6.2A** through **4.12.6.2C**, sound levels at 3 of the 18 homes would exceed 65 CNEL. These homes front onto Moreno Beach Drive and cannot be effectively mitigated with a soundwall. Therefore, the significant impact cannot be feasibly mitigated and it will remain significant and unavoidable.~~
- ~~*Placentia Avenue (from El Nido Avenue to Evans Road, and on to Water Avenue).* There are scattered single-family homes that front onto the roadway. The 2035 time horizon results in a significant noise increase for this area. In 2035, the project will increase noise levels by 10 to 14 dB, bringing the noise level up to 68 CNEL. As discussed above, homes that are scattered and front onto a street cannot be effectively mitigated with a soundwall. Therefore, the significant impact cannot be feasibly mitigated and it will remain significant and unavoidable.~~
- ~~*Quincy Drive (from Cactus Avenue to Alessandro Boulevard, and on to Cottonwood Avenue).* The existing single-family homes along Quincy Drive have a soundwall. Quincy Drive currently only exists from Cottonwood to Bay Avenue, which is north of Alessandro Boulevard. The 2035 time horizon results in a significant noise increase. It is not feasible to modify the existing residential block walls to reduce the project increase in noise levels because the block walls are designed for the height that they are built. Therefore, the significant impact cannot be feasibly mitigated and it will remain significant and unavoidable.~~

- ~~*Reche Canyon Road (from Keissel Road to Reche Vista Drive, and on to High Country Drive).* There are approximately 22 single-family homes scattered along these two roadway segments. These homes front onto Reche Canyon Road. The 2035 time horizon results in a significant noise increase for this area. In 2035, the project will increase noise levels by 1.8 to 3.3 dB with resulting noise levels in the 67 to 68 CNEL range. Homes that are scattered and front onto a street cannot be effectively mitigated with a soundwall. Therefore, the significant impact cannot be feasibly mitigated and it will remain significant and unavoidable.~~
- *Redlands Boulevard (~~Dracaea~~Eucalyptus Avenue to State Route 60).* There are scattered homes in this area that either face Redlands Boulevard (or Shubert Street) or are on Redlands Boulevard. The 2012~~, 2022,~~ and 2035 time horizons result in a significant noise increase for this area. Homes that are scattered and front onto a street cannot be effectively mitigated with a soundwall. Therefore, the significant impact cannot be feasibly mitigated and it will remain significant and unavoidable.
- *Redlands Boulevard (State Route 60 to San Timoteo Canyon Road).* There are approximately 28 homes along this roadway that would be affected. The single-family homes are scattered and generally front the roadway. The 2012, 2022, and 2035 time horizons result in a significant noise increase for this area. The increases in noise are around 2 dB with a resultant noise level in the 70 to 71 ~~to 72~~ CNEL range. Homes that are scattered and front onto a street cannot be effectively mitigated with a soundwall. Therefore, the significant impact cannot be feasibly mitigated and it will remain significant and unavoidable.
- *San Timoteo Canyon Road (from Alessandro Road to Live Oak Canyon Road to Redlands Boulevard).* There are approximately four scattered residences along this roadway that would be affected. The existing baseline plus project time horizon results in a significant noise increase for this area. The noise increases by ~~up to~~a little over 3.~~3~~0 dB with resultant noise levels in the 65 to 66 CNEL range. Homes that are scattered and front onto a street cannot be effectively mitigated with a soundwall. Therefore, the significant impact cannot be feasibly mitigated and it will remain significant and unavoidable.
- *Theodore Street (State Route 60 to Highland Boulevard).* ~~There are four existing homes on Theodore Street that front onto the roadway. Implementation of the Specific Plan would result in a 10.7 dB increase over baseline conditions (2012), a 7.4 dB increase in Opening Year (2017), and a 3.8 dB increase in future year (2022). By Buildout Year (2035), the noise increase associated with the proposed project is anticipated to be 2.9 dB, which would not be significant. In future year (2022), the 65 CNEL contour for this roadway link would lie approximately 138 feet from the centerline of the roadway. The four existing residences on Theodore Street are within 138 feet of the roadway. As a result, these existing residences could experience noise levels above the 65 CNEL threshold for all time horizons.~~The noise analysis indicates that the project will cause a 1.2 dB increase in the year 2035 with a resulting noise level of 66.3 CNEL. There are four existing homes on Theodore Street that front onto the roadway. Homes that are scattered and front onto a street cannot be effectively mitigated with a soundwall. Therefore, the significant impact cannot be feasibly mitigated and it will remain significant and unavoidable.
- *Street A from Eucalyptus Avenue to Street F; Street E north of Alessandro Boulevard; and Street F east of Street A (2, 4, 19).* There are three groups of homes that may remain within the project area. The analysis shows significant noise increases for all four cases. The project would rezone these residences as Light Logistics, but the residences may remain for some time. The Light Logistics use is not sensitive to noise. However, the existing residences, as long as they remain, must be considered as a sensitive land use. The first homes are east of Redlands Boulevard north of the intersection with Brodiaea Avenue. Street E will be constructed west of these homes. It is likely that there will be intervening buildings and that the distance from Street E will be so great that these homes will not experience significant noise from public roadways.

The second group of homes is on the east side of Street A (Theodore Street) midway between the future Street B and Street F. There are two homes in this area. Their noise environment will be changed significantly. The exact alignment of the roadway is to be determined. The noise levels at these homes would be unacceptable to the residents, and a significant impact would occur. As discussed above homes, that front onto a street or scattered homes cannot be effectively mitigated with a soundwall. Therefore, there is no feasible mitigation and this impact would remain significant and unavoidable.

The third area is a single home and lies east of Street A and along Street F. Currently there is essentially no traffic on this street. There is one residence in this area. Since this home will experience a substantial noise increase, this is considered a significant impact. All of these homes will either front onto the roadway or are scattered. As discussed above homes, that front onto a street or scattered homes cannot be effectively mitigated with a soundwall. Therefore, there is no feasible mitigation and this impact would remain significant and unavoidable.

- *Cactus Avenue Extension (Street D) from Street E to Cactus Avenue.* Cactus Avenue Extension, as shown in the Specific Plan, will come down the western side of the project parallel to Merwin Street and roughly 1,250 feet from Merwin Street. It then merges with Cactus Avenue traveling to the west until Redlands Boulevard. A specific alignment has not been determined for this roadway. There would be essentially no heavy trucks using this roadway. There are approximately 14 homes that side-on to Merwin Street that could be affected by traffic on Cactus Avenue Extension. There are no soundwalls along these homes. The noise forecast shows that the 65 CNEL contour will lie 114 feet from the centerline of Cactus Avenue Extension. If the centerline of Cactus Avenue Extension is located closer than 114 feet to the residences, then a significant impact would occur. Outdoor living spaces for homes along Merwin Street would experience noise levels greater than 65 CNEL, and this would not be consistent with City criteria. Due to the distance from the currently envisioned between Merwin Street and Cactus Avenue Extension, it is most likely that no soundwall will be needed. If a soundwall was needed, a preliminary estimate indicates that the soundwall along Cactus Avenue Extension would need to be roughly 2,000 feet.

4.12.6.3 Long-Term Operational Noise Impacts

Threshold	Would the project cause exposure of persons to or generation of noise levels in excess of standards established in the *City of Moreno Valley General Plan, Moreno Valley Municipal Code*, or applicable standards of other agencies?

Potential long-term stationary noise impacts would primarily be associated with operations at logistics facilities within the WLCSP area. Logistics facility uses would generate noise from truck delivery, loading/unloading activities at the loading areas, heating, ventilation, and air-conditioning (HVAC) equipment and other noise-producing activities within the parking lot (e.g., doors slamming, vehicle engine start-ups, and conversing in the parking lot). These activities are potential point sources of noise that could affect noise-sensitive receptors adjacent to the loading areas and parking lots. As noise spreads from a source, it loses energy; therefore, the farther away the noise receiver is from the noise source, the lower the perceived noise level would be.

Noise levels were measured at similar facilities to determine representative noise levels that might be generated by this type of activity. Noise measurements were made at two facilities; specifically, Lowes Distribution Center (3984 Indian Avenue, Perris, CA) and Ross Distribution Center (3404 Indian Avenue, Perris, CA). Based on these representative noise measurements, Table 4.12.K provides the noise levels for various distances from the warehouse property line with no noise barrier in place and with an assumed 12-foot noise barrier.

Table 4.12.~~L~~K: Representative Noise Levels for Warehousing Activities

Distance from Facility (feet)	Noise Level (dBA L_{eq})	
	No Barrier	With 12-foot barrier
50	56.9	48.6
100	54.9	47.8
250	50.8	44.7
500	46.6	40.9

Source: Mestre Greve Associates, ~~November 2012~~September 2014.

The City of Moreno Valley Noise Ordinance requires that noise levels remain below 55 dBA (L_{eq}) during nighttime hours. To achieve this noise level, the warehouse property line would only need to be 100 feet from the nearest residential property and no soundwall would need to be present.

Another consideration is whether the proposed activity levels will be substantially higher than current ambient conditions. No matter what is developed in the Specific Plan area, ambient conditions would be higher in future years due to higher levels of traffic and activity. Ambient noise levels were measured at seven sites that could border the World Logistics Center (i.e., Measurement Sites 3 through 9). The nighttime ambient noise levels (L_{eq}) ranged from 35.8 to 61.8 dBA with an average for the sites of 46.6 dBA. To keep the noise levels at nearby residential areas less than typical ambient conditions, the logistics property line should be located a minimum distance of 250 feet and a 12-foot soundwall should be located along the perimeter of the property that faces any residential areas. This would keep the logistic use noise to less than 45 dBA (L_{eq}) at the residences. The implementation of this buffer between logistics uses and noise sensitive uses has been included as **Mitigation Measure 4.~~12~~1.6.~~3A.~~1A.**

Specific Plan Design Features. The WLCSP indicates there will be a 250-foot building setback from residentially zoned property along Redlands Boulevard, Bay Avenue, and Merwin Street.

~~**Mitigation Measures.** Operation of the proposed WLC project would result in noise levels at the closest residences within and adjacent to the WLC Specific Plan area exceeding the maximum noise level allowed under the City's Municipal Code. The following measure would reduce long-term operational noise impacts associated with the proposed WLC project:~~

~~**4.12.6.3A** All discretionary approvals for development in the area of Redlands Boulevard, Bay Avenue, Merwin Street, and Cactus Avenue shall provide a minimum 250-foot setback between residentially zoned property and logistics buildings within the WLCSP. In addition, all such discretionary approvals shall provide sound attenuation improvements that will reduce expected noise levels from development to within City standards.~~

Level of Significance after Mitigation. Implementation of **Mitigation Measure 4.~~12~~1.6.~~3A~~1A** would eliminate any noise impacts on residential areas due to the operation of logistic activities. Through the provision of a 250-foot buffer, berms, and/or soundwalls, noise levels at the nearest residences would be reduced to below the City's thresholds. Therefore, with adherence to the identified mitigation measure, impacts associated with this issue would be less than significant.

4.12.6.4 Long-Term Utility Noise Impacts

Threshold	Would the project cause exposure of persons to or generation of noise levels in excess of standards established in the *City of Moreno Valley General Plan, Moreno Valley Municipal Code*, or applicable standards of other agencies?

As illustrated in previously referenced Figure 4.12.3 and Figure 4.12.6, there is one existing SDG&E compressor station and two existing SCGC facilities located within the WLC Specific Plan area.

Based on preliminary calculations as illustrated in Figure 4.12.3, the worst-case compressor station operational characteristics will result in a maximum noise level just above 65 CNEL within the project area proposed for development (i.e., not open space). Typical commercial construction results in buildings that achieve at least a 20 dB reduction of outdoor noise levels. Therefore, an office use exposed to the highest noise level from the compressor station will be just above 45 CNEL and below the 50 CNEL limit prescribed by the City's General Plan, resulting in a less than significant impact and no mitigation is required.

As illustrated in previously referenced Figure 4.12.4, the L_{eq} noise level generated by the compressor station does not exceed 60 dBA L_{eq} beyond the property lines of the facility. Therefore, the compressor station is not considered a noise disturbance based on City criteria. Operation of the compressor station would not result in any interior noise levels exceeding the limits established by the City in the General Plan. Therefore, noise impacts associated with the operation of the compressor station would be less than significant and no mitigation is required.

As identified in previously referenced Figure 4.12.5, the maximum noise level from a blow-down at the SDG&E compressor station within the WLCSP area proposed for development (i.e., the Logistics Development land use) is 100 dBA. A person would need to be exposed to this level for more than two hours in a day before permanent hearing loss would be expected. As discussed above, blow-down events at the SDG&E compressor station typically do not last longer than 90 seconds. Therefore, the SDG&E blow-down events will not result in a significant impact to the uses proposed within the WLCSP area, and no mitigation is required.

For SCGC blow-down events, noise generated could reach as high as 130 dBA just outside the fence line of the southern facility and in excess of 135 dB just outside the fence line of the northern facility. People within approximately 250 feet of the blow-down points would be exposed to noise levels greater than 115 dBA, which would likely cause permanent hearing damage regardless of the exposure time. The SCGC blow-downs could last as long as 90 minutes. It is anticipated that people exposed to noise levels greater than 102 dBA, within approximately 1,300 feet from the blow-down point could experience permanent hearing loss based on this event duration. Noise generated by SCGC blow-down events has the potential to cause permanent hearing loss in persons in the developed area of the project. This is a significant impact and mitigation is required.

SCGC blow-down events also have the potential to produce groundborne vibration. However, the effect of the blow-down ~~groundbourne vigbration~~groundborne vibration would be ~~limted~~limited to within 100 feet of the equipment and would not be perceived beyond the facility fenceline, resulting in a less than significant impact and no mitigation is required.

Specific Plan Design Features. The WLCSP provides a setback of open space and a street between the SCGC facility and planned warehouse buildings in the WLCSP. However, the separation may not be sufficient to prevent significant noise impacts during blow-down events. According to the project noise assessment, a 40 dB reduction in existing noise levels from the blow-down facilities would be needed to ensure there would be no significant noise impacts on workers or other persons within 1,300 feet of the blow-down facilities (FEIR Volume 2 Appendix K).

Note: The changes to the following mitigation measure have been made in response to Comment C-4-2 in Letter C-4 from Semper Energy, and the revised noise study.

Mitigation Measures. Operation of the proposed WLC project could result in exposure of people to noise levels as high as 130 dBA or greater during SCGC blow-down events. The following measure would reduce long-term utility related noise impacts associated with the proposed WLC project:

4.12.6.4A Prior to the issuance of building permits for projects within ~~500~~ 1,300 feet of the Southern California Gas Company (SCGC) and San Diego Gas and Electric (SDG&E) blow-down facilities, documentation shall be submitted to the City confirming that sound attenuation devices and/or improvements for the blow-down facilities providing at least a 40 dB reduction in noise levels during blow-down events are available and will be installed for all planned blow-down events. It shall be the responsibility of the developer to fund all sound attenuation improvements to the blow-down facilities required by this measure. It shall also be the responsibility of the developer to coordinate with San Diego Gas and Electric and/or Southern California Gas Company regarding the installation of any sound attenuation devices or improvements on the blow-down facilities at either the San Diego Gas and Electric compressor station or the Southern California Gas Company pipelines. This measure shall be implemented to the satisfaction of the City ~~Planning Official~~ Land Management Division (per Noise Study MM N-11, pg.65).

Level of Significance after Mitigation. The SCGC blow-down equipment does not currently include a permanent silencer system. A review of the literature of a leading manufacturer of specialty silencer systems (Industrial Acoustics Company) determined that a specialty silencer system added to the blow-down equipment could reduce noise levels by about 40 dB. With a silencer system providing 40 dB of noise reduction, blow-down noise levels would be less than 102 dBA approximately 30 feet from the blow-down point, which is within the property line of these facilities. 102 dBA is the noise level that could be experienced for up to 90 minutes without causing permanent hearing loss. Therefore, while occupants within the WLCSP in close proximity to the SCGC facilities would be subject to high noise levels during these infrequent noise events, they would not be subject to any permanent hearing damage. With implementation of **Mitigation Measure 4.12.6.4A**, SCGC blow-down events would not result in noise levels that could cause permanent hearing loss and the project would not be significantly affected by noise from the SCGC facilities, resulting in a less than significant impact.

4.12.7 Cumulative Impacts

The cumulative area for noise impacts is the City of Moreno Valley. Implementation of the Specific Plan would result in the introduction of new noise sources and levels from on-site activities and from increased traffic volumes on vicinity roadway and freeways.

Construction crew commutes and the transport of construction equipment, and materials to the WLCSP area would incrementally increase noise levels on access roads leading to the site. Secondary sources of noise would include noise generated during excavation, grading, and building erection on the project site. The net increase in project site noise levels generated by these activities and other sources has been quantitatively estimated and compared to the applicable noise standards and thresholds of significance. Although it is not possible to predict if contiguous properties may be constructed at the same time and create cumulative noise impacts that would be greater than if developed at separate times, it is unlikely that adjacent properties will be developed at the same time as the Specific Plan area. However, in the unlikely event that adjacent properties are developed at

the same time as the proposed WLC project, adherence to the City's Municipal Code provisions that regulate construction activities and other development standards would render the cumulative impacts of the proposed project to less than significant levels.

The noise analysis contained in this section also provides an assessment of on-site operational noise level impacts on adjacent sensitive uses, both existing and future. Additionally, on-site operational noises are individual noise occurrences and are not typically additive in nature. It is extremely unlikely that adjacent properties will generate noises that would be additive in nature because of two important reasons. First, the noise sources would have to be adjacent or in close proximity to one another in order for the noises to intermingle. Second, the sensitive receptor or receptors would also have to be adjacent to or in close proximity to the noise generators. Although it is not possible to predict if contiguous or proximate properties may generate noise at the same time that would be additive in nature and thus create a significant cumulative noise impact at sensitive receptors, adherence to the City's Municipal Code provisions that regulate nuisance noise from land uses and other development standards would render the cumulative impacts of the proposed project to less than significant levels.

Cumulative traffic volumes contained in the TIA were developed for the Future Year 2022 and Buildout 2035 analysis time horizons. Traffic volumes for each time horizon were developed utilizing a combination of various future traffic growth methods as follows. For Future Year 2022, traffic volumes were developed by interpolating year 2035 traffic volume projections from the Riverside County Transportation and Analysis Model (RivTAM) to year 2022 plus traffic from a list of past, present, and reasonably foreseeable projects. For Buildout Year 2035, traffic volumes were developed by utilizing the year 2035 traffic volume projections from the RivTAM plus traffic from a list of past, present, and reasonably foreseeable projects.

Cumulative noise impacts associated with roadway noise have been addressed based on the cumulative traffic volumes. Previously referenced Table 4.12.J ~~and 4.12.K provide~~provides a comparison of~~Future Year (2022) and~~ Buildout Year (2035) without and with project noise levels, and if a significant impact (project-specific or cumulatively significant) occurs.

The project calls for improvements to several of the roadways around the project area in order to accommodate the projected increase in project traffic volumes. There are no new noise-sensitive land uses proposed to be constructed within the area of analysis. However the presence of residential uses occurs within the WLCSP project and nearby area. These roadway segments are analyzed against the thresholds for determining significant impacts defined previously in Section 4.12.6.2. As described previously in Section 4.12.4, the project's incremental contribution to a cumulative noise increase would be considered cumulatively considerable and significant when ambient noise levels affect noise-sensitive land uses and when the proposed project increases noise levels by 1 dB or more over pre-project conditions and the predicted future cumulative with project noise levels cause the following cumulative increases:

- Increase noise levels by 5 dB or more where the existing noise level is less than 60 CNEL;
- Increase noise levels by 3 dB or more where the existing noise level is 60 to 65 CNEL; or
- Increase noise levels by 1.5 dB or more where the existing noise level is greater than 65 CNEL.

Cumulative noise impacts associated with roadway noise have been addressed based on the 2022 and 2035 time horizons analyses contained in Section 4.12.6.2. As identified in the preceding analysis, Table 4.12.J ~~and 4.12.K show~~shows the~~ Future Year 2022 and~~ Buildout Year 2035 CNEL values without and with the proposed project and if a significant impact would be produced based on the project-specific significance criteria identified in~~ Secitons~~Section 4.12.4 and the cumulatively significant significance criteria identified in Section 4.12.4 and repeated above. Traffic noise level

increases from the existing baseline condition and the future (2022 and 2035) time horizons are attributable to the intermingled effects of both the cumulative (i.e., past, present, and reasonably foreseeable projects) development projects in the project vicinity and region as well as the proposed project. As indicated in Section 4.12.6.2, roadway noise impacts have been identified and **Mitigation Measures 4.12.6.2A** ~~through~~and **4.12.6~~.2C~~2D** have been presented to reduce roadway noise impacts to the greatest extent feasible. As disclosed in Section 4.12.6.2, there are numerous instances in which there is no feasible means to reduce roadway noise impacts because of the existing developed nature of the affected roadway segment and/or the scattered nature of the sensitive receptors (i.e., residences), which prohibits the effectiveness of a soundwall. Therefore, no significant cumulative noise impacts would occur after implementation of the proposed mitigation measures. For those segments at which there is a cumulatively considerable impact and there is no feasible means to provide mitigation, the significant cumulative impact will remain significant and unavoidable.

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4.13 POPULATION, HOUSING, AND EMPLOYMENT: TABLE OF CONTENTS

TABLES

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Note to Reader: *The following Section 4.13 has been revised based on revisions to the Specific Plan project size. The section has also been revised to provide clarification in response to comments made about data consistency.*[1]

4.13 POPULATION, HOUSING, AND EMPLOYMENT

This section identifies population and housing conditions within the City of Moreno Valley and addresses potential impacts that may result from the construction and operation of the proposed WLC project. The analysis is based in part on population and housing projections identified by the California Department of Finance (DOF), Southern California Association of Governments (SCAG), as well as information contained in the City's General Plan.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers ~~3,918~~ 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes ~~3,814~~ 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering ~~3,814~~. 3,714 acres, which redesignates approximately ~~71~~70 percent of the area (~~2,710~~ 2,610 acres) for logistics warehousing (new LD and LL~~, LS~~ zones) and the remaining ~~29~~30 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the ~~2,710~~ 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*. ~~The environmental impacts of all of these entitlements on the entire project area are addressed in this EIR and the accompanying technical reports and analyses.~~

The analysis contained in this section is based in part on the following reference documents:

- *Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California*, David Taussig & Associates, Inc., original dated January 2012, updated ~~February 5~~September, 2014.

[1] Mainly *Letter G-95 from Thomas Thornsley.*

- *Moreno Valley Economic Development Strategy,* John Husing, Ph.D., presentation to City Council January 18, 2012.
- *City of Moreno Valley Draft Housing Element 2008 – 2014,* City of Moreno Valley, February 2011.
- *Economic Impacts the World Logistics Center, PowerPoint presentation to the City Council,* Beacon Economics, January 2013.

4.13.1 Existing Setting

4.13.1.1 Population Characteristics

The U.S. Census as reported by the DOF estimates the City's current (2011) population at ~~195,216~~194,451 persons.[1] SCAG projections estimate the population of the City, Riverside County, and southern California (SCAG) regions will continue to grow. The SCAG projects the City's population will grow to 213,700 persons by the year 2020 and 255,200 persons by the year 2035 (Table 4.13.A).

Table 4.13.A: Population, Housing, and Employment Forecasts

	2011	2020	2035
Population [2]			
City of Moreno Valley	~~195,216~~194,451	213,700	255,200
Riverside County	~~2,217,778~~2,205,731	2,592,000	3,324,000
SCAG	18,163,664	19,663,000	22,091,000
Housing Units [2]			
City of Moreno Valley	55,635	60,000	72,800
Riverside County	804,~~915~~913	834,000	1,092,000
SCAG	6,348,741	6,458,000	7,325,000
Employment[1]			
City of Moreno Valley	25,120	48,000	64,400
Riverside County	551,492	939,000	1,243,000
SCAG	7,224,670	8,414,000	9,441,000

Sources:

1 2011 Employment data for the City and County is based on the *Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California*, ~~October 11, 2012~~ September 2014.

2 *2011 Employment and Housing data for City and County based on the E-5 Population and Housing Estimates, for Cities, Counties, and the State, 2011–2013, with 2010 Benchmark, State of California Department of Finance, http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php, website accessed February 7, 2014*. *Draft 2012 RTP Growth Forecast*, Southern California Association of Governments, http://www.scag.ca.gov/forecast/index.htm, date accessed March 15, 2012

4.13.1.2 Housing Characteristics

The number of housing units in the City has increased to accommodate the City's growing population (Table 4.13.B). Currently, the DOF identifies that over three-quarters of the existing housing units in the City are single-family detached units (Table 4.13.C). Multiple-unit dwellings comprise approximately 15 percent of the City's current housing stock.

[1] E-5 Population and Housing Estimates, for Cities, Counties, and the State, 2011–2013, with 2010 Benchmark, State of California Department of Finance, http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php, May 2011, website accessed February 7, 2014.

Table 4.13.B: City of Moreno Valley Housing Units, 1990, 2000, and 2010

Year	Housing Units	Increase (%)
1990	37,945[1]	—
2000	41,462[2]	9.3
2010	~~51,592~~ 55,559[3]	~~24~~25.4

[1] City of Moreno Valley Draft Housing Element 2008 – 2014. City of Moreno Valley. February 2011.
[2] California Department of Finance: California State Data Center. Data derived from Housing Characteristics, 2000 Census of Population and Housing
[3] ~~Draft 2012 RFP Growth Forecast, Southern California Association of Governments, http://www.scag.ca.gov/forecast/ndex.htm, date accessed March 15, 2012~~ State of California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State, 2011–2013, with 2000 Benchmark. Sacramento, California, May 2013.

Table 4.13.C: Composition of the Housing Stock, 2010 Table Revised

Housing Type	City of Moreno Valley	
	Number of Units	Percentage
Single-Family, Detached	44,842	80.7%
Single-Family, Attached	1,127	2.0%
2- to 4-Unit Structure/ 5- or More Unit Structure	8,226	14.8%
Mobile Home	1,364	2.5%
Total	**55,559**	**100%**

Source: *State of California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State, 2011–2013, with 2000 Benchmark. Sacramento, California, May 2010*.

4.13.1.3 Employment Characteristics

As identified in Table 4.13.A, approximately 25,120 jobs were located within the City in 2011. Based on available data from ~~2010~~ 2012 (SCAG ~~2010~~2013), the largest share of Moreno Valley's jobs were in the education ~~and health care~~ sector (~~40.2~~41.5%). The top four employment sectors, education ~~and health care~~ (~~40.2~~41.5%), retail trade (~~18.2~~17.8%), leisure/hospitality (10.~~9~~8%), and professional and management (6.~~1~~0%) accounted for three-fourths of jobs in the City. Table 4.13.D provides a breakdown of the percentage by job type for the most recent available data (~~2010~~2013). The Husing Report presented to the City Council in January 2012 also indicated that medical services and logistics were two of the few employment categories to show significant growth during the economic downturn starting in 2008 (Husing 2012).

NOTE: This table had been updated based upon the updated Profile of the City of Moreno Valley, by the Southern California Association of Governments 2013.

Table 4.13.D: City of Moreno Valley ~~2010~~2012 Employment Percentage by Sector (Revised)

Job Sector	Percentage of Employees
Education	41.5%
Retail Trade	17.8%
Leisure/Hospitality	10.8%
Professional and Management	6.0%
Public Administration	5.0%
Manufacturing	3.7%
Finance/Insurance/Real Estate	3.2%

Table 4.13.D: City of Moreno Valley ~~2010~~2012 Employment Percentage by Sector (Revised)

Job Sector	Percentage of Employees
Other Services	3.6%
Construction	3.1%
Transportation/Warehousing/Utilities	2.7%
Wholesale	1.6%
Information	0.8%
Agriculture	0.3%
TOTAL	100%

Source: *Profile of the City of Moreno Valley,* Southern California Association of Governments, *http://www.scag.ca.gov/~~resources/pdfs/2011LP/Riverside/MorenoValley~~ Documents/MorenoValley.pdf,* date accessed ~~March 22, 2012~~February 7, 2014.

The jobs-to-housing ratio measures the extent to which job opportunities in a given geographic area are sufficient to meet the employment needs of area residents. This ratio identifies the number of jobs available in a given region compared to the number of housing units in the same region. For example, a region with a jobs-to-housing factor of 1.5 would indicate that 1.5 jobs exist for every housing unit within that region. The standard used for comparison is the jobs-to-housing ratio of the SCAG region, is currently 1.24 jobs for every household. This standard is used because most residents of the region are employed somewhere in the SCAG region. A City or sub-region with a jobs-to-housing ratio lower than the overall standard would be considered a "jobs poor" area, indicating that many of the residents must commute to places of employment outside the sub-area. Table 4.13.E shows the current and potential jobs/housing ratios for the City, Riverside County, and SCAG.

Table 4.13.E: Existing and Future Jobs/Housing Ratios1

	2011 Jobs/Housing Ratio	2035 Jobs/Housing Ratio
City	0.45	0.88
Riverside County	0.69	1.14
SCAG	1.14	1.29

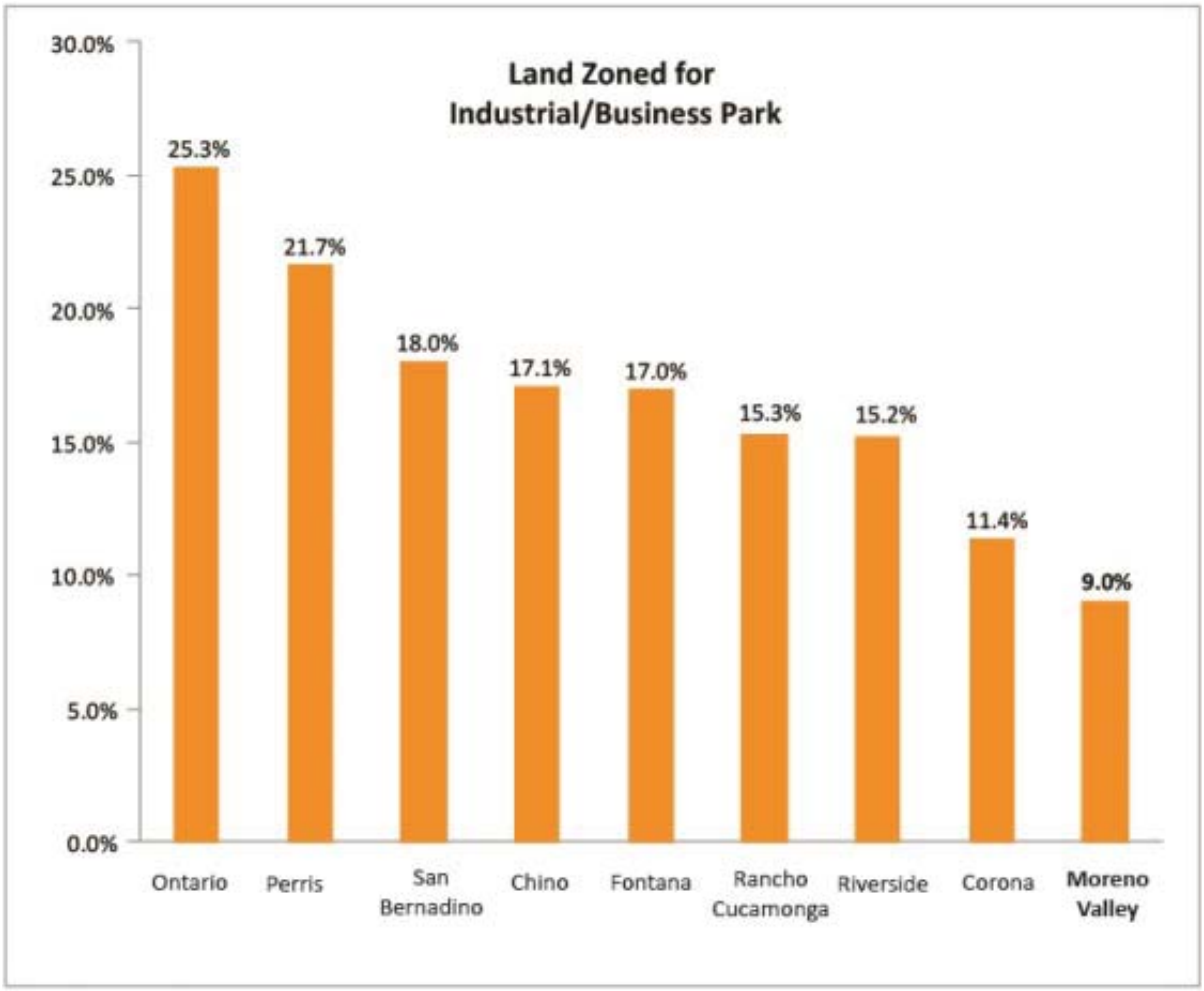
[1] Ratios calculated from values listed in Table 4.13.A

The ~~2010~~2011 estimated jobs-to-housing ratios for the City, County, and SCAG region are 0.45, 0.~~73~~69, and 1.14, respectively. The 2035 future jobs-to-housing ratios for the City, County, and SCAG region are 0.88, 1.14, and 1.29, respectively. These ratios indicate that both Riverside County and the City of Moreno Valley are "jobs poor" because the jobs-to-housing ratios are below the Southern California region (as defined by SCAG). The Husing Report presented to the City Council in January 2012 indicated that the jobs to housing ratio for Southern California had actually declined from 1.25 to 1.04 from 2007 to 2010 as a result of the economic downturn (Slide 7, Husing 2012).

A low jobs/housing ratio results in longer distances that residents of Moreno Valley must drive to and from work. This factor may contribute to the City's property values which are currently about half of the regional average (Source: *Profile of the City of Moreno Valley*, SCAG, May~~2011~~ 2013). For example, the median home sales price in Moreno Valley in 2010 was $155,000 compared to the regional average of $291,000. One result of a jobs/housing imbalance is a weaker or lower tax base with which to support public services. The City also experiences a large "leakage" of potential sales tax revenue due to the resident workers' absence during workdays, as well as the lack of business and industry taxes compared to other jurisdictions of similar size.

4.13.1.4 City Economic Conditions

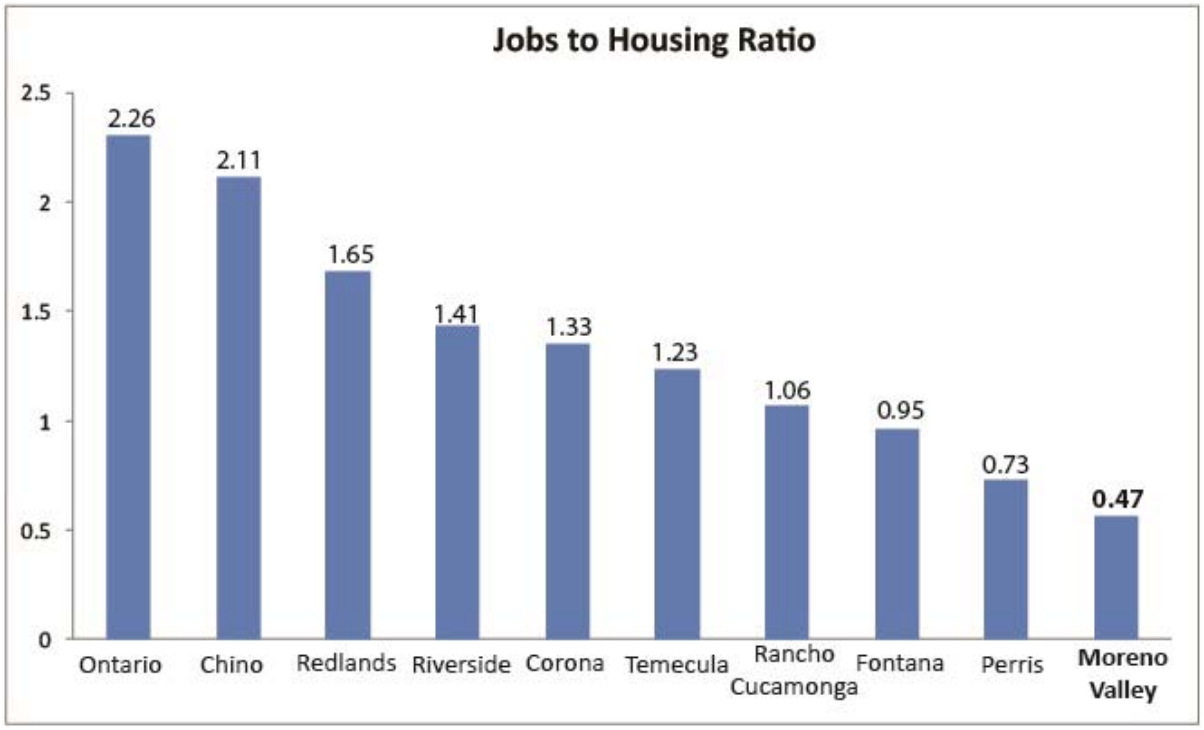
Moreno Valley is Riverside County's second largest city with a population of nearly 200,000 people (2012) and a land area of more than 50 square miles. The City incorporated in 1984. The majority of the land in the City was designated for residential development. Over the years, the plan for Moreno Valley has remained overwhelmingly residential in character. Little of the City's area (approximately 9%) is allocated for job producing land uses today. More than 90 percent of the City is designated for non-commercial land uses such as residential, open space and parks[1]see figure below:



Comparison of Land Zoned for Industrial/Business Park
(Moreno Valley Economic Development Action Plan, 2011)

Moreno Valley has less than one job for every two homes (0.47), which is about one-third of Riverside's rate and about one-fifth of Ontario's, see figure below:[2]

[1] City of Moreno Valley Economic Development Action Plan, 2011
[2] SCAG City Profiles, May 2013; Fiscal and Economic Impact Study, David Taussig & Associates, September 2014



Comparison of Jobs to Housing Ratios *(SCAG City Profiles, May 2013; Fiscal and Economic Impact Study, David Taussig & Associates, 2014)*

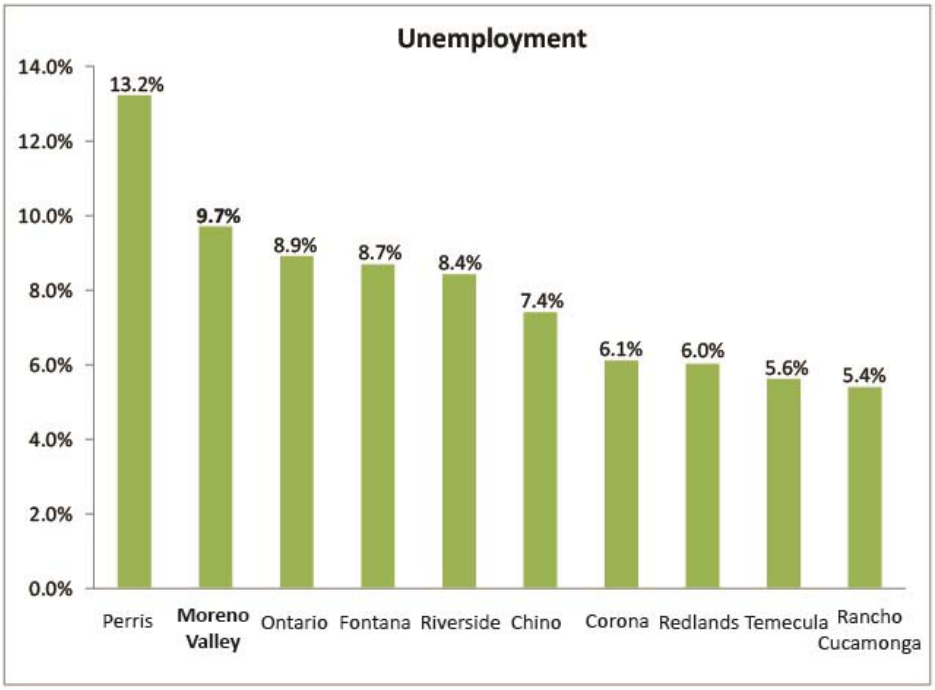
This has created a significant jobs-housing imbalance which resulted in chronically difficult economic and social conditions. As a result, a large majority of Moreno Valley's workforce commutes to jobs outside the City, with an average daily commute of 76 minutes.[1] The City has a very limited tax base from which to generate tax dollars to fund expensive residential services. In 1996, the City enacted a utility tax to offset operational deficits resulting from the slowdown in residential development and the development fees which they provided.

> *"The city became burdened with too much residential development, which does not generate enough property tax revenue to pay for the city services such development demands. Every new home constructed drained the city's coffers over time, and the city needed the more lucrative tax base of commerce and industry—which hasn't developed—to make up the difference." Los Angeles Times, October 28, 1996*

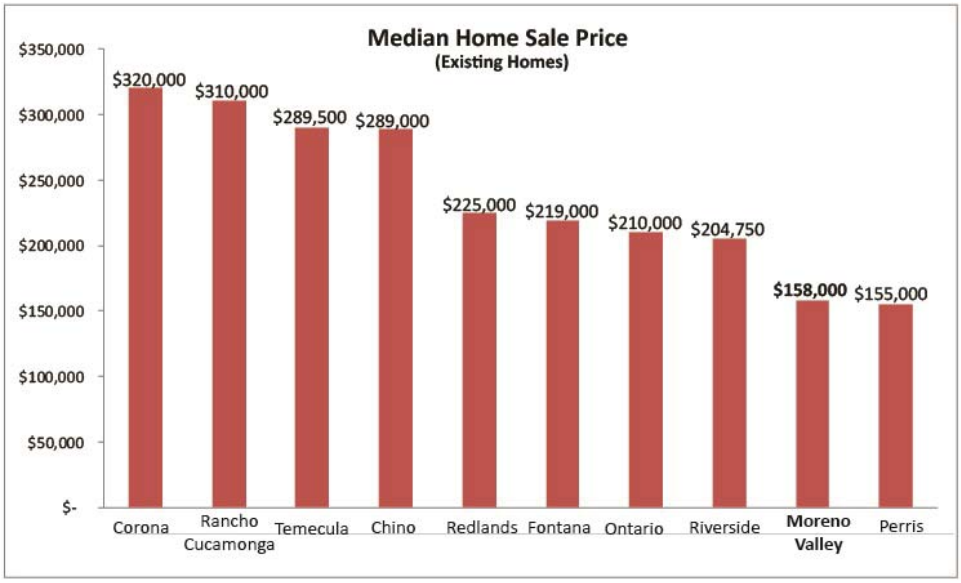
Average household income in Moreno Valley is $56,000, well below the Riverside County average. Nearly one person in five or 20 percent of Moreno Valley is living below the poverty level.[2] Fifty percent of the population has a high-school education or less and Moreno Valley has one of the highest high-school drop-out rate in the county.

Unemployment in Moreno Valley remains the highest in the region at 9.7 percent[3] and median house prices are among the lowest in the Inland Empire at $158,000.[4] See figures below:

[1] SCAG, Profile of the City of Moreno Valley, May 2013
[2] Husing, Press Enterprise Letter to the Editor, May 15, 2014
[3] California Employment Development Department, April 2014
[4] *(SCAG City Profiles, May 2013)*



Comparison of Unemployment Rates *(Monthly Labor Force Data for Cities, California Employment Development Department, April 2014)*



~~Figure 1.5:~~ Comparison of Median Home Sale Prices
(SCAG City Profiles, May 2013)

In April of 2011, the City adopted a 2-year Economic Development Action Plan as a short-term and long-term approach to the difficult economic conditions facing the City. The logistics and healthcare industries were identified as the two primary areas of opportunity for the City. The Action Plan focused on five areas of opportunity in the City and established key initiatives for each one. In April 2013 the City conducted additional public hearings and adopted a 3-year Action Plan which established fourteen objections aimed at increasing the City's overall economic development efforts

and expanded these efforts to nine areas in the City. The World Logistics Center project is identified as one of the Action Plan's goals for eastern Moreno Valley. The World Logistics Center project directly responds to the City's Action Plan, representing a major shift in the City's approach to long-range community planning and economic stability.

4.13.1.5 Economic ~~Conditions~~ Assessment Factors

The *Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California* (David Taussig & Associates, Inc. (DTA), 2014) prepared for the proposed WLC project evaluates the likely fiscal and economic impacts of the proposed WLC project within the City. The following information is from the Executive Summary of the DTA study:

> *The purpose of the study is to estimate the net fiscal impacts of the proposed WLC project and construction of the project on the City's General Fund. The fiscal impacts identified in the study include recurring municipal revenues and costs to the City General Fund that result from the land use scenario analyzed. City General Fund revenues are generated from a variety of sources including property taxes, sales taxes, fees, and fines. Costs to the City's General Fund are associated with a variety of services, such as police protection, fire protection, public works maintenance, and general government services. While the City also expends revenues from a series of other special funds outside of the General Fund, these revenues include a Moreno Valley Library property tax, Community Services District and Community Facilities District assessments and special taxes, and various enterprise funds. As these revenues are generally equal to the cost of the services that they finance, they are essentially break-even and are not typically included in a fiscal analysis for a municipality. As a result, most fiscal analyses focus on the General Fund, where any shortfalls or surpluses can be easily identified, and such is the case for this Study.*
>
> *However, in preparing the World Logistics Center's (the Center) fiscal analysis, DTA did notice certain anomalies occurring related to the Moreno Valley Fire property tax, in that the revenues generated by this special fund appear to be greater than the fund's expenditures on fire services to be provided by the City to the Center. While the projected fiscal surplus generated by the Moreno Valley Fire property tax fund was not included in the General Fund analysis, DTA felt that a brief discussion of this revenue source within the text of the Study would better inform the public regarding the entire fiscal impact of the Center on the City.*
>
> *The fiscal analysis focuses on the impacts of the Center on the General Fund if it were built during fiscal year 2012-13, based on cost and revenue criteria and assumptions existing during that fiscal year. As is the case for most General Fund fiscal analyses, it would be speculative to Fiscal & Economic Impact Study May 21, 2014 World Logistics Center – City of Moreno Valley Page II project future cost and revenue factors because there is no certainty regarding what those factors will be. For example, while the City will be increasing its annual costs as it eliminates a furlough program that it established during the Great Recession, the Center itself is expected to generate additional revenues in future fiscal years due to increases in logistics facilities property values above the $90 per square foot assumed in the Study. Based on a recent appraisal prepared by Coldwell Banker, the Center site's property valuation has already increased by more than 10%. Assumptions made regarding the relative levels of cost and revenue increases for factors such as these in future years would typically create a bias in the fiscal analysis that could in itself invalidate the results of the Study.*

The DTA study also identifies the general economic impacts on the City that would occur and quantifies these impacts wherever possible. General economic impacts include additions to the City's employment, economic output, and earnings. The study also distinguishes between one-time impacts and permanent impacts. One-time impacts include benefits to the City that occur on a non-recurring

basis as a result of construction activity, while permanent impacts refer to benefits that occur on a continuing basis, year after year. An examination of these conditions relative to potential population, housing and employment impacts is provided in Section 4.13.5.1, *Population Growth*.

4.13.1.6 NOP/Scoping Comments

A representative of a conservation group and several individuals said the EIR should address the loss or transfer of 7,700 housing units from the Moreno Highlands Specific Plan to other locations in the City. Some residents commented that fiscal commitments by the City on other local projects by this developer have resulted in expenditures of funds that could otherwise have been used for City services. It should be noted the analysis of this change was largely addressed in the updated (2011) Housing Element that recognized the Moreno Highlands Specific Plan would probably not be built.

4.13.2 Existing Policies and Regulations

4.13.2.1 Federal Regulations

The Federal Community Development Block Grant (CDBG) monies are part of Federal housing assistance programs at the local level. Housing and Urban Development (HUD) and CDGB monies are a function of the potential change in the jobs and housing mix (http://www.hud.gov/offices/cpd/about/conplan/). The HUD's Office of Community and Planning Development's (CPD's) Consolidated Plan is designed to help states and local jurisdictions to assess their affordable housing and community development needs and market conditions, and to make data-driven, place-based investment decisions. The consolidated planning process serves as the framework for a communitywide dialogue to identify housing and community development priorities that align and focus funding from the four CPD formula block grant programs: the CDBG, the HOME Investment Partnership (HOME), the Emergency Solutions Grant (ESG) program, and the Housing Opportunities for Persons with AIDS (HOPWA) program.

CPD Maps is an online data mapping tool for place-based planning. Grantees and the public can use CPD Maps to analyze and compare housing and economic conditions across their jurisdictions. The CPD Maps tool is publicly available, giving all community stakeholders access to the same data. The Consolidated Plan template allows grantees to insert maps and data tables from CPD Maps with ease, throughout their plans.

4.13.2.2 State Regulations

The Regional Housing Needs Assessment (RHNA) is mandated by State Housing Law as part of the periodic process of updating local housing elements of the General Plan. The RHNA quantifies the need for housing within each jurisdiction during specified planning periods. The most recently completed RHNA planning period is January 1, 2006, to June 30, 2014. Due to the requirements of SB 375, SCAG is preparing the next RHNA planning cycle, which will cover October 1, 2013, to September 30, 2021.

4.13.2.3 Regional and Local Regulations

County of Riverside Housing and Land Use Policies. The Housing Element is one of the seven General Plan elements mandated by the State of California as articulated in Sections 65580 and 65589.8 of the Government Code. Each city and county is required to discuss how it will meet its fair share of the housing need in the State.

The County of Riverside has a relevant policy in the Land Use Element of the County General Plan. To support future growth of the population and housing stock in the County of Riverside, the Land Use Element contains policies to ensure adequate utilities for new development (County of Riverside 2003). Specifically the policy LU 1.6 states…"Coordinate with local agencies, such as the Local Agency Formation Commission (LAFCo), service providers, and utilities to ensure adequate service provision for new development."

City of Moreno Valley General Plan. The City's General Plan Chapter 9 (Goals and Objectives) establishes goals and objectives to guide the development, redevelopment, and preservation of a balanced housing inventory within the City. Specific policies relevant to the proposed WLC project include:

Objective 2.5 Promote a mix of industrial uses which provides a sound and diversified economic base and ample employment opportunities for the citizens of Moreno Valley with the establishment of industrial activities that have good access to the regional transportation system, accommodate the personal needs of workers and business visitors; and which meets the service needs of local businesses.

Goal 2.2 An organized, well-designed, high quality, and functional balance of urban and rural land uses that will meet the needs of a diverse population, and promote the optimum degree of health, safety, well-being, and beauty for all areas of the community, while maintaining a sound economic base.

Goal 2.4 A supply of housing in sufficient numbers suitable to meet the diverse needs of future residents and to support healthy economic development without creating an oversupply of any particular type of housing.

4.13.3 Methodology

To determine the potential for impacts related to population and housing, the current uses, overall condition of the project site, historic and current population and housing characteristics, and future projections for population, housing, and employment were identified. This analysis is based on data published by the DOF and SCAG, as well as information presented in the City's General Plan and the County of Riverside General Plan.

As identified in the study prepared by David Taussig & Associates, Inc. (DTA), fiscal impacts arising from a land development project can be broadly categorized as one of two types: one-time and recurring impacts. Each of these broad types can be divided into a revenue component and a cost component. The study assumes that one-time revenues would directly offset one-time costs; therefore, the fiscal impacts considered focus on ongoing, or recurring, fiscal impacts of the proposed WLC project on the City's General Fund. Revenues generated outside of the City's General Fund (e.g., special district revenue) or costs incurred by the City outside of the General Fund (e.g., costs financed through a special district) are not included in this analysis.

This methodology involves calculating the average citywide revenues/costs per Persons Served,[1] utilizing the fiscal year 2012–2013 City budget, and applying these revenue/cost factors to the specific number of Persons Served projected for the proposed WLC project. For analysis purposes, all recurring revenues and costs are stated in constant (uninflated) 2012 dollars based on the assumption that the relative impacts of inflation in future years will be the same for both of these fiscal impact categories.

[1] A service population comprising all residents and 50% of employees.

Direct economic impacts reflect the initial or first-round increases in jobs, earnings, and output, all of which occur directly on site. Indirect/induced economic impacts are the secondary and other additional rounds of economic activity that occur as a consequence of the direct impacts, and can occur elsewhere within the City. The indirect impacts represent the economic activity (buying and selling of goods and services) of suppliers to the proposed land uses. The induced impacts represent the economic activity that results from household spending by employees of all companies directly and indirectly affected by the construction and operation of the proposed WLC project. The study estimated the number of direct employees in the proposed WLC project based upon an average employee per square foot ratio for similar land uses in the region. Additionally, all economic impacts are stated in constant (uninflated) 2012 dollars, based on the assumption that the relative impacts of inflation in future years may be difficult to gauge.

4.13.4 Thresholds of Significance

The following thresholds of significance regarding potential impacts related to population and housing are based on *CEQA Guidelines* (2011). A project would have a significant impact on population and housing if it would:

- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure);
- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure) that may lead to fiscal or economic impacts;
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere; and/or
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

4.13.5 No Impact/Less than Significant Impacts

4.13.5.1 Population Growth

Threshold	Would the proposed WLC project induce substantial population growth in an area, either directly (e.g., new homes and businesses) or indirectly (e.g., extension of roads and infrastructure)? Would the proposed WLC project induce substantial population growth in an area, either directly (e.g., new homes and businesses) or indirectly (e.g., extension of roads and infrastructure) that may lead to fiscal or economic impacts?

Growth-Related Impacts. CEQA requires a discussion of ways in which the proposed WLC project could be growth inducing (see also Section 5.0, *Other CEQA Topics*). The *CEQA Guidelines* identify a project as growth inducing if it fosters economic or population growth, or the construction of additional housing either directly or indirectly in the surrounding environment (*CEQA Guidelines* Section 15126.2[d]). New employees from commercial or industrial development and new population from residential development represent direct forms of growth. These direct forms of growth have a secondary effect of expanding the size of local markets and inducing additional economic activity in the area.

A project could indirectly induce growth by reducing or removing barriers to growth, or by creating a condition that attracts additional population or new economic activity. However, a project's potential to induce growth does not automatically result in growth. Growth can only happen through capital investment in new economic opportunities by the private or public sectors. Under CEQA, growth inducement is not considered necessarily detrimental, beneficial, or of little significance to the environment. Typically, the growth-inducing potential of a project would be considered substantial if it fosters growth or a concentration of population in excess of what is assumed in pertinent master plans, land use plans, or in projections made by regional planning agencies (e.g., SCAG). Substantial growth impacts could also occur if a project provides infrastructure or service capacity to accommodate growth beyond the levels currently permitted by local or regional plans and policies. In general, growth induced by a project is considered a significant impact if it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth significantly affects the environment in some other way.

A project could indirectly induce growth at the local level by increasing the demand for additional goods and services associated with the increase in project population and thus reducing or removing the barriers to growth. This occurs in suburban or rural areas where population growth results in increased demand for service and commodity markets responding to the new population. This type of growth is, however, a regional phenomenon resulting from introduction of a major employment center or regionally significant housing project. Additional commercial uses may be drawn to the area by the increased number of residents in the area as a result of a project; however, it is expected that any such development would occur consistent with planned growth identified in the General Plan or applicable specific plans.

As shown in previously referenced Tables 4.13.A and 4.13.B, the City's population has grown steadily over the past decades. Population projections developed by SCAG estimate the City's population will reach approximately 213,700 persons by the year 2020 and approximately 255,200 persons by the year 2035.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

The extent to which the new jobs created by a project are filled by existing residents is a factor that tends to reduce the growth-inducing effect of a project. Construction of the proposed WLC project will create short-term construction jobs. These short-term positions are anticipated to be filled by workers who, for the most part, reside in the project area; therefore, construction of the proposed WLC project will not generate a permanent increase in population within the project area. Development envisioned under the proposed WLCSP consists of approximately ~~41~~40.6 million square feet of logistics warehouse and general warehouse facilities (WLCSP, September 2014).

An economic study of the project prepared by DTA concluded that the proposed WLC project could directly generate up to ~~24,642~~20,300 new jobs within the City.[1] In addition to the projected on-site job creation, the DTA study estimates the proposed WLC project could generate new off-site jobs (i.e., indirect/induced employment) in all industries of the economy. The DTA study also estimated that an additional 7,~~583~~386 indirect/induced jobs could be created in the County, of which 3,~~792~~693 jobs were projected to be within the City as a result of project implementation. This estimate is derived from the Impact Analysis for Planning (IMPLAN) Input/Output Modeling System, which is a quantitative economic model that provides an approximate measure of the "multiplier effect" of a firm's spending on payroll and purchase of goods and services. While the specific location of the potential additional indirect/induced jobs created within the County cannot be specifically determined,

[1] Table B, Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California (David Taussig & Associates, Inc., ~~October 11, 2012~~September 2014.

it is reasonable to assume that some percentage of these jobs will be support service jobs and are likely to be located in the proposed WLC project vicinity, and therefore the City.

The WLC project does not include a residential component. The proposed WLC project is located within an area that is currently largely vacant and planned for mix of residential, commercial, business park, and open space land uses in accordance with the General Plan Community Development Element. The proposed WLC project includes a General Plan Amendment to change the existing mix of land use designations to Logistics Development and Light Logistics.

If approved, the WLCSP would supplant the approved Moreno Highlands Specific Plan (MHSP) project that did have a residential component. The EIR for that project indicated it would have increased the City's population by 17,019 persons over 15 years (7,736 units × 2.2 persons/unit). However, because the City is considered housing rich (and jobs poor) by SCAG, the loss of that projected population growth is not considered a significant impact and, in fact, a number of State policies (e.g., SB 375) encourage the creation and development of jobs-producing development in areas with poor jobs/housing numbers such as that which exists in the City.

Most of the site has been used for dry farming since the early 1900s and much of the proposed WLC project site continues to be used for dry farming at the present time. Currently, there are seven single-family homes in various locations on the property along with associated ranch/farm buildings. Streets, water and sewer utilities, and municipal services would be extended to serve the proposed WLC project. The proposed WLC project may benefit other development projects in the project area by the installation of infrastructure (e.g., roads and utilities), but is not expected to induce substantial population growth into the area since there would be no large areas of vacant land left in the east end of the City (south of SR-60) that could be developed with residential uses.

Development of high-cube logistics warehouse and general warehouse facilities will create jobs in the local economy. However, it is difficult to predict exactly how many new jobs would be generated by the proposed WLCSP. One concern expressed during the NOP/scoping period was the amount of new employment that would actually be generated by the WLC project. Table 4.13.F provides several sources for estimating potential new direct employment for the proposed project, which could range from ~~13,714~~ 16,240 to ~~24,642~~21,315 jobs, depending on what data source is selected to predict future employment within the WLCSP.

NOTE: The following changes to the table have been made due to revision to the Specific Plan project size and to clarify the discussion on projected jobs by the Skechers and HF Corporate Park.

Table 4.13.F: Comparison of Direct Employment Projections for Other High-Cube Logistics Projects (Revised)

Source/Project (Jurisdiction)	Jobs / 1000 ft^2)	Square Feet/ Employee	Square Feet of Building	Projected Direct Jobs
World Logistics Center[1] Specific Plan (City of Moreno Valley)	0.5:1,000	2,000:1	40,600,000	20,300
Stratford Ranch[3] (City of Perris)	0.4:1,000	2,500:1	1,712,880	685
Skechers Only (City of Moreno Valley)	0.5:1,000	2,000:1	1,820,000	910[4]
Husing Logistics Report[5] (City of Moreno Valley)	0.525:1,000	1,906:1	NA	NA
Vogel Industrial Project[6] (City of Moreno Valley)	0.4:1,000	2,500:1	1,616,133	646

Table 4.13.F: Comparison of Direct Employment Projections for Other High-Cube Logistics Projects (Revised)

Source/Project (Jurisdiction)	Jobs / 1000 ft^2)	Square Feet/ Employee	Square Feet of Building	Projected Direct Jobs

[1] DTA Public Works Database; confirmed by "Employment Density Study," SCAG (2001), and "Logistics Trends and Specific Industries," NAIOP Research Foundation (March 20110).
[3] Inland Empire Distribution Center Operations Profile, WCL Consulting, June 10, 2008. 2,500 square feet per employee is an average of the Inland Empire rates.
[4] Total projected direct employment.
[5] From Husing report to the City Council in January 2012 based on 2003 study by U.S. Energy Information Agency shipping and distribution centers increase by 5% making it 1 employee/ 2,000 square feet.
[6] Inland Empire Distribution Center Operations Profile, WCL Consulting, June 10, 2008. 2,500 square feet per employee is an average of the Inland Empire rates.

It should be understood that the actual eventual number of employees generated by the project will vary ~~from under 15,000 to almost 25,000 employees,~~ depending on a variety of economic factors (e.g., actual companies that relocate and current hiring conditions). The projected employment estimate also does not take into account relocation of existing employees from other jurisdictions as a result of existing businesses relocating into the WLC project. However, these would be counted as "new" employees for the City of Moreno Valley. For the purposes of this analysis, the EIR ~~24,642 employees or one employee per 2,000 square feet as a "worst-case" estimate (in terms of environmental impacts) for future employment growth from WLCSP development. However, Table 4.13.F indicates that actual employment generated by the project may be as low as 13,714 employees, based on current employment at the nearby Skechers facility. It should be noted the Skechers employment numbers may be low due to currently poor economic conditions in the region and higher employment numbers should also be seen as a positive in terms of benefits to the economy and City residents, in addition to representing a "worst-case" condition relative to environmental impacts. The DTA fiscal impact study prepared for the project also indicated WLC could also induce an additional 3,792 indirect and induced jobs into the community (in addition to the 24,642 direct jobs). In addition, Skechers is just one warehouse project, and the following information uses a variety of warehousing projects to estimate employment generation.~~ will use 20,300 employees working at the WLC or one employee per 2,000 square feet as a conservative estimate (in terms of environmental impacts) for future employment growth from WLCSP development.

The new employment opportunities resulting from development of the proposed high-cube logistics warehouse and general warehouse uses will raise the City's current jobs-to-housing ratio by providing additional jobs to local residents. While the place of residence of the persons accepting employment provided by the proposed uses is uncertain, due to the City's projected jobs/housing ratio, it is reasonable to assume and therefore expect that some percentage of these jobs would be filled by persons already living within the City or project area. Therefore, no significant increase in population of the City would result from the development or operation of the proposed WLC project, resulting in a less than significant impact associated with growth inducement and no mitigation is required.

The second threshold for significance is "Would the proposed WLC project induce substantial population growth in an area, either directly (e.g., new homes and businesses) or indirectly (e.g., extension of roads and infrastructure) that may lead to fiscal or economic impacts?" In that regard, the following provides an analysis of the projected fiscal effects of the proposed WLCSP project.

Indirect City Population Impacts Related to Fiscal and Economic Changes. If the MHSP project is not built, it could be argued the City may experience a financial impact from the loss of property tax, sales tax, and other revenues related to growth and development. The following analysis demonstrates that the City will benefit financially by employment and development of logistics warehousing as a result of the WLCSP project.

As detailed in the DTA study, recurring municipal revenues available to the City include those listed in Table 4.13.G. Total recurring revenues available to the City are estimated at approximately ~~$11,279,981~~ $11,257,466 per year. As shown in Table 4.13.G, the greatest percentage of revenue is attributed to the Property Tax In-Lieu of Vehicle License Fee (40.2%), followed by Secured Property Tax (29.1%), and Business Receipts Tax and Licenses (10.8%).

Table 4.13.G: Recurring Fiscal Revenues City of Moreno Valley (City General Fund) (Revised)

Source	Amount	Percent[1]
Property Tax In-Lieu of Vehicle License Fee	$ 4,522,818	~~40.1%~~ 40.2%
Secured Property Tax	$ 3,276,191	~~29.0%~~ 29.1%
Business Receipts Tax & Licenses	$ 1,210,847	~~10.7%~~ 10.8%
Tax Revenues ~~(UUT & TOT)~~	$ 607,657	5.4%
Indirect Sales Tax	$ 423,144	3.8%
Charges for Services	$ 386,032	3.4%
Unsecured Property Tax	$327,619	2.9%
Franchises	$ 251,896	2.2%
Property Transfer Tax	$ 100,495	0.9%
Intergovernmental Revenues	$ 60,918	0.5%
Licenses/Permits	$ 57,771	0.5%
Direct Sales Tax	6,000	0.1%
~~Investment Income~~	~~$ 22,515~~	~~0.2%~~
Other Revenues	$ 12,285	0.1%
Fines and Forfeitures	$ 6,498	0.1%
Transfers In	$ 3,757	0.0%
Use of Money & Property	$ 2,538	0.0%
Total	**~~$ 11,279,981~~** **$ 11,257,466**	**100.0%**

[1] Numbers may not sum correctly due to rounding to the nearest hundredth.
Source: Table 3A, Fiscal and Economic Impact Study World Logistics Center Moreno Valley, David Taussig and Associates, ~~February 5,~~September 2014.

Recurring municipal services costs to the City include those listed in Table 4.13.H. Total recurring costs to the City are estimated at approximately ~~$5,474,587~~ $5,557,674 per year. As shown in Table 4.13.H, the greatest percentage of cost is attributed to the Police Services (~~36.7~~35.8%), followed by Infrastructure and Parks Maintenance Costs (~~32.6~~34.1%), and Fire Services (13.~~6~~3%).

Table 4.13.H: Recurring Fiscal Costs City of Moreno Valley (City General Fund) (Revised)

Source	Amount	Percent[1]
Police	$ 1,992,019	~~36.4%~~ 35.8%
Infrastructure & Parks Maintenance Costs	~~$ 1,818,411~~ $ 1,895,474	~~33.2%~~ 34.1%
Fire Services	$ 739,545	~~13.5%~~ 13.3%
General Government	~~$ 385,871~~ $ 391,715	7.0%
Development Services	$ 211,893	~~3.9%~~ 3.8%

Table 4.13.H: Recurring Fiscal Costs City of Moreno Valley (City General Fund) (Revised)

Source	Amount	Percent[1]
Public Works	$ 109,551	2.0%
Transfers Out	$ 63,761	~~1.2%~~ 1.1%
Other Uses	$ 63,659	~~1.2%~~ 1.1%
Animal Services	$ 47,719	0.9%
Community Development	$ 42,338	0.8%
Total	**~~$ 5,474,767~~** **$ 5,557,674**	**100.00%**

[1] Numbers may not sum correctly due to rounding to the nearest hundredth.
Source: Table 3B, Fiscal and Economic Impact Study World Logistics Center Moreno Valley, David Taussig and Associates ~~February 5~~September, 2014.

Table 4.13.I provides an overall summary of the fiscal impact to the City based on projected revenues generated by the proposed WLC project. As shown in Table 4.13.I, project recurring annual fiscal surplus that would be available to the City is estimated at ~~$5,805,214~~ $5,699,792, which is equal to 2.03 times the project annual City General Fund costs.

Table 4.13.I: Net Fiscal Impact City of Moreno Valley (City General Fund)

Category	Amount
Total Recurring Revenues	~~$ 11,279,981~~ $ 11,257,466
Total Recurring Costs	~~$ 5,474,767~~ $ 5,557,674
Annual Recurring Surplus/(Deficit)	**~~$ 5,805,214~~** **$ 5,699,792**
Total Annual Revenue/Cost Ratio	~~2.06~~ 2.03

Source: Table 3C, Fiscal and Economic Impact Study World Logistics Center Moreno Valley, David Taussig and Associates ~~December 11, 2013~~ September 2014.

Table 4.13.J presents the project characteristics that are the basis for the fiscal impact assessment. The locations of the additional indirect jobs that will be created within the County cannot be specifically determined; however, some percentage of these jobs will be support service jobs and are likely to be located in the general project vicinity. Based on experience with similar types of projects, DTA estimated that half of these indirect jobs would be located within the City. The study also considers Total Output (i.e., total expenditures including sales or gross receipts, or other operating income) based on the different types of development projected to occur. For gross receipts, the study considers the initial or first-round increase in output (e.g., total spending/gross receipts, including payroll), all of which would occur directly on site. Indirect impacts represent the economic activity of supplier and/or supporting businesses. Induced impacts represent the economic activity that results from household spending by employees that may result from direct and direct employment generation of the proposed WLC project.

NOTE: The following changes to the table have been made due to revision to the Specific Plan project size.

Table 4.13.J: Project-Related Economic Characteristics (Revised)

Land Use Assumptions	Square Feet
Logistics Development (LD)	~~40,600,000~~ 40,397,000
Light Logistics (LL)	200,000
"logistics support" fueling station	3,000
Employment Assumptions[1]	**Employees Per 1,000 Square Feet**
Logistics (LD/LL)	0.50
Retail ("light logistics")	2.50
Wage Assumptions[2]	**Annual $**
Warehousing/Transportation (Logistics)[3]	$ 40,926
Construction	$ 48,825
Retail ("light logistics" fueling station)[4]	$22,885
Riverside County Average (2010)	$ 40,602

1 Source: DTA Public Works Database; confirmed by "Employment Density Study," SCAG (2001), and "Logistics Trends and Specific Industries," NAIOP Research Foundation (March 20110).
2 Source: U.S. Census Bureau, Longitudinal Employer-Household Dynamics Reports (California, 2010) for Riverside-San Bernardino-Ontario Metropolitan Area and Riverside County; confirmed by Bureau of Labor Statistics (May 2010).
3 Standard Warehousing/Transportation Salary ($41,229) plus a small salary increase for 10% of employees to account for presence of high-level management and related office personnel.
4 Reflects blended average by employee count of local "retail" and "food service/accommodation" salary codes

Source: Table 4A, Fiscal and Economic Impact Study World Logistics Center Moreno Valley, David Taussig and Associates ~~February 5,~~ September 2014.

As previously noted, potential economic impacts that may occur with project implementation include permanent employment (direct on site and indirect/induced), permanent output (gross receipts; total direct output plus output produced by suppliers and employee spending), and one-time construction impacts. Table 4.13.K summarizes the permanent (recurring) employment, wage, and gross receipts values associated with the proposed WLC project.

Table 4.13.K: Project Permanent (Recurring) Employment, Wages ,and Gross Receipts (Revised)

Recurring Impact	Direct	Indirect/Induced	Total
Employees			
Countywide	20,307	7,387	27,693
Within City	20,307	3,693	24,000
Employee Wages			
Countywide	$831 Million	$ 300 Million	$ 1.13 Billion
Within City	$ 831 Million	$150 Million	$ 981 Million
Overall Output			
Countywide	$1.5 Billion	$ 870 Million	$2.37 Billion
Within City	$1.5 Billion	$435 Million	$1.94 Billion

Source: Tables 4B and 4C, Fiscal and Economic Impact Study World Logistics Center Moreno Valley, David Taussig and Associates ~~February 5,~~ September 2014.

The DTA study indicates that the creation of new jobs to the City will lead to more consumer spending by employees in existing retail establishments within the City, as well as new retail development that will be attracted to the City as a result of this spending. Job creation also results in increased tax revenues to the City through increased property taxes and sales taxes associated with development

of the proposed WLC project. However, it is important to note that because of the difference in timing of the development of the various phases of the proposed WLC project, the number of employees summarized above will not be realized at the same time.

Table 4.13.L summarizes the construction (one-time) employment, wages, and gross receipts values associated with the proposed WLC project.

Table 4.13.L: Project Construction (One-Time) Employment and Wages and Gross Receipts (Revised)

Recurring Impact	Direct	Indirect/Induced	Total
Construction Employees			
Countywide	12,807	7,426	20,233
Within City	12,807	3,714	16,521
Construction Wages			
Countywide	$625 Million	$301 Million	$ 927 Million
Within City	$625 Million	$151 Million	$776 Million
Total Output from Construction Jobs			
Countywide	$ 1.67 Billion	$ 932 Million	$ 2.6 Billion
Within City	$ 1.67 Billion	$ 466 Million	$ 2.14 Billion

Source: Tables 4D and 4E Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California, David Taussig and Associates, ~~February 5,~~September 2013.

As summarized in Table 4.13.L, development of the proposed WLC project is projected to create approximately 16,~~935~~521 construction-related full-time equivalent (FTE) jobs within the City. Similar to recurring employment (i.e., permanent), it is likely that some percentage of these jobs will be associated with support services and are likely to be located in the vicinity of the proposed WLC project and therefore within the City.

The proposed WLC project does not include a residential component, so it would not directly generate additional new housing. Employees of the project that choose to live in the City would likely utilize the existing supply of housing within the City.

Based on the potential increase in jobs (additional ~~24,642~~20,307 direct jobs) within the City and no substantial increase in population as a result of the project, the City's jobs-to-housing ratio would improve from the existing (~~2010~~2011) ratio of 0.45 to ~~1.02~~0.82, thus achieving a greater jobs-to-housing balance within the City. Similarly, the potential new County employees that may be generated by the proposed WLC project would increase the total County employment to ~~585,531~~571,799 from 551,492 resulting in a ratio of 0.~~75~~71 from 0.~~70~~69.

As development of the proposed WLC project is expected to occur over the course of many years, the jobs-to-housing ratio will not significantly change immediately. The City's current jobs-to-housing ratio is exceptionally low when compared to SCAG standards; therefore, the need for employment is immediate. A balance between jobs and housing within the City would have a positive impact by decreasing costs associated with commuting and traffic congestion. It also provides savings to consumers in the operation and maintenance of automobiles, and saving to local public agencies in terms of the need to construct and maintain new road improvements.

Summary of Impacts. Based on the foregoing discussion and as evidenced in Tables 4.13.I, 4.13.K, and 4.13.L, implementation of the proposed WLC project would not result in a deficit in the City's General Fund. The estimated surplus is ~~$5,805,214~~ $5,699,792, which is equal to 2.~~08~~03 times the

projected annual City General Fund costs. Additionally, the proposed WLC project is expected to generate sizeable, substantial, and lasting employment, wages, output, and revenues for the City and region. Therefore, potential fiscal and economic changes that could affect the City's population or housing are considered to be less than significant, and no mitigation is required.

4.13.5.2 Displace Substantial Housing/People

Threshold	Would the proposed WLC project displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere?

Displace Existing People/Housing. The WLC project site currently contains seven rural residences. At the City Council meeting on May 22, 2012, some of the existing residents stated that they did not want to be included in the Specific Plan. After deliberation, the Council decided to include the rural properties in the Specific Plan in the interest of comprehensive land planning for the WLC property. Upon approval of the Specific Plan, these properties can continue as non-conforming uses, and the WLC Specific Plan designates these properties as "Light Logistics" (LL), which allows for future industrial-related uses (vehicle storage, light assembly, etc.). In this way, the WLCSP will not remove or displace any of the existing residents or residences from the project site. As large warehouse buildings are developed near or adjacent to these residences, it may become less desirable to reside within the WLCSP area; however, the project itself does not cause housing displacement.

Therefore, impacts to the seven on-site residences would not be considered a significant housing impact. For these reasons, the WLCSP will not have significant population or housing impacts related to displacing substantial numbers of people or existing housing.

Displace Potential Future People/Housing. The City of Moreno Valley has been housing "rich" for many years, with much more housing stock than jobs according to data available from the SCAG. In addition, the recent economic downturn and related foreclosure/short sale conditions have left Moreno Valley, as with many housing rich communities, with an overabundance of housing stock. Section 4.10, *Land Use and Planning*, examines the potential environmental impacts related to the "loss" of 388 affordable housing units from the MHSP, as outlined in the City's 2011 Housing Element. The Element acknowledges that the MHSP property may have to be used for employment-generating uses, and that "land use changes with the Moreno Highlands Specific Plan area will not hinder the City's ability to meet its RHNA obligations."[1] The 2011 Housing Element therefore documents that the City has an abundant supply of housing and can meet its RHNA requirements without relying on any units from the MHSP.

During the NOP/scoping process, several residents commented that development of the proposed WLCSP would result in the loss of 7,700 housing units from the project site that would have to be "made up" elsewhere in the City. The 2006 City Housing Element identified a potential for 5,240 units of the potential 7,700 housing units in the Moreno Highlands Specific Plan. However, an updated Housing Element adopted by the City in February 2011 indicated the Moreno Highlands area would be rezoned to support employment-generating uses rather than housing. It also concluded that "pursuing any land use changes with the Moreno Highlands Specific Plan area will not hinder the City's ability to meet its RHNA obligations." The term RHNA refers to the Regional Housing Needs Allocation (affordable housing allocations) from the SCAG.

Table 8-19.5 in the 2011 Housing Element states that after removing sites south of SR 60 and east of Redlands Boulevard, the Amended Inventory throughout the City west of Redlands accommodates:

[1] Page 41, City of Moreno Valley Housing Element, February 2, 2011.

- 4,100 Low and Very Low Income units, which is 1.3 times the RHNA number (3,045) (deleting sites south of SR-60 and east of Redlands Boulevard has no effect on low and very low income housing opportunities);
- 2,600 Moderate Income units, which is 2.1 times the RHNA number (1,239);
- 7,828 Above Moderate Income units, which is 2.5 times the RHNA number (3,068); and
- 14,528 total identified units, which is 1.94 times the total RHNA number (7,474).

Therefore, removal of the 388 affordable units originally identified in the MHSP (Table 8-19, page 40 of the Housing Element), including 233 "Very Low" and 155 "Low" units, will not have a significant impact on the City's Housing Element or its ability to achieve its RHNA allocation.

The State Housing and Community Development Department (HCD) certified the City's Housing Element as compliant with State law on May 31, 2011. This State HCD certification reinforces the conclusion that approval of the proposed project will not impede the City's housing goals as set forth in the City's Housing Element.

In April 2011, the City adopted its Economic Development Action Plan, which also identified the eastern part of the City as a potential area for major job-producing land uses. The *Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California* ("Study") prepared by DTA in 2014 concluded that the proposed WLC project would generate 20,307 direct jobs/employees to the City. Section 4.10.5.3 determined that the proposed WLC project is consistent with the 2011 Housing Element, and it will not displace substantial numbers of existing housing or necessitate the construction of replacement housing elsewhere. Therefore, no significant displacement impacts relative to people or housing are expected to occur, and no mitigation is required.

4.13.6 Significant Impacts

Based on the analysis in Section 4.13.5, the WLC project will not have any significant impacts relative to population, housing, or employment. Therefore, no mitigation is required. However, in response to Comment F-8-94 and other related comments, the Final EIR Volume 1 recommends the City add the following ~~Condition of Approval~~text to the WLCSP Development Agreement approval with the concurrence of the applicant:

> "*Highland Fairview will establish a WLC Local Hiring Program to actively encourage the hiring of Moreno Valley residents for job opportunities at the World Logistics Center. Highland Fairview will encourage its contractors, suppliers and tenants to be active participants in a Moreno Valley Employment Resource Center (ERC) job opportunity announcement program.*
>
> *World Logistics Center employers will be encouraged to submit all job announcements to the Moreno Valley Employment Resource Center at least one week prior to providing such announcements to other agencies or to the general public. Potential employers will be urged to provide information regarding job opportunities to the ERC including details regarding job titles, minimum qualifications, application processes, and employer contact information."*
>
> ~~*After issuance of the first occupancy permit for development within the WLCSP, Highland Fairview shall conduct or fund a Local Hiring Center (LHC) for new employment opportunities within the WLCSP until such time as the Property Owners Association (POA) is established and operating, at which time the POA will take over management of the LHC. The LHC will make information on new construction, warehousing, or office jobs available to City residents on a regular basis and at least 48 hours before similar information id distributed on a regional basis. The LHC shall develop contact lists for new jobs with priority given to City of Moreno Valley*~~

~~*residents. The LHC shall make an annual report to the City Planning Division on its activity (number of contacts, methods of distributing job information, etc.).*~~"

4.13.7 Cumulative Impacts

The cumulative area for the discussion of population and housing impacts is the City of Moreno Valley. The proposed WLC project would require a General Plan Amendment and Zone Change to re-designate the site from a mix of land uses and zoning designations to Logistics Development and Public Utility land uses and a Specific Plan zoning designation. The project would not contribute to substantial population growth and therefore would not result in an increased demand on the current or future housing in the region. In addition, the Moreno Valley area is considered housing rich and jobs poor by SCAG, so the loss of population (and planned housing) would actually be a regional benefit according to the Regional Transportation Plan. The project may result in an influx of new workers who would need to locate temporarily or permanently in the area, but the City has an overabundance of existing housing stock due to current market conditions. Implementation of the proposed WLC project would actually benefit population and housing conditions relative to employment and jobs/housing ratio and, therefore, not result in cumulatively adverse impacts to population or housing. The WLC project would also not significantly induce growth into areas where growth was not previously anticipated since the WLC project area represents the last largest remaining vacant land in the City of Moreno Valley.

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4.14 PUBLIC SERVICES AND FACILITIES: TABLE OF CONTENTS

FIGURES

TABLES

NOTE TO READERS. *No major revisions have been made to this section in response to comments other than changes related to the revised Specific Plan.*

4.14 PUBLIC SERVICES AND FACILITIES

This EIR discussion includes an evaluation of police and fire services, as well as schools and parks. The analysis considers these public services in the proposed project vicinity and evaluates the impacts to service providers that would result from the construction and operation of the proposed uses as described in the Specific Plan. The analysis contained in this section is based on the following reference documents:

- City of Moreno Valley General Plan, City of Moreno Valley, July 11, 2006;
- City of Moreno Valley General Plan Final EIR, City of Moreno Valley, July 2006;
- Letter from Joel Ontiveros, Moreno Valley Police Department Chief, July 10, 2012;
- Letter from City Fire Chief Abdul R. Ahmad dated June 27, 2012;
- Moreno Valley School District website information on Developer Impact School Fees; and
- San Jacinto Unified School District website May 2012.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers ~~3,918~~ 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes ~~3,814~~ 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering ~~3,814~~. 3,714 acres, which redesignates approximately ~~71~~70 percent of the area (~~2,710~~ 2,610 acres) for logistics warehousing (new LD and LL~~, LS~~ zones) and the remaining ~~29~~30 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the ~~2,710~~ 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*. ~~The environmental impacts of all of these entitlements~~

~~on the entire project area are addressed in this EIR and the accompanying technical reports and analyses.~~

This section describes the existing public services within the City of Moreno Valley. The project site consists of the lands within the project boundaries and the project vicinity. The project vicinity consists of areas adjacent to the project site. This section differs slightly from other sections in that it is organized by the public service provider so continuity is maintained. Police Service is found in Section 4.14.1, Fire Protection is found in Section 4.14.2, Schools are found in Section 4.14.3, Parks are found in Section 4.14.4, and Cumulative Impacts are found in Section 4.14.5.

4.14.1 Police Protection

4.14.1.1 Existing Setting

The City of Moreno Valley contracts with the Riverside County Sheriff's Department (RCSD) for police services. Through this contract, the RCSD staffs the Moreno Valley Police Department (MVPD). The MVPD Chief provided a letter on July 10, 2012, that provided the following information on police service in the City. The MVPD has a service area of 51.5 square miles and a service population of 196,495 people. The main police station is located in the City Public Safety Building (PSB) at 22850 Calle San Juan De Los Lagos in Moreno Valley. In addition, the MVPD operates four storefront substations throughout the City. The MVPD occupies 44,800 square feet or 98 percent of the 45,900-square foot PSB with the remainder used by the City Fire Department. The MVPD also utilizes 405 parking spaces in the PSB secured lot. The MVPD Chief has indicted the PSB and parking lot are already at or near full capacity at this time. The MVPD maintains five operational divisions: Patrol, Detective, Special Enforcement, Traffic, and Administrative.

The MVPD handles a service demand of more than 130,000 calls for service (CFS) each year. The MVPD has a current demand of 657 CFS per year per sworn officer, and each deputy on patrol averages 8 CFS per 10-hour shift. There are no set response time goals, but the current response times average 6.15 minutes for Priority 1 calls (emergency), 13.8 minutes for Priority 2 (service need) calls, and 32.4 minutes for Priority 3 (business) calls.

Police services are paid for out of the City of Moreno Valley General Fund. There are currently 255 employees working at the MVPD and 198 of them are sworn peace officers. The MVPD maintains 166 vehicles to support its operations but does not have any commercial vehicle enforcement equipment or personnel at this time.

According to the Federal Bureau of Investigation, Uniform Crime Reporting Program, the national average for police department staffing is 2.3 officers per 1,000 residents. By comparison, the nationwide average for cities of comparable size to Moreno Valley is 1.8 officers per 1,000 residents, while the average for "west coast" area cities of comparable size is 1.2 officers per 1,000 residents. The police service ratio within the City is 1.0 officer per 1,000 citizens, and the City has indicated a commitment to maintain that ratio.

The PSB is approximately 6.5 miles from the project site and would be the closest station to service the proposed project site. The WLC site is located within City Beat 46 (MV46) but there are few calls from the project site at present.

NOP/Scoping Comments. Several residents asked during the scoping process what the impact of the project would be on existing and future public services like police and fire.

4.14.1.2 Existing Policies and Regulations

The City of Moreno Valley has developed policies and regulations in order to direct future activities and decisions in order to achieve the goals and objectives set forth in the City's General Plan and Municipal Code.

Community Design Element Policies

2.13.1 Limit the amount of development to that which can be adequately served by public services and facilities, based upon current information concerning the capability of public services and facilities.

2.14.3 Review development projects for their impacts on public services and facilities including, but not necessarily limited to, roadways, water, sewer, fire, police, parks, and libraries and require public services or facilities to be provided at the standards outlined in the Moreno Valley General Plan and the standards of applicable service agencies.

Safety Element Policies

6.8.1 Explore the most effective and economical means of providing responsive and adequate law enforcement protection in the future.

6.9.2 Require well-lighted entrances, walkways and parking lots, street lighting in all commercial, industrial areas and multiple-family residential areas to facilitate nighttime surveillance and discourage crime.

6.9.3 Incorporate "defensible space" concepts into the design of dwellings and nonresidential structures, including, but not limited to configuration of lots, buildings, fences, walls and other features that facilitate surveillance and reinforce a sense of territorial control.

6.11.1 Respond to any disaster situation in the City to provide necessary initial response and providing for key support to major incidents.

6.12.1 Support mutual aid agreements and communication links with the County of Riverside and other local participating jurisdictions.

NOTE: The following changes have been made in response to Comment F-13-32 in Letter F-13 from Johnson & Sedlack on Behalf of Sierra Club, Moreno Valley Group & Residents for a Livable Moreno Valley.

Ultimate Goals

VII Emphasizes public health and safety, including, but not limited to, police, fire, emergency and animal services and protection from floods and other hazards.

City of Moreno Valley Municipal Code. Pursuant to Moreno Valley Municipal Code Section 3.42.070, the proposed project is subject to Police Facilities Commercial and Industrial Development Impact Fees. These fees contribute to the police services facilities provided for in the Existing General Plan area and Capital Improvement Projects. The fees provide financing for the acquisition of land for police and fire facilities as well as design, construction, improvements, and maintenance to the extent permitted by law.

4.14.1.3 Methodology

Based on discussion with City staff and previous environmental documents prepared by the City, the evaluation of impacts associated with the proposed project on police services includes the following:

- Determine the existing police response time for the City based on RCSD goals;
- Determine the length of time for police services to arrive at the project site based on average travel time;
- Compare existing police response time and potential police response time; and
- Determine funding mechanism for future police services, staff, and facilities.

Police service funding impacts were evaluated by identifying compliance with local and RCSD goals and policies. Response time impacts were evaluated by comparing existing and anticipated average responses through RCSD response time goals.

4.14.1.4 Thresholds of Significance

Based on Appendix G of the *CEQA Guidelines,* police protection impacts would be considered significant if the following condition resulted from the construction or operation of the proposed project:

- Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services.

4.14.1.5 Less than Significant Impacts

Threshold	Would the proposed project result in substantial adverse physical impacts associated with the provision of new or physically altered law enforcement facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police services?

The development and operation of the proposed project would increase demand for police protection services. In addition, the MVPD Chief has indicated the department would not be able to maintain current service levels if the WLC project were built. Initially, crimes of grand theft and malicious mischief during construction would be the potential major crime issue. However, it is anticipated that private security would be utilized during the construction process, similar to other private security services that are utilized for other construction projects in the City. Typical operational police protection services involved with warehouse uses include after-hours patrol. Potential impacts would take the form of a need for expanded police protection services routinely associated with industrial growth, including routine patrols, responding to calls for service such as graffiti or vandalism, robbery, etc. In addition, commercial enforcement will be needed on surrounding streets. The number of additional service calls and call response times would slowly increase, and overall service levels would decrease incrementally as more warehouse buildings were built on the project site. The proposed warehouse uses would generate new employment opportunities. The new jobs that would be created by the proposed project would probably not induce substantial population growth within the City, because most of the new jobs would either be filled by residents of the City and surrounding

areas or transfer from existing jobs to the project site for existing warehousing that relocates to the WLC project site.

In his July 10 letter, the City Police Chief concluded that buildout of the WLC project would create a need for 15 full-time sworn officers, 4 classified staff, 2,635 square feet of new police building area, 11 police vehicles, and 24 more secured parking spaces. The Chief also concluded buildout of the WLC project would generate a need for two additional commercial enforcement vehicles and all the related equipment, the addition of two full-time sworn commercial enforcement police officers, and training for those officers.

According to the 2004 City of Moreno Valley Community and Economic Profile, a majority of funding for police protection services is funded through sales tax revenue. In addition, the project will be subject to all applicable impact fees at the time specific development is proposed.

The City collects fees from developers to offset police-related service impacts associated with new development. These development impact fees (DIFs) are one-time charges applied to new development and are imposed to raise revenue for the construction or expansion of capital facilities. DIFs enable the City to collect fair-share fees from new development projects to fund new infrastructure and services. In the City, developers are also required to pay development fees per square foot of development to offset impacts associated with increased demand on law enforcement services. DIFs are collected for specific infrastructure needs and are deposited into different accounts representing these requirements. The proposed project would be designed and operated per applicable standards required by the City for new development in regard to public safety. In addition, the project would be required to pay development fees used to fund capital costs associated with constructing new public safety structures and purchasing equipment for new public safety structures.

The proposed WLCSP project will result in an increased need for police services as the project builds out. Serving the WLCSP project would initially require additional patrol and service time from existing staff, but would require additional personnel and/or equipment as new development is added.

Building security is a critical component of contemporary logistics facility design. Site design features routinely include restricted vehicular and pedestrian access, perimeter fencing and walls, and full-coverage cameras and monitoring systems. Tenants typically employ full-time security personnel and sophisticated internal security and monitoring systems. Facilities that operate as “Free Trade Zones,” as established by the U.S. Customs Service, are required to install and maintain extensive internal and external security facilities and systems.

General Plan and Municipal Code Consistency. Table 4.14.A evaluates whether the proposed project is consistent with the City’s General Plan policies and Municipal Code requirements relative to police service

NOTE: The following analysis was added to the table in response to Comment F-13-32 in Letter F-13 from the Sierra Club et al.

Table 4.14.A: Project Consistency with General Plan Policies and Municipal Code Requirements for Police Service

General Plan Policies		Project Consistency
Ultimate Goals		
VII	Emphasizes public health and safety, including, but not limited to, police, fire, emergency and animal services and protection from floods and other hazards.	**Consistent.** The project will be consistent with this goal regarding public services by providing future sites and/or facilities for fire and police facilities as development occurs. The project will also protect onsite and offsite uses from flooding and other hazards. The revised air quality study indicates the project will not result in significant offsite health risks for adjacent land uses based on the SCAQMD ten in one million threshold for cancer risks.
Community Design Element Policies		
2.13.1	Limit the amount of development to that which can be adequately served by public services and facilities, based upon current information concerning the capability of public services and facilities.	**Consistent.** Initial project construction can be accommodated by existing police service. As development continues, additional police facilities, equipment, and services will be needed within the project, and the project will provide DIF and property tax revenues to support these future needs.
2.14.3	Review development projects for their impacts on public services and facilities including, but not necessarily limited to, roadways, water, sewer, fire, police, parks, and libraries and require public services or facilities to be provided at the standards outlined in the Moreno Valley General Plan and the standards of applicable service agencies.	**Consistent.** This EIR provides information on the potential impacts of the project on City services and facilities, including police. As development occurs within the project, additional police facilities, equipment, and services will be needed within the project, and the project will provide DIF and property tax revenues to support these future needs.
Safety Element Policies		
6.8.1	Explore the most effective and economical means of providing responsive and adequate law enforcement protection in the future.	**Consistent.** This EIR provides information on the potential impacts of the project on City services and facilities, including police. As development occurs within the project, additional police facilities, equipment, and services will be needed within the project, and the project will provide DIF and property tax revenues to support these future needs.
6.9.2	Require well-lighted entrances, walkways and parking lots, street lighting in all commercial, industrial areas and multiple-family residential areas to facilitate nighttime surveillance and discourage crime.	**Consistent.** The Specific Plan provides site and building lighting guidelines for future development to discourage crime. In addition, many of the on-site uses will have gated access and private security, reducing the need for additional City police services.
6.9.3	Incorporate “defensible space” concepts into the design of dwellings and nonresidential structures, including, but not limited to configuration of lots, buildings, fences, walls and other features that facilitate surveillance and reinforce a sense of territorial control.	**Consistent.** The Specific Plan provides site and building design guidelines, including fencing and walls, lighting, security cameras, to discourage crime. In addition, many of the uses will have gated access and private security, reducing the need for additional City police services.
6.11.1	Respond to any disaster situation in the City to provide necessary initial response and providing for key support to major incidents.	**Consistent.** Development according to the Specific Plan will allow full emergency access to this portion of the City as new buildings are constructed.

Table 4.14.A: Project Consistency with General Plan Policies and Municipal Code Requirements for Police Service

General Plan Policies	Project Consistency
6.12.1 Support mutual aid agreements and communication links with the County of Riverside and other local participating jurisdictions.	**Consistent.** Development according to the Specific Plan will allow regional emergency access to this portion of the City from SR-60 and Gilman Springs Road.
City of Moreno Valley Municipal Code	
Pursuant to Moreno Valley Municipal Code Section 3.42.070, the proposed project is subject to Police Facilities Commercial and Industrial Development Impact Fees. These fees contribute to the police services facilities provided for in the Existing General Plan area and Capital Improvement Projects. The fees provide financing for the acquisition of land for police and fire facilities as well as design, construction, improvements, and maintenance to the extent permitted by law.	**Consistent.** All development within the Specific Plan will pay applicable Development Impact Fees to the City.

The proposed project is consistent with the City General Plan policies and Municipal Code requirements relative to police services.

The WLCSP requires building and site design characteristics that specifically support police services by encouraging buildings that are safe and can be secured by design, fencing, security services, etc. The proposed WLCSP design guidelines are consistent with the goals of the General Plan relative to police protection and site design, as outlined in Section 4.14.1.2. In addition, future development within the WLCSP will be required to comply with the City's Development Impact Fee (DIF) requirements as new development is constructed. It is anticipated that DIF revenues will help fund additional equipment needs and increased property taxes would help fund increased service or staffing needs. Therefore, the project will have less than significant impacts relative to police service, and no mitigation is required.

4.14.1.6 Significant Impacts

Based on the analysis in Section 4.14.1.5, the project will have no significant impacts relative to police protection.

4.14.2 Fire Protection

4.14.2.1 Existing Setting

The following information is based in part on a letter from the City Fire Chief dated June 27, 2012. The City of Moreno Valley Fire Department (MVFD) contracts with the Riverside County Fire Department (RCFD) to provide fire protection, fire prevention, and emergency services. The RCFD is administered and operated by the California Department of Forestry and Fire Protection (CalFire). Within the City, the objective of the MVFD is to have an engine company arrive on the scene of a fire or emergency medical aid situation within four minutes of a notification (i.e., dispatch) 90 percent of the time and a complete first alarm assignment within eight minutes[1] 90 percent of the time. Moreno Valley is served by six fire stations and a one-minute preparation time plus a four-minute travel time

[1] Station assigned to respond after first responder assesses situation.

to fire incidents and emergency medical aid calls (90% of the time) is considered to be the maximum time standard for serving urban and suburban uses in accordance with the National Fire Protection Association (NFPA) 1710 standard. The City requires any new developments to provide adequate fire suppression water flows. The MVFD responds to medical aid calls with advance life support services.

The MVFD participates in the Regionalized Cooperative Fire Protection Delivery System of Riverside County Fire/CalFire. This system ensures that the closest and most appropriate resources are dispatched to all requests for fire department emergency services regardless of jurisdiction.

The MVFD main office is located in the City PSB at 22850 Calle San Juan De Los Lagos in Moreno Valley. The MVFD occupies 1,100 square feet or 2 percent of the 45,900-square foot PSB, plus parking in the PSB secured lot. The City Police Chief has indicted the PSB and parking lot are already at or near full capacity at this time, so it is assumed this conclusion also applies to the Fire Department as well.

The City of Moreno Valley has six existing fire stations and one proposed fire station within the City limits as summarized in Table 4.14.B. Fire Station 58, Moreno Beach Station, is located at 28040 Eucalyptus Avenue and is the closest station to the project site. This station is approximately 1.25 miles northwest of the western limits of project site. The station is staffed on a 24/7 basis by three firefighters, one engine, one reserve aerial ladder truck, and a rescue squad.

Municipal Code Section 3.42.060 provides for the collection of Fire Facilities Commercial and Industrial DIFs and states that these fees shall be paid by applicants for commercial and industrial projects prior to the issuance of applicable building or occupancy permits.

NOP/Scoping Comments. During the NOP period, a comment was made about a future fire station planned at Redlands Boulevard/Brodiaea Avenue. Fire Chief Abdul R. Ahmad's letter (June 27, 2012) cites potential fire danger from the proposed project being within both a high fire risk category and a non-fire high hazard risk category from building types, from emergency incidents (both fire and non-fire) during construction of the various phases of the proposed project, and from being partially within a State-designated Very High Fire Hazard Severity Zone.

Table 4.14.B: Moreno Valley Fire Stations

Fire Station	Address	Personnel	Equipment
Station 2 (Sunnymead)	24935 Hemlock Avenue	7 Firefighters	1 Engine 1 Aerial Ladder Truck (100 foot) 1 Urban Search and Rescue Trailer
Station 6 (Towngate)	22250 Eucalyptus Avenue	3 Firefighters	1 Engine 1 Reserve Engine
Station 48 (Sunnymead Ranch)	10511 Village Road	3 Firefighters	1 Engine 1 Reserve Engine
Station 65 (Kennedy Park)	15111 Indian Street	3 Firefighters	1 Engine 1 Reserve Engine
Station 58 (Moreno Beach)	28040 Eucalyptus Avenue	3 Firefighters	1 Engine 1 Reserve Aerial Ladder Truck 1 Rescue Squad
Station 91 (College Park)	16110 Lasselle Street	7 Firefighters	1 Engine 1 Rescue Squad 1 Aerial Ladder Truck (75 foot)

Table 4.14.B: Moreno Valley Fire Stations

Fire Station	Address	Personnel	Equipment
Station 99 (Morrison Park) *Opened October 2012*	13400 Morrison Street	3 Firefighters	1 Engine

Source: Table 5.13-1 City of Moreno Valley General Plan Final EIR, July 2006; Moreno Valley Fire Department, 2012.

4.14.2.2 Existing Policies and Regulations

The City of Moreno Valley has developed policies and regulations in order to direct future activities and decisions in order to achieve the goals and objectives set forth in the City's General Plan and Municipal Code.

Community Design Element Policies

2.13.1 Limit the amount of development to that which can be adequately served by public services and facilities, based upon current information concerning the capability of public services and facilities.

2.14.3 Review development projects for their impacts on public services and facilities including, but not necessarily limited to, roadways, water, sewer, fire, police, parks, and libraries and require public services or facilities to be provided at the standards outlined in the Moreno Valley General Plan and the standards of applicable service agencies.

Safety Element Policies

6.11.1 Respond to any disaster situation in the City to provide necessary initial response and providing for key support to major incidents.

6.12.1 Support mutual aid agreements and communication links with the County of Riverside and other local participating jurisdictions.

6.13.1 Provide fire safety education to residents of appropriate age.

6.14.2 Relate the timing of fire station construction to the rise of service demand in surrounding areas.

6.15.1 Encourage programs to minimize the fire hazard, including but not limited to the prevention of fuel build-up where wildland areas are adjacent to urban development.

6.15.2 Tailor fire prevention measures implemented in wildland areas to both the aesthetic and functional needs of the natural environment.

6.16.1 Ensure that ordinances, resolutions and policies relating to urban development are consistent with the requirements of acceptable fire safety, including requirements for smoke detectors, emergency water supply and automatic fire sprinkler systems.

6.16.2 Encourage the systematic mitigation of existing fire hazards related to urban land development or patterns of urban development as they are identified and as resources permit.

6.16.3 Ensure that adequate emergency ingress and egress is provided for each development.

City of Moreno Valley Municipal Code. Municipal Code Section 3.42.060 provides for the collection of Fire Facilities and Commercial and Industrial Development Impact Fees and states that fees shall be paid by applicants for commercial and industrial projects prior to the issuance of applicable building or occupancy permits.

4.14.2.3 Methodology

Based on discussion with City staff and previous environmental documents prepared by the City, the evaluation of fire service impacts associated with the proposed project includes the following:

- Determine the existing fire response time for the City based on Moreno Valley Fire Department goals identified in the Moreno Valley Fire Department Strategic Plan 2012–2022;[1]
- Determine the length of time for fire services to arrive at the project site based on average travel time;
- Compare existing fire response time and potential fire response time; and
- Determine the funding mechanism for future fire services and facilities.

Fire service funding impacts were evaluated by estimating compliance with local and RCFD goals and policies as indicated in the Moreno Valley Fire Department Strategic Plan 2012–2022. Response time impacts were evaluated by comparing existing and anticipated average responses with MVFD response time goals.

4.14.2.4 Threshold of Significance

Based on Appendix G of the *CEQA Guidelines*, impacts to fire protection services would be considered significant if the following condition resulted from the construction or operation of the proposed project:

- Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services.

4.14.2.5 Less than Significant Impacts

Threshold	Would the proposed project result in substantial adverse physical impacts associated with the provision of new or physically altered fire-fighting facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire services?

The majority of the project site is currently undeveloped. The development and operation of the proposed project would increase the demand for fire protection, prevention, and emergency medical services. Time is the critical component in fire/medical emergencies. Reductions in the emergency response time or the distance between fire/medical facilities and the site of an emergency would result in improved service and saved lives and property.

Construction materials for the proposed warehouse buildings would likely be reinforced concrete and steel. Although fire occurring during the construction period for such buildings is rare, when they do occur they tend to be catastrophic due to a lack of completed fire protection and detection systems and the presence of considerable amounts of combustible materials that are normally on site during the construction phases. California Fire Code Section 8704 establishes fire safety standards for sites during the construction phase. All on-site construction as well as the use and storage of construction

[1] *Moreno Valley Fire Department Strategic Plan 2012–2022*, Moreno Valley Fire Department, December 2011.

materials is required to conform to fire prevention/protection standards established by the RCFD, MVFD, and/or the City, which mirror standards prescribed in the California Fire Code. Adherence to safety standards required for sites during the construction phase established by the MVFD and/or the City would ensure that potential impacts during construction remain less than significant. Since portions of the project site are located within a State-designated Very High Fire Hazard Severity Zone, development within these zones is required to implement special construction features set forth in Chapter 7A of the California Building Code (CBC). Adherence to these specific requirements would ensure that potential impacts during construction remain less than significant.

All new development within the proposed project would be required to pay DIFs to the City. These fees are determined by the City Council, in consultation with the Fire Prevention Bureau, based on an assessment of the activity occurring within the City as well as the needs of the City. Such fees would be used to fund capital costs associated with land acquisition, construction, purchasing equipment, and providing for additional staff.

The proposed project will require that fire services be extended to the project site. In consultation with the MVFD through a letter dated June 27, 2012, submitted by Fire Chief Ahmad, the MVFD has identified that the estimated travel time from Fire Station 58 (the closest station to the project site) to the middle of the project site would exceed the NFPA 1710 standard for fire response time in the event of an emergency incident. Additionally, the MVFD identifies that buildings under construction are susceptible to fire and are likely to have a high rate of fire spread due to the absence of fire protection systems, fire detection systems, and fire protection features. Buildings under construction also lack compartmentalization of the interior to slow the rate of fire spread. The MVFD letter also notes that Fire Station 99 is expected to open in October of 2012;[1] however, the opening of an additional fire station would still result in service levels at the project site being below the NFPA 1710 standard.

The proposed project would increase the need for fire services and would potentially affect the MVFD's ability to maintain current service levels within the City. Additional service would be needed in the form of new facilities, personnel, and/or equipment. The City of Moreno Valley does not set a ratio of personnel per population, nor does it set equipment and staffing levels; rather, additional personnel and equipment are based on assessment of the activity occurring in the City, including but not limited to, calls for service and response times in order to meet or exceed the NFPA 1710 standard, the California Fire Code, and City Municipal Code Amendments. According to the 2004 City of Moreno Valley Community and Economic Profile, a majority of funding for fire protection services is from sales tax revenue. The project will be subject to all applicable development impact fees.

In his June 27, 2012 letter, the Fire Chief indicated the Fire Department would require "construction of a fire station during the first phase of this project. The fire station shall be located on 1.5 acres of land and the facility shall be approximately 11,000 square feet in size. This location shall be identified by the Fire Chief prior to the approval of the specific plan for the World Logistics Center. Initially, this station will require the purchase of an aerial ladder truck, which will be staffed daily by four Fire Department personnel for a total of twelve personnel to provide seven-day-a-week, twenty-four-hour-a-day coverage of the aerial ladder truck. During the final phase of construction, the Fire Department will require an additional fire apparatus to be purchased and staffed. This shall consist of a fire engine with a daily staffing of three Fire Department personnel for a total of nine personnel to provide seven-day-a-week, twenty-four-hour-a-day coverage."

As previously described, the proposed project would be designed, constructed, and operated per applicable fire prevention/protection standards established by the City. Such requirements include (but shall not be limited to) provisions for smoke alarms; sprinklers; building and emergency access; adequate emergency notification; and hydrant sizing, pressure, and siting. Due to the size and nature

[1] Fire Station 99 (Morrison Park) opened in October 2012.

of the project and the potential for increased emergency incidents resulting from increased development and truck traffic will increase as development occurs, but payment of DIF fees and increased property taxes will offset increased service costs for this type of project. In addition, the Section 2.2.6 of the WLC Specific Plan indicates a future 1.5-acre urban fire station site will be dedicated to the City to help offset increased fire service needs. With these provisions, the proposed project will have a less than significant impact on fire services.

General Plan and Municipal Code Consistency. Table 4.14.C evaluates whether the proposed project is consistent with the City's General Plan policies and Municipal Code requirements relative to fire service.

Table 4.14.C: Project Consistency with General Plan Policies and Municipal Code Requirements for Fire Service

General Plan Policies		Project Consistency
Community Design Element Policies		
2.13.1	Limit the amount of development to that which can be adequately served by public services and facilities, based upon current information concerning the capability of public services and facilities.	**Consistent.** Initial project construction can be accommodated by existing fire protection service. As development continues, the WLCSP provides a future fire station site, and the project will provide DIF fees and increased property taxes to compensate for future fire service needs.
2.14.3	Review development projects for their impacts on public services and facilities including, but not necessarily limited to, roadways, water, sewer, fire, police, parks, and libraries and require public services or facilities to be provided at the standards outlined in the Moreno Valley General Plan and the standards of applicable service agencies.	**Consistent.** This EIR provides information on the potential impacts of the project on City services and facilities, including fire protection. As development occurs, the WLCSP provides a future fire station site, and the project will provide DIF fees and increased property taxes to compensate for future fire service needs.
Safety Element Policies		
6.11.1	Respond to any disaster situation in the City to provide necessary initial response and providing for key support to major incidents.	**Consistent.** Development according to the Specific Plan will allow emergency access to this portion of the City as new industrial warehouses are constructed.
6.12.1	Support mutual aid agreements and communication links with the County of Riverside and other local participating jurisdictions.	**Consistent.** Development according to the Specific Plan will allow regional emergency access to this portion of the City from SR-60 and Gilman Springs Road.
6.13.1	Provide fire safety education to residents of appropriate age.	**Consistent.** The project is for industrial warehouses and this policy generally applies to residential uses; however, warehouse operators will provide fire safety instruction and information to employees as encouraged by the Fire Department.
6.14.2	Relate the timing of fire station construction to the rise of service demand in surrounding areas.	**Consistent.** Initial project construction can be accommodated by existing fire protection service. As development continues, the WLCSP provides a future fire station site, and the project will provide DIF fees and increased property taxes to compensate for future fire service needs.

Table 4.14.C: Project Consistency with General Plan Policies and Municipal Code Requirements for Fire Service

General Plan Policies		Project Consistency
6.15.1	Encourage programs to minimize the fire hazard, including but not limited to the prevention of fuel build-up where wildland areas are adjacent to urban development.	**Consistent.** The Specific Plan provides site and building lighting guidelines for future development to discourage crime. Landscape palettes designed to reflect fuel modification criteria in wildland areas.
6.15.2	Tailor fire prevention measures implemented in wildland areas to both the aesthetic and functional needs of the natural environment.	**Consistent.** A portion of the project is in a High Fire Hazard Severity Zone and special construction features of the California Building Code will apply.
6.16.1	Ensure that ordinances, resolutions and policies relating to urban development are consistent with the requirements of acceptable fire safety, including requirements for smoke detectors, emergency water supply and automatic fire sprinkler systems.	**Consistent.** Future development will be required to comply with applicable fire protection requirements of the California Building Code.
6.16.2	Encourage the systematic mitigation of existing fire hazards related to urban land development or patterns of urban development as they are identified and as resources permit.	**Consistent.** Future warehouse development will have fire access lanes, building sprinkler systems and other fire suppression equipment and personnel to minimize fire-related risks.
6.16.3	Ensure that adequate emergency ingress and egress is provided for each development.	**Consistent.** Development according to the Specific Plan will allow emergency access to this portion of the City as new industrial warehouses and roadways are constructed.
City of Moreno Valley Municipal Code		
Pursuant to Moreno Valley Municipal Code section 3.42.060, Fire Facilities and Commercial and Industrial Development Impact Fees, states that fees shall be paid by applicants for commercial and industrial projects in the amounts adopted by the City Council by resolution from time to time. Neither building permit nor occupancy permit will be issued for any new commercial, industrial, or other non-residential building or structure unless the specified fees are paid.		**Consistent.** Future development within the Specific Plan will pay applicable Development Impact Fees to the City for fire-related services.

The proposed project is consistent with the City General Plan policies and Municipal Code requirements relative to fire protection services.

NOTE: The following information was added as a result of revisions to the WLC Specific Plan.

The WLCSP will dedicate a new 1.5-acre urban fire station site within its boundaries to allow for expansion of fire protection services as the project develops (see WLCSP Section 2.2.4). The revised WLCSP indicates the new fire station will be at the north end of Planning Area 11, and it is required to be built during Phase I. Placement of the fire station is subject to review and approval by the Fire Chief (WLSP Section 2.2.4 First Station Site).The WLCSP also requires building and site design characteristics that specifically support fire services by encouraging buildings that are safe and can be secured by design, fencing, security services, etc. The proposed WLCSP design guidelines are consistent with the goals of the General Plan relative to fire protection and site design, as outlined in Section 4.14.2.2. Finally, future development within the WLCSP will be required to comply with the City's DIF requirements as new development is constructed. Therefore, the project will have less than significant impacts relative to fire protection service, and no mitigation is required.

4.14.2.6 Significant Impacts

Based on the analysis in Section 4.14.2.5, the project will have no significant impacts relative to fire protection.

4.14.3 Schools

4.14.3.1 Existing Setting

The project area is served by two school districts, the Moreno Valley Unified School District (MVUSD) and the San Jacinto Unified School District (SJUSD) and is home to the Moreno Valley campus of Riverside Community College (RCC). The MVUSD operates a total of 30 schools; 20 elementary, six middle, and four high schools. The SJUSD encompasses the far southeastern portion of the proposed project site (approximately 30 acres) and operates seven elementary schools, three middle schools, and two high schools.

NOP/Scoping Process. A number of residents were concerned about the WLC project only bringing in a small number of blue collar workers in a limited field (logistics warehousing), and that it would not help diversity or benefit to the workforce of the City (or their level of education) as a whole.

4.14.3.2 Existing Policies and Regulations

The City of Moreno Valley has developed policies and regulations in order to direct future activities and decisions in order to achieve the goals and objectives set forth in the City's General Plan and Municipal Code.

Community Design Element Policies

2.13.1 Limit the amount of development to that which can be adequately served by public services and facilities, based upon current information concerning the capability of public services and facilities.

2.14.3 Review development projects for their impacts on public services and facilities including, but not necessarily limited to, roadways, water, sewer, fire, police, parks, and libraries and require public services or facilities to be provided at the standards outlined in the Moreno Valley General Plan and the standards of applicable service agencies.

City of Moreno Valley Municipal Code. The proposed project will be located mainly within the MVUSD with a small part in SJUSD. These school districts currently impose fees of $0.51 and $0.47, respectively, per square foot on new industrial construction to offset the cost of providing new school facilities. The proposed project will be subject to these fees at the time of building permit issuance. However, no homes and no significant generation of school-aged children would be developed as part of the proposed project.

4.14.3.3 Methodology

Evaluation of school service impacts associated with the proposed project includes the following:

- Potential for student generation of the project in ways that would have direct or indirect impacts on local school districts;

- Cause other indirect educational impacts; and
- Cause negative impacts on existing or future school facilities or programs.

School impacts were evaluated by estimating compliance with local school district impact fee programs.

4.14.3.4 Thresholds of Significance

According to Appendix G of the *CEQA Guidelines*, a project would have a significant impact to schools if it would result in:

- Substantial adverse physical impacts associated with the provision of new or physically altered school facilities, need for new or physically altered school facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives.

4.14.3.5 Less than Significant Impacts

Threshold	Would the proposed project result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities, need for new or physically altered school facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

Section 4.13.5.1 indicates the project is expected to generate from 15,000 to 25,000 new jobs for the City and surrounding areas; however, it is speculative to estimate how many of those workers will actually live within the City and how many will commute from other areas. Although the exact number is speculative, any increase is not expected to be substantial and will not generate significant new demands related to need for new or altered school facilities. The project is an industrial project and not a residential project that would have a direct impact on school services by accommodating additional residents within the City. Construction of the proposed project will create short-term construction jobs. These short-term positions are anticipated to be filled by workers who, for the most part, reside in the project area; therefore, construction of the proposed project will not generate a permanent increase in population within the project area.

California Government Code (§65995[b]) establishes the base amount of allowable developer fees imposed by school districts. These base amounts are commonly referred to as “Level 1 fees” and are subject to inflation adjustment every two years. School districts are placed into a specific “level” based on school impact fee amounts that are imposed on the development.

Unlike residential development, where it is possible to ascertain impacts to a particular school or school district, because employees at a warehouse facility could reside in any number of school districts with their children attending a collection of schools, it is difficult to determine with any level of certainty what the potential impacts to a particular school or school district would be.

The project site is located within the jurisdictional boundaries of the MVUSD and SJUSD. The MVUSD imposes development fees of $0.51 per square foot of industrial development.[1] The SJUSD imposes development fees of $0.47 per square foot of industrial development.[2] These development

[1] *School Developer Impact Fees,* Moreno Unified School District, 2012. http://www.mvusd.net/apps/pages/index.jsp?uREC_ID=24969&type=d&pREC_ID=55535, accessed April 16, 2012.
[2] http://www.sanjacinto.k12.ca.us/districtPages/facilities/developerInfo.html, website accessed April 16, 2012.

fees are equal to the minimum fee established by the State (Level 1 fees). Per California Government Code (§ 65995[h]), "The payment or satisfaction of a fee, charge, or other requirement levied or imposed … are hereby deemed to be full and complete mitigation of the impacts … on the provision of adequate school facilities."

It is anticipated that most of the new employment opportunities generated by the proposed project will be filled by persons already residing in the community and surrounding areas. Because employees of the proposed on-site uses would be drawn from the local area, no substantial increase in population or corresponding increase in students attending local schools will occur. In addition, the project proponent would be required to pay these development fees in accordance with Government Code 65995 and Education Code 17620.

The proposed project contains no residential development, so it would not cause a significant increase in the local population that would increase the number of students attending local schools (see Section 4.13, *Population and Housing*). Since payment of the school impact fees is required of all projects within MVUSD and SJUSD boundaries, impacts to school services and facilities would not occur. The WLC project is also consistent with the applicable General Plan policies in Section 4.13.3.2 as it will assist in the provision of adequate school facilities by providing legally required DIFs. Accordingly, impacts to the environment resulting from new or expanded school facilities would not occur, resulting in a less than significant impact and no mitigation is required.

General Plan and Municipal Code Consistency. Table 4.14.D evaluates whether the proposed project is consistent with the City's General Plan policies and Municipal Code requirements relative to school services.

Table 4.14.D: Project Consistency with General Plan Policies and Municipal Code Requirements for School Services

General Plan Policies		Project Consistency
Community Design Element Policies		
2.13.1	Limit the amount of development to that which can be adequately served by public services and facilities, based upon current information concerning the capability of public services and facilities.	**Consistent.** The proposed project consists of logistics warehousing and supporting uses and does not propose any residential uses that would add housing units or substantial numbers of new students to local schools.
2.14.3	Review development projects for their impacts on public services and facilities including, but not necessarily limited to, roadways, water, sewer, fire, police, parks, and libraries and require public services or facilities to be provided at the standards outlined in the Moreno Valley General Plan and the standards of applicable service agencies.	**Consistent.** This EIR provides information on the potential impacts of the project on City services and facilities, including schools.
City of Moreno Valley Municipal Code		
The proposed project will be located mainly within the MVUSD with a small part in SJUSD which currently impose fees of $0.51 and $0.47, respectively, per square foot on new industrial construction to offset the cost of providing new school facilities. The proposed project will be subject to these fees at the time of building permit issuance. However, no homes and no significant generation of school-aged children would be developed as part of the proposed project.		**Consistent.** Future development within the Specific Plan will pay applicable School Impact Fees for non-residential uses.

The proposed project is consistent with the City General Plan policies and Municipal Code requirements relative to school services. In addition, future development within the WLCSP will be

required to comply with the City's DIF requirements as new development is constructed. Therefore, the project will have less than significant impacts relative to schools, and no mitigation is required.

4.14.3.6 Significant Impacts

Based on the analysis in Section 4.14.3.5, the proposed project will not produce any significant school-related impacts, so no mitigation is required.

4.14.4 Parks, Recreation, and Trails

4.14.4.1 Existing Setting

The Moreno Valley Parks and Community Services Department (Department) maintains over 358 acres of parks and park facilities, and 10 miles of trails. See Figure 4.14.1 for De Anza Trail in the surrounding area. The Department also maintains and operates 39 parks and facilities; including senior recreation centers and conference centers as well as 20 lighted sports fields and lighted sports fields at three schools. The nearest park to the project site is Ridgecrest Park located on John F. Kennedy Drive less than a mile southwest of the project site.

Open space land can be classified into lands for preservation of natural resources (e.g., wildlife habitat), production of resources (e.g., farming), public health and safety (e.g., floodplains), low-density residential development, and outdoor recreation (e.g., parks). Open space for outdoor recreation includes public and private outdoor recreation facilities. Public recreation facilities in Moreno Valley include State, County, and City parks as well as public golf courses. Private outdoor recreation facilities include private golf courses, driving ranges, and other private outdoor recreation facilities. Two private outdoor recreation facilities are owned and operated by homeowner's associations in Sunnymead Ranch and Moreno Valley Ranch.

A large amount of the City's open space lands is managed for the preservation of natural resources. These areas include the Box Springs Mountain Reserve, the San Timoteo Canyon Park property, the Lake Perris State Recreation Area, and the San Jacinto Wildlife Area. These areas are also used for hiking, horseback riding, fishing, boating, and other uses.

The Box Springs Mountain Reserve and the San Timoteo Canyon Park property are owned and operated by Riverside County Regional Park and Open Space District. They are primarily mountainous natural open space parks. The Box Springs Mountain Reserve is located at the northwest corner of Moreno Valley. The Reserve consists of three noncontiguous land areas, two of which are within the City's Sphere of Influence. San Timoteo Canyon Park property is located east of the City's Sphere of Influence along the north side of SR-60. Approximately 1,100 acres of the property, including the Badlands Landfill is jointly owned by the Regional Park and Open Space District and Riverside County Waste Management District.

Lake Perris State Recreation Area, located south of Moreno Valley, is approximately 8,000 acres. It contains a major reservoir, natural open space and facilities for boating and fishing, picnicking and camping. About 1,600 acres of the property were dedicated to the State of California as mitigation for loss of wildlife habitat due to development of the Moreno Valley Ranch Specific Plan. The Lake Perris State Recreation Area serves as one of several habitat reserves for the endangered Stephens' kangaroo rat (*Dipodomys stephensi*).

The San Jacinto Wildlife Area in the southeastern corner of the study area consists of gently sloping grasslands, sage scrub and natural and man-made wetlands that support migratory birds and

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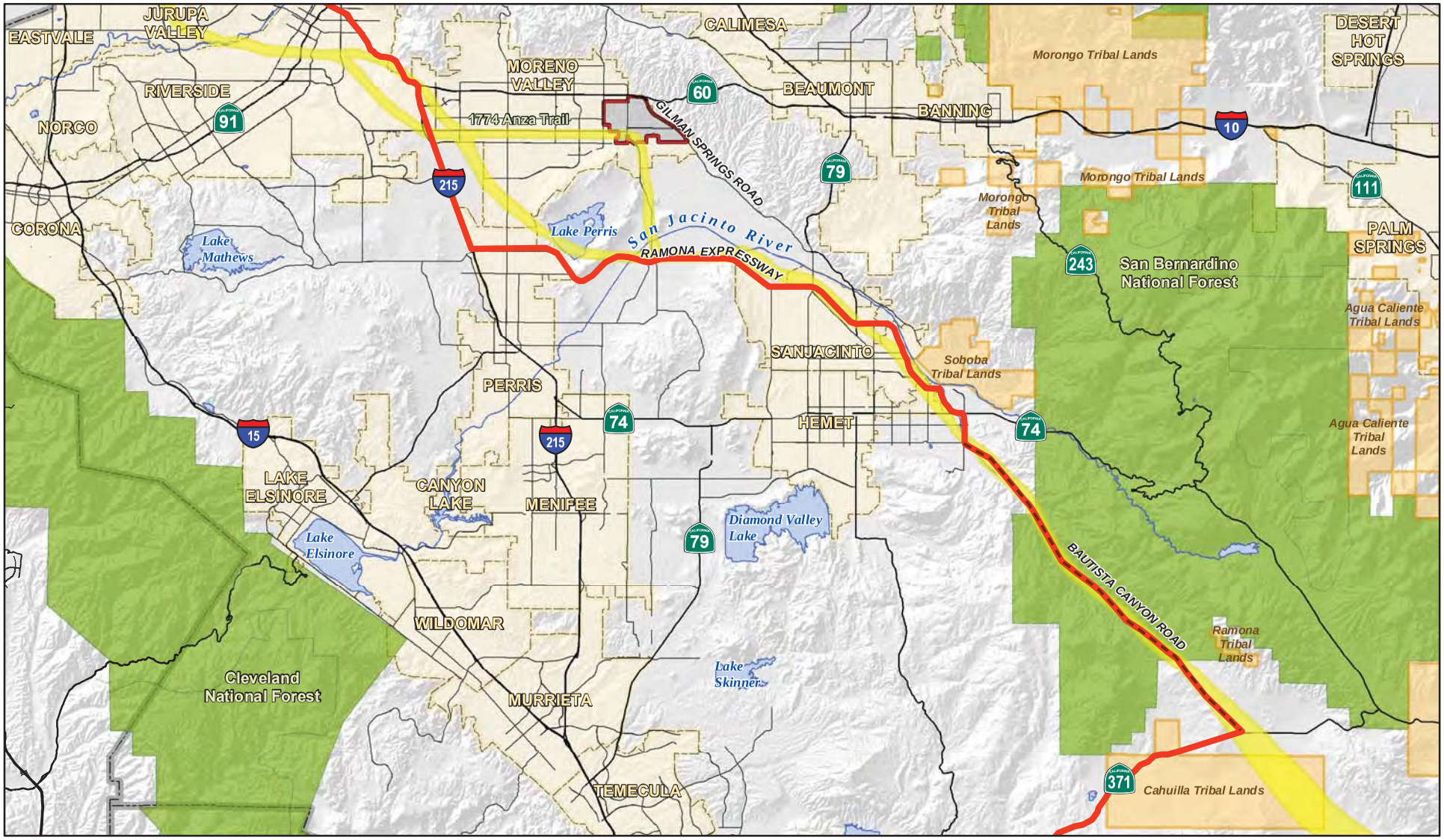

LSA

FIGURE 4.14.1

Project Location
Auto Tour Route
Recreational Trail
Historic Trail Corridor
Cities
Tribal Lands
National Forest

N

0 3 6
MILES

SOURCE: Riverside County, 2011; National Park Service; Thomas Bros, 2009.

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World Logistics Center Specific Plan Project
Environmental Impact Report

De Anza Trail

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resident wildlife. Bird watching and hunting are popular activities. Some of the adjoining property is owned by private organizations dedicated to hunting and wildlife conservation.

Several open space areas are located along soft-bottomed drainage courses within the planned communities of Sunnymead Ranch and Hidden Springs. The City also owns two natural open space areas. One open area is adjacent to the Moreno Valley Equestrian Center, located at the northeast corner of Redlands Boulevard and Locust Avenue. A second natural open space area is located north of Sunnymead Ranch Parkway, on the east side of Perris Boulevard.

Natural open space can also be found within the steeply sloping areas designated Rural Residential and Hillside Residential on the General Plan land use map. These areas contain wildlife habitat, watershed benefits and scenic values that can be conserved even as these areas are developed. Natural open space can be conserved because these areas are planned for low-density residential development. Low-density development requires a minimal amount of land disturbance.

The City's General Plan also discusses trail facilities. The City owns and maintains about 10 miles of developed trails. Multiuse trails are popular with the equestrian community. The Moreno Valley Equestrian Center, dedicated in 2003, provides additional facilities of interest to equestrians. This 45-acre park is located at the northeast corner of Redlands Boulevard and Locust Avenue. The park features equestrian facilities, including an arena, with bleachers, a water trough, night lighting and parking for horse trailers.

Multiuse trails should be designed with considerations for safety, accessibility, proper design and construction, signage and relative location. The City's trail network should also connect to the County and State regional trail systems.

There is one existing multiuse trail adjacent to the project limits, located along Redlands Boulevard and Cottonwood Avenue. There are several proposed trails shown on the current General Plan within the project area along Redlands Boulevard, Cottonwood Avenue, Brodiaea Avenue, Dracaea Avenue, Theodore Street, Fir Avenue, Sinclair Street, and Davis Road.

NOP/Scoping Comments. One written comment was received specifically about park impacts. The State requested that the WLCSP project not have any adverse impacts on the Lake Perris Recreational Area. In addition, at least one resident urged the City to provide an integrated network of trails that would connect to other trails planned in the region (e.g., Juan Bautista de Anza trail).

4.14.4.2 Policies and Regulations

a. State Regulations

Quimby Act (California Government Code 66477). This State policy requires the dedication of land and/or imposes a requirement of fees for park and recreational purposes as a condition of approval of tentative map or parcel map.

b. Local Regulations, City of Moreno Valley General Plan

Parks, Recreation and Open Space Element Policies

4.2.7 The City level of service standard is 3 acres of developed parkland for every 1,000 new residents. Exceptions from this ratio may be made in exchange for extraordinary amenities of

comparable economic value. Land not suitable for active recreation purposes may not be counted toward fulfilling parkland dedication requirements.

4.2.8 Encourage the development of recreational facilities within private developments, with appropriate mechanisms to ensure that such facilities are properly maintained and that they remain available to residents in perpetuity.

4.2.17 Require new development to contribute to the park needs of the City.

4.3.1 The City's network of multiuse trails, including regional trails, community trails, and local feeder trails, shall (1) be integrated with recreational, residential and commercial areas, schools and equestrian centers; (2) provide access to community resources and facilities, and (3) connect urban populations with passage to hillsides, ridgelines, and other scenic areas.

4.3.3 All new development approvals shall be contingent on trail right-of-way dedication and improvement in accordance with the Master Plan of Trails.

4.3.4 In conjunction with all development review, the City shall consider multiuse trail access and traditional travel routes through the property.

4.3.5 In conjunction with the review and approval of non-residential developments, the City should consider the use of multiuse trail amenities such as hitching posts, benches, rest areas, and drinking facilities.

4.3.7 Trail design and construction should take into consideration the safety and convenience of all trail users as the primary concern.

4.3.8 The City should facilitate the development of a multiuse regional trail system.

4.3.9 Unless otherwise specified due to fire department requirements, access or as established by a specific plan, city trails along roadways shall be ten (10) feet wide and shall be constructed with decomposed granite or equal material and shall provide appropriate fencing or other devices where needed to delineate trails from vehicular rights-of-way.

4.3.10 Where firefighting access is required, trails shall be 20' wide to meet the needs of the Fire Department and its equipment. Fire Department requirements shall be met in all conditions where access is required.

4.3.11 In unusual situations where legal or topographical barriers exist (e.g., excessive slope, the configuration of right-of-way, existing vegetation, etc.), the City shall have the discretion to amend the trail requirement as needed to accomplish the goals of this General Plan.

4.3.14 Where feasible, use drainage courses, utility rights-of-way and other such opportunities to incorporate trail and open space elements in the design of major development projects.

4.14.4.3 Methodology

The potential impacts of the proposed project on recreation and park resources were evaluated based on whether implementation of the proposed project could result in increased use of existing recreation and park resources, or whether implementation of the proposed project could necessitate the construction or expansion of recreation and park facilities.

4.14.4.4 Thresholds of Significance

The following thresholds of significance regarding potential impacts to recreational facilities and resources are based on questions contained in Appendix G of the *CEQA Guidelines*. The proposed project would result in a significant impact on recreation resources if any of the following occurs:

- The project increases the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; and/or
- The project includes recreational facilities or requires the construction or expansion of recreational facilities that have an adverse physical effect on the environment.

4.14.4.5 Less than Significant Impacts

Threshold	Would the project result in increased use of existing neighborhood and regional parks or other recreational facilities (e.g., trails) where substantial physical deterioration would occur or be accelerated?

The WLC project proposes the development of a master-planned logistics center; no residential development is proposed. There is a potential for the proposed project to indirectly generate new residents in the City, although predicting the exact number would be too speculative. Increases in the City's population from future residential development will help fund new parks and trails through dedications of land and the payment of Development Impact Fees.

The WLCSP project proposes a General Plan Amendment to the Master Plan of Trails to reduce the extent of trail systems in the area to reflect the change from a residential neighborhood (Moreno Highlands) to a non-residential neighborhood (World Logistics Center). Trail linkages are provided in the WLC project to extend existing trail routes from the western edge of the project to the east, providing for future linkages to Gilman Springs Road, to the Lake Perris State Recreation Area, and to the San Jacinto Wildlife Area.

Implementation of these new trails and the General Plan Amendment (i.e., revised Master Plan of Trails) will allow the project to be consistent with the General Plan policies relative to trails (4.3.1 and 4.3.8).

General Plan and Municipal Code Consistency. Table 4.14.E evaluates whether the proposed project is consistent with the City's General Plan policies and Municipal Code requirements relative to parks, recreation, and open space:

Table 4.14.E: Project Consistency with General Plan Policies and Municipal Code Requirements for Parks, Recreation and Open Spaces

General Plan Policies		Project Consistency
Parks, Recreation and Open Space Element Policies		
4.2.7	The City level of service standard is 3 acres of developed parkland for every 1,000 new residents. Exceptions from this ratio may be made in exchange for extraordinary amenities of comparable economic value. Land not suitable for active recreation purposes may not be counted toward fulfilling parkland dedication requirements.	**Not Applicable.** The proposed project consists of logistics warehousing and supporting uses, and does not propose any residential uses that would add new housing units or residents who would use local parks.

Table 4.14.E: Project Consistency with General Plan Policies and Municipal Code Requirements for Parks, Recreation and Open Spaces

General Plan Policies		Project Consistency
4.2.8	Encourage the development of recreational facilities within private developments, with appropriate mechanisms to ensure that such facilities are properly maintained and that they remain available to residents in perpetuity.	*The following changes have been made due to revision to the Specific Plan project size.* **Not Applicable.** The proposed project does not generate a need for new active recreational facilities, so no maintenance costs will be involved. However, the project does provide 74.3 acres of Open Space in the southwestern corner of the site adjacent to Mount Russell to be dedicated to the City of Moreno Valley.
4.2.17	Require new development to contribute to the park needs of the City.	*The following changes have been made due to revision to the Specific Plan project size.* **Not Applicable.** The proposed project consists of logistics warehousing and supporting uses, and does not propose any residential uses that would add new housing units or residents who would use local parks. However, the project does provide 74.3 acres of Open Space in the southwestern corner of the site adjacent to Mount Russell.
4.3.1	The City's network of multiuse trails, including regional trails, community trails, and local feeder trails, shall (1) be integrated with recreational, residential and commercial areas, schools and equestrian centers; (2) provide access to community resources and facilities, and (3) connect urban populations with passage to hillsides, ridgelines, and other scenic areas.	**Consistent.** The Specific Plan proposes a trail along the southwestern portion of the site to tie into an existing trail along the west side of Redlands Boulevard and an existing trail west along Cactus Avenue. The project will also provide a trail connection from the southwest corner of the project around the Open Space area and a trailhead that will allow a future connection to the SJWA property that would be installed and maintained by the CDFW.
4.3.3	All new development approvals shall be contingent on trail right-of-way dedication and improvement in accordance with the Master Plan of Trails.	**Consistent.** The new trail and related improvements will be consistent with the City's requirements in this regard. The project entails a General Plan Amendment to modify the Master Plan of Trails consistent with the proposed Specific Plan trails.
4.3.4	In conjunction with all development review, the City shall consider multiuse trail access and traditional travel routes through the property.	**Consistent.** See discussion under Policy 4.3.1 above.
4.3.5	In conjunction with the review and approval of non-residential developments, the City should consider the use of multiuse trail amenities such as hitching posts, benches, rest areas, and drinking facilities.	**Consistent.** The new trail and related improvements will be consistent with the City's requirements in this regard.
4.3.7	Trail design and construction should take into consideration the safety and convenience of all trail users as the primary concern.	**Consistent.** The new trail and related improvements will be consistent with the City's requirements in this regard.
4.3.8	The City should facilitate the development of a multiuse regional trail system.	**Consistent.** The proposed trail connections within the Specific Plan would connect to existing regional trails to the west and future regional trails to the southeast through the SJWA property.

Table 4.14.E: Project Consistency with General Plan Policies and Municipal Code Requirements for Parks, Recreation and Open Spaces

General Plan Policies		Project Consistency
4.3.9	Unless otherwise specified due to fire department requirements, access or as established by a specific plan, city trails along roadways shall be ten (10) feet wide and shall be constructed with decomposed granite or equal material and shall provide appropriate fencing or other devices where needed to delineate trails from vehicular rights-of-way.	**Consistent.** The new trail and related improvements will be consistent with the City's requirements in this regard.
4.3.10	Where firefighting access is required, trails shall be 20' wide to meet the needs of the Fire Department and its equipment. Fire Department requirements shall be met in all conditions where access is required.	**Consistent.** The new trail and related improvements will be consistent with the City's requirements in this regard.
4.3.11	In unusual situations where legal or topographical barriers exist (e.g., excessive slope, the configuration of right-of-way, existing vegetation, etc.), the City shall have the discretion to amend the trail requirement as needed to accomplish the goals of this General Plan.	**Consistent.** The new trail and related improvements will be consistent with the City's requirements in this regard.
4.3.14	Where feasible, use drainage courses, utility rights-of-way and other such opportunities to incorporate trail and open space elements in the design of major development projects.	**Consistent.** The proposed trails will allow for connections to existing and future trails as outlined in Policy 4.3.1 above.

The proposed project is consistent with the City General Plan policies relative to parks, recreation, and trails.

The WLCSP will provide connections to existing trails to the west and southwest, and a connection to and trailhead for a future planned trail in the San Jacinto Wildlife Area south of the site, as outlined in Specific Plan Section 3.4.2, *Multi-Use Trails*, and as shown on Figure 3-11 of the Specific Plan. In addition, future development within the WLCSP will pay applicable DIFs to offset any potential impacts to parks or recreational services. Based on this, the proposed project will not create significant impacts on parks, recreation, or trails.

Threshold	Would the project result in construction or expansion of recreational facilities that would have an adverse physical effect on the environment?

NOTE: The following changes have been made due to revision to the Specific Plan project size.

The WLC project proposes development of up to approximately ~~41.6~~ 40.6 million square feet of high-cube logistics warehouse facilities. It does not include the construction or expansion of a recreational facility since it would not create any substantial demands on recreational facilities. Section 4.13.5 concluded that the project would have a less than significant impact on population or housing; therefore, no new demand on existing park facilities would occur, and no expansion of existing parks or the construction of new parks would be required.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

As noted in the Specific Plan, the project includes an Open Space (OS) designation covering ~~75~~ 74.3 acres on the lower elevations of Mount Russell in the southwestern portion of the WLCSP project site.

4.14.4.6 Significant Impacts

The analysis in Section 4.14.4.5 determined that all impacts of the WLC project relative to parks and recreation are less than significant, therefore, no mitigation is required.

4.14.5 Cumulative Impacts

The cumulative areas for police and fire protection services are the service areas for the RCSD and RCFD. The need for the public services and associated facilities is measured by service area population, or the number of residents and workers within the City's service area. Service population, as well as the type and density of development, determines the need for new or expanded police and services. Utilizing statistical information, local planning policies, and by interacting with other agencies, fire and police service providers can delineate past patterns, emerging trends, and future issues of concern. Once identified, service providers can redeploy resources to meet future needs.

Sections 4.14.1.6 and 4.14.2.6 identified the possible need for new fire station within the WLC project. Payment of DIFs and provision of a new fire station site within the WLCSP is expected to fully mitigate potential impacts of the WLC project relative to fire services. In addition, payment of DIFs is expected to fully mitigate potential impacts of the WLC project relative to police services.

As additional development occurs in the City of Moreno Valley and region, there may be an overall increase in the demand for law enforcement and fire protection services, including personnel, equipment, and/or facilities. Increases in demand are routinely assessed by these agencies as part of the annual monitoring and budgeting process. New development within the service areas of the RCSD and RCFD would be required to adhere to conditions established by fire and police service providers, and pay applicable DIFs to ensure adequate staffing and equipment levels. Therefore, there would be no cumulative impact on police and fire services in the City. Accordingly, cumulative impacts to the environment resulting from new or expanded police and fire protection facilities would not occur, resulting in a less than significant impact and no mitigation is required.

The cumulative area for school-related issues encompasses the two school district(s) that provide school services/facilities in the project area. While no significant population increase is anticipated to result from the construction and operation of the proposed project, future development (particularly residential development) forecast in the City's General Plan will increase the demand for school facilities and services. New school facilities are currently being constructed to accommodate the growth in the local student population. Additionally, school districts are engaged in planning new facilities in anticipation of future local and regional growth. Each district requires the payment of development fees to provide for new school services and/or facilities. As every new development is mandated to provide the fees applicable to the school district affected, there would be no cumulative impact on school services in the City. Accordingly, cumulative impacts to the environment resulting from new or expanded school facilities would not occur, resulting in a less than significant impact and no mitigation is required.

Implementation of the proposed project will not increase the use of existing parks and recreation facilities. As future residential development is proposed, the City will require developers to provide the appropriate amount of parkland or payment of in-lieu fees, which will contribute to future recreational facilities. Payment of these fees and/or implementation of facilities on a project-by-project basis would offset cumulative parkland impacts by providing funding for new and/or renovated parks equipment

and facilities. As such, the cumulative impact of buildout associated with the implementation of the proposed project, when considered with cumulative projects in the area, would be less than significant with implementation of the WLC project.

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4.15 TRAFFIC AND CIRCULATION: TABLE OF CONTENTS

FIGURES

TABLES

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NOTE TO READERS. *This section has been revised based on changes to the WLC Specific Plan, the project traffic study, and in response to comments on the original DEIR. Three street names have also changed (Street C now named Alessandro Boulevard, D now named Cactus Avenue, and E a portion of which is now named Alessandro Boulevard) and may still be referenced in the section. For correct street names see Circulation Master Plan Figure 3.10. In addition, Streets E and C have been realigned to follow the historical alignment of Alessandro Boulevard.*

Large amounts of text, tables, and/or graphics were removed or heavily modified from those in the original DEIR. The changed text is shown in underline/strikeout wherever possible. To maintain readability, however, some sections have notes that refer the reader to the original DEIR for the complete text, table, or graphic from the original DEIR.

4.15 TRAFFIC AND CIRCULATION

Revisions to this section have been made due to changes to the revised Traffic Impact Analysis (TIA) Report for the World Logistics Center prepared by Parsons Brinckerhoff and dated September 2014 (FEIR Volume 2, Appendix L-1). The vast majority of the changes to the TIA, and in turn replicated in the following Final EIR traffic section, are associated with:

1) *Project Reduction. A reduction in the project area in the amount of 100 acres that occurred between the Draft EIR and this Final EIR. The reduced project area would result in a reduction in the proposed quantity of high-cube warehouse development in the WLC by one million square feet and an increase in the quantity of background (i.e., non-project related) development in year 2035 by 220 dwelling units. The area of land that was eliminated is located in the southwest corner of the previous WLC site that was analyzed in the previous TIA and Draft EIR.*
2) *Baseline Plus Phase 1 Analysis. Added an Existing Plus Phase 1 (only) scenario that was added to the revised TIA and Final EIR, in order to provide a "baseline plus Phase 1 analysis."*
3) *Revised Project Schedule. A revision to the WLC implementation schedule so that Phase 1 is scheduled for completion in year 2022 as analyzed in the revised TIA and Final EIR, rather than in Year 2017 as analyzed in the previous TIA and Draft EIR. The scenarios for Year 2017 were revised to Year 2022 and include analysis of Phase 1 only and not full buildout of the WLC in the revised TIA and Final EIR, while the analysis of the previous Year 2022 scenarios were dropped from the revised TIA and Final EIR.*

Additional revisions to this section have been made due to comments received on the Draft EIR and previous TIA. In summary, these changes include:

4) *Truck Trips to Ports of Los Angeles and Long Beach. Analysis of freeway impacts from WLC trucks was extended to the Ports of Los Angeles and Long Beach. The extended analysis, covering more than 60 additional centerline miles of freeway, did not find any new impacts that were not already identified in the Draft TIA (see TIA Chapter 12, Section F) and replicated in this Final EIR traffic section (see Section 4.15.6.5 of this Final EIR). These changes have been made in response to: Comment F-1-49 in Letter F-1 from the Center for Biological Diversity/San Bernardino Valley Audubon Society; Comment F-3-4 in Letter F-3 from the California Clean Energy Committee; Appendix 78 in Letter F-3 from the California Clean Energy Committee; Comment F-9A-22 in Letter F-9A from the Sierra Club, Center for Community Action & Environmental Justice, and Natural Resources Defense Council;*

Comments F-9C-2, 4, 5, 6, and 7 in Letter F-9C from Sustainable Systems Research, LLC; Comment F-11-23 in Letter F-11 from the Sierra Club, San Gorgonio Chapter; Comment F-13-11 in Letter F-13 from the Sierra Club and Friends for a Livable Moreno Valley; and Comment G-51-45 in Letter G-51 from Michael McCoy.

5) *Rail Analysis. Analysis of the feasibility of shipping cargos between the WLC and the Ports of Los Angeles and Long Beach by rail instead of by truck was added. The analysis found that this was not feasible for a variety of reasons, including the cost and environmental impacts of a new rail alignment, the high fixed handling costs for rail cargo that makes short hauls uneconomical, and system constraints with the rail system itself. This analysis is provided in the revised TIA (see TIA Chapter 4, Section F) and replicated in this Final EIR traffic section (see end of Section 4.15.3.2 of this Final EIR). These changes have been made in response to: Comments F-3-5, 11, and Appendix 176 in Letter F-3 from the California Clean Energy Committee; Comments F-6-1, 2, and 3 in Letter F-6 from the Endangered Habitats League; Comment F-9A-45 in Letter F-9A from the Sierra Club, Center for Community Action & Environmental Justice, and Natural Resources Defense Council; Comment F-9B-45 in Letter F-9B from Tom Brohard and Associates; Comment F-11-29 in Letter F-11 from the Sierra Club, San Gorgonio Chapter; Comment G-2-7 in Letter G-2 from Perry Johnson; Comment G-17-2 in Letter G-17 from Joanne Lindgren; Comment G-18-1 in Letter G-18 from Sam Zaidy; Comment G-34-5 in Letter G-34 from Lindsay Robinson; Comment G-35-4 in Letter G-35 from Peggy Hadaway and John Neal; Comment G-49-18 in Letter G-49 from Karen Jakpor; Comment G-50-2 in Letter G-50 from Ann McKibben; Comment G-51-5 in Letter G-51 from Michael McCoy; Comments G-52-1 and 2 in Letter G-52 from Steve Jiannino; Comment G-53-4 in Letter G-53 from Deanna Reader and Kenny Bell; Comment G-57-1 in Letter G-57 from Tracy Hodge; Comment G-68-3 in Letter G-68 from Craig and Joan Givens; Comment G-96-3 in Letter G-96 from Margie Breikreuz; and Comment G-97-1 in Letter G-97 from Otana Jakpor.*

6) *Project Traffic Near Schools. Analysis of the potential safety impacts of WLC traffic on local schools was added, including the new proposed high school #5 located north of SR-60. The traffic analysis for this proposed school can be found in the Tech Memo on High school # 5 Appendix L. The analysis found that the project would pose little safety risk and that appropriate safety features were already present on roads near local schools. This analysis is provided in the revised TIA (see TIA Chapter 12, Section B) and replicated in this Final EIR traffic section (see Section 4.15.5.2 of this Final EIR). These changes have been made in response to: Comment E-3-13 in Letter E-3 from the Moreno Valley Unified School District; Comment F-11-36 in Letter F-11 from the Sierra Club, San Gorgonio Chapter; and Comment G-96-4 in Letter G-96 from Margie Breikreuz.*

7) *Additional Changes. Additional changes have been made to the revised TIA and replicated in the Final EIR traffic section based on comments received on analytical details contained in the Draft EIR and/or previous TIA. These changes have been made in response to: Comments B-2-2 through B-2-14 in Comment Letter B-2 from the California Department of Transportation District 8; Comment B-5-12 in Letter B-5 from the California Air Resources Board; Comment C-3-17 in Letter C-3 from the South Coast Air Quality Management District; Comments E-2A-2 through E-2A-12 in Comment Letter 2A from the City of Riverside; Comments E-2B-1 through E-2B-23 in Appendix 1 to Comment Letter 2-A from the City of Riverside; Comment E-3-5 in Letter E-3 from the Moreno Valley Unified School District; Comments E-5-1 through E-5-5 in Comment Letter E-5 from the City of Redlands; Comments F-3-3, F-3-4, and F-3-6 to F-3-10 in Letter F-3 from the California Clean Energy Committee; Comments F-8-68 and F-8-69 in Comment Letter F-8 from Shute, Mihaly & Weinberger LLP; Comments F-9A-3 and F-9A-7 through F-9A-22 in Letter F-9A from the Sierra Club, Center for Community Action & Environmental Justice, and Natural Resources Defense Council; Comments F-9B-1 and F-9B-2, F-9B-4 through F-9B-47 in Letter F-9B from Tom Brohard and*

Associates; Comments F-13-9, F-13-26, and F-13-89 through F-13-98 in Letter F-13 from the Sierra Club and Friends for a Livable Moreno Valley; Comment G-17-1 in Letter G-17 from Joanne Lindgren; Comments G-51-19, G-51-28 through G-51-30, G-51-47, and G-51-61 through G-51-65 in Letter G-51 from Michael McCoy; Comments G-57-5 through G-57-7 in Letter G-57 from Tracy Hodge; and Comments G-90-7 and G-90-14 in Letter G-90 from Mr. and Mrs. H.W. Wolterbeek.

Note: As a result of these various changes, the level of significance of traffic impacts has not changed in comparison to the Draft EIR. However, the following changes to individual roadway, intersection, and/or freeway impacts and the reason for these changes are as follows:

Intersections

Indian Street/Cactus Avenue (IN-64). Although this intersection exceeds the level of service standard in the Year 2035 Cumulative Plus Project analysis, the revised project does not increase the delay in comparison to the No Project condition. Consequently, no mitigation is required.

Ellsworth Street/Alessandro Boulevard (IN-71). Due to the reduction in the project size, this intersection does not exceed the level of service standard and therefore no longer requires mitigation.

Ellsworth Street/Cactus Avenue (IN-74). The Draft EIR TIA identified required mitigation for the Ellsworth Street/Cactus Avenue intersection (IN-74) in Table 69 (page 325). The mitigation included widening the northbound approach to provide three left-turn lanes, one through lane, and one right-turn lane, and adding a westbound left-turn lane and eastbound right-turn lane. This mitigation was inadvertently omitted from the mitigations chapter text and Table 80 in the Draft EIR TIA. This mitigation has been corrected in the Final EIR TIA and added to the mitigation discussion in the Final EIR.

Bridge Street/Ramona Expressway (IN-122). Mitigation for this intersection was included in the Draft EIR for project direct impacts (Existing Plus Project). Upon further review, it was determined that the mitigation was not warranted because the intersection will be eliminated and replaced by a grade separation. A discussion of this has been included in the Revised Draft EIR, however, the impact remains significant and unavoidable.

Roadway Segments

Theodore Street from SR-60 Westbound Ramps to Ironwood Avenue (S-1). Due to the reduction in the project size, this roadway segment does not exceed the level of service standard and therefore no longer requires mitigation.

Freeway Segments

Southbound I-215 from SR-74 to Ellis Avenue (F-71). In the Draft EIR, this freeway segment was listed as "I-215 SR-74/Case Road to Redlands Avenue" and shown as having an impact. In the Final EIR TIA, the segment where the level of service exceedance will occur (between SR-74 and Ellis Avenue) is listed as "I-215 SR-74 to Redlands Ave" in Table 76 for project direct impacts but as "I-215 SR-74 to Ellis Ave" in Table 79 for cumulative impacts. In each table, however, the same identification number (F-71) was used. In summary, this is not a new impact; as it was already identified in the Draft EIR. A footnote has been added to the Revised EIR as follows: "I-215 currently runs unbroken between SR-74 and Redlands Avenue. The RTP includes a project (3M0731) that would split this freeway mainline section by adding a new interchange at Ellis Avenue. For this reason, this freeway section is listed as "I-215 SR-74 to Redlands" on the tables in the TIA and EIR describing conditions prior to construction of the Ellis Avenue interchange."

Southbound I-215 from Baseline Road to Highland Avenue (F-83). This freeway segment was identified as a significant and unavoidable project direct impact (Existing Plus Project). Upon further review, it was determined that the significant and unavoidable impact will occur in the Year 2035 Cumulative Plus Project scenario. For this reason, the impact has been moved to the Year 2035 Cumulative Plus Project analysis. Regarding F-83, the WLC would have a direct impact which was identified in the analysis of the Existing Plus Project scenario. However, the identified mitigation for this is already under construction. As a result, the direct impact will never exist. In the Cumulative scenario, F-83 would be deficient with or without WLC, even with the new lane currently under construction. Since the WLC is adding to a deficient condition it would have a cumulative impact on this segment. The solution to this would be to add yet another lane, but this is not feasible given the constraints at the site.

This section of the EIR assesses traffic impacts by examining the proposed project's impacts on Existing Baseline 2012, Opening Year 2022, and ~~General Plan Buildout~~ Year 2035 Cumulative traffic analysis time horizons. The impact of the entire proposed project has been assessed in the Baseline 2012 and Buildout Year 2035 time horizons, while the Baseline 2012 and Future Year 2022 analyses assess impacts of Phase 1 of the proposed project.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements, which affect several separate, adjacent and related properties. The following information is summarized from Section 3.0, *Project Description*. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes the WLC Specific Plan Area (2,610 acres), the CDFW Conservation Buffer Area (910 acres), the Public Facilities Lands area (194 aces), plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

Note: The following changes have been made due to revision to the Specific Plan project size.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers ~~3,918~~ 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes ~~3,814~~ 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering ~~3,814~~. 3,714 acres, which redesignates approximately 70 percent of the area (~~2,710~~ 2,610 acres) for logistics warehousing (new LD and LL~~, LS~~ zones) and the remaining 30 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the ~~2,710~~ 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.

The analysis contained in this section is based on the following technical studies prepared for the proposed project:

- *Traffic Impact Analysis Report for the World Logistics Center*, Parsons Brinckerhoff, ~~March~~ September 2014 (Appendix L-1 of this EIR).
- *Trip Generation Analysis for High-Cube Warehouse Distribution Center Land Use for the NAIOP Inland Empire*, Kunzman Associates, Inc., December 20, 2011 (Appendix L-2 of this EIR).
- *Assessment of Available High-Cube Trip Generation Rates*, Memorandum from Aric Evatt, Urban Crossroads, Inc., to Ahmad Ansari, City of Moreno Valley, February 1, 2012 (Appendix L-3 of this EIR).
- Letter from George Rhyner, Crain & Associates, to Mr. Robert Evans, NAIOP Inland Empire, regarding Response to the South Coast Air Quality Management District White Paper, dated December 1, 2011 (Appendix L-4 of this EIR).

In addition to these technical studies, the analysis contained in this section is also based on the following reference document:

- Moreno Valley General Plan Circulation Element, adopted July 2006.

The TIA for the proposed project has been prepared in accordance with accepted standards and practices of the traffic engineering industry as summarized in a scoping agreement with the City of Moreno Valley. The TIA analyzes roadway segments, intersections, freeway mainline segments, freeway weaving areas, and freeway ramp merge/diverge locations and complies with the TIA Guidelines of the City and Caltrans. Figures 4.15.1, 4.15.2, 4.15.3, and 4.15.4 illustrate the locations of analysis roadway segments, intersections, freeway mainline segments, freeway weaving segments, and freeway ramp merge/diverge locations.

~~The study area for surface streets covered all intersections in Moreno Valley of a collector or higher classification street with another collector or higher classification street, at which the proposed project would add 50 or more peak hour trips. The study area also included the main routes between the project and the neighboring cities of Riverside, Perris, Beaumont, San Jacinto, and Redlands. The study area also extended west to the nearest ramps to State Route (SR-91) and as far south as the I-215 ramps at Redlands Avenue in Perris. Figures 4.15.1, 4.15.2, and 4.15.3 show the study area for road segments, intersections, and freeway locations, respectively.~~

The study area for roadway segments included the roadways that will be affected by the proposed General Plan Amendment. The study area for intersections in Moreno Valley covered all intersections between streets classified as collector or higher and another collector or higher classification street, at which the proposed project would add 50 or more peak hour trips. This study area criterion was also applied to the main routes between the project and the neighboring cities of Riverside, Perris, Beaumont, San Jacinto, and Redlands. The study area also extended west to the nearest ramps to State Route (SR-91) and as far south as the I-215 ramps at Redlands Avenue in Perris.

The study area for freeways included the freeway routes extending from the project site to the north, south, east, and west. The analysis covered SR-60 from I-10 in the east to SR-71 in the west, SR-91/

I-215 from I-210 in the east to I-15 in the west, I-215 from Redlands Avenue (4th Street) in the north to the Scott Road interchange in the south, and I-10 from SR-62 in the east to SR-60 in the west. In addition, the two main routes to the Ports of Los Angeles and Long Beach were assessed.

Any freeway ramp where the project added 100 or more peak-hour trips was also studied. These included:

- All ramps at the SR-60/Theodore Street Interchange;
- All ramps at the SR-60/Gilman Springs Road Interchange;
- All ramps at the SR-60/Redlands Boulevard Interchange;
- The westbound off- and eastbound on-ramps to the SR-60/Central Avenue Interchange; and
- The westbound off- and eastbound on-ramps to the SR-60/Martin Luther King Boulevard Interchange.

Note: The following figures (3 of which were in the original DEIR) were modified or added in this revised DEIR section - the reader is referred to the original DEIR for the original graphic.

Figure 4.15.1: Study Roadway Segment Locations (replaced)

Figure 4.15.2: Study Intersection Locations (replaced)

Figure 4.15.3: Freeway Segment Locations (remains the same)

Figure 4.15.4: Freeway Segment Locations to the Ports of Los Angeles & Long Beach (new graphic)

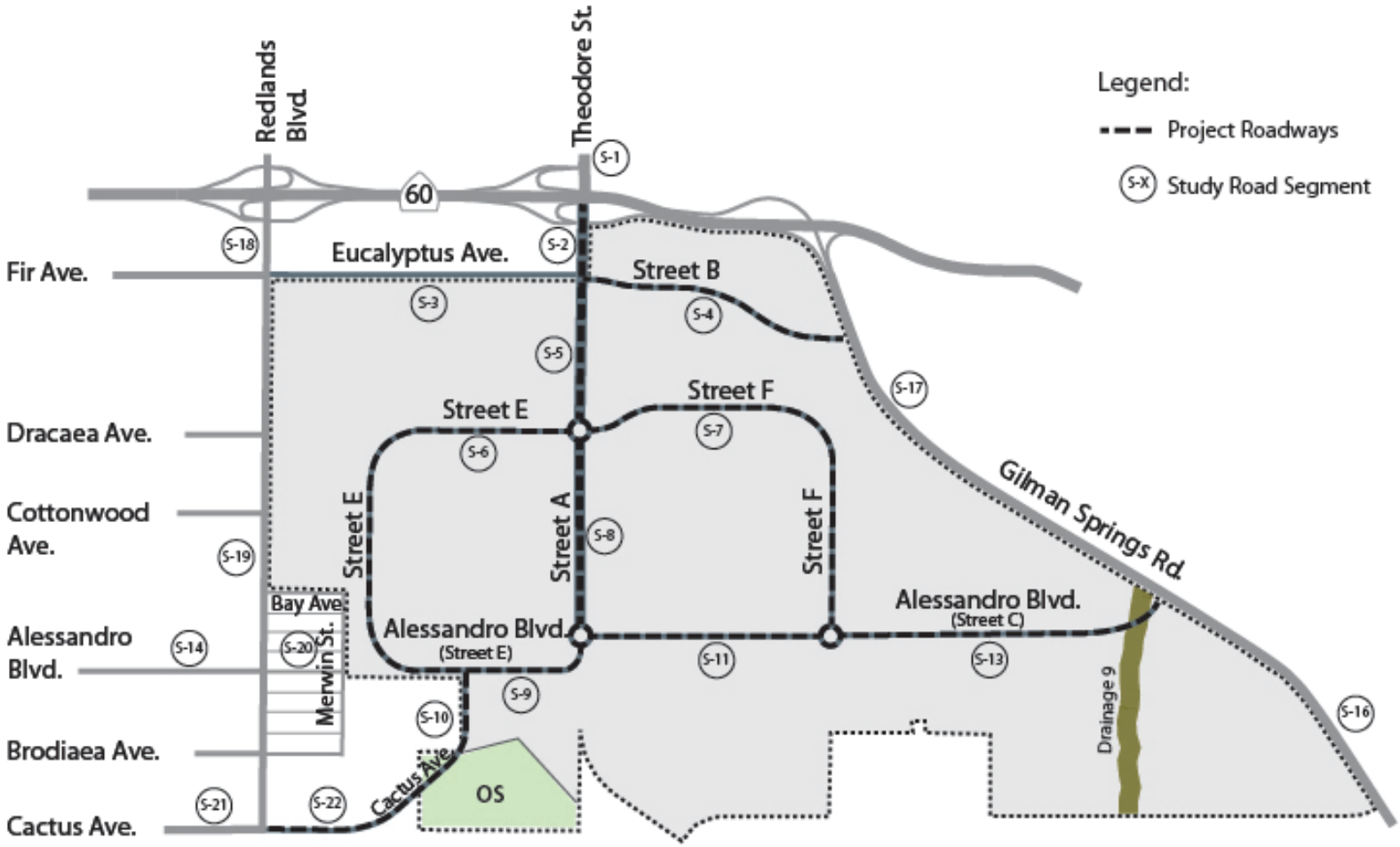

Figure 4.15.1: Study Roadway Segment Locations
Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, ~~March~~ September 2014.

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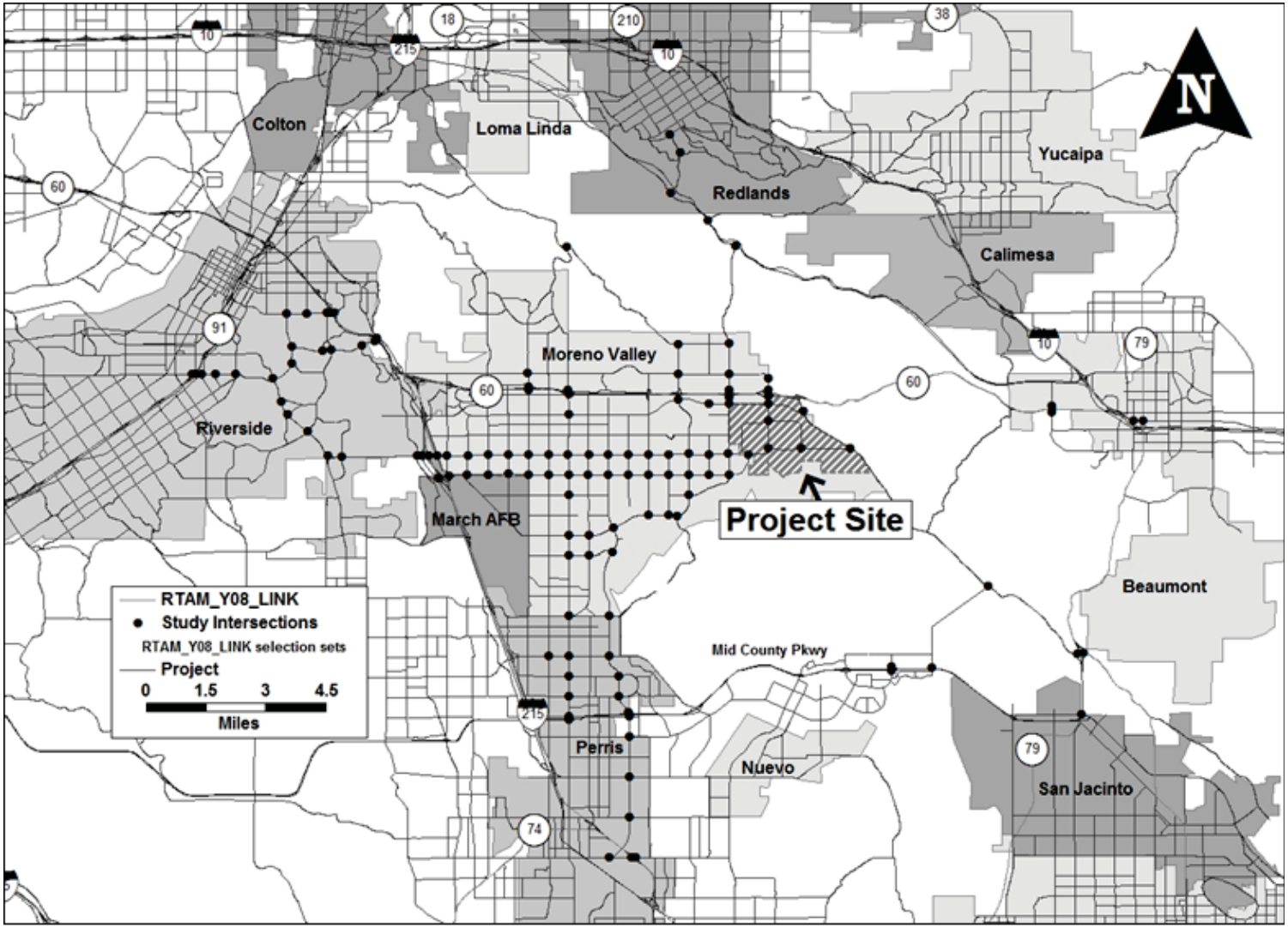

Figure 4.15.2: Study Intersection Locations
Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, ~~December 2013~~September 2014.

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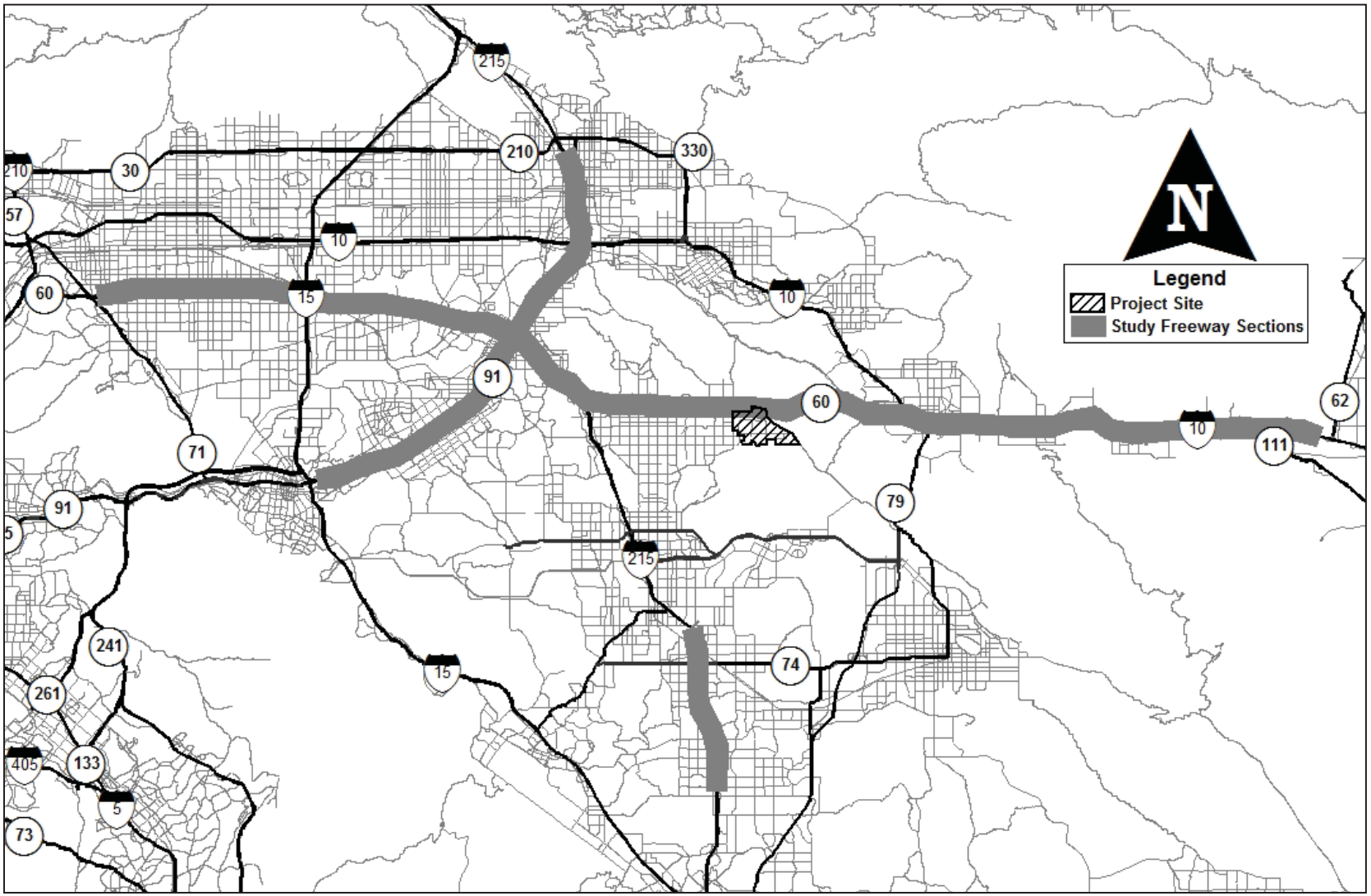

Figure 4.15.3: Freeway Segment Locations
Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, ~~December 2013~~September 2014.

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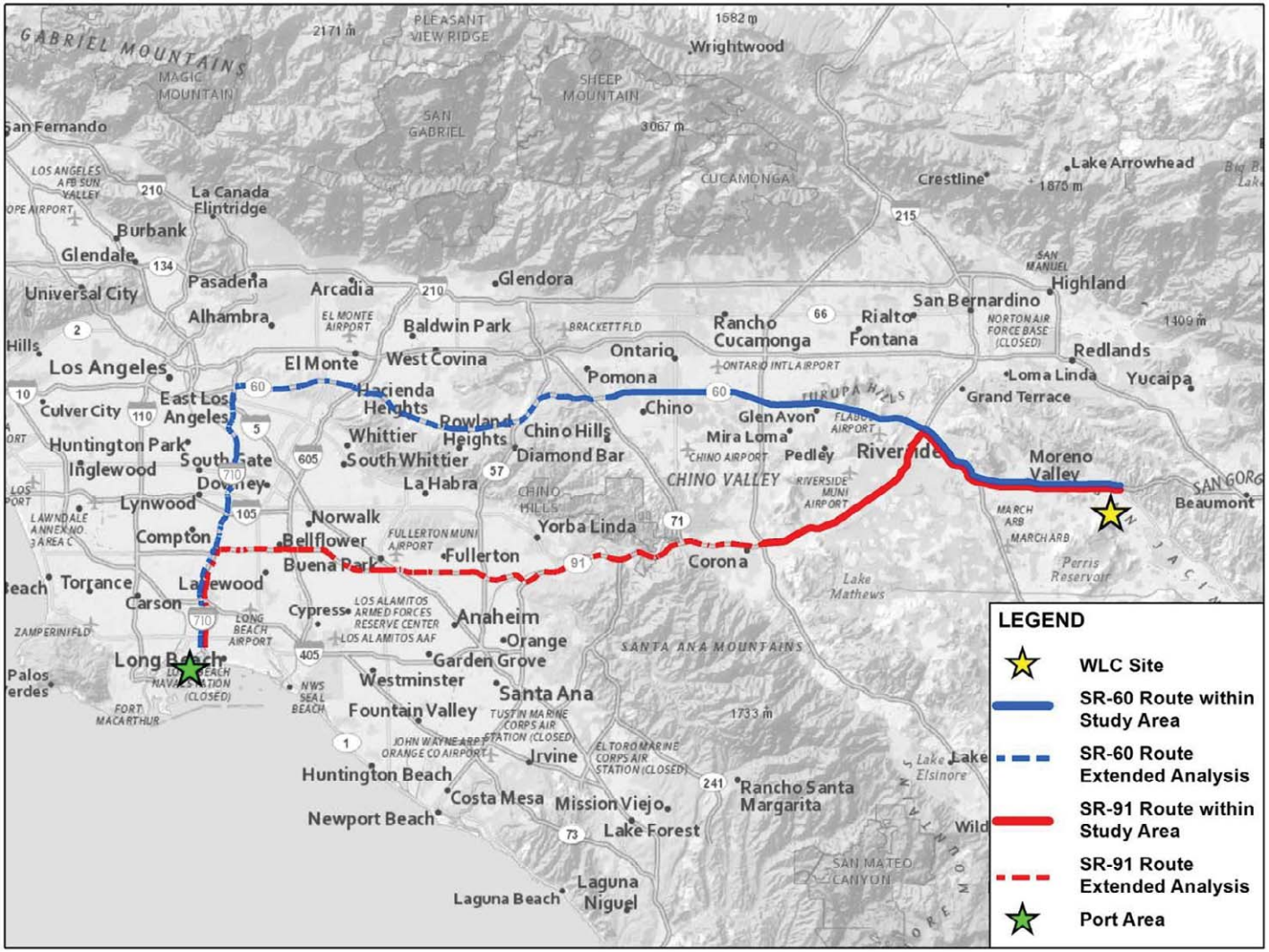

Figure 4.15.4: Freeway Segment Locations to the Ports of Los Angeles and Long Beach
Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, ~~December 2013~~September 2014.

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4.15.1 Existing Setting

4.15.1.1 Traffic Level of Service Definitions

Level of Service (LOS) is an expression of a transportation facility's operations and is dictated by the relationship between capacity and traffic volumes. LOS is generally defined using the letter grades A through F (Table 4.15.A). These levels reflect the reality that conditions rapidly deteriorate as traffic approaches the absolute capacity of a thoroughfare.

Table 4.15.A: Traffic Level of Service Definitions

Level of Service	Description
A	No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.
B	This service level represents stable operation, where an occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles.
C	This level still represents stable operating conditions. Occasionally drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.
D	This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is seldom attained no matter how great the demand.
F	This level describes forced flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, both speed and volume can drop to zero.

Source: *Highway Capacity Manual, Special Report 209,* Transportation Research Board, Washington, D.C., 2000.

Roadway Segment Level of Service Methodology. ~~LOS criteria for roadway segments is based on daily traffic volumes as shown in Table 4.15.B.~~ Roadway segment operations have been evaluated using the City of Moreno Valley Daily Roadway Capacity Values provided in the City of Moreno Valley General Plan Circulation Element as shown in Table 4.15.B.

Table 4.15.B: City of Moreno Valley Level of Service Criteria for Roadway Segments

Roadway Classification	Level of Service*				
	A	B	C	D	E
6-Lane Divided Arterial	33,900	39,400	45,000	50,600	56,300
4-Lane Divided Arterial	22,500	26,300	30,000	33,800	37,500
4-Lane Undivided Arterial	15,000	17,500	20,000	22,500	25,000
2-Lane Industrial Collector	7,500	8,800	10,000	11,300	12,500
2-Lane Undivided Residential	N/A	N/A	N/A	N/A	2,000

*Maximum Average Daily Traffic (ADT)

Source: City of Moreno Valley *Traffic Impact Analysis Preparation Guide*, 2007.

Riverside County's LOS thresholds for surface streets were used for the assessment of impacts to Gilman Springs Road, as shown in Table 4.15.C.

Table 4.15.C: Riverside County LOS Thresholds for Surface Streets (new table)

Type of Roadway	Level of Service(1)		
	LOS C	LOS D	LOS E
8-Lane Urban Arterial	57,400	64,600	71,800
6-Lane Urban Arterial	43,100	48,500	53,900
4-Lane Urban Arterial	28,700	32,300	35,900
2-Lane Collector	10400	11700	13,000

Notes: All capacity figures are based on optimum conditions and are intended as guidelines for planning purpose only.
(1) Maximum two-way ADT values are based on the 1999 Modified Highway Capacity Manual Level of Service Tables as defined in the Riverside County Congestion Management Program.

Source: County of Riverside General Plan, Circulation Element, 2008

Intersection Level of Service Methodologies. LOS criteria for signalized intersections are identified in Table 4.15.D. Levels of service at signalized intersections were calculated using the methodology described in Chapter 16 of the *Highway Capacity Manual* (HCM) and generated by the Synchro analysis software. Signalized intersection LOS are based on an intersection's average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections, LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 4.15.D.

Table 4.15.D: Level of Service Criteria for Unsignalized and Signalized Intersections

Level of Service	Unsignalized Intersection and Roundabouts Average Delay per Vehicle (sec.)	Signalized Intersection Average Delay per Vehicle (sec.)
A	≤ 10	≤ 10
B	> 10 and ≤ 15	> 10 and ≤ 20
C	> 15 and ≤ 25	> 20 and ≤ 35
D	> 25 and ≤ 35	> 35 and ≤ 55
E	> 35 and ≤ 50	> 55 and ≤ 80
F	> 50	> 80

Source: *Highway Capacity Manual,* Transportation Research Board, Washington, DC, 2000.

LOS criteria for unsignalized intersections are also identified in Table 4.15.D. The City of Moreno Valley requires unsignalized intersection analysis based on the methodology described in Chapter 17 of the HCM.

Freeway Level of Service Methodology. Caltrans LOS criteria for freeway mainline segments, freeway weave segments, and freeway ramp merge/diverge locations are expressed in terms of density (passenger cars/mile/lane). Table 4.15.E shows the correlation between density and LOS for freeway segments and ramps.

Table 4.15.E: Level of Service Criteria for Freeway Segments

Level of Service	Freeway Segment Density (passenger cars/mile/lane)	Freeway Weaving Segment Density (pc/mi/lane)	Freeway Ramp Density (passenger cars/mile/lane)
A	0–11.0	≤ 10.0	≤ 10.0
B	11.0–18.0	> 10.0 and ≤ 20.0	> 10.0 and ≤ 20.0
C	18.0–26.0	> 20.0 and ≤ 28.0	> 20.0 and ≤ 28.0
D	26.0–35.0	> 28.0 and ≤ 35.0	> 28.0 and ≤ 35.0
E	35.0–45.0	>35.0 and ≤ 43.0	>35
F	> 45.0	>43.0	Exceeds Capacity

Source: (Table 11, PB 2013) *Highway Capacity Manual,* Transportation Research Board, Washington, DC, 2000.

4.15.1.2 Baseline Conditions

The project is located within the eastern portion of the City of Moreno Valley. The project site is located south of SR-60 and west of Gilman Springs Road. Tables 4.15.F and 4.15.G show existing intersection control types and roadway through lanes for the study area intersections and roadways, respectively. LOS and volumes are discussed below for existing (2012) without project conditions (otherwise known as the "baseline" condition).

Baseline Levels of Service. Existing (2012) traffic operations have been evaluated for study area intersections. The analysis was performed for the a.m. and p.m. peak hours. Existing traffic volumes at study area intersections are based on peak hour intersection turn movement counts. An intersection level of service analysis was conducted to determine current intersection performance for existing baseline conditions. The levels of service for existing baseline conditions at study area intersections are summarized in Table 4.15.F, which shows the following 12 study intersections currently operate at an unsatisfactory level of service during either the a.m. and p.m. peak hour:

- Redlands Boulevard/Locust Avenue (a.m. and p.m.);
- Redlands Boulevard/SR-60 Westbound ramps (a.m. and p.m.);
- Oliver Street/Alessandro Boulevard (a.m.);
- Moreno Beach Drive/SR-60 Eastbound Ramps (p.m.);
- ~~Kitching Street/Cactus Avenue (a.m.);~~
- Lasselle Street/Cactus Avenue (a.m. and p.m.);
- Alessandro Boulevard/Chicago Avenue. (p.m.);
- Gilman Springs Road/Bridge Street (a.m.);
- SR-79 (Sanderson Avenue) Northbound/Gilman Springs Road (a.m. and p.m.);
- SR-79 (Sanderson Avenue) Southbound/Gilman Springs Road (a.m. and p.m.);
- San Timoteo Canyon Road/Alessandro Road (a.m. and p.m.);
- San Timoteo Canyon Road/Live Oak Canyon Road (a.m. and p.m.); and
- Redlands Boulevard/San Timoteo Canyon Road (a.m. and p.m.).

A roadway segment ~~volume to capacity ratio (V/C)~~ analysis was conducted to determine current roadway system performance for existing baseline conditions for the roadway segments that would

be affected by the proposed General Plan Amendment. Roadway segment operations have been evaluated using the City of Moreno Valley Daily Roadway Capacity Values provided in the City of Moreno Valley General Plan Circulation Element and summarized in previously referenced Table 4.15.B. The roadway segment ~~V/C ratios~~ levels of service are summarized in Table 4.15.G. The following two roadway segments currently exceed the threshold of significance established in the General Plan.

Gilman Springs Road:

- Between Alessandro Boulevard and Bridge Street; and
- Between SR-60 and Alessandro Boulevard.

A freeway analysis was conducted for existing baseline conditions to determine current freeway performance on SR-60, SR-91, I-215, and I-10 basic freeway segments where the project would add 100 or more peak-hour trips and on the freeway routes to the Ports of Los Angeles and Long Beach. A freeway weaving analysis was conducted on freeway segments where an on-ramp is closely followed by an off-ramp, and the two are joined by an auxiliary lane. Existing baseline freeway mainline and weaving section levels of service are summarized in Tables 4.15.H and 4.15.I, respectively, which show the following ~~20~~ 17 freeway mainline segments and six weaving segments are currently operating at an unsatisfactory level of service during either the a.m. or p.m. peak hour:

- SR-60, South Reservoir Street to Ramona Avenue (Westbound a.m.);
- SR-60, Ramona Avenue to Central Avenue (Westbound a.m., Eastbound p.m.);
- SR-60, Central Avenue to Mountain Avenue (Eastbound p.m.);
- SR-60, Euclid Avenue to Grove Avenue (Eastbound p.m.);
- SR-60, Grove Avenue to Vineyard Avenue (Eastbound p.m.);
- SR-60, Vineyard Avenue to Archibald Avenue (Eastbound p.m.);
- SR-60, Market Street to Main Street (Eastbound p.m.);
- SR-60, Martin Luther King Boulevard to Central Avenue (Eastbound p.m.);
- SR-60, I-215 to Day Street (Westbound a.m.);
- SR-91, I-15 to McKinley Street (Eastbound p.m.);
- SR-91, Pierce Street to Magnolia Avenue (Westbound p.m.);
- SR-91, Magnolia Avenue to La Sierra Avenue (Westbound p.m.);
- I-215, SR-74/Case Road to Redlands Boulevard (Westbound a.m., Eastbound p.m.);
- I-215, Barton Road to Mt. Vernon Avenue/Washington Street (Northbound a.m.);
- I-215, Baseline Road to Highland Avenue/SR-210 (Southbound a.m., Southbound p.m.);
- SR-60, SR-71/Garey Avenue to Reservoir Street (Eastbound p.m.);
- SR-60, SR-91 to Blaine Street/3rd Street (Eastbound p.m.);
- SR-60, Blaine Street/3rd Street to University Avenue (Eastbound p.m.);
- SR-60, Central Avenue to Fair Isle Drive/Box Springs Road (Westbound a.m.);
- SR-91, Arlington Avenue to Central Avenue (Eastbound a.m.); and
- SR-91, 14th Street to University Avenue (Westbound p.m.).

Table 4.15.F: Existing (2012) Intersection Levels of Service

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Theodore St/Street F	N/A	N/A	Non-Existent		Non-Existent	
2	Cactus Ave Extension/Street E	N/A	N/A	Non-Existent		Non-Existent	
3	Theodore St/Alessandro Blvd (Str A/Str C/Str E)	D	CSS	9.7	A	10.1	B
4	Street C/Street F	N/A	N/A	Non-Existent		Non-Existent	
6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	CSS	10.3	B	15.7	C
9	Gilman Springs Rd/Eucalyptus Ave	N/A	N/A	Non-Existent		Non-Existent	
10	Redlands Blvd/Locust Ave	C	CSS	26.7	**D**	42.8	**E**
11	Redlands Blvd/Ironwood Ave	D	SIGNAL	40.9	D	37.3	D
12	Theodore Street/Ironwood Avenue	D	CSS	9.7	A	9.8	A
13	Redlands Blvd/SR-60 WB ramps	D	CSS	42.2	**E**	54.0	**F**
14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	9.6	A	14.4	B
15	Theodore Str/SR-60 WB ramps	D	CSS	9.0	A	9.6	A
16	Theodore Str/SR-60 EB ramps	D	CSS	9.2	A	9.4	A
17	Quincy Str/Fir Ave	N/A	N/A	Non-Existent		Non-Existent	
18	Redlands Blvd/Eucalyptus Ave (Fir)	N/A	N/A	Non-Existent		Non-Existent	
19	Theodore St/Fir Ave (Eucalyptus)	D	CSS	9.2	A	9.8	A
20	Oliver Str/Alessandro Blvd	C	CSS	25.9	**D**	14.7	B
21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	24.0	C	28.2	C
22	Quincy Str/Alessandro Blvd	N/A	N/A	Non-Existent		Non-Existent	
23	Redlands Blvd/Alessandro Blvd	C	AWS	20.5	C	13.8	B
24	Oliver Str/Cactus Ave	D	SIGNAL	23.8	C	17.3	B
25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	16.0	B	17.0	B
26	Quincy Str/Cactus Ave	N/A	N/A	Non-Existent		Non-Existent	
27	Redlands Blvd/Cactus Ave	C	AWS	11.4	B	8.2	A
28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	16.2	B	13.8	B
29	Heacock Str/Ironwood Ave	D	SIGNAL	29.6	C	31.9	C
30	Heacock Str/SR-60 WB Ramps	D	SIGNAL	22.6	C	21.5	C
31	Heacock Str/SR-60 EB Ramps	D	SIGNAL	12.5	B	15.9	B
32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	29.4	C	36.0	D
33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	22.0	C	19.7	B
34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	22.8	C	23.4	C
35	Moreno Beach Dr/Locust Ave	C	CSS	8.6	A	8.6	A
36	Moreno Beach Drive/Ironwood Avenue	D	SIGNAL	50.3	D	40.0	D
37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	38.0	D	76.6	**E**
38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	37.0	D	31.2	C
39	Iris Ave/Perris Blvd	D	SIGNAL	41.5	D	36.5	D
40	Kitching Str/Iris Ave	C	SIGNAL	23.4	C	17.5	B
41	Lasselle Str/Iris Ave	D	SIGNAL	25.4	C	26.6	C
42	Nason Str/Iris Ave	N/A	N/A	Non-Existent		Non-Existent	

Table 4.15.F: Existing (2012) Intersection Levels of Service

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
43	Oliver Str/Iris Ave	D	SIGNAL	22.1	C	15.8	B
44	Via Dell Lago/Iris Ave	C	SIGNAL	6.7	A	6.5	A
45	Krameria Ave/Perris Blvd	D	SIGNAL	34.6	C	29.3	C
46	Kitching Str/Krameria Ave	D	SIGNAL	21.7	C	19.4	B
47	Lasselle Str/Krameria Ave	D	SIGNAL	37.9	D	13.5	B
48	Kitching Str/Alessandro Blvd	D	SIGNAL	28.8	C	24.7	C
49	Lasselle Str/Alessandro Blvd	D	SIGNAL	31.7	C	26.6	C
50	Morrison Str/Alessandro Blvd	D	SIGNAL	8.8	A	7.8	A
51	Nason Str/Alessandro Blvd	D	SIGNAL	20.5	C	16.9	B
52	Kitching Str/Cactus Ave	C	SIGNAL	33.3	C	22.6	C
53	Lasselle Str/Cactus Ave	C	SIGNAL	47.2	**D**	38.6	**D**
54	Morrison Str/Cactus Ave	N/A	N/A	Non-Existent		Non-Existent	
55	Nason Str/Cactus Ave	D	SIGNAL	22.5	C	21.0	C
56	Frederick Str/Alessandro Blvd	D	SIGNAL	19.5	B	25.6	C
57	Graham Str/Alessandro Blvd	D	SIGNAL	19.8	B	24.2	C
58	Heacock Str/Alessandro Blvd	D	SIGNAL	25.8	C	23.6	C
59	Indian Str/Alessandro Blvd	D	SIGNAL	17.6	B	27.9	C
60	Perris Blvd/Alessandro Blvd	D	SIGNAL	32.4	C	42.3	D
61	Frederick Str/Cactus Ave	D	SIGNAL	9.8	A	11.7	B
62	Graham Str/Cactus Ave	D	SIGNAL	12.9	B	17.4	B
63	Heacock Str/Cactus Ave	D	SIGNAL	30.1	C	20.3	C
64	Indian Str/Cactus Ave	C	SIGNAL	24.4	C	19.6	B
65	Perris Blvd/Cactus Ave	D	SIGNAL	26.9	C	30.7	C
66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	25.8	C	18.0	B
67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	6.4	A	12.6	B
68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	19.4	B	24.1	C
69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	18.2	B	18.6	B
70	Day Str/Alessandro Blvd	D	SIGNAL	4.6	A	8.2	A
71	Elsworth Str/Alessandro Blvd	D	SIGNAL	19.2	B	27.6	C
72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	12.1	B	19.7	B
73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	11.1	B	3.7	A
74	Elsworth Str/Cactus Ave	D	SIGNAL	26.7	C	29.5	C
75	Central Ave/Lochmoor Dr	D	SIGNAL	10.9	B	6.7	A
76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	22.2	C	17.6	B
77	SR-60 EB Ramps/Central Ave	D	SIGNAL	7.3	A	10.3	B
78	SR-60 WB Ramps/Central Ave	D	SIGNAL	6.8	A	8.2	A
79	Alessandro Blvd/Trautwein Rd	D	SIGNAL	28.4	C	14.8	B
80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	18.8	B	34.9	C
81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	43.2	D	36.5	D
82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	9.0	A	13.0	B

Table 4.15.F: Existing (2012) Intersection Levels of Service

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	43.2	D	28.0	C
84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	8.6	A	4.7	A
85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	24.3	C	12.2	B
86	Central Ave/Chicago Ave	D	SIGNAL	23.4	C	23.1	C
87	Central Ave/El Cerrito Dr	D	SIGNAL	11.7	B	12.0	B
88	Central Ave/Canyon Crest Dr	D	SIGNAL	27.8	C	35.2	D
89	Chicago Ave/Country Club Dr	D	SIGNAL	6.3	A	4.9	A
90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	31.3	C	30.7	C
91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	21.0	C	20.8	C
92	Arlington Ave/Maude Str	D	SIGNAL	13.8	B	11.1	B
93	Horace St/Arlington Ave	D	SIGNAL	12.3	B	7.2	A
94	Arlington Ave/Victoria Ave	D	SIGNAL	54.8	D	30.9	C
95	Alessandro Blvd/Chicago Ave	D	SIGNAL	40.7	D	65.9	**E**
96	Alessandro Blvd/Century Ave	D	SIGNAL	16.7	B	7.6	A
97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	30.7	C	18.9	B
98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	20.4	C	17.9	B
99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	15.4	B	15.1	B
100	Harley Knox Blvd/Evan Rd	N/A	N/A	Non-Existent		Non-Existent	
101	Ramona Expy/Indian Str	E	SIGNAL	3.3	A	8.5	A
102	Ramona Expy/Perris Blvd	E	SIGNAL	31.7	C	34.6	C
103	Ramona Expy/Evans Rd	E	SIGNAL	54.5	D	28.8	C
104	Perris Blvd/Morgan Str	D	SIGNAL	11.8	B	6.7	A
105	Evans Rd/Morgan Str	C	SIGNAL	32.5	C	20.6	C
106	Perris Blvd/Rider Str	C	SIGNAL	24.5	C	23.0	C
107	Evans Rd/Rider Str	C	SIGNAL	34.2	C	28.3	C
108	Perris Blvd/Mid County Pkwy WB Ramps	N/A	N/A	Non-Existent		Non-Existent	
109	Perris Blvd/Mid County Pkwy EB Ramps	N/A	N/A	Non-Existent		Non-Existent	
110	Evans Rd/Mid County Pkwy WB Ramps	N/A	N/A	Non-Existent		Non-Existent	
111	Evans Rd/Mid County Pkwy EB Ramps	N/A	N/A	Non-Existent		Non-Existent	
112	Placentia Ave/Perris Blvd	D	SIGNAL	30.1	C	14.0	B
113	Evans Rd/Placentia Ave	N/A	N/A	Non-Existent		Non-Existent	
114	Evans Rd/Orange Ave	C	AWS	12.5	B	10.1	B
115	Evans Rd/Nuevo Rd	C	SIGNAL	23.3	C	22.6	C
116	Evans Rd/Ellis Ave	N/A	N/A	Non-Existent		Non-Existent	
117	Ellis Ave/I-215 SB Ramps	N/A	N/A	Non-Existent		Non-Existent	
118	Ellis Ave/SR-215 NB Ramps	N/A	N/A	Non-Existent		Non-Existent	

Table 4.15.F: Existing (2012) Intersection Levels of Service

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
119	Evans Rd/San Jacinto Ave	N/A	N/A	Non-Existent		Non-Existent	
120	Park Center Blvd/Ramona Expy WB Ramps	N/A	N/A	Non-Existent		Non-Existent	
121	Park Center Blvd/Ramona Expy EB Ramps	N/A	N/A	Non-Existent		Non-Existent	
122	Bridge Str/Ramona Expy	C	CSS	22.4	C	20.6	C
123	Gilman Springs Rd/Bridge Str	C	CSS	26.6	**D**	20.8	C
124	SR-79 (Sanderson Ave) NB/Gilman Springs Rd	C	CSS	34.7	**D**	30.7	**D**
125	SR-79 (Sanderson Ave) SB/Gilman Springs Rd	C	CSS	29.2	**D**	48.2	**E**
126	Ramona Expy/Sanderson Ave	D	SIGNAL	27.1	C	20.8	C
127	Potrero Blvd/SR-60 WB Ramps	N/A	N/A	Non-Existent		Non-Existent	
128	Potrero Blvd/SR-60 EB Ramps	N/A	N/A	Non-Existent		Non-Existent	
129	W 6th Str/California Ave	C	AWS	16.6	C	18.0	C
130	W 6th Str/Beaumont Ave	C	SIGNAL	13.2	B	12.8	B
131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	18.9	B	6.3	A
132	San Timoteo Canyon Rd/ Alessandro Blvd	D	AWS	77.2	**F**	23.9	C
133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	50.9	**F**	60.2	**F**
134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	81.8	**F**	80.5	**F**
135	W Crescent Ave/Alessandro Blvd	C	CSS	14.0	B	11.5	B
136	W Sunset Dr/Alessandro Blvd	C	AWS	8.9	A	9.0	A

denotes LOS exceeding the target threshold

"CSS" means cross-street is stop-controlled
"AWS" means all-way stop
"RABT" means roundabout
"NB" and "SB" denote northbound and southbound, respectively
"EB" and "WB" denote eastbound and westbound, respectively
"LT" and "RT" denote left turn and right turn, respectively

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, ~~March~~ September 2014.

Table 4.15.G: Existing (2012) Roadway Segment Levels of Service

Roadway		From	To	Roadway Section*	LOS Standard	Daily Volume	LOS
S-1	Theodore Street (A)	SR-60 WB Ramps	Ironwood Avenue	2U	D	771	A
S-2	Theodore Street (A)	SR-60 EB Ramps	Fir (Eucalyptus) Ave	2U	D	2,046	A
S-3	Fir (Eucalyptus) Ave	Redlands Blvd	Theodore Street (A)	2U**	D	1,339	A
S-4	Eucalyptus Ave (B)	Theodore Street (A)	Gilman Springs Rd	Future Road			
S-5	Theodore Street (A)	Fir (Eucalyptus) Ave	Street E	2U	D	641	A
S-6	Street E	Theodore Street (A)	Cactus Ave Extension	Future Road			
S-7	Street F	Theodore Street (A)	Alessandro Blvd (Street C)	Future Road			
S-8	Theodore Street (A)	Fir (Eucalyptus) Ave	Alessandro Blvd (Street C)	2U	D	641	A
S-9	Alessandro Blvd (Street E)	Merwin Street	Theodore Street (A)	2U	D	2,537	A
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave	Future Road			
S-11	Alessandro Blvd (Street C)	Theodore Street (A)	Street F	2U	D	1,896	A
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	2U	D	1,896	A
S-14	Alessandro Blvd	Moreno Beach Drive	Redlands Blvd	2U	D	3,877	A
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge Street	2U	D	14,407	**F**
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	2U	D	11,973	**E**
S-18	Redlands Blvd	SR-60 EB Ramps	Fir (Eucalyptus) Ave.	2U	D	7,338	A
S-19	Redlands Blvd	Fir (Eucalyptus) Ave.	Alessandro Blvd	2U	C	6,786	A
S-20	Alessandro Blvd	Redlands Blvd	Merwin Street	2U	C	2,537	A
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave.	2U	C	6,786	A
S-22	Cactus Ave.	Redlands Blvd	Cactus Ave. Extension	2U**	C	472	A

* Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways

** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.

*** LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways

Indicates LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, ~~March~~ September 2014.

Table 4.15.H: Existing (2012) Freeway Segment Levels of Service

			Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	6,024	24.5	C	7,822	33.0	D	8,762	41.4	**E**	6,381	25.6	C
F-3	SR-60	Ramona Ave to Central Ave	5,687	22.8	C	9,400	47.3	**F**	8,283	37.1	**E**	5,925	23.4	C
F-4	SR-60	Central Ave to Mountain Ave	6,339	26.2	D	9,338	46.6	**F**	6,336	24.7	C	6,076	24.1	C
F-5	SR-60	Mountain Ave to Euclid Ave	6,205	25.4	C	6,664	26.1	D	6,259	24.4	C	6,495	26.3	D
F-6	SR-60	Euclid Ave to Grove Ave	7,650	34.7	D	9,091	43.8	**E**	6,461	25.4	C	6,302	25.2	C
F-7	SR-60	Grove Ave to Vineyard Ave	6,923	29.6	D	9,400	47.3	**F**	6,274	24.3	C	6,699	27.4	D
F-8	SR-60	Vineyard Ave to Archibald Ave	6,823	28.7	D	9,400	47.3	**F**	7,658	32.1	D	6,245	25.0	C
F-9	SR-60	Archibald Ave to Haven Ave	6,268	25.6	C	6,471	25.1	C	See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Milliken Ave	6,096	19.1	C	6,864	20.6	C	5,804	17.4	B	5,698	17.5	B
F-11	SR-60	Milliken Ave to I-15	4,234	16.5	B	4,529	16.9	B	5,456	20.5	C	5,111	19.5	C
F-12	SR-60	I-15 to Etiwanda Ave/ Van Buren Blvd	2,593	10.2	A	2,910	10.8	A	4,490	13.4	B	4,275	13.0	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission Blvd/Country Village Rd	3,026	11.9	B	3,968	14.8	B	4,220	15.7	B	3,881	14.8	B
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	2,596	10.2	A	3,061	11.4	B	4,172	15.5	B	3,963	15.1	B

Table 4.15.H: Existing (2012) Freeway Segment Levels of Service

			Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-15	SR-60	Pedley Rd to Pyrite St	2,813	11.1	B	3,334	12.4	B	3,216	12.0	B	3,068	11.7	B
F-16	SR-60	Pyrite St to Valley Way	3,348	13.2	B	3,642	13.6	B	2,653	9.9	A	2,567	9.8	A
F-17	SR-60	Valley Way to Rubidoux Blvd	4,398	23.7	C	4,252	21.4	C	4,532	23.1	C	4,725	24.9	C
F-18	SR-60	Rubidoux Blvd to Market St	4,943	27.6	D	4,706	24.3	C	3,568	17.7	B	3,868	19.7	C
F-19	SR-60	Market St to Main St	4,498	24.4	C	7,050	47.8	**F**	5,631	30.9	D	5,109	27.6	D
F-20	SR-60	Main to SR-91	See Weaving Analysis			See Weaving Analysis			5,248	27.9	D	4,720	24.9	C
F-24	SR-60	Martin Luther King Blvd to Central Ave	5,865	24.6	C	8,976	45.7	**F**	7,050	30.6	D	5,800	24.1	C
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	4,332	16.9	B	6,795	26.6	D	7,461	31.1	D	6,376	25.6	C
F-27	SR-60	I-215 to Day St	See Weaving Analysis			See Weaving Analysis			7,050	47.9	**F**	3,093	15.9	B
F-29	SR-60	Pigeon Pass Rd to Heacock St	2,702	21.6	C	3,713	30.2	D	3,013	23.1	C	3,254	26.5	D
F-30	SR-60	Heacock St to Perris Blvd	2,349	18.6	C	3,355	26.1	D	2,638	19.9	C	2,671	20.8	C
F-31	SR-60	Perris Blvd to Nason St	1,812	14.3	B	2,344	17.4	B	1,910	14.3	B	2,045	15.8	B
F-32	SR-60	Nason St to Moreno Beach Dr	1,619	12.8	B	2,038	15.1	B	See Weaving Analysis			See Weaving Analysis		
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	1,326	10.5	A	1,397	10.4	A	988	7.4	A	1,336	10.3	A
F-34	SR-60	Redlands Blvd to Theodore St	1,614	12.7	B	1,920	14.2	B	1,193	8.9	A	1,498	11.6	B

Table 4.15.H: Existing (2012) Freeway Segment Levels of Service

			Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-35	SR-60	Theodore St to Gilman Springs Rd	1,521	12.0	B	1,915	14.2	B	1,183	8.9	A	1,393	10.8	A
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	1,213	11.2	B	1,484	12.3	B	837	7.0	A	1,002	9.1	A
F-37	SR-60	Jack Rabbit Trail to I-10	1,215	9.6	A	1,482	11.0	A	837	6.3	A	1,002	7.7	A
F-39	SR-91	I-15 to McKinley St	5,914	22.6	C	9,400	53.3	**F**	6,402	25.1	C	5,971	24.1	C
F-40	SR-91	McKinley St to Pierce St	5,382	29.1	D	5,427	31.4	D	4,788	25.0	C	5,183	29.3	D
F-41	SR-91	Pierce St to Magnolia Ave	4,888	25.5	C	4,922	27.2	D	4,629	23.9	C	7,050	53.3	**F**
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis			See Weaving Analysis			4,894	25.7	C	7,050	53.3	**F**
F-43	SR-91	La Sierra Ave to Tyler St	4,585	23.5	C	4,939	27.3	D	4,467	22.9	C	5,167	29.2	D
F-44	SR-91	Tyler St to Van Buren Blvd	5,704	21.7	C	5,851	23.5	C	5,769	22.1	C	6,661	27.8	D
F-45	SR-91	Van Buren Blvd to Adam St	5,841	22.3	C	4,999	19.6	C	5,342	20.2	C	6,401	26.3	D
F-46	SR-91	Adam St to Madison St	6,531	26.1	D	4,742	18.7	C	4,939	18.6	C	5,453	21.5	C
F-47	SR-91	Madison St to Arlington Ave	5,879	22.8	C	4,530	17.9	B	4,218	21.4	C	4,711	25.5	C
F-49	SR-91	Central Ave to 14th St	6,021	34.8	D	5,391	30.8	D	4,737	24.7	C	4,940	27.2	D
F-51	SR-91	University Ave to Spruce St	7,244	22.1	C	6,394	20.0	C	See Weaving Analysis			See Weaving Analysis		

Table 4.15.H: Existing (2012) Freeway Segment Levels of Service

			Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-52	I-10	SR-60 to Beaumont Ave	3,037	11.9	B	4,252	16.4	B	4,288	18.1	C	3,675	13.8	B
F-53	I-10	Beaumont Ave to Pennsylvania Ave	3,087	12.1	B	4,322	16.7	B	4,358	18.4	C	3,736	14.0	B
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	3,236	12.6	B	4,531	17.5	B	4,569	19.4	C	3,916	14.7	B
F-55	I-10	Highland Springs Ave to Sunset Ave	3,112	12.2	B	4,357	16.8	B	4,393	18.6	C	3,766	14.1	B
F-56	I-10	Sunset Ave to 22nd St	3,037	11.9	B	4,252	16.4	B	4,288	18.1	C	3,675	13.8	B
F-57	I-10	22nd St to 8th St	2,987	11.7	B	4,182	16.2	B	4,218	17.8	B	3,615	13.5	B
F-58	I-10	8th St to Hargrave St	2,987	11.7	B	4,182	16.2	B	4,218	17.8	B	3,615	13.5	B
F-59	I-10	Hargrave St to Field Rd	2,689	10.5	A	3,764	14.5	B	3,796	16.0	B	3,254	12.2	B
F-60	I-10	Field Rd to Morongo Trail	2,564	10.0	A	3,590	13.9	B	3,620	15.3	B	3,103	11.6	B
F-61	I-10	Morongo Trail to Main St	2,265	8.8	A	3,172	12.3	B	3,198	13.5	B	2,741	10.3	A
F-62	I-10	Main St to Haugen-Lehmann Way	2,265	8.8	A	3,172	12.3	B	3,198	13.5	B	2,741	10.3	A
F-64	I-10	SR-111 to Tipton Rd	1,967	7.7	A	2,753	10.6	A	2,777	11.7	B	2,380	8.9	A
F-65	I-10	Tipton Rd to SR-62	1,967	7.7	A	2,753	10.6	A	2,777	11.7	B	2,380	8.9	A
F-66	I-215	Scott Rd to Newport Rd	2,739	22.0	C	3,285	25.8	C	2,294	17.2	B	2,318	17.2	B

Table 4.15.H: Existing (2012) Freeway Segment Levels of Service

			Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-68	I-215	Newport Rd to McCall Blvd	1,900	15.0	B	2,047	15.3	B	2,528	19.0	C	3,111	23.7	C
F-69	I-215	McCall Blvd to Ethanac Rd	2,457	19.5	C	3,293	25.8	C	3,069	23.6	C	2,539	18.9	C
F-70	I-215	Ethanac Rd to SR-74	3,787	34.5	D	3,150	24.4	C	2,882	21.9	C	3,854	32.0	D
F-71	I-215	SR-74 to Redlands Blvd	3,350	28.5	D	4,181	37.4	**E**	4,539	44.2	**E**	3,710	30.1	D
F-74	I-215	Columbia Ave to Center St	5,587	33.5	D	5,150	27.3	D	5,191	27.6	D	4,917	25.4	C
F-75	I-215	Center St to La Cadena Dr	5,474	32.4	D	5,034	26.5	D	5,541	30.4	D	5,235	27.6	D
F-76	I-215	La Cadena Dr to Barton Rd	5,341	31.2	D	5,164	27.5	D	5,414	29.4	D	5,196	27.3	D
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,738	35.1	**E**	5,533	30.3	D	5,435	29.5	D	5,256	27.7	D
F-78	I-215	Mt. Vernon Ave to I-10	5,582	22.5	C	5,420	20.5	C	5,776	22.0	C	5,606	21.0	C
F-80	I-215	Auto Plaza Dr to Mill St	4,319	17.1	B	4,533	17.0	B	4,022	15.1	B	4,090	15.2	B
F-83	I-215	Baseline Rd to Highland Ave	3,023	24.8	C	3,355	26.5	D	4,537	44.1	**E**	4,700	46.7	**F**

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, ~~March~~ September 2014.

Table 4.15.I: Existing (2012) Freeway Weaving Segment Levels of Service

ID	Freeway	Weaving Segment	Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	5,985	24.0	C	8,616	35.7	**E**	6,125	21.4	C	5,892	20.8	C
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			6,288	23.5	C	6,071	23.5	C
W-20	SR-60	Main St to SR-91	5,418	25.8	C	7,050	33.6	D	See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	3,885	14.8	B	9,400	39.0	**E**	7,729	28.6	D	7,211	27.2	C
W-22	SR-60	Blaine St/3rd St to University Ave	3,919	18.7	B	7,050	37.4	**E**	5,714	20.1	C	6,204	23.0	C
W-23	SR-60	University Ave to Martin Luther King Blvd	4,528	20.4	C	5,932	25.7	C	5,601	28.0	C	5,876	28.0	C
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs Rd	3,856	14.5	B	7,840	32.4	D	7,050	37.0	**E**	6,026	29.3	D
W-27	SR-60	I-215 to Day St	2,988	10.6	B	4,704	18.8	B	See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	2,995	12.8	B	4,749	20.7	C	4,700	31.0	D	4,197	27.2	C
W-32	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			1,609	9.2	A	1,753	10.2	B
W-42	SR-91	Magnolia Ave to La Sierra Ave	5,445	24.6	C	5,684	27.4	C	See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	7,050	35.3	**E**	4,073	19.6	B	4,642	21.1	C	5,118	23.8	C
W-50	SR-91	14th St to University Ave	4,643	21.8	C	4,441	21.9	C	5,179	24.1	C	7,050	35.5	**E**
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			5,075	14.4	B	8,804	26.9	C
W-73	I-215	SR-60 to Columbia Ave	6,260	34.4	D	5,548	28.0	C	5,877	26.4	C	5,495	24.5	C
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	4,400	16.3	B	4,147	14.5	B	4,890	16.8	B	4,591	16.3	B
W-81	I-215	Mill St to 2nd St	5,044	23.0	C	5,095	22.5	C	4,442	19.6	B	4,380	19.4	B
W-82	I-215	5th St to Baseline Rd	3,754	16.5	B	3,590	14.9	B	3,607	15.6	B	3,481	15.1	B
W-63	I-10	Haugen-Lehmann Way to SR-111	2,265	7.5	A	3,172	10.5	B	3,198	11.8	B	2,741	10.3	B

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, ~~March~~ September 2014.

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Freeway ramp merge and diverge operations were also evaluated for existing baseline conditions. The results of this analysis are presented in Table 4.15.J, which shows all ramp merge and diverge areas analyzed are currently operating at satisfactory LOS D or better with the exception of:

- SR-60 Eastbound On-Ramp from Central Avenue (p.m. peak hour).

4.15.1.3 Responses to NOP Comments

During the NOP comment period, the City received comments on the project. The comments pertaining to traffic and circulation and responses to those comments are provided below:

Caltrans Comment Letter Dated February 29, 2012 (DEIR Appendix B)

A Traffic Impact Study (TIS) is necessary to determine this proposed project's near-term and long-term impacts to the State facilities and to propose appropriate mitigation measures. The study should be based on Caltrans' *Guide for the Preparation of Traffic Impact Studies (TIS),* which is located at http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf. Minimum contents of the traffic impact study are listed in Appendix "A" of the TIS guide.

Response

1) A traffic impact assessment (TIA) has been performed for the project. The study has been prepared to cover the subjects required under Caltrans TIS guidelines.

   It should be noted that the project proposes to move the Alessandro Boulevard access from Gilman Springs Road, which could potentially improve the operation of Alessandro Boulevard/ Gilman Springs Road.

3) Any existing inadequacies of freeways and roads cannot be attributed to this proposed project, but are considered in the TIA. While it is true that a portion of the City near I-215 has been designated for industrial development, it is also true that much of the project site was designated for business park development in the current General Plan. Initial studies suggest that the traffic attributable to the proposed project will be substantially less than the traffic generated by the site under the uses proposed in the General Plan. The adequacy of the Theodore Street interchange to accommodate future traffic has been studied as part of the TIA.

4) Any existing inadequacies of freeways and roads cannot be attributed to this proposed project. The proposed project does not include any land north of SR-60, so the need for schools, fire stations, hospitals, and other public facilities north of SR-60 would need to be addressed through some mechanism other than this project. The need for the on-site road system to accommodate through traffic has been studied as part of the TIA.

5) One goal of the WLCSP Circulation Plan is to separate project-related trucks from passenger vehicle traffic on surrounding local streets. Much of the project traffic will access SR-60 via a new interchange at Theodore Street, and project truck traffic will be prohibited on Redlands Boulevard south of Eucalyptus Avenue and on Street D to Cactus Avenue southwest of the project.

6) The adequacy of the new proposed Theodore Street interchange to accommodate future (cumulative) traffic has been studied as part of the TIA.

7) The TIA takes into consideration known projects in neighboring jurisdictions to examine cumulative traffic impacts.

8) The TIA studied the number of lanes needed for the study roadways that are significantly affected by the project. The number of mid-block lanes and intersection approach geometry needed will depend on a combination of traffic volumes and anticipated turning movements, which will differ by location.

Table 4.15.J: Existing (2012) Freeway Ramp Levels of Service

ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	AM Peak Hour				PM Peak Hour			
				Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	4,110	242	16.9	B	5,678	906	26.5	C
R-2	SR-60 EB	On-Ramp from Central Ave	1	5,796	349	18.5	B	8,868	904	31.8	**F**
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	1	1,326	207	3.3	A	1,397	434	3.2	A
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	1	1,119	26	12.2	B	963	25	10.3	B
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario			
R-6	SR-60 EB	Off-Ramp to Theodore St	1	1,614	119	17.3	B	1,920	30	19.1	B
R-7	SR-60 EB	Loop On-Ramp from Theodore St	1	1,495	70	17.3	B	1,890	71	19.8	B
R-8	SR-60 EB	Direct On-Ramp from Theodore St	0	Does not Exist in this Scenario				Does not Exist in this Scenario			
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	1	1,521	330	16.4	B	1,915	385	19.0	B
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	1	1,191	7	14.2	B	1,530	8	16.3	B

Table 4.15.J: Existing (2012) Freeway Ramp Levels of Service

ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	AM Peak Hour				PM Peak Hour			
				Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	1	837	11	9.6	A	1,002	9	11.3	B
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	1	826	357	13.5	B	993	306	14.6	B
R-13	SR-60 WB	Off-Ramp to Theodore St	1	1,183	24	12.7	B	1,393	26	14.9	B
R-14	SR-60 WB	On-Ramp from Theodore St	1	1,159	34	12.1	B	1,367	131	14.8	B
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	1	1,193	49	12.8	B	1,498	38	15.9	B
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	1	1,144	329	14.3	B	1,460	361	17.4	B
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario			
R-18	SR-60 WB	Off-Ramp to Central Ave	2	7,050	384	32.6	D	6,026	439	28.5	D
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	1	7,050	474	21.0	C	5,800	337	15.9	B

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, ~~March~~ September 2014.

Bush Letter Dated March 13, 2012 (Scoping Meeting Cards 2, DEIR Appendix B)

1) The adequacy of Alessandro Boulevard and Gilman Springs Road to accommodate project-related traffic has been studied as part of the TIA.

2) Moreno Valley's current General Plan calls for a realignment of Alessandro Boulevard and the relocation of its intersection with Gilman Springs Road. This has been studied as part of the TIA.

4.15.2 Existing Policies and Regulations

The City of Moreno Valley's current General Plan was approved in July 2006, and the following ~~.~~ ~~G~~goals and policies are extracted from the Circulation Element ~~are included in~~of the current General Plan. The specific policies and recommendations of implementation of the General Plan that are relevant to the proposed project are as follows:

Community Development

Policy 2.2.17 Discourage nonresidential uses on local residential streets that generate traffic, noise, or other characteristics that would adversely affect nearby residents.

Circulation Element

Objective 5.1 **Create a safe, efficient, and neighborhood-friendly street system.**

Policy 5.1.1 Plan access and circulation of each development project to accommodate vehicles (including emergency vehicles and trash trucks), pedestrians, and bicycles.

Policy 5.1.2 Plan the circulation system to reduce conflicts between vehicular, pedestrian and bicycle traffic.

Policy 5.1.3 Require adequate off-street parking for all developments.

Policy 5.1.4 Driveway placement shall be designed for safety and to enhance circulation wherever possible.

Policy 5.1.5 Incorporate American Disability Act (ADA) and Title 24 requirements in roadway improvements as appropriate.

Policy 5.1.6 Design new developments to provide opportunity for access and circulation to future adjacent developments.

Objective 5.2 **Implement access management policies.**

Policy 5.2.1 Locate residential units with access from local streets. Minimize direct residential access from collectors. Prohibit direct single-family driveway access on arterials and higher classification roadways.

Policy 5.2.2 Feed short local street into collectors.

Policy 5.2.3 Encourage the incorporation of traffic calming design into local and collector streets to promote safe vehicle speeds.

Policy 5.2.4 Design new subdivisions to minimize the disruptive impact of motor vehicles on local streets. Long, broad and linear streets should be avoided. Residential streets should be no wider than 40 feet, and should have an uninterrupted length of less than one half mile. Curvilinear streets and cul-de-sacs are preferred. Streets within the subdivision should be designed to facilitate access to residences and to discourage through traffic.

Objective 5.3 **Maintain Level of Service (LOS) "C" on roadway links, wherever possible, and LOS "D" in the vicinity of SR 60 and high employment centers.**

Policy 5.3.1 Obtain right-of-way and construct roadways in accordance with the designation shown on the General Plan Circulation Element Map and the City street improvement standards.

Policy 5.3.2 Wherever feasible, promote the development of roadways in accordance with the City standard roadway cross-sections, as shown in Figure 9-3. Cross-sections range from two-lane undivided roadways to 8-lane divided facilities.

Policy 5.3.3 Create new roadway classifications to accommodate future traffic demand, including; Divided Major Arterial – Reduced Cross-Section, and Divided Arterial – 6-lane. These cross-sections are shown on Figure 9-3.

Policy 5.3.4 For planning purposes, utilize LOS standards shown on Table 5 –1 to determine recommended roadway widths.

Policy 5.3.5 Ensure that new development pays a fair-share cost to provide local and regional transportation improvements and to mitigate cumulative traffic impacts. For this purpose, require new developments to participate in Transportation Uniform Mitigation Fee (TUMF), the Development Impact Fee Program (DIF), and any other applicable transportation fee programs and benefit assessment districts.

Policy 5.3.6 Where new developments would increase traffic flows beyond the LOS C (or LOS D, where applicable), require appropriate and feasible mitigation measures as a condition of approval. Such measures may include extra right-of-way and improvements to accommodate left-turn and right-turn lanes at intersections, or other improvements.

Policy 5.3.7 Provide consideration to projects that have overriding regional or local benefits that would be desirable even though the LOS standards cannot be met. These projects would be required to analyze traffic impacts and mitigate such impacts to the extent that it is deemed feasible.

Policy 5.3.8 Pursue arterial improvements that link and/or cross the State Route 60 (SR-60) Freeway, including an additional over-crossing at Graham Street.

Policy 5.3.9 Address additional widenings at arterials providing access to SR-60 at Day Street, Frederick Street/Pigeon Pass Road, and Perris Boulevard.

Objective 5.4 **Maximize efficiency of the regional circulation system through close coordination with State and regional agencies and implementation of regional transportation policies.**

Policy 5.4.1 Coordinate with Caltrans and the Riverside County Transportation Commission (RCTC) to identify and protect ultimate rights-of-way, including those for freeways, regional arterial projects, transit, bikeways, and interchange expansion.

Policy 5.4.2 Coordinate with Caltrans and RCTC regarding the integration of Intelligent Transportation Systems (ITS) consistent with the principles and recommendations of the Inland Empire Regional ITS Architecture Project.

Policy 5.4.3 Work with property owners, in cooperation with RCTC, to reserve rights-of-way for potential Community and Environmental Transportation Acceptability Process (CETAP) corridors through site design, dedication, and land acquisition, as appropriate.

Policy 5.4.4 The City Council will commit to establishing ongoing relationships with all agencies that play a role in the development of the City's transportation system. Council members who are appointed to these agencies as City representatives shall seek out leadership roles to maximize their effectiveness on behalf of the City. Council will strive to maintain continuity in their appointments of representatives.

Policy 5.4.5 Work with RCTC, WRCOG, and the TUMF Central Zone Committee to facilitate the expeditious construction of TUMF Network projects, especially projects that directly benefit Moreno Valley.

Policy 5.4.6 Cooperatively participate with SCAG, RCTC, and WRCOG in the planning for a transportation system that anticipates regional needs for the safe and efficient movement of goods and people.

Policy 5.4.7 Utilizing a combination of regional, state and federal funds, development impact fees, and other locally generated funds, provide needed improvements along SR 60 and the associated interchanges, including interchange and grade separation improvements.

Policy 5.4.8 Reserve rights-of-way to accomplish future improvements as specified in the Caltrans District 8 Route Concept Fact Sheet for SR-60. Specifically, SR-60 shall be built to six general purpose lanes and two High Occupancy Vehicle (HOV) lanes through Moreno Valley. Additional auxiliary lanes may be required between interchanges. The need for auxiliary lanes will be determined from future studies.

Policy 5.4.9 Lobby the State Legislature to keep triple trailer trucks off highways in developed areas of California.

Objective 5.5 **Maximize efficiency of the local circulation system by using appropriate policies and standards to design, locate, and size roadways.**

Policy 5.5.1 Space Collectors between higher classification roadways within development areas at appropriate one-quarter mile intervals.

Policy 5.5.2 Provide dedicated left-turn lanes at all major intersections on minor arterials and higher classification roadways.

Policy 5.5.3 Prohibit points of access from conflicting with other existing or planned access points. Require points of access to roadways to be separated sufficiently to maintain capacity, efficiency, and safety of the traffic flow.

Policy 5.5.4 Wherever possible, minimize the frequency of access points along streets by the consolidation of access points between adjacent properties on all circulation element streets, excluding collectors.

Policy 5.5.5 Design streets and intersections in accordance with the Moreno Valley Municipal Code.

Policy 5.5.6 Consider the overall safety, efficiency and capacity of street designs as more important than the location of on-street parking.

Policy 5.5.7 For developments fronting both sides of a street, require that streets be constructed to full width. Where new developments front only one side of a street, require that streets be constructed to half width plus an additional 12-foot lane for opposing traffic, whenever possible. Additional width may be needed for medians or left and/or right turn lanes.

Policy 5.5.8 Whenever possible, require private and public land developments to provide on-site and off-site improvements necessary to mitigate any development-generated circulation impacts. A review of each proposed land development project shall be undertaken to identify project impacts to the circulation system. The City may require developers to provide traffic impact studies prepared by qualified professionals to identify the impacts of a development.

Policy 5.5.9 Design curves and grades to permit safe movement of vehicular traffic per applicable Caltrans and Moreno Valley standards.

Policy 5.5.10 Provide adequate sight distances for safe vehicular movement at all intersections and driveways.

Policy 5.5.11 Implement National Pollutant Discharge Elimination System (NPDES) Best Management Practices (BMPs) relating to construction of roadways to control runoff contamination from affecting water resources.

Objective 5.6 **Support development of a ground access system to March Inland Port in accordance with its development plan as a major cargo airport.**

Policy 5.6.1 Ensure that City arterials that provide access to and from March Inland Port are properly designed to accommodate projected traffic volumes, including truck traffic.

Policy 5.6.2 Ensure that traffic routes to March Inland Port are planned to minimize impacts to City residential communities.

Objective 5.7 **Design roads to meet the needs of the residents of the community without detracting from the "rural" atmosphere in designated portions of Moreno Valley. (Designated "rural" areas include those encompassed by the Residential Agriculture 2, Residential 1, Rural Residential and Hillside Residential zoning districts. "Urban" areas encompass all other zoning districts.)**

Policy 5.7.1 Pursue development of modified sidewalk standards for local and collector roads within low density areas to reflect the rural character of those areas.

Policy 5.7.2 Provide sidewalks on arterials in designated low density areas that provide access to schools and bus stops.

Objective 5.8 **Encourage development of an efficient public transportation system for the entire community.**

Policy 5.8.1 Support the development of high-speed transit linkages, or express routes, that would benefit the citizens and employers of Moreno Valley.

Policy 5.8.2 Support the efforts of the March Joint Powers Authority in its pursuit of a Transit Center.

Policy 5.8.3 Encourage public transportation opportunities that address the particular needs of transit dependent individuals in the City such as senior citizens, the disabled and low-income residents.

Policy 5.8.4 Ensure that all new developments make adequate provision for bus stops and turnout areas for both public transit and school bus service.

Policy 5.8.5 Continue ongoing coordination with transit authorities toward the expansion of transit facilities into newly developed areas.

Objective 5.9 **Support and encourage development of safe, efficient and aesthetic pedestrian facilities.**

Policy 5.9.1 Encourage walking as an alternative to single occupancy vehicle travel, and help ensure the safety of the pedestrian as follows:

(a) All new developments shall provide sidewalks in conformance with the City's streets cross-section standards, and applicable policies for designated urban and rural areas.

(b) The City shall actively pursue funding for the infill of sidewalks in developed areas. The highest priority shall be to provide sidewalks on designated school routes.

Policy 5.9.2 Walkways shall be designed to minimize conflicts between vehicles and pedestrians.

Policy 5.9.3 Where appropriate, provide amenities such as, but not limited to, enhanced paving, seating, and landscaping to enhance the pedestrian experience.

Policy 5.9.4 Require the provision of convenient and safe pedestrian access to buildings from the public sidewalk.

Objective 5.10 **Encourage bicycling as an alternative to single occupant vehicle travel for the purpose of reducing fuel consumption, traffic congestion, and air pollution.**

Policy 5.10.1 Bikeways shall link residential neighborhood areas with parks, employment centers, civic and commercial areas, and schools.

Policy 5.10.2 Integrate bikeways, consistent with the Bikeway Plan, with the circulation system and maintain Class II and III bikeways as part of the City's street system.

Policy 5.10.3 Support bicycle safety programs, and active enforcement of laws relating to the safe operation of bicycles on City streets.

Policy 5.10.4 Link local bikeways with existing and planned regional bikeways.

Objective 5.11 **Eliminate obstructions that impede safe movement of vehicles, bicyclists, and pedestrians.**

Policy 5.11.1 Landscaping adjacent to City streets, sidewalks and bikeways shall be designed, installed and maintained so as not to physically or visually impede public use of these facilities.

(a) The removal or relocation of mature trees, street trees and landscaping may be necessary to construct safe pedestrian, bicycle and street facilities.

(b) New landscaping, especially street trees shall be planted in such a manner to avoid overhang into streets, obstruction of traffic control devices or sight distances, or creation of other safety hazards.

Policy 5.11.2 Driveways shall be designed to avoid conflicts with pedestrian and bicycle travel.

Objective 5.12 **Promote efficient circulation planning for all school sites that will maximize pedestrian safety, and minimize traffic congestion and neighborhood impacts.**

Policy 5.12.1 Coordinate with school districts to identify suggested pedestrian routes within existing and new subdivisions for school children to walk to and from schools and/or bus stops.

Program 5-1 Periodically review current traffic volumes, traffic collision data, and the pattern of urban development to coordinate, program, and as necessary revise the planning and prioritization of road improvements.

Program 5-2 Periodically reassess the goals, objectives and policies statements of the Circulation Element and propose amendments, as necessary.

Program 5-3 Develop a comprehensive strategy to ensure full funding of the circulation system. The strategy will include the DIF, TUMF, and other funding sources that

may be available to the City. In addition, the creation of benefit assessment districts, and road and bridge fee districts may be considered where appropriate.

Program 5-4 Develop a multi-year transportation infrastructure improvement program that, to the extent feasible, phases the construction of new projects in advance of new development.

Program 5-5 The above-referenced program will prioritize circulation improvement projects to be funded from DIF, TUMF and other sources. Prioritization to consider the following factors: (a) Traffic safety; (b) Congestion relief; (c) Access to new development; and (d) Equitable benefit.

Program 5-6 Conduct studies of specified arterial segments to determine if any additional improvements will be needed to maintain an acceptable LOS at General Plan buildout. Generally, these segments will be studied as new developments are proposed in their vicinity. Measures will be identified that are consistent with the Circulation Element designation of these roadway segments, such as additional turn lanes at intersections, signal optimization by coordination and enhanced phasing, and travel demand management measures. The study of specified arterial segments will be required to identify measures to maintain an acceptable LOS at General Plan buildout for at least one of the reasons discussed below:

(a) Segments will need improvement, but their ultimate volumes slightly exceed design capabilities.

(b) Segments will need improvements but require inter-jurisdictional coordination.

(c) Segments would require significant encroachment on existing adjacent development if built out to their Circulation Element designations.

Program 5-7 Establish traffic study guidelines to deal with development projects in a consistent manner. The traffic study guidelines shall include criteria for projects that propose changes it the approved General Plan land uses.

Program 5-13 Implement Transportation demand management (TDM) strategies that reduce congestion in the peak travel hours. Examples include carpooling, telecommuting, and flexible work hours.

4.15.3 Methodology

This section summarizes: i) the traffic volume scenarios analyzed in this EIR and methods of traffic volume projection; ii) the proposed project's trip generation, distribution and assignment; and iii) opening year ~~2017 background~~, 2022 background and ~~General Plan Buildout~~ Year 2035 Cumulative background levels of service.

4.15.3.1 Traffic Volume Scenarios

Existing Baseline, Existing Baseline Plus Phase 1, and Existing Baseline Plus Project Conditions. The existing year (2012) represents the baseline traffic conditions as they existed at the time the Notice of Preparation was issued to represent pre-project approval (existing physical conditions). The existing baseline plus project analysis determines direct project-related traffic impacts that would occur on the existing roadway system in a theoretical scenario in which the project is placed upon existing baseline conditions.

Within the project site, the proposed Phase 1 land uses were used for the "Plus Phase 1" scenarios, the proposed project buildout land uses were used for the "Plus Project" scenarios, while the existing land uses were used for the "No Project" scenarios. The Existing Plus Phase 1 and Existing plus Project analyses are intended to identify the project-specific impacts associated solely with the development of the proposed project and the corresponding mitigation measures necessary to mitigate the project-related impacts.

Year 2017 and Year 2017 Plus Project Conditions.

Note: This analysis was removed from the revised TIA and DEIR sections – the reader is referred to Section 4.15.3.1 of the original DEIR for that text, tables, etc.

~~Phase I of the proposed project will be completed in 2017 and includes 21,450,000 square feet of logistics warehouse uses. This is approximately 52 percent of the total project building space. The internal road system will be partially built out, with east-west through traffic served by Alessandro Boulevard (Streets C, D, and E). Theodore Street would serve north-south traffic as it does today.~~

~~Per the City of Moreno Valley Traffic Impact Analysis Preparation Guidelines, opening year cumulative traffic volumes were developed by adding a 2 percent per annum growth rate to existing baseline traffic volumes; therefore, a total ambient growth of 12 percent of the existing baseline conditions was added to develop opening year cumulative conditions. Additionally, for opening year cumulative scenarios, traffic generated by other approved projects (cumulative projects) in the vicinity of the proposed project was added. Cumulative projects included for analysis under opening year cumulative traffic conditions are included in the project TIA. Because some of the developments contained within the cumulative analysis may not be constructed at the time anticipated, or at all due to economic conditions, the cumulative impact analysis contained within the TIA is inherently conservative and would tend to overstate cumulative impacts. A detailed summary of the volume development methodology is included in the project Traffic Impact Analysis Report, dated January 2013.~~

~~Project traffic volumes at study locations were the added to opening year cumulative volumes to develop opening year cumulative plus project traffic volumes.~~

Year 2022 and Year 2022 Plus Phase 1 Conditions. The year 2022 analysis determines the project's cumulative contribution to near-term traffic impacts based on a comparison of year 2022 conditions to year 2022 plus Phase 1 of the project conditions. Within the site, the proposed Phase 1 land uses were used for the "Plus ~~Project~~ Phase 1" scenarios while the existing land uses were used for the "No Project" scenarios.

The opening year 2022 cumulative analysis has been utilized to determine if improvements funded through local and regional transportation mitigation fee programs, such as the Transportation Uniform Mitigation Fee (TUMF) program and the City of Moreno Valley Development Impact Fee (DIF) program, can accommodate the cumulative traffic at the target LOS identified in the City of Moreno Valley General Plan. If the regionally funded improvements can provide the target LOS, and the payment of such funds for such improvements is foreseeable, then the project's payment into the established fee programs will be considered as mitigation for cumulative impacts through the conditions of approval. Other improvements needed beyond the regionally funded improvements (such as localized improvements to non-TUMF, or non-DIF) are identified in the impacts section (Section 4.15.5).

The circulation system assumed in the analysis includes transportation improvement projects that are either under construction or are funded and planned for implementation in the short-term. These

improvement projects are identified in SCAG's 2012-2035 Regional Transportation Plan (RTP). The RTP is a long-range transportation plan based on 20-year growth projections that is developed and updated by SCAG every four years. The Federal Transportation Improvement Program (FTIP) is a capital listing of all transportation improvement projects proposed over a six-year period for the SCAG region. The FTIP implements the transportation projects and programs listed in the RTP in compliance with state and federal requirements. For the 2022 scenarios, only the projects in the FTIP and the RTP's financially constrained[1] project list were assumed to be completed. The projects in the RTP's Strategic Plan were not included because funding for them is too uncertain. Also, the proposed East-West Freight Corridor included in the financially constrained plan was not included because the freight corridor is expected to be funded through tolls to be collected by a process that has not yet been established and whose future efficacy is unknown. If it is constructed, then traffic impacts would be less than those described in this EIR. The 2022 improvements are shown in Figure 4.15.5.

Note: Figure 4.15.5 was added to the revised DEIR section.

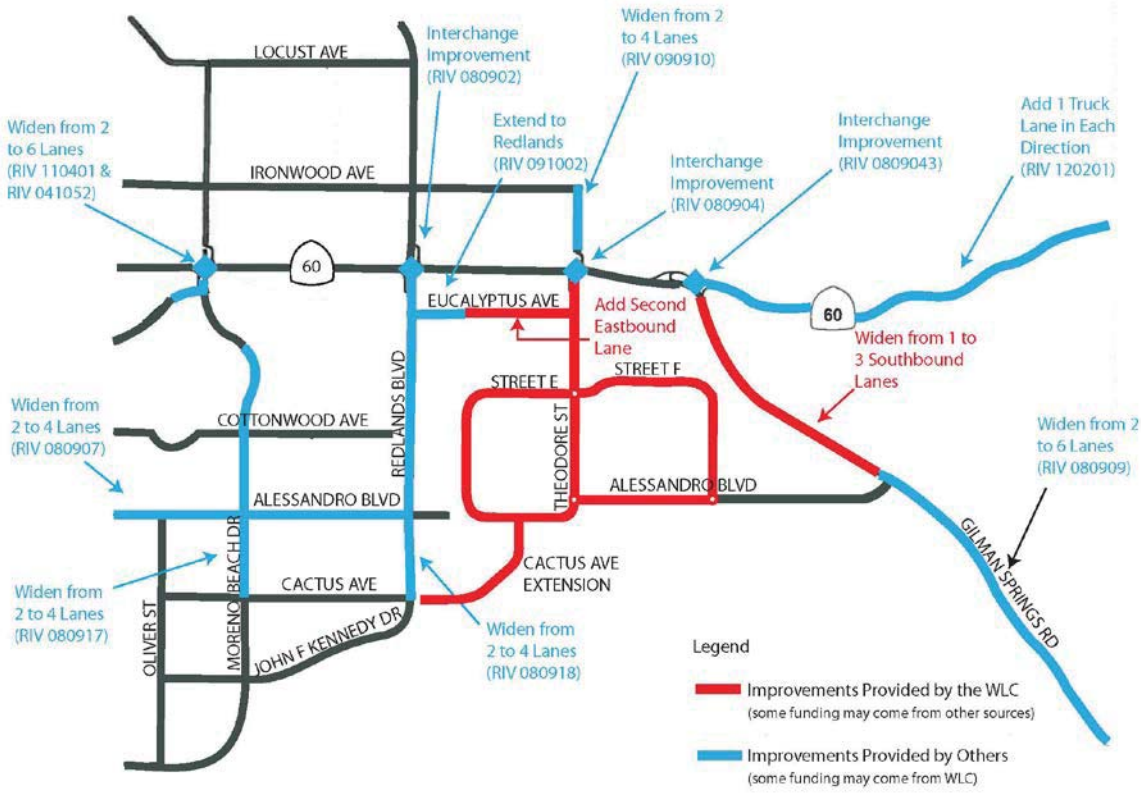

Figure 4.15.5: Roadway Improvements Assumed for 2022 (new figure added to Final EIR)
Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

[1] These are the projects for which funds are committed or have reasonably available revenue sources, and are probable for implementation.

Phase 1 of the proposed project will be completed in 2022 and includes 21,450,000 square feet of logistics warehouse uses. This is approximately 52 percent of the total project building space. The internal road system will be partially built out, with east-west through traffic served by the Cactus Avenue extension and Streets C and E. Theodore Street would serve north-south traffic as it does today.

Traffic projections for year 2022 conditions were derived from the RivTAM using accepted procedures for model forecast refinement and smoothing. The traffic forecasts reflect the area-wide growth anticipated between existing (2012) baseline conditions and horizon year (2022) conditions. Specifically, traffic generated by other approved projects (cumulative projects) in the vicinity of the proposed project were included in the socioeconomic inputs for the year 2022 traffic volume scenario as shown on Figure 4 and Table 1 in the Traffic Impact Analysis Report, dated September 2014 (Appendix L-1). As noted previously, because some of the cumulative development projects may not be constructed at the anticipated time, or at all due to economic conditions, the cumulative impact analysis contained within the TIA is inherently conservative and would tend to overstate cumulative impacts. A detailed summary of the volume development methodology is included in the project Traffic Impact Analysis Report, dated September 2014 (Appendix L-1).

Project traffic volumes at study locations were the added to opening year cumulative volumes to develop opening year cumulative plus project traffic volumes.

~~General Plan Buildout~~ Year 2035 Cumulative and ~~General Plan Buildout~~ Year 2035 Cumulative Plus Project Conditions. ~~General Plan Buildout~~ Year 2035 Cumulative conditions determine the project's cumulative contribution to long-term traffic impacts under year 2035 with buildout of the land uses and circulation system in the General Plan. Within the project site, the proposed project buildout land uses were used for the "Plus Project" scenarios while the existing land uses were used for the "No Project" scenarios. This analysis has also been utilized to determine if improvements funded through local and regional transportation mitigation fee programs, such as the TUMF program and the City of Moreno Valley DIF program, can accommodate the cumulative traffic at the target LOS identified in the City of Moreno Valley General Plan. If the regionally funded improvements can provide the target LOS, and the payment of such funds for such improvements is foreseeable, then the project's payment into the established fee programs will be considered as cumulative mitigation through the conditions of approval. Other improvements needed beyond the regionally funded improvements (such as localized improvements to non-TUMF, or non-DIF) are identified in the impacts section (Section 4.15.5).

For the 2035 scenarios, the roadway projects from the FTIP and RTP included in the year 2022 network were also included in the 2035 network. The future circulation network from the City of Moreno Valley General Plan was also incorporated into the year 2035 network. The General Plan identifies future circulation improvements that are funded through the City's DIF, Western Riverside Council of Governments' TUMF, and improvements made directly by developers. It is reasonable to assume that these improvements will be in place parallel with buildout of the General Plan land uses, because most of the improvements will be funded through fees on the new developments. If other sites do not fully build out per the General Plan, then the LOS on the study streets and intersection would likely be better than shown in the TIA. The 2035 improvements are shown in Figure 4.15.6.

Note: Figure 4.15.6 was added to the revised DEIR section.

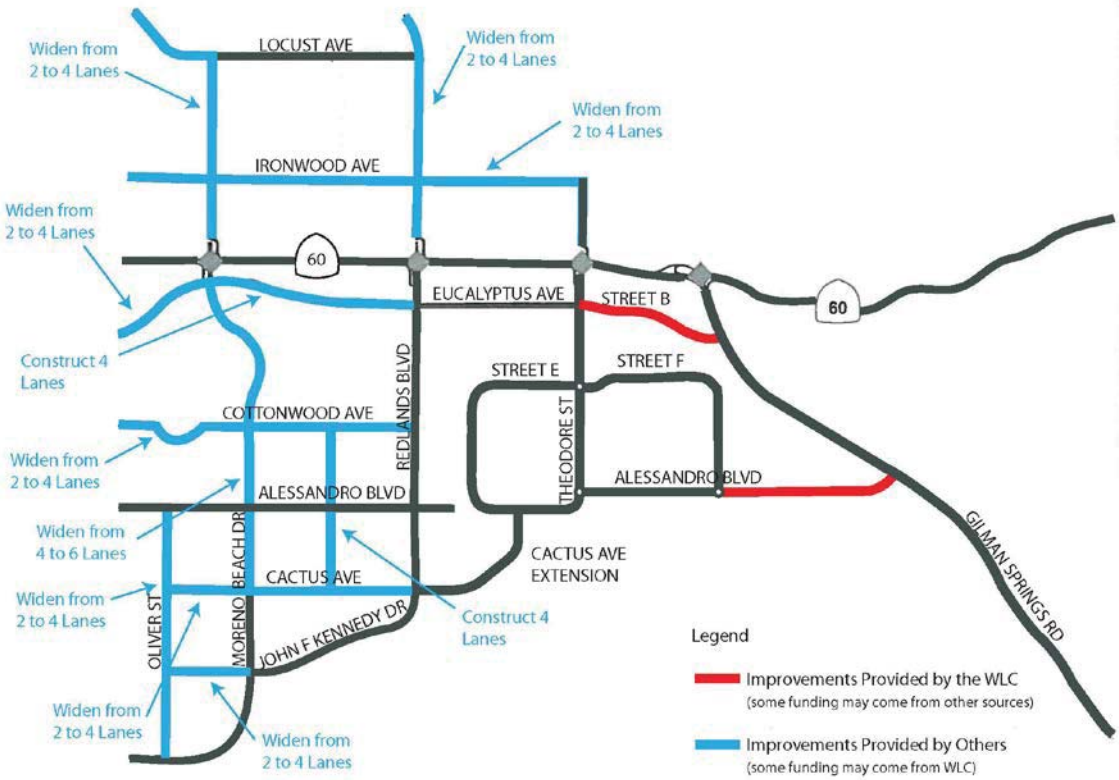

Figure 4.15.6: Roadway Improvements Assumed for 2035 (new figure added to Final EIR)
Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Traffic projections for ~~General Plan Buildout~~ Year 2035 Cumulative conditions were derived from the RivTAM using accepted procedures for model forecast refinement and smoothing. The traffic forecasts reflect the area-wide growth anticipated between existing (2012) baseline conditions and horizon year (2035) conditions. Specifically, traffic generated by other approved projects (cumulative projects) in the vicinity of the proposed project were included in the socioeconomic inputs to the RIVTAM for the ~~General Plan Buildout~~ Year 2035 Cumulative traffic volume scenario as shown in Figure 4 and Tables 1 and 2 in the Traffic Impact Analysis Report, dated ~~March~~ September 2014 (Appendix L-1). As noted above, because some of the developments contained within the cumulative analysis may not be constructed at the anticipated time, or at all due to economic conditions, the cumulative impact analysis contained within the TIA is inherently conservative and would tend to overstate cumulative impacts. A detailed summary of the volume development methodology is included in the project Traffic Impact Analysis Report, dated ~~March~~ September 2014 (Appendix L-1).

Project traffic volumes at study locations were to added ~~General Plan Buildout~~ Year 2035 Cumulative traffic volumes to develop ~~General Plan Buildout~~ Year 2035 Cumulative plus project traffic volumes.

Table 4.15.K summarizes the forecast years as well as each development scenario analyzed.

Table 4.15.K: Analysis Scenarios

Forecast Year	Scenarios Analyzed
2012	• Existing (2012) Baseline Conditions. • Existing (2012) Baseline Plus Phase 1 Conditions Project (21,450,000 square feet). • Existing Baseline plus Project Conditions.
2022	• Year 2022 without Project Conditions Analysis based on data from the RivTAM plus cumulative projects. • Year (2022) plus Phase 1 Project (21,450,000 square feet).
2035	• ~~General Plan Buildout~~ Year 2035 Cumulative, without Project: Analysis based on data from the RivTAM plus cumulative projects. • ~~General Plan Buildout~~ Year 2035 Cumulative plus Project.

4.15.3.2 Project Trip Generation, Distribution, and Assignment

Note: The following changes have been made in response to: Comments F-3-5, 11, and Appendix 176 in Letter F-3 from the California Clean Energy Committee; Comments F-6-1, 2, and 3 in Letter F-6 from the Endangered Habitats League; Comment F-9A-45 in Letter F-9A from the Sierra Club, Center for Community Action & Environmental Justice, and Natural Resources Defense Council; Comment F-9B-45 in Letter F-9B from Tom Brohard and Associates; Comment F-11-29 in Letter F-11 from the Sierra Club, San Gorgonio Chapter; Comment G-2-7 in Letter G-2 from Perry Johnson; Comment G-17-2 in Letter G-17 from Joanne Lindgren; Comment G-18-1 in Letter G-18 from Sam Zaidy; Comment G-34-5 in Letter G-34 from Lindsay Robinson; Comment G-35-4 in Letter G-35 from Peggy Hadaway and John Neal; Comment G-49-18 in Letter G-49 from Karen Jakpor; Comment G-50-2 in Letter G-50 from Ann McKibben; Comment G-51-5 in Letter G-51 from Michael McCoy; Comments G-52-1 and 2 in Letter G-52 from Steve Jiannino; Comment G-53-4 in Letter G-53 from Deanna Reader and Kenny Bell; Comment G-57-1 in Letter G-57 from Tracy Hodge; Comment G-68-3 in Letter G-68 from Craig and Joan Givens; Comment G-96-3 in Letter G-96 from Margie Breikreuz; and Comment G-97-1 in Letter G-97 from Otana Jakpor.

Trip generation represents the amount of traffic that is attracted and produced by a development project. The amount of traffic generated by a specific project is based on the specific land uses being proposed. Traffic engineers utilize different yet similar methodologies to anticipate trip generations. Many times, average trip generation rates as published by the Institute of Transportation Engineers (ITE) are used to forecast trip rates. In some circumstances, however, use of the ITE trip generation rates is not deemed to be the most accurate methodology of forecasting trip generation because more precise data are available. Therefore, in an effort to forecast the number of vehicle trips potentially generated by the proposed project accurately, the TIA examined and compared the results of four different trip generation sources: (1) the ITE *Trip Generation*, 9th Edition; (2) the Fontana Truck Trip Generation Study (2003); (3) the 2011 NAIOP trip generation study for high-cube logistics warehouses in Riverside and San Bernardino Counties; and (4) Skechers Trip Generation Study (2011). The City's TIA guidelines specify use of a combination of the first two sources, with the ~~Institute of Transportation Engineers (~~ITE~~)~~ Trip Generation Manual being the source of the trip generation rate and the City of Fontana Truck Trip Generation Study being the source of the vehicle mix percentages. Table 4.15.L summarizes the trip rates from each source.

Table 4.15.L: Trip Generation Rate Comparison *(Skechers Data Added)*

Source of Trip Generation Rates	A.M. Peak Hour			P.M. Peak Hour			Daily
	In	Out	Total	In	Out	Total	
ITE *Trip Generation Manual*	0.0759	0.0341	0.1100	0.0372	0.0828	0.1200	1.68
Fontana *Truck Trip Generation Study*	0.0357	0.0343	0.0700	0.0224	0.0506	0.0730	1.97
NAIOP 2011 *Trip Generation Study*	0.030	0.017	0.047	0.022	0.048	0.070	0.99
Skechers Traffic Counts	0.022	0.013	0.035	0.004	0.033	0.037	0.567

Source: Tables 3, 4 and 5, Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, ~~March~~ September 2014.

The trip generation rates derived from existing driveway traffic counts collected at the Skechers Warehouse Facility in November 2011 showed that for all time periods the traffic generated by the Skechers building was only about one-third of what the ITE trip generation rates would have predicted. Furthermore, the actual truck traffic was less than half (41%) of what the methodology mandated in the City of Moreno Valley's traffic impact guidelines (ITE trip generation rates with the vehicle mix from the Fontana Truck Trip Generation Study) would predict.

Several comments received on the Draft EIR suggested that the trip generation for the proposed project use a combination of a very high overall trip generation rate with a high heavy truck percentage to estimate the number of project truck trips. The City has found that this approach produces unreasonable trip generation rates when compared to actual field conditions. For example, the EIR for the Skechers high-cube warehouse building used this unreasonable approach and found the forecasts to be three times the actual post-construction trip generation for car trips and nearly eight times the actual trip generation for trucks[1]. This approach could result in the construction of oversized and unnecessary roadway infrastructure with its own environmental consequences, creating an undue burden on development, and could ultimately discredit the City's project review process in the eyes of the business community and members of the public. For these reasons, this approach was not used to estimate trips for the proposed project and the City's Traffic Impact Guidelines was appropriately used instead.

The 2011 NAIOP provides the more accurate trip generation for the proposed project as the NAIOP study is the most comprehensive trip study performed for high-cube logistics warehouses. As shown in previously referenced Table 4.15.L, when using the NAIOP and derived trip generation rates, project trips are forecast to be lower than if the ITE trip generation rates where used. However, in order to be conservative, this EIR and the TIA utilize the ITE 9th Edition trip rates, which have the effect of overestimating project impacts because high-cube logistics warehousing would comprise 99.4 percent of the overall project building area. Therefore, as determined in the TIA, trip generation rates for high-cube warehouse uses (Land Use 152) as published in the 9th Edition of ITE's *Trip Generation* manual, and currently widely accepted throughout Riverside and San Bernardino Counties, are the trip rates being utilized to determine the project's traffic impacts. For this reason, the actual traffic impacts of the proposed project are expected to be much less than those identified in the TIA and by extension this EIR. The project trip generation rates for the proposed project and existing land uses on the site are shown in Table 4.15.M.

[1] These figures are based on traffic counts taken at the Skechers building after it had been fully operational for over a year. See Technical Memorandum *Traffic Generated by the Skechers Warehouse*, Parsons Brinckerhoff to the City of Moreno Valley, November 14, 2012.

Table 4.15.M: Project Trip Generation Rates for Proposed and Existing Land Uses

Land Use Type	Unit	AM Peak Hour			PM Peak Hour			ADT
		In	Out	Total	In	Out	Total	
Proposed Land Uses								
High-Cube Logistics Center (ITE 152)	KSF	0.076	0.034	0.110	0.037	0.083	0.120	1.680
Light Logistics (ITE 150)	KSF	0.237	0.063	0.300	0.080	0.240	0.320	3.560
Utilities Servicing Station (ITE 170)*	KSF	0.720	0.080	0.800	0.342	0.418	0.760	8.000
Fire Station**	Site	20	8	28	10	20	29	137
Gas Station w Convenience Store (ITE 945)	Pumps	5.08	5.08	10.16	6.76	6.76	13.51	162.78
Convenience Store (ITE 851)	KSF	33.52	33.52	67.030	26.73	25.68	52.41	737.99
Existing Land Uses								
Single-Family Dwellings (ITE 210)	DU	0.188	0.563	0.750	0.630	0.370	1.000	9.520
Utilities Servicing Station (ITE 170)*	KSF	0.720	0.080	0.800	0.342	0.418	0.760	8.000

* Note: A.M. directionality taken from table for trips/employee. Daily is assumed to be ten time peak-hour rates
** Fire Station rate is based on the average of the following three traffic studies:
Fehr and Peers, *Loyola Marymount University Master Plan Project*, City of Los Angeles Department of Transportation, 2009, Table 5.
LLG Engineers, *Peaceful Valley Ranch*, County of San Diego, 2007, page 11.
McMahon, *Upper Dublin Fire House*, Montgomery County, Pennsylvania, 2010, page 15.
KSF = Thousand Square Feet DU = Dwelling Unit
ADT = Average Daily Trips
Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, ~~March~~ September 2014.

The project trip generation for the proposed project and existing land uses on the site is shown in Table 4.15.N.

Table 4.15.N: Project Trip Generation for Proposed and Existing Land Uses (New Table)

Land Use Type	Unit	Amount	AM Peak Hour			PM Peak Hour			ADT
			In	Out	Total	In	Out	Total	
Proposed Land Uses									
High-Cube Logistics Center (ITE 152) 40,400 KSF	KSF	40,400	3,066	1,378	4,444	1,503	3,345	4,848	67,872
Light Logistics (ITE 150) 200 KSF	KSF	200	47	13	60	16	48	64	712
SCG Valve/Metering Station (ITE 170) 0.15 KSF	KSF	0.15	0	0	0	0	0	0	1
SDG&E Gas Compression Station (ITE 170) 30.8 KSF	KSF	30.8	22	2	25	11	13	23	247
Fire Station 1 Site	Site	1	20	8	28	10	20	29	137
Gas Station w Convenience Store (ITE 945) 12 Pumps	Pumps	12	5	5	11	10	10	21	219
Convenience Store (ITE 851) 3 KSF	KSF	3	11	11	22	13	12	25	354
TOTAL PROPOSED			3,172	1,417	4,590	1,563	3,449	5,010	69,542
Existing Land Uses									
Single-Family Dwellings (ITE 210) 7 DU	DU	7	1	4	5	4	3	7	67
SCG Valve/Metering Station (ITE 170) 0.15 KSF	KSF	0.15	0	0	0	0	0	0	1
SDG&E Gas Compression Station (ITE 170) 30.8 KSF	KSF	30.8	22	2	25	11	13	23	247
TOTAL EXISTING			24	6	30	15	16	31	314

* Note: A.M. directionality taken from table for trips/employee. Daily is assumed to be ten time peak-hour rates.
KSF = Thousand Square Feet DU = Dwelling Unit
ADT = Average Daily Trips
Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, March September 2014.

Figure 4.15.7 compares the trip generation estimate for the proposed project as used in this EIR to the trip generation assuming implementation of the NAIOP and Sketchers survey-derived rates. As shown in the figure, the trip generation estimate for the proposed project is much higher in comparison to the estimates using either the NAIOP or Sketchers rates, thus meeting CEQA's standard of substantial evidence.

As shown in previously referenced Table 4.15.N, the project is estimated to generate a net total of approximately ~~71,085~~ 69,542 daily trips with approximately ~~4,672~~ ~~4,590~~ occurring during a.m. peak hour and ~~5,101~~ 5,010 occurring during the p.m. peak hour. Daily and hourly trip counts take into account only the trips generated by the project. Refinements to raw trip generation estimated using the ITE rates have been made to provide a more detailed breakdown of trips by vehicle mix, similar to the existing baseline count data. Per City of Moreno Valley standard practice, vehicle mix percentages were obtained from the City of Fontana Truck Trip Generation Study, which is the recognized source throughout the County of Riverside and the County of San Bernardino for estimating the vehicle mix associated with industrial and warehouse uses. For this reason, the vehicle-mix from the Fontana Truck Trip Generation Study has been applied to ITE trip generation rates in order to determine the proposed project's passenger car and truck trip generation mix. Table 4.15.O shows the project trips by vehicle type. The PCE project trips by vehicle type differ between the surface street and freeway analyses because the freeway analysis uses a PCE factor of 1.5 for medium and heavy trucks while the surface street analysis uses PCE factors of 2.0 and 3.0 for medium and heavy trucks, respectively.

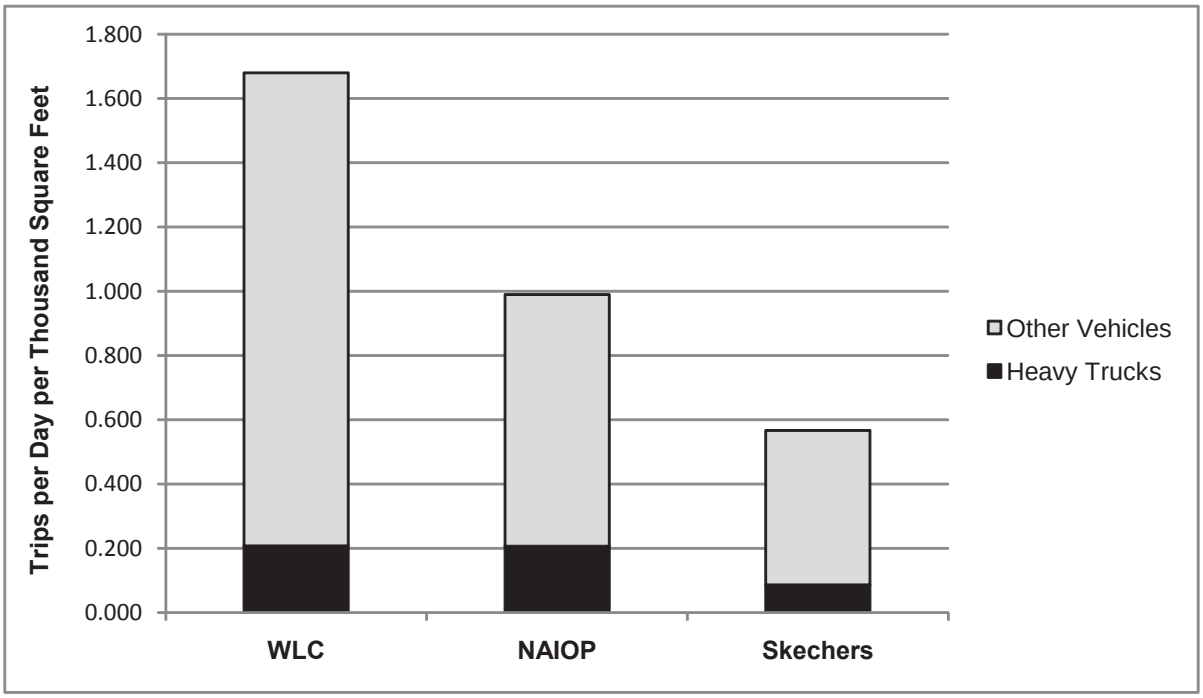

Figure 4.15.7: Comparison of Trip Generation from Southern California Sources (new figure added to Final EIR)

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.O: Project Trips by Vehicle Type

Vehicle Type	AM Peak Hour			PM Peak Hour			Vehicles	Surface Street PCEs	Freeway PCEs
	In	Out	Total	In	Out	Total			
PHASE 1									
Autos	1,197	466	1,663	412	1,396	1,807	30,879	30,879	30,879
Light Trucks	97	55	152	77	90	167	1,340	2,009	2,009
Medium Trucks	130	74	204	103	121	223	1,792	3,585	2,689
Heavy Trucks	345	197	542	273	320	594	4,760	14,279	7,140
Total	1,769	792	2,561	866	1,927	2,792	38,771	50,753	42,717
PHASE 2									
Autos	923	356	1,279	313	1,075	1,388	23,835	23,835	23,835
Light Trucks	75	43	118	60	70	130	1,046	1,569	1,569
Medium Trucks	100	57	157	79	93	173	1,389	2,778	2,083
Heavy Trucks	266	151	418	211	248	459	3,680	11,040	5,520
Total	1,365	606	1,971	663	1,486	2,149	29,950	39,222	33,007
FULL PROJECT BUILD-OUT									
Autos	2,120	821	2,941	726	2,471	3,195	54,714	54,714	54,714
Light Trucks	172	98	271	137	160	297	2,385	3,578	3,578
Medium Trucks	230	131	361	182	214	396	3,181	6,363	4,772
Heavy Trucks	611	348	959	484	568	1,052	8,440	25,319	12,660
Total	3,134	1,398	4,532	1,529	3,413	4,941	68,721	89,975	75,724

PCE = passenger car equivalent.
Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

The City of Moreno Valley Transportation Engineering Division performed their own survey of trip generation at six warehouses in the City to address concerns over unrealistically high trip generation forecasts for warehouse oriented projects. This study used counts collected in Fall 2013, after the Draft EIR for the proposed project had been sent out for public review in February 2013. The City study confirmed that the vehicle mix for the Heavy Warehouse category in the Fontana *Truck Trip Generation Study* (i.e. the data used for the WLC TIA) produces a good, but conservative (i.e. somewhat high), estimate of truck trips percentages for high-cube warehouses while the Fontana Truck Terminal category produces an obvious over-estimate of truck traffic (see Figure 4.15.8).

For comparative purposes, the trip generation estimate for the proposed project was compared to the trip generation for existing approved land uses for the project area as shown in the final traffic study for the Moreno Highlands Specific Plan. The Moreno Highlands Specific Plan would generate 178,608 average vehicle trips per day, or more than two-and-a-half times as many trips (256%) as are forecast for the WLC (69,542 average vehicle trips per day). The Moreno Highlands traffic studies did not distinguish between car and truck traffic, and so did not provide a forecast in terms of PCEs. However, even if the Moreno Highlands plan were to generate no truck trips at all (only auto trips), it would still generate nearly twice as many PCEs trips as the WLC. Thus, the World Logistics Center would generate substantially less traffic than the existing approved land uses for the project area as envisioned in the existing Moreno Highlands Specific Plan.

Trip distribution represents the probable starting and ending locations of traffic generated by a project. Trip distribution is heavily influenced by the geographical location of a project site in relation to local and regional land uses (i.e., the starting and ending locations), and access to a project site from the local and regional transportation system. The proposed project's trip distribution was developed for both passenger cars and trucks.

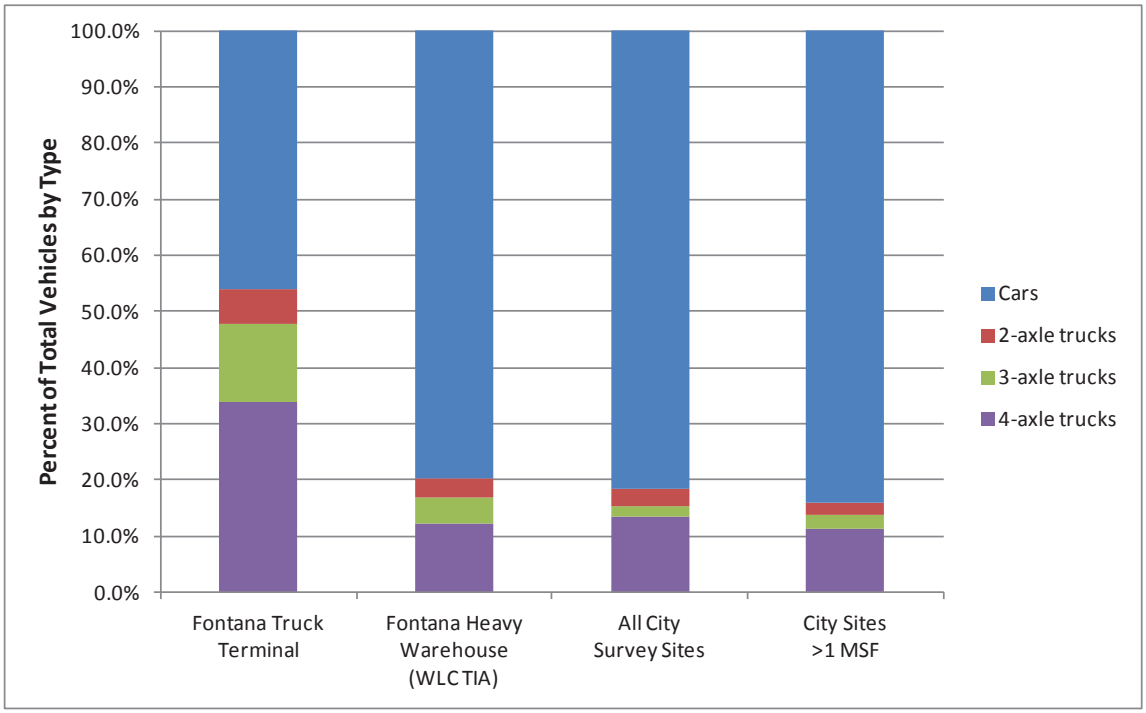

Figure 4.15.8: Comparison of Vehicle Mixes from the City Survey and the Fontana Study (new figure added to Final EIR)
Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

The Fontana Truck Trip Generation Study[1] found that 80 percent of the vehicles entering or leaving warehouse sites are passenger cars, nearly all of which are used for commute trips by employees of the warehouses. Most of these trips are local trips resulting from current and future residents of Moreno Valley who would be afforded the opportunity to work locally with very short commutes as wells as residents of neighboring cities who would access the project site using the local arterial network. Other passenger car trips would be generated by workers coming from more distant areas. In most cases, these trips would access the project site via SR-60 in the off-peak direction (i.e., commuters traveling to the project site from Los Angeles or Orange Counties).

Truck Distribution. The truck trip distribution patterns have been developed based on the anticipated travel patterns for the proposed project's high-cube logistics warehousing trucks. Since the internal trips, the port-related trips, and the majority of external trips (all but those on I-10) use routes west of the project site, it is anticipated that a large majority of the WLC truck traffic will be oriented to the west of the project, with a much smaller amount to and from the east. In addition, the majority of project truck traffic would use the freeway system to enter and leave the project area due to truck routing restrictions. Based on these factors, truck trips generated by the proposed project would be oriented in the following manner:

- 82 percent to/from the west via one or more freeways;
- 6 percent to/from the north via surface streets;
- 9 percent to/from the east utilizing SR-60 and I-10; and
- 3 percent to/from the southeast via surface streets.

[1] Truck Trip Generation Study, City of Fontana, August 2003.

Auto Distribution. Figure 29 of the WLC TIA indicates that daily passenger vehicle traffic will distribute in the following directions:

- 44 percent to/from the west on SR-60;
- 9 percent to/from the east on SR-60 (east of Gilman Springs Road);
- 11 percent to/from the southeast on Gilman Springs Road;
- 29 percent to/from the south on Cactus Avenue; and
- 7 percent to/from the north along Theodore Street.

Moreno Valley currently has a jobs/housing imbalance that results in long westbound commutes for thousands of city residents every workday. The WLC would create approximately 25,000 new jobs; nearly doubling the number of jobs in Moreno Valley. This would have four effects on commute patterns. First, many current and future residents of Moreno Valley would be able to work locally with very short commute trips.

Second, residents of neighboring cities who work at the WLC would have short commutes and, importantly, be able to access the site using the arterial road network. This is consistent with the policies of the Western Riverside Council of Governments and the Riverside County Transportation Commission to promote use of the arterial road network as an alternative to freeways. Tests with the RIVTAM model (see Figure 29 of the WLC TIA) suggest that nearly half of auto traffic associated with the WLC would be on surface streets; i.e., not on freeways.

Third, workers coming from more distant locations would, in most cases, be traveling on freeways in the off-peak direction; i.e., commuters traveling to the WLC from Los Angeles or Orange Counties would be headed eastbound in the morning and westbound in the evening. This would enable them to take advantage of the existing unused off-peak capacity of freeways, since the freeways were sized for flows in the peak direction.

Fourth, because the RIVTAM model assumes that WLC employees would work elsewhere if the WLC project were not implemented, then the availability of jobs at the east end of Moreno Valley would reduce the number of workers driving long commutes to distant jobsites to the west and southwest. Although the project would increase freeway auto traffic eastbound in the morning, it would also decrease the traffic in the more congested westbound direction. In the evening the pattern would reverse, with the project relieving traffic in the congested eastbound direction. Therefore, the WLC project would have a net beneficial impact on the regional freeway auto traffic. This is consistent with the policies of SCAG, WRCOG, and other regional governments and agencies to encourage better jobs/housing balances as a way to reduce peak directional flows on the regional freeway system.

The assignment of traffic from the project area to the adjoining roadway system is based upon the project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the project. For more information on project trip generation and distribution for both trucks and passenger vehicles over and above the summary above, see Sections 4.C, 4.D, and 4.E in the project TIA (PB 2013, EIR Appendix L). It is important to note that all trucks must use established truck routes within the City of Moreno Valley by the Municipal Code, while passenger vehicles will distribute onto the freeway and local streets depending on their destinations.

It should be noted that all technical studies based all or in part on traffic (i.e., air quality, greenhouse gases, and noise) have used these same assumptions regarding trip generation, trip length, etc. from the project TIA for their assessments of project impacts.

Passenger Car Equivalents. The analytical methods used to forecast traffic impacts must take into account the driving characteristics of different classes of vehicles. This is typically done through the use of passenger car equivalent (PCE) factors, which convert the number of heavy vehicles in the traffic stream into an equivalent number of passenger cars. The term PCE was first used in the 1965 *Highway Capacity Manual* (HCM), and was determined by comparing the relative number of passing of trucks by passenger cars in relation to number of passing of passenger car by passenger cars. According to the *HCM 2000*:

> *The entry of heavy vehicles-that is, vehicles other than passenger cars (a category that includes small trucks and vans)-into the traffic stream affects the number of vehicles that can be served. Heavy vehicles are vehicles that have more than four tires touching the pavement.*
>
> *Trucks, buses, and recreational vehicles (RVs) are the three groups of heavy vehicles addressed by the methods in this manual. Heavy vehicles adversely affect traffic in two ways:*
>
> - *They are larger than passenger cars and occupy more roadway space; and*
> - *They have poorer operating capabilities than passenger cars, particularly with respect to acceleration, deceleration, and the ability to maintain speed on upgrades.*
>
> *The second impact is more critical. The inability of heavy vehicles to keep pace with passenger cars in many situations creates large gaps in the traffic stream, which are difficult to fill by passing maneuvers. The resulting inefficiencies in the use of roadway space cannot be completely overcome. This effect is particularly harmful on sustained, steep upgrades, where the difference in operating capabilities is most pronounced, and on two-lane highways, where passing requires use of the opposing travel lane.*

Grade is by far the most important determinant in the PCE factor to be used. The HCM's recommended PCE for trucks ranges from 1.5 for places with slopes of less than 2 percent up to 7.0 for places with steep grades more than a mile long. HCM's recommended PCE factors were used for the freeway analysis.

For the analysis of surface streets, the City's TIA guidelines mandate the use of PCE factors taken from the San Bernardino County CMP, 2003 Update. These are somewhat higher than the HCM rates; for example, HCM recommends 2 PCEs per heavy truck while the San Bernardino County CMP uses 3. This means that use of the San Bernardino County CMP PCE rates represents a deliberately conservative approach in the sense that the analysis will tend to over-state the impact of trucks on traffic conditions.

4.15.3.3 Year 2017 Conditions

Note: Due to a change in project conditions and phasing, the Year 2017 analysis was eliminated from the revised TIA and DEIR section. *The reader is referred to the original DEIR section for that analysis and related tables and figures.*

Note: The following analysis of potential rail service to the project site was added in response to comments on the Draft EIR.

Potential Rail Alternative. This section describes why rail service is not considered a viable option for reducing the traffic impacts of the WLC. This conclusion is based on several factors, including the physical constraints to bringing rail service to the WLC site, the cost of cargo movement by rail relative to movement by truck, capacity constraints in the rail system that the WLC branch line would tie into, and the minimal effect that rail service would have even if all other factors could be overcome. These factors are discussed in turn below.

The Possible Alignments for Bringing Rail Service to the WLC Site. The WLC site is not currently served by rail. The rail lines nearest the site are the Union Pacific Yuma Line (single-track in this area), the Riverside County Transportation Commission's San Jacinto Branch Line (single-track, currently inactive), and the BNSF double-track line through the City of Riverside (see TIA Figure 36).

There are four general alignment possibilities for a branch line to the WLC. Each alignment is inherent with significant problems as follows:

- Western Alignment – Alignments running from the BNSF line in Riverside to the WLC, an approximate distance of 15 miles, would have to run through built-up areas of the Cities of Riverside and Moreno Valley. The cost of acquiring right-of-way through these areas, and the impacts to the community (noise, traffic disruption, safety, division of the community, etc.) render such alignments unviable. Moreover, trains using the at-grade rail crossings in the City of Riverside already impose substantial delays on road traffic. In fact, in recent years the City of Riverside has sued the ports over the issue of traffic impacts from additional trains passing through the city. Adding more crossings and more trains would exacerbate this problem.
- Southern Alignment – It would be possible to avoid densely populated and built-out areas by connecting to the San Jacinto Branch Line south of March Air Reserve Base. However, the only way to avoid established communities would be to pass along the northern portion of the Lake Perris State Recreation Area. The alignment, approximately 10 miles in length, would be a major impact as it would require constructing and operating a rail line along the slopes of the Lake Perris State Recreation Area and potentially the San Jacinto Wildlife Area. There would also be traffic impacts at road crossings, potential grade issues, and grade separated crossings needed for drainage channels and I-215. The impacts and costs of this approach would be disproportionate to the benefit of removing WLC trucks from the freeways (which will be discussed in a later section).
- Northern Alignment – The shortest alignment to an existing rail line is to the north in the vicinity of Redlands Boulevard and connecting to the UP Yuma line near the intersection of Redlands Boulevard and San Timoteo Canyon Road, approximately five miles from the project site. This alignment would require extensive ROW acquisition, encounter very serious grade issues that would increase the length of track needed, result in environmental impacts on the Badlands, and require a grade separated crossing of SR-60. The impacts and costs of this approach would be disproportionate to the benefit of removing WLC trucks from the freeways.
- Eastern Alignment – The final possibility would be to connect to the UP Yuma line along an alignment parallel to SR-60. This alignment would connect to the existing rail network near the Morongo Golf Club at Tukwet Canyon, approximately five miles to the east of the WLC site. The eastern alignment would be affected by the same drawbacks as the northern alignment, with the addition of the need to construct a bridge over San Timoteo Creek.

As can be seen from the discussion above, providing rail service to the WLC along any of the possible alignments would in itself create serious environmental impacts.

Relative Costs of Truck and Rail Service. The loading and unloading of rail cargos requires special equipment and handling and can only be performed at specialized places, which adds to the cost of shipping goods by rail. On the other hand, the actual movement of goods by rail is more energy-efficient and less expensive than movement by truck. This combination of relatively high fixed costs at each end of a trip with low variable costs for the distance traveled means rail can be a less expensive way to ship cargo than truck, but only if the shipping distance is sufficiently long.

The break-even distance between rail and truck shipping has been the subject of several studies. The industry rule-of-thumb is that the rail becomes economically viable when cargos are shipped more

than 500 miles. For example, the National Rail Plan, a nationwide guiding document from the U.S. Department of Transportation Federal Railroad Administration, has set the freight rail goal to, "Develop strategies to attract 50 percent of all shipments 500 miles or greater to intermodal rail." In addition, the Plan highlights the importance that trucks have in conjunction with rail when moving freight, as trucks "excel in providing time-sensitive delivery services for high-value goods being transported over medium and short haul distances." A local example is the Ports of Long Beach/Los Angeles Rail Master Planning Study, which indicates that rail loaded with two levels of shipping containers, "traditionally competes well with trucks at distances greater than 500 miles." The San Pedro Bay Ports Rail Market Study shows the break-even point between truck and rail freight transport beginning east of Las Vegas and Phoenix, and north of the Bay Area. For shipments between the Ports of Los Angeles and Long Beach and the WLC, a distance of about 70 miles, shipping by rail would be far more expensive than by truck. Even if a rail line were built to the WLC, it would be uneconomical to use it for trips to and from the ports.

Capacity Constraints in the Rail System. If a rail line could be built to the WLC site and tenants could be induced to use it despite higher costs, this would only be helpful if the regional rail system had sufficient capacity to accommodate WLC freight without detriment to other users.

In fact, there are serious capacity constraints in the rail network in the Los Angeles Basin. Among other things, both BNSF and UP rail operations are already capacity-constrained on the lines between the ports and western Riverside County. Two studies, completed in the early 2000s and using the year 2000 as the existing condition, found that many of the rail lines were already operating near capacity. The studies evaluated 10 and 25 years of projected growth on the network and found that within 10 years (of the date of the study) the network would be over capacity. Without capacity increasing improvements, 10 years of train traffic growth was forecast to increase delay more than six-fold. This did not include additional delays that would be caused by trains serving the WLC.

The Los Angeles-Inland Empire Railroad Main Line Advanced Planning Study from October 2002 found that the "region's rail system is inadequate for forecast train traffic." The study presented other findings that illustrate the near-capacity state of the rail network, for example, "… just 25 percent of the forecast 2010 traffic is sufficient to roughly double the average delay per train, to 67.6 minutes for BNSF freight and 54.4 minutes for UP freight." This occurs because small increases in train traffic result in disproportionate delays as the network nears capacity.

Several minor improvements to the rail network have been made since the 2002 study. However, accommodating estimated future demand in the year 2025 by providing capacity improvements alone would be costly; to meet future demand without rerouting would require capacity of some segments to be increased from two to four tracks. Therefore, an approach has been developed to revise train routing on the existing rail network and make limited capacity-increasing improvements. Even the limited improvements are estimated to cost over $2 billion.

The fact that the rail system has limited capacity to accommodate additional traffic means that potential users have to be prioritized so that the capacity can be allocated efficiently. Highest priority would be for long-distance rail service direct from the ports. Short-distance cargo trips between the ports and the WLC would receive much lower priority than long-distance shipments. If regional passenger trains (e.g., Metrolink) share the tracks with freight trains, as is the case for some lines, then service to WLC would drop even further on the priority list. Based on existing capacity of the rail network and projected growth, the studies indicated that the rail network would be over capacity without further capital investments, which is beyond the scope of the WLC project.

Minimal Reduction in Traffic. Assuming that a rail line could be built to the WLC site and assuming that WLC freight could be accommodated by the rail network and that the costs for these things could

be covered by subsidies or by increasing the prices on goods moved through the WLC, the question must be asked, "how much of a reduction in truck traffic impacts would be achieved?"

The answer is, "very little." As was discussed earlier, the economics of freight shipment make rail viable only for trips of 500 miles or more. As is described in the TIA prepare for this EIR (Chapter 12, Section F), between 2 and 7 percent (depending on the year) of the truck trips beginning or ending in WLC go to the ports and these trips have no significant impact on freeway LOS for most of their lengths. So the effect of rail service on reducing truck impacts would be very small.

Conclusions About the Rail Alternative. This analysis of the rail alternative found that bringing rail service to the site would be very costly, result in serious environmental impacts, create major disruption to existing communities, and take many years to design, acquire right-of-way, and construct. Even if a line were built, both economics and system constraints would deter its use for cargos between the WLC and the ports. Even if built and used, rail service would have very little effect on reducing the traffic impacts of the WLC. Based on these considerations, rail service was not included in the design of the WLC and is not discussed further in this EIR.

4.15.3.4 Year 2022 Conditions

Note: The analysis of Year 2022 conditions in the original DEIR was based on different project characteristics (i.e., +1 million square feet of warehousing) and different phasing. Therefore, the previous Year 2022 has been removed in its entirety and replaced with the following updated analysis. The reader is referred to the original DEIR section for the previous Year 2022 analysis.

Levels of service are discussed below for year 2022. As noted above, Phase 1 of the proposed project will be completed in 2022 and includes 21,450,000 square feet of logistics warehouse uses. This is approximately 52 percent of the total project building space. The internal road system will be partially built out, with east-west through traffic served by the Cactus Avenue Extension and Streets C and E. Theodore Street would serve north-south traffic as it does today. As discussed previously, roadway projects that are either under construction or are funded and planned for implementation in the short-term (i.e., improvement projects on the FTIP and the RTP's Financially Constrained Project list) and therefore reasonably assured of being constructed within the scenario timeframe were added.

Year 2022 Without Project Levels of Service. An intersection level of service analysis was conducted to determine intersection performance under opening year 2022 cumulative conditions. Table 4.15.P summarizes the levels of service for opening year cumulative conditions at study area intersections. As shown on Table 4.15.P, the same 12 intersections that exceeded the City's LOS standards under Existing No Project Conditions also exceed the LOS standards under 2022 No Project conditions. In addition, 20 other intersections were forecast to operate at LOS D or worse. The intersections that were forecast to exceed the City's LOS standards under opening year 2022 cumulative conditions were:

- Redlands Boulevard/Locust Avenue (a.m. and p.m.);
- Redlands Boulevard/SR-60 Westbound ramps (a.m. and p.m.);
- Theodore Avenue/Fir Avenue (p.m.);
- Oliver Street/Alessandro Boulevard (a.m. and p.m.);
- Redlands Boulevard/Alessandro Boulevard (a.m.);

- Moreno Beach Drive/Ironwood Avenue (a.m.);
- Moreno Beach Drive/SR-60 Eastbound ramps (a.m.);
- Lasselle Street/Iris Avenue (p.m.);
- Krameria Avenue; Perris Boulevard (a.m. and p.m.);
- Lasselle Street/Cactus Avenue (a.m. and p.m.);
- Frederick Street/Alessandro Boulevard (p.m.);
- Graham Street/Alessandro Boulevard (p.m.);
- Perris Boulevard/Alessandro Boulevard (p.m.);
- Graham Street/Cactus Avenue (a.m. and p.m.);
- Alessandro Boulevard/Sycamore Canyon Boulevard (p.m.);
- I-215 Southbound ramps/Cactus Avenue (p.m.);
- Elsworth Street/Cactus Avenue (p.m.);
- Martin Luther King Boulevard/Canyon Crest Drive (a.m.);
- Martin Luther King Boulevard/I-215 Northbound ramps (a.m.);
- Arlington Avenue/Victoria Avenue (a.m. and p.m.);
- Alessandro Boulevard/Chicago Avenue (a.m. and p.m.);
- Ramona Expressway/Evans Road (a.m.);
- Evans Road/Rider Street (a.m.);
- Placentia Avenue/Perris Boulevard (p.m.);
- Gilman Springs Road/Bridge Street (a.m.);
- SR-79 (Sanderson Avenue) Northbound/Gilman Springs Road (a.m. and p.m.);
- SR-79 (Sanderson Avenue) Southbound/Gilman Springs Road (a.m. and p.m.);
- W. 6th Street/California Avenue (a.m. and p.m.);
- San Timoteo Canyon Road/Alessandro Road (a.m. and p.m.);
- San Timoteo Canyon Road/Live Oak Canyon Road (a.m. and p.m.);
- Redlands Boulevard/San Timoteo Canyon Road (a.m. and p.m.); and
- W. Crescent Avenue/Alessandro Road (a.m. and p.m.).

Table 4.15.P: Year 2022 Without Project Intersection Levels of Service (new table)

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Theodore St/Street F	N/A	N/A	Non-Existent		Non-Existent	
2	Cactus Avenue Extension/Street E	N/A	N/A	Non-Existent		Non-Existent	
3	Theodore Str/Alessandro Blvd (Str A/Str C/Str E)	D	CSS	10.0	A	10.3	B
4	Alessandro Blvd (Street C)/Street F	N/A	N/A	Non-Existent		Non-Existent	
6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	SIGNAL	5.8	A	7.9	A

Table 4.15.P: Year 2022 Without Project Intersection Levels of Service (new table)

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
9	Gilman Springs Rd/Eucalyptus Ave	N/A	N/A	Non-Existent		Non-Existent	
10	Redlands Blvd/Locust Ave	C	CSS	> 180.0	**F**	> 180.0	**F**
11	Redlands Blvd/Ironwood Ave	D	SIGNAL	34.9	C	31.7	C
12	Theodore Street/Ironwood Avenue	D	CSS	13.0	B	17.8	C
13	Redlands Blvd/SR-60 WB ramps	D	CSS	> 180.0	**F**	> 180.0	**F**
14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	8.9	A	15.9	B
15	Theodore Str/SR-60 WB ramps	D	CSS	12.2	B	19.2	C
16	Theodore Str/SR-60 EB ramps	D	CSS	12.2	B	23.2	C
17	Quincy Str/Fir Ave	N/A	N/A	Non-Existent		Non-Existent	
18	Redlands Blvd/Eucalyptus Ave (Fir)	N/A	N/A	Non-Existent		Non-Existent	
19	Theodore St/Fir Ave (Eucalyptus)	D	CSS	9.8	A	41.7	**E**
20	Oliver Str/Alessandro Blvd	C	CSS	81.3	**F**	67.7	**F**
21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	17.6	B	18.5	B
22	Quincy Str/Alessandro Blvd	N/A	N/A	Non-Existent		Non-Existent	
23	Redlands Blvd/Alessandro Blvd	C	AWS	30.2	**D**	14.1	B
24	Oliver Str/Cactus Ave	D	SIGNAL	32.5	C	25.7	C
25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	18.5	B	18.9	B
26	Quincy Str/Cactus Ave	N/A	N/A	Non-Existent		Non-Existent	
27	Redlands Blvd/Cactus Ave	C	AWS	13.4	B	9.5	A
28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	19.8	B	18.9	B
29	Heacock Str/Ironwood Ave	D	SIGNAL	30.9	C	36.9	D
30	Heacock Str/SR-60 WB Ramps	D	SIGNAL	33.7	C	47.5	D
31	Heacock St/SR-60 EB Ramps	D	SIGNAL	21.1	C	24.7	C
32	Sunnymead Blvd & Perris Blvd	D	SIGNAL	29.9	C	39.2	D
33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	31.8	C	21.7	C
34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	27.7	C	33.4	C
35	Moreno Beach Dr/Locust Ave	C	CSS	9.2	A	9.6	A
36	Moreno Beach Drive & Ironwood Avenue	D	SIGNAL	90.2	**F**	51.0	D
37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	88.7	**F**	37.8	D
38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	50.8	D	53.5	D
39	Iris Ave/Perris Blvd	D	SIGNAL	54.0	D	38.6	D
40	Kitching St/Iris Ave	C	SIGNAL	28.9	C	23.9	C
41	Lasselle Str/Iris Ave	D	SIGNAL	32.8	C	68.7	**E**
42	Nason Str/Iris Ave	C	SIGNAL	8.2	A	11.7	B
43	Oliver Str/Iris Ave	D	SIGNAL	28.9	C	22.0	C
44	Via Dell Lago/Iris Ave	C	SIGNAL	8.8	A	8.3	A
45	Krameria Ave/Perris Blvd	D	SIGNAL	> 180.0	**F**	> 180.0	**F**
46	Kitching Str/Krameria Ave	D	SIGNAL	29.2	C	40.0	D
47	Lasselle Str/Krameria Ave	D	SIGNAL	32.9	C	15.3	B
48	Kitching Str/Alessandro Blvd	D	SIGNAL	28.5	C	25.7	C
49	Lasselle Str/Alessandro Blvd	D	SIGNAL	56.1	**E**	41.9	D
50	Morrison Str/Alessandro Blvd	D	SIGNAL	9.3	A	9.2	A

Table 4.15.P: Year 2022 Without Project Intersection Levels of Service (new table)

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
51	Nason Str/Alessandro Blvd	D	SIGNAL	31.5	C	29.5	C
52	Kitching Str/Cactus Ave	C	SIGNAL	32.2	C	26.2	C
53	Lasselle Str/Cactus Ave	C	SIGNAL	64.0	**E**	52.8	**D**
54	Morrison Str/Cactus Ave	N/A	N/A	Non-Existent		Non-Existent	
55	Nason Str/Cactus Ave	D	SIGNAL	30.6	C	32.8	C
56	Frederick Str/Alessandro Blvd	D	SIGNAL	30.4	C	61.7	**E**
57	Graham Str/Alessandro Blvd	D	SIGNAL	32.4	C	76.8	**E**
58	Heacock Str/Alessandro Blvd	D	SIGNAL	41.8	D	48.9	D
59	Indian Str/Alessandro Blvd	D	SIGNAL	24.7	C	33.5	C
60	Perris Blvd/Alessandro Blvd	D	SIGNAL	50.5	D	113.4	**F**
61	Frederick Str/Cactus Ave	D	SIGNAL	19.1	B	15.6	B
62	Graham Str/Cactus Ave	D	SIGNAL	148.3	**F**	66.6	**E**
63	Heacock Str/Cactus Ave	D	SIGNAL	42.5	D	32.9	C
64	Indian Str/Cactus Ave	C	SIGNAL	28.8	C	22.0	C
65	Perris Blvd/Cactus Ave	D	SIGNAL	35.7	D	32.7	C
66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	38.2	D	58.3	**E**
67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	10.9	B	8.9	A
68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	25.5	C	23.3	C
69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	17.3	B	35.4	D
70	Day Str/Alessandro Blvd	D	SIGNAL	10.7	B	43.0	D
71	Elsworth Str/Alessandro Blvd	D	SIGNAL	20.7	C	34.7	C
72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	30.5	C	89.5	**F**
73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	10.8	B	12.6	B
74	Elsworth Str/Cactus Ave	D	SIGNAL	31.3	C	175.7	**F**
75	Central Ave/Lochmoor Dr.	D	SIGNAL	19.6	B	30.3	C
76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	27.8	C	29.8	C
77	SR-60 EB Ramps/Central Ave	D	SIGNAL	10.9	B	11.7	B
78	SR-60 WB Ramps/Central Ave	D	SIGNAL	6.6	A	7.4	A
79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	29.8	C	15.5	B
80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	33.2	C	48.3	D
81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	34.6	C	48.4	D
82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	9.2	A	16.7	B
83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	100.0	**F**	41.2	D
84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	9.6	A	5.6	A
85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	27.4	D	15.0	C
86	Central Ave/Chicago Ave	D	SIGNAL	34.5	C	40.8	D
87	Central Ave/El Cerrito Dr	D	SIGNAL	13.2	B	17.3	B
88	Central Ave/Canyon Crest Dr	D	SIGNAL	36.3	D	51.2	D
89	Chicago Ave/Country Club Dr	D	SIGNAL	9.4	A	7.1	A
90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	36.9	D	35.4	D

Table 4.15.P: Year 2022 Without Project Intersection Levels of Service (new table)

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	22.1	C	31.3	C
92	Arlington Ave/Maude St	D	SIGNAL	14.3	B	13.5	B
93	Horace St/Arlington Ave	D	SIGNAL	19.7	B	10.1	B
94	Arlington Ave/Victoria Ave	D	SIGNAL	84.2	**F**	83.7	**F**
95	Alessandro Blvd/Chicago Ave	D	SIGNAL	64.5	**E**	114.7	**F**
96	Alessandro Blvd/Century Ave	D	SIGNAL	32.5	C	14.9	B
97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	29.5	C	20.5	C
98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	30.6	C	30.2	C
99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	33.3	C	25.5	C
100	Harley Knox Blvd/Evan Rd	N/A	N/A	Non-Existent		Non-Existent	
101	Ramona Expy/Indian St	E	SIGNAL	18.6	B	39.7	D
102	Ramona Expy/Perris Blvd	E	SIGNAL	34.3	C	31.2	C
103	Ramona Expy/Evans Rd	E	SIGNAL	139.7	**F**	41.6	D
104	Perris Blvd/Morgan St	D	SIGNAL	14.6	B	12.7	B
105	Evans Rd/Morgan St	C	SIGNAL	32.8	C	29.7	C
106	Perris Blvd/Rider St	C	SIGNAL	18.3	B	22.7	C
107	Evans Rd/Rider St	C	SIGNAL	34.4	C	30.3	C
108	Perris Blvd/Mid-County Pkwy WB Ramps	D	SIGNAL	29.2	C	20.8	C
109	Perris Blvd/Mid-County Pkwy EB Ramps	D	SIGNAL	19.2	B	32.4	C
110	Evans Rd/Mid-County Pkwy WB Ramps	D	SIGNAL	38.0	D	32.2	C
111	Evans Rd/Mid-County Pkwy EB Ramps	D	SIGNAL	14.6	B	25.9	C
112	Placentia Ave/Perris Blvd	D	SIGNAL	40.8	D	60.0	**E**
113	Evans Rd/Placentia Ave	N/A	N/A	Non-Existent		Non-Existent	
114	Evans Rd/Orange Ave	C	AWS	22.1	C	16.9	C
115	Evans Rd/Nuevo Rd	C	SIGNAL	32.0	C	32.2	C
116	Evans Rd/Ellis Ave	N/A	N/A	Non-Existent		Non-Existent	
117	Ellis Ave/I-215 SB Ramps	N/A	N/A	Non-Existent		Non-Existent	
118	Ellis Ave/SR-215 NB Ramps	N/A	N/A	Non-Existent		Non-Existent	
119	Evans Rd/San Jacinto Ave	N/A	N/A	Non-Existent		Non-Existent	
120	Park Center Blvd/Ramona Expy WB Ramps	N/A	N/A	Non-Existent		Non-Existent	
121	Park Center Blvd/Ramona Expy EB Ramps	N/A	N/A	Non-Existent		Non-Existent	
122	Bridge St/Ramona Expy	N/A	N/A	Non-Existent		Non-Existent	
123	Gilman Springs Rd/Bridge Str	C	CSS	22.3	C	25.7	**D**
124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	> 180.0	**F**	108.0	**F**
125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	> 180.0	**F**	123.3	**F**
126	Ramona Expy/Sanderson Ave	D	SIGNAL	35.7	D	24.4	C
127	Potrero Blvd/SR-60 WB Ramps	N/A	N/A	Non-Existent		Non-Existent	
128	Potrero Blvd/SR-60 EB Ramps	N/A	N/A	Non-Existent		Non-Existent	
129	W 6th St/California Ave	C	AWS	31.8	**D**	55.0	**F**

Table 4.15.P: Year 2022 Without Project Intersection Levels of Service (new table)

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
130	W 6th St/Beaumont Ave	C	SIGNAL	15.7	B	25.3	C
131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	13.7	B	6.3	A
132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	> 180.0	**F**	125.1	**F**
133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	169.8	**F**	> 180.0	**F**
134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	> 180.0	**F**	> 180.0	**F**
135	W Crescent Ave/Alessandro Rd	C	CSS	27.7	**D**	16.2	C
136	W Sunset Dr/Alessandro Rd	C	AWS	10.9	B	11.1	B

Notes: "CSS" means cross-street is stop-controlled "AWS" means all-way stop

"Non-Existent" indicates that the intersection exists in some scenarios but not in the scenario being reported

denotes LOS exceeding the target threshold

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, ~~March~~ September 2014.

The year 2022 without project roadway levels of service are based on daily V/C ratios for the study area roadway segments. Table 4.15.Q summarizes the results of this analysis and shows the following two study area roadway segments are projected to operate with unsatisfactory daily V/C ratios under year 2022 without project conditions. These same roadway segments also operate with unsatisfactory LOS in the existing condition:

- Gilman Springs Road:
  - Between Alessandro Boulevard and Bridge Street; and
  - Between SR-60 and Alessandro Boulevard.

A freeway segment level of service analysis was conducted to determine freeway performance under year 2022 conditions. Table 4.15.R summarizes the levels of service at study area segments under year 2022 no project conditions. As shown in Table 4.15.R, the following 33 study freeway segments are forecast to operate at an unsatisfactory level of service during either the a.m. or p.m. peak hour:

- Northbound or Eastbound:
  - SR-60 Reservoir Street to Ramona Avenue (p.m.);
  - SR-60 Ramona Avenue to Central Avenue (p.m.);
  - SR-60 Central Avenue to Mountain Avenue (p.m.);
  - SR-60 Euclid Avenue to Grove Avenue (p.m.);
  - SR-60 Grove Avenue to Vineyard Avenue (p.m.);
  - SR-60 Vineyard Avenue to Archibald Avenue (p.m.);
  - SR-60 Valley Way to Rubidoux Boulevard (p.m.);
  - SR-60 Rubidoux Boulevard to Market Street (a.m.);
  - SR-60 Market Street to Main Street (p.m.);
  - SR-60 Martin Luther King Boulevard to Central Avenue (a.m. and p.m.);
  - SR-60 Pigeon Pass Road/Frederick Street to Heacock Street (p.m.);

  - SR-60 Heacock Street to Perris Boulevard (p.m.);
  - SR-91 I-15 to McKinley Street (p.m.);
  - SR-91 Pierce Street to Magnolia Avenue (p.m.)
  - I-215 La Cadena Drive to Barton Road (p.m.); and
  - I-215 Barton Road to Mt. Vernon Avenue (a.m. and p.m.).
- Southbound and Westbound:
  - SR-60 Reservoir Street to Ramona Avenue (a.m.);
  - SR-60 Ramona Avenue to Central Avenue (a.m.);
  - SR-60 Grove Avenue to Vineyard Avenue (p.m.);
  - SR-60 Valley Way to Rubidoux Boulevard (p.m.);
  - SR-60 Market Street to Main Street (a.m. and p.m.);
  - SR-60 Main Street to SR-91 (p.m.);
  - SR-60 Fair Isle Drive/Box Springs Road to I-215 (a.m. and p.m.);
  - SR-60 I-215 to Day Street (a.m.);
  - SR-91 McKinley Street to Pierce Street (p.m.);
  - SR-91 Pierce Street to Magnolia Avenue (p.m.);
  - SR-91 Magnolia Avenue to La Sierra Avenue (p.m.);
  - SR-91 La Sierra Avenue to Tyler Street (p.m.);
  - I-215 Columbia Avenue to Center Street (a.m.);
  - I-215 Center Street to Iowa Avenue/La Cadena Drive (a.m.);
  - I-215 Iowa Avenue/La Cadena Drive to Barton Road (a.m.); and
  - I-215 Barton Road to Mt. Vernon Avenue (a.m.).

Table 4.15.Q: Year 2022 Without Project Roadway Levels of Service (new table)

Roadway		From	To	LOS Standard*	Roadway Section**	Daily Volume	LOS
S-1	Theodore Street (A)	SR-60 WB Ramps	Ironwood Avenue	D	2U	3,133	A
S-2	Theodore Street (A)	SR-60 EB Ramps	Fir (Eucalyptus) Ave.	D	2U	6,689	A
S-3	Fir (Eucalyptus) Ave.	Redlands Blvd	Theodore Street (A)	D	2U***	6,542	A
S-4	Eucalyptus Ave (B)	Theodore Street (A)	Gilman Springs Rd	Future Road			
S-5	Theodore Street (A)	Fir (Eucalyptus) Ave.	Street E	D	2U	1,116	A
S-6	Street E	Theodore Street (A)	Cactus Ave Extension	Future Road			
S-7	Street F	Theodore Street (A)	Alessandro Blvd (Street C)	Future Road			
S-8	Theodore Street (A)	Fir (Eucalyptus) Ave.	Alessandro Blvd (Street C)	D	2U	1,116	A
S-9	Alessandro Blvd (Street E)	Merwin Street	Theodore Street (A)	D	2U	3,778	A
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave.	Future Road			
S-11	Alessandro Blvd (Street C)	Theodore Street (A)	Street F	D	~~11,300~~ 2U	2,321	A
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	2,321	A
S-14	Alessandro Blvd	Moreno Beach Dr	Redlands Blvd	D	2U	4,796	A
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge Street	D	2U	15,512	**F**
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	2U	12,819	**F**
S-18	Redlands Blvd	SR-60 EB Ramps	Fir (Eucalyptus) Ave.	D	2U	11,042	D
S-19	Redlands Blvd	Fir (Eucalyptus) Ave.	Alessandro Blvd	C	2U	8,416	B
S-20	Alessandro Blvd	Redlands Blvd	Merwin Street	C	2U	3,886	A
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave.	C	2U	8,583	B
S-22	Cactus Ave.	Redlands Blvd	Cactus Ave Extension	C	2U***	472	A

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways
** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways
*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.

Indicates LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, ~~March~~ September 2014.

Table 4.15.R: Year 2022 Without Project Freeway Mainline Levels of Service (new table)

			Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	7,210	30.5	D	7,830	35.1	**E**	8,770	43.3	**E**	7,150	30.1	D
F-3	SR-60	Ramona Ave to Central Ave	6,850	28.2	D	9,380	51.4	**F**	8,290	38.7	**E**	6,750	27.7	D
F-4	SR-60	Central Ave to Mountain Ave	7,590	33.0	D	9,350	51.0	**F**	6,340	25.4	C	6,990	29.1	D
F-5	SR-60	Mountain Ave to Euclid Ave	7,520	32.5	D	6,690	27.5	D	6,260	25.0	C	7,440	32.0	D
F-6	SR-60	Euclid Ave to Grove Ave	8,990	45.8	**F**	9,280	50.0	**F**	6,470	26.1	D	7,310	31.1	D
F-7	SR-60	Grove Ave to Vineyard Ave	8,170	37.6	**E**	9,530	53.6	**F**	6,330	25.4	C	7,920	35.5	**E**
F-8	SR-60	Vineyard Ave to Archibald Ave	8,080	36.5	**E**	9,470	52.7	**F**	7,670	33.6	D	7,550	32.8	D
F-9	SR-60	Archibald Ave to Haven Ave	7,590	32.8	D	6,630	27.2	D	See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Miliken Ave	7,400	23.2	C	7,040	22.1	C	5,850	18.0	B	7,110	22.3	C
F-11	SR-60	Miliken Ave to I-15	5,280	20.3	C	4,530	17.4	B	5,550	21.6	C	7,050	29.2	D
F-12	SR-60	I-15 to Etiwanda Ave	4,580	17.6	B	3,440	13.3	B	4,490	13.7	B	5,850	17.9	B
F-13	SR-60	Etiwanda Ave to Mission Blvd/Country Village Rd	5,070	19.6	C	4,460	17.2	B	4,220	16.2	B	5,830	22.8	C
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	4,600	17.7	B	3,560	13.8	B	4,240	16.3	B	5,850	22.9	C
F-15	SR-60	Pedley Rd to Pyrite St	4,620	17.8	B	3,710	14.4	B	3,290	12.6	B	5,010	19.2	C

Table 4.15.R: Year 2022 Without Project Freeway Mainline Levels of Service (new table)

			Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-16	SR-60	Pyrite St to Valley Way	5,190	20.1	C	3,990	15.5	B	2,740	10.6	A	4,510	17.2	B
F-17	SR-60	Valley Way to Rubidoux Blvd	6,280	39.4	**E**	4,530	24.1	C	4,630	24.4	C	6,530	42.2	**E**
F-18	SR-60	Rubidoux Blvd to Market St	6,920	48.7	**F**	4,950	27.2	D	3,630	18.6	C	5,660	32.5	D
F-19	SR-60	Market St to Main St	6,450	41.6	**E**	7,260	56.8	**F**	5,890	34.4	D	6,820	46.5	**F**
F-20	SR-60	Main to SR-91	See Weaving Analysis			See Weaving Analysis			5,450	30.6	D	6,610	42.9	**E**
F-24	SR-60	Martin Luther King Blvd to Central Ave	8,440	41.5	**E**	9,140	53.5	**F**	7,060	23.7	C	7,680	25.5	C
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	6,450	25.7	C	7,270	30.8	D	7,390	31.9	D	8,510	40.3	**E**
F-27	SR-60	I-215 to Day St.	See Weaving Analysis			See Weaving Analysis			7,250	54.3	**F**	3,880	20.0	C
F-29	SR-60	Pigeon Pass Rd/Frederick St to Heacock St	3,520	29.2	D	4,200	39.3	**E**	3,460	28.5	D	3,860	34.0	D
F-30	SR-60	Heacock St to Perris Blvd	3,160	25.0	C	4,050	36.7	**E**	3,300	26.6	D	3,360	27.5	D
F-31	SR-60	Perris Blvd to Nason St	2,590	19.8	C	3,070	24.3	C	2,790	21.6	C	2,550	19.6	C
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	1,910	14.5	B	2,370	18.0	C	1,810	13.8	B	1,750	13.4	B
F-34	SR-60	Redlands Blvd to Theodore St	2,460	18.8	C	3,240	25.8	C	2,280	17.3	B	2,200	16.8	B

Table 4.15.R: Year 2022 Without Project Freeway Mainline Levels of Service (new table)

			Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	2,310	19.2	C	2,770	23.6	C	2,180	18.0	C	1,850	15.3	B
F-37	SR-60	Jack Rabbit Trail to I-10/Potrero Blvd	2,070	15.8	B	2,820	21.8	C	2,190	16.7	B	1,690	12.9	B
F-39	SR-91	I-15 to McKinley St	7,190	22.3	C	10,400	38.6	**E**	7,280	30.9	D	7,330	31.0	D
F-40	SR-91	McKinley St to Pierce St	6,500	26.1	D	5,950	23.5	C	5,440	31.0	D	6,330	39.6	**E**
F-41	SR-91	Pierce St to Magnolia Ave	5,970	35.2	**E**	5,410	30.5	D	5,210	29.0	D	8,080	77.6	**F**
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis		See Weaving Analysis				5,450	31.1	D	8,040	76.1	**F**
F-43	SR-91	La Sierra Ave to Tyler St	5,490	30.9	D	5,230	29.0	D	4,800	25.9	C	5,980	35.6	**E**
F-44	SR-91	Tyler St to Van Buren Blvd	6,600	26.6	D	5,980	23.6	C	6,170	24.7	C	7,420	31.6	D
F-45	SR-91	Van Buren Blvd to Adam St	6,700	27.2	D	5,250	20.3	C	5,810	22.9	C	7,160	29.9	D
F-46	SR-91	Adam St to Madison St	7,310	31.4	D	4,970	19.4	C	5,420	21.2	C	6,210	24.5	C
F-47	SR-91	Madison St to Indiana Ave/ Arlington Ave	6,710	27.6	D	4,970	19.4	C	4,780	25.8	C	5,550	31.2	D
F-49	SR-91	Central Ave to 14th St	5,910	34.9	D	5,070	27.7	D	4,340	16.8	B	4,530	17.3	B
F-51	SR-91	University Ave to Spruce St (off-ramp)	8,270	26.6	D	7,700	24.2	C	See Weaving Analysis			See Weaving Analysis		

Table 4.15.R: Year 2022 Without Project Freeway Mainline Levels of Service (new table)

			Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-52	I-10	SR-60 to Beaumont Ave	4,390	16.8	B	6,080	24.1	C	5,610	21.9	C	5,370	20.7	C
F-53	I-10	Beaumont Ave to Pennsylvania Ave	4,450	17.1	B	6,240	24.9	C	5,470	21.3	C	5,270	20.3	C
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	4,640	17.8	B	6,480	26.2	D	5,920	23.3	C	5,480	21.2	C
F-55	I-10	Highland Springs Ave to Sunset Ave	4,560	17.5	B	6,210	24.8	C	5,690	22.3	C	5,200	20.1	C
F-56	I-10	Sunset Ave to 22nd St	4,470	17.2	B	5,960	23.5	C	5,450	21.2	C	5,090	19.7	C
F-57	I-10	22nd St to 8th St	4,380	16.8	B	5,800	22.8	C	5,320	20.6	C	5,110	19.6	C
F-58	I-10	8th St to Hargrave St	4,370	16.8	B	5,730	22.4	C	5,250	20.3	C	5,250	20.2	C
F-59	I-10	Hargrave St to Fields Rd	4,100	15.8	B	5,350	20.8	C	4,810	18.5	C	5,020	19.3	C
F-60	I-10	Fields Rd to Morongo Trail	3,770	14.5	B	5,080	19.6	C	4,600	17.7	B	4,830	18.6	C
F-61	I-10	Morongo Trail to Main St	3,410	13.1	B	4,670	18.0	B	4,110	15.8	B	4,240	16.3	B
F-62	I-10	Main St to Haugen-Lehmann Way	3,280	12.6	B	4,720	18.1	C	4,230	16.3	C	4,300	16.5	B
F-64	I-10	SR-111 to Tipton Rd	2,950	11.3	B	4,140	15.9	B	3,680	14.1	B	3760	14.4	B
F-65	I-10	Tipton Rd to SR-62	2,810	10.8	A	4,170	16.0	B	3,700	14.2	B	3,770	14.4	B
F-66	I-215	Scott Rd to Newport Rd	2,850	14.5	B	4,330	22.4	C	3,670	18.6	C	2,500	12.7	B

Table 4.15.R: Year 2022 Without Project Freeway Mainline Levels of Service (new table)

			Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-68	I-215	Newport Rd to MacCall Blvd	2,100	10.8	A	3,140	15.9	B	3,820	19.6	C	3,520	18.0	B
F-69	I-215	MacCall Blvd to Ethanac Rd	2,750	14.0	B	4,380	22.7	C	4,380	22.8	C	2,950	15.0	B
F-70	I-215	Ethanac Rd to SR-74	4,200	21.7	C	4,100	21.0	C	4,110	21.2	C	4,250	21.9	C
F-71	I-215	SR-74/Case Rd to Redlands Blvd	3,490	17.7	B	4,800	25.4	C	5,730	33.1	D	3,860	19.7	C
F-74	I-215	Columbia Ave to Center St	6,090	36.8	**E**	6,030	36.2	**E**	6,390	40.0	**E**	5,330	29.6	D
F-75	I-215	Center St to Iowa Ave/La Cadena Dr	5,830	34.1	D	5,800	33.8	D	6,880	46.9	**F**	5,560	31.6	D
F-76	I-215	Iowa Ave/La Cadena Dr to Barton Rd	5,690	32.7	D	6,130	37.3	**E**	6,700	44.2	**E**	5,570	31.7	D
F-77	I-215	Barton Rd to Mt Vernon Ave	5,980	35.6	**E**	6,550	42.5	**E**	6,720	44.4	**E**	5,610	32.0	D
F-78	I-215	Mt Vernon Ave/Washington St to I-10	5,770	22.5	C	6,660	27.0	D	7,080	29.2	D	5,890	23.1	C
F-80	I-215	Auto Plaza Dr/ Orange Show Rd to Mill St	4,490	17.2	B	5,500	21.2	C	4,790	18.2	C	4,140	15.8	B
F-83	I-215	Baseline Rd to Highland Ave/SR-210	3,030	15.4	B	4,060	20.8	C	5,280	29.0	D	4,700	24.9	C

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, ~~March~~ September 2014.

A freeway weaving analysis was conducted on freeway segments where an on-ramp is closely followed by an off-ramp, and the two are joined by an auxiliary lane. Table 4.15.S summarizes the levels of service at weaving segments under opening year cumulative conditions. As shown on Table 4.15.S, the following six northbound or eastbound sections and one southbound or westbound sections are forecast to operate at unsatisfactory levels of service in either the a.m. peak or p.m. peak hour:

- Northbound or Eastbound:
  - SR-60 SR-71/ Garey Avenue to Reservoir Street (p.m.);
  - SR-60 Main Street to SR-91 (a.m. and p.m.);
  - SR-60 SR-91 to Blaine Street/3rd Street (p.m.);
  - SR-60 Central Avenue to Fair Isle Drive/Box Springs Road (p.m.);
  - SR-91 Arlington Avenue to Central Avenue (a.m.); and
  - I-215 SR-60 to Columbia Avenue (a.m. and p.m.).
- Southbound or Westbound:
  - SR-60 SR-91 to Blaine Street/3rd Street (p.m.).

Freeway ramp merge and diverge operations have been evaluated for year 2022 conditions. Table 4.15.T summarizes the levels of service under year 2022 no project conditions and shows the following three freeway ramp junction is forecast to operate at unsatisfactory levels of service in either the a.m. peak or p.m. peak hour:

- SR-60 eastbound On-Ramp from Central Avenue (p.m.).

4.15.3.4 ~~General Plan Buildout~~ Year 2035 Cumulative without the Project

Note: Due to a change in project conditions and phasing, the Year 2035 analysis was completely revised in the updated TIA and this DEIR section. The reader is referred to the original DEIR section for that analysis and related tables and figures.

An intersection level of service analysis was conducted to determine intersection performance under ~~General Plan Buildout~~ Year 2035 Cumulative without project conditions. For the 2035 scenarios, the roadway projects from the FTIP and RTP included in the year 2022 network were also included in the 2035 network. The future circulation network from the City of Moreno Valley General Plan was also incorporated into the year 2035 network that are funded through the City's Development Impact Fee (DIF), Western Riverside Council of Governments' Transportation Uniform Mitigation Fee (TUMF), and improvements made directly by developers. It is reasonable to assume that these improvements will be in place parallel with buildout of the General Plan land uses, because most of the improvements will be funded through fees on the new developments. If other sites do not fully build out per the General Plan, then the LOS on the study streets and intersection would likely be better than shown in the TIA. Table 4.15.U summarizes the levels of service at study intersections under Year 2035 Cumulative without project conditions.

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Table 4.15.S: Year 2022 Without Project Weaving Segment Levels of Service (revised)

ID	Freeway	Weaving Segment	Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	7,150	29.2	D	8,640	37.6	**E**	6,130	21.9	C	6,720	24.3	C
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			6,330	24.4	C	7,330	29.3	D
W-20	SR-60	Main St to SR-91	7,350	36.6	**E**	7,370	38.0	**E**	See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	6,010	24.2	C	9,760	42.3	**E**	7,720	29.4	D	9,290	36.9	**E**
W-22	SR-60	Blaine St/3rd St to University Ave	5,710	21.6	C	7,210	31.3	D	5,700	21.1	C	8,280	32.0	D
W-23	SR-60	University Ave to Martin Luther King	6,620	23.8	C	6,060	21.4	C	5,600	22.6	C	7,620	30.7	D
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	6,580	27.3	C	8,400	38.9	**E**	7,110	30.7	D	7,890	32.7	D
W-27	SR-60	I-215 to Day St	4,000	14.6	B	5,280	19.9	B	See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	3,890	16.6	B	5,130	23.2	C	4,970	34.3	D	4,860	32.7	D
W-32	SR-60	Moreno Beach Dr to Nason St	2,330	14.2	B	2,880	18.1	B	2,410	14.5	B	2,190	13.2	B
W-35	SR-60	Theodore St to Gilman Springs Rd	2,320	12.7	B	3,370	19.3	B	2,360	13.6	B	2,030	11.4	B
W-42	SR-91	Magnolia Ave to La Sierra Ave	6,400	30.3	D	5,950	28.5	D	See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	7,220	39.0	**E**	3,680	17.9	B	4,510	21.2	C	5,050	24.1	C
W-50	SR-91	14th St to University Ave	5,030	25.1	C	4,810	24.6	C	5,090	19.6	B	7,020	27.9	C
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			5,020	14.7	B	8,850	26.7	C
W-73	I-215	SR-60 to Columbia Ave	6,840	37.8	**E**	6,540	35.8	**E**	7,040	33.4	D	6,110	28.8	D
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	4,610	16.8	B	5,210	19.0	B	5,830	20.8	C	4,870	18.0	B
W-81	I-215	Mill St to 2nd St	5,090	17.8	B	5,910	21.1	C	5,300	19.0	B	4,410	15.9	B
W-82	I-215	5th St to Baseline Rd	3,760	12.7	B	4,450	15.2	B	4,540	16.0	B	3,490	12.3	B
W-63	I-10	Haugen-Lehmann Way to SR-111	3,300	11.0	B	4,710	15.9	B	4,210	14.8	B	4,310	17.2	B

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.T: Year 2022 Without Project Freeway Ramp Levels of Service (revised)

ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	AM Peak Hour				PM Peak Hour			
				Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	6,190	710	27.4	C	5,780	1,320	30.9	D
R-2	SR-60 EB	On-Ramp from Central Ave	1	8,170	710	28.8	D	9,010	1,120	35.1	F
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	1	1,910	220	8.3	A	2,370	520	12.5	B
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	1	1,690	90	17.1	B	1,850	210	19.4	B
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	0	Does not exist in this Scenario				Does not exist in this Scenario			
R-6	SR-60 EB	Off-Ramp to Theodore St	1	2,460	250	24.5	C	3,240	150	31.7	D
R-7	SR-60 EB	Loop On-Ramp from Theodore St	1	2,210	110	23.1	C	3,090	270	31.7	D
R-8	SR-60 EB	Direct On-Ramp from Theodore St	0	Does not exist in this Scenario				Does not exist in this Scenario			
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	2	2,320	330	14.5	B	3,370	650	21.0	C
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	1	1,990	270	14.7	B	2,720	140	19.8	B
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	2	2,210	230	13.8	B	1,880	190	11.8	B
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	1	1,980	380	15.5	B	1,690	310	12.6	B
R-13	SR-60 WB	Off-Ramp to Theodore St	1	2,360	180	12.4	B	2,030	120	9.3	A
R-14	SR-60 WB	On-Ramp from Theodore St	1	2,180	100	21.0	C	1,910	290	20.2	C
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	1	2,280	170	22.9	C	2,200	100	22.3	C
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	1	2,110	440	23.3	C	2,100	380	22.8	C
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	0	Does not exist in this Scenario				Does not exist in this Scenario			
R-18	SR-60 WB	Off-Ramp to Central Ave	2	7,110	410	26.5	C	7,890	530	29.8	D
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	1	7,060	510	16.3	B	7,680	430	17.6	B

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, ~~March~~ September 2014

Table 4.15.U: ~~General Plan Buildout~~ Year 2035 Cumulative Without Project Intersection Levels of Service (revised)

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
IN-1	Theodore St/Street F	N/A	N/A	Non-Existent		Non-Existent	
IN-2	Street D/Street E	N/A	N/A	Non-Existent		Non-Existent	
IN-3	Theodore Ave/Alessandro Blvd (Str A/Str C/Str E)	D	CSS	20.9	C	19.6	C
IN-4	Alessandro Blvd (Street C)/Street F	N/A	N/A	Non-Existent		Non-Existent	
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	SIGNAL	11.7	B	37.7	D
IN-9	Gilman Springs Rd/Eucalyptus Ave	NA	N/A	Non-Existent		Non-Existent	
IN-10	Redlands Blvd/Locust Ave	C	SIGNAL	5.4	A	16.6	B
IN-11	Redlands Blvd/Ironwood Ave	D	SIGNAL	45.0	D	48.2	D
IN-12	Theodore Street/Ironwood Avenue	D	CSS	22.9	C	> 180.0	**F**
IN-13	Redlands Blvd/SR-60 WB ramps	D	SIGNAL	5.7	A	7.5	A
IN-14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	5.1	A	7.3	A
IN-15	Theodore Str/SR-60 WB ramps	D	CSS	62.2	**F**	173.7	**F**
IN-16	Theodore Str/SR-60 EB ramps	D	CSS	13.5	B	> 180.0	**F**
IN-17	Quincy Str/Fir Ave	D	CSS	9.6	A	12.6	B
IN-18	Redlands Blvd/Eucalyptus Ave (Fir)	D	SIGNAL	7.2	A	15.6	B
IN-19	Theodore Ave/Fir Ave (Eucalyptus)	D	CSS	10.5	B	68.9	**F**
IN-20	Oliver Str/Alessandro Blvd	C	CSS	20.0	C	21.6	C
IN-21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	17.3	B	20.2	C
IN-22	Quincy Str/Alessandro Blvd	C	SIGNAL	4.2	A	3.7	A
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	137.4	**F**	74.7	**F**
IN-24	Oliver Str/Cactus Ave	D	SIGNAL	22.3	C	20.2	C
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	20.3	C	29.7	C
IN-26	Quincy Str/Cactus Ave	C	SIGNAL	3.9	A	3.7	A
IN-27	Redlands Blvd/Cactus Ave	C	AWS	14.3	B	13.5	B
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	23.5	C	16.6	B
IN-29	Heacock Str/Ironwood Ave	D	SIGNAL	31.6	C	35.2	D
IN-30	Heacock Str/SR-60 WB Ramps	D	SIGNAL	30.5	C	23.1	C
IN-31	Heacock St/SR-60 EB Ramps	D	SIGNAL	12.3	B	19.4	B
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	31.8	C	39.7	D
IN-33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	22.5	C	17.1	B
IN-34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	21.8	C	24.7	C
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	29.4	**D**	37.9	**E**
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	46.6	D	50.4	D
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	113.9	**F**	155.8	**F**
IN-38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	28.8	C	31.6	C
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	58.6	**E**	63.8	**E**
IN-40	Kitching St/Iris Ave	C	SIGNAL	65.8	**E**	126.3	**F**
IN-41	Lasselle Str/Iris Ave	D	SIGNAL	35.0	C	79.2	**E**
IN-42	Nason Str/Iris Ave	C	SIGNAL	18.5	B	21.7	C
IN-43	Oliver Str/Iris Ave	D	SIGNAL	24.5	C	25.1	C
IN-44	Via Dell Lago/Iris Ave	C	SIGNAL	7.0	A	7.2	A
IN-45	Krameria Ave/Perris Blvd	D	SIGNAL	27.8	C	52.6	D
IN-46	Kitching Str/Krameria Ave	D	SIGNAL	35.3	D	41.7	D
IN-47	Lasselle Str/Krameria Ave	D	SIGNAL	32.2	C	14.5	B

Table 4.15.U: ~~General Plan Buildout~~ Year 2035 Cumulative Without Project Intersection Levels of Service (revised)

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
IN-48	Kitching Str/Alessandro Blvd	D	SIGNAL	26.5	C	28.1	C
IN-49	Lasselle Str/Alessandro Blvd	D	SIGNAL	19.8	B	23.7	C
IN-50	Morrison Str/Alessandro Blvd	D	SIGNAL	25.5	C	26.2	C
IN-51	Nason Str/Alessandro Blvd	D	SIGNAL	31.1	C	28.3	C
IN-52	Kitching Str/Cactus Ave	C	SIGNAL	30.7	C	28.5	C
IN-53	Lasselle Str/Cactus Ave	C	SIGNAL	38.5	**D**	34.8	C
IN-54	Morrison Str/Cactus Ave	D	SIGNAL	6.1	A	8.6	A
IN-55	Nason Str/Cactus Ave	D	SIGNAL	36.1	D	47.6	D
IN-56	Frederick Str/Alessandro Blvd	D	SIGNAL	19.2	B	34.5	C
IN-57	Graham Str/Alessandro Blvd	D	SIGNAL	35.6	D	88.9	**F**
IN-58	Heacock Str/Alessandro Blvd	D	SIGNAL	29.6	C	29.5	C
IN-59	Indian Str/Alessandro Blvd	D	SIGNAL	21.7	C	37.1	D
IN-60	Perris Blvd/Alessandro Blvd	D	SIGNAL	32.8	C	41.4	D
IN-61	Frederick Str/Cactus Ave	D	SIGNAL	9.7	A	12.5	B
IN-62	Graham Str/Cactus Ave	D	SIGNAL	22.7	C	42.1	D
IN-63	Heacock Str/Cactus Ave	D	SIGNAL	31.6	C	27.2	C
IN-64	Indian Str/Cactus Ave	C	SIGNAL	32.6	C	36.3	**D**
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	39.2	D	32.5	C
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	37.5	D	81.2	**F**
IN-67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	6.6	A	11.5	B
IN-68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	21.9	C	32.8	C
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	15.1	B	16.4	B
IN-70	Day Str/Alessandro Blvd	D	SIGNAL	22.6	C	28.2	C
IN-71	Elsworth Str/Alessandro Blvd	D	SIGNAL	28.4	C	52.4	D
IN-72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	37.6	D	144.8	**F**
IN-73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	71.1	**E**	122.6	**F**
IN-74	Elsworth Str/Cactus Ave	D	SIGNAL	> 180.0	**F**	> 180.0	**F**
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	16.2	B	77.5	**E**
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	28.6	C	26.8	C
IN-77	SR-60 EB Ramps/Central Ave	D	SIGNAL	18.1	B	12.4	B
IN-78	SR-60 WB Ramps/Central Ave	D	SIGNAL	6.7	A	7.0	A
IN-79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	32.2	C	16.1	B
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	28.0	C	73.7	**E**
IN-81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	27.0	C	41.5	D
IN-82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	11.3	B	14.8	B
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	40.2	D	52.4	D
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	11.2	B	12.2	B
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	45.1	**E**	20.7	C
IN-86	Central Ave/Chicago Ave	D	SIGNAL	46.8	D	79.0	**E**
IN-87	Central Ave/El Cerrito Dr	D	SIGNAL	17.6	B	20.0	B
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	45.4	D	106.3	**F**
IN-89	Chicago Ave/Country Club Dr	D	SIGNAL	11.2	B	12.9	B
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	38.4	D	68.0	**E**
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	20.5	C	26.8	C

Table 4.15.U: ~~General Plan Buildout~~ Year 2035 Cumulative Without Project Intersection Levels of Service (revised)

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
IN-92	Arlington Ave/Maude St	D	SIGNAL	14.1	B	10.7	B
IN-93	Horace St/Arlington Ave	D	SIGNAL	37.4	D	25.5	C
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	124.5	**F**	87.2	**E**
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	57.4	**E**	111.2	**F**
IN-96	Alessandro Blvd/Century Ave	D	SIGNAL	19.2	B	11.8	B
IN-97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	17.9	B	22.2	C
IN-98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	56.6	**E**	131.0	**F**
IN-99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	33.5	C	48.0	D
IN-100	Harley Knox Blvd/Evan Rd	D	SIGNAL	16.1	B	23.8	C
IN-101	Ramona Expy/Indian St	E	SIGNAL	110.4	**F**	> 180.0	**F**
IN-102	Ramona Expy/Perris Blvd	E	SIGNAL	49.2	D	58.5	E
IN-103	Ramona Expy/Evans Rd	E	SIGNAL	60.6	E	46.2	D
IN-104	Perris Blvd/Morgan St	D	SIGNAL	11.9	B	9.9	A
IN-105	Evans Rd/Morgan St	C	SIGNAL	28.1	C	21.8	C
IN-106	Perris Blvd/Rider St	C	SIGNAL	23.4	C	30.1	C
IN-107	Evans Rd/Rider St	C	SIGNAL	36.3	**D**	34.5	C
IN-108	Perris Blvd/Mid County Pkwy WB Ramps	D	SIGNAL	32.7	C	22.6	C
IN-109	Perris Blvd/Mid County Pkwy EB Ramps	D	SIGNAL	28.3	C	36.2	D
IN-110	Evans Rd/Mid County Pkwy WB Ramps	D	SIGNAL	25.7	C	21.3	C
IN-111	Evans Rd/Mid County Pkwy EB Ramps	D	SIGNAL	18.1	B	24.9	C
IN-112	Placentia Ave/Perris Blvd	D	SIGNAL	29.3	C	34.2	C
IN-113	Evans Rd/Placentia Ave	D	SIGNAL	7.3	A	7.4	A
IN-114	Evans Rd/Orange Ave	C	SIGNAL	25.5	C	25.3	C
IN-115	Evans Rd/Nuevo Rd	C	SIGNAL	31.8	C	31.2	C
IN-116	Evans Rd/Ellis Ave	D	SIGNAL	12.7	B	13.6	B
IN-117	Ellis Ave/I-215 SB Ramps	E	SIGNAL	26.5	C	28.3	C
IN-118	Ellis Ave/SR-215 NB Ramps	E	SIGNAL	22.2	C	34.3	C
IN-119	Evans Rd/San Jacinto Ave	D	SIGNAL	21.1	C	22.7	C
IN-120	Park Center Blvd/Ramona Expy WB Ramps	D	CSS	11.8	B	15.3	C
IN-121	Park Center Blvd/Ramona Expy EB Ramps	D	CSS	11.6	B	23.1	C
IN-122	Bridge St/Ramona Expy	N/A	N/A	Non-Existent		Non-Existent	
IN-123	Gilman Springs Rd/Bridge Str	C	CSS	> 180.0	**F**	> 180.0	**F**
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	> 180.0	**F**	> 180.0	**F**
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	> 180.0	**F**	> 180.0	**F**
IN-126	Ramona Expy/Sanderson Ave	D	SIGNAL	43.9	D	39.9	D
IN-127	Potrero Blvd/SR-60 WB Ramps	D	SIGNAL	21.3	C	15.3	B
IN-128	Potrero Blvd/SR-60 EB Ramps	D	SIGNAL	20.3	C	31.3	C
IN-129	W 6th St/California Ave	C	AWS	146.4	**F**	178.3	**F**
IN-130	W 6th St/Beaumont Ave	C	SIGNAL	35.5	**D**	94.4	**F**
IN-131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	42.2	**D**	100.9	**F**
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	26.4	D	22.2	C
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	127.6	**F**	127.7	**F**

Table 4.15.U: ~~General Plan Buildout~~ Year 2035 Cumulative Without Project Intersection Levels of Service (revised)

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	140.5	**F**	> 180.0	**F**
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	17.6	C	14.7	B
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	10.2	B	10.4	B

Notes: "NB" and "SB" denote northbound and southbound, respectively
"EB" and "WB" denote eastbound and westbound, respectively "CSS" means cross-street is stop-controlled
Indicates LOS exceeds the target level "AWS" means all-way stop
Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, ~~March~~September 2014.

Table 4.15.U summarizes the levels of service at study intersections under Year 2035 Cumulative without project conditions and shows the following 36 study intersections are forecast to operate at an unsatisfactory level of service during either the a.m. or p.m. peak hour:

- Theodore Street/Ironwood Avenue (p.m.);
- Theodore Street/SR-60 Westbound ramps (a.m. and p.m.);
- Theodore Street/SR-60 Eastbound ramps (p.m.);
- Theodore Avenue/Fir (Eucalyptus) Avenue (p.m.);
- Redlands Boulevard/Alessandro Boulevard (a.m. and p.m.);
- Moreno Beach Drive/Locust Avenue (a.m. and p.m.);
- Moreno Beach Drive/SR-60 Eastbound Ramps (a.m. and p.m.);
- Iris Avenue/Perris Boulevard (a.m. and p.m.);
- Kitching Street/Iris Avenue (a.m. and p.m.);
- Lasselle Street/Iris Avenue (p.m.);
- Lasselle Street/Cactus Avenue (a.m.);
- Graham Street/Alessandro Boulevard (p.m.);
- Indian Street/Cactus Avenue (p.m.);
- Alessandro Boulevard/Sycamore Canyon Boulevard (p.m.);
- I-215 Southbound Ramps/Cactus Avenue (p.m.);
- I-215 Northbound Ramps/Cactus Avenue (a.m. and p.m.);
- Elsworth Street/Cactus Avenue (a.m. and p.m.);
- Central Avenue/Lochmoor Drive (p.m.);
- Alessandro Boulevard/Mission Grove Parkway (p.m.);
- Martin Luther King Boulevard/I-215 Northbound Ramps (a.m.);
- Central Avenue/Chicago Avenue (p.m.);
- Central Avenue/Canyon Crest Drive (p.m.);
- Arlington Avenue/Riverside Avenue/SR-91 Southbound Ramps (p.m.);
- Arlington Avenue/Victoria Avenue (a.m. and p.m.);

- Alessandro Boulevard/Chicago Avenue (a.m. and p.m.);
- Alessandro Boulevard/Canyon Crest Drive (a.m. and p.m.);
- Ramona Expressway/Indian Street (a.m. and p.m.);
- Evans Road/Rider Street (a.m.);
- Gilman Springs Road/Bridge Street (a.m. and p.m.);
- SR-79 (Sanderson Avenue) Northbound/Gilman Springs Road (a.m. and p.m.);
- SR-79 (Sanderson Avenue) Southbound/Gilman Springs Road (a.m. and p.m.);
- W. 6th Street/California Avenue (a.m. and p.m.);
- W 6th Street/Beaumont Avenue (a.m. and p.m.);
- Reche Canyon Road/Reche Vista Drive (a.m. and p.m.);
- San Timoteo Canyon Road/Live Oak Canyon Road (a.m. and p.m.); and
- Redlands Boulevard/San Timoteo Canyon Road (a.m. and p.m.).

Year 2035 Cumulative without project roadway levels of service are based on daily V/C ratios for the study area roadway segments. Table 4.15.V summarizes the results of this analysis. In this scenario, Gilman Springs Road and Redlands Boulevard are assumed to have been widened in accordance with General Plan policy to six and four lanes, respectively. As shown in Table 4.15.V, all study area roadway segments are projected to operate at acceptable daily V/C ratios under Year 2035 Cumulative without project conditions.

A freeway segment level of service analysis was conducted to determine freeway performance under Year 2035 Cumulative without project conditions. Table 4.15.W summarizes the levels of service at study area freeway mainline segments under Year 2035 Cumulative without project conditions and shows the following 56 study segments are forecast to operate at an unsatisfactory level of service during either the a.m. or p.m. peak hour:

- Northbound or Eastbound:
  - SR-60 Reservoir Street to Ramona Avenue (a.m. and p.m.);
  - SR-60 Ramona Avenue to Central Avenue (a.m. and p.m.);
  - SR-60 Central Avenue to Mountain Avenue (a.m. and p.m.);
  - SR-60 Mountain Avenue to Euclid Avenue (a.m.);
  - SR-60 Euclid Avenue to Grove Avenue (a.m. and p.m.);
  - SR-60 Grove Avenue to Vineyard Avenue (a.m. and p.m.);
  - SR-60 Vineyard Avenue to Archibald Avenue (a.m. and p.m.);
  - SR-60 Archibald Avenue to Haven Avenue (a.m.);
  - SR-60 Valley Way to Rubidoux Boulevard (a.m.);
  - SR-60 Rubidoux Boulevard to Market Street (a.m.);
  - SR-60 Market Street to Main Street (a.m. and p.m.);
  - SR-60 Martin Luther King Boulevard to Central Avenue (a.m. and p.m.);

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Table 4.15.V: ~~General Plan Buildout~~ Year 2035 Cumulative Without Project Roadway Levels of Service

Roadway		From	To	LOS Standard*	Roadway Section**	Daily Volume	LOS
S-1	Theodore Street (A)	SR-60 WB Ramps	Ironwood Avenue	D	2U	9,774	C
S-2	Theodore Street (A)	SR-60 EB Ramps	Fir (Eucalyptus) Ave.	D	2U	8,726	B
S-3	Fir (Eucalyptus) Ave.	Redlands Blvd	Theodore Street (A)	D	2U	6,847	A
S-4	Eucalyptus Ave (B)	Theodore Street (A)	Gilman Springs Rd	N/A	Future Road		
S-5	Theodore Street (A)	Fir (Eucalyptus) Ave.	Street E	D	2U	3,295	A
S-6	Street E	Theodore Street (A)	Cactus Ave Extension	N/A	Future Road		
S-7	Street F	Theodore Street (A)	Alessandro Blvd (Street C)	N/A	Future Road		
S-8	Theodore Street (A)	Fir (Eucalyptus) Ave.	Alessandro Blvd (Street C)	D	2U	3,437	A
S-9	Alessandro Blvd (Street E)	Merwin Street	Theodore Street (A)	D	2U	10,854	D
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave.	N/A	Future Road		
S-11	Alessandro Blvd (Street C)	Theodore Street (A)	Street F	D	2U	7,437	A
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	7,437	A
S-14	Alessandro Blvd	Moreno Beach Drive	Redlands Blvd	D	4U	6,373	A
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge Street	D	6D	49,434	D
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	6D	41,537	C
S-18	Redlands Blvd	SR-60 EB Ramps	Fir (Eucalyptus) Ave.	D	4U	13,411	A
S-19	Redlands Blvd	Fir (Eucalyptus) Ave.	Alessandro Blvd	C	4U	7,665	A
S-20	Alessandro Blvd	Redlands Blvd	Merwin Street	C	4U	11,038	A
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave.	C	4U	11,511	A
S-22	Cactus Ave.	Redlands Blvd	Cactus Ave Extension	C	4U	1,144	A

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways

** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways

Indicates volume-to-capcity (V/C) ratio greater than 1.00

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, ~~March~~ September 2014.

Table 4.15.~~V~~W: ~~General Plan Buildout~~ Year 2035 Cumulative Without Project Freeway Mainline Levels of Service (revised)

			Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	S Reservoir St to Ramona Ave	8,560	41.2	**E**	8,750	43.6	**E**	8,770	43.3	**E**	7,840	34.6	D
F-3	SR-60	Ramona Ave to Central Ave	8,190	37.8	**E**	10,230	66.5	**F**	8,080	37.2	**E**	7,720	33.7	D
F-4	SR-60	Central Ave to Mountain Ave	8,900	44.8	**E**	10,210	66.0	**F**	6,340	25.4	C	7,580	32.7	D
F-5	SR-60	Mountain Ave to Euclid Ave	8,780	43.4	**E**	7,590	33.3	D	6,230	25.2	C	8,250	37.9	**E**
F-6	SR-60	Euclid Ave to Grove Ave	9,920	59.3	**F**	9,680	56.0	**F**	6,470	26.1	D	7,950	35.5	**E**
F-7	SR-60	Grove Ave to Vineyard Ave	9,210	48.5	**F**	10,050	62.7	**F**	6,280	25.0	C	8,150	37.1	**E**
F-8	SR-60	Vineyard Ave to Archibald Ave	9,080	46.3	**F**	10,210	66.0	**F**	7,660	33.3	D	7,640	33.1	D
F-9	SR-60	Archibald Ave to Haven Ave	8,430	39.5	**E**	7,330	31.5	D	See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Miliken Ave	8,430	27.5	D	8,110	26.4	D	6,510	20.3	C	7,970	25.6	C
F-11	SR-60	Miliken Ave to I-15	5,160	19.8	C	4,530	17.4	B	5,460	21.0	C	7,180	29.8	D
F-12	SR-60	I-15 to Etiwanda Ave	4,140	15.9	B	2,740	10.6	A	4,840	14.9	B	6,360	19.4	C
F-13	SR-60	Etiwanda Ave to Mission Blvd/ Country Village Rd	4,950	19.1	C	4,170	16.1	B	4,220	16.1	B	5,620	21.6	C
F-14	SR-60	Mission Blvd/ Country Village Rd to Pedley Rd	4,380	16.8	B	3,150	12.2	B	4,140	15.9	B	5,660	21.8	C
F-15	SR-60	Pedley Rd to Pyrite St	4,620	17.8	B	3,610	13.9	B	3,260	12.5	B	4,820	18.3	C
F-16	SR-60	Pyrite St to Valley Way	5,060	19.5	C	3,880	15.0	B	2,470	9.5	A	3,930	14.9	B

Table 4.15.VW: ~~General Plan Buildout~~ Year 2035 Cumulative Without Project Freeway Mainline Levels of Service (revised)

			Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-17	SR-60	Valley Way to Rubidoux Blvd	6,160	38.0	**E**	3,850	19.9	C	4,560	24.1	C	6,360	39.6	**E**
F-18	SR-60	Rubidoux Blvd to Market St	6,490	42.1	**E**	4,210	22.2	C	3,410	17.5	B	5,120	27.7	D
F-19	SR-60	Market St to Main St	6,020	36.4	**E**	6,620	44.9	**E**	5,530	31.5	D	6,280	38.7	**E**
F-20	SR-60	Main to SR-91	See Weaving Analysis			See Weaving Analysis			5,320	29.7	D	6,310	39.0	**E**
F-24	SR-60	Martin Luther King Blvd to Central Ave	9,500	59.8	**F**	9,860	70.8	**F**	8,330	30.8	D	8,980	33.0	**D**
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	6,090	24.2	C	5,790	22.9	C	7,500	33.2	D	8,970	46.6	**F**
F-27	SR-60	I-215 to Day St.	See Weaving Analysis			See Weaving Analysis			7,050	50.4	**F**	3,590	18.6	C
F-29	SR-60	Pigeon Pass Rd/Frederick St to Heacock St	3,330	27.3	D	4,120	38.2	**E**	3,650	31.3	D	3,910	35.0	**E**
F-30	SR-60	Heacock St to Perris Blvd	3,020	24.1	C	4,200	39.6	**E**	3,560	30.1	D	3,410	28.3	D
F-31	SR-60	Perris Blvd to Nason St	2,670	20.9	C	3,520	29.4	D	3,330	27.3	D	2,780	21.9	C
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	2,480	19.2	C	3,130	25.0	C	3,150	25.2	C	2,680	20.9	C
F-34	SR-60	Redlands Blvd to Theodore St	3,200	25.9	C	4,500	45.4	**F**	4,010	36.3	**E**	3,530	29.7	D
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	2,420	20.1	C	4,430	53.0	**F**	3,350	30.5	D	2,920	25.2	C
F-37	SR-60	Jack Rabbit Trail to I-10/Potrero Blvd	2,500	19.5	C	4,750	51.8	F	3,690	31.6	D	3,010	24.0	C
F-38	SR-60	Potrero Blvd to I-10	2,300	17.8	B	3,620	30.6	D	2,360	18.2	C	1,930	15.0	B

Table 4.15.VW: ~~General Plan Buildout~~ Year 2035 Cumulative Without Project Freeway Mainline Levels of Service (revised)

			Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-39	SR-91	I-15 to McKinley St	8,140	26.3	D	11,870	52.4	**F**	8,590	28.6	D	8,630	28.6	D
F-40	SR-91	McKinley St to Pierce St	6,990	29.1	D	6,910	29.0	D	6,550	26.9	D	7,440	32.0	D
F-41	SR-91	Pierce St to Magnolia Ave	6,430	41.3	**E**	6,360	41.2	**E**	6,260	39.9	**E**	9,000	144.5	**F**
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis			See Weaving Analysis			6,130	38.3	**E**	8,600	107.0	**F**
F-43	SR-91	La Sierra Ave to Tyler St	6,170	38.1	**E**	6,250	39.8	**E**	5,460	31.4	D	6,390	40.8	**E**
F-44	SR-91	Tyler St to Van Buren Blvd	7,250	30.7	D	6,950	29.2	D	6,880	28.8	D	7,970	35.9	**E**
F-45	SR-91	Van Buren Blvd to Adam St	7,270	30.8	D	6,290	25.5	C	6,590	27.1	D	7,720	34.0	D
F-46	SR-91	Adam St to Madison St	7,980	36.6	**E**	6,030	24.3	C	6,270	25.4	C	6,970	29.0	D
F-47	SR-91	Madison St to Indiana Ave	7,000	29.6	D	5,390	21.4	C	5,540	32.1	D	6,290	39.5	**E**
F-49	SR-91	Central Ave to 14th St	6,400	40.9	**E**	5,730	33.4	D	5,290	20.8	C	5,460	21.2	C
F-51	SR-91	University Ave to Spruce St (off-ramp)	8,160	26.4	D	7,420	23.4	C	See Weaving Analysis			See Weaving Analysis		
F-66	I-215	Scott Rd to Garbani Rd	3,350	17.2	B	6,010	36.0	**E**	5,470	30.8	D	4,160	21.5	C
F-84	I-215	Garbani Rd to Newport Rd	3,150	16.1	B	5,680	32.9	D	4,950	26.6	D	4,040	20.9	C
F-68	I-215	Newport Rd to MacCall Blvd	2,910	15.0	B	4,610	24.4	C	5,020	27.2	D	5,240	28.9	D
F-69	I-215	MacCall Blvd to Ethanac Rd	3,530	18.1	C	5,570	31.9	D	5,400	30.4	D	4,800	25.6	C
F-70	I-215	Ethanac Rd to SR-74	5,240	29.1	D	5,650	32.6	D	5,390	30.3	D	6,220	38.3	**E**

Table 4.15.VW: ~~General Plan Buildout~~ Year 2035 Cumulative Without Project Freeway Mainline Levels of Service (revised)

			Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-71	I-215	SR-74/Ellis Ave	5,200	28.7	D	6,760	46.1	**F**	7,170	53.3	**F**	5,980	35.6	**E**
F-85	I-215	Ellis Ave to Redlands Ave	4,820	25.9	C	6,200	38.4	**E**	6,560	43.1	**E**	5,490	31.2	D
F-74	I-215	Columbia Ave to Center St	4,110	21.6	C	3,350	17.5	B	5,000	27.4	D	3,680	19.1	C
F-75	I-215	Center St to La Cadena Dr	4,940	26.9	D	4,270	22.7	C	5,970	35.8	**E**	4,690	25.1	C
F-76	I-215	La Cadena Dr to Barton Rd	4,880	26.5	D	4,310	22.8	C	5,060	27.8	D	3,780	19.7	C
F-77	I-215	Barton Rd to Mt Vernon Ave	5,320	29.9	D	4,700	25.4	C	5,540	31.6	D	4,210	22.2	C
F-78	I-215	Mt Vernon Ave to I-10	5,110	19.8	C	5,720	22.5	C	6,480	26.2	D	5,210	20.3	C
F-80	I-215	Auto Plaza Dr to Mill St	4,680	18.0	B	5,980	23.6	C	5,600	21.7	C	4,540	17.4	B
F-83	I-215	Baseline Rd to Highland Ave	3,260	16.8	B	4,890	26.4	D	6,910	48.0	**F**	5,450	30.8	D
F-52	I-10	SR-60 to Beaumont Ave	5,030	19.7	C	8,170	38.3	**E**	7,820	35.3	**E**	6,060	24.5	C
F-53	I-10	Beaumont Ave to Pennsylvania Ave	5,100	20.1	C	8,030	37.1	**E**	7,660	34.1	D	5,840	23.5	C
F-54	I-10	Pennsylvania Ave to Highland Springs	5,240	20.7	C	8,170	38.3	**E**	8,180	38.4	**E**	5,920	23.9	C
F-55	I-10	Highland Springs Ave to Sunset Ave	5,350	21.2	C	8,240	38.9	**E**	7,990	36.7	**E**	5,590	22.3	C
F-56	I-10	Sunset Ave to 22nd St	4,970	19.6	C	7,670	34.5	D	7,620	33.8	D	5,420	21.5	C
F-57	I-10	22nd St to 8th St	4,880	19.3	C	7,480	33.0	D	7,680	34.5	D	5,130	20.3	C
F-58	I-10	8th St to S Hargrave St	5,000	19.7	C	7,770	34.9	D	7,790	35.4	**E**	5,370	21.4	C
F-59	I-10	S Hargrave St to Fields Rd	4,770	18.8	C	7,970	36.9	**E**	7,610	34.0	D	5,000	19.8	C

Table 4.15.~~V~~W: ~~General Plan Buildout~~ Year 2035 Cumulative Without Project Freeway Mainline Levels of Service (revised)

			Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-60	I-10	Fields Rd to Morongo Tr	3,990	15.8	B	7,490	33.1	D	7,150	30.7	D	4,620	18.3	C
F-61	I-10	Morongo Tr to Main St	4,320	17.1	B	7,800	35.2	**E**	7,040	30.0	D	5,040	20.0	C
F-62	I-10	Main St to Haugen-Lehmann Way	4,080	16.1	B	7,530	33.1	D	7,070	30.2	D	4,410	17.4	B
F-64	I-10	SR-111 to Tipton Rd	3,660	14.5	B	7,320	31.7	D	6,420	26.2	D	4,860	19.2	C
F-65	I-10	Tipton Rd to SR-62	3,700	14.6	B	7,330	31.7	D	6,430	26.2	D	4,870	19.2	C

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, ~~March~~ September 2014.

- SR-60 Pigeon Pass Road/Frederick Street to Heacock Street (p.m.);
- SR-60 Heacock Street to Perris Boulevard (p.m.);
- SR-60 Redlands Boulevard to Theodore Street (p.m.);
- SR-60 Gilman Springs Road to Jack Rabbit Trail (p.m.);
- SR-91 I-15 to McKinley Street (p.m.);
- SR-91 Pierce Street to Magnolia Avenue (a.m. and p.m.);
- SR-91 La Sierra Avenue to Tyler Street (a.m. and p.m.);
- SR-91 Adam Street to Madison Street (a.m.);
- SR-91 Central Avenue to 14th Street (a.m.);
- I-10 SR-60 to Beaumont Avenue (p.m.);
- I-10 Beaumont Avenue to Pennsylvania Avenue (p.m.);
- I-10 Pennsylvania Avenue to Highland Springs (p.m.);
- I-10 Highland Springs Avenue to Sunset Avenue (p.m.);
- I-10 S. Hargrave Street to Field Road (p.m.);
- I-10 Morongo Trail to Main Street (p.m.);
- I-215 Scott Road to Newport Road (p.m.);
- I-215 SR-74 to Redlands Boulevard (p.m.); and
- I-215 Ellis Avenue to Redlands Boulevard (p.m.);

- Southbound or Westbound:
  - SR-60 Reservoir Street to Ramona Avenue (a.m.);
  - SR-60 Ramona Avenue to Central Avenue (a.m.);
  - SR-60 Mountain Avenue to Euclid Avenue (p.m.);
  - SR-60 Euclid Avenue to Grove Avenue (p.m.);
  - SR-60 Grove Avenue to Vineyard Avenue (p.m.);
  - SR-60 Valley Way to Rubidoux Boulevard (p.m.);
  - SR-60 Market Street to Main Street (p.m.);
  - SR-60 Main Street to SR-91 (p.m.);
  - SR-60 Fair Isle Drive/Box Springs Road to I-215 (p.m.);
  - SR-60 I-215 to Day Street (a.m.);
  - SR-60 Pigeon Pass Road to Heacock Street (p.m.)
  - SR-60 Redlands Boulevard to Theodore Street (a.m.);
  - SR-91 Pierce Street to Magnolia Avenue (a.m. and p.m.);
  - SR-91 Magnolia Avenue to La Sierra Avenue (a.m. and p.m.);
  - SR-91 La Sierra Avenue to Tyler Street (p.m.);
  - SR-91 Tyler Street to Van Buren Boulevard (p.m.);

- SR-91 Madison Street to Indiana Avenue (p.m.);
- I-10 SR-60 to Beaumont Avenue (a.m.);
- I-10 Pennsylvania Avenue to Highland Springs Avenue (a.m.);
- I-10 Highland Springs Avenue to Sunset Avenue (a.m.);
- I-10 8th Street to S. Hargrave Street (a.m.);
- I-215 Ethanac Road to SR-74 (p.m.);
- I-215 SR-74 to Ellis Avenue (a.m. and p.m.);
- I-215 Ellis Avenue to Redlands Boulevard (a.m.);
- I-215 Center Street to Iowa Avenue/La Cadena Drive (a.m.); and
- I-215 Baseline Road to Highland Avenue (a.m.).

A freeway weaving analysis was conducted on freeway segments where an on-ramp is closely followed by an off-ramp, and the two are joined by an auxiliary lane. Table 4.15.X summarizes the levels of service at weaving segments under Year 2035 Cumulative without project conditions and shows the following seven northbound or eastbound and six southbound or westbound freeway weaving segments are forecast to operate at unsatisfactory levels of service in either the a.m. peak or p.m. peak hour:

- Northbound or Eastbound:
  - SR-60 SR-71/Garey Avenue to Reservoir Street (a.m. and p.m.);
  - SR-60 Main Street to SR-91 (p.m.);
  - SR-60 SR-91 to W. Blaine Street/3rd Street (p.m.);
  - SR-60 W. Blaine Street/3rd Street to University Avenue (a.m. and p.m.);
  - SR-60 Central Avenue to Fair Isle Drive/Box Springs Road (a.m. and p.m.);
  - SR-60 Theodore Street to Gilman Springs Road (p.m.); and
  - SR-91 Arlington Avenue to Central Avenue (a.m.).
- Southbound or Westbound:
  - SR-60 Haven Avenue to Archibald Avenue (p.m.);
  - SR-60 SR-91 to W. Blaine Street/3rd Street (p.m.);
  - SR-60 W. Blaine Street/3rd Street to University Avenue (p.m.);
  - SR-60 University Avenue to Martin Luther King Boulevard (a.m. and p.m.);
  - SR-60 Central Avenue to Fair Isle Drive/Box Springs Road (a.m. and p.m.); and
  - I-10 Haugen-Lehmann Way to SR-111 (p.m.).

Freeway ramp merge and diverge operations have been evaluated for Year 2035 Cumulative without project conditions. Table 4.15.Y summarizes the levels of service at under Year 2035 Cumulative without project conditions and shows the following 9 freeway ramp junctions are forecast to operate at unsatisfactory levels of service in either the a.m. peak or p.m. peak hour:

- SR-60 Eastbound On-Ramp from Central Avenue (a.m. and p.m.);
- SR-60 Eastbound Off-Ramp to Theodore Street (p.m.);

Table 4.15: ~~WX: General Plan Buildout~~ Year 2035 Cumulative Without Project Weaving Segment Levels of Service (revised)

ID	Freeway	Weaving Segment	Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	8,630	39.7	**E**	9,700	46.8	**E**	6,130	22.0	C	7,510	27.6	C
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			6,910	28.7	D	8,180	36.4	**E**
W-20	SR-60	Main St to SR-91	7,060	34.1	D	7,110	35.1	**E**	See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	7,280	32.4	D	10,640	>Capacity	**F**	8,490	33.7	D	9,970	40.9	**E**
W-22	SR-60	Blaine St/3rd St to University Ave	7,120	28.9	D	8,460	38.7	**E**	6,320	24.3	C	8,890	35.8	**E**
W-23	SR-60	University Ave to Martin Luther King	7,960	30.0	D	7,040	26.4	C	6,750	28.2	D	8,830	36.9	**E**
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	7,890	37.0	**E**	8,640	40.5	**E**	8,340	38.1	**E**	9,200	39.2	**E**
W-27	SR-60	I-215 to Day St	3,980	16.3	B	6,210	27.7	C	See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	3,760	16.2	B	5,660	26.5	C	4,790	33.5	D	4,790	32.4	D
W-32	SR-60	Moreno Beach Dr to Nason St	2,640	16.5	B	3,480	22.6	C	3,310	20.5	C	2,680	16.2	B
W-35	SR-60	Theodore St to Gilman Springs Rd	3,070	17.5	B	5,710	37.9	**E**	4,560	32.0	D	3,680	24.2	C
W-42	SR-91	Magnolia Ave to La Sierra Ave	6,970	33.7	D	6,930	34.2	D	See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	7,620	41.0	**E**	4,370	21.3	C	5,160	24.9	C	5,760	27.4	C
W-50	SR-91	14th St to University Ave	5,310	26.4	C	5,060	26.1	C	6,070	23.7	C	8,010	33.0	D
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			6,500	20.6	C	10,130	32.5	D
W-73	I-215	SR-60 to Columbia Ave	5,330	28.4	D	4,610	24.6	C	6,660	33.8	D	5,570	28.2	D
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	4,590	16.9	B	5,640	20.9	C	6,200	22.5	C	4,950	18.8	B
W-81	I-215	Mill St to 2nd St	5,190	18.3	B	6,460	23.5	C	6,360	23.4	C	4,980	18.3	B
W-82	I-215	5th St to Baseline Rd	3,900	13.5	B	4,980	17.7	B	5,610	20.3	C	4,060	14.6	B
W-63	I-10	Haugen-Lehmann Way to SR-111	4,170	14.4	B	8,420	33.1	D	7,270	29.0	D	5,500	>Capacity	**F**

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, ~~March~~September 2014.

Table 4.15.XY: ~~General Plan Buildout~~ Year 2035 Cumulative Without Project Freeway Ramp Levels of Service (revised)

				AM Peak Hour				PM Peak Hour			
ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	7,410	580	30.6	D	6,430	1,400	33.8	D
R-2	SR-60 EB	On-Ramp from Central Ave	1	7,890	1,220	32.2	**F**	8,630	970	32.9	**F**
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	1	2,480	220	13.8	B	3,130	440	19.7	B
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	1	2,260	90	22.1	C	2,690	60	25.4	C
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	1	2,350	110	19.9	B	2,750	480	26.0	C
R-6	SR-60 EB	Off-Ramp to Theodore St	1	3,200	270	25.0	C	4,500	150	36.7	**F**
R-7	SR-60 EB	Loop On-Ramp from Theodore St	1	2,930	150	22.0	C	4,350	1,350	42.9	**F**
R-8	SR-60 EB	Direct On-Ramp from Theodore St	0	Does not exist in this Scenario				Does not exist in this Scenario			
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	2	3,070	840	19.4	B	5,710	1,570	35.8	**E**
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	1	2,230	260	16.9	B	4,140	470	34.3	**F**
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	2	3,350	240	20.9	C	2,920	560	18.2	B
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	1	3,110	1,330	32.2	D	2,360	1,140	24.6	C
R-13	SR-60 WB	Off-Ramp to Theodore St	1	4,560	640	32.7	**F**	3,680	380	24.8	C
R-14	SR-60 WB	On-Ramp from Theodore St	1	3,920	90	35.5	**E**	3,300	230	31.5	D
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	1	4,010	310	32.4	D	3,530	370	28.1	D
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	1	3,700	200	~~31.8~~36.5	~~D~~E	3,160	110	~~26.7~~31.4	D
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	1	3,900	350	34.7	D	3,270	280	29.0	D
R-18	SR-60 WB	Off-Ramp to Central Ave	2	8,340	480	32.0	D	9,200	540	35.0	**D**
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	1	8,330	710	32.5	D	8,980	660	34.1	**D**

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, ~~March~~September 2014.

- SR-60 Eastbound Loop On-Ramp from Theodore Street (p.m.);
- SR-60 Eastbound Off-Ramp to Gilman Springs Road (p.m.);
- SR-60 Eastbound On-Ramp from Gilman Springs Road (p.m.);
- SR-60 Westbound On-Ramp from Gilman Springs Road (a.m.);
- SR-60 Westbound Off-Ramp to Theodore Street (a.m.);
- SR-60 Westbound On-Ramp from Theodore Street (a.m.); and
- SR-60 Westbound Loop On-Ramp from Redlands Boulevard (a.m.).

4.15.4 Thresholds of Significance

Based on Appendix G of the *CEQA Guidelines*, the proposed project would create potentially significant traffic impacts if it would:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit.
- Cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the without project condition. The adopted LOS standards are as follows:
    - Roadway segments and intersections: LOS C; and LOS D as outlined in previously referenced Table 4.15.E.
    - Freeway mainline: LOS D.
    - Freeway Ramp Merge/Diverge: LOS D.
- Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location, which results in substantial safety risks.
- Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

The Moreno Valley General Plan Circulation Element, adopted July 2006, defines a preferred performance standard of LOS C (where feasible) for City roads (including intersections). However, the circulation element also allows peak hour levels of service in the LOS D range at certain locations. These locations include areas of high employment concentration or north/south roads in the vicinity of the SR-60. Therefore, if a roadway segment or intersection is projected to operate at an acceptable level of service (i.e., LOS C/D or better) without the project, and the project is expected to

cause the intersection to operate at an unacceptable level of service, the project impact is considered significant.

The study area includes intersections and roadways in six cities besides Moreno Valley. Table 4.15.~~Y~~Z shows the various level of service standards for intersections within each jurisdiction. A project's impact on an intersection is considered significant if it causes the LOS to exceed the target level set by the jurisdiction or, if the LOS in the no project condition already exceeds the LOS level, if the project causes an increase in traffic delay beyond the no project condition.

Table 4.15.~~Y~~Z: Intersection LOS Standards by Jurisdiction

Jurisdiction	Type of Facility	# of Study Intersections	LOS Standard
Moreno Valley	Intersections adjacent to freeways or employment centers	57	D
	All other intersections	14	C
Beaumont	Most intersections	2	C
	Intersections with major highways	2	D
Perris	Intersections with SR-74, Ramona Expr, or I-215	5	E
	Expressway/arterial intersections	10	D
	All other intersections	6	C
Redlands	Intersections currently operating at "D" or worse	1	Existing LOS
	All other intersections	2	C
Riverside (County)	Most intersections*	7	C
	Intersections with Ramona Expressway	2	D
Riverside (City)	Intersections of collectors or higher roads	27	D
San Jacinto	Arterial intersections	1	D
Caltrans	State highway facilities currently operating at LOS "E" or "F"		Existing Density
	State highway facilities		D

* Intersections between arterials, highways, expressways, and freeway ramps within community development areas are allowed LOS "D" as an exception.
Source: Table 12, Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

All freeway mainline segments and freeway ramps are under the jurisdiction of Caltrans. LOS D has been established by Caltrans as the operating standard for freeway mainline segments and freeway ramps. Therefore, if a freeway segment is projected to operate at an acceptable level of service (i.e., LOS D or better) without the project, and the project is expected to cause the facility to operate at an unacceptable level of service (i.e., LOS E or F), the impact is considered significant. Previously referenced Table 4.15.E shows level of service criteria for freeway segments and ramps.

4.15.5 Less than Significant Impacts

Air traffic patterns, design hazard features, emergency access, and alternative transportation policies, plans, or programs are considered to have either no impact or less than significant impacts.

4.15.5.1 Air Traffic Patterns

Threshold	Would the proposed project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

Airport facilities within the vicinity of the project site include the March Air Field, which is part of the March Air Reserve Base (MARB). The MARB encompasses approximately 6,500 acres of the Air Force Reserve's 452nd Air Mobility Wing, which provides host base support for numerous tenant active military units. It is also the home of 4th Air Force and multiple units of the California Air National Guard. When March Air Force Base (March AFB) was converted from an active duty base to a Reserve Base in 1996, the decision resulted in approximately 4,400 acres of property and facilities being declared surplus and available for disposal actions, as well as joint use of the airfield. With the realignment of March AFB, the MARB Redevelopment Project Area was established. The MARB Redevelopment Project Area includes the entire 6,500-acre former active duty base area, and approximately 450 acres adjacent to the base in the industrial area of the City of Moreno Valley.

To implement the MARB Redevelopment Project Area and to facilitate the transition of a portion of the MARB from military to civilian uses, the March Joint Powers Authority, (March JPA) consisting of the County of Riverside and the Cities of Moreno Valley, Perris, and Riverside, was formed. The March JPA along with the U.S. Air Force pursued the establishment of March Air Field as a joint use airport.

The Air Force defines a "joint use airport" as one where the facilities which are owned and operated by the Air Force are made available for use by civil aviation. A joint use agreement between these parties was executed May 7, 1997, along with land leases for over 300 acres as the civilian airport name MIP. Under the agreement, the civilian (March JPA) and the military (AFRC) entities share essential aviation facilities such as the control towers and runways, as well as maintenance of facilities, under this joint use arrangement. Under the provisions of the Joint Use Agreement, the MIP is the civilian facility that is managed and operated by the MIP Airport Authority (MIPAA). The MIP includes air cargo operations such as the March Global Port, a 350-acre commercial air cargo and distribution center.

The Department of the Defense (Air Force) completed an Air Installation Compatible Use Zone (AICUZ) study for MARB in 1998. The AICUZ study was designed and is intended to aid in the development of compatible land uses in non-government areas surrounding military airfields to protect public safety and health. The study established three zones based on potential crash patterns: a Clear Zone and two Accident Potential Zones (APZs). The Clear Zone reaches from along the extended runway centerline to a distance of 3,000 feet, APZ 1 extends from 3,000 feet to 8,000 feet, and APZ II extends from 8,000 feet to 15,000 feet. According to the AICUZ, outside of the Clear Zone and APZs “the risk of aircraft accidents is not significant enough to warrant special consideration in land use planning.” The proposed project site is not located within a Clear Zone, APZ 1, or APZ 2 for MARB as designated by the Air Force 2005 AICUZ Study. In addition to the AICUZ, Airport Influence Area boundaries around MARB have been adopted by County of Riverside Airport Land Use Commission (ALUC) in its Airport Land Use Plan (ALUP). The proposed project site is located within Influence Area III.

The project site is approximately 1.5 miles east of the March Air Field and is entirely within Airport Influence Area III of the MIP. As part of the standard process for development within Airport Influence Areas for MARB, proposed projects are required to be reviewed by the ALUC for consistency with the ALUP. As a standard condition imposed during ALUC reviews, development located within the boundaries of Influence Area III is required to provide navigation easements. Development that is allowed to occur within Airport Influence III of the MIP would not include any features that would alter

air traffic patterns or the level of air traffic at the MIP; therefore, a less than significant air safety impact would occur and no mitigation is required.

4.15.5.2 Design Hazard Features

NOTE: The following changes have been made in response to: Comment E-3-13 in Letter E-3 from the Moreno Valley Unified School District; Comment F-11-36 in Letter F-11 from the Sierra Club, San Gorgonio Chapter; and Comment G-96-4 in Letter G-96 from Margie Breikreuz.

Threshold	Would the proposed project substantially increase hazards due to a design feature or incompatible use?

The design of roadways must provide adequate sight distance and traffic control measures. This provision is normally realized through roadway design to facilitate roadway traffic flows. Roadway improvements in and around the project site would be designed and constructed to satisfy all City and Caltrans requirements for street widths, corner radii, intersection control as well as incorporate design standards tailored specifically to project access requirements. Adherence to applicable City requirements would ensure the proposed project would not include any sharp curves or dangerous intersections.

During the project review process, City staff expressed a concern about the intersection of D Street and the eastern end of Cactus Avenue, east of Redlands Boulevard. Early designs showed it as a skewed "T" intersection, but the Specific Plan now shows it~~ as a more gently curving "knuckle" configuration, which eliminated the original concern about the safety of the intersection.~~ extending further west through the Open Space area, then turning north and connecting to Alessandro Boulevard. With this design change, no significant road design hazards are expected.

Temporary impacts associated with the construction of infrastructure improvements included as a part this project may temporarily restrict vehicular traffic or cause temporary hazards. The construction of infrastructure would coincide with roadway improvements, which would include road or lane closures as well as the presence of construction workers and equipment on public roads. Construction operations would be required to implement adequate measures to facilitate the passage of people and vehicles through/around any required road or lane closures. Site-specific activities, such as temporary construction activities, are finalized on a project-by-project basis by the City and are required to ensure adequate traffic flow. At the time of approval of any site-specific plans required for the construction of infrastructure as a part of typical conditions of approval, the project would be required to implement measures that would maintain traffic flow and access. In the absence of a roadway design hazard, no impact would occur; therefore, no mitigation is required.

An analysis of safety impacts resulting from potential conflicts between project traffic and local schools was performed for this EIR. As identified in the project TIA (Appendix L-1 of this EIR), the project would not produce a significant safety risk and appropriate safety features are already present on roads near local schools. Other than Perris Boulevard, which would experience a small number of project trucks (22 and 25 medium and heavy duty trucks in the a.m. and p.m. peak hours, respectively), none of the other truck routes would result in project trucks traveling near local schools. The safety impact of project-related passenger cars along streets near local schools was also evaluated by reviewing existing pedestrian facilities and collecting pedestrian counts at the intersections along project truck routes. All pedestrian crossings at signalized intersections near schools are protected. Crosswalks near schools are striped in yellow (per the California Manual on Traffic Control Devices page 1,282). In most cases, sidewalks exist along roadways and lead to the striped, protected crosswalks at the intersections. Intersection and roadway features along project truck routes were reviewed and it was determined that adequate pedestrian amenities already exist in

the form of protected crossings, crosswalks, curb ramps, and pedestrian signals. For these reasons, project passenger cars and trucks would not create unsafe conflicts with pedestrians.

In addition, the new proposed high school #5 was analyzed in a technical memorandum (Tech Memo on High School #5, July 2014, Revised DEIR Appendix L). It was determined that if both the proposed school and the proposed WLCSP were approved the mitigation measures proposed in the DEIR would reduce all potential impacts to less than significant levels.

4.15.5.3 Emergency Access

Threshold	Would the proposed project result in inadequate emergency access?

Construction activities that may temporarily restrict vehicular traffic would be required to implement adequate measures to facilitate the passage of people and vehicles through/around any required road closures. Site-specific activities such as temporary construction activities are finalized on a project-by-project basis by the City and are required to ensure adequate emergency access.

The roadway improvements that will take place as a part of this project will improve the traffic circulation in the area. For example, emergency vehicles that currently pass through the site using either Theodore Street or Alessandro Boulevard would continue to have those routes available to them, and these roads will be upgraded to arterial standards within the proposed project limits. Access to Alessandro Boulevard would be provided by a connection to Redlands Boulevard at Cactus Avenue instead, of a direct extension to Alessandro Boulevard. The change would not lengthen the distance between Gilman Springs Road and the Riverside Community Regional Medical Center on Cactus Avenue or the route to and from the Kaiser Moreno Valley Community Hospital on Iris Avenue. The extension of Eucalyptus Avenue through the project area would improve access between the project site and the nearest existing fire station (the Moreno Beach fire station). As a condition of approval, the proposed project will also be required to construct a fire station on site.

These improvements would enhance the ability of emergency vehicles to access the project as well as the surrounding properties. Access to the project site is designed to accommodate large trucks with trailers used for the distribution of goods to and from the warehouses. This would provide ample vehicular access for emergency vehicles. During the operational phase of the proposed project, on-site access would be required to comply with standards established by the City Public Works Department. The size and location of fire suppression facilities (e.g., hydrants) and fire access routes would be required to conform to Fire Department standards. As required of all development in the City, the operation of the proposed project would conform to applicable Uniform Fire Code standards. The submittal of such plans would be considered a condition of approval, which would be part of the permitting process initiated by the applicant and approved by the City in accordance with City standards. As with any development, access to and through the project would be required to comply with the required street widths, as determined in the California Building Code (CBC), Master Plan of Streets, and the Uniform Fire Code. Therefore, implementation of the proposed project would not significantly impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; therefore, no mitigation is required.

4.15.5.4 Alternative Transportation Policies, Plans, or Programs

Threshold	Would the proposed project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

The proposed project would result in the development of employment opportunities and would therefore reduce vehicle miles traveled. Currently, approximately 70 percent of workers residing in the City of Moreno Valley commute to jobs outside the City. According to the U.S. Census Bureau, 21.7 percent of Moreno Valley workers commute more than 50 miles one-way to work, and another 20.8 percent drive 25 to 50 miles one way. Nearly four out of five Moreno Valley workers drive to work alone. The City is in need of employment opportunities to serve City and regional residents. A better jobs/housing balance results in shorter commute times, reduced vehicle miles traveled, and reduced traffic congestion. Locating jobs in areas such as the City is a public policy prerogative of the City, regional governmental entities such as SCAG, and the State of California as manifested by recent legislation such as SB 375. The project is consistent with these policies because it will provide approximately 20,000[1] new jobs; nearly doubling the number of jobs in Moreno Valley. As a result, the percentage of Moreno Valley residents that need to commute regionally would be reduced.

An updated Housing Element, adopted by the City in February 2011, identified the Moreno Highlands area as a potential location for future jobs-producing land uses. In April 2011, the City adopted its Economic Development Action Plan, which identified eastern Moreno Valley as a potential area for major job-producing land uses. The proposed World Logistics Center project is consistent with this planning objective, as it provides a comprehensive plan for jobs-producing land uses.

The WLC Specific Plan provides for Class II bicycle lanes on all project streets (see WLCSP Section 3.4.3 and WLCSP Figure 3-~~17~~18). In addition, WLCSP Section 6.0, Sustainability, Item 2 indicates showers and changing rooms will be available which will facilitate people using bicycles to get to and from work.

~~Section 4.D of the project TIA indicates that the addition of 24,642 employees~~ As stated previously, the proposed project would generate jobs for approximately 20,000 employees working in the eastern portion of the City that would help reduce the number of workers driving long commutes to distant jobsites, primarily to the west and southwest. This finding is supported by the results of the RivTAM traffic model projections used in the TIA. The provision of additional employment options in proximity to existing residential development in the City will help reduce local vehicle miles traveled as the employment generated by the project slowly improves the City's job/housing ratio, and more local jobs are created for City residents. Therefore, the proposed project is consistent with City policies encouraging alternative transportation. Since the project will not create any significant impacts related to non-vehicular transportation, no mitigation is required.

Although there is currently no transit service in the project area, the proposed project would be designed to accommodate bus access on all project streets. Bus turnouts and shelters would be provided at all active bus stops. It is expected that transit service would be provided once the project reaches a transit-supportable level of operations. Candidate streets for future bus routes within the project limits are Eucalyptus Avenue, Street C, Street E, and Street F as shown in WLCSP Figure 3-14.

The WLCSP provides for connections to existing trails to the west along Redlands Boulevard, and to the southwest along Cactus Avenue. In addition, the plan provides for a new trail connection from the southwest corner of the site around the land designated as open space under the WLCSP, to connect to a future planned "trailhead" at the northwest corner of the state-owned property to the south. The WLCSP also includes a "loop" trail segment through the WLCSP along Street F to Eucalyptus Avenue and back to Redlands Boulevard (see EIR Figure 3-12, *Non-Vehicular Circulation*). In addition, the project will be conditioned to provide sidewalks and landscaping treatments to allow for pedestrian

[1] Based on a ratio of 0.5 employees per 1000 square feet of logistics. This ratio is taken from: *DTA Public Works Database; confirmed by "Employment Density Study," SCAG (2001), and "Logistics Trends and Specific Industries," NAIOP Research Foundation (March 2010).San Bernardino Planning Department.*

access throughout the site. With these planned improvements, the WLCSP will have less than significant impacts regarding non-vehicular circulation and no mitigation is required.

4.15.6 Significant Impacts

The following potential impacts were determined to be significant, either because the project would contribute to an intersection, roadway segment or freeway facility already exceeding the LOS threshold, or because the project would cause the intersection, roadway segment or freeway to exceed the LOS threshold. The project would be required to make required on-site and adjacent off-site improvements, contribute to local and regional circulation improvement through the payment of the DIFs and TUMFs, and would therefore contribute to improvements that may mitigate the direct project impact or cumulative impact of the project. Mitigation of direct project impacts can be in the form of improvements to the intersection, or payment of the fees if projects funded by the fee would mitigate the project impact to a less than significant level.

Planned Improvements. As part of the analysis of project traffic impacts, it is important to note that development within the WLCSP will make a number of roadway and intersection improvements that are within or adjacent to project property (i.e., on-site improvements). These improvements include:

- Gilman Springs/Alessandro Boulevard Intersection;
- Gilman Springs/Eucalyptus Avenue Intersection;
- SR-60 Westbound Ramp/Theodore Street Intersection;
- SR-60 Eastbound Ramp/Theodore Street Intersection;
- Redlands Boulevard/Eucalyptus Avenue Intersection;
- Theodore Street/Eucalyptus Avenue Intersection;
- Theodore Street (Street A)/Alessandro Boulevard (Streets C and E) Roundabout;
- Theodore Street (Street A)/Streets E and F Roundabout;
- Street F/Street C Roundabout;
- Eucalyptus Avenue from Redlands Boulevard to Theodore Street (south side); and
- Cactus Avenue Extension from the existing Redlands Boulevard/Cactus Avenue intersection to internal loop Street "E".
- Internal Streets A, B, C, E, and F shown on WLCSP Circulation Plan (EIR Figure 3-10).

4.15.6.1 Existing (2012) With ~~Project~~ Phase 1 Conditions Traffic and Level of Service

Threshold:	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit. A significant project-specific traffic impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the pre-project condition. The adopted LOS standards are as follows: • Roadway segments~~ and intersections~~: LOS C and LOS D as outlined in previously referenced Tables 4.15.~~E~~B and 4.15.C. • Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.Z. • Freeway mainline: LOS D. • Freeway Ramp Merge/Diverge: LOS D.

Impacts

Intersection Analysis. Existing baseline (year 2012) with Phase 1 intersection levels of service for the study area intersections are summarized in Tables 4.15.~~Z~~AA-1 and 4.15.~~Z~~AA-2, which shows there are ~~16~~15 study intersections where Phase 1 of the project would have a significant impact. Twelve of these intersections already exceed the threshold of significance under existing conditions and would therefore be considered cumulative impacts and mitigation is required. Phase 1 of the project would cause a direct project impact at the other ~~four~~three intersections and mitigation is required.

Phase 1 of the project would worsen the existing LOS deficiency at the following 12 intersections under existing with Phase 1 conditions:

- Redlands Boulevard/Locust Avenue;
- Redlands Boulevard/SR-60 Westbound Ramps;
- Oliver Street/Alessandro Boulevard;
- Lasselle Street/Cactus Avenue;
- Gilman Springs Road/Bridge Street;
- SR-79 (Sanderson Avenue) Northbound/Gilman Springs Road;
- SR-79 (Sanderson Avenue) Southbound/Gilman Springs Road;
- San Timoteo Canyon Road/Alessandro Boulevard;
- San Timoteo Canyon Road/Live Oak Canyon Road;
- Redlands Boulevard/San Timoteo Canyon Road;
- Moreno Beach Drive/SR-60 EB Ramps; and
- Alessandro Boulevard/Chicago Avenue.

Table 4.15.~~Z~~AA-1: Existing (2012) plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
1	Theodore St/Street F	D	N/A	Non-Existent		RABT	9.5	A
2	Cactus Avenue Extension/Street E	D	N/A	Non-Existent		AWS	12.3	B
3	Theodore Str/Alessandro Blvd (Str A/Str C/Str E)	D	CSS	9.7	A	RABT	10.4	B
4	Street C/Street F	D	N/A	Non-Existent		AWS	9.5	A
6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	CSS	10.3	B	SIGNAL	20.9	C
9	Gilman Springs Rd/Eucalyp~~t~~tpus Ave	—	N/A	Non-Existent		N/A	Non-Existent	
10	Redlands Blvd/Locust Ave	C	CSS	26.7	**D**	CSS	44.8	**E**
11	Redlands Blvd/Ironwood Ave	D	SIGNAL	40.9	D	SIGNAL	37.5	D
12	Theodore Street/Ironwood Avenue	D	CSS	9.7	A	CSS	12.6	B
13	Redlands Blvd/SR-60 WB ramps	D	CSS	42.2	**E**	CSS	70.5	**F**
14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	9.6	A	SIGNAL	12.9	B
15	Theodore Str/SR-60 WB ramps	D	CSS	9.0	A	CSS	13.3	B
16	Theodore Str/SR-60 EB ramps	D	CSS	9.2	A	CSS	2.4	A
17	Quincy Str/Fir Ave	—	N/A	Non-Existent		N/A	Non-Existent	
18	Redlands Blvd/Eucalyptus Ave (Fir)	D	N/A	Non-Existent		SIGNAL	12.9	B
19	Theodore Str/Fir Ave (Eucalyptus)	D	CSS	9.2	A	SIGNAL	12.4	B
20	Oliver Str/Alessandro Blvd	C	CSS	25.9	**D**	CSS	40.5	**E**
21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	24.0	C	SIGNAL	27.9	C
22	Quincy Str/Alessandro Blvd	—	N/A	Non-Existent		N/A	Non-Existent	
23	Redlands Blvd/Alessandro Blvd	C	AWS	20.5	C	AWS	17.6	C
24	Oliver Str/Cactus Ave	D	SIGNAL	23.8	C	SIGNAL	26.2	C
25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	16.0	B	SIGNAL	17.9	B
26	Quincy Str/Cactus Ave	—	N/A	Non-Existent		N/A	Non-Existent	
27	Redlands Blvd/Cactus Ave	C	AWS	11.4	B	AWS	37.9	**E**
28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	16.2	B	SIGNAL	17.0	B
29	Heacock Str/Ironwood Ave	D	SIGNAL	29.6	C	SIGNAL	29.9	C
30	Heacock Str/SR-60 WB Ramps	D	SIGNAL	22.6	C	SIGNAL	23.4	C
31	Heacock St/SR-60 EB Ramps	D	SIGNAL	12.5	B	SIGNAL	13.9	B
32	Sunnymead Blvd & Perris Blvd	D	SIGNAL	29.4	C	SIGNAL	30.7	C

Table 4.15.~~Z~~AA-1: Existing (2012) plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	22.0	C	SIGNAL	24.6	C
34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	22.8	C	SIGNAL	23.8	C
35	Moreno Beach Dr/Locust Ave	C	CSS	8.6	A	CSS	8.8	A
36	Moreno Beach Drive & Ironwood Avenue	D	SIGNAL	50.3	D	SIGNAL	51.8	D
37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	38.0	D	SIGNAL	42.0	D
38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	37.0	D	SIGNAL	37.6	D
39	Iris Ave/Perris Blvd	D	SIGNAL	41.5	D	SIGNAL	43.0	D
40	Kitching St/Iris Ave	C	SIGNAL	23.4	C	SIGNAL	25.0	C
41	Lasselle Str/Iris Ave	D	SIGNAL	25.4	C	SIGNAL	28.5	C
42	Nason Str/Iris Ave	—	N/A	Non-Existent		N/A	Non-Existent	
43	Oliver Str/Iris Ave	D	SIGNAL	22.1	C	SIGNAL	25.6	C
44	Via Dell Lago/Iris Ave	C	SIGNAL	6.7	A	SIGNAL	8.0	A
45	Krameria Ave/Perris Blvd	D	SIGNAL	34.6	C	SIGNAL	35.1	D
46	Kitching Str/Krameria Ave	D	SIGNAL	21.7	C	SIGNAL	23.9	C
47	Lasselle Str/Krameria Ave	D	SIGNAL	37.9	D	SIGNAL	40.8	D
48	Kitching Str/Alessandro Blvd	D	SIGNAL	28.8	C	SIGNAL	29.6	C
49	Lasselle Str/Alessandro Blvd	D	SIGNAL	31.7	C	SIGNAL	32.2	C
50	Morrison Str/Alessandro Blvd	D	SIGNAL	8.8	A	SIGNAL	8.8	A
51	Nason Str/Alessandro Blvd	D	SIGNAL	20.5	C	SIGNAL	20.7	C
52	Kitching Str/Cactus Ave	C	SIGNAL	33.3	C	SIGNAL	34.3	C
53	Lasselle Str/Cactus Ave	C	SIGNAL	47.2	**D**	SIGNAL	47.3	**D**
54	Morrison Str/Cactus Ave	—	N/A	Non-Existent		N/A	Non-Existent	
55	Nason Str/Cactus Ave	D	SIGNAL	22.5	C	SIGNAL	22.6	C
56	Frederick Str/Alessandro Blvd	D	SIGNAL	19.5	B	SIGNAL	19.5	B
57	Graham Str/Alessandro Blvd	D	SIGNAL	19.8	B	SIGNAL	20.4	C
58	Heacock Str/Alessandro Blvd	D	SIGNAL	25.8	C	SIGNAL	26.3	C
59	Indian Str/Alessandro Blvd	D	SIGNAL	17.6	B	SIGNAL	19.2	B
60	Perris Blvd/Alessandro Blvd	D	SIGNAL	32.4	C	SIGNAL	32.7	C
61	Frederick Str/Cactus Ave	D	SIGNAL	9.8	A	SIGNAL	10.3	B
62	Graham Str/Cactus Ave	D	SIGNAL	12.9	B	SIGNAL	13.7	B

Table 4.15.~~Z~~AA-1: Existing (2012) plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
63	Heacock Str/Cactus Ave	D	SIGNAL	30.1	C	SIGNAL	30.9	C
64	Indian Str/Cactus Ave	C	SIGNAL	24.4	C	SIGNAL	25.3	C
65	Perris Blvd/Cactus Ave	D	SIGNAL	26.9	C	SIGNAL	26.8	C
66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	25.8	C	SIGNAL	26.1	C
67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	6.4	A	SIGNAL	6.7	A
68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	19.4	B	SIGNAL	19.9	B
69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	18.2	B	SIGNAL	18.4	B
70	Day Str/Alessandro Blvd	D	SIGNAL	4.6	A	SIGNAL	6.2	A
71	Elsworth Str/Alessandro Blvd	D	SIGNAL	19.2	B	SIGNAL	19.6	B
72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	12.1	B	SIGNAL	18.7	B
73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	11.1	B	SIGNAL	10.3	B
74	Elsworth Str/Cactus Ave	D	SIGNAL	26.7	C	SIGNAL	30.6	C
75	Central Ave/Lochmoor Dr.	D	SIGNAL	10.9	B	SIGNAL	11.4	B
76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	22.2	C	SIGNAL	23.9	C
77	SR-60 EB Ramps/Central Ave	D	SIGNAL	7.3	A	SIGNAL	8.3	A
78	SR-60 WB Ramps/Central Ave	D	SIGNAL	6.8	A	SIGNAL	6.9	A
79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	28.4	C	SIGNAL	28.4	C
80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	18.8	B	SIGNAL	20.7	C
81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	43.2	D	SIGNAL	43.8	D
82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	9.0	A	SIGNAL	9.2	A
83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	43.2	D	SIGNAL	47.8	D
84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	8.6	A	SIGNAL	8.8	A
85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	24.3	C	AWS	26.9	D
86	Central Ave/Chicago Ave	D	SIGNAL	23.4	C	SIGNAL	23.7	C
87	Central Ave/El Cerrito Dr	D	SIGNAL	11.7	B	SIGNAL	12.9	B
88	Central Ave/Canyon Crest Dr	D	SIGNAL	27.8	C	SIGNAL	28.6	C
89	Chicago Ave/Country Club Dr	D	SIGNAL	6.3	A	SIGNAL	6.7	A
90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	31.3	C	SIGNAL	31.6	C
91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	21.0	C	SIGNAL	21.1	C
92	Arlington Ave/Maude St	D	SIGNAL	13.8	B	SIGNAL	14.1	B

Table 4.15.~~Z~~AA-1: Existing (2012) plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
93	Horace St/Arlington Ave	D	SIGNAL	12.3	B	SIGNAL	13.0	B
94	Arlington Ave/Victoria Ave	D	SIGNAL	54.8	D	SIGNAL	55.8	**E**
95	Alessandro Blvd/Chicago Ave	D	SIGNAL	40.7	D	SIGNAL	42.9	D
96	Alessandro Blvd/Century Ave	D	SIGNAL	16.7	B	SIGNAL	17.8	B
97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	30.7	C	SIGNAL	30.6	C
98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	20.4	C	SIGNAL	25.3	C
99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	15.4	B	SIGNAL	16.5	B
100	Harley Knox Blvd/Evan Rd	—	N/A	Non-Existent		N/A	Non-Existent	
101	Ramona Expy/Indian St	E	SIGNAL	3.3	A	SIGNAL	4.5	A
102	Ramona Expy/Perris Blvd	E	SIGNAL	31.7	C	SIGNAL	32.5	C
103	Ramona Expy/Evans Rd	E	SIGNAL	54.5	D	SIGNAL	58.1	E
104	Perris Blvd/Morgan St	D	SIGNAL	11.8	B	SIGNAL	13.6	B
105	Evans Rd/Morgan St	C	SIGNAL	32.5	C	SIGNAL	32.5	C
106	Perris Blvd/Rider St	C	SIGNAL	24.5	C	SIGNAL	24.5	C
107	Evans Rd/Rider St	C	SIGNAL	34.2	C	SIGNAL	34.4	C
108	Perris Blvd/Mid County Pkwy WB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
109	Perris Blvd/Mid County Pkwy EB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
110	Evans Rd/Mid County Pkwy WB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
111	Evans Rd/Mid County Pkwy EB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
112	Placentia Ave/Perris Blvd	D	SIGNAL	30.1	C	SIGNAL	29.9	C
113	Evans Rd/Placentia Ave	—	N/A	Non-Existent		N/A	Non-Existent	
114	Evans Rd/Orange Ave	C	AWS	12.5	B	AWS	13.6	B
115	Evans Rd/Nuevo Rd	C	SIGNAL	23.3	C	SIGNAL	23.5	C
116	Evans Rd/Ellis Ave	—	N/A	Non-Existent		N/A	Non-Existent	
117	Ellis Ave/I-215 SB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
118	Ellis Ave/SR-215 NB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
119	Evans Rd/San Jacinto Ave	—	N/A	Non-Existent		N/A	Non-Existent	
120	Park Center Blvd/Ramona Expy WB Ramps		N/A	Non-Existent		N/A	Non-Existent	
121	Park Center Blvd/Ramona Expy EB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
122	Bridge St/Ramona Expy	C	CSS	22.4	C	CSS	26.2	C

Table 4.15.~~Z~~AA-1: Existing (2012) plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
123	Gilman Springs Rd/Bridge Str	C	CSS	26.6	**D**	CSS	37.9	**E**
124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	34.7	**D**	CSS	56.8	**F**
125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	29.2	**D**	CSS	36.6	**E**
126	Ramona Expy/Sanderson Ave	D	SIGNAL	27.1	C	SIGNAL	28.2	C
127	Potrero Blvd/SR-60 WB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
128	Potrero Blvd/SR-60 EB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
129	W 6th St/California Ave	C	AWS	16.6	C	AWS	20.2	C
130	W 6th St/Beaumont Ave	C	SIGNAL	13.2	B	SIGNAL	12.7	B
131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	18.9	B	SIGNAL	21.5	C
132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	77.2	**F**	AWS	145.4	**F**
133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	50.9	**F**	AWS	110.2	**F**
134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	81.8	**F**	AWS	142.8	**F**
135	W Crescent Ave/Alessandro Rd	C	CSS	14.0	B	CSS	16.9	C
136	W Sunset Dr/Alessandro Rd	C	AWS	8.9	A	AWS	9.7	A

denotes LOS exceeding the target threshold

Notes: "CSS" means cross-street is stop-controlled
"AWS" means all-way stop
"NB" and "SB" denote northbound and southbound respectively
"EB" and "WB" denote eastbound and westbound respectively
"RABT" means roundabout

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, ~~March~~ September 2014.

Table 4.15.~~Z~~AA-2: Existing (2012) plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
1	Theodore St/Street F	D	N/A	Non-Existent		RABT	12.1	B
2	Street D/Street E	D	N/A	Non-Existent		AWS	13.2	B
3	Theodore Ave/Alessandro Blvd (Str A/Str C/Str E)	D	CSS	10.1	B	RABT	10.5	B
4	Street C/Street F	D	N/A	Non-Existent		AWS	8.4	A
6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	CSS	15.7	C	SIGNAL	31.2	C
9	Gilman Springs Rd/Eucalyp~~t~~tus Ave	—	N/A	Non-Existent		N/A	Non-Existent	

Table 4.15.~~Z~~AA-2: Existing (2012) plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
10	Redlands Blvd/Locust Ave	C	CSS	42.8	**E**	CSS	> 180.0	**F**
11	Redlands Blvd/Ironwood Ave	D	SIGNAL	37.3	D	SIGNAL	35.2	D
12	Theodore Street/Ironwood Avenue	D	CSS	9.8	A	CSS	15.9	C
13	Redlands Blvd/SR-60 WB ramps	D	CSS	54.0	**F**	CSS	> 180.0	**F**
14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	14.4	B	SIGNAL	20.3	C
15	Theodore Str/SR-60 WB ramps	D	CSS	9.6	A	CSS	13.7	B
16	Theodore Str/SR-60 EB ramps	D	CSS	9.4	A	CSS	1.5	A
17	Quincy Str/Fir Ave	—	N/A	Non-Existent		N/A	Non-Existent	
18	Redlands Blvd/Eucalyptus Ave (Fir)	D	N/A	Non-Existent		SIGNAL	10.6	B
19	Theodore Ave/Fir Ave (Eucalyptus)	D	CSS	9.8	A	SIGNAL	27.1	C
20	Oliver Str/Alessandro Blvd	C	CSS	14.7	B	CSS	18.6	C
21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	28.2	C	SIGNAL	38.6	D
22	Quincy Str/Alessandro Blvd	—	N/A	Non-Existent		N/A	Non-Existent	
23	Redlands Blvd/Alessandro Blvd	C	AWS	13.8	B	AWS	14.9	B
24	Oliver Str/Cactus Ave	D	SIGNAL	17.3	B	SIGNAL	18.1	B
25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	17.0	B	SIGNAL	18.9	B
26	Quincy Str/Cactus Ave	—	N/A	Non-Existent		N/A	Non-Existent	
27	Redlands Blvd/Cactus Ave	C	AWS	8.2	A	AWS	103.0	**F**
28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	13.8	B	SIGNAL	66.5	**E**
29	Heacock Str/Ironwood Ave	D	SIGNAL	31.9	C	SIGNAL	32.0	C
30	Heacock Str/SR-60 WB Ramps	D	SIGNAL	21.5	C	SIGNAL	21.7	C
31	Heacock St/SR-60 EB Ramps	D	SIGNAL	15.9	B	SIGNAL	16.8	B
32	Sunnymead Blvd & Perris Blvd	D	SIGNAL	36.0	D	SIGNAL	36.4	D
33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	19.7	B	SIGNAL	21.5	C
34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	23.4	C	SIGNAL	23.9	C
35	Moreno Beach Dr/Locust Ave	C	CSS	8.6	A	CSS	8.9	A
36	Moreno Beach Drive & Ironwood Avenue	D	SIGNAL	40.0	D	SIGNAL	41.6	D
37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	76.6	**E**	SIGNAL	98.0	**F**
38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	31.2	C	SIGNAL	31.8	C
39	Iris Ave/Perris Blvd	D	SIGNAL	36.5	D	SIGNAL	37.0	D

Table 4.15.~~Z~~AA-2: Existing (2012) plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
40	Kitching St/Iris Ave	C	SIGNAL	17.5	B	SIGNAL	20.1	C
41	Lasselle Str/Iris Ave	D	SIGNAL	26.6	C	SIGNAL	28.4	C
42	Nason Str/Iris Ave	—	N/A	Non-Existent		N/A	Non-Existent	
43	Oliver Str/Iris Ave	D	SIGNAL	15.8	B	SIGNAL	18.3	B
44	Via Dell Lago/Iris Ave	C	SIGNAL	6.5	A	SIGNAL	7.3	A
45	Krameria Ave/Perris Blvd	D	SIGNAL	29.3	C	SIGNAL	33.7	C
46	Kitching Str/Krameria Ave	D	SIGNAL	19.4	B	SIGNAL	20.2	C
47	Lasselle Str/Krameria Ave	D	SIGNAL	13.5	B	SIGNAL	13.7	B
48	Kitching Str/Alessandro Blvd	D	SIGNAL	24.7	C	SIGNAL	25.4	C
49	Lasselle Str/Alessandro Blvd	D	SIGNAL	26.6	C	SIGNAL	29.5	C
50	Morrison Str/Alessandro Blvd	D	SIGNAL	7.8	A	SIGNAL	8.1	A
51	Nason Str/Alessandro Blvd	D	SIGNAL	16.9	B	SIGNAL	18.2	B
52	Kitching Str/Cactus Ave	C	SIGNAL	22.6	C	SIGNAL	22.7	C
53	Lasselle Str/Cactus Ave	C	SIGNAL	38.6	**D**	SIGNAL	38.6	**D**
54	Morrison Str/Cactus Ave	—	N/A	Non-Existent		N/A	Non-Existent	
55	Nason Str/Cactus Ave	D	SIGNAL	21.0	C	SIGNAL	21.8	C
56	Frederick Str/Alessandro Blvd	D	SIGNAL	25.6	C	SIGNAL	26.5	C
57	Graham Str/Alessandro Blvd	D	SIGNAL	24.2	C	SIGNAL	26.0	C
58	Heacock Str/Alessandro Blvd	D	SIGNAL	23.6	C	SIGNAL	24.1	C
59	Indian Str/Alessandro Blvd	D	SIGNAL	27.9	C	SIGNAL	28.7	C
60	Perris Blvd/Alessandro Blvd	D	SIGNAL	42.3	D	SIGNAL	44.2	D
61	Frederick Str/Cactus Ave	D	SIGNAL	11.7	B	SIGNAL	13.8	B
62	Graham Str/Cactus Ave	D	SIGNAL	17.4	B	SIGNAL	17.9	B
63	Heacock Str/Cactus Ave	D	SIGNAL	20.3	C	SIGNAL	22.9	C
64	Indian Str/Cactus Ave	C	SIGNAL	19.6	B	SIGNAL	19.3	B
65	Perris Blvd/Cactus Ave	D	SIGNAL	30.7	C	SIGNAL	30.6	C
66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	18.0	B	SIGNAL	18.1	B
67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	12.6	B	SIGNAL	12.7	B
68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	24.1	C	SIGNAL	25.0	C
69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	18.6	B	SIGNAL	20.0	B

Table 4.15.~~Z~~AA-2: Existing (2012) plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
70	Day Str/Alessandro Blvd	D	SIGNAL	8.2	A	SIGNAL	9.9	A
71	Elsworth Str/Alessandro Blvd	D	SIGNAL	27.6	C	SIGNAL	29.0	C
72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	19.7	B	SIGNAL	40.1	D
73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	3.7	A	SIGNAL	4.1	A
74	Elsworth Str/Cactus Ave	D	SIGNAL	29.5	C	SIGNAL	29.2	C
75	Central Ave/Lochmoor Dr.	D	SIGNAL	6.7	A	SIGNAL	7.7	A
76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	17.6	B	SIGNAL	18.6	B
77	SR-60 EB Ramps/Central Ave	D	SIGNAL	10.3	B	SIGNAL	10.6	B
78	SR-60 WB Ramps/Central Ave	D	SIGNAL	8.2	A	SIGNAL	8.3	A
79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	14.8	B	SIGNAL	14.8	B
80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	34.9	C	SIGNAL	36.9	D
81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	36.5	D	SIGNAL	38.3	D
82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	13.0	B	SIGNAL	13.4	B
83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	28.0	C	SIGNAL	28.9	C
84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	4.7	A	SIGNAL	5.5	A
85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	12.2	B	AWS	13.0	B
86	Central Ave/Chicago Ave	D	SIGNAL	23.1	C	SIGNAL	26.7	C
87	Central Ave/El Cerrito Dr	D	SIGNAL	12.0	B	SIGNAL	12.6	B
88	Central Ave/Canyon Crest Dr	D	SIGNAL	35.2	D	SIGNAL	36.5	D
89	Chicago Ave/Country Club Dr	D	SIGNAL	4.9	A	SIGNAL	4.9	A
90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	30.7	C	SIGNAL	30.9	C
91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	20.8	C	SIGNAL	20.9	C
92	Arlington Ave/Maude St	D	SIGNAL	11.1	B	SIGNAL	11.6	B
93	Horace St/Arlington Ave	D	SIGNAL	7.2	A	SIGNAL	7.6	A
94	Arlington Ave/Victoria Ave	D	SIGNAL	30.9	C	SIGNAL	32.5	C
95	Alessandro Blvd/Chicago Ave	D	SIGNAL	65.9	**E**	SIGNAL	70.0	**E**
96	Alessandro Blvd/Century Ave	D	SIGNAL	7.6	A	SIGNAL	8.7	A
97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	18.9	B	SIGNAL	18.7	B
98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	17.9	B	SIGNAL	17.7	B
99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	15.1	B	SIGNAL	15.5	B

Table 4.15.~~Z~~AA-2: Existing (2012) plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
100	Harley Knox Blvd/Evan Rd	—	N/A	Non-Existent		N/A	Non-Existent	
101	Ramona Expy/Indian St	E	SIGNAL	8.5	A	SIGNAL	11.1	B
102	Ramona Expy/Perris Blvd	E	SIGNAL	34.6	C	SIGNAL	34.8	C
103	Ramona Expy/Evans Rd	E	SIGNAL	28.8	C	SIGNAL	28.7	C
104	Perris Blvd/Morgan St	D	SIGNAL	6.7	A	SIGNAL	8.7	A
105	Evans Rd/Morgan St	C	SIGNAL	20.6	C	SIGNAL	20.4	C
106	Perris Blvd/Rider St	C	SIGNAL	22.9	C	SIGNAL	26.8	C
107	Evans Rd/Rider St	C	SIGNAL	28.3	C	SIGNAL	27.8	C
108	Perris Blvd/Mid-County Pkwy WB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
109	Perris Blvd/Mid-County Pkwy EB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
110	Evans Rd/Mid-County Pkwy WB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
111	Evans Rd/Mid-County Pkwy EB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
112	Placentia Ave/Perris Blvd	D	SIGNAL	14.0	B	SIGNAL	15.1	B
113	Evans Rd/Placentia Ave	—	N/A	Non-Existent		N/A	Non-Existent	
114	Evans Rd/Orange Ave	C	AWS	10.1	B	AWS	10.7	B
115	Evans Rd/Nuevo Rd	C	SIGNAL	22.6	C	SIGNAL	22.5	C
116	Evans Rd/Ellis Ave	—	N/A	Non-Existent		N/A	Non-Existent	
117	Ellis Ave/I-215 SB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
118	Ellis Ave/SR-215 NB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
119	Evans Rd/San Jacinto Ave	—	N/A	Non-Existent		N/A	Non-Existent	
120	Park Center Blvd/Ramona Expy WB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
121	Park Center Blvd/Ramona Expy EB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
122	Bridge St/Ramona Expy	C	CSS	20.6	C	CSS	25.5	C
123	Gilman Springs Rd/Bridge Str	C	CSS	20.8	C	CSS	23.7	C
124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	30.7	**D**	CSS	41.0	**E**
125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	48.2	**E**	CSS	63.6	**F**
126	Ramona Expy/Sanderson Ave	D	SIGNAL	20.8	C	SIGNAL	21.0	C
127	Potrero Blvd/SR-60 WB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
128	Potrero Blvd/SR-60 EB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
129	W 6th St/California Ave	C	AWS	18.0	C	AWS	20.9	C

Table 4.15.~~Z~~AA-2: Existing (2012) plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
130	W 6th St/Beaumont Ave	C	SIGNAL	12.8	B	SIGNAL	11.9	B
131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	6.3	A	SIGNAL	6.5	A
132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	23.9	C	AWS	68.8	**F**
133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	60.2	**F**	AWS	135.8	**F**
134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	80.5	**F**	AWS	170.0	**F**
135	W Crescent Ave/Alessandro Rd	C	CSS	11.5	B	CSS	13.5	B
136	W Sunset Dr/Alessandro Rd	C	AWS	9.0	A	AWS	9.8	A

denotes LOS exceeding the target threshold

Notes: "CSS" means cross-street is stop-controlled
"AWS" means all-way stop
"RABT" means roundabout
"NB" and "SB" denote northbound and southbound, respectively
"EB" and "WB" denote eastbound and westbound, respectively

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, ~~March~~ September 2014.

A project-specific significant impact would occur at the following ~~six~~ three intersections under existing with Phase 1 conditions:

- Redlands Boulevard/Cactus Avenue;
- ~~Moreno Beach Drive/Ironwood Avenue;~~
- Arlington Avenue/Victoria Avenue; and
- ~~Evans Road/Rider Street; and~~
- ~~Bridge Street/Ramona Expressway;~~
- Moreno Beach Drive/John Kennedy Drive.

Roadway Analysis. Existing baseline (year 2012) with ~~project~~ Phase 1 roadway segment levels of service for the study area are summarized in Table 4.15.A~~A~~B, which shows two roadway segments would operate at unsatisfactory levels of service. Phase 1 of the project would contribute toward the worsening of an already unsatisfactory LOS at the two roadway segments and, therefore, have a significant cumulative impact at these locations.

Phase 1 of the project would worsen the existing LOS deficiency at the following two roadway segments under existing with Phase 1 conditions:

- Gilman Springs Road between Alessandro Boulevard and Bridge Street; and
- Gilman Springs Road between SR-60 and Alessandro Boulevard.

~~A project-specific significant impact would occur at the following roadway segment under existing plus project conditions:~~

- ~~Cactus Avenue-Redlands Boulevard to Street D.~~

Freeway Segment Analysis. Existing (2012) with Phase 1 freeway segment levels of service for the study area are summarized in ~~Table 4.15.AF~~ Tables 4.15.AC-1 and 4.15.AC-2, which show ~~10~~ seventeen freeway segments already operate at unsatisfactory levels of service. Phase 1 of the project would contribute toward the worsening of an already unsatisfactory LOS at ~~7~~ sixteen locations and, therefore, have a cumulative impact at these locations and mitigation is required. Phase 1 of the project would create a significant impact and mitigation is required at the other location, since the project would decrease the LOS from satisfactory to unsatisfactory.

Phase 1 of the project would worsen the existing LOS deficiency at the following ~~8~~ sixteen freeway segments under existing with Phase 1 conditions:

Northbound ~~and~~or Eastbound Sections (Table 4.15.AC-1):

- SR-60 Ramona Avenue to Central Avenue;
- SR-60 Central Avenue to Mountain Avenue;
- SR-60 Euclid Avenue to Grove Avenue;
- SR-60 Grove Avenue to Vineyard Avenue;
- SR-60 Vineyard Avenue to Archibald Avenue;
- SR-60 Market Street to Main Street;
- SR-60 Martin Luther King Boulevard to Central Avenue;
- SR-91 I-15 to McKinley Street;

  - I-215 SR-74 to Redlands Avenue.
- Southbound ~~and~~or Westbound Sections (Table 4.15.AC-2):
  - SR-60 Reservoir Street to Ramona Avenue;
  - SR-60 Ramona Avenue to Central Avenue
  - SR-60 I-215 to Day Street;
  - SR-91 Pierce Street to Magnolia Avenue;
  - SR-91 Magnolia Avenue to La Sierra Avenue;
  - I-215 SR-74 to Redlands Avenue; and
  - I-215 Baseline Road to Highland Avenue.

A direct significant project impact would occur at the following ~~two freeway segments~~ one freeway segment under existing with Phase 1 conditions (Table 4.15.AC-1):

- Northbound ~~and~~or Eastbound Sections:
  - SR-91 Central Avenue to 14th Street.
- ~~Southbound and Westbound Sections:~~
  - ~~SR-60 Pigeon Pass Road/Frederick Street to Heacock Street.~~

Table 4.15.~~AA~~AB: Existing (2012) Plus Phase 1 Roadway Segment Levels of Service

					Existing Conditions			Existing Plus Phase 1 Conditions					
Roadway		From	To	LOS Standard*	Roadway Section**	Daily Volume	LOS	Roadway Section*	Daily Volume	LOS	Project Significant Impact?	Mitigation Measures Required to Reduce Project Impacts to Less-Than-Significant	LOS After Mitigation
S-1	Theodore Street (A)	SR-60 WB Ramps	Ironwood Avenue	D	2U	771	A	2U	2,709	A			
S-2	Theodore Street (A)	SR-60 EB Ramps	Fir (Eucalyptus) Ave.	D	2U	2,046	A	6D	26,532	A			
S-3	Fir (Eucalyptus) Ave.	Redlands Blvd	Theodore Street (A)	D	2U***	1,339	A	4D	2,102	A			
S-4	Eucalyptus Ave (B)	Theodore Street (A)	Gilman Springs Rd	N/A	Future Road			Future Road					
S-5	Theodore Street (A)	Fir (Eucalyptus) Ave.	Street E	D	2U	641	A	6D	27,883	A			
S-6	Street E	Theodore Street (A)	Cactus Ave Extension	D	Future Road			4U	14,240	A			
S-7	Street F	Theodore Street (A)	Alessandro Blvd (Street C)	D	Future Road			2U	2,242	A			
S-8	Theodore Street (A)	Fir (Eucalyptus) Ave.	Alessandro Blvd (Street C)	D	2U	641	A	4D	10,443	A			
S-9	Alessandro Blvd (Street E)	Merwin Street	Theodore Street (A)	D	2U	2,537	A	4U	5,761	A			
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave.	D	Future Road			4U	9,250	A			
S-11	Alessandro Blvd (Street C)	Theodore Street (A)	Street F	D	2U	1,896	A	4U	4,006	A			
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	1,896	A	4U	3,799	A			
S-14	Alessandro Blvd	Moreno Beach Drive	Redlands Blvd	D	2U	3,877	A	2U	3,367	A			
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge Street	D	2U	14,407	**F**	2U	14,970	**F**	Yes	Widen to 4 lanes	C
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	2U	11,973	**E**	2U	11,973	**E**	Yes	Widen to 4 lanes	C
S-18	Redlands Blvd	SR-60 EB Ramps	Fir (Eucalyptus) Ave.	D	2U	7,338	A	2U	9,634	C			
S-19	Redlands Blvd	Fir (Eucalyptus) Ave.	Alessandro Blvd	C	2U	6,786	A	2U	4,146	A			
S-20	Alessandro Blvd	Redlands Blvd	Merwin Street	C	2U	2,537	A	2U	565	A			
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave.	C	2U	6,786	A	2U	3,415	A			
S-22	Cactus Ave.	Redlands Blvd	Cactus Ave Extension	C	2U***	472	A	2U	9,250	C			

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.

** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways.

*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.

Indicates LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, ~~March~~ September 2014.

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Table 4.15.A~~B~~C-1: Existing (2012) Plus Phase 1 Freeway Mainline Levels of Service (Northbound/Eastbound Directions)

			Existing Conditions						Existing Plus Phase 1 Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	6,024	24.5	C	7,822	33.0	D	6,200	25.7	C	7,770	32.9	D
F-3	SR-60	Ramona Ave to Central Ave	5,687	22.8	C	9,400	47.3	F	5,880	24.0	C	9,330	47.0	F
F-4	SR-60	Central Ave to Mountain Ave	6,339	26.2	D	9,338	46.6	F	6,540	27.6	D	9,280	46.4	F
F-5	SR-60	Mountain Ave to Euclid Ave	6,205	25.4	C	6,664	26.1	D	6,410	26.9	D	6,590	26.0	D
F-6	SR-60	Euclid Ave to Grove Ave	7,650	34.7	D	9,091	43.8	E	7,860	36.7	E	9,010	43.4	E
F-7	SR-60	Grove Ave to Vineyard Ave	6,923	29.6	D	9,400	47.3	F	7,130	31.2	D	9,320	46.9	F
F-8	SR-60	Vineyard Ave to Archibald Ave	6,823	28.7	D	9,400	47.3	F	7,030	30.3	D	9,310	46.7	F
F-9	SR-60	Archibald Ave to Haven Ave	6,268	25.6	C	6,471	25.1	C	6,480	27.1	D	6,370	24.9	C
F-10	SR-60	Haven Ave to Milliken Ave	6,096	19.1	C	6,864	20.6	C	6,310	20.0	C	6,750	20.5	C
F-11	SR-60	Milliken Ave to I-15	4,234	16.5	B	4,529	16.9	B	4,430	17.6	B	4,430	16.7	B
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	2,593	10.2	A	2,910	10.8	A	2,840	11.4	B	2,770	10.5	A
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission	3,026	11.9	B	3,968	14.8	B	3,290	13.2	B	3,850	14.5	B
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	2,596	10.2	A	3,061	11.4	B	2,860	11.6	B	2,950	11.2	B
F-15	SR-60	Pedley Rd to Pyrite St	2,813	11.1	B	3,334	12.4	B	3,100	12.5	B	3,160	12.0	B
F-16	SR-60	Pyrite St to Valley Way	3,348	13.2	B	3,642	13.6	B	3,640	14.6	B	3,460	13.1	B
F-17	SR-60	Valley Way to Rubidoux Blvd	4,398	23.7	C	4,252	21.4	C	4,690	26.2	D	4,080	20.8	C
F-18	SR-60	Rubidoux Blvd to Market St	4,943	27.6	D	4,706	24.3	C	5,250	30.7	D	4,600	24.0	C
F-19	SR-60	Market St to Main St	4,498	24.4	C	7,050	47.8	F	4,800	27.0	D	6,940	47.1	F
F-20	SR-60	Main to SR-91	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-24	SR-60	Martin Luther King Blvd to Central Ave	5,865	24.6	C	8,976	45.7	F	6,280	29.7	D	8,860	48.9	F
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	4,332	16.9	B	6,795	26.6	D	4,680	18.9	C	6,750	26.9	D
F-27	SR-60	I-215 to Day St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-29	SR-60	Pigeon Pass Rd to Heacock St	2,702	21.6	C	3,713	30.2	D	3,050	26.8	D	3,770	32.6	D
F-30	SR-60	Heacock St to Perris Blvd	2,349	18.6	C	3,355	26.1	D	2,840	24.6	C	3,420	28.3	D
F-31	SR-60	Perris Blvd to Nason St	1,812	14.3	B	2,344	17.4	B	2,340	19.8	C	2,460	19.4	C
F-32	SR-60	Nason St to Moreno Beach Dr	1,619	12.8	B	2,038	15.1	B	2,070	17.7	B	2,160	17.0	B
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	1,326	10.5	A	1,397	10.4	A	1,930	16.7	B	1,660	13.5	B
F-34	SR-60	Redlands Blvd to Theodore St	1,614	12.7	B	1,920	14.2	B	2,310	19.7	C	2,260	18.0	B
F-35	SR-60	Theodore St to Gilman Springs Rd	1,521	12.0	B	1,915	14.2	B	1,480	11.8	B	1,900	14.3	B
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	1,213	11.2	B	1,484	12.3	B	1,190	11.7	B	1,590	14.4	B
F-37	SR-60	Jack Rabbit Trail to I-10	1,215	9.6	A	1,482	11.0	A	1,200	9.6	A	1,590	12.0	B
F-39	SR-91	I-15 to McKinley St	5,914	22.6	C	9,400	53.3	F	6,030	23.3	C	9,350	52.5	F
F-40	SR-91	McKinley St to Pierce St	5,382	29.1	D	5,427	31.4	D	5,510	30.4	D	5,370	31.1	D
F-41	SR-91	Pierce St to Magnolia Ave	4,888	25.5	C	4,922	27.2	D	5,020	26.8	D	4,860	26.9	D
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-43	SR-91	La Sierra Ave to Tyler St	4,585	23.5	C	4,939	27.3	D	4,700	24.6	C	4,890	27.2	D
F-44	SR-91	Tyler St to Van Buren Blvd	5,704	21.7	C	5,851	23.5	C	5,810	22.3	C	5,810	23.4	C

Table 4.15.AC-1: Existing (2012) Plus Phase 1 Freeway Mainline Levels of Service (Northbound/Eastbound Directions)

			Existing Conditions						Existing Plus Phase 1 Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-45	SR-91	Van Buren Blvd to Adam St	5,841	22.3	C	4,999	19.6	C	5,930	22.8	C	4,970	19.6	C
F-46	SR-91	Adam St to Madison St	6,531	26.1	D	4,742	18.7	C	6,620	26.7	D	4,720	18.7	C
F-47	SR-91	Madison St to Arlington Ave	5,879	22.8	C	4,530	17.9	B	5,960	23.4	C	4,510	17.9	B
F-49	SR-91	Central Ave to 14th St	6,021	34.8	D	5,391	30.8	D	6,070	35.6	E	5,400	31.2	D
F-51	SR-91	University Ave to Spruce St	7,244	22.1	C	6,394	20.0	C	7,280	22.3	C	6,410	20.2	C
F-66	I-215	Scott Rd to Newport Rd	2,739	22.0	C	3,285	25.8	C	2,700	21.8	C	3,280	25.7	C
F-68	I-215	Newport Rd to McCall Blvd	1,900	15.0	B	2,047	15.3	B	1,860	14.8	B	2,050	15.4	B
F-69	I-215	McCall Blvd to Ethanac Rd	2,457	19.5	C	3,293	25.8	C	2,400	19.1	C	3,290	25.8	C
F-70	I-215	Ethanac Rd to SR-74	3,787	34.5	D	3,150	24.4	C	3,730	33.9	D	3,160	24.5	C
F-71	I-215	SR-74 to Redlands Ave	3,350	28.5	D	4,181	37.4	E	3,290	27.9	D	4,210	37.9	E
F-74	I-215	Columbia Ave to Center St	5,587	33.5	D	5,150	27.3	D	5,550	33.1	D	5,230	27.9	D
F-75	I-215	Center St to La Cadena Dr	5,474	32.4	D	5,034	26.5	D	5,440	32.1	D	5,100	27.0	D
F-76	I-215	La Cadena Dr to Barton Rd	5,341	31.2	D	5,164	27.5	D	5,300	30.8	D	5,230	27.9	D
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,738	35.1	E	5,533	30.3	D	5,680	34.5	D	5,620	31.1	D
F-78	I-215	Mt. Vernon Ave to I-10	5,582	22.5	C	5,420	20.5	C	5,510	22.1	C	5,510	20.8	C
F-80	I-215	Auto Plaza Dr to Mill St	4,319	17.1	B	4,533	17.0	B	4,240	16.7	B	4,580	17.1	B
F-83	I-215	Baseline Rd to Highland Ave	3,023	24.8	C	3,355	26.5	D	2,970	24.2	C	3,400	27.0	D
F-52	I-10	SR-60 to Beaumont Ave	3,037	11.9	B	4,252	16.4	B	3,040	11.9	B	4,320	16.8	B
F-53	I-10	Beaumont Ave to Pennsylvania Ave	3,087	12.1	B	4,322	16.7	B	3,080	12.1	B	4,370	17.0	B
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	3,236	12.6	B	4,531	17.5	B	3,220	12.6	B	4,580	17.8	B
F-55	I-10	Highland Springs Ave to Sunset Ave	3,112	12.2	B	4,357	16.8	B	3,080	12.1	B	4,390	17.0	B
F-56	I-10	Sunset Ave to 22nd St	3,037	11.9	B	4,252	16.4	B	3,000	11.8	B	4,290	16.7	B
F-57	I-10	22nd St to 8th St	2,987	11.7	B	4,182	16.2	B	2,950	11.6	B	4,220	16.4	B
F-58	I-10	8th St to Hargrave St	2,987	11.7	B	4,182	16.2	B	2,940	11.5	B	4,210	16.3	B
F-59	I-10	Hargrave St to Fields Rd	2,689	10.5	A	3,764	14.5	B	2,640	10.4	A	3,800	14.8	B
F-60	I-10	Fields Rd to Morongo Trail	2,564	10.0	A	3,590	13.9	B	2,510	9.9	A	3,620	14.1	B
F-61	I-10	Morongo Trail to Main St	2,265	8.8	A	3,172	12.3	B	2,220	8.7	A	3,210	12.5	B
F-62	I-10	Main St to Haugen-Lehmann Way	2,265	8.8	A	3,172	12.3	B	2,220	8.7	A	3,210	12.5	B
F-64	I-10	SR-111 to Tipton Rd	1,967	7.7	A	2,753	10.6	A	1,920	7.5	A	2,780	10.8	A
F-65	I-10	Tipton Rd to SR-62	1,967	7.7	A	2,753	10.6	A	1,940	7.6	A	2,780	10.8	A

Indicates that the LOS exceeds the target level

Table 4.15.AC-2: Existing (2012) Plus Phase 1 Freeway Mainline Levels of Service (Southbound/Westbound Directions)

			Existing Conditions						Existing Plus Phase 1 Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	8,762	41.4	E	6,381	25.6	C	8,670	40.9	E	6,490	26.4	D
F-3	SR-60	Ramona Ave to Central Ave	8,283	37.1	E	5,925	23.4	C	8,170	36.5	E	6,040	24.1	C
F-4	SR-60	Central Ave to Mountain Ave	6,336	24.7	C	6,076	24.1	C	6,220	24.3	C	6,200	24.9	C
F-5	SR-60	Mountain Ave to Euclid Ave	6,259	24.4	C	6,495	26.3	D	6,150	24.0	C	6,620	27.1	D
F-6	SR-60	Euclid Ave to Grove Ave	6,461	25.4	C	6,302	25.2	C	6,350	25.0	C	6,430	26.1	D
F-7	SR-60	Grove Ave to Vineyard Ave	6,274	24.3	C	6,699	27.4	D	6,150	23.8	C	6,830	28.3	D
F-8	SR-60	Vineyard Ave to Archibald Ave	7,658	32.1	D	6,245	25.0	C	7,510	31.4	D	6,380	26.0	C
F-9	SR-60	Archibald Ave to Haven Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Milliken Ave	5,804	17.4	B	5,698	17.5	B	5,640	17.0	B	5,850	18.2	C
F-11	SR-60	Milliken Ave to I-15	5,456	20.5	C	5,111	19.5	C	5,240	19.7	C	5,270	20.4	C
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	4,490	13.4	B	4,275	13.0	B	4,300	12.9	B	4,460	13.8	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission	4,220	15.7	B	3,881	14.8	B	4,010	15.1	B	4,110	15.9	B
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	4,172	15.5	B	3,963	15.1	B	3,970	14.9	B	4,190	16.2	B
F-15	SR-60	Pedley Rd to Pyrite St	3,216	12.0	B	3,068	11.7	B	3,010	11.4	B	3,280	12.7	B
F-16	SR-60	Pyrite St to Valley Way	2,653	9.9	A	2,567	9.8	A	2,460	9.3	A	2,790	10.9	A
F-17	SR-60	Valley Way to Rubidoux Blvd	4,532	23.1	C	4,725	24.9	C	4,320	22.0	C	4,950	27.0	D
F-18	SR-60	Rubidoux Blvd to Market St	3,568	17.7	B	3,868	19.7	C	3,390	17.1	B	4,120	21.5	C
F-19	SR-60	Market St to Main St	5,631	30.9	D	5,109	27.6	D	5,440	29.8	D	5,350	30.2	D
F-20	SR-60	Main to SR-91	5,248	27.9	D	4,720	24.9	C	5,100	27.2	D	4,920	26.8	D
F-24	SR-60	Martin Luther King Blvd to Central Ave	7,050	30.6	D	5,800	24.1	C	6,910	30.9	D	6,150	28.0	D
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	7,461	31.1	D	6,376	25.6	C	7,280	30.4	D	6,740	28.4	D
F-27	SR-60	I-215 to Day St	7,050	47.9	F	3,093	15.9	B	7,020	49.1	F	3,340	18.0	B
F-29	SR-60	Pigeon Pass Rd to Heacock St	3,013	23.1	C	3,254	26.5	D	2,990	23.7	C	3,550	31.8	D
F-30	SR-60	Heacock St to Perris Blvd	2,638	19.9	C	2,671	20.8	C	2,680	21.0	C	3,040	25.8	C
F-31	SR-60	Perris Blvd to Nason St	1,910	14.3	B	2,045	15.8	B	2,030	15.9	B	2,490	20.5	C
F-32	SR-60	Nason St to Moreno Beach Dr	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	988	7.4	A	1,336	10.3	A	1,270	10.4	A	1,900	16.0	B
F-34	SR-60	Redlands Blvd to Theodore St	1,193	8.9	A	1,498	11.6	B	1,560	12.5	B	2,110	17.3	B
F-35	SR-60	Theodore St to Gilman Springs Rd	1,183	8.9	A	1,393	10.8	A	1,170	9.0	A	1,350	10.6	A
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	837	7.0	A	1,002	9.1	A	970	9.4	A	990	10.0	A
F-37	SR-60	Jack Rabbit Trail to I-10	837	6.3	A	1,002	7.7	A	970	7.4	A	990	7.8	A
F-39	SR-91	I-15 to McKinley St	6,402	25.1	C	5,971	24.1	C	6,310	24.8	C	6,080	24.8	C
F-40	SR-91	McKinley St to Pierce St	4,788	25.0	C	5,183	29.3	D	4,690	24.5	C	5,290	30.4	D
F-41	SR-91	Pierce St to Magnolia Ave	4,629	23.9	C	7,050	53.3	F	4,540	23.5	C	7,150	56.2	F
F-42	SR-91	Magnolia Ave to La Sierra Ave	4,894	25.7	C	7,050	53.3	F	4,800	25.2	C	7,140	55.9	F
F-43	SR-91	La Sierra Ave to Tyler St	4,467	22.9	C	5,167	29.2	D	4,370	22.5	C	5,260	30.2	D
F-44	SR-91	Tyler St to Van Buren Blvd	5,769	22.1	C	6,661	27.8	D	5,690	21.9	C	6,740	28.5	D

Table 4.15.A~~B~~C-2: Existing (2012) Plus Phase 1 Freeway Mainline Levels of Service (Southbound/Westbound Directions)

ID	Freeway	Segment	Existing Conditions						Existing Plus Phase 1 Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-45	SR-91	Van Buren Blvd to Adam St	5,342	20.2	C	6,401	26.3	D	5,280	20.1	C	6,490	27.0	D
F-46	SR-91	Adam St to Madison St	4,939	18.6	C	5,453	21.5	C	4,890	18.5	C	5,530	22.0	C
F-47	SR-91	Madison St to Arlington Ave	4,218	21.4	C	4,711	25.5	C	4,170	21.3	C	4,780	26.3	D
F-49	SR-91	Central Ave to 14th St	4,737	24.7	C	4,940	27.2	D	4,720	24.7	C	4,990	27.7	D
F-51	SR-91	University Ave to Spruce St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-66	I-215	Scott Rd to Newport Rd	2,294	17.2	B	2,318	17.2	B	2,280	17.1	B	2,280	17.0	B
F-68	I-215	Newport Rd to McCall Blvd	2,528	19.0	C	3,111	23.7	C	2,530	19.0	C	3,070	23.4	C
F-69	I-215	McCall Blvd to Ethanac Rd	3,069	23.6	C	2,539	18.9	C	3,070	23.6	C	2,510	18.7	C
F-70	I-215	Ethanac Rd to SR-74	2,882	21.9	C	3,854	32.0	D	2,890	22.0	C	3,850	31.9	D
F-71	I-215	SR-74 to Redlands Ave	4,539	44.2	**E**	3,710	30.1	D	4,570	44.9	**E**	3,680	29.7	D
F-74	I-215	Columbia Ave to Center St	5,191	27.6	D	4,917	25.4	C	5,260	28.4	D	4,890	25.2	C
F-75	I-215	Center St to La Cadena Dr	5,541	30.4	D	5,235	27.6	D	5,630	31.4	D	5,210	27.4	D
F-76	I-215	La Cadena Dr to Barton Rd	5,414	29.4	D	5,196	27.3	D	5,480	29.9	D	5,170	27.1	D
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,435	29.5	D	5,256	27.7	D	5,500	30.1	D	5,230	27.5	D
F-78	I-215	Mt. Vernon Ave to I-10	5,776	22.0	C	5,606	21.0	C	5,850	22.3	C	5,580	20.9	C
F-80	I-215	Auto Plaza Dr to Mill St	4,022	15.1	B	4,090	15.2	B	4,080	15.4	B	4,040	15.0	B
F-83	I-215	Baseline Rd to Highland Ave	4,537	44.1	**E**	4,700	46.7	**F**	4,590	45.3	**F**	4,650	45.6	**F**
F-52	I-10	SR-60 to Beaumont Ave	4,288	18.1	C	3,675	13.8	B	4,320	18.3	C	3,710	14.0	B
F-53	I-10	Beaumont Ave to Pennsylvania Ave	4,358	18.4	C	3,736	14.0	B	4,400	18.7	C	3,740	14.1	B
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	4,569	19.4	C	3,916	14.7	B	4,610	19.7	C	3,910	14.7	B
F-55	I-10	Highland Springs Ave to Sunset Ave	4,393	18.6	C	3,766	14.1	B	4,430	18.8	C	3,750	14.1	B
F-56	I-10	Sunset Ave to 22nd St	4,288	18.1	C	3,675	13.8	B	4,330	18.4	C	3,660	13.8	B
F-57	I-10	22nd St to 8th St	4,218	17.8	B	3,615	13.5	B	4,260	18.1	C	3,600	13.5	B
F-58	I-10	8th St to Hargrave St	4,218	17.8	B	3,615	13.5	B	4,250	18.1	C	3,590	13.5	B
F-59	I-10	Hargrave St to Fields Rd	3,796	16.0	B	3,254	12.2	B	3,830	16.3	B	3,220	12.1	B
F-60	I-10	Fields Rd to Morongo Trail	3,620	15.3	B	3,103	11.6	B	3,660	15.5	B	3,070	11.6	B
F-61	I-10	Morongo Trail to Main St	3,198	13.5	B	2,741	10.3	A	3,240	13.8	B	2,710	10.2	A
F-62	I-10	Main St to Haugen-Lehmann Way	3,198	13.5	B	2,741	10.3	A	3,240	13.8	B	2,710	10.2	A
F-64	I-10	SR-111 to Tipton Rd	2,777	11.7	B	2,380	8.9	A	2,810	11.9	B	2,360	8.9	A
F-65	I-10	Tipton Rd to SR-62	2,777	11.7	B	2,380	8.9	A	2,810	11.9	B	2,360	8.9	A

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Freeway Weaving Analysis. Existing (2012) with Phase 1 freeway weaving segment levels of service for the study area are summarized in Table 4.15.A~~C~~D, which shows that ~~eight~~ sixfreeway weaving segments would operate at unsatisfactory levels of service. Phase 1 of the project would contribute toward the worsening of an already unsatisfactory LOS at these six freeway weaving segments and, therefore, would have a cumulative impact at these locations.

Phase 1 of the project would worsen the existing LOS deficiency at the following six freeway weaving segments under existing with Phase 1 conditions:

- Northbound ~~and~~or Eastbound:
  - ~~o~~ SR-60 SR-71/S. Garey Avenue to S. Reservoir Road;
  - o SR-60 SR-91 to W. Blaine St/3rd Street;
  - o SR-60 Blaine Street/3rd Street to University Avenue; and
  - o SR-91 Arlington Avenue to Central Avenue.
- Southbound ~~and~~or Westbound:
  - o SR-60 Central Avenue to Fair Isle Drive/Box Springs Road; and
  - o SR-91 14th Street to University Avenue.

~~A project-specific significant impact would occur at the following freeway weaving segment under existing with project conditions:~~

~~• Northbound and Eastbound:~~

~~o SR-60 from Central Avenue to Fair Isle Drive/Box Springs Road.~~

Table 4.15.A~~C~~D: Existing (2012) Plus Phase 1 Freeway Weaving Segments Levels of Service

ID	Freeway	Weaving Segment	Existing Conditions						Existing Plus Phase 1 Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	5,985	24.0	C	8,616	35.7	**E**	6,160	25.1	C	8,550	35.5	**E**
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-20	SR-60	Main St to SR-91	5,418	25.8	C	7,050	33.6	D	5,690	27.7	C	6,970	33.6	D
W-21	SR-60	SR-91 to Blaine St/3rd St	3,885	14.8	B	9,400	39.0	**E**	4,280	16.9	B	9,330	39.0	**E**
W-22	SR-60	Blaine St/3rd St to University Ave	3,919	18.7	B	7,050	37.4	**E**	4,260	22.5	C	6,980	38.4	**E**
W-23	SR-60	University Ave to Martin Luther King	4,528	20.4	C	5,932	25.7	C	4,890	22.9	C	5,830	25.7	C
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	3,856	14.5	B	7,840	32.4	D	4,330	18.0	B	7,830	33.8	D
W-27	SR-60	I-215 to Day St	2,988	10.6	B	4,704	18.8	B	3,480	14.9	B	4,770	19.8	B
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	2,995	12.8	B	4,749	20.7	C	3,400	15.1	B	4,740	21.1	C
W-32	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-42	SR-91	Magnolia Ave to La Sierra Ave	5,445	24.6	C	5,684	27.4	C	5,560	25.3	C	5,630	27.2	C
W-48	SR-91	Arlington Ave to Central Ave	7,050	35.3	**E**	4,073	19.6	B	7,150	36.2	**E**	4,080	19.8	B
W-50	SR-91	14th St to University Ave	4,643	21.8	C	4,441	21.9	C	4,670	22.1	C	4,450	22.1	C
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-73	I-215	SR-60 to Columbia Ave	6,260	34.4	D	5,548	28.0	C	6,240	34.3	D	5,610	28.5	D
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	4,400	16.3	B	4,147	14.5	B	4,320	16.1	B	4,200	15.0	B
W-81	I-215	Mill St to 2nd St	5,044	23.0	C	5,095	22.5	C	4,970	22.6	C	5,140	22.7	C
W-82	I-215	5th St to Baseline Rd	3,754	16.5	B	3,590	14.9	B	3,700	16.2	B	3,640	15.2	B
W-63	I-10	Haugen-Lehmann Way to SR-111	2,265	7.5	A	3,172	10.5	B	2,220	7.4	A	3,210	10.7	B

Indicates that the LOS exceeds the target level

ID	Freeway	Weaving Segment	Existing Conditions						Existing Plus Phase 1 Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	6,125	21.4	C	5,892	20.8	C	6,020	21.1	C	6,000	21.4	C
W-9	SR-60	Haven Ave to Archibald Ave	6,288	23.5	C	6,071	23.5	C	6,130	23.0	C	6,210	24.4	C
W-20	SR-60	Main St to SR-91	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	7,729	28.6	D	7,211	27.2	C	7,520	28.1	D	7,530	29.2	D
W-22	SR-60	Blaine St/3rd St to University Ave	5,714	20.1	C	6,204	23.0	C	5,520	20.2	C	6,550	25.9	C
W-23	SR-60	University Ave to Martin Luther King	5,601	28.0	C	5,876	28.0	C	5,430	27.4	C	6,200	31.0	D
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	7,050	37.0	**E**	6,026	29.3	D	6,940	37.7	**E**	6,300	32.6	D
W-27	SR-60	I-215 to Day St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	4,700	31.0	D	4,197	27.2	C	4,630	30.2	D	4,520	30.6	D
W-32	SR-60	Moreno Beach Dr to Nason St	1,609	9.2	A	1,753	10.2	B	1,780	10.7	B	2,170	13.5	B
W-42	SR-91	Magnolia Ave to La Sierra Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	4,642	21.1	C	5,118	23.8	C	4,570	20.8	C	5,190	24.4	C
W-50	SR-91	14th St to University Ave	5,179	24.1	C	7,050	35.5	**E**	5,210	24.4	C	7,070	35.9	**E**
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	5,075	14.4	B	8,804	26.9	C	5,100	14.6	B	8,820	27.1	C
W-73	I-215	SR-60 to Columbia Ave	5,877	26.4	C	5,495	24.5	C	5,950	26.9	C	5,460	24.4	C
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	4,890	16.8	B	4,591	16.3	B	4,940	17.0	B	4,530	16.2	B
W-81	I-215	Mill St to 2nd St	4,442	19.6	B	4,380	19.4	B	4,500	19.9	B	4,330	19.1	B
W-82	I-215	5th St to Baseline Rd	3,607	15.6	B	3,481	15.1	B	3,660	15.9	B	3,440	14.9	B
W-63	I-10	Haugen-Lehmann Way to SR-111	3,198	11.8	B	2,741	10.3	B	3,240	12.0	B	2,710	10.1	B

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Freeway Ramp Analysis. Existing (2012) with Phase 1 ~~project~~ freeway ramp levels of service for the study area are summarized in Table 4.15.A~~H~~E, which shows the SR-60 eastbound on-ramp from Central Avenue currently operates at LOS F in the p.m. peak hour and would also operate at LOS F under Existing Plus ~~Project~~ Phase 1 conditions, but with a higher traffic density. This would be considered a significant cumulative impact.

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Table 4.15.~~AD~~E: Existing (2012) Plus Phase 1 Freeway Ramp Levels of Service

				Existing Conditions								Existing Plus Phase 1 Conditions							
				AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	4,110	242	16.9	B	5,678	906	26.5	C	4,460	290	19.1	B	5,560	1,290	29.6	D
R-2	SR-60 EB	On-Ramp from Central Ave	1	5,796	349	18.5	B	8,868	904	31.8	F	6,190	440	21.1	C	8,740	930	32.0	F
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	1	1,326	119	3.3	A	1,397	30	3.2	A	1,930	350	10.8	B	1,660	440	6.9	A
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	1	1,207	26	12.9	B	1,367	25	13.6	B	1,580	80	17.9	B	1,220	90	13.9	B
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario			
R-6	SR-60 EB	Off-Ramp to Theodore St	1	1,614	207	17.3	B	1,920	434	19.1	B	2,310	940	16.1	B	2,260	580	14.8	B
R-7	SR-60 EB	Loop On-Ramp from Theodore St	1	1,407	70	16.5	B	1,486	71	16.5	B	1,370	10	16.7	B	1,680	20	18.6	B
R-8	SR-60 EB	Direct On-Ramp from Theodore St	1	Does not Exist in this Scenario				Does not Exist in this Scenario				1,360	90	17.3	B	1,660	200	20.1	C
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	1	1,521	330	16.4	B	1,915	385	19.0	B	1,480	380	16.1	B	1,900	410	19.2	B
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	1	1,191	7	14.2	B	1,530	8	16.3	B	1,100	20	13.6	B	1,490	37	16.4	B
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	1	837	11	9.6	A	1,002	9	11.3	B	970	59	11.0	B	990	21	11.4	B
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	1	826	357	13.5	B	993	306	14.6	B	911	384	14.7	B	969	397	15.6	B
R-13	SR-60 WB	Off-Ramp to Theodore St	1	1,183	24	12.7	B	1,393	26	14.9	B	1,170	190	7.4	A	1,350	70	8.7	A
R-14	SR-60 WB	On-Ramp from Theodore St	1	1,159	34	12.1	B	1,367	131	14.8	B	980	560	15.9	B	1,280	800	20.7	C
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	1	1,193	49	12.8	B	1,498	38	15.9	B	1,560	90	17.1	B	2,110	50	22.8	C
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	1	1,144	329	14.3	B	1,460	361	17.4	B	1,470	340	18.0	B	2,060	550	25.3	C
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario			
R-18	SR-60 WB	Off-Ramp to Central Ave	2	7,050	384	32.6	D	6,026	439	28.5	D	6,940	390	32.6	D	6,300	440	30.4	D
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	1	7,050	474	21.0	C	5,800	337	15.9	B	6,910	490	20.9	C	6,150	350	17.9	B

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

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4.15.6.2 Year 2017 With Project Conditions Traffic and Level of Service Impacts

Note: This scenario was evaluated in the original Draft EIR but project phasing has changed since that time, so it is not included in this version of the Draft EIR. The reader is referred to the original Draft EIR to review this previous analysis.

The following analysis was added in response to comments based on revisions to the project Traffic Impact Assessment (TIA) and the phasing of the proposed WLC Specific Plan. It has been prepared to address issues raised by other CEQA court cases that required an EIR to show the traffic impacts of developing the entire proposed project at the time of baseline or existing conditions. The following provides that analysis.

4.15.6.2 Existing (2012) With Project (Buildout) Conditions Traffic and Level of Service

Threshold: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit.

A significant project-specific traffic impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the pre-project condition. The adopted LOS standards are as follows:

- Roadway segments: LOS C and LOS D as outlined in previously referenced Tables 4.15.B and 4.15.C.
- Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.Z.
- Freeway mainline: LOS D.
- Freeway Ramp Merge/Diverge: LOS D.

Impacts

Intersection Analysis. Existing baseline (2012) with project buildout intersection levels of service for the study area intersections are summarized in Table 4.15.AF-1 and 4.15.AF-2, which shows there are 17 study intersections where the project would contribute to a significant impact and mitigation is required. Twelve of these intersections already exceed the threshold of significance under existing conditions and would therefore be considered cumulative impacts. The project would cause a direct project impact at another five intersections.

The project would worsen the existing LOS deficiency at the following 12 intersections under existing with project conditions:

- Redlands Boulevard/Locust Avenue;
- Redlands Boulevard/SR-60 Westbound Ramps;
- Oliver Street/Alessandro Boulevard;
- Moreno Beach Drive/SR-60 Eastbound Ramps;

- Lasselle Street/Cactus Avenue;
- Alessandro Boulevard/Chicago Avenue;
- Gilman Springs Road/Bridge Street;
- SR-79 (Sanderson Avenue) Northbound/Gilman Springs Road;
- SR-79 (Sanderson Avenue) Southbound/Gilman Springs Road;
- San Timoteo Canyon Road/Alessandro Road;
- San Timoteo Canyon Road/Live Oak Canyon Road; and
- Redlands Boulevard/San Timoteo Canyon Road.

Table 4.15.AF-1: Existing (2012) plus Project Intersection Levels of Service (A.M. Peak Hour) (new table)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
1	Theodore St/Street F	D	N/A	Non-Existent		RABT	26.3	C
2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		SIGNAL	10.3	B
3	Theodore St/Alessandro Blvd (Str A/Str C/Str E)	D	CSS	9.7	A	RABT	11.3	B
4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		RABT	7.2	A
6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	CSS	10.3	B	SIGNAL	17.9	B
9	Gilman Springs Rd/ Eucalyptus Ave	D	N/A	Non-Existent		SIGNAL	6.4	A
10	Redlands Blvd/Locust Ave	C	CSS	26.7	**D**	CSS	92.2	**F**
11	Redlands Blvd/Ironwood Ave	D	SIGNAL	40.9	D	SIGNAL	36.0	D
12	Theodore Street/Ironwood Avenue	D	CSS	9.7	A	CSS	16.4	C
13	Redlands Blvd/SR-60 WB ramps	D	CSS	42.2	**E**	CSS	48.0	**E**
14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	9.6	A	SIGNAL	18.0	B
15	Theodore Str/SR-60 WB ramps	D	CSS	9.0	A	SIGNAL	15.2	B
16	Theodore Str/SR-60 EB ramps	D	CSS	9.2	A	SIGNAL	2.3	A
17	Quincy Str/Fir Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
18	Redlands Blvd/Eucalyptus Ave (Fir)	D	N/A	Non-Existent		SIGNAL	18.3	B
19	Theodore St/Fir Ave (Eucalyptus)	D	CSS	9.2	A	SIGNAL	14.7	B
20	Oliver Str/Alessandro Blvd	C	CSS	25.9	**D**	CSS	69.7	**F**
21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	24.0	C	SIGNAL	30.0	C
22	Quincy Str/Alessandro Blvd	N/A	N/A	Non-Existent		N/A	Non-Existent	
23	Redlands Blvd/Alessandro Blvd	C	AWS	20.5	C	AWS	21.7	C
24	Oliver Str/Cactus Ave	D	SIGNAL	23.8	C	SIGNAL	28.2	C
25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	16.0	B	SIGNAL	18.2	B
26	Quincy Str/Cactus Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
27	Redlands Blvd/Cactus Ave	C	AWS	11.4	B	AWS	106.3	**F**
28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	16.2	B	SIGNAL	22.1	C
29	Heacock Str/Ironwood Ave	D	SIGNAL	29.6	C	SIGNAL	29.9	C
30	Heacock Str/SR-60 WB Ramps	D	SIGNAL	22.6	C	SIGNAL	23.8	C
31	Heacock St/SR-60 EB Ramps	D	SIGNAL	12.5	B	SIGNAL	13.9	B
32	Sunnymead Blvd & Perris Blvd	D	SIGNAL	29.4	C	SIGNAL	30.7	C
33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	22.0	C	SIGNAL	25.1	C

Table 4.15.AF-1: Existing (2012) plus Project Intersection Levels of Service (A.M. Peak Hour) (new table)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	22.8	C	SIGNAL	23.7	C
35	Moreno Beach Dr/Locust Ave	C	CSS	8.6	A	CSS	8.9	A
36	Moreno Beach Drive & Ironwood Avenue	D	SIGNAL	50.3	D	SIGNAL	55.8	**E**
37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	38.0	D	SIGNAL	46.0	D
38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	37.0	D	SIGNAL	37.8	D
39	Iris Ave/Perris Blvd	D	SIGNAL	41.5	D	SIGNAL	45.3	D
40	Kitching St/Iris Ave	C	SIGNAL	23.4	C	SIGNAL	25.1	C
41	Lasselle Str/Iris Ave	D	SIGNAL	25.4	C	SIGNAL	30.9	C
42	Nason Str/Iris Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
43	Oliver Str/Iris Ave	D	SIGNAL	22.1	C	SIGNAL	25.7	C
44	Via Dell Lago/Iris Ave	C	SIGNAL	6.7	A	SIGNAL	8.7	A
45	Krameria Ave/Perris Blvd	D	SIGNAL	34.6	C	SIGNAL	36.0	D
46	Kitching Str/Krameria Ave	D	SIGNAL	21.7	C	SIGNAL	48.5	D
47	Lasselle Str/Krameria Ave	D	SIGNAL	37.9	D	SIGNAL	42.8	D
48	Kitching Str/Alessandro Blvd	D	SIGNAL	28.8	C	SIGNAL	29.7	C
49	Lasselle Str/Alessandro Blvd	D	SIGNAL	31.7	C	SIGNAL	32.4	C
50	Morrison Str/Alessandro Blvd	D	SIGNAL	8.8	A	SIGNAL	8.7	A
51	Nason Str/Alessandro Blvd	D	SIGNAL	20.5	C	SIGNAL	21.4	C
52	Kitching Str/Cactus Ave	C	SIGNAL	33.3	C	SIGNAL	34.2	C
53	Lasselle Str/Cactus Ave	C	SIGNAL	47.2	**D**	SIGNAL	49.2	**D**
54	Morrison Str/Cactus Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
55	Nason Str/Cactus Ave	D	SIGNAL	22.5	C	SIGNAL	22.4	C
56	Frederick Str/Alessandro Blvd	D	SIGNAL	19.5	B	SIGNAL	19.5	B
57	Graham Str/Alessandro Blvd	D	SIGNAL	19.8	B	SIGNAL	20.2	C
58	Heacock Str/Alessandro Blvd	D	SIGNAL	25.8	C	SIGNAL	26.5	C
59	Indian Str/Alessandro Blvd	D	SIGNAL	17.6	B	SIGNAL	19.2	B
60	Perris Blvd/Alessandro Blvd	D	SIGNAL	32.4	C	SIGNAL	33.9	C
61	Frederick Str/Cactus Ave	D	SIGNAL	9.8	A	SIGNAL	10.3	B
62	Graham Str/Cactus Ave	D	SIGNAL	12.9	B	SIGNAL	13.6	B
63	Heacock Str/Cactus Ave	D	SIGNAL	30.1	C	SIGNAL	30.8	C

Table 4.15.AF-1: Existing (2012) plus Project Intersection Levels of Service (A.M. Peak Hour) (new table)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
64	Indian Str/Cactus Ave	C	SIGNAL	24.4	C	SIGNAL	25.4	C
65	Perris Blvd/Cactus Ave	D	SIGNAL	26.9	C	SIGNAL	26.6	C
66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	25.8	C	SIGNAL	25.9	C
67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	6.4	A	SIGNAL	6.7	A
68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	19.4	B	SIGNAL	19.7	B
69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	18.2	B	SIGNAL	18.2	B
70	Day Str/Alessandro Blvd	D	SIGNAL	4.6	A	SIGNAL	6.1	A
71	Elsworth Str/Alessandro Blvd	D	SIGNAL	19.2	B	SIGNAL	19.5	B
72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	12.1	B	SIGNAL	18.8	B
73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	11.1	B	SIGNAL	10.2	B
74	Elsworth Str/Cactus Ave	D	SIGNAL	26.7	C	SIGNAL	30.5	C
75	Central Ave/Lochmoor Dr.	D	SIGNAL	10.9	B	SIGNAL	11.6	B
76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	22.2	C	SIGNAL	24.3	C
77	SR-60 EB Ramps/Central Ave	D	SIGNAL	7.3	A	SIGNAL	8.3	A
78	SR-60 WB Ramps/Central Ave	D	SIGNAL	6.8	A	SIGNAL	7.3	A
79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	28.4	C	SIGNAL	29.1	C
80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	18.8	B	SIGNAL	20.8	C
81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	43.2	D	SIGNAL	43.6	D
82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	9.0	A	SIGNAL	9.2	A
83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	43.2	D	SIGNAL	47.5	D
84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	8.6	A	SIGNAL	8.9	A
85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	24.3	C	AWS	27.4	D
86	Central Ave/Chicago Ave	D	SIGNAL	23.4	C	SIGNAL	25.0	C
87	Central Ave/El Cerrito Dr	D	SIGNAL	11.7	B	SIGNAL	12.8	B
88	Central Ave/Canyon Crest Dr	D	SIGNAL	27.8	C	SIGNAL	28.9	C
89	Chicago Ave/Country Club Dr	D	SIGNAL	6.3	A	SIGNAL	6.8	A
90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	31.3	C	SIGNAL	31.9	C
91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	21.0	C	SIGNAL	21.1	C
92	Arlington Ave/Maude St	D	SIGNAL	13.8	B	SIGNAL	14.1	B
93	Horace St/Arlington Ave	D	SIGNAL	12.3	B	SIGNAL	13.0	B

Table 4.15.AF-1: Existing (2012) plus Project Intersection Levels of Service (A.M. Peak Hour) (new table)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
94	Arlington Ave/Victoria Ave	D	SIGNAL	54.8	D	SIGNAL	56.2	**E**
95	Alessandro Blvd/Chicago Ave	D	SIGNAL	40.7	D	SIGNAL	45.0	D
96	Alessandro Blvd/Century Ave	D	SIGNAL	16.7	B	SIGNAL	17.8	B
97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	30.7	C	SIGNAL	30.5	C
98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	20.4	C	SIGNAL	25.2	C
99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	15.4	B	SIGNAL	16.6	B
100	Harley Knox Blvd/Evan Rd	N/A	N/A	Non-Existent		N/A	Non-Existent	
101	Ramona Expy/Indian St	E	SIGNAL	3.9	A	SIGNAL	5.0	A
102	Ramona Expy/Perris Blvd	E	SIGNAL	31.7	C	SIGNAL	33.1	C
103	Ramona Expy/Evans Rd	E	SIGNAL	54.5	D	SIGNAL	63.5	E
104	Perris Blvd/Morgan St	D	SIGNAL	11.9	B	SIGNAL	13.4	B
105	Evans Rd/Morgan St	C	SIGNAL	32.5	C	SIGNAL	32.5	C
106	Perris Blvd/Rider St	C	SIGNAL	24.5	C	SIGNAL	24.3	C
107	Evans Rd/Rider St	C	SIGNAL	34.2	C	SIGNAL	34.2	C
108	Perris Blvd/Mid-County Pkwy WB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
109	Perris Blvd/Mid-County Pkwy EB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
110	Evans Rd/Mid-County Pkwy WB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
111	Evans Rd/Mid-County Pkwy EB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
112	Placentia Ave/Perris Blvd	D	SIGNAL	30.1	C	SIGNAL	29.6	C
113	Evans Rd/Placentia Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
114	Evans Rd/Orange Ave	C	AWS	12.5	B	AWS	13.6	B
115	Evans Rd/Nuevo Rd	C	SIGNAL	23.3	C	SIGNAL	23.5	C
116	Evans Rd/Ellis Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
117	Ellis Ave/I-215 SB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
118	Ellis Ave/SR-215 NB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
119	Evans Rd/San Jacinto Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
120	Park Center Blvd/Ramona Expy WB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
121	Park Center Blvd/Ramona Expy EB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
122	Bridge St/Ramona Expy	C	CSS	22.4	C	CSS	29.5	**D**
123	Gilman Springs Rd/Bridge Str	C	CSS	26.6	**D**	CSS	49.6	**E**

Table 4.15.AF-1: Existing (2012) plus Project Intersection Levels of Service (A.M. Peak Hour) (new table)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	34.7	**D**	CSS	65.5	**F**
125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	29.2	**D**	CSS	40.6	**E**
126	Ramona Expy/Sanderson Ave	D	SIGNAL	27.1	C	SIGNAL	28.6	C
127	Potrero Blvd/SR-60 WB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
128	Potrero Blvd/SR-60 EB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
129	W 6th St/California Ave	C	AWS	13.5	B	AWS	20.9	C
130	W 6th St/Beaumont Ave	C	SIGNAL	13.2	B	SIGNAL	12.7	B
131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	9.4	A	SIGNAL	21.2	C
132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	77.2	**F**	AWS	> 180.0	**F**
133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	50.9	**F**	AWS	135.6	**F**
134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	81.8	**F**	AWS	174.1	**F**
135	W Crescent Ave/Alessandro Rd	C	CSS	14.0	B	CSS	18.5	C
136	W Sunset Dr/Alessandro Rd	C	AWS	8.9	A	AWS	10.1	B

denotes LOS exceeding the target threshold

Notes: "CSS" means cross-street is stop-controlled "NB" and "SB" denote northbound and southbound respectively "RABT" means roundabout
"AWS" means all-way stop "EB" and "WB" denote eastbound and westbound respectively
"LT" and "RT" denote left turn and right turn respectively

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.AF-2: Existing (2012) plus Project Intersection Levels of Service (P.M. Peak Hour) (new table)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
1	Theodore St/Street F	D	N/A	Non-Existent		RABT	53.5	D
2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		SIGNAL	14.2	B
3	Theodore St/Alessandro Blvd (Str A/Str C/Str E)	D	CSS	10.1	B	RABT	11.0	B
4	Street C/Street F	D	N/A	Non-Existent		RABT	6.9	A
6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	CSS	15.7	C	SIGNAL	28.4	C
9	Gilman Springs Rd/ Eucalyptus Ave	D	N/A	Non-Existent		SIGNAL	6.3	A
10	Redlands Blvd/Locust Ave	C	CSS	42.8	**E**	CSS	> 180.0	**F**
11	Redlands Blvd/Ironwood Ave	D	SIGNAL	37.3	D	SIGNAL	34.8	C

Table 4.15.AF-2: Existing (2012) plus Project Intersection Levels of Service (P.M. Peak Hour) (new table)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
12	Theodore Street/Ironwood Avenue	D	CSS	9.8	A	CSS	28.7	D
13	Redlands Blvd/SR-60 WB ramps	D	CSS	54.0	**F**	CSS	> 180.0	**F**
14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	14.4	B	SIGNAL	49.0	D
15	Theodore Str/SR-60 WB ramps	D	CSS	9.6	A	SIGNAL	13.0	B
16	Theodore Str/SR-60 EB ramps	D	CSS	9.4	A	SIGNAL	1.4	A
17	Quincy Str/Fir Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
18	Redlands Blvd/Eucalyptus Ave (Fir)	D	N/A	Non-Existent		SIGNAL	14.4	B
19	Theodore St/Fir Ave (Eucalyptus)	D	CSS	9.8	A	SIGNAL	18.5	B
20	Oliver Str/Alessandro Blvd	C	CSS	14.7	B	CSS	20.2	C
21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	28.2	C	SIGNAL	41.6	D
22	Quincy Str/Alessandro Blvd	N/A	N/A	Non-Existent		N/A	Non-Existent	
23	Redlands Blvd/Alessandro Blvd	C	AWS	13.8	B	AWS	19.3	C
24	Oliver Str/Cactus Ave	D	SIGNAL	17.3	B	SIGNAL	18.3	B
25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	17.0	B	SIGNAL	19.5	B
26	Quincy Str/Cactus Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
27	Redlands Blvd/Cactus Ave	C	AWS	8.2	A	AWS	102.7	**F**
28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	13.8	B	SIGNAL	105.1	**F**
29	Heacock Str/Ironwood Ave	D	SIGNAL	31.9	C	SIGNAL	32.3	C
30	Heacock Str/SR-60 WB Ramps	D	SIGNAL	21.5	C	SIGNAL	22.1	C
31	Heacock St/SR-60 EB Ramps	D	SIGNAL	15.9	B	SIGNAL	16.2	B
32	Sunnymead Blvd & Perris Blvd	D	SIGNAL	36.0	D	SIGNAL	36.3	D
33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	19.7	B	SIGNAL	22.3	C
34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	23.4	C	SIGNAL	23.8	C
35	Moreno Beach Dr/Locust Ave	C	CSS	8.6	A	CSS	9.1	A
36	Moreno Beach Drive & Ironwood Avenue	D	SIGNAL	40.0	D	SIGNAL	43.8	D
37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	76.6	**E**	SIGNAL	98.8	**F**
38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	31.2	C	SIGNAL	32.3	C
39	Iris Ave/Perris Blvd	D	SIGNAL	36.5	D	SIGNAL	37.1	D
40	Kitching St/Iris Ave	C	SIGNAL	17.5	B	SIGNAL	27.9	C
41	Lasselle Str/Iris Ave	D	SIGNAL	26.6	C	SIGNAL	31.3	C

Table 4.15.AF-2: Existing (2012) plus Project Intersection Levels of Service (P.M. Peak Hour) (new table)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
42	Nason Str/Iris Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
43	Oliver Str/Iris Ave	D	SIGNAL	15.8	B	SIGNAL	18.1	B
44	Via Dell Lago/Iris Ave	C	SIGNAL	6.5	A	SIGNAL	7.3	A
45	Krameria Ave/Perris Blvd	D	SIGNAL	29.3	C	SIGNAL	35.4	D
46	Kitching Str/Krameria Ave	D	SIGNAL	19.4	B	SIGNAL	22.5	C
47	Lasselle Str/Krameria Ave	D	SIGNAL	13.5	B	SIGNAL	13.7	B
48	Kitching Str/Alessandro Blvd	D	SIGNAL	24.7	C	SIGNAL	25.6	C
49	Lasselle Str/Alessandro Blvd	D	SIGNAL	26.6	C	SIGNAL	29.5	C
50	Morrison Str/Alessandro Blvd	D	SIGNAL	7.8	A	SIGNAL	8.2	A
51	Nason Str/Alessandro Blvd	D	SIGNAL	16.9	B	SIGNAL	18.7	B
52	Kitching Str/Cactus Ave	C	SIGNAL	22.6	C	SIGNAL	22.4	C
53	Lasselle Str/Cactus Ave	C	SIGNAL	38.6	**D**	SIGNAL	38.5	**D**
54	Morrison Str/Cactus Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
55	Nason Str/Cactus Ave	D	SIGNAL	21.0	C	SIGNAL	22.7	C
56	Frederick Str/Alessandro Blvd	D	SIGNAL	25.6	C	SIGNAL	25.9	C
57	Graham Str/Alessandro Blvd	D	SIGNAL	24.2	C	SIGNAL	26.2	C
58	Heacock Str/Alessandro Blvd	D	SIGNAL	23.6	C	SIGNAL	23.8	C
59	Indian Str/Alessandro Blvd	D	SIGNAL	27.9	C	SIGNAL	28.2	C
60	Perris Blvd/Alessandro Blvd	D	SIGNAL	42.3	D	SIGNAL	45.9	D
61	Frederick Str/Cactus Ave	D	SIGNAL	11.7	B	SIGNAL	13.7	B
62	Graham Str/Cactus Ave	D	SIGNAL	17.4	B	SIGNAL	18.3	B
63	Heacock Str/Cactus Ave	D	SIGNAL	20.3	C	SIGNAL	22.5	C
64	Indian Str/Cactus Ave	C	SIGNAL	19.6	B	SIGNAL	19.6	B
65	Perris Blvd/Cactus Ave	D	SIGNAL	30.7	C	SIGNAL	30.7	C
66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	18.0	B	SIGNAL	18.2	B
67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	12.6	B	SIGNAL	12.6	B
68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	24.1	C	SIGNAL	25.2	C
69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	18.6	B	SIGNAL	21.2	C
70	Day Str/Alessandro Blvd	D	SIGNAL	8.2	A	SIGNAL	10.3	B
71	Elsworth Str/Alessandro Blvd	D	SIGNAL	27.6	C	SIGNAL	29.3	C

Table 4.15.AF-2: Existing (2012) plus Project Intersection Levels of Service (P.M. Peak Hour) (new table)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	19.7	B	SIGNAL	39.0	D
73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	3.7	A	SIGNAL	4.2	A
74	Elsworth Str/Cactus Ave	D	SIGNAL	29.5	C	SIGNAL	29.6	C
75	Central Ave/Lochmoor Dr.	D	SIGNAL	6.7	A	SIGNAL	7.9	A
76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	17.6	B	SIGNAL	19.0	B
77	SR-60 EB Ramps/Central Ave	D	SIGNAL	10.3	B	SIGNAL	10.9	B
78	SR-60 WB Ramps/Central Ave	D	SIGNAL	8.2	A	SIGNAL	8.3	A
79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	14.8	B	SIGNAL	14.7	B
80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	34.9	C	SIGNAL	40.5	D
81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	36.5	D	SIGNAL	38.7	D
82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	13.0	B	SIGNAL	13.5	B
83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	28.0	C	SIGNAL	29.2	C
84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	4.7	A	SIGNAL	5.6	A
85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	12.2	B	AWS	13.4	B
86	Central Ave/Chicago Ave	D	SIGNAL	23.1	C	SIGNAL	27.5	C
87	Central Ave/El Cerrito Dr	D	SIGNAL	12.0	B	SIGNAL	12.6	B
88	Central Ave/Canyon Crest Dr	D	SIGNAL	35.2	D	SIGNAL	36.7	D
89	Chicago Ave/Country Club Dr	D	SIGNAL	4.9	A	SIGNAL	4.9	A
90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	30.7	C	SIGNAL	30.8	C
91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	20.8	C	SIGNAL	20.9	C
92	Arlington Ave/Maude St	D	SIGNAL	11.1	B	SIGNAL	11.6	B
93	Horace St/Arlington Ave	D	SIGNAL	7.2	A	SIGNAL	7.6	A
94	Arlington Ave/Victoria Ave	D	SIGNAL	30.9	C	SIGNAL	33.2	C
95	Alessandro Blvd/Chicago Ave	D	SIGNAL	65.9	**E**	SIGNAL	70.0	**E**
96	Alessandro Blvd/Century Ave	D	SIGNAL	7.6	A	SIGNAL	8.7	A
97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	18.9	B	SIGNAL	18.6	B
98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	17.9	B	SIGNAL	17.7	B
99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	15.1	B	SIGNAL	15.4	B
100	Harley Knox Blvd/Evan Rd	N/A	N/A	Non-Existent		N/A	Non-Existent	
101	Ramona Expy/Indian St	E	SIGNAL	7.8	A	SIGNAL	12.5	B

Table 4.15.AF-2: Existing (2012) plus Project Intersection Levels of Service (P.M. Peak Hour) (new table)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
102	Ramona Expy/Perris Blvd	E	SIGNAL	34.6	C	SIGNAL	35.0	D
103	Ramona Expy/Evans Rd	E	SIGNAL	28.8	C	SIGNAL	28.8	C
104	Perris Blvd/Morgan St	D	SIGNAL	6.7	A	SIGNAL	8.6	A
105	Evans Rd/Morgan St	C	SIGNAL	20.6	C	SIGNAL	20.2	C
106	Perris Blvd/Rider St	C	SIGNAL	23.0	C	SIGNAL	26.5	C
107	Evans Rd/Rider St	C	SIGNAL	28.3	C	SIGNAL	27.6	C
108	Perris Blvd/Mid-County Pkwy WB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
109	Perris Blvd/Mid-County Pkwy EB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
110	Evans Rd/Mid-County Pkwy WB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
111	Evans Rd/Mid-County Pkwy EB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
112	Placentia Ave/Perris Blvd	D	SIGNAL	14.0	B	SIGNAL	14.9	B
113	Evans Rd/Placentia Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
114	Evans Rd/Orange Ave	C	AWS	10.1	B	AWS	10.7	B
115	Evans Rd/Nuevo Rd	C	SIGNAL	22.6	C	SIGNAL	22.6	C
116	Evans Rd/Ellis Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
117	Ellis Ave/I-215 SB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
118	Ellis Ave/SR-215 NB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
119	Evans Rd/San Jacinto Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
120	Park Center Blvd/Ramona Expy WB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
121	Park Center Blvd/Ramona Expy EB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
122	Bridge St/Ramona Expy	C	CSS	20.6	C	CSS	27.3	**D**
123	Gilman Springs Rd/Bridge Str	C	CSS	20.8	C	CSS	25.1	**D**
124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	30.7	**D**	CSS	48.8	**E**
125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	48.2	**E**	CSS	70.4	**F**
126	Ramona Expy/Sanderson Ave	D	SIGNAL	20.8	C	SIGNAL	21.1	C
127	Potrero Blvd/SR-60 WB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
128	Potrero Blvd/SR-60 EB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
129	W 6th St/California Ave	C	AWS	18.0	C	AWS	20.9	C
130	W 6th St/Beaumont Ave	C	SIGNAL	12.8	B	SIGNAL	11.9	B
131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	5.6	A	SIGNAL	6.4	A

Table 4.15.AF-2: Existing (2012) plus Project Intersection Levels of Service (P.M. Peak Hour) (new table)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	23.9	C	AWS	98.1	**F**
133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	60.2	**F**	AWS	> 180.0	**F**
134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	80.5	**F**	AWS	> 180.0	**F**
135	W Crescent Ave/Alessandro Rd	C	CSS	11.5	B	CSS	14.6	B
136	W Sunset Dr/Alessandro Rd	C	AWS	9.0	A	AWS	10.1	B

denotes LOS exceeding the target threshold

Notes: "CSS" means cross-street is stop-controlled
"AWS" means all-way stop
"RABT" means roundabout
"NB" and "SB" denote northbound and southbound respectively
"EB" and "WB" denote eastbound and westbound respectively
"LT" and "RT" denote left turn and right turn respectively

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

A project-specific significant impact would occur at the following 5 intersections under existing with project conditions:

- Redlands Boulevard/Cactus Avenue;
- Moreno Beach Drive/John Kennedy Drive;
- Moreno Beach Drive/Ironwood Avenue;
- Arlington Avenue/Victoria Avenue; and
- Bridge Street/Ramona Expressway.

Roadway Analysis. Existing baseline (year 2012) with project roadway segment levels of service for the study area are summarized in Table 4.15.AG, which shows three roadway segments would operate at unsatisfactory levels of service. The project would contribute toward the worsening of an already unsatisfactory LOS at two roadway segments and, therefore, have a significant cumulative impact at these locations and mitigation is required. At one roadway segment, the project would create a significant impact since the project would decrease the LOS from satisfactory to unsatisfactory conditions and mitigation is required.

The project would worsen the existing LOS deficiency at the following two roadway segments under existing with project conditions:

- Gilman Springs Road between Alessandro Boulevard and Bridge Street; and
- Gilman Springs Road between SR-60 and Alessandro Boulevard.

A project-specific significant impact would occur at the following roadway segment under existing with project conditions:

- Cactus Avenue Redlands Boulevard to Street D.

Freeway Segment Analysis. Existing (2012) with project freeway segment levels of service for the study area are summarized in Table 4.15.AH, which shows 10 freeway segments would operate at unsatisfactory levels of service. The project would contribute toward the worsening of an already unsatisfactory LOS at eight locations and, therefore, have a cumulative impact at these locations. At two freeway segments, the project would create a significant impact since the project would decrease the LOS from satisfactory to unsatisfactory.

The project would worsen the existing LOS deficiency at the following eight freeway segments under existing with project conditions:

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Table 4.15.AG: Existing (2012) plus Project Roadway Segment Levels of Service (new table)

					Existing Conditions			Existing Plus Build-out Conditions					
Roadway		From	To	LOS Standard*	Roadway Section**	Daily Volume	LOS	Roadway Section*	Daily Volume	LOS	Project Significant Impact?	Mitigation Measures Required to Reduce Project Impacts to Less-Than-Significant	LOS After Mitigation
S-1	Theodore Street (A)	SR-60 WB Ramps	Ironwood Avenue	D	2U	771	A	2U	4,017	A			
S-2	Theodore Street (A)	SR-60 EB Ramps	Fir (Eucalyptus) Ave.	D	2U	2,046	A	6D	35,138	B			
S-3	Fir (Eucalyptus) Ave.	Redlands Blvd	Theodore Street (A)	D	2U***	1,339	A	4D	3,136	A			
S-4	Eucalyptus Ave (B)	Theodore Street (A)	Gilman Springs Rd	N/A	Future Road			4D	2,413	A			
S-5	Theodore Street (A)	Fir (Eucalyptus) Ave.	Street E	D	2U	641	A	6D	36,806	B			
S-6	Street E	Theodore Street (A)	Cactus Ave Extension	D	Future Road			4U	13,319	A			
S-7	Street F	Theodore Street (A)	Alessandro Blvd (Street C)	D	Future Road			2U	4,587	A			
S-8	Theodore Street (A)	Fir (Eucalyptus) Ave.	Alessandro Blvd (Street C)	D	2U	641	A	4D	16,641	A			
S-9	Alessandro Blvd (Street E)	Merwin Street	Theodore Street (A)	D	2U	2,537	A	4U	10,660	A			
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave.	D	Future Road			4U	14,426	A			
S-11	Alessandro Blvd (Street C)	Theodore Street (A)	Street F	D	2U	1,896	A	4U	15,216	B			
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	1,896	A	4U	10,395	A			
S-14	Alessandro Blvd	Moreno Beach Drive	Redlands Blvd	D	2U	3,877	A	2U	4,242	A			
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge Street	D	2U	14,407	F	2U	15,180	F	Yes	Widen to 4 lanes	C
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	2U	11,973	E	2U	14,125	F	Yes	Widen to 4 lanes	C
S-18	Redlands Blvd	SR-60 EB Ramps	Fir (Eucalyptus) Ave.	D	2U	7,338	A	2U	10,407	D			
S-19	Redlands Blvd	Fir (Eucalyptus) Ave.	Alessandro Blvd	C	2U	6,786	A	2U	4,037	A			
S-20	Alessandro Blvd	Redlands Blvd	Merwin Street	C	2U	2,537	A	2U	565	A			
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave.	C	2U	6,786	A	2U	3,210	A			
S-22	Cactus Ave.	Redlands Blvd	Cactus Ave Extension	C	2U***	472	A	2U	14,381	E	Yes	Widen to 4 lanes	A

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.
** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways.
*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.
Indicates LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

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Table 4.15.AH-1: Existing (2012) plus Project Freeway Mainline Levels of Service (new table)

ID	Freeway	Segment	Existing Conditions						Existing Plus Build-out Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	6,024	24.5	C	7,822	33.0	D	6,340	26.7	D	7,720	32.8	D
F-3	SR-60	Ramona Ave to Central Ave	5,687	22.8	C	9,400	47.3	F	6,020	24.9	C	9,280	46.9	F
F-4	SR-60	Central Ave to Mountain Ave	6,339	26.2	D	9,338	46.6	F	6,690	28.7	D	9,230	46.3	F
F-5	SR-60	Mountain Ave to Euclid Ave	6,205	25.4	C	6,664	26.1	D	6,560	28.0	D	6,540	25.9	C
F-6	SR-60	Euclid Ave to Grove Ave	7,650	34.7	D	9,091	43.8	E	8,010	38.4	E	8,950	43.2	E
F-7	SR-60	Grove Ave to Vineyard Ave	6,923	29.6	D	9,400	47.3	F	7,290	32.5	D	9,260	46.7	F
F-8	SR-60	Vineyard Ave to Archibald Ave	6,823	28.7	D	9,400	47.3	F	7,180	31.8	D	9,240	46.5	F
F-9	SR-60	Archibald Ave to Haven Ave	6,268	25.6	C	6,471	25.1	C	6,650	28.3	D	6,290	24.7	C
F-10	SR-60	Haven Ave to Milliken Ave	6,096	19.1	C	6,864	20.6	C	6,480	20.7	C	6,670	20.3	C
F-11	SR-60	Milliken Ave to I-15	4,234	16.5	B	4,529	16.9	B	4,580	18.3	C	4,350	16.5	B
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	2,593	10.2	A	2,910	10.8	A	3,030	12.4	B	2,670	10.3	A
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission	3,026	11.9	B	3,968	14.8	B	3,490	14.2	B	3,770	14.5	B
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	2,596	10.2	A	3,061	11.4	B	3,060	12.5	B	2,870	11.1	B
F-15	SR-60	Pedley Rd to Pyrite St	2,813	11.1	B	3,334	12.4	B	3,320	13.5	B	3,030	11.7	B
F-16	SR-60	Pyrite St to Valley Way	3,348	13.2	B	3,642	13.6	B	3,860	15.7	B	3,320	12.8	B
F-17	SR-60	Valley Way to Rubidoux Blvd	4,398	23.7	C	4,252	21.4	C	4,920	28.3	D	3,950	20.3	C
F-18	SR-60	Rubidoux Blvd to Market St	4,943	27.6	D	4,706	24.3	C	5,490	33.5	D	4,510	23.7	C
F-19	SR-60	Market St to Main St	4,498	24.4	C	7,050	47.8	F	5,040	29.3	D	6,850	46.7	F
F-20	SR-60	Main to SR-91	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-24	SR-60	Martin Luther King Blvd to Central Ave	5,865	24.6	C	8,976	45.7	F	6,600	34.2	D	8,760	50.9	F
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	4,332	16.9	B	6,795	26.6	D	4,950	20.4	C	6,710	27.2	D
F-27	SR-60	I-215 to Day St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-29	SR-60	Pigeon Pass Rd to Heacock St	2,702	21.6	C	3,713	30.2	D	3,330	32.0	D	3,820	34.6	D
F-30	SR-60	Heacock St to Perris Blvd	2,349	18.6	C	3,355	26.1	D	3,220	30.3	D	3,480	30.2	D
F-31	SR-60	Perris Blvd to Nason St	1,812	14.3	B	2,344	17.4	B	2,750	25.0	C	2,540	20.9	C
F-32	SR-60	Nason St to Moreno Beach Dr	1,619	12.8	B	2,038	15.1	B	2,420	21.7	C	2,260	18.6	C
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	1,326	10.5	A	1,397	10.4	A	2,140	19.3	C	1,750	14.8	B
F-34	SR-60	Redlands Blvd to Theodore St	1,614	12.7	B	1,920	14.2	B	2,590	23.1	C	2,380	19.6	C
F-35	SR-60	Theodore St to Gilman Springs Rd	1,521	12.0	B	1,915	14.2	B	1,550	12.7	B	1,830	14.0	B
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	1,213	11.2	B	1,484	12.3	B	1,180	12.2	B	1,680	15.6	B
F-37	SR-60	Jack Rabbit Trail to I-10	1,215	9.6	A	1,482	11.0	A	1,180	9.5	A	1,680	12.7	B
F-39	SR-91	I-15 to McKinley St	5,914	22.6	C	9,400	53.3	F	6,120	23.8	C	9,310	52.6	F
F-40	SR-91	McKinley St to Pierce St	5,382	29.1	D	5,427	31.4	D	5,610	31.5	D	5,320	30.9	D
F-41	SR-91	Pierce St to Magnolia Ave	4,888	25.5	C	4,922	27.2	D	5,110	27.6	D	4,820	26.8	D
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-43	SR-91	La Sierra Ave to Tyler St	4,585	23.5	C	4,939	27.3	D	4,790	25.3	C	4,860	27.1	D
F-44	SR-91	Tyler St to Van Buren Blvd	5,704	21.7	C	5,851	23.5	C	5,890	22.8	C	5,780	23.4	C

ID	Freeway	Segment	Existing Conditions						Existing Plus Build-out Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-45	SR-91	Van Buren Blvd to Adam St	5,841	22.3	C	4,999	19.6	C	6,010	23.3	C	4,940	19.6	C
F-46	SR-91	Adam St to Madison St	6,531	26.1	D	4,742	18.7	C	6,690	27.3	D	4,700	18.8	C
F-47	SR-91	Madison St to Arlington Ave	5,879	22.8	C	4,530	17.9	B	6,020	23.8	C	4,500	17.9	B
F-49	SR-91	Central Ave to 14th St	6,021	34.8	D	5,391	30.8	D	6,100	36.2	**E**	5,410	31.5	D
F-51	SR-91	University Ave to Spruce St	7,244	22.1	C	6,394	20.0	C	7,300	22.5	C	6,420	20.2	C
F-66	I-215	Scott Rd to Newport Rd	2,739	22.0	C	3,285	25.8	C	2,660	21.4	C	3,280	25.9	C
F-68	I-215	Newport Rd to McCall Blvd	1,900	15.0	B	2,047	15.3	B	1,840	14.7	B	2,040	15.4	B
F-69	I-215	McCall Blvd to Ethanac Rd	2,457	19.5	C	3,293	25.8	C	2,360	18.8	C	3,290	26.0	C
F-70	I-215	Ethanac Rd to SR-74	3,787	34.5	D	3,150	24.4	C	3,690	33.3	D	3,160	24.7	C
F-71	I-215	SR-74 to Redlands Ave	3,350	28.5	D	4,181	37.4	**E**	3,240	27.3	D	4,230	38.6	**E**
F-74	I-215	Columbia Ave to Center St	5,587	33.5	D	5,150	27.3	D	5,520	33.1	D	5,290	28.6	D
F-75	I-215	Center St to La Cadena Dr	5,474	32.4	D	5,034	26.5	D	5,410	32.0	D	5,160	27.6	D
F-76	I-215	La Cadena Dr to Barton Rd	5,341	31.2	D	5,164	27.5	D	5,260	30.7	D	5,290	28.6	D
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,738	35.1	**E**	5,533	30.3	D	5,640	34.0	D	5,680	31.8	D
F-78	I-215	Mt. Vernon Ave to I-10	5,582	22.5	C	5,420	20.5	C	5,450	21.9	C	5,580	21.3	C
F-80	I-215	Auto Plaza Dr to Mill St	4,319	17.1	B	4,533	17.0	B	4,190	16.6	B	4,620	17.4	B
F-83	I-215	Baseline Rd to Highland Ave	3,023	24.8	C	3,355	26.5	D	2,920	23.9	C	3,440	27.6	D
F-52	I-10	SR-60 to Beaumont Ave	3,037	11.9	B	4,252	16.4	B	3,050	12.0	B	4,380	17.0	B
F-53	I-10	Beaumont Ave to Pennsylvania Ave	3,087	12.1	B	4,322	16.7	B	3,070	12.0	B	4,400	17.1	B
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	3,236	12.6	B	4,531	17.5	B	3,200	12.6	B	4,610	17.9	B
F-55	I-10	Highland Springs Ave to Sunset Ave	3,112	12.2	B	4,357	16.8	B	3,060	12.0	B	4,420	17.2	B
F-56	I-10	Sunset Ave to 22nd St	3,037	11.9	B	4,252	16.4	B	2,970	11.7	B	4,310	16.7	B
F-57	I-10	22nd St to 8th St	2,987	11.7	B	4,182	16.2	B	2,920	11.5	B	4,240	16.5	B
F-58	I-10	8th St to Hargrave St	2,987	11.7	B	4,182	16.2	B	2,910	11.4	B	4,240	16.5	B
F-59	I-10	Hargrave St to Fields Rd	2,689	10.5	A	3,764	14.5	B	2,600	10.2	A	3,820	14.8	B
F-60	I-10	Fields Rd to Morongo Trail	2,564	10.0	A	3,590	13.9	B	2,480	9.7	A	3,650	14.2	B
F-61	I-10	Morongo Trail to Main St	2,265	8.8	A	3,172	12.3	B	2,190	8.6	A	3,230	12.5	B
F-62	I-10	Main St to Haugen-Lehmann Way	2,265	8.8	A	3,172	12.3	B	2,180	8.6	A	3,230	12.5	B
F-64	I-10	SR-111 to Tipton Rd	1,967	7.7	A	2,753	10.6	A	1,890	7.4	A	2,810	10.9	A
F-65	I-10	Tipton Rd to SR-62	1,967	7.7	A	2,753	10.6	A	1,920	7.5	A	2,810	10.9	A

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.AH-2: Existing (2012) plus Project Freeway Mainline Levels of Service (new table)

ID	Freeway	Segment	Existing Conditions						Existing Plus Build-out Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	8,762	41.4	E	6,381	25.6	C	8,590	40.2	E	6,580	27.1	D
F-3	SR-60	Ramona Ave to Central Ave	8,283	37.1	E	5,925	23.4	C	8,080	35.8	E	6,140	24.9	C
F-4	SR-60	Central Ave to Mountain Ave	6,336	24.7	C	6,076	24.1	C	6,120	24.0	C	6,300	25.7	C
F-5	SR-60	Mountain Ave to Euclid Ave	6,259	24.4	C	6,495	26.3	D	6,060	23.7	C	6,710	27.8	D
F-6	SR-60	Euclid Ave to Grove Ave	6,461	25.4	C	6,302	25.2	C	6,260	24.7	C	6,520	26.9	D
F-7	SR-60	Grove Ave to Vineyard Ave	6,274	24.3	C	6,699	27.4	D	6,050	23.5	C	6,930	29.1	D
F-8	SR-60	Vineyard Ave to Archibald Ave	7,658	32.1	D	6,245	25.0	C	7,400	30.9	D	6,490	26.7	D
F-9	SR-60	Archibald Ave to Haven Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Milliken Ave	5,804	17.4	B	5,698	17.5	B	5,510	16.7	B	5,960	18.6	C
F-11	SR-60	Milliken Ave to I-15	5,456	20.5	C	5,111	19.5	C	5,070	19.2	C	5,390	21.2	C
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	4,490	13.4	B	4,275	13.0	B	4,160	12.6	B	4,600	14.3	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission	4,220	15.7	B	3,881	14.8	B	3,850	14.6	B	4,290	16.7	B
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	4,172	15.5	B	3,963	15.1	B	3,820	14.5	B	4,360	17.0	B
F-15	SR-60	Pedley Rd to Pyrite St	3,216	12.0	B	3,068	11.7	B	2,860	10.9	A	3,440	13.5	B
F-16	SR-60	Pyrite St to Valley Way	2,653	9.9	A	2,567	9.8	A	2,310	8.9	A	2,960	11.7	B
F-17	SR-60	Valley Way to Rubidoux Blvd	4,532	23.1	C	4,725	24.9	C	4,150	21.3	C	5,120	28.7	D
F-18	SR-60	Rubidoux Blvd to Market St	3,568	17.7	B	3,868	19.7	C	3,260	16.6	B	4,320	23.1	C
F-19	SR-60	Market St to Main St	5,631	30.9	D	5,109	27.6	D	5,290	28.8	D	5,540	32.4	D
F-20	SR-60	Main to SR-91	5,248	27.9	D	4,720	24.9	C	4,990	26.7	D	5,070	28.3	D
F-24	SR-60	Martin Luther King Blvd to Central Ave	7,050	30.6	D	5,800	24.1	C	6,800	31.5	D	6,420	31.6	D
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	7,461	31.1	D	6,376	25.6	C	7,140	29.9	D	7,030	30.8	D
F-27	SR-60	I-215 to Day St	7,050	47.9	F	3,093	15.9	B	7,000	50.0	F	3,530	19.5	C
F-29	SR-60	Pigeon Pass Rd to Heacock St	3,013	23.1	C	3,254	26.5	D	2,980	24.3	C	3,770	36.9	E
F-30	SR-60	Heacock St to Perris Blvd	2,638	19.9	C	2,671	20.8	C	2,710	21.9	C	3,320	30.3	D
F-31	SR-60	Perris Blvd to Nason St	1,910	14.3	B	2,045	15.8	B	2,120	17.2	B	2,830	24.8	C
F-32	SR-60	Nason St to Moreno Beach Dr	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	988	7.4	A	1,336	10.3	A	1,330	11.3	B	2,070	18.1	C
F-34	SR-60	Redlands Blvd to Theodore St	1,193	8.9	A	1,498	11.6	B	1,660	13.8	B	2,300	19.4	C
F-35	SR-60	Theodore St to Gilman Springs Rd	1,183	8.9	A	1,393	10.8	A	1,100	8.6	A	1,510	12.3	B
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	837	7.0	A	1,002	9.1	A	1,070	10.9	A	980	10.7	A
F-37	SR-60	Jack Rabbit Trail to I-10	837	6.3	A	1,002	7.7	A	1,070	8.3	A	980	7.8	A
F-39	SR-91	I-15 to McKinley St	6,402	25.1	C	5,971	24.1	C	6,240	24.4	C	6,170	25.4	C
F-40	SR-91	McKinley St to Pierce St	4,788	25.0	C	5,183	29.3	D	4,620	24.2	C	5,370	31.4	D
F-41	SR-91	Pierce St to Magnolia Ave	4,629	23.9	C	7,050	53.3	F	4,470	23.2	C	7,230	58.8	F
F-42	SR-91	Magnolia Ave to La Sierra Ave	4,894	25.7	C	7,050	53.3	F	4,740	25.0	C	7,210	58.4	F
F-43	SR-91	La Sierra Ave to Tyler St	4,467	22.9	C	5,167	29.2	D	4,290	22.1	C	5,330	31.0	D
F-44	SR-91	Tyler St to Van Buren Blvd	5,769	22.1	C	6,661	27.8	D	5,630	21.7	C	6,810	29.1	D

ID	Freeway	Segment	Existing Conditions						Existing Plus Build-out Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-45	SR-91	Van Buren Blvd to Adam St	5,342	20.2	C	6,401	26.3	D	5,230	20.0	C	6,560	27.6	D
F-46	SR-91	Adam St to Madison St	4,939	18.6	C	5,453	21.5	C	4,840	18.4	C	5,590	22.4	C
F-47	SR-91	Madison St to Arlington Ave	4,218	21.4	C	4,711	25.5	C	4,140	21.2	C	4,830	26.9	D
F-49	SR-91	Central Ave to 14th St	4,737	24.7	C	4,940	27.2	D	4,700	24.7	C	5,030	28.5	D
F-51	SR-91	University Ave to Spruce St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-66	I-215	Scott Rd to Newport Rd	2,294	17.2	B	2,318	17.2	B	2,270	17.1	B	2,240	16.7	B
F-68	I-215	Newport Rd to McCall Blvd	2,528	19.0	C	3,111	23.7	C	2,530	19.1	C	3,040	23.2	C
F-69	I-215	McCall Blvd to Ethanac Rd	3,069	23.6	C	2,539	18.9	C	3,080	23.9	C	2,490	18.6	C
F-70	I-215	Ethanac Rd to SR-74	2,882	21.9	C	3,854	32.0	D	2,900	22.2	C	3,840	32.0	D
F-71	I-215	SR-74 to Redlands Ave	4,539	44.2	**E**	3,710	30.1	D	4,600	45.5	**F**	3,650	29.6	D
F-74	I-215	Columbia Ave to Center St	5,191	27.6	D	4,917	25.4	C	5,320	28.8	D	4,870	25.2	C
F-75	I-215	Center St to La Cadena Dr	5,541	30.4	D	5,235	27.6	D	5,690	31.9	D	5,180	27.4	D
F-76	I-215	La Cadena Dr to Barton Rd	5,414	29.4	D	5,196	27.3	D	5,530	30.5	D	5,160	27.2	D
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,435	29.5	D	5,256	27.7	D	5,550	30.7	D	5,210	27.6	D
F-78	I-215	Mt. Vernon Ave to I-10	5,776	22.0	C	5,606	21.0	C	5,900	22.7	C	5,550	20.8	C
F-80	I-215	Auto Plaza Dr to Mill St	4,022	15.1	B	4,090	15.2	B	4,120	15.5	B	4,000	14.9	B
F-83	I-215	Baseline Rd to Highland Ave	4,537	44.1	**E**	4,700	46.7	**F**	4,630	46.7	**F**	4,610	45.2	**F**
F-52	I-10	SR-60 to Beaumont Ave	4,288	18.1	C	3,675	13.8	B	4,340	18.5	C	3,730	14.0	B
F-53	I-10	Beaumont Ave to Pennsylvania Ave	4,358	18.4	C	3,736	14.0	B	4,430	18.8	C	3,750	14.1	B
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	4,569	19.4	C	3,916	14.7	B	4,630	19.8	C	3,910	14.7	B
F-55	I-10	Highland Springs Ave to Sunset Ave	4,393	18.6	C	3,766	14.1	B	4,460	19.0	C	3,750	14.1	B
F-56	I-10	Sunset Ave to 22nd St	4,288	18.1	C	3,675	13.8	B	4,350	18.5	C	3,640	13.7	B
F-57	I-10	22nd St to 8th St	4,218	17.8	B	3,615	13.5	B	4,280	18.2	C	3,580	13.5	B
F-58	I-10	8th St to Hargrave St	4,218	17.8	B	3,615	13.5	B	4,280	18.2	C	3,570	13.4	B
F-59	I-10	Hargrave St to Fields Rd	3,796	16.0	B	3,254	12.2	B	3,860	16.4	B	3,190	12.0	B
F-60	I-10	Fields Rd to Morongo Trail	3,620	15.3	B	3,103	11.6	B	3,680	15.6	B	3,040	11.4	B
F-61	I-10	Morongo Trail to Main St	3,198	13.5	B	2,741	10.3	A	3,260	13.8	B	2,680	10.1	A
F-62	I-10	Main St to Haugen-Lehmann Way	3,198	13.5	B	2,741	10.3	A	3,270	13.9	B	2,680	10.1	A
F-64	I-10	SR-111 to Tipton Rd	2,777	11.7	B	2,380	8.9	A	2,840	12.1	B	2,340	8.8	A
F-65	I-10	Tipton Rd to SR-62	2,777	11.7	B	2,380	8.9	A	2,840	12.1	B	2,340	8.8	A

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Northbound or Eastbound Sections:

- SR-60 Euclid Avenue to Grove Avenue;
- SR-60 Martin Luther King Boulevard to Central Avenue; and
- I-215 SR-74/Case Road to Redlands Avenue;

- Southbound or Westbound Sections:
  - SR-60 I-215 to Day Street;
  - SR-91 Pierce Street to Magnolia Avenue;
  - SR-91 Magnolia Avenue to La Sierra Avenue;
  - I-215 SR-74/Case Road to Redlands Avenue; and
  - I-215 Baseline Road to Highland Avenue/SR-210.

A significant direct project impact would occur at the following two freeway segments under existing with project conditions:

- Northbound or Eastbound Sections:
  - SR-91 Central Avenue to 14th Street.
- Southbound and Westbound Sections:
  - SR-60 Pigeon Pass Road/Frederick Street to Heacock Street.

Freeway Weaving Analysis. Existing (2012) with project freeway weaving segment levels of service for the study area are summarized in Table 4.15.AI, which shows ~~eight~~ six freeway weaving segments would operate at unsatisfactory levels of service. The project would contribute toward the worsening of an already unsatisfactory LOS at five freeway weaving segments and, therefore, have a cumulative impact at these locations. At the other freeway weaving segment, the project would create a significant impact since the project would decrease the LOS from satisfactory to unsatisfactory.

The project would worsen the existing LOS deficiency at the following ~~six~~ five freeway weaving segments under existing with project conditions:

- Northbound or Eastbound:
  - SR-60 SR-91 to Blaine St/3rd Street;
  - SR-60 W Blaine Street/3rd Street to University Avenue; and
  - SR-91 Arlington Avenue to Central Avenue.
- Southbound or Westbound:
  - SR-60 Central Avenue to Fair Isle Drive/Box Springs Road; and
  - SR-91 14th Street to University Avenue.

A project-specific significant impact would occur at the following freeway weaving segment under existing with project conditions:

- Northbound or Eastbound:
  - SR-60 from Central Avenue to Fair Isle Drive/Box Springs Road.

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Table 4.15.AI: Existing (2012) plus Project Freeway Weaving Segments Levels of Service (new table)

ID	Freeway	Weaving Segment	Existing Conditions						Existing Plus Build-out Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	5,985	24.0	C	8,616	35.7	**E**	6,300	26.0	C	8,500	35.6	**E**
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-20	SR-60	Main St to SR-91	5,418	25.8	C	7,050	33.6	D	5,890	29.0	D	6,910	33.6	D
W-21	SR-60	SR-91 to Blaine St/3rd St	3,885	14.8	B	9,400	39.0	**E**	4,590	18.8	B	9,270	39.4	**E**
W-22	SR-60	Blaine St/3rd St to University Ave	3,919	18.7	B	7,050	37.4	**E**	4,520	25.4	C	6,930	39.3	**E**
W-23	SR-60	University Ave to Martin Luther King	4,528	20.4	C	5,932	25.7	C	5,170	24.8	C	5,760	25.6	C
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	3,856	14.5	B	7,840	32.4	D	4,700	20.8	C	7,820	35.0	**E**
W-27	SR-60	I-215 to Day St	2,988	10.6	B	4,704	18.8	B	3,870	17.7	B	4,810	19.5	B
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	2,995	12.8	B	4,749	20.7	C	3,710	16.9	B	4,730	21.3	C
W-32	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-42	SR-91	Magnolia Ave to La Sierra Ave	5,445	24.6	C	5,684	27.4	C	5,640	25.8	C	5,590	27.1	C
W-48	SR-91	Arlington Ave to Central Ave	7,050	35.3	**E**	4,073	19.6	B	7,220	36.9	**E**	4,080	19.9	B
W-50	SR-91	14th St to University Ave	4,643	21.8	C	4,441	21.9	C	4,690	22.3	C	4,460	22.1	C
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-73	I-215	SR-60 to Columbia Ave	6,260	34.4	D	5,548	28.0	C	6,230	34.7	D	5,670	29.4	D
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	4,400	16.3	B	4,147	14.5	B	4,270	15.9	B	4,240	15.1	B
W-81	I-215	Mill St to 2nd St	5,044	23.0	C	5,095	22.5	C	4,920	22.5	C	5,180	23.0	C
W-82	I-215	5th St to Baseline Rd	3,754	16.5	B	3,590	14.9	B	3,660	16.1	B	3,670	15.4	B
W-63	I-10	Haugen-Lehmann Way to SR-111	2,265	7.5	A	3,172	10.5	B	2,180	7.2	A	3,230	10.8	B

Indicates that the LOS exceeds the target level

ID	Freeway	Weaving Segment	Existing Conditions						Existing Plus Build-out Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	6,125	21.4	C	5,892	20.8	C	5,950	21.0	C	6,090	21.9	C
W-9	SR-60	Haven Ave to Archibald Ave	6,288	23.5	C	6,071	23.5	C	6,010	22.6	C	6,320	25.0	C
W-20	SR-60	Main St to SR-91	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	7,729	28.6	D	7,211	27.2	C	7,360	27.7	C	7,770	30.7	D
W-22	SR-60	Blaine St/3rd St to University Ave	5,714	20.1	C	6,204	23.0	C	5,360	20.3	C	6,820	27.9	C
W-23	SR-60	University Ave to Martin Luther King	5,601	28.0	C	5,876	28.0	C	5,300	26.9	C	6,440	32.9	D
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	7,050	37.0	**E**	6,026	29.3	D	6,860	38.1	**E**	6,500	35.2	**E**
W-27	SR-60	I-215 to Day St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	4,700	31.0	D	4,197	27.2	C	4,580	30.9	D	4,760	33.4	D
W-32	SR-60	Moreno Beach Dr to Nason St	1,609	9.2	A	1,753	10.2	B	1,910	11.7	B	2,480	16.0	B
W-42	SR-91	Magnolia Ave to La Sierra Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	4,642	21.1	C	5,118	23.8	C	4,520	20.7	C	5,250	25.0	C
W-50	SR-91	14th St to University Ave	5,179	24.1	C	7,050	35.5	**E**	5,230	24.6	C	7,080	36.2	**E**
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	5,075	14.4	B	8,804	26.9	C	5,120	14.8	B	8,840	27.3	C
W-73	I-215	SR-60 to Columbia Ave	5,877	26.4	C	5,495	24.5	C	6,000	27.3	C	5,440	24.5	C
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	4,890	16.8	B	4,591	16.3	B	4,970	17.2	B	4,490	16.1	B
W-81	I-215	Mill St to 2nd St	4,442	19.6	B	4,380	19.4	B	4,540	20.1	C	4,290	19.0	B
W-82	I-215	5th St to Baseline Rd	3,607	15.6	B	3,481	15.1	B	3,710	16.2	B	3,400	14.8	B
W-63	I-10	Haugen-Lehmann Way to SR-111	3,198	11.8	B	2,741	10.3	B	3,270	12.2	B	2,680	10.1	B

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Freeway Ramp Analysis. Existing (2012) with project freeway ramp levels of service for the study area are summarized in Table 4.15.A~~I~~J, which shows the SR-60 eastbound on-ramp from Central Avenue currently operates at LOS F in the p.m. peak hour and would also operate at LOS F under Existing Plus Project conditions, but with a higher traffic density. This would be considered a significant cumulative impact.

4.15.6.3 Year 2022 ~~Cumulative with Project~~ With Phase 1 Conditions Traffic and Level of Service Impacts

Threshold:	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit. Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? A significant project-specific traffic impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the pre-project condition. The adopted LOS standards are as follows: • Roadway segments~~ and intersections~~: LOS C and LOS D as outlined in previously referenced Tables 4.15.~~E~~B and 4.15.C. • Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.Z. • Freeway mainline: LOS D. • Freeway Ramp Merge/Diverge: LOS D.

Intersection Analysis. Year 2022 with ~~project~~ Phase 1 intersection levels of service for the study area intersections are summarized in Tables 4.15.A~~J~~K-1 and 4.15.A~~J~~K-2, which shows ~~41~~ 34 study intersections would operate at unsatisfactory LOS in the 2022 with Phase 1 condition. Twenty-eight of these intersections would exceed the threshold of significance under 2022 No Project conditions and would therefore be considered significant cumulative impacts requiring mitigation. At ~~11~~ six of these intersections the level of service would drop from satisfactory to unsatisfactory with the addition of Phase 1 traffic, which would also be considered a significant ~~direct project~~cumulative impact requiring mitigation.

Phase 1 of the project would have a significant cumulative impact at the following ~~30~~ 28 intersections under year 2022 with Phase 1 conditions:

- Redlands Boulevard/Locust Avenue;
- Redlands Boulevard/SR-60 Westbound Ramps;
- Oliver Street/Alessandro Boulevard;

- Moreno Beach Drive/Ironwood Avenue;
- Moreno Beach Drive/SR-60 Eastbound Ramps;
- Lasselle Street/Iris Avenue;
- Krameria Avenue/Perris Boulevard;
- Lasselle Street/Alessandro Boulevard;
- Lasselle Street/Cactus Avenue;
- Frederick Street/Alessandro Boulevard;
- Graham Street/Alessandro Boulevard;
- Martin Luther King Boulevard/Canyon Crest Drive;
- Perris Boulevard/Alessandro Boulevard;
- Graham Street/Cactus Avenue;
- Alessandro Boulevard/Sycamore Canyon Boulevard;
- Elsworth Street/Cactus Avenue;
- Arlington Avenue/Victoria Avenue;
- Alessandro Boulevard/Chicago Avenue;
- Ramona Expressway/Evans Road;
- Placentia Avenue/Perris Boulevard;
- Gilman Springs Road/Bridge Street;
- SR-79 (Sanderson Avenue) Northbound/Gilman Springs Road;
- SR-79 (Sanderson Avenue) Southbound/Gilman Springs Road;
- W. 6th Street/California Avenue;
- Ramona Expressway/Sanderson Avenue;
- San Timoteo Canyon Road/Alessandro Road;
- San Timoteo Canyon Road/Live Oak Canyon Road;
- Redlands Boulevard/San Timoteo Canyon Road; and
- W. Crescent Avenue/Alessandro Boulevard.

A significant ~~direct project~~cumulative impact would also occur at the following ~~ten~~ six intersections under year 2022 with ~~project~~ Phase 1 conditions:

- ~~Theodore Street/Ironwood Avenue;~~
- Redlands Boulevard/Cactus Avenue;
- ~~Moreno Beach Drive/John Kennedy Drive;~~
- Kitching Street/Iris Avenue;
- Perris Boulevard/John F. Kennedy Drive;
- Iris Avenue/Perris Boulevard;
- ~~Kitching Street/Krameria Avenue;~~

- Heacock Street/Alessandro Boulevard; and
- Day Street/Alessandro Boulevard. ~~and~~
- ~~West Crescent Avenue/Alessandro Road.~~

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Table 4.15.~~A~~J: Existing (2012) plus Project Freeway Ramp Levels of Service

				Existing Conditions								Existing Plus Build-out Conditions							
				AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	4,110	242	16.9	B	5,678	906	26.5	C	4,740	350	20.9	C	5,480	1,300	29.6	D
R-2	SR-60 EB	On-Ramp from Central Ave	1	5,796	349	18.5	B	8,868	904	31.8	F	6,510	480	22.9	C	8,630	1,000	32.5	F
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	1	1,326	119	3.3	A	1,397	30	3.2	A	2,140	390	13.9	B	1,750	450	8.6	A
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	1	1,207	26	12.9	B	1,367	25	13.6	B	1,750	80	20.1	C	1,300	110	15.3	B
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario			
R-6	SR-60 EB	Off-Ramp to Theodore St	1	1,614	207	17.3	B	1,920	434	19.1	B	2,590	1,160	18.5	B	2,380	810	16.0	B
R-7	SR-60 EB	Loop On-Ramp from Theodore St	1	1,407	70	16.5	B	1,486	71	16.5	B	1,430	10	17.5	B	1,570	10	18.0	B
R-8	SR-60 EB	Direct On-Ramp from Theodore St	1	Does not Exist in this Scenario				Does not Exist in this Scenario				1,420	120	18.4	B	1,560	250	20.1	C
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	1	1,521	330	16.4	B	1,915	385	19.0	B	1,550	419	17.2	B	1,830	431	18.8	B
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	1	1,191	7	14.2	B	1,530	8	16.3	B	1,131	30	14.2	B	1,399	59	16.1	B
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	1	837	11	9.6	A	1,002	9	11.3	B	1,070	97	12.0	B	980	30	11.4	B
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	1	826	357	13.5	B	993	306	14.6	B	973	405	15.5	B	950	466	16.2	B
R-13	SR-60 WB	Off-Ramp to Theodore St	1	1,183	24	12.7	B	1,393	26	14.9	B	1,100	210	7.1	A	1,510	90	10.1	A
R-14	SR-60 WB	On-Ramp from Theodore St	1	1,159	34	12.1	B	1,367	131	14.8	B	890	740	17.1	B	1,420	850	22.8	C
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	1	1,193	49	12.8	B	1,498	38	15.9	B	1,660	100	18.7	B	2,300	60	25.2	C
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	1	1,144	329	14.3	B	1,460	361	17.4	B	1,560	350	19.3	B	2,240	590	28.0	C
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario			
R-18	SR-60 WB	Off-Ramp to Central Ave	2	7,050	384	32.6	D	6,026	439	28.5	D	6,860	400	32.5	D	6,500	450	31.8	D
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	1	7,050	474	21.0	C	5,800	337	15.9	B	6,800	510	20.8	C	6,420	370	19.5	B

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.A~~J~~K-1: Year 2022 plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2022 No Project			2022 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
1	Theodore St/Street F	D	N/A	Non-Existent		RABT	9.8	A
2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		CSS	12.7	B
3	Theodore St/Alessandro Blvd (Str A/Str C/Str E)	D	CSS	10.0	A	RABT	10.5	B
4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		CSS	9.9	A
6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	SIGNAL	5.8	A	SIGNAL	7.9	A
9	Gilman Springs Rd/Eucalyptus Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
10	Redlands Blvd/Locust Ave	C	CSS	> 180.0	**F**	CSS	> 180.0	**F**
11	Redlands Blvd/Ironwood Ave	D	SIGNAL	34.9	C	SIGNAL	31.9	C
12	Theodore Street/Ironwood Avenue	D	CSS	13.0	B	CSS	17.9	C
13	Redlands Blvd/SR-60 WB ramps	D	CSS	> 180.0	**F**	CSS	> 180.0	**F**
14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	8.9	A	SIGNAL	12.6	B
15	Theodore Str/SR-60 WB ramps	D	CSS	12.2	B	SIGNAL	14.0	B
16	Theodore Str/SR-60 EB ramps	D	CSS	12.2	B	SIGNAL	2.6	A
17	Quincy Str/Fir Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
18	Redlands Blvd/Eucalyptus Ave (Fir)	D	N/A	Non-Existent		SIGNAL	10.9	B
19	Theodore St/Fir Ave (Eucalyptus)	D	CSS	9.8	A	SIGNAL	13.6	B
20	Oliver Str/Alessandro Blvd	C	CSS	81.3	**F**	CSS	129.7	**F**
21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	17.6	B	SIGNAL	17.5	C
22	Quincy Str/Alessandro Blvd	N/A	N/A	Non-Existent		N/A	Non-Existent	
23	Redlands Blvd/Alessandro Blvd	C	AWS	30.2	**D**	AWS	18.7	C
24	Oliver Str/Cactus Ave	D	SIGNAL	32.5	C	SIGNAL	37.0	D
25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	18.5	B	SIGNAL	18.9	B
26	Quincy Str/Cactus Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
27	Redlands Blvd/Cactus Ave	C	AWS	13.4	B	AWS	52.8	**F**
28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	19.8	B	SIGNAL	29.0	C
29	Heacock Str/Ironwood Ave	D	SIGNAL	30.9	C	SIGNAL	31.1	C
30	Heacock Str/SR-60 WB Ramps	D	SIGNAL	33.7	C	SIGNAL	34.7	C
31	Heacock St/SR-60 EB Ramps	D	SIGNAL	21.1	C	SIGNAL	21.6	C
32	Sunnymead Blvd & Perris Blvd	D	SIGNAL	29.9	C	SIGNAL	30.2	C

Table 4.15.A~~J~~K-1: Year 2022 plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2022 No Project			2022 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	31.8	C	SIGNAL	33.7	C
34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	27.7	C	SIGNAL	28.8	C
35	Moreno Beach Dr/Locust Ave	C	CSS	9.2	A	CSS	9.3	A
36	Moreno Beach Drive & Ironwood Avenue	D	SIGNAL	90.2	**F**	SIGNAL	97.5	**F**
37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	88.7	**F**	SIGNAL	102.3	**F**
38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	50.8	D	SIGNAL	55.7	**E**
39	Iris Ave/Perris Blvd	D	SIGNAL	54.0	D	SIGNAL	55.5	**E**
40	Kitching St/Iris Ave	C	SIGNAL	28.9	C	SIGNAL	30.5	C
41	Lasselle Str/Iris Ave	D	SIGNAL	32.8	C	SIGNAL	42.1	D
42	Nason Str/Iris Ave	C	SIGNAL	8.2	A	SIGNAL	7.7	A
43	Oliver Str/Iris Ave	D	SIGNAL	28.9	C	SIGNAL	28.2	C
44	Via Dell Lago/Iris Ave	C	SIGNAL	8.8	A	SIGNAL	9.6	A
45	Krameria Ave/Perris Blvd	D	SIGNAL	> 180.0	**F**	SIGNAL	> 180.0	**F**
46	Kitching Str/Krameria Ave	D	SIGNAL	29.2	C	SIGNAL	41.2	D
47	Lasselle Str/Krameria Ave	D	SIGNAL	32.9	C	SIGNAL	33.6	C
48	Kitching Str/Alessandro Blvd	D	SIGNAL	28.5	C	SIGNAL	28.5	C
49	Lasselle Str/Alessandro Blvd	D	SIGNAL	56.1	**E**	SIGNAL	57.6	**E**
50	Morrison Str/Alessandro Blvd	D	SIGNAL	9.3	A	SIGNAL	9.3	A
51	Nason Str/Alessandro Blvd	D	SIGNAL	31.5	C	SIGNAL	32.3	C
52	Kitching Str/Cactus Ave	C	SIGNAL	32.2	C	SIGNAL	32.8	C
53	Lasselle Str/Cactus Ave	C	SIGNAL	64.0	**E**	SIGNAL	69.7	**E**
54	Morrison Str/Cactus Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
55	Nason Str/Cactus Ave	D	SIGNAL	30.6	C	SIGNAL	31.1	C
56	Frederick Str/Alessandro Blvd	D	SIGNAL	30.4	C	SIGNAL	30.7	C
57	Graham Str/Alessandro Blvd	D	SIGNAL	32.4	C	SIGNAL	32.7	C
58	Heacock Str/Alessandro Blvd	D	SIGNAL	41.8	D	SIGNAL	43.3	D
59	Indian Str/Alessandro Blvd	D	SIGNAL	24.7	C	SIGNAL	24.4	C
60	Perris Blvd/Alessandro Blvd	D	SIGNAL	50.5	D	SIGNAL	51.5	D
61	Frederick Str/Cactus Ave	D	SIGNAL	19.1	B	SIGNAL	19.9	B

Table 4.15.A~~J~~K-1: Year 2022 plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2022 No Project			2022 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
62	Graham Str/Cactus Ave	D	SIGNAL	148.3	**F**	SIGNAL	154.7	**F**
63	Heacock Str/Cactus Ave	D	SIGNAL	42.5	D	SIGNAL	41.2	D
64	Indian Str/Cactus Ave	C	SIGNAL	28.8	C	SIGNAL	28.9	C
65	Perris Blvd/Cactus Ave	D	SIGNAL	35.7	D	SIGNAL	35.6	D
66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	38.2	D	SIGNAL	36.8	D
67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	10.9	B	SIGNAL	11.0	B
68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	25.5	C	SIGNAL	25.7	C
69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	17.3	B	SIGNAL	17.5	B
70	Day Str/Alessandro Blvd	D	SIGNAL	10.7	B	SIGNAL	10.7	B
71	Elsworth Str/Alessandro Blvd	D	SIGNAL	20.7	C	SIGNAL	20.9	C
72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	30.5	C	SIGNAL	31.8	C
73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	10.8	B	SIGNAL	12.7	B
74	Elsworth Str/Cactus Ave	D	SIGNAL	31.3	C	SIGNAL	31.2	C
75	Central Ave/Lochmoor Dr.	D	SIGNAL	19.6	B	SIGNAL	20.7	C
76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	27.6	C	SIGNAL	32.6	C
77	SR-60 EB Ramps/Central Ave	D	SIGNAL	10.9	B	SIGNAL	10.8	B
78	SR-60 WB Ramps/Central Ave	D	SIGNAL	6.6	A	SIGNAL	7.1	A
79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	29.8	C	SIGNAL	30.2	C
80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	33.2	C	SIGNAL	36.0	D
81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	34.6	C	SIGNAL	36.7	D
82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	9.2	A	SIGNAL	9.3	A
83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	100.0	**F**	SIGNAL	102.2	**F**
84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	9.6	A	SIGNAL	9.8	A
85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	27.4	D	AWS	28.0	D
86	Central Ave/Chicago Ave	D	SIGNAL	34.5	C	SIGNAL	39.0	D
87	Central Ave/El Cerrito Dr	D	SIGNAL	13.2	B	SIGNAL	13.2	B
88	Central Ave/Canyon Crest Dr	D	SIGNAL	36.3	D	SIGNAL	37.6	D
89	Chicago Ave/Country Club Dr	D	SIGNAL	9.4	A	SIGNAL	9.8	A
90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	36.9	D	SIGNAL	37.3	D

Table 4.15.A~~J~~K-1: Year 2022 plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2022 No Project			2022 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	22.1	C	SIGNAL	22.1	C
92	Arlington Ave/Maude St	D	SIGNAL	14.3	B	SIGNAL	14.3	B
93	Horace St/Arlington Ave	D	SIGNAL	19.7	B	SIGNAL	21.6	C
94	Arlington Ave/Victoria Ave	D	SIGNAL	84.2	**F**	SIGNAL	88.4	**F**
95	Alessandro Blvd/Chicago Ave	D	SIGNAL	64.5	**E**	SIGNAL	69.8	**E**
96	Alessandro Blvd/Century Ave	D	SIGNAL	32.5	C	SIGNAL	32.9	C
97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	29.5	C	SIGNAL	29.9	C
98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	30.6	C	SIGNAL	30.9	C
99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	33.3	C	SIGNAL	43.8	D
100	Harley Knox Blvd/Evan Rd	N/A	N/A	Non-Existent		N/A	Non-Existent	
101	Ramona Expy/Indian St	E	SIGNAL	18.6	B	SIGNAL	21.4	C
102	Ramona Expy/Perris Blvd	E	SIGNAL	34.3	C	SIGNAL	36.0	D
103	Ramona Expy/Evans Rd	E	SIGNAL	139.7	**F**	SIGNAL	145.0	**F**
104	Perris Blvd/Morgan St	D	SIGNAL	14.6	B	SIGNAL	14.4	B
105	Evans Rd/Morgan St	C	SIGNAL	32.8	C	SIGNAL	32.4	C
106	Perris Blvd/Rider St	C	SIGNAL	17.6	B	SIGNAL	18.4	B
107	Evans Rd/Rider St	C	SIGNAL	34.4	C	SIGNAL	34.7	C
108	Perris Blvd/Mid-County Pkwy WB Ramps	D	SIGNAL	29.2	C	SIGNAL	30.1	C
109	Perris Blvd/Mid-County Pkwy EB Ramps	D	SIGNAL	19.2	B	SIGNAL	30.8	C
110	Evans Rd/Mid-County Pkwy WB Ramps	D	SIGNAL	38.0	D	SIGNAL	37.9	D
111	Evans Rd/Mid-County Pkwy EB Ramps	D	SIGNAL	14.6	B	SIGNAL	14.9	B
112	Placentia Ave/Perris Blvd	D	SIGNAL	40.8	D	SIGNAL	41.7	D
113	Evans Rd/Placentia Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
114	Evans Rd/Orange Ave	C	AWS	22.1	C	AWS	22.1	C
115	Evans Rd/Nuevo Rd	C	SIGNAL	32.0	C	SIGNAL	32.0	C
116	Evans Rd/Ellis Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
117	Ellis Ave/I-215 SB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
118	Ellis Ave/SR-215 NB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
119	Evans Rd/San Jacinto Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	

Table 4.15.A~~J~~K-1: Year 2022 plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2022 No Project			2022 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
120	Park Center Blvd/Ramona Expy WB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
121	Park Center Blvd/Ramona Expy EB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
122	Bridge St/Ramona Expy	N/A	N/A	Non-Existent		N/A	Non-Existent	
123	Gilman Springs Rd/Bridge Str	C	CSS	22.3	C	CSS	25.4	D
124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	> 180.0	**F**	CSS	> 180.0	**F**
125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	> 180.0	**F**	CSS	> 180.0	**F**
126	Ramona Expy/Sanderson Ave	D	SIGNAL	35.7	D	SIGNAL	40.6	D
127	Potrero Blvd/SR-60 WB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
128	Potrero Blvd/SR-60 EB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
129	W 6th St/California Ave	C	AWS	31.8	**D**	AWS	40.9	**E**
130	W 6th St/Beaumont Ave	C	SIGNAL	15.7	B	SIGNAL	16.0	B
131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	13.7	B	SIGNAL	13.2	B
132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	> 180.0	**F**	AWS	> 180.0	**F**
133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	169.8	**F**	AWS	> 180.0	**F**
134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	> 180.0	**F**	AWS	> 180.0	**F**
135	W Crescent Ave/Alessandro Blvd	C	CSS	27.7	**D**	CSS	40.9	**E**
136	W Sunset Dr/Alessandro Blvd	C	AWS	10.9	B	AWS	11.9	B

Notes: "CSS" means cross-street is stop-controlled "AWS" means all-way stop "RABT" means roundabout

"Non-Existent" indicates that the intersection exists in some scenarios but not in the scenario being reported

denotes LOS exceeding the target threshold

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.A~~J~~K-2: Year 2022 plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2022 No Project			2022 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
1	Theodore St/Street F	D	N/A	Non-Existent		RABT	12.8	B
2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		CSS	13.9	B
3	Theodore St/Alessandro Blvd (Str A/Str C/Str E)	D	CSS	10.3	B	RABT	10.6	B
4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		CSS	9.4	A

Table 4.15.A~~J~~K-2: Year 2022 plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2022 No Project			2022 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	SIGNAL	7.9	A	SIGNAL	10.9	B
9	Gilman Springs Rd/Eucalyptus Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
10	Redlands Blvd/Locust Ave	C	CSS	> 180.0	**F**	CSS	> 180.0	**F**
11	Redlands Blvd/Ironwood Ave	D	SIGNAL	31.7	C	SIGNAL	26.1	C
12	Theodore Street/Ironwood Avenue	D	CSS	17.8	C	CSS	25.5	D
13	Redlands Blvd/SR-60 WB ramps	D	CSS	> 180.0	**F**	CSS	> 180.0	**F**
14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	15.9	B	SIGNAL	18.5	B
15	Theodore Str/SR-60 WB ramps	D	CSS	19.2	C	SIGNAL	17.4	B
16	Theodore Str/SR-60 EB ramps	D	CSS	23.2	C	SIGNAL	2.6	A
17	Quincy Str/Fir Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
18	Redlands Blvd/Eucalyptus Ave (Fir)	D	N/A	Non-Existent		SIGNAL	17.0	B
19	Theodore St/Fir Ave (Eucalyptus)	D	CSS	41.7	**E**	SIGNAL	37.9	D
20	Oliver Str/Alessandro Blvd	C	CSS	67.7	**F**	CSS	98.9	**F**
21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	18.5	B	SIGNAL	20.8	C
22	Quincy Str/Alessandro Blvd	N/A	N/A	Non-Existent		N/A	Non-Existent	
23	Redlands Blvd/Alessandro Blvd	C	AWS	14.1	B	AWS	15.8	C
24	Oliver Str/Cactus Ave	D	SIGNAL	25.7	C	SIGNAL	27.2	C
25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	18.9	B	SIGNAL	19.7	B
26	Quincy Str/Cactus Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
27	Redlands Blvd/Cactus Ave	C	AWS	9.5	A	AWS	105.0	**F**
28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	18.9	B	SIGNAL	44.7	D
29	Heacock Str/Ironwood Ave	D	SIGNAL	36.9	D	SIGNAL	38.0	D
30	Heacock Str/SR-60 WB Ramps	D	SIGNAL	47.5	D	SIGNAL	49.5	D
31	Heacock St/SR-60 EB Ramps	D	SIGNAL	24.7	C	SIGNAL	25.4	C
32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	39.2	D	SIGNAL	39.3	D
33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	21.7	C	SIGNAL	23.7	C
34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	33.4	C	SIGNAL	34.1	C
35	Moreno Beach Dr/Locust Ave	C	CSS	9.6	A	CSS	9.8	A
36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	51.0	D	SIGNAL	54.9	D
37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	37.8	D	SIGNAL	45.5	D

Table 4.15.A~~J~~K-2: Year 2022 plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2022 No Project			2022 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	53.5	D	SIGNAL	55.9	**E**
39	Iris Ave/Perris Blvd	D	SIGNAL	38.6	D	SIGNAL	38.4	D
40	Kitching St/Iris Ave	C	SIGNAL	23.9	C	SIGNAL	49.8	D
41	Lasselle Str/Iris Ave	D	SIGNAL	68.7	**E**	SIGNAL	89.5	**F**
42	Nason Str/Iris Ave	C	SIGNAL	11.7	B	SIGNAL	12.9	B
43	Oliver Str/Iris Ave	D	SIGNAL	22.0	C	SIGNAL	23.0	C
44	Via Dell Lago/Iris Ave	C	SIGNAL	8.3	A	SIGNAL	8.1	A
45	Krameria Ave/Perris Blvd	D	SIGNAL	> 180.0	**F**	SIGNAL	> 180.0	**F**
46	Kitching Str/Krameria Ave	D	SIGNAL	40.0	D	SIGNAL	47.6	D
47	Lasselle Str/Krameria Ave	D	SIGNAL	15.3	B	SIGNAL	15.7	B
48	Kitching Str/Alessandro Blvd	D	SIGNAL	25.7	C	SIGNAL	26.0	C
49	Lasselle Str/Alessandro Blvd	D	SIGNAL	41.9	D	SIGNAL	42.9	D
50	Morrison Str/Alessandro Blvd	D	SIGNAL	9.2	A	SIGNAL	9.3	A
51	Nason Str/Alessandro Blvd	D	SIGNAL	29.5	C	SIGNAL	31.5	C
52	Kitching Str/Cactus Ave	C	SIGNAL	26.2	C	SIGNAL	26.5	C
53	Lasselle Str/Cactus Ave	C	SIGNAL	52.8	**D**	SIGNAL	56.6	**E**
54	Morrison Str/Cactus Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
55	Nason Str/Cactus Ave	D	SIGNAL	32.8	C	SIGNAL	35.3	D
56	Frederick Str/Alessandro Blvd	D	SIGNAL	61.7	**E**	SIGNAL	74.8	**E**
57	Graham Str/Alessandro Blvd	D	SIGNAL	76.8	**E**	SIGNAL	77.6	**E**
58	Heacock Str/Alessandro Blvd	D	SIGNAL	48.9	D	SIGNAL	59.7	**E**
59	Indian Str/Alessandro Blvd	D	SIGNAL	33.5	C	SIGNAL	39.6	D
60	Perris Blvd/Alessandro Blvd	D	SIGNAL	113.4	**F**	SIGNAL	120.7	**F**
61	Frederick Str/Cactus Ave	D	SIGNAL	15.6	B	SIGNAL	16.3	B
62	Graham Str/Cactus Ave	D	SIGNAL	66.6	**E**	SIGNAL	69.9	**E**
63	Heacock Str/Cactus Ave	D	SIGNAL	32.9	C	SIGNAL	33.6	C
64	Indian Str/Cactus Ave	C	SIGNAL	22.0	C	SIGNAL	22.1	C
65	Perris Blvd/Cactus Ave	D	SIGNAL	32.7	C	SIGNAL	33.5	C
66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	58.3	**E**	SIGNAL	76.7	**E**
67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	8.9	A	SIGNAL	8.6	A

Table 4.15.A~~J~~K-2: Year 2022 plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2022 No Project			2022 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	23.3	C	SIGNAL	33.5	C
69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	35.4	D	SIGNAL	42.1	D
70	Day Str/Alessandro Blvd	D	SIGNAL	43.0	D	SIGNAL	76.5	**E**
71	Elsworth Str/Alessandro Blvd	D	SIGNAL	34.7	C	SIGNAL	36.3	D
72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	89.5	**F**	SIGNAL	89.5	**F**
73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	12.6	B	SIGNAL	40.4	D
74	Elsworth Str/Cactus Ave	D	SIGNAL	175.7	**F**	SIGNAL	> 180.0	**F**
75	Central Ave/Lochmoor Dr.	D	SIGNAL	30.3	C	SIGNAL	52.8	D
76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	29.8	C	SIGNAL	31.1	C
77	SR-60 EB Ramps/Central Ave	D	SIGNAL	11.7	B	SIGNAL	11.9	B
78	SR-60 WB Ramps/Central Ave	D	SIGNAL	7.4	A	SIGNAL	7.8	A
79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	15.5	B	SIGNAL	15.5	B
80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	48.3	D	SIGNAL	50.0	D
81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	48.4	D	SIGNAL	51.7	D
82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	16.7	B	SIGNAL	17.5	B
83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	41.2	D	SIGNAL	42.7	D
84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	5.6	A	SIGNAL	5.7	A
85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	15.0	C	AWS	15.6	C
86	Central Ave/Chicago Ave	D	SIGNAL	40.8	D	SIGNAL	43.4	D
87	Central Ave/El Cerrito Dr	D	SIGNAL	17.3	B	SIGNAL	17.6	B
88	Central Ave/Canyon Crest Dr	D	SIGNAL	51.2	D	SIGNAL	53.0	D
89	Chicago Ave/Country Club Dr	D	SIGNAL	7.1	A	SIGNAL	7.0	A
90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	35.4	D	SIGNAL	36.6	D
91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	31.3	C	SIGNAL	31.3	C
92	Arlington Ave/Maude St	D	SIGNAL	13.5	B	SIGNAL	13.6	B
93	Horace St/Arlington Ave	D	SIGNAL	10.1	B	SIGNAL	10.3	B
94	Arlington Ave/Victoria Ave	D	SIGNAL	83.7	**F**	SIGNAL	92.9	**F**
95	Alessandro Blvd/Chicago Ave	D	SIGNAL	114.7	**F**	SIGNAL	121.2	**F**
96	Alessandro Blvd/Century Ave	D	SIGNAL	14.9	B	SIGNAL	15.0	B
97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	20.5	C	SIGNAL	20.9	C

Table 4.15.A~~J~~K-2: Year 2022 plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2022 No Project			2022 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	30.2	C	SIGNAL	30.2	C
99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	25.5	C	SIGNAL	28.4	C
100	Harley Knox Blvd/Evan Rd	N/A	N/A	Non-Existent		N/A	Non-Existent	
101	Ramona Expy/Indian St	E	SIGNAL	39.7	D	SIGNAL	41.8	D
102	Ramona Expy/Perris Blvd	E	SIGNAL	31.2	C	SIGNAL	31.5	C
103	Ramona Expy/Evans Rd	E	SIGNAL	41.6	D	SIGNAL	45.1	D
104	Perris Blvd/Morgan St	D	SIGNAL	12.7	B	SIGNAL	12.6	B
105	Evans Rd/Morgan St	C	SIGNAL	29.7	C	SIGNAL	29.0	C
106	Perris Blvd/Rider St	C	SIGNAL	22.7	C	SIGNAL	23.4	C
107	Evans Rd/Rider St	C	SIGNAL	30.3	C	SIGNAL	30.0	C
108	Perris Blvd/Mid-County Pkwy WB Ramps	D	SIGNAL	20.8	C	SIGNAL	21.2	C
109	Perris Blvd/Mid-County Pkwy EB Ramps	D	SIGNAL	32.4	C	SIGNAL	34.6	C
110	Evans Rd/Mid-County Pkwy WB Ramps	D	SIGNAL	32.2	C	SIGNAL	32.1	C
111	Evans Rd/Mid-County Pkwy EB Ramps	D	SIGNAL	25.9	C	SIGNAL	26.3	C
112	Placentia Ave/Perris Blvd	D	SIGNAL	60.0	**E**	SIGNAL	61.4	**E**
113	Evans Rd/Placentia Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
114	Evans Rd/Orange Ave	C	AWS	16.9	C	AWS	17.7	C
115	Evans Rd/Nuevo Rd	C	SIGNAL	32.2	C	SIGNAL	32.2	C
116	Evans Rd/Ellis Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
117	Ellis Ave/I-215 SB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
118	Ellis Ave/SR-215 NB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
119	Evans Rd/San Jacinto Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
120	Park Center Blvd/Ramona Expy WB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
121	Park Center Blvd/Ramona Expy EB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
122	Bridge St/Ramona Expy	N/A	N/A	Non-Existent		N/A	Non-Existent	
123	Gilman Springs Rd/Bridge Str	C	CSS	25.7	**D**	CSS	26.7	**D**
124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	108.0	**F**	CSS	> 180.0	**F**
125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	123.3	**F**	CSS	145.4	**F**
126	Ramona Expy/Sanderson Ave	D	SIGNAL	24.4	C	SIGNAL	24.8	C
127	Potrero Blvd/SR-60 WB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	

Table 4.15.A~~J~~K-2: Year 2022 plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2022 No Project			2022 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
128	Potrero Blvd/SR-60 EB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
129	W 6th St/California Ave	C	AWS	55.0	**F**	AWS	64.0	**F**
130	W 6th St/Beaumont Ave	C	SIGNAL	25.3	C	SIGNAL	28.0	C
131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	6.3	A	SIGNAL	6.2	A
132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	125.1	**F**	AWS	> 180.0	**F**
133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	> 180.0	**F**	AWS	> 180.0	**F**
134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	> 180.0	**F**	AWS	> 180.0	**F**
135	W Crescent Ave/Alessandro Blvd	C	CSS	16.2	C	CSS	18.5	C
136	W Sunset Dr/Alessandro Blvd	C	AWS	11.1	B	AWS	11.5	B

Notes "CSS" means cross-street is stop-controlled "AWS" means all-way stop "RABT" means roundabout

"Non-Existent" indicates that the intersection exists in some scenarios but not in the scenario being reported

denotes LOS exceeding the target threshold

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

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Roadway Analysis. Year 2022 with Phase 1 roadway segment levels of service for the study area intersections are summarized in Table 4.15.A~~K~~L, which shows three roadway segments would operate at unsatisfactory levels of service. Phase 1 of the project would contribute toward the worsening of an already unsatisfactory LOS at two roadway segments and, therefore, have a significant cumulative impact at these locations and mitigation is required. One roadway segment would drop from satisfactory to unsatisfactory level of service with the addition of Phase 1 traffic, which would also be considered a significant ~~direct project~~cumulative impact ~~would occur on roadway segments under year 2022 with Phase 1 conditions~~ and mitigation is required.

Phase 1 of the project would have a significant cumulative impact at the following roadway segments under year 2022 with Phase 1 conditions:

- Gilman Springs Road between Alessandro Boulevard to Bridge Street; and
- Gilman Springs Road between SR-60 and Alessandro Boulevard.

Phase 1 of the project would also create a significant cumulative impact at the following roadway segment under year 2022 with Phase 1 conditions:

- Redlands Boulevard from Fir (future Eucalyptus) Avenue to the SR-60 Eastbound Ramps. ~~and~~
- ~~Cactus Avenue Redlands Boulevard to Street D.~~

Freeway Segment Analysis. Year 2022 with ~~project~~ Phase 1 freeway segment levels of service for the study area are summarized in Table 4.15.A~~L~~M, which shows ~~40~~ 33 freeway segments would operate at unsatisfactory levels of service in the year 2022 with Phase 1 condition. Phase 1 of the project would contribute toward the worsening of an already unsatisfactory LOS at 29 freeway segments and, therefore, have a significant cumulative impact at these locations. At four freeway segments, Phase 1 of the project would create a ~~project-specific significant impact since the project would~~ decrease in the LOS from satisfactory to unsatisfactory, resulting in a significant cumulative impact.

Phase 1 of the project would have a significant cumulative impact at the following ~~34~~ 29 freeway segments under year 2022 with Phase 1 conditions:

- Northbound or Eastbound Sections:
  - SR-60 S. Reservoir Street to Ramona Avenue;
  - SR-60 Central Avenue to Mountain Avenue;
  - SR-60 Euclid Avenue to Grove Avenue;
  - SR-60 Grove Avenue to Vineyard Avenue;
  - SR-60 Vineyard Avenue to Archibald Avenue;
  - ~~SR-60 Archibald Avenue to Haven Avenue;~~
  - SR-60 Valley Way to Rubidoux Boulevard;
  - SR-60 Rubidoux Boulevard to Market Street;
  - SR-60 Market Street to Main Street;
  - SR-60 Martin Luther King Boulevard to Central Avenue;
  - SR-60 Pigeon Pass Road/Frederick Street to Heacock Street;
  - SR-60 Heacock Street to Perris Boulevard;

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Table 4.15.A~~K~~L: Year 2022 plus Phase 1 Roadway Levels of Service

Roadway		From	To	LOS Standard*	2022 No-Project Conditions			2022 Phase 1 Conditions			Project Significant Impact?	Mitigation Measures Required to Reduce Impacts to Less-Than-Significant	LOS after Mitigation
					Roadway Section**	Daily Volume	LOS	Roadway Section**	Daily Volume	LOS			
S-1	Theodore Street (A)	SR-60 WB Ramps	Ironwood Ave	D	2U	3,133	A	2U	4,243	A	No		
S-2	Theodore Street (A)	SR-60 EB Ramps	Fir (Eucalyptus) Ave	D	2U	6,689	A	6D	29,448	A	No		
S-3	Fir (Eucalyptus) Ave	Redlands Blvd	Theodore Street (A)	D	2U***	6,542	A	4D	7,234	A	No		
S-4	Eucalyptus Ave (B)	Theodore Street (A)	Gilman Springs Rd	N/A	Future Road			Future Road			No		
S-5	Theodore Street (A)	Fir (Eucalyptus) Ave	Street E	D	2U	1,116	A	6D	30,318	A	No		
S-6	Street E	Theodore Street (A)	Cactus Ave Extension	D	Future Road			4U	14,908	A	No		
S-7	Street F	Theodore Street (A)	Alessandro Blvd (Street C)	D	Future Road			2U	2,242	A	No		
S-8	Theodore Street (A)	Fir (Eucalyptus) Ave	Alessandro Blvd (Street C)	D	2U	1,116	A	4D	11,017	A	No		
S-9	Alessandro Blvd (Street E)	Merwin Street	Theodore Street (A)	D	2U	3,778	A	4U	7,226	A	No		
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave	D	Future Road			4U	9,699	A	No		
S-11	Alessandro Blvd (Street C)	Theodore Street (A)	Street F	D	2U	2,321	A	4U	4,768	A	No		
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	2,321	A	4U	4,347	A	No		
S-14	Alessandro Blvd	Moreno Beach Drive	Redlands Blvd	D	4U	4,796	A	4U	4,675	A	No	****	
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge Street	D	2U	15,512	F	2U	16,492	F	Yes	Widen to 4 lanes	C
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	2U	12,819	F	2U	12,829	F	Yes	Widen to 4 lanes	C
S-18	Redlands Blvd	SR-60 EB Ramps	Fir (Eucalyptus) Ave	D	2U	11,042	D	2U	15,071	E	Yes	Widen to 4 lanes	A
S-19	Redlands Blvd	Fir (Eucalyptus) Ave	Alessandro Blvd	C	2U	8,416	B	2U	6,575	A	No		
S-20	Alessandro Blvd	Redlands Blvd	Merwin Street	C	2U	3,886	A	2U	772	A	No		
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave	C	2U	8,583	A	2U	4,755	A	No		
S-22	Cactus Ave	Redlands Blvd	Cactus Ave Extension	C	2U***	472	A	2U	9,699	C	No		

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.

** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways.

*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.

**** Due to the severing of Alessandro Blvd and the diversion of traffic to other routes, there is not need to widen this section beyond the current 2U configuration.

Indicates LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.A~~L~~M-1: Year 2022 plus Phase 1 Freeway Mainline Levels of Service (Northbound/Eastbound)

			2022 No Project						2022 Plus Phase 1					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	7,210	30.5	D	7,830	35.1	E	7,400	32.0	D	7,810	35.3	E
F-3	SR-60	Ramona Ave to Central Ave	6,850	28.2	D	9,380	51.4	F	7,010	29.4	D	9,340	50.8	F
F-4	SR-60	Central Ave to Mountain Ave	7,590	33.0	D	9,350	51.0	F	7,750	34.5	D	9,320	51.2	F
F-5	SR-60	Mountain Ave to Euclid Ave	7,520	32.5	D	6,690	27.5	D	7,690	34.0	D	6,640	27.4	D
F-6	SR-60	Euclid Ave to Grove Ave	8,990	45.8	F	9,280	50.0	F	9,190	48.8	F	9,240	50.1	F
F-7	SR-60	Grove Ave to Vineyard Ave	8,170	37.6	E	9,530	53.6	F	8,370	39.7	E	9,480	52.8	F
F-8	SR-60	Vineyard Ave to Archibald Ave	8,080	36.5	E	9,470	52.7	F	8,280	38.6	E	9,410	52.5	F
F-9	SR-60	Archibald Ave to Haven Ave	7,590	32.8	D	6,630	27.2	D	7,810	34.7	D	6,560	27.0	D
F-10	SR-60	Haven Ave to Milliken Ave	7,400	23.2	C	7,040	22.1	C	7,630	24.2	C	6,950	21.9	C
F-11	SR-60	Milliken Ave to I-15	5,280	20.3	C	4,530	17.4	B	5,500	21.5	C	4,440	17.2	B
F-12	SR-60	Etiwanda Ave to Van Buren Blvd	4,580	17.6	B	3,440	13.3	B	4,840	18.8	C	3,380	13.3	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission Blvd/ Country Village Rd	5,070	19.6	C	4,460	17.2	B	5,300	20.8	C	4,380	17.2	B
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	4,600	17.7	B	3,560	13.8	B	4,850	19.0	C	3,480	13.7	B
F-15	SR-60	Pedley Rd to Pyrite St	4,620	17.8	B	3,710	14.4	B	4,880	19.1	C	3,640	14.3	B
F-16	SR-60	Pyrite St to Valley Way	5,190	20.1	C	3,990	15.5	B	5,460	21.5	C	3,910	15.3	B
F-17	SR-60	Valley Way to Rubidoux Blvd	6,280	39.4	E	4,530	24.1	C	6,530	43.6	E	4,450	24.0	C
F-18	SR-60	Rubidoux Blvd to Market St	6,920	48.7	F	4,950	27.2	D	7,180	54.3	F	4,860	26.9	D
F-19	SR-60	Market St to Main St	6,450	41.6	E	7,260	56.8	F	6,810	48.0	F	7,230	56.9	F
F-20	SR-60	Main to SR-91	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-24	SR-60	Martin Luther King Blvd to Central Ave	8,440	41.5	E	9,140	53.5	F	8,980	53.0	F	9,210	59.2	F
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	6,450	25.7	C	7,270	30.8	D	6,900	29.0	D	7,320	31.7	D
F-27	SR-60	I-215 to Day St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-29	SR-60	Pigeon Pass Rd to Heacock St	3,520	29.2	D	4,200	39.3	E	3,930	37.2	E	4,170	41.0	E
F-30	SR-60	Heacock St to Perris Blvd	3,160	25.0	C	4,050	36.7	E	3,780	35.0	E	4,070	39.1	E
F-31	SR-60	Perris Blvd to Nason St	2,590	19.8	C	3,070	24.3	C	3,270	28.1	C	3,140	26.3	D
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	1,910	14.5	B	2,370	18.0	C	2,780	23.4	C	2,540	20.7	C
F-34	SR-60	Redlands Blvd to Theodore St	2,460	18.8	C	3,240	25.8	C	3,300	28.9	D	3,350	28.7	D
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	2,310	19.2	C	2,770	23.6	C	2,240	18.6	C	2,780	23.6	C
F-37	SR-60	Jack Rabbit Trail to I-10	2,070	15.8	B	2,820	21.8	C	2,040	15.7	B	2,850	22.3	C
F-39	SR-91	I-15 to McKinley St	7,190	22.3	C	10,400	38.6	E	7,330	22.9	C	10,350	38.6	E
F-40	SR-91	McKinley St to Pierce St	6,500	26.1	D	5,950	23.5	C	6,620	26.8	D	5,900	23.4	C
F-41	SR-91	Pierce St to Magnolia Ave	5,970	35.2	E	5,410	30.5	D	6,070	36.6	E	5,350	30.2	D
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-43	SR-91	La Sierra Ave to Tyler St	5,490	30.9	D	5,230	29.0	D	5,600	32.2	D	5,200	29.0	D

Table 4.15.A~~L~~M-1: Year 2022 plus Phase 1 Freeway Mainline Levels of Service (Northbound/Eastbound)

			2022 No Project						2022 Plus Phase 1					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-44	SR-91	Tyler St to Van Buren Blvd	6,600	26.6	D	5,980	23.6	C	6,700	27.4	D	5,950	23.6	C
F-45	SR-91	Van Buren Blvd to Adam St	6,700	27.2	D	5,250	20.3	C	6,780	27.8	D	5,220	20.3	C
F-46	SR-91	Adam St to Madison St	7,310	31.4	D	4,970	19.4	C	7,380	32.1	D	4,940	19.3	C
F-47	SR-91	Madison St to Arlington Ave	6,710	27.6	D	4,970	19.4	C	6,770	28.2	D	4,950	19.4	C
F-49	SR-91	Central Ave to 14th St	5,910	34.9	D	5,070	27.7	D	5,940	35.5	E	5,070	27.7	D
F-51	SR-91	University Ave to Spruce St	8,270	26.6	D	7,700	24.2	C	8,350	27.1	D	7,700	24.4	C
F-52	I-10	SR-60 to Beaumont Ave	4,390	16.8	B	6,080	24.1	C	4,360	16.8	B	6,080	24.1	C
F-53	I-10	Beaumont Ave to Pennsylvania Ave	4,450	17.1	B	6,240	24.9	C	4,430	17.0	B	6,260	25.0	C
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	4,640	17.8	B	6,480	26.2	D	4,620	17.8	B	6,510	26.3	D
F-55	I-10	Highland Springs Ave to Sunset Ave	4,560	17.5	B	6,210	24.8	C	4,530	17.4	B	6,240	24.9	C
F-56	I-10	Sunset Ave to 22nd St	4,470	17.2	B	5,960	23.5	C	4,430	17.0	B	5,990	23.7	C
F-57	I-10	22nd St to 8th St	4,380	16.6	B	5,800	22.8	C	4,340	16.7	B	5,840	23.0	C
F-58	I-10	8th St to Hargrave St	4,370	16.8	B	5,730	22.4	C	4,330	16.6	B	5,770	22.6	C
F-59	I-10	Hargrave St to Fields Rd	4,100	15.8	B	5,350	20.8	C	4,040	15.5	B	5,390	20.9	C
F-60	I-10	Fields Rd to Morongo Tr	3,770	14.5	B	5,080	19.6	C	3,720	14.3	B	5,130	19.8	C
F-61	I-10	Morongo Tr to Main St	3,410	13.1	B	4,670	18.0	B	3,360	12.9	B	4,710	18.1	C
F-62	I-10	Main St to Haugen-Lehmann Way	3,280	12.6	B	4,720	18.1	C	3,230	12.4	B	4,770	18.3	C
F-64	I-10	SR-111 to Tipton Rd	2,950	11.3	B	4,140	15.9	B	2,900	11.1	B	4,180	16.1	B
F-65	I-10	Tipton Rd to SR-62	2,810	10.8	A	4,170	16.0	B	2,780	10.7	A	4,220	16.2	B
F-66	I-215	Scott Rd to Newport Rd	2,850	14.5	B	4,330	22.4	C	2,830	14.5	B	4,330	22.4	C
F-68	I-215	Newport Rd to McCall Blvd	2,100	10.8	A	3,140	15.9	B	2,090	10.7	A	3,120	15.8	B
F-69	I-215	McCall Blvd to Ethanac Rd	2,750	14.0	B	4,380	22.7	C	2,730	14.0	B	4,360	22.7	C
F-70	I-215	Ethanac Rd to SR-74	4,200	21.7	C	4,100	21.0	C	4,170	21.6	C	4,080	21.0	C
F-71	I-215	SR-74 to Redlands Ave	3,490	17.7	B	4,800	25.4	C	3,470	17.7	B	4,780	25.5	C
F-74	I-215	Columbia Ave to Center St	6,090	36.8	E	6,030	36.2	E	6,060	36.5	E	6,060	36.5	E
F-75	I-215	Center St to La Cadena Dr	5,830	34.1	D	5,800	33.8	D	5,810	33.9	D	5,840	34.2	D
F-76	I-215	La Cadena Dr to Barton Rd	5,690	32.7	D	6,130	37.3	E	5,680	32.7	D	6,190	38.0	E
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,980	35.6	E	6,550	42.5	E	5,960	35.4	E	6,610	43.3	E
F-78	I-215	Mt. Vernon Ave to I-10	5,770	22.5	C	6,660	27.0	D	5,740	22.4	C	6,750	27.5	D
F-80	I-215	Auto Plaza Dr to Mill St	4,490	17.2	B	5,500	21.2	C	4,440	17.0	B	5,530	21.4	C
F-83	I-215	Baseline Rd to Highland Ave	3,030	15.4	B	4,060	20.8	C	3,020	15.4	B	4,110	21.2	C

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.A~~L~~M-2: Year 2022 plus Phase 1 Freeway Mainline Levels of Service (Southbound/Westbound)

			2022 No Project						2022 Plus Phase 1					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	8,770	43.3	E	7,150	30.1	D	8,690	43.0	E	7,260	31.0	D
F-3	SR-60	Ramona Ave to Central Ave	8,290	38.7	E	6,750	27.7	D	8,210	38.3	E	6,860	28.5	D
F-4	SR-60	Central Ave to Mountain Ave	6,340	25.4	C	6,990	29.1	D	6,260	25.2	C	7,100	30.0	D
F-5	SR-60	Mountain Ave to Euclid Ave	6,260	25.0	C	7,440	32.0	D	6,190	24.8	C	7,560	33.1	D
F-6	SR-60	Euclid Ave to Grove Ave	6,470	26.1	D	7,310	31.1	D	6,390	25.9	C	7,420	32.1	D
F-7	SR-60	Grove Ave to Vineyard Ave	6,330	25.4	C	7,920	35.5	E	6,250	25.1	C	8,060	37.0	E
F-8	SR-60	Vineyard Ave to Archibald Ave	7,670	33.6	D	7,550	32.8	D	7,580	33.2	D	7,680	34.0	D
F-9	SR-60	Archibald Ave to Haven Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Milliken Ave	5,850	18.0	B	7,110	22.3	C	5,740	17.7	B	7,270	23.0	C
F-11	SR-60	Milliken Ave to I-15	5,550	21.6	C	7,050	29.2	D	5,430	21.2	C	7,230	30.6	D
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	4,490	13.7	B	5,850	17.9	B	4,360	13.4	B	6,080	18.7	C
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission Blvd/Country Village Rd	4,220	16.2	B	5,830	22.8	C	4,110	15.9	B	6,050	24.0	C
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	4,240	16.3	B	5,850	22.9	C	4,130	15.9	B	6,130	24.4	C
F-15	SR-60	Pedley Rd to Pyrite St	3,290	12.6	B	5,010	19.2	C	3,150	12.2	B	5,260	20.5	C
F-16	SR-60	Pyrite St to Valley Way	2,740	10.6	A	4,510	17.2	B	2,620	10.2	A	4,740	18.3	C
F-17	SR-60	Valley Way to Rubidoux Blvd	4,630	24.4	C	6,530	42.2	E	4,510	23.9	C	6,810	46.9	F
F-18	SR-60	Rubidoux Blvd to Market St	3,630	18.6	C	5,660	32.5	D	3,520	18.2	C	5,940	35.5	E
F-19	SR-60	Market St to Main St	5,860	34.4	D	6,820	46.5	F	5,680	32.9	D	7,090	51.8	F
F-20	SR-60	Main St to SR-91	5,450	30.6	D	6,610	42.9	E	5,290	29.7	D	6,880	48.0	F
F-24	SR-60	Martin Luther King Blvd to Central Ave	7,060	23.7	C	7,680	25.5	C	7,000	24.3	C	8,050	28.7	D
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	7,390	31.9	D	8,510	40.3	E	7,310	31.8	D	8,900	45.8	F
F-27	SR-60	I-215 to Day St	7,250	54.3	F	3,880	20.0	C	7,210	55.7	F	4,210	22.8	C
F-29	SR-60	Pigeon Pass Rd to Heacock St	3,460	28.5	D	3,860	34.0	D	3,460	29.5	D	4,320	45.2	F
F-30	SR-60	Heacock St to Perris Blvd	3,300	26.6	D	3,360	27.5	D	3,370	28.4	D	3,900	36.7	D
F-31	SR-60	Perris Blvd to Nason St	2,790	21.6	C	2,550	19.6	C	2,900	23.4	C	3,210	27.4	D
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	1,810	13.8	B	1,750	13.4	B	2,060	16.5	B	2,620	21.7	C
F-34	SR-60	Redlands Blvd to Theodore St	2,280	17.3	B	2,200	16.8	B	2,580	20.7	C	2,920	24.2	C
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	2,180	18.0	C	1,850	15.3	B	2,250	20.6	C	1,770	14.6	B
F-37	SR-60	Jack Rabbit Trail to I-10	2,190	16.7	B	1,690	12.9	B	2,290	17.6	B	1,660	12.9	B
F-39	SR-91	I-15 to McKinley St	7,280	30.9	D	7,330	31.0	D	7,230	30.8	D	7,400	31.5	D
F-40	SR-91	McKinley St to Pierce St	5,440	31.0	D	6,330	39.6	E	5,400	30.6	D	6,400	40.9	E
F-41	SR-91	Pierce St to Magnolia Ave	5,210	29.0	D	8,080	77.6	F	5,180	28.8	D	8,150	80.4	F
F-42	SR-91	Magnolia Ave to La Sierra Ave	5,450	31.1	D	8,040	76.1	F	5,410	30.7	D	8,120	80.9	F
F-43	SR-91	La Sierra Ave to Tyler St	4,800	25.9	C	5,980	35.6	E	4,760	25.8	C	6,050	36.7	E
F-44	SR-91	Tyler St to Van Buren Blvd	6,170	24.7	C	7,420	31.6	D	6,170	24.7	C	7,490	32.3	D
F-45	SR-91	Van Buren Blvd to Adam St	5,810	22.9	C	7,160	29.9	D	5,810	22.9	C	7,230	30.6	D
F-46	SR-91	Adam St to Madison St	5,420	21.2	C	6,210	24.5	C	5,420	21.2	C	6,280	25.0	C
F-47	SR-91	Madison St to Arlington Ave	4,780	25.8	C	5,550	31.2	D	4,790	26.0	D	5,610	32.0	D
F-49	SR-91	Central Ave to 14th St	4,340	16.8	B	4,530	17.3	B	4,310	16.7	B	4,570	17.6	B
F-51	SR-91	University Ave to Spruce St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-52	I-10	SR-60 to Beaumont Ave	5,610	21.9	C	5,370	20.7	C	5,620	21.9	C	5,380	20.9	C
F-53	I-10	Beaumont Ave to Pennsylvania Ave	5,470	21.3	C	5,270	20.3	C	5,510	21.5	C	5,260	20.4	C

Table 4.15.A~~L~~M-2: Year 2022 plus Phase 1 Freeway Mainline Levels of Service (Southbound/Westbound)

			2022 No Project						2022 Plus Phase 1					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	5,920	23.3	C	5,480	21.2	C	5,960	23.5	C	5,430	21.1	C
F-55	I-10	Highland Springs Ave to Sunset Ave	5,690	22.3	C	5,200	20.1	C	5,740	22.6	C	5,180	20.0	C
F-56	I-10	Sunset Ave to 22nd St	5,450	21.2	C	5,090	19.7	C	5,490	21.5	C	5,080	19.6	C
F-57	I-10	22nd St to 8th St	5,320	20.6	C	5,110	19.6	C	5,370	20.9	C	5,110	19.7	C
F-58	I-10	8th St to S Hargrave St	5,250	20.3	C	5,250	20.2	C	5,300	20.6	C	5,230	20.2	C
F-59	I-10	Hargrave St to Field Rd	4,810	18.5	C	5,020	19.3	C	4,860	18.8	C	4,980	19.2	C
F-60	I-10	Fields Rd to Morongo Tr	4,600	17.7	B	4,830	18.6	C	4,650	18.0	B	4,790	18.4	C
F-61	I-10	Morongo Tr to Main St	4,110	15.8	B	4,240	16.3	B	4,170	16.1	B	4,210	16.2	B
F-62	I-10	Main St to Haugen-Lehmann Way	4,230	16.3	B	4,300	16.5	B	4,290	16.6	B	4,270	16.4	B
F-64	I-10	SR-111 to Tipton Rd	3,680	14.1	B	3,760	14.4	B	3,740	14.4	B	3,750	14.4	B
F-65	I-10	Tipton Rd to SR-62	3,700	14.2	B	3,770	14.4	B	3,760	14.5	B	3,750	14.4	B
F-66	I-215	Scott Rd to Newport Rd	3,670	18.6	C	2,500	12.7	B	3,640	18.5	C	2,520	12.8	B
F-68	I-215	Newport Rd to McCall Blvd	3,820	19.6	C	3,520	18.0	B	3,790	19.4	C	3,520	18.0	B
F-69	I-215	McCall Blvd to Ethanac Rd	4,380	22.8	C	2,950	15.0	B	4,360	22.7	C	2,940	15.0	B
F-70	I-215	Ethanac Rd to SR-74	4,110	21.2	C	4,250	21.9	C	4,100	21.1	C	4,250	22.0	C
F-71	I-215	SR-74 to Redlands Ave	5,730	33.1	D	3,860	19.7	C	5,730	33.1	D	3,870	19.8	C
F-74	I-215	Columbia Ave to Center St	6,390	40.0	E	5,330	29.6	D	6,420	40.8	E	5,310	29.4	D
F-75	I-215	Center St to La Cadena Dr	6,880	46.9	F	5,560	31.6	D	6,920	48.1	F	5,540	31.4	D
F-76	I-215	La Cadena Dr to Barton Rd	6,700	44.2	E	5,570	31.7	D	6,750	45.4	F	5,550	31.5	D
F-77	I-215	Barton Rd to Mt. Vernon Ave	6,720	44.4	E	5,610	32.0	D	6,770	45.7	F	5,580	31.7	D
F-78	I-215	Mt. Vernon Ave to I-10	7,080	29.2	D	5,890	23.1	C	7,150	29.9	D	5,870	23.0	C
F-80	I-215	Auto Plaza Dr to Mill St	4,790	18.2	C	4,140	15.8	B	4,810	18.4	C	4,120	15.8	B
F-83	I-215	Baseline Rd to Highland Ave	5,280	29.0	D	4,700	24.9	C	5,330	29.6	D	4,700	24.9	C

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

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- ~~SR-91 McKinley Street to Pierce Street;~~
- SR-91 Pierce Street to Magnolia Avenue;
- ~~I-215 Scott Road to Newport Road;~~
- I-215 Columbia Avenue to Center Street;
- I-215 Iowa Avenue/La Cadena Drive to Barton Road; and
- I-215 Barton Road to Mt. Vernon Avenue.

- Southbound or Westbound Sections:
  - SR-60 Grove Avenue to Vineyard Avenue;
  - SR-60 Valley Way to Rubidoux Boulevard;
  - SR-60 Market Street to Main Street;
  - SR-60 Main Street to SR-91;
  - ~~SR-60 Martin Luther King Boulevard to Central Avenue;~~
  - SR-60 Fair Isle Drive/Box Springs Road to I-215;
  - SR-60 I-215 to Day Street;
  - SR-91 McKinley Street to Pierce Street;
  - SR-91 Pierce Street to Magnolia Avenue;
  - SR-91 Magnolia Avenue to La Sierra Avenue;
  - SR-91 La Sierra Avenue to Tyler Street;
  - ~~I-215 Ethanac Road to SR-74;~~
  - I-215 Columbia Avenue to Center Street;
  - I-215 Center Street to Iowa Avenue/La Cadena Drive;
  - I-215 Iowa Avenue/La Cadena Drive to Barton Road; and
  - I-215 Barton Road to Mt. Vernon Avenue.

<u>Phase 1 of the project would create a significant cumulative impact at the following four freeway segments under year 2022 with Phase 1 conditions:</u>

- Northbound or Eastbound Section:
  - ~~SR-60 Mountain Avenue to Euclid Avenue;~~
  - ~~SR-60 Archibald Avenue to Haven Avenue; and~~
  - SR-91 Central Avenue to 14th Street.
- Southbound or Westbound Sections:
  - SR-60 Rubidoux Boulevard to Market Street;
  - SR-60 Pigeon Pass Road/Frederick Street to Heacock Street; and
  - SR-60 Heacock Street to Perris Boulevard.

Freeway Weaving Analysis. Year 2022 with ~~project~~ Phase 1 freeway weaving segment levels of service for the study area intersections are summarized in Table 4.15.A~~M~~N-1 and 4.15.A~~M~~N-2, which shows ~~14~~ 10 freeway weaving segments would operate at unsatisfactory levels of service. Phase 1 of the project would contribute toward the worsening of an already unsatisfactory LOS at ~~11~~ seven of the freeway weaving segments and, therefore, would have a cumulative impact at these locations. Phase 1 of the project would have a significant direct project impact at three freeway weaving segments under year 2022 with Phase 1 conditions.

Phase 1 of the project would have a cumulative impact at the following ~~11~~ seven freeway weaving segments under year 2022 with Phase 1 conditions:

- Northbound or Eastbound:
  - SR-60 SR-71/S. Garey Avenue to Reservoir Street;
  - SR-60 Main Street to SR-91;
  - SR-60 SR-91 to W. Blaine Street/3rd Street;
  - ~~SR-60 W. Blaine Street/3rd Street to University Avenue;~~
  - SR-60 Central Avenue to Fair Isle Drive/Box Springs Road;
  - SR-91 Arlington Avenue to Central Avenue; and
  - I-215 SR-60 to Columbia Avenue.
- Southbound or Westbound:
  - SR-60 SR-91 to W. Blaine Street/3rd Street;
  - ~~SR-60 University Avenue to Martin Luther King Boulevard;~~
  - ~~SR-60 Central Avenue to Fair Isle Drive/Box Springs Road; and~~
  - ~~SR-91 14th Street to University Avenue.~~

Phase 1 of the project would ~~have~~also create a significant ~~direct project~~cumulative impact at the following ~~four~~ three freeway weaving segments under year 2022 with Phase 1 conditions:

- Southbound or Westbound:
  - SR-60 Blaine Street/3rd Street to University Avenue;
  - ~~SR-60 University Avenue t Martin Luther King Boulevard;~~
  - SR-60 Central Avenue to Fair Isle Drive/Box Springs Road.
  - SR-60 Day Street to Pigeon Pass Road/Frederick Street.

Freeway Ramp Analysis: Year 2022 with ~~project~~ Phase 1 freeway ramp merge/diverge levels of service are summarized in Table 4.15.A~~N~~O, which shows one freeway ramp that would operate at unsatisfactory level of service. Phase 1 of the project would contribute toward the worsening of an unsatisfactory LOS at this freeway ramp and, therefore, would have a significant cumulative impact on the following ramp:

- SR-60 Eastbound On-Ramp from Central Avenue. ~~and~~
- ~~SR-60 Westfound Off-Ramp at Central Avenue.~~

~~Under year 2022 with project conditions, the project would have a significant impact at the following freeway ramp:~~

- ~~Westbound Off-ramp to Martin Luther King Boulevard.~~

Phase 1 of the project would not create a significant cumulative impact to any freeway ramps in the year 2022 plus Phase 1 condition.

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Table 4.15.AMN-1: Year 2022 plus Phase 1 Weaving Segment Levels of Service (Northbound/Eastbound) (Revised)

			2022 No-Project Conditions						2022 Plus Phase 1 Conditions					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Weaving Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	7,150	29.2	D	8,640	37.6	E	7,340	30.5	D	8,620	37.7	E
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-20	SR-60	Main St to SR-91	7,350	36.6	E	7,370	38.0	E	7,620	38.5	E	7,380	38.2	E
W-21	SR-60	SR-91 to Blaine St/3rd St	6,010	24.2	C	9,760	42.3	E	6,440	26.7	C	9,720	42.6	E
W-22	SR-60	Blaine St/3rd St to University Ave	5,710	21.6	C	7,210	31.3	D	6,140	25.0	C	7,250	32.5	D
W-23	SR-60	University Ave to Martin Luther King Blvd	6,620	23.8	C	6,060	21.4	C	7,140	26.3	C	6,130	22.0	C
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs Rd	6,580	27.3	C	8,400	38.9	E	7,240	32.8	D	8,360	39.7	E
W-27	SR-60	I-215 to Day St	4,000	14.6	B	5,280	19.9	B	4,650	19.0	B	5,320	21.1	C
W-28	SR-60	Pigeon Pass Rd/Frederick St	3,890	16.6	B	5,130	23.2	C	4,350	19.3	B	5,120	23.6	C
W-32	SR-60	Moreno Beach Dr to Nason St	2,330	14.2	B	2,880	18.1	B	2,960	19.1	B	2,940	19.0	B
W-35	SR-60	Theodore St to Gilman Springs Rd	2,320	12.7	B	3,370	19.3	B	2,350	13.5	B	3,280	19.4	B
W-42	SR-91	Magnolia Ave to La Sierra Ave	6,400	30.3	D	5,950	28.5	D	6,550	31.1	D	5,920	28.5	D
W-48	SR-91	Arlington Ave to Central Ave	7,220	39.0	E	3,680	17.9	B	7,300	39.9	E	3,660	17.8	B
W-50	SR-91	14th St to University Ave	5,030	25.1	C	4,810	24.6	C	5,100	25.7	C	4,840	24.9	C
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-63	I-10	Haugen-Lehmann Way to SR-111	3,300	11.0	B	4,710	15.9	B	3,260	10.9	B	4,760	16.1	B
W-73	I-215	SR-60 to Columbia Ave	6,840	37.8	E	6,540	35.8	E	6,810	37.7	E	6,580	36.4	E
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	4,610	16.8	B	5,210	19.0	B	4,590	16.8	B	5,250	19.3	B
W-81	I-215	Mill St to 2nd St	5,090	17.8	B	5,910	21.1	C	5,070	17.7	B	5,940	21.3	C
W-82	I-215	5th St to Baseline Rd	3,760	12.7	B	4,450	15.2	B	3,750	12.7	B	4,490	15.4	B

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.AMN-2: Year 2022 plus Phase 1 Weaving Segment Levels of Service (Southbound/Westbound) (Revised)

			2022 No-Project Conditions						2022 Plus Phase 1 Conditions					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Weaving Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	6,130	21.9	C	6,720	24.3	C	6,060	21.7	C	6,850	25.0	C
W-9	SR-60	Haven Ave to Archibald Ave	6,330	24.4	C	7,330	29.3	C	6,230	24.1	C	7,480	30.1	D
W-20	SR-60	Main St to SR-91	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	7,720	29.4	D	9,290	36.9	E	7,640	29.4	D	9,670	39.1	E
W-22	SR-60	Blaine St/3rd St to University Ave	5,700	21.1	C	8,280	32.0	D	5,620	21.3	C	8,670	35.2	E
W-23	SR-60	University Ave to Martin Luther King Blvd	5,600	22.6	C	7,620	30.7	D	5,500	22.3	C	7,980	32.8	D
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs Rd	7,110	30.7	D	7,890	32.7	D	7,120	31.3	D	8,330	36.1	E
W-27	SR-60	I-215 to Day St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-28	SR-60	Pigeon Pass Rd/Frederick St	4,970	34.3	D	4,860	32.7	D	4,950	34.7	D	5,270	37.1	E
W-32	SR-60	Moreno Beach Dr to Nason St	2,410	14.5	B	2,190	13.2	B	2,560	15.8	B	2,840	18.2	B
W-35	SR-60	Theodore St to Gilman Springs Rd	2,360	13.6	B	2,030	11.4	B	2,310	13.5	B	1,980	11.8	B
W-42	SR-91	Magnolia Ave to La Sierra Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	4,510	21.2	C	5,050	24.1	C	4,510	21.3	C	5,120	24.6	C

Table 4.15.~~AM~~N-2: Year 2022 plus Phase 1 Weaving Segment Levels of Service (Southbound/Westbound) (Revised)

			2022 No-Project Conditions						2022 Plus Phase 1 Conditions					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Weaving Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-50	SR-91	14th St to University Ave	5,090	19.6	B	7,020	27.9	C	5,070	19.5	B	7,010	28.1	D
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	5,020	14.7	B	8,850	26.7	C	5,010	14.7	B	8,850	26.9	C
W-63	I-10	Haugen-Lehmann Way to SR-111	4,210	14.8	B	4,310	17.2	B	4,280	15.2	B	4,280	17.1	B
W-73	I-215	SR-60 to Columbia Ave	7,040	33.4	D	6,110	28.8	D	7,070	33.7	D	6,070	28.6	D
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	5,830	20.8	C	4,870	18.0	B	5,850	20.9	C	4,830	17.9	B
W-81	I-215	Mill St to 2nd St	5,300	19.0	B	4,410	15.9	B	5,330	19.2	B	4,390	15.8	B
W-82	I-215	5th St to Baseline Rd	4,540	16.0	B	3,490	12.3	B	4,570	16.1	B	3,470	12.2	B

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.~~AN~~O: Year 2022 plus Phase 1 Freeway Ramp Levels of Service (Revised)

					2022 No-Project Conditions								2022 Plus Phase 1 Conditions							
					AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
ID	Freeway / Direction	Ramp Segment		Ramp No. of Lanes	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	EB SR-60 On-Ramp from Martin Luther King Blvd	1	6,190	710	27.4	C	5,780	1,320	30.9	D	6,710	740	29.7	D	5,840	1,340	31.5	D
R-2	SR-60 EB	On-Ramp from Central Ave	EB SR-60 On-Ramp from Central Ave	1	8,170	710	28.8	D	9,010	1,120	35.1	F	8,700	820	31.9	F	9,080	1,120	35.6	F
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	EB SR-60 Off-Ramp to Redlands Blvd	1	1,910	220	8.3	A	2,370	520	12.5	B	2,780	430	18.2	B	2,540	560	15.4	B
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	EB SR-60 Loop On-Ramp from Redlands Blvd	1	1,690	90	17.1	B	1,850	210	19.4	B	2,350	90	24.1	C	1,980	250	21.7	C
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	EB SR-60 Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario			
R-6	SR-60 EB	Off-Ramp to Theodore St	EB SR-60 Off-Ramp to Theodore St	2	2,460	250	24.5	C	3,240	150	31.7	D	3,300	910	21.9	C	3,350	540	21.8	C
R-7	SR-60 EB	Loop On-Ramp from Theodore St	EB SR-60 Loop On-Ramp from Theodore St	1	2,210	110	23.1	C	3,090	270	31.7	D	2,390	40	25.4	C	2,810	70	28.8	D
R-8	SR-60 EB	Direct On-Ramp from Theodore St	EB SR-60 Direct On-Ramp from Theodore St	1	Does not Exist in this Scenario				Does not Exist in this Scenario				2,350	200	18.6	B	2,740	410	23.3	C
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	EB SR-60 Off-Ramp to Gilman Springs Rd	2	2,320	330	14.5	B	3,370	650	21.0	C	2,350	432	14.9	B	3,280	537	20.7	C
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	EB SR-60 On-Ramp from Gilman Springs Rd	1	1,990	270	14.7	B	2,720	140	19.8	B	1,918	288	14.5	B	2,743	211	20.8	C
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	WB SR-60 Off-Ramp to Gilman Springs Rd	2	2,210	230	13.8	B	1,880	190	11.8	B	2,250	326	14.7	B	1,770	233	11.7	B
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	WB SR-60 On-Ramp from Gilman Springs Rd	1	1,980	380	15.5	B	1,690	310	12.6	B	1,924	406	16.2	B	1,537	452	13.5	B

Table 4.15.~~A~~NO: Year 2022 plus Phase 1 Freeway Ramp Levels of Service (Revised)

ID	Freeway / Direction	Ramp Segment		Ramp No. of Lanes	2022 No-Project Conditions								2022 Plus Phase 1 Conditions							
					AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
					Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-13	SR-60 WB	Off-Ramp to Theodore St	WB SR-60 Off-Ramp to Theodore St	2	2,360	180	12.4	B	2,030	120	9.3	A	2,310	310	14.6	B	1,980	170	12.6	B
R-14	SR-60 WB	On-Ramp from Theodore St	WB SR-60 On-Ramp from Theodore St	1	2,180	100	21.0	C	1,910	290	20.2	C	2,000	560	24.1	C	1,810	790	24.7	C
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	WB SR-60 Off-Ramp to Redlands Blvd	1	2,280	170	22.9	C	2,200	100	22.3	C	2,580	250	26.7	C	2,920	160	30.2	D
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	WB SR-60 Loop On-Ramp from Redlands Blvd	1	2,110	440	23.3	C	2,100	380	22.8	C	2,330	470	26.3	C	2,760	700	32.3	D
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	WB SR-60 Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario			
R-18	SR-60 WB	Off-Ramp to Central Ave	WB SR-60 Off-Ramp to Central Ave	2	7,110	410	26.5	C	7,890	530	29.8	D	7,120	480	27.3	C	8,330	540	31.8	D
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	WB SR-60 Off-Ramp to Martin Luther King Blvd	1	7,060	510	16.3	B	7,680	430	17.6	B	7,000	520	16.4	B	8,050	430	19.2	B

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

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4.15.6.4 ~~General Plan Buildout~~ Year 2035 Cumulative With Project Conditions Traffic and Level of Service Impacts

Threshold:	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit. Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? A significant project-specific traffic impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the pre-project condition. The adopted LOS standards are as follows: • Roadway segments~~ and intersections~~: LOS C and LOS D as outlined in previously referenced Tables 4.15.~~E~~B and 4.15.C. • Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.Z. • Freeway mainline: LOS D. • Freeway Ramp Merge/Diverge: LOS D.

Intersection Analysis. ~~General Plan Buildout~~ Year 2035 Cumulative with project (buildout) intersection levels of service for the study area intersections are summarized in Tables 4.15.A~~O~~P-1 and 4.15.A~~O~~P-2, which shows ~~39~~35 intersections that would operate at unsatisfactory levels of service. The project would contribute toward the worsening of an already unsatisfactory LOS at ~~32~~ 30 intersections and, therefore, have a significant cumulative impact. At five intersections, the project would create a significant ~~direct project~~cumulative impact since the project would cause a decrease in the LOS from satisfactory to unsatisfactory.

The project would contribute to a significant cumulative impact at the following ~~31~~30 intersections under ~~General Plan Buildout~~ Year 2035 with project conditions:

- Theodore Street/Ironwood Avenue;
- Moreno Beach Drive/Locust Avenue;
- Moreno Beach Drive/SR-60 Eastbound Ramps;
- Iris Avenue/Perris Boulevard;
- Kitching Street/Iris Avenue;
- Lasselle Street/Iris Avenue;
- Lasselle Street/Cactus Avenue;
- Graham Street/Alessandro Boulevard;

Table 4.15.A~~O~~P-1: ~~General Plan Buildout~~ Year 2035 Cumulative plus Project Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2035 No Project			2035 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
IN-1	Theodore St/Street F	D	N/A	Non-Existent		RABT	10.2	B
IN-2	Cactus Avenue Extension/Street E	D	N/A	Non-Existent		Signal	12.3	B
IN-3	Theodore Ave/Alessandro Blvd (Str A/Str C/Str E)	D	CSS	20.9	C	RABT	11.0	B
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		RABT	7.9	A
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	Signal	11.7	B	Signal	44.3	D
IN-9	Gilman Springs Rd/Eucalyp~~t~~tpus Ave	D	N/A	Non-Existent		Signal	10.5	B
IN-10	Redlands Blvd/Locust Ave	C	Signal	5.4	A	Signal	10.7	B
IN-11	Redlands Blvd/Ironwood Ave	D	Signal	45.0	D	Signal	46.4	D
IN-12	Theodore Street/Ironwood Avenue	D	CSS	22.9	C	CSS	44.3	**E**
IN-13	Redlands Blvd/SR-60 WB ramps	D	Signal	5.7	A	Signal	6.7	A
IN-14	Redlands Blvd/SR-60 EB ramps	D	Signal	5.1	A	Signal	5.4	A
IN-15	Theodore Str/SR-60 WB ramps	D	CSS	62.2	**F**	Signal	14.1	B
IN-16	Theodore Str/SR-60 EB ramps	D	CSS	13.5	B	Signal	2.2	A
IN-17	Quincy Str/Fir Ave	D	CSS	9.6	A	CSS	10.6	B
IN-18	Redlands Blvd/Eucalyptus Ave (Fir)	D	Signal	7.2	A	Signal	21.8	C
IN-19	Theodore St/Fir Ave (Eucalyptus)	D	CSS	10.5	B	Signal	18.5	B
IN-20	Oliver Str/Alessandro Blvd	C	CSS	20.0	C	CSS	21.0	C
IN-21	Moreno Beach Dr/Alessandro Blvd	D	Signal	17.3	B	Signal	17.4	B
IN-22	Quincy Str/Alessandro Blvd	C	Signal	4.2	A	Signal	4.2	A
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	137.4	**F**	AWS	13.4	B
IN-24	Oliver Str/Cactus Ave	D	Signal	22.3	C	Signal	23.9	C
IN-25	Moreno Beach Dr/Cactus Ave	C	Signal	20.3	C	Signal	22.0	C
IN-26	Quincy Str/Cactus Ave	C	Signal	3.9	A	Signal	3.5	A
IN-27	Redlands Blvd/Cactus Ave	C	AWS	14.3	B	AWS	128.4	**F**
IN-28	Moreno Beach Dr/John Kennedy Dr	D	Signal	23.5	C	Signal	29.1	C
IN-29	Heacock Str/Ironwood Ave	D	Signal	31.6	C	Signal	31.6	C
IN-30	Heacock Str/SR-60 WB Ramps	D	Signal	30.5	C	Signal	31.4	C
IN-31	Heacock St/SR-60 EB Ramps	D	Signal	12.3	B	Signal	12.7	B
IN-32	Sunnymead Blvd & Perris Blvd	D	Signal	31.8	C	Signal	32.1	C
IN-33	Perris Blvd/SR-60 WB Ramps	D	Signal	22.5	C	Signal	24.0	C
IN-34	Perris Blvd/Eucalyptus Ave	D	Signal	21.8	C	Signal	21.5	C
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	29.4	**D**	CSS	31.0	**D**
IN-36	Moreno Beach Drive & Ironwood Avenue	D	Signal	46.6	D	Signal	52.9	D
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	Signal	113.9	**F**	Signal	147.6	**F**
IN-38	Perris Blvd/John F. Kennedy Dr	D	Signal	28.8	C	Signal	33.5	C
IN-39	Iris Ave/Perris Blvd	D	Signal	58.6	**E**	Signal	65.7	**E**
IN-40	Kitching St/Iris Ave	C	Signal	65.8	**E**	Signal	78.3	**E**
IN-41	Lasselle Str/Iris Ave	D	Signal	35.0	C	Signal	38.7	D
IN-42	Nason Str/Iris Ave	C	Signal	18.5	B	Signal	17.1	B
IN-43	Oliver Str/Iris Ave	D	Signal	24.5	C	Signal	23.7	C

Table 4.15.A~~O~~P-1: ~~General Plan Buildout~~ Year 2035 Cumulative plus Project Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2035 No Project			2035 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
IN-44	Via Dell Lago/Iris Ave	C	Signal	7.0	A	Signal	6.8	A
IN-45	Krameria Ave/Perris Blvd	D	Signal	27.8	C	Signal	29.1	C
IN-46	Kitching Str/Krameria Ave	D	Signal	35.3	D	Signal	37.4	D
IN-47	Lasselle Str/Krameria Ave	D	Signal	32.2	C	Signal	34.4	C
IN-48	Kitching Str/Alessandro Blvd	D	Signal	26.5	C	Signal	26.7	C
IN-49	Lasselle Str/Alessandro Blvd	D	Signal	19.8	B	Signal	20.5	C
IN-50	Morrison Str/Alessandro Blvd	D	Signal	25.5	C	Signal	25.6	C
IN-51	Nason Str/Alessandro Blvd	D	Signal	31.1	C	Signal	31.3	C
IN-52	Kitching Str/Cactus Ave	C	Signal	30.7	C	Signal	30.5	C
IN-53	Lasselle Str/Cactus Ave	C	Signal	38.5	**D**	Signal	38.8	**D**
IN-54	Morrison Str/Cactus Ave	D	Signal	6.1	A	Signal	6.4	A
IN-55	Nason Str/Cactus Ave	D	Signal	36.1	D	Signal	36.6	D
IN-56	Frederick Str/Alessandro Blvd	D	Signal	19.2	B	Signal	19.3	B
IN-57	Graham Str/Alessandro Blvd	D	Signal	35.6	D	Signal	35.6	D
IN-58	Heacock Str/Alessandro Blvd	D	Signal	29.6	D	Signal	29.2	C
IN-59	Indian Str/Alessandro Blvd	D	Signal	21.7	C	Signal	21.3	C
IN-60	Perris Blvd/Alessandro Blvd	D	Signal	32.8	C	Signal	33.6	C
IN-61	Frederick Str/Cactus Ave	D	Signal	9.7	A	Signal	9.6	A
IN-62	Graham Str/Cactus Ave	D	Signal	22.7	C	Signal	23.4	C
IN-63	Heacock Str/Cactus Ave	D	Signal	31.6	C	Signal	31.9	C
IN-64	Indian Str/Cactus Ave	C	Signal	32.6	C	Signal	32.6	C
IN-65	Perris Blvd/Cactus Ave	D	Signal	39.2	D	Signal	38.8	D
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	Signal	37.5	D	Signal	39.7	D
IN-67	I-215 SB Ramps/Alessandro Blvd	D	Signal	6.6	A	Signal	6.7	A
IN-68	I-215 NB Ramps/Alessandro Blvd	D	Signal	21.9	C	Signal	21.8	C
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	Signal	15.1	B	Signal	15.0	B
IN-70	Day Str/Alessandro Blvd	D	Signal	22.6	C	Signal	23.4	C
IN-71	Elsworth Str/Alessandro Blvd	D	Signal	28.4	C	Signal	29.5	C
IN-72	I-215 SB Ramps/Cactus Ave	D	Signal	37.6	D	Signal	41.6	D
IN-73	I-215 NB Ramps/Cactus Ave	D	Signal	71.1	**E**	Signal	75.5	**E**
IN-74	Elsworth Str/Cactus Ave	D	Signal	> 180.0	**F**	Signal	> 180.0	**F**
IN-75	Central Ave/Lochmoor Dr.	D	Signal	16.2	B	Signal	18.5	B
IN-76	Sycamore Canyon Blvd/Central Ave	D	Signal	28.6	C	Signal	29.9	C
IN-77	SR-60 EB Ramps/Central Ave	D	Signal	18.1	B	Signal	23.1	C
IN-78	SR-60 WB Ramps/Central Ave	D	Signal	6.7	A	Signal	6.7	A
IN-79	Alessandro Blvd/Trautwein Rd.	D	Signal	32.2	C	Signal	34.3	C
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	Signal	28.0	C	Signal	29.6	C
IN-81	Martin Luther King Blvd/Chicago Ave	D	Signal	27.0	C	Signal	28.2	C
IN-82	Martin Luther King Blvd/Iowa Ave	D	Signal	11.3	B	Signal	11.3	B
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	Signal	40.2	D	Signal	43.2	D

Table 4.15.A~~O~~P-1: ~~General Plan Buildout~~ Year 2035 Cumulative plus Project Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2035 No Project			2035 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	Signal	11.2	B	Signal	11.6	B
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	45.1	**E**	AWS	48.5	**E**
IN-86	Central Ave/Chicago Ave	D	Signal	46.8	D	Signal	60.7	**E**
IN-87	Central Ave/El Cerrito Dr	D	Signal	17.6	B	Signal	17.8	B
IN-88	Central Ave/Canyon Crest Dr	D	Signal	45.4	D	Signal	49.7	D
IN-89	Chicago Ave/Country Club Dr	D	Signal	11.2	B	Signal	11.7	B
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	Signal	38.4	D	Signal	39.4	D
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	Signal	20.5	C	Signal	20.8	C
IN-92	Arlington Ave/Maude St	D	Signal	14.1	B	Signal	14.3	B
IN-93	Horace St/Arlington Ave	D	Signal	37.4	D	Signal	38.8	D
IN-94	Arlington Ave/Victoria Ave	D	Signal	124.5	**F**	Signal	138.7	**F**
IN-95	Alessandro Blvd/Chicago Ave	D	Signal	57.4	**E**	Signal	64.9	**E**
IN-96	Alessandro Blvd/Century Ave	D	Signal	19.2	B	Signal	19.1	B
IN-97	Alessandro Blvd/Via Vista Dr	D	Signal	17.9	B	Signal	17.9	B
IN-98	Alessandro Blvd/Canyon Crest Dr	D	Signal	56.6	**E**	Signal	60.6	**E**
IN-99	Harley Knox Blvd/Perris Blvd	D	Signal	33.5	C	Signal	35.4	D
IN-100	Harley Knox Blvd/Evan Rd	D	Signal	16.1	B	Signal	16.6	B
IN-101	Ramona Expy/Indian St	E	Signal	110.4	**F**	Signal	112.0	**F**
IN-102	Ramona Expy/Perris Blvd	E	Signal	49.2	D	Signal	52.3	D
IN-103	Ramona Expy/Evans Rd	E	Signal	60.6	**E**	Signal	66.1	**E**
IN-104	Perris Blvd/Morgan St	D	Signal	11.9	B	Signal	11.9	B
IN-105	Evans Rd/Morgan St	C	Signal	28.1	C	Signal	28.1	C
IN-106	Perris Blvd/Rider St	C	Signal	23.4	C	Signal	23.1	C
IN-107	Evans Rd/Rider St	C	Signal	36.3	**D**	Signal	36.5	**D**
IN-108	Perris Blvd/Mid-County Pkwy WB Ramps	D	Signal	32.7	C	Signal	33.7	C
IN-109	Perris Blvd/Mid-County Pkwy EB Ramps	D	Signal	28.3	C	Signal	29.8	C
IN-110	Evans Rd/Mid-County Pkwy WB Ramps	D	Signal	25.7	C	Signal	25.6	C
IN-111	Evans Rd/Mid-County Pkwy EB Ramps	D	Signal	18.1	B	Signal	18.1	B
IN-112	Placentia Ave/Perris Blvd	D	Signal	29.3	C	Signal	29.3	C
IN-113	Evans Rd/Placentia Ave	D	Signal	7.3	A	Signal	7.2	A
IN-114	Evans Rd/Orange Ave	C	Signal	25.5	C	Signal	25.4	C
IN-115	Evans Rd/Nuevo Rd	C	Signal	31.8	C	Signal	31.9	C
IN-116	Evans Rd/Ellis Ave	D	Signal	12.7	B	Signal	13.5	B
IN-117	Ellis Ave/I-215 SB Ramps	E	Signal	26.5	C	Signal	26.2	C
IN-118	Ellis Ave/SR-215 NB Ramps	E	Signal	22.2	C	Signal	21.9	C
IN-119	Evans Rd/San Jacinto Ave	D	Signal	21.1	C	Signal	21.5	C

Table 4.15.A~~O~~P-1: ~~General Plan Buildout~~ Year 2035 Cumulative plus Project Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2035 No Project			2035 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
IN-120	Park Center Blvd/Ramona Expy WB Ramps	D	CSS	11.8	B	CSS	13.3	B
IN-121	Park Center Blvd/Ramona Expy EB Ramps	D	CSS	11.6	B	CSS	13.5	B
IN-122	Bridge St/Ramona Expy	N/A	N/A	Non-Existent		N/A	Non-Existent	
IN-123	Gilman Springs Rd/Bridge Str	C	CSS	> 180.0	**F**	CSS	> 180.0	**F**
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	> 180.0	**F**	CSS	> 180.0	**F**
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	> 180.0	**F**	CSS	> 180.0	**F**
IN-126	Ramona Expy/Sanderson Ave	D	Signal	43.9	D	Signal	48.4	D
IN-127	Potrero Blvd/SR-60 WB Ramps	D	Signal	21.3	C	Signal	27.0	C
IN-128	Potrero Blvd/SR-60 EB Ramps	D	Signal	20.3	C	Signal	21.1	C
IN-129	W 6th St/California Ave	C	AWS	146.4	**F**	AWS	148.1	**F**
IN-130	W 6th St/Beaumont Ave	C	Signal	35.5	**D**	Signal	36.7	**D**
IN-131	Reche Canyon Rd/Reche Vista Dr	C	Signal	42.2	**D**	Signal	47.0	**D**
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	26.4	D	AWS	40.8	**E**
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	127.6	**F**	AWS	> 180.0	**F**
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	140.5	**F**	AWS	> 180.0	**F**
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	17.6	C	CSS	19.9	C
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	10.2	B	AWS	10.7	B

Notes:
"NB" and "SB" denote northbound and southbound respectively
"EB" and "WB" denote eastbound and westbound respectively
"LT" and "RT" denote left turn and right turn respectively
Indicates LOS exceeds the target level
"CSS" means cross-street is stop-controlled
"AWS" means all-way stop
"RABT" means roundabout
Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.A~~O~~P-2: ~~General Plan Buildout~~ Year 2035 Cumulative plus Project Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2035 No Project			2035 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
IN-1	Theodore St/Street F	D	N/A	Non-Existent		RABT	53.0	D
IN-2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		Signal	15.2	B
IN-3	Theodore St/Alessandro Blvd (Str A/Str C/Str E)	D	CSS	19.6	C	RABT	11.3	B
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		RABT	8.0	A
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	Signal	37.7	D	Signal	36.7	D
IN-9	Gilman Springs Rd/Eucalyptus Ave	D	N/A	Non-Existent		Signal	14.3	B
IN-10	Redlands Blvd/Locust Ave	C	Signal	16.6	B	Signal	20.3	C
IN-11	Redlands Blvd/Ironwood Ave	D	Signal	48.2	D	Signal	72.3	**E**

Table 4.15.A~~O~~P-2: ~~General Plan Buildout~~ Year 2035 Cumulative plus Project Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2035 No Project			2035 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
IN-12	Theodore Street/Ironwood Avenue	D	CSS	> 180.0	**F**	CSS	> 180.0	**F**
IN-13	Redlands Blvd/SR-60 WB ramps	D	Signal	7.5	A	Signal	10.9	B
IN-14	Redlands Blvd/SR-60 EB ramps	D	Signal	7.3	A	Signal	10.0	A
IN-15	Theodore Str/SR-60 WB ramps	D	CSS	173.7	**F**	Signal	17.0	B
IN-16	Theodore Str/SR-60 EB ramps	D	CSS	> 180.0	**F**	Signal	31.2	C
IN-17	Quincy Str/Fir Ave	D	CSS	12.6	B	CSS	15.7	C
IN-18	Redlands Blvd/Eucalyptus Ave (Fir)	D	Signal	15.6	B	Signal	52.3	D
IN-19	Theodore St/Fir Ave (Eucalyptus)	D	CSS	68.9	**F**	Signal	54.5	D
IN-20	Oliver Str/Alessandro Blvd	C	CSS	21.6	C	CSS	23.5	C
IN-21	Moreno Beach Dr/Alessandro Blvd	D	Signal	20.2	C	Signal	22.7	C
IN-22	Quincy Str/Alessandro Blvd	C	Signal	3.7	A	Signal	3.7	A
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	74.7	**F**	AWS	24.1	C
IN-24	Oliver Str/Cactus Ave	D	Signal	20.2	C	Signal	21.5	C
IN-25	Moreno Beach Dr/Cactus Ave	C	Signal	29.7	C	Signal	37.1	**D**
IN-26	Quincy Str/Cactus Ave	C	Signal	3.7	A	Signal	3.6	A
IN-27	Redlands Blvd/Cactus Ave	C	AWS	13.5	B	AWS	> 180.0	**F**
IN-28	Moreno Beach Dr/John Kennedy Dr	D	Signal	16.6	B	Signal	18.5	B
IN-29	Heacock Str/Ironwood Ave	D	Signal	35.2	D	Signal	35.5	D
IN-30	Heacock Str/SR-60 WB Ramps	D	Signal	23.1	C	Signal	24.0	C
IN-31	Heacock St/SR-60 EB Ramps	D	Signal	19.4	B	Signal	20.0	B
IN-32	Sunnymead Blvd & Perris Blvd	D	Signal	39.7	D	Signal	45.3	D
IN-33	Perris Blvd/SR-60 WB Ramps	D	Signal	17.1	B	Signal	19.5	B
IN-34	Perris Blvd/Eucalyptus Ave	D	Signal	24.7	C	Signal	24.6	C
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	37.9	**E**	CSS	> 180.0	**F**
IN-36	Moreno Beach Drive & Ironwood Avenue	D	Signal	50.4	D	Signal	61.9	**E**
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	Signal	155.8	**F**	Signal	> 180.0	**F**
IN-38	Perris Blvd/John F. Kennedy Dr	D	Signal	31.6	C	Signal	37.3	D
IN-39	Iris Ave/Perris Blvd	D	Signal	63.8	**E**	Signal	80.4	**F**
IN-40	Kitching St/Iris Ave	C	Signal	126.3	**F**	Signal	169.8	**F**
IN-41	Lasselle Str/Iris Ave	D	Signal	79.2	**E**	Signal	89.5	**F**
IN-42	Nason Str/Iris Ave	C	Signal	21.7	C	Signal	32.8	C
IN-43	Oliver Str/Iris Ave	D	Signal	25.1	C	Signal	24.9	C
IN-44	Via Dell Lago/Iris Ave	C	Signal	7.2	A	Signal	6.6	A
IN-45	Krameria Ave/Perris Blvd	D	Signal	52.6	D	Signal	53.2	D
IN-46	Kitching Str/Krameria Ave	D	Signal	41.7	D	Signal	52.4	D
IN-47	Lasselle Str/Krameria Ave	D	Signal	14.5	B	Signal	15.8	B
IN-48	Kitching Str/Alessandro Blvd	D	Signal	28.1	C	Signal	29.3	C
IN-49	Lasselle Str/Alessandro Blvd	D	Signal	23.7	C	Signal	24.3	C
IN-50	Morrison Str/Alessandro Blvd	D	Signal	26.2	C	Signal	26.8	C
IN-51	Nason Str/Alessandro Blvd	D	Signal	28.3	C	Signal	29.1	C
IN-52	Kitching Str/Cactus Ave	C	Signal	28.5	C	Signal	28.3	C
IN-53	Lasselle Str/Cactus Ave	C	Signal	34.8	C	Signal	38.2	**D**
IN-54	Morrison Str/Cactus Ave	D	Signal	8.6	A	Signal	9.7	A
IN-55	Nason Str/Cactus Ave	D	Signal	47.6	D	Signal	51.1	D
IN-56	Frederick Str/Alessandro Blvd	D	Signal	34.5	C	Signal	36.7	D

Table 4.15.A~~O~~P-2: ~~General Plan Buildout~~ Year 2035 Cumulative plus Project Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2035 No Project			2035 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
IN-57	Graham Str/Alessandro Blvd	D	Signal	88.9	**F**	Signal	93.7	**F**
IN-58	Heacock Str/Alessandro Blvd	D	Signal	29.5	C	Signal	30.5	C
IN-59	Indian Str/Alessandro Blvd	D	Signal	37.1	D	Signal	36.7	D
IN-60	Perris Blvd/Alessandro Blvd	D	Signal	41.4	D	Signal	44.5	D
IN-61	Frederick Str/Cactus Ave	D	Signal	12.5	B	Signal	13.0	B
IN-62	Graham Str/Cactus Ave	D	Signal	42.1	D	Signal	43.3	D
IN-63	Heacock Str/Cactus Ave	D	Signal	27.2	C	Signal	27.5	C
IN-64	Indian Str/Cactus Ave	C	Signal	36.3	**D**	Signal	36.3	**D**
IN-65	Perris Blvd/Cactus Ave	D	Signal	32.5	C	Signal	36.1	D
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	Signal	81.2	**F**	Signal	94.9	**F**
IN-67	I-215 SB Ramps/Alessandro Blvd	D	Signal	11.5	B	Signal	11.6	B
IN-68	I-215 NB Ramps/Alessandro Blvd	D	Signal	32.8	C	Signal	35.6	D
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	Signal	16.4	B	Signal	16.5	B
IN-70	Day Str/Alessandro Blvd	D	Signal	28.2	C	Signal	27.8	C
IN-71	Elsworth Str/Alessandro Blvd	D	Signal	52.4	D	Signal	53.6	D
IN-72	I-215 SB Ramps/Cactus Ave	D	Signal	144.8	**F**	Signal	144.8	**F**
IN-73	I-215 NB Ramps/Cactus Ave	D	Signal	122.6	**F**	Signal	133.6	**F**
IN-74	Elsworth Str/Cactus Ave	D	Signal	> 180	**F**	Signal	> 180	**F**
IN-75	Central Ave/Lochmoor Dr.	D	Signal	77.5	**E**	Signal	104.9	**F**
IN-76	Sycamore Canyon Blvd/Central Ave	D	Signal	26.8	C	Signal	29.7	C
IN-77	SR-60 EB Ramps/Central Ave	D	Signal	12.4	B	Signal	13.2	B
IN-78	SR-60 WB Ramps/Central Ave	D	Signal	7.0	A	Signal	6.9	A
IN-79	Alessandro Blvd/Trautwein Rd.	D	Signal	16.1	B	Signal	16.2	B
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	Signal	73.7	**E**	Signal	84.3	**F**
IN-81	Martin Luther King Blvd/Chicago Ave	D	Signal	41.5	D	Signal	43.5	D
IN-82	Martin Luther King Blvd/Iowa Ave	D	Signal	14.8	B	Signal	15.1	B
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	Signal	52.4	D	Signal	53.3	D
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	Signal	12.2	B	Signal	12.5	B
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	20.7	C	AWS	22.0	C
IN-86	Central Ave/Chicago Ave	D	Signal	79.0	**E**	Signal	102.9	**F**
IN-87	Central Ave/El Cerrito Dr	D	Signal	20.0	B	Signal	20.8	C
IN-88	Central Ave/Canyon Crest Dr	D	Signal	106.3	**F**	Signal	118.0	**F**
IN-89	Chicago Ave/Country Club Dr	D	Signal	12.9	B	Signal	14.4	B
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	Signal	68.0	**E**	Signal	69.8	**E**
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	Signal	26.8	C	Signal	29.8	C
IN-92	Arlington Ave/Maude St	D	Signal	10.7	B	Signal	11.2	B
IN-93	Horace St/Arlington Ave	D	Signal	25.5	C	Signal	33.7	C
IN-94	Arlington Ave/Victoria Ave	D	Signal	87.2	**E**	Signal	97.9	**F**
IN-95	Alessandro Blvd/Chicago Ave	D	Signal	111.2	**F**	Signal	123.3	**F**
IN-96	Alessandro Blvd/Century Ave	D	Signal	11.8	B	Signal	12.3	B

Table 4.15.A~~O~~P-2: ~~General Plan Buildout~~ Year 2035 Cumulative plus Project Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2035 No Project			2035 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
IN-97	Alessandro Blvd/Via Vista Dr	D	Signal	22.2	C	Signal	22.0	C
IN-98	Alessandro Blvd/Canyon Crest Dr	D	Signal	131.0	**F**	Signal	142.1	**F**
IN-99	Harley Knox Blvd/Perris Blvd	D	Signal	48.0	D	Signal	51.9	D
IN-100	Harley Knox Blvd/Evan Rd	D	Signal	23.8	C	Signal	24.3	C
IN-101	Ramona Expy/Indian St	E	Signal	> 180.0	**F**	Signal	> 180.0	**F**
IN-102	Ramona Expy/Perris Blvd	E	Signal	58.5	E	Signal	60.9	E
IN-103	Ramona Expy/Evans Rd	E	Signal	46.2	D	Signal	49.2	D
IN-104	Perris Blvd/Morgan St	D	Signal	9.9	A	Signal	11.0	B
IN-105	Evans Rd/Morgan St	C	Signal	21.8	C	Signal	21.8	C
IN-106	Perris Blvd/Rider St	C	Signal	30.1	C	Signal	30.6	C
IN-107	Evans Rd/Rider St	C	Signal	34.5	C	Signal	34.6	C
IN-108	Perris Blvd/Mid-County Pkwy WB Ramps	D	Signal	22.6	C	Signal	25.3	C
IN-109	Perris Blvd/Mid-County Pkwy EB Ramps	D	Signal	36.2	D	Signal	38.4	D
IN-110	Evans Rd/Mid-County Pkwy WB Ramps	D	Signal	21.3	C	Signal	22.0	C
IN-111	Evans Rd/Mid-County Pkwy EB Ramps	D	Signal	24.9	C	Signal	24.9	C
IN-112	Placentia Ave/Perris Blvd	D	Signal	34.2	C	Signal	34.6	C
IN-113	Evans Rd/Placentia Ave	D	Signal	7.4	A	Signal	7.4	A
IN-114	Evans Rd/Orange Ave	C	Signal	25.3	C	Signal	25.2	C
IN-115	Evans Rd/Nuevo Rd	C	Signal	31.2	C	Signal	31.1	C
IN-116	Evans Rd/Ellis Ave	D	Signal	13.6	B	Signal	14.3	B
IN-117	Ellis Ave/I-215 SB Ramps	E	Signal	28.3	C	Signal	28.0	C
IN-118	Ellis Ave/SR-215 NB Ramps	E	Signal	34.3	C	Signal	35.0	C
IN-119	Evans Rd/San Jacinto Ave	D	Signal	22.7	C	Signal	22.6	C
IN-120	Park Center Blvd/Ramona Expy WB Ramps	D	CSS	15.3	C	CSS	16.9	C
IN-121	Park Center Blvd/Ramona Expy EB Ramps	D	CSS	23.1	C	CSS	34.9	D
IN-122	Bridge St/Ramona Expy	N/A	N/A	Non-Existent		N/A	Non-Existent	
IN-123	Gilman Springs Rd/Bridge Str	C	CSS	> 180.0	**F**	CSS	> 180.0	**F**
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	> 180.0	**F**	CSS	> 180.0	**F**
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	> 180.0	**F**	CSS	> 180.0	**F**
IN-126	Ramona Expy/Sanderson Ave	D	Signal	39.9	D	Signal	41.9	D
IN-127	Potrero Blvd/SR-60 WB Ramps	D	Signal	15.3	B	Signal	16.4	B
IN-128	Potrero Blvd/SR-60 EB Ramps	D	Signal	31.3	C	Signal	33.5	C
IN-129	W 6th St/California Ave	C	AWS	178.3	**F**	AWS	> 180.0	**F**
IN-130	W 6th St/Beaumont Ave	C	Signal	94.4	**F**	Signal	106.8	**F**
IN-131	Reche Canyon Rd/Reche Vista Dr	C	Signal	100.9	**F**	Signal	109.5	**F**
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	22.2	C	AWS	38.3	**E**
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	127.7	**F**	AWS	> 180.0	**F**

Table 4.15.A~~O~~P-2: ~~General Plan Buildout~~ Year 2035 Cumulative plus Project Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2035 No Project			2035 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	> 180.0	**F**	AWS	> 180.0	**F**
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	14.7	B	CSS	15.1	C
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	10.4	B	AWS	10.8	B

Notes:
"NB" and "SB" denote northbound and southbound respectively
"EB" and "WB" denote eastbound and westbound respectively
"LT" and "RT" denote left turn and right turn respectively
Indicates LOS exceeds the target level
"CSS" means cross-street is stop-controlled
"AWS" means all-way stop
"RABT" means roundabout
Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

- ~~Indian Street/Cactus Avenue;~~
- Alessandro Boulevard/Sycamore Canyon Boulevard;
- I-215 Southbound Ramps/Cactus Avenue;
- Central Avenue/Lochmoor Drive;
- Elsworth Street/Cactus Avenue;
- I-215 Northbound Ramps/Cactus Avenue;
- ~~Alessandro Boulevard/Mission Grove Parkway;~~
- Martin Luther King Boulevard/I-215 Northbound Ramps;
- Central Avenue/Chicago Avenue;
- Central Avenue/Canyon Crest Drive;
- Arlington Avenue/Riverside Avenue/SR-91 Southbound Ramps;
- Arlington Avenue/Victoria Avenue;
- Alessandro Boulevard/Chicago Avenue;
- Alessandro Boulevard/Canyon Crest Drive;
- Ramona Expressway/Indian Street;
- Evans Road/Rider Street;
- Gilman Springs Road/Bridge Street;
- SR-79 (Sanderson Avenue) Northbound/Gilman Springs Road;
- SR-79 (Sanderson Avenue) Southbound/Gilman Springs Road;
- W. 6th Street/California Avenue;
- W. 6th Street/Beaumont Avenue;
- Reche Canyon Road/Reche Vista Drive;
- San Timoteo Canyon Road/Live Oak Canyon Road; and
- Redlands Boulevard/San Timoteo Canyon Road.

~~A~~The project would create a significant ~~direct project~~cumulative impact ~~would occur~~ at the following ~~seven~~ five intersections under ~~General Plan Buildout~~Year 2035 Cumulative with project conditions since the project would cause a decrease in the LOS from satisfactory to unsatisfactory:

- Redlands Boulevard/Ironwood Avenue;
- Moreno Beach Drive/Cactus Avenue;
- Redlands Boulevard/Cactus Avenue;
- Moreno Beach Drive/Ironwood Avenue; and
- ~~Elsworth Street/Alessandro Boulevard;~~
- ~~Alessandro Boulevard/Mission Grove Parkway; and~~
- San Timoteo Canyon Road/Alessandro Road.

Roadway Segment Analysis. ~~General Plan Buildout~~ 2035 Cumulative plus project roadway segment levels of service for the study area roadway segments are summarized in Table 4.15.A~~P~~Q, which shows the project would ~~have~~create a significant ~~direct project~~cumulative impact on the following ~~two~~ roadway segment~~s~~:

- ~~Theodore Street between SR-60 Westbound Ramps to Ironwood Avenue, and~~
- Gilman Springs Road between Alessandro Boulevard and Bridge Street.

~~The project would not cause a significant cumulative impact to roadway segments in the General Plan Buildout Year 2035 condition.~~

Freeway Segment Analysis. ~~General Plan Buildout~~ Year 2035 Cumulative with project freeway segment levels of service for the study area intersections are summarized in Tables 4.15.A~~Q~~R-1 and 4.15.A~~Q~~R-2, which shows ~~53~~ 52 freeway mainline segments would operate at unsatisfactory levels of service. The project would contribute toward the worsening of an already unsatisfactory LOS at ~~47~~ 48 of the freeway segments and, therefore, have a significant cumulative impact at these locations. At four freeway segments, a significant ~~direct project~~cumulative impact would occur since the project would cause a decrease in the LOS from satisfactory to unsatisfactory.

The project would have a significant cumulative impact at the following ~~47~~ 48 freeway segments under ~~General Plan Buildout~~ Year 2035 Cumulative with project conditions:

- Northbound or Eastbound Sections:
  - SR-60 Reservoir Street to Ramona Avenue;
  - SR-60 Ramona Avenue to Central Avenue;
  - SR-60 Central Avenue to Mountain Avenue;
  - SR-60 Mountain Avenue to Euclid Avenue;
  - SR-60 Euclid Avenue to Grove Avenue;
  - SR-60 Grove Avenue to Vineyard Avenue;
  - SR-60 Vineyard Avenue to Archibald Avenue;
  - SR-60 Archibald Avenue to Haven Avenue;

Table 4.15.A~~P~~Q: ~~General Plan Buildout~~ Year 2035 Cumulative plus Project Roadway Levels of Service

Roadway		From	To	LOS Standard*	2035 No-Project Conditions			2035 Plus Build-out Conditions			Project Significant Impact?	Mitigation Measures Required to Reduce Impacts to Less-Than-Significant	LOS after Mitigation
					Roadway Section**	Daily Volume	LOS	Roadway Section**	Daily Volume	LOS			
S-1	Theodore Street (A)	SR-60 WB Ramps	Ironwood Ave	D	2U	9,774	C	2U	10,267	D	No		
S-2	Theodore Street (A)	SR-60 EB Ramps	Fir (Eucalyptus) Ave	D	2U	8,726	B	6D	33,082	A	No		
S-3	Fir (Eucalyptus) Ave	Redlands Blvd	Theodore Street (A)	D	2U	6,847	A	4D	10,513	A	No		
S-4	Eucalyptus Ave (B)	Theodore Street (A)	Gilman Springs Rd	N/A	Future Road			4D	6,565	A	No		
S-5	Theodore Street (A)	Fir (Eucalyptus) Ave	Street E	D	2U	3,295	A	6D	35,374	B	No		
S-6	Street E	Theodore Street (A)	Cactus Ave Extension	D	Future Road			4U	13,862	A	No		
S-7	Street F	Theodore Street (A)	Alessandro Blvd (Street C)	D	Future Road			2U	5,009	A	No		
S-8	Theodore Street (A)	Fir (Eucalyptus) Ave	Alessandro Blvd (Street C)	D	2U	3,437	A	4D	13,001	A	No		
S-9	Alessandro Blvd (Street E)	Merwin Street	Theodore Street (A)	D	2U	10,854	D	4U	13,486	A	No		
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave	D	Future Road			4U	17,423	B	No		
S-11	Alessandro Blvd (Street C)	Theodore Street (A)	Street F	D	2U	7,437	A	4U	14,680	A	No		
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	7,437	A	4U	21,164	D	No		
S-14	Alessandro Blvd	Moreno Beach Drive	Redlands Blvd	D	4U	6,373	A	4U	5,416	A	No		
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge Street	D	6D	49,434	D	6D	54,288	F	Yes	Widen to 8 lanes	C
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	6D	41,537	C	6D	47,958	D	No		
S-18	Redlands Blvd	SR-60 EB Ramps	Fir (Eucalyptus) Ave	D	4U	13,411	A	4U	17,626	C	No		
S-19	Redlands Blvd	Fir (Eucalyptus) Ave	Alessandro Blvd	C	4U	7,665	A	4U	5,037	A	No		
S-20	Alessandro Blvd	Redlands Blvd	Merwin Street	C	4U	11,038	A	4U	1,677	A	No		
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave	C	4U	11,511	A	4U	5,653	A	No		
S-22	Cactus Ave	Redlands Blvd	Cactus Ave Extension	C	4U	1,144	A	4U	16,916	B	No		

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.

** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways.

*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.

Indicates LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.A~~Q~~R-1: ~~General Plan Buildout~~Year 2035 Cumulative plus Project Freeway Mainline Levels of Service (Northbound/Eastbound)

ID	Freeway	Segment	2035 No Project						2035 Plus Buildout					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	8,560	41.2	E	8,750	43.6	E	8,740	43.5	E	8,640	42.8	E
F-3	SR-60	Ramona Ave to Central Ave	8,190	37.8	E	10,230	66.5	F	8,370	39.7	E	10,140	65.6	F
F-4	SR-60	Central Ave to Mountain Ave	8,900	44.8	E	10,210	66.0	F	9,100	47.6	F	10,110	65.0	F
F-5	SR-60	Mountain Ave to Euclid Ave	8,780	43.4	E	7,590	33.3	D	8,990	46.3	F	7,480	33.0	D
F-6	SR-60	Euclid Ave to Grove Ave	9,920	59.3	F	9,680	56.0	F	10,120	64.1	F	9,580	55.1	F
F-7	SR-60	Grove Ave to Vineyard Ave	9,210	48.5	F	10,050	62.7	F	9,410	51.8	F	9,960	61.9	F
F-8	SR-60	Vineyard Ave to Archibald Ave	9,080	46.3	F	10,210	66.0	F	9,290	49.6	F	10,100	64.7	F
F-9	SR-60	Archibald Ave to Haven Ave	8,430	39.5	E	7,330	31.5	D	8,650	42.5	E	7,220	31.2	D
F-10	SR-60	Haven Ave to Milliken Ave	8,430	27.5	D	8,110	26.4	D	8,690	29.1	D	7,980	26.2	D
F-11	SR-60	Milliken Ave to I-15	5,160	19.8	C	4,530	17.4	B	5,420	21.3	C	4,460	17.4	B
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	4,140	15.9	B	2,740	10.6	A	4,380	17.1	B	2,640	10.5	A
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission Blvd/Country Village Rd	4,950	19.1	C	4,170	16.1	B	5,190	20.4	C	3,990	15.7	B
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	4,380	16.8	B	3,150	12.2	B	4,650	18.2	C	2,970	11.7	B

Table 4.15.A~~Q~~R-1: ~~General Plan Buildout~~Year 2035 Cumulative plus Project Freeway Mainline Levels of Service (Northbound/Eastbound)

			2035 No Project						2035 Plus Buildout					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-15	SR-60	Pedley Rd to Pyrite St	4,620	17.8	B	3,610	13.9	B	4,870	19.0	C	3,400	13.4	B
F-16	SR-60	Pyrite St to Valley Way	5,060	19.5	C	3,880	15.0	B	5,310	20.9	C	3,650	14.4	B
F-17	SR-60	Valley Way to Rubidoux Blvd	6,160	38.0	E	3,850	19.9	C	6,410	42.3	E	3,790	20.1	C
F-18	SR-60	Rubidoux Blvd to Market St	6,490	42.1	E	4,210	22.2	C	6,710	46.8	F	4,140	22.2	C
F-19	SR-60	Market St to Main St	6,020	36.4	E	6,620	44.9	E	6,240	40.0	E	6,610	46.2	F
F-20	SR-60	Main to SR-91	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-24	SR-60	Martin Luther King Blvd to Central Ave	9,500	59.8	F	9,860	70.8	F	9,980	82.8	F	10,060	91.4	F
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	6,090	24.2	C	5,790	22.9	C	6,540	27.2	D	6,010	24.4	C
F-27	SR-60	I-215 to Day St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-29	SR-60	Pigeon Pass Rd to Heacock St	3,330	27.3	D	4,120	38.2	E	3,590	33.6	D	4,110	41.4	E
F-30	SR-60	Heacock St to Perris Blvd	3,020	24.1	C	4,200	39.6	E	3,540	32.9	D	4,240	44.2	E
F-31	SR-60	Perris Blvd to Nason St	2,670	20.9	C	3,520	29.4	D	3,210	28.9	D	3,610	33.4	D
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	2,480	19.2	C	3,130	25.0	C	2,910	25.4	C	3,240	28.5	D
F-34	SR-60	Redlands Blvd to Theodore St	3,200	25.9	C	4,500	45.4	F	3,630	34.0	D	4,280	43.8	E
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	2,420	20.1	C	4,430	53.0	F	2,320	19.3	C	4,580	58.2	F
F-37	SR-60	Jack Rabbit Trail to Potrero Blvd	2,500	19.5	C	4,750	51.8	F	2,400	18.7	C	4,950	59.8	F
F-38	SR-60	Potrero Blvd to I-10	2,300	17.8	B	3,620	30.6	D	2,190	16.9	B	3,810	33.8	D
F-39	SR-91	I-15 to McKinley St	8,140	26.3	D	11,870	52.4	F	8,300	27.2	D	11,740	51.6	F
F-40	SR-91	McKinley St to Pierce St	6,990	29.1	D	6,910	29.0	D	7,110	30.1	D	6,870	29.0	D
F-41	SR-91	Pierce St to Magnolia Ave	6,430	41.3	E	6,360	41.2	E	6,550	43.9	E	6,310	41.0	E
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-43	SR-91	La Sierra Ave to Tyler St	6,170	38.1	E	6,250	39.8	E	6,250	39.8	E	6,210	39.7	E
F-44	SR-91	Tyler St to Van Buren Blvd	7,250	30.7	D	6,950	29.2	D	7,350	31.6	D	6,920	29.3	D
F-45	SR-91	Van Buren Blvd to Adam St	7,270	30.8	D	6,290	25.5	C	7,360	31.7	D	6,260	25.5	C
F-46	SR-91	Adam St to Madison St	7,980	36.6	E	6,030	24.3	C	8,060	38.0	E	6,000	24.4	C
F-47	SR-91	Madison St to Arlington Ave	7,000	29.6	D	5,390	21.4	C	7,030	30.2	D	5,370	21.4	C
F-49	SR-91	Central Ave to 14th St	6,400	40.9	E	5,730	33.4	D	6,410	41.5	E	5,580	32.2	D
F-51	SR-91	University Ave to Spruce St	8,160	26.4	D	7,420	23.4	C	8,110	26.2	D	7,290	22.9	C
F-52	I-10	SR-60 to Beaumont Ave	5,030	19.7	C	8,170	38.3	E	5,060	19.9	C	8,230	39.2	E
F-53	I-10	Beaumont Ave to Pennsylvania Ave	5,100	20.1	C	8,030	37.1	E	5,130	20.3	C	7,990	37.0	E
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	5,240	20.7	C	8,170	38.3	E	5,260	20.8	C	8,200	38.9	E
F-55	I-10	Highland Springs Ave to Sunset Ave	5,350	21.2	C	8,240	38.9	E	5,340	21.3	C	8,230	39.2	E
F-56	I-10	Sunset Ave to 22nd St	4,970	19.6	C	7,670	34.5	D	4,950	19.6	C	7,680	34.5	D
F-57	I-10	22nd St to 8th St	4,880	19.3	C	7,480	33.0	D	4,870	19.2	C	7,500	33.2	D
F-58	I-10	8th St to S Hargrave St	5,000	19.7	C	7,770	34.9	D	4,970	19.7	C	7,810	35.5	E
F-59	I-10	Hargrave St to Fields Rd	4,770	18.8	C	7,970	36.9	E	4,730	18.6	C	8,020	37.3	E
F-60	I-10	Fields Rd to Morongo Tr	3,990	15.8	B	7,490	33.1	D	3,950	15.7	B	7,520	33.3	D
F-61	I-10	Morongo Tr to Main St	4,320	17.1	B	7,800	35.2	E	4,310	17.0	B	7,850	35.9	E
F-62	I-10	Main St to Haugen-Lehmann Way	4,080	16.1	B	7,530	33.1	D	4,060	16.1	B	7,600	33.9	D
F-64	I-10	SR-111 to Tipton Rd	3,660	14.5	B	7,320	31.7	D	3,640	14.4	B	7,420	32.6	D
F-65	I-10	Tipton Rd to SR-62	3,700	14.6	B	7,330	31.7	D	3,680	14.6	B	7,440	32.7	D
F-66	I-215	Scott Rd to Garbani Rd	3,350	17.2	B	6,010	36.0	E	3,370	17.3	B	5,980	35.6	E
F-84	I-215	Garbani Rd to Newport Rd	3,150	16.1	B	5,680	32.9	D	3,200	16.5	B	5,650	32.6	D
F-68	I-215	Newport Rd to McCall Blvd	2,910	15.0	B	4,610	24.4	C	2,980	15.3	B	4,580	24.2	C
F-69	I-215	McCall Blvd to Ethanac Rd	3,530	18.1	C	5,570	31.9	D	3,600	18.5	C	5,540	31.6	D
F-70	I-215	Ethanac Rd to SR-74	5,240	29.1	D	5,650	32.6	D	5,290	29.5	D	5,610	32.3	D

Table 4.15.A~~Q~~R-1: ~~General Plan Buildout~~Year 2035 Cumulative plus Project Freeway Mainline Levels of Service (Northbound/Eastbound)

			2035 No Project						2035 Plus Buildout					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-71	I-215	SR-74 to Ellis Ave	5,200	28.7	D	6,760	46.1	F	5,200	28.7	D	6,740	45.8	F
F-85	I-215	Ellis Ave to Redlands Ave	4,820	25.9	C	6,200	38.4	E	4,840	26.0	D	6,170	38.1	E
F-74	I-215	Columbia Ave to Center St	4,110	21.6	C	3,350	17.5	B	4,090	21.4	C	3,410	17.8	B
F-75	I-215	Center St to La Cadena Dr	4,940	26.9	D	4,270	22.7	C	4,930	27.0	D	4,350	23.2	C
F-76	I-215	La Cadena Dr to Barton Rd	4,880	26.5	D	4,310	22.8	C	4,900	26.6	D	4,400	23.5	C
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,320	29.9	D	4,700	25.4	C	5,280	29.6	D	4,760	25.8	C
F-78	I-215	Mt. Vernon Ave to I-10	5,110	19.8	C	5,720	22.5	C	5,070	19.7	C	5,870	23.4	C
F-80	I-215	Auto Plaza Dr to Mill St	4,680	18.0	B	5,980	23.6	C	4,600	17.8	B	6,030	24.0	C
F-83	I-215	Baseline Rd to Highland Ave	3,260	16.8	B	4,890	26.4	D	3,250	16.7	B	5,000	27.4	D

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.A~~Q~~R-2: ~~General Plan Buildout~~Year 2035 Cumulative plus Project Freeway Mainline Levels of Service (Southbound/Westbound)

			2035 No-Project						2035 Plus Buildout					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	8,770	43.3	E	7,840	34.6	D	8,670	42.7	E	7,920	35.8	E
F-3	SR-60	Ramona Ave to Central Ave	8,080	37.2	E	7,720	33.7	D	7,970	36.5	E	7,790	34.8	D
F-4	SR-60	Central Ave to Mountain Ave	6,340	25.4	C	7,580	32.7	D	6,260	25.2	C	7,630	33.6	D
F-5	SR-60	Mountain Ave to Euclid Ave	6,230	25.2	C	8,250	37.9	E	6,120	24.8	C	8,310	39.2	E
F-6	SR-60	Euclid Ave to Grove Ave	6,470	26.1	D	7,950	35.5	E	6,390	25.9	C	8,050	36.9	E
F-7	SR-60	Grove Ave to Vineyard Ave	6,280	25.0	C	8,150	37.1	E	6,200	24.7	C	8,240	38.6	E
F-8	SR-60	Vineyard Ave to Archibald Ave	7,660	33.3	D	7,640	33.1	D	7,570	32.9	D	7,720	34.3	D
F-9	SR-60	Archibald Ave to Haven Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Milliken Ave	6,510	20.3	C	7,970	25.6	C	6,380	19.9	C	8,100	26.3	D
F-11	SR-60	Milliken Ave to I-15	5,460	21.0	C	7,180	29.8	D	5,350	20.8	C	7,320	31.2	D
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	4,840	14.9	B	6,360	19.4	C	4,690	14.6	B	6,520	20.2	C
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission Blvd/Country Village Rd	4,220	16.1	B	5,620	21.6	C	4,080	15.8	B	5,790	22.9	C
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	4,140	15.9	B	5,660	21.8	C	4,010	15.6	B	5,750	22.7	C
F-15	SR-60	Pedley Rd to Pyrite St	3,260	12.5	B	4,820	18.3	C	3,110	12.1	B	4,860	18.8	C
F-16	SR-60	Pyrite St to Valley Way	2,470	9.5	A	3,930	14.9	B	2,330	9.2	A	4,000	15.5	B
F-17	SR-60	Valley Way to Rubidoux Blvd	4,560	24.1	C	6,360	39.6	E	4,420	23.5	C	6,390	41.2	E
F-18	SR-60	Rubidoux Blvd to Market St	3,410	17.5	B	5,120	27.7	D	3,280	17.1	B	5,420	31.0	D
F-19	SR-60	Market St to Main St	5,530	31.5	D	6,280	38.7	E	5,400	30.8	D	6,430	41.7	E
F-20	SR-60	Main to SR-91	5,320	29.7	D	6,310	39.0	E	5,300	30.0	D	6,480	42.4	E
F-24	SR-60	Martin Luther King Blvd to Central Ave	8,330	30.8	D	8,980	33.3	D	8,240	31.6	D	9,380	39.7	E
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	7,500	33.2	D	8,970	46.6	F	7,420	33.6	D	9,250	52.1	F
F-27	SR-60	I-215 to Day St	7,050	50.4	F	3,590	18.6	C	7,080	53.6	F	3,810	20.8	C
F-29	SR-60	Pigeon Pass Rd to Heacock St	3,650	31.3	D	3,910	35.0	E	3,590	32.1	D	4,120	42.4	E
F-30	SR-60	Heacock St to Perris Blvd	3,560	30.1	D	3,410	28.3	D	3,610	32.4	D	3,730	35.3	E
F-31	SR-60	Perris Blvd to Nason St	3,330	27.3	D	2,780	21.9	C	3,430	30.1	D	3,140	27.6	D
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	3,150	25.2	C	2,680	20.9	C	3,270	28.1	D	3,010	26.1	D
F-34	SR-60	Redlands Blvd to Theodore St	4,010	36.3	E	3,530	29.7	D	4,290	44.0	E	3,780	35.0	E
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	3,350	30.5	D	2,920	25.2	C	3,450	31.9	D	2,680	23.5	C
F-37	SR-60	Jack Rabbit Trail to Potrero Blvd	3,690	31.6	D	3,010	24.0	C	3,840	34.3	D	2,820	22.4	C

Table 4.15.A~~Q~~R-2: ~~General Plan Buildout~~Year 2035 Cumulative plus Project Freeway Mainline Levels of Service (Southbound/Westbound)

			2035 No-Project						2035 Plus Buildout					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-38	SR-60	Potrero Blvd to I-10	2,360	18.2	C	1,930	15.0	B	2,450	19.3	C	1,810	14.1	B
F-39	SR-91	I-15 to McKinley St	8,590	28.6	D	8,630	28.6	D	8,430	28.0	D	8,850	29.8	D
F-40	SR-91	McKinley St to Pierce St	6,550	26.9	D	7,440	32.0	D	6,430	26.4	D	7,630	33.6	D
F-41	SR-91	Pierce St to Magnolia Ave	6,260	39.9	E	9,000	144.5	F	6,160	39.0	E	9,170	177.2	F
F-42	SR-91	Magnolia Ave to La Sierra Ave	6,130	38.3	E	8,600	107.0	F	6,050	37.7	E	8,720	119.7	F
F-43	SR-91	La Sierra Ave to Tyler St	5,460	31.4	D	6,390	40.8	E	5,380	30.9	D	6,510	43.3	E
F-44	SR-91	Tyler St to Van Buren Blvd	6,880	28.8	D	7,970	35.9	E	6,810	28.6	D	8,080	37.2	E
F-45	SR-91	Van Buren Blvd to Adam St	6,590	27.1	D	7,720	34.0	D	6,540	27.0	D	7,830	35.1	E
F-46	SR-91	Adam St to Madison St	6,270	25.4	C	6,970	29.0	D	6,250	25.5	C	7,080	29.8	D
F-47	SR-91	Madison St to Arlington Ave	5,540	32.1	D	6,290	39.5	E	5,560	32.6	D	6,360	40.8	E
F-49	SR-91	Central Ave to 14th St	5,290	20.8	C	5,460	21.2	C	5,270	20.9	C	5,580	22.0	C
F-51	SR-91	University Ave to Spruce St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-52	I-10	SR-60 to Beaumont Ave	7,820	35.3	E	6,060	24.5	C	7,880	36.1	E	6,040	24.5	C
F-53	I-10	Beaumont Ave to Pennsylvania Ave	7,660	34.1	D	5,840	23.5	C	7,680	34.3	D	5,820	23.4	C
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	8,180	38.4	E	5,920	23.9	C	8,250	39.4	E	5,860	23.7	C
F-55	I-10	Highland Springs Ave to Sunset Ave	7,990	36.7	E	5,590	22.3	C	8,060	37.7	E	5,550	22.2	C
F-56	I-10	Sunset Ave to 22nd St	7,620	33.8	D	5,420	21.5	C	7,720	34.9	D	5,430	21.7	C
F-57	I-10	22nd St to 8th St	7,680	34.5	D	5,130	20.3	C	7,680	34.5	D	5,120	20.4	C
F-58	I-10	8th St to S Hargrave St	7,790	35.4	E	5,370	21.4	C	7,860	36.0	E	5,350	21.4	C
F-59	I-10	Hargrave St to Fields Rd	7,610	34.0	D	5,000	19.8	C	7,720	34.9	D	4,980	19.8	C
F-60	I-10	Fields Rd to Morongo Tr	7,150	30.7	D	4,620	18.3	C	7,270	31.6	D	4,590	18.3	C
F-61	I-10	Main St (Cabazon) to Main St	7,040	30.0	D	5,040	20.0	C	7,190	31.0	D	5,010	19.9	C
F-62	I-10	Main St to Haugen-Lehmann Way	7,070	30.2	D	4,410	17.4	B	7,230	31.3	D	4,560	18.0	C
F-64	I-10	SR-111 to Tipton Rd	6,420	26.2	D	4,860	19.2	C	6,560	27.1	D	4,830	19.1	C
F-65	I-10	Tipton Rd to SR-62	6,430	26.2	D	4,870	19.2	C	6,570	27.2	D	4,840	19.1	C
F-66	I-215	Scott Rd to Garbani Rd	5,470	30.8	D	4,160	21.5	C	5,380	29.8	D	4,170	21.7	C
F-84	I-215	Garbani Rd to Newport Rd	4,950	26.6	D	4,040	20.9	C	4,880	26.1	D	4,030	20.9	C
F-68	I-215	Newport Rd to McCall Blvd	5,020	27.2	D	5,240	28.9	D	4,930	26.5	D	5,230	29.0	D
F-69	I-215	McCall Blvd to Ethanac Rd	5,400	30.4	D	4,800	25.6	C	5,300	29.6	D	4,790	25.7	C
F-70	I-215	Ethanac Rd to SR-74	5,390	30.3	D	6,220	38.3	E	5,320	29.5	D	6,220	38.3	E
F-71	I-215	SR-74 to Ellis Ave	7,170	53.3	F	5,980	35.6	E	7,110	51.5	F	6,000	35.8	E
F-85	I-215	Ellis Ave to Redlands Ave	6,560	43.1	E	5,490	31.2	D	6,510	42.0	E	5,510	31.4	D
F-74	I-215	Columbia Ave to Center St	5,000	27.4	D	3,680	19.1	C	4,970	27.2	D	3,680	19.2	C
F-75	I-215	Center St to La Cadena Dr	5,970	35.8	E	4,690	25.1	C	6,010	36.6	E	4,740	25.6	C
F-76	I-215	La Cadena Dr to Barton Rd	5,060	27.8	D	3,780	19.7	C	5,100	28.2	D	3,790	19.8	C
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,540	31.6	D	4,210	22.2	C	5,590	32.3	D	4,220	22.2	C
F-78	I-215	Mt. Vernon Ave to I-10	6,480	26.2	D	5,210	20.3	C	6,570	26.7	D	5,190	20.3	C
F-80	I-215	Auto Plaza Dr to Mill St	5,600	21.7	C	4,540	17.4	B	5,500	21.4	C	4,570	17.6	B
F-83	I-215	Baseline Rd to Highland Ave	6,910	48.0	F	5,450	30.8	D	6,930	48.3	F	5,490	31.4	D

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

- SR-60 Valley Way to Rubidoux Boulevard;
- SR-60 Rubidoux Boulevard to Market Street;
- SR-60 Market Street to Main Street;
- SR-60 Martin Luther King Boulevard to Central Avenue;
- SR-60 Pigeon Pass Road/Frederick Street to Heacock Street;
- SR-60 Heacock Street to Perris Boulevard;
- SR-60 Gilman Springs Road to Jack Rabbit Trail;
- SR-60 Jack Rabbit Trail to I-10/Potrero Boulevard;
- SR-91 Pierce Street to Magnolia Avenue;
- SR-91 La Sierra Avenue to Tyler Street;
- SR-91 Adam Street to Madison Street;
- SR-91 Central Avenue to 14th Street;
- I-10 SR-60 to Beaumont Avenue;
- I-10 Pennsylvania Avenue to Highland Springs Avenue;
- I-10 Highland Springs Avenue to Sunset Avenue;
- I-10 S. Hargrave Street to Field Road; and
- I-10 Main Street (Cabazon) to Main Street.
- ~~I-10 Morongo Trail to Main Street.~~

- Southbound or Westbound Sections:
  - SR-60 Reservoir Street to Ramona Avenue;
  - SR-60 Mountain Avenue to Euclid Avenue;
  - SR-60 Euclid Avenue to Grove Avenue;
  - SR-60 Grove Avenue to Vineyard Avenue;
  - SR-60 Valley Way to Rubidoux Boulevard;
  - SR-60 Market Street to Main Street;
  - SR-60 Main Street to SR-91;
  - SR-60 Martin Luther King Boulevard to Central Avenue;
  - SR-60 Fair Isle Drive/Box Springs Road to I-215;
  - SR-60 I-215 to Day Street;
  - ~~SR-60 Pigeon Pass Road/Frederick Street to Heacock Street;~~
  - SR-60 Redlands Boulevard to Theodore Street;
  - SR-91 Pierce Street to Magnolia Avenue;
  - SR-91 Magnolia Avenue to La Sierra Avenue;
  - SR-91 La Sierra Avenue to Tyler Street;
  - SR-91 Tyler Street to Van Buren Boulevard;

- SR-91 Madison Street to ~~Indiana~~Arlington Avenue;
- I-10 SR-60 to Beaumont Avenue;
- I-10 Pennsylvania Avenue to Highland Springs Avenue;
- I-10 Highland Springs Avenue to Sunset Avenue;
- I-10 8th Street to S. Hargrave Street;
- I-215 SR-74 to Ellis Avenue;
- I-215 Center Street to Iowa Avenue/La Cadena Drive; and
- I-215 Baseline Road to Highland Avenue.

The project would ~~have~~create a significant ~~direct project~~cumulative impact at the following four freeway segments under ~~General Plan Buildout~~Year 2035 Cumulative with project conditions:

- Northbound or Eastbound Sections:
  - I-10 8th Street to S. Hargrave Street.
- Southbound or Westbound Sections:
  - SR-60 ~~Pigeon Pass Road/Frederick Street to Heacock Street~~from Martin Luther King Boulevard to Central Avenue;
  - SR-60 from Heacock Street to Perris Boulevard; and
  - SR-91 from Van Buren Boulevard to Adam Street.

Freeway Weaving Analysis. ~~General Plan Buildout~~ Year 2035 Cumulative with project freeway weaving segment levels of service are summarized in Tables 4.15.A~~R~~S-1 and 4.15.A~~R~~S-2, which shows ~~15~~ 14 freeway weaving segments would operate at unsatisfactory levels of service. The project would contribute toward the worsening of an already unsatisfactory LOS at 10 of the freeway weaving segments and, therefore, would have a cumulative impact at these locations. The project would ~~have any direct project~~create a significant cumulative impact at one freeway weaving segment since the project would cause a decrease in the LOS from satisfactory to unsatisfactory. The project would have a cumulative impact at the following 14 freeway weaving segments under ~~General Plan Buildout~~ Year 2035 Cumulative with project conditions:

- Northbound or Eastbound:
  - SR-60 SR-71/S. Garey Avenue to Reservoir Street;
  - SR-60 Main Street to SR-91;
  - SR-60 SR-91 to W. Blaine Street/3rd Street;
  - SR-60 W. Blaine Street/3rd Street to University Avenue;
  - ~~SR-60 University Avenue to Martin Luther King Boulevard;~~
  - SR-60 Central Avenue to Fair Isle Drive/Box Springs Road; and
  - SR-91 Arlington Avenue to Central Avenue.
- Southbound or Westbound:
  - SR-60 Haven Avenue to Archibald Avenue;

- SR-60 SR-91 to W. Blaine Street/3rd Street;
- SR-60 W. Blaine Street/3rd Street to University Avenue;
- SR-60 University Avenue to Martin Luther King Boulevard;
- SR-60 Central Avenue to Fair Isle Drive/Box Springs Road;
- SR-60 Day Street to Pigeon Pass Road/Frederick Street;
- SR-91 14th Street to University Avenue; and
- I-10 Haugen-Lehmann Way to SR-111.

The project would ~~have~~create a significant ~~direct project~~cumulative impact at the following freeway weaving segment under ~~General Plan Buildout~~ Year 2035 Cumulative with project conditions:

- Southbound or Westbound Sections:
  - SR-60 Day Street to Pigeon Pass Road/Frederick Street.

Freeway Ramp Analysis. ~~General Plan Buildout~~ Year 2035 Cumulative with project freeway ramp merge/diverge levels of service are summarized in Table 4.15.A~~S~~T, which shows ten freeway ramps would operate at unsatisfactory levels of service. The project would contribute toward the worsening of an already unsatisfactory LOS at three freeway ramps and, therefore, have a significant cumulative impact at these locations. The project would ~~have~~create a significant ~~direct project~~cumulative impact at five freeway ramp locations under ~~General Plan Buildout~~ Year 2035 Cumulative with project conditions since the project would cause a decrease in the LOS from satisfactory to unsatisfactory.

The project would have a ~~cumulative~~ significant impact at the following ~~six~~ three freeway ramps under ~~General Plan Buildout~~ Year 2035 Cumulative with project conditions:

- SR-60 Eastbound On-Ramp from Central Avenue;
- SR-60 Eastbound On-Ramp from Gilman Springs Road;
- SR-60 Westbound On-Ramp from Theodore Street;
- ~~SR-60 Westbound Loop On-Ramp from Redlands Boulevard;~~
- ~~SR-60 Westbound Off-Ramp to Central Avenue; and~~
- ~~SR-60 Westbound Off-Ramp to Martin Luther King Boulevard.~~

~~The project would have a significant project impact at the following four freeway ramps under General Plan Buildout with project conditions:~~

Westbound SR-60 Loop On-Ramp from Redlands Boulevard (R-16) will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

The project would ~~have~~also create a significant ~~direct project~~cumulative impact at the following five freeway ramps under ~~General Plan Buildout~~ Year 2035 Cumulative with project conditions:

- SR-60 Eastbound On-Ramp from Martin Luther King Boulevard;
- SR-60 Westbound Off-Ramp to Redlands Boulevard;

- SR-60 Westbound Direct On-Ramp from Redlands Boulevard;
- SR-60 Westbound Off-Ramp to Central Ave; and
- SR-60 Westbound Off-Ramp to Martin Luther King Boulevard.

Table 4.15.A~~R~~S-1: ~~General Plan Buildout~~ Year 2035 Cumulative plus Project Freeway Weaving Segment Levels of Service (Northbound/Eastbound)

			2035 No–Project Conditions						2035 Plus Buildout Conditions					
			A.M. Peak Hour			P.M. Peak Hour			A.M. Peak Hour			P.M. Peak Hour		
ID	Freeway	Weaving Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/S Garey Ave to Reservoir St	8,630	39.7	E	9,700	46.8	E	8,820	41.2	E	9,570	46.5	E
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-20	SR-60	Main St to SR-91	7,060	34.1	D	7,110	35.1	E	7,280	35.8	E	7,040	35.2	E
W-21	SR-60	SR-91 to Blaine St/3rd St	7,280	32.4	D	10,640	>Capacity	F	7,540	34.3	D	10,640	>Capacity	F
W-22	SR-60	Blaine St/3rd St to University Ave	7,120	28.9	D	8,460	38.7	E	7,460	31.9	D	8,570	40.9	E
W-23	SR-60	University Ave to Martin Luther King Blvd	7,960	30.0	D	7,040	26.4	C	8,310	32.0	D	7,160	27.4	C
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs Rd	7,890	37.0	E	8,640	40.5	E	8,370	43.9	E	8,760	44.5	E
W-27	SR-60	I-215 to Day St	3,980	16.3	B	6,210	27.7	C	4,460	21.4	C	6,200	30.8	D
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	3,760	16.2	B	5,660	26.5	C	4,190	18.9	B	5,690	27.2	C
W-32	SR-60	Moreno Beach Dr to Nason St	2,640	16.5	B	3,480	22.6	C	3,150	21.0	C	3,650	24.9	C
W-35	SR-60	Theodore St to Gilman Springs Rd	3,070	17.5	B	5,710	37.9	E	3,080	18.3	B	5,360	36.2	E
W-42	SR-91	Magnolia Ave to La Sierra Ave	6,970	33.7	D	6,930	34.2	D	7,080	34.4	D	6,900	34.2	D
W-48	SR-91	Arlington Ave to Central Ave	7,620	41.0	E	4,370	21.3	C	7,660	41.6	E	4,220	20.6	C
W-50	SR-91	14th St to University Ave	5,310	26.4	C	5,060	26.1	C	5,260	26.2	C	4,930	25.4	C
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-63	I-10	Haugen-Lehmann Way to SR-111	4,170	14.4	B	8,420	33.1	D	4,140	14.3	B	8,550	34.1	D
W-73	I-215	SR-60 to Columbia Ave	5,330	28.4	D	4,610	24.6	C	5,300	28.3	D	4,670	25.0	C
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	4,590	16.9	B	5,640	20.9	C	4,570	16.8	B	5,730	21.3	C
W-81	I-215	Mill St to 2nd St	5,190	18.3	B	6,460	23.5	C	5,160	18.2	B	6,560	23.9	C
W-82	I-215	5th St to Baseline Rd	3,900	13.5	B	4,980	17.7	B	3,880	13.4	B	5,050	18.0	B

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.A~~R~~S-2: ~~General Plan Buildout~~ Year 2035 Cumulative plus Project Freeway Weaving Segment Levels of Service (Southbound/Westbound)

			2035 No-Project Conditions						2035 Plus Buildout Conditions					
			A.M. Peak Hour			P.M. Peak Hour			A.M. Peak Hour			P.M. Peak Hour		
ID	Freeway	Weaving Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/S Garey Ave to Reservoir St	6,130	22.0	C	7,510	27.6	C	6,040	21.8	C	7,620	28.4	D
W-9	SR-60	Haven Ave to Archibald Ave	6,190	28.7	D	8,180	36.4	E	6,800	28.5	D	8,270	37.1	E
W-20	SR-60	Main St to SR-91	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	8,490	33.7	D	9,970	40.9	E	8,380	33.5	D	10,290	>Capacity	F
W-22	SR-60	Blaine St/3rd St to University Ave	6,320	24.3	C	8,890	35.8	E	6,320	25.3	C	9,220	39.6	E
W-23	SR-60	University Ave to Martin Luther King Blvd	6,750	28.2	D	8,830	36.9	E	6,670	28.3	D	9,130	39.2	E
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs Rd	8,340	38.1	E	9,200	39.2	E	8,170	38.5	E	9,560	43.8	E
W-27	SR-60	I-215 to Day St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	4,790	33.5	D	4,790	32.4	D	4,820	34.5	D	5,100	36.1	E
W-32	SR-60	Moreno Beach Dr to Nason St	3,310	20.5	C	2,680	16.2	B	3,460	22.2	C	3,040	19.5	B
W-35	SR-60	Theodore St to Gilman Springs Rd	4,560	32.0	D	3,680	24.2	C	4,220	27.3	C	3,470	22.5	C
W-42	SR-91	Magnolia Ave to La Sierra Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	5,160	24.9	C	5,760	27.4	C	5,140	24.9	C	5,830	28.0	D
W-50	SR-91	14th St to University Ave	6,070	23.7	C	8,010	33.0	D	6,020	23.6	C	8,050	33.3	D

Table 4.15.A~~R~~S-2: ~~General Plan Buildout~~ Year 2035 Cumulative plus Project Freeway Weaving Segment Levels of Service (Southbound/Westbound)

			2035 No-Project Conditions						2035 Plus Buildout Conditions					
			A.M. Peak Hour			P.M. Peak Hour			A.M. Peak Hour			P.M. Peak Hour		
ID	Freeway	Weaving Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	6,500	20.6	C	10,130	32.5	D	6,460	20.7	C	10,140	32.7	D
W-63	I-10	Haugen-Lehmann Way to SR-111	7,270	29.0	D	5,500	>Capacity	F	7,440	30.0	D	5,460	>Capacity	F
W-73	I-215	SR-60 to Columbia Ave	6,660	33.8	D	5,570	28.2	D	6,640	33.8	D	5,580	28.3	D
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	6,200	22.5	C	4,950	18.8	B	6,240	22.7	C	4,970	18.9	B
W-81	I-215	Mill St to 2nd St	6,360	23.4	C	4,980	18.3	B	6,370	23.5	C	5,020	18.5	B
W-82	I-215	5th St to Baseline Rd	5,610	20.3	C	4,060	14.6	B	5,620	20.3	C	4,060	14.6	B

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.A~~S~~T: ~~General Plan Buildout~~ Year 2035 Cumulative plus Project Freeway Ramp Levels of Service

				2035 No-Project Conditions								2035 Plus Buildout Conditions							
				AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	7,410	580	30.6	D	6,430	1,400	33.8	D	7,760	680	33.0	D	6,530	1,460	35.1	E
R-2	SR-60 EB	On-Ramp from Central Ave	1	7,890	1,220	32.2	F	8,630	970	32.9	F	8,370	1,360	35.5	F	8,760	970	33.9	F
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	1	2,480	220	13.8	B	3,130	440	19.7	B	2,910	280	20.0	C	3,240	680	22.6	C
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	1	2,260	90	22.1	C	2,690	60	25.4	C	2,630	110	27.2	C	2,560	70	25.8	C
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	1	2,350	110	19.9	B	2,750	480	26.0	C	2,740	140	25.3	C	2,630	480	26.4	C
R-6	SR-60 EB	Off-Ramp to Theodore St	2	3,200	270	25.0	C	4,500	150	36.7	F	3,630	850	24.3	C	4,280	410	27.8	C
R-7	SR-60 EB	Loop On-Ramp from Theodore St	1	2,930	150	22.0	C	4,350	1,350	42.9	F	2,780	50	27.6	C	3,870	350	38.5	E
R-8	SR-60 EB	Direct On-Ramp from Theodore St	1	Does not Exist in this Scenario				Does not Exist in this Scenario				2,830	260	23.5	C	4,220	1,400	43.6	F
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	2	3,070	840	19.4	B	5,710	1,570	35.8	E	3,080	980	19.8	B	5,360	1,240	34.0	D
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	1	2,230	260	16.9	B	4,140	470	34.3	F	2,100	300	16.5	B	4,120	690	36.4	F
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	2	3,350	240	20.9	C	2,920	560	18.2	B	3,450	450	21.5	C	2,680	530	16.8	B
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	1	3,110	1,330	32.2	D	2,360	1,140	24.6	C	3,000	1,050	29.3	D	2,150	1,130	23.2	C
R-13	SR-60 WB	Off-Ramp to Theodore St	2	4,560	640	32.7	F	3,680	380	24.8	C	4,220	710	26.9	C	3,470	420	22.2	C
R-14	SR-60 WB	On-Ramp from Theodore St	1	3,920	90	35.5	E	3,300	230	31.5	D	3,510	520	36.8	E	3,050	640	34.1	D
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	1	4,010	310	32.4	D	3,530	370	28.1	D	4,290	420	36.1	E	3,780	540	31.6	D
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	1	3,700	200	31.8	~~D~~E	3,160	110	26.7	~~C~~D	3,870	210	34.3	~~D~~E	3,240	150	28.6	D
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	1	3,900	350	34.7	D	3,270	280	29.0	D	4,080	390	37.6	F	3,390	630	34.2	D
R-18	SR-60 WB	Off-Ramp to Central Ave	2	8,340	480	32.0	D	9,200	540	35.0	D	8,170	480	31.8	D	9,560	540	37.0	E
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	1	8,330	710	32.5	D	8,980	660	34.1	D	8,240	720	32.5	D	9,380	670	36.0	E

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

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Note: Section 4.15.6.5 has been added to this Final EIR in response to: Comment F-1-49 in Letter F-1 from the Center for Biological Diversity/San Bernardino Valley Audubon Society; Comment F-3-4 in Letter F-3 from the California Clean Energy Committee; Appendix 78 in Letter F-3 from the California Clean Energy Committee; Comment F-9A-22 in Letter F-9A from the Sierra Club, Center for Community Action & Environmental Justice, and Natural Resources Defense Council; Comments F-9C-2, 4, 5, 6, and 7 in Letter F-9C from Sustainable Systems Research, LLC; Comment F-11-23 in Letter F-11 from the Sierra Club, San Gorgonio Chapter; Comment F-13-11 in Letter F-13 from the Sierra Club and Friends for a Livable Moreno Valley; and Comment G-51-45 in Letter G-51 from Michael McCoy.

4.15.6.5 Freeway Impacts from Truck Trips to the Ports of Los Angeles and Long Beach

Threshold: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit.

Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

A significant project-specific traffic impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the pre-project condition. The adopted LOS standards are as follows:

- Roadway segments: LOS C and LOS D as outlined in previously referenced Tables 4.15.B and 4.15.C.
- Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.Z.
- Freeway mainline: LOS D.
- Freeway Ramp Merge/Diverge: LOS D.

Several comments received on the Draft EIR indicated confusion regarding the volume of truck traffic between the WLC and the Ports of Los Angeles and Long Beach. In general, the DEIR commenters seemed to believe that the truck traffic between the WLC and the ports will be much higher than will actually occur. This section responds to these comments by 1) describing the current share of port-related use of warehouse space, 2) estimating the truck traffic between the WLC and the ports using three different methods, 3) estimating the growth in WLC truck traffic to the port over time, and 4) determining whether WLC trucks would impose significant impacts on the freeways to the ports beyond those identified in previous chapters.

Current Share of Port-Related Warehouse Space. The DEIR commenters referred to SCAG's study titled *Industrial Space in Southern California: Future Supply and Demand for Warehousing and Intermodal Facilities*. This study states that 13 percent of the occupied warehouse space in the SCAG region in 2009 was port-related. This indicates that while the ports are important sources of demand for warehouse space, the great majority of warehouse space serves other demands. In a large

regional economy such as southern California this other demand amounted to 578 million square feet in 2009, and is growing over time.

The SCAG study also shows wide differentiation in the markets served. Riverside County serves only a small percentage of port-related demand while playing a much more important role in serving non-port demand. This differentiation reflects the tendency of warehouse tenants whose operations rely on the ports to self-select locations close to the port.

The information provided in the report indicates that only 5 percent of the warehouse space in Riverside County serves port-related demand, which suggests that the volume of truck traffic between the ports and warehouses in Riverside County, including those in WLC, will be relatively small.

The study also reached two conclusions regarding the regional supply of warehouse space, taken from the report's Executive Summary (pages ES-1 and ES-2):

> *"According to assumed growth rates, the region will run out of suitably zoned vacant land in about the year 2028. At that time, forecasts show that the demand for warehousing space will be approximately 1,023 million square feet.*
>
> *During the year 2035, there will be a projected shortfall of space of about 228 million square feet, unless other land not currently zoned for warehousing becomes available."*

In other words, according to the SCAG study cited by the commenters, even if all of the land currently zoned for warehouse space were developed, there would still be a massive shortfall of warehouse space by 2035 unless projects like the WLC are approved and built.

Estimating Truck Trips between WLC and the Ports. In order to ensure that a reasonable worst-case scenario was used for the impact analysis, the number of truck trips between the WLC and the ports was forecast using three different methods, all based on data provided by regional planning agencies, with the highest of the three forecasts used for the analysis. The three methods were as follows:

- *Method 1: RivTAM Model.* The first method for estimating truck trips to the port was to use the RivTAM model. As described in Chapter 2, RivTAM is the standard traffic forecasting tool used by agencies in Riverside County to analyze the regional effects of proposed projects. Like most other traffic models, RivTAM assigns trips to destinations using a gravity model where the number of trips between each origin/destination pair increases in proportion to the number of trips generated at each end, but decreases in proportion to the distance between the origin and destination. The effect of distance on the likelihood of travel between origin-destination pairs is determined by the trip length distribution which in turn is based on survey data.

  The WLC's proposed land uses were input into the RivTAM model as described in Chapter 2, the model was run, and the outputs were checked to find how many truck trips were assigned between the ports TAZs and the WLC. Using the RivTAM model to estimate truck trips yields 82 truck trips per day between the ports and the WLC if the WLC were built today (i.e., the 2012 Plus Full Build-Out scenario).

- *Method 2: Based on Port Truck Study.* The best information currently available on truck trips from the ports comes from the Ports of Los Angeles and Long Beach Year 2010 Marine Terminal Gate Surveys. These surveys found that 1.5 percent of truck trips entering the ports came from Riverside County and 1.7 percent of trucks leaving the ports went to Riverside County. These finding are consistent with an earlier study that found 1 percent of truck trips entering the ports came from Riverside County and 2 percent of truck trips leaving the ports went to Riverside County (the numbers are rounded in the study). Applying the percentages from the 2010 survey

to the approximately 50,000 truck trips per day generated by the ports yields a total of approximately 800 trucks per day between the ports and Riverside County.

If we make the conservative assumption that every one of these 800 truck trips goes to a warehouse rather than to a factory, store, or some other destination, and divide these trips among the 136 million square feet of occupied warehouse space in Riverside County, we find an average of 5.9 truck trips to or from the ports per million square feet of warehouse space per day. Applying this rate to the 40.6 million square feet of warehouse space proposed for the WLC yields 240 truck trips per day between the ports and the WLC if the WLC were built today (the 2012 Plus Full Build-Out scenario).

- *Method 3: Based on Truck Flows from Riverside County.* The best information currently available on regional truck traffic patterns comes from SCAG's Goods Movement Study that was done in preparation for the 2012 RTP/SCS.

  Applying the ports' 1.5 percent share of Riverside County truck trips applies to WLC's 11,600 medium and heavy truck trips per day yields 174 truck trips per day between the ports and the WLC if the WLC were built today (the 2012 Plus Full Build-Out scenario).

  This analysis shows that a reasonable estimate of truck traffic between WLC and the ports would be in the range of 84 to 240 truck trips per day. The higher figure of 240 truck trips per day was used as a reasonable worst-case scenario.

Growth in Truck Trips to the Port. Some comments suggested that the analysis should consider the possibility that the share of warehouse space in the Inland Empire, and by extension the WLC, may grow over time. This section addresses those comments.

As discussed previously, currently only 1.5 percent of the truck trips in Riverside County are to or from the ports. In the future, port-related uses are anticipated to require a greater share of warehouse space. For Riverside County, SCAG estimates that the percentage of warehouse space devoted to port uses would more than triple between 2012 and 2035, from 5.0 percent to 16.3 percent.

The SCAG estimates show that the percentage of warehouse space devoted to port-related cargo will always be larger than the percentage of trucks going to and from the port. That is because the cargo that has come from the port to the warehouse then leaves the warehouse in trucks going to non-port destinations. There may also be inbound truck trips to warehouses from places other than the ports, delivering shipments of packaging material and other items which might be combined with port-related cargo, thus further reducing the proportion of trucks that come from the ports.

The estimated percentage of WLC trucks going to the ports is 2.07 for the Year 2012 scenario, 3.86 for the Year 2022 scenario, and 6.76 for the Year 2035 scenario. These estimates are based on 240 project truck trips per day to the port compared to 11,621 total medium and heavy truck trips to and from the WLC in the year 2012 scenario.

These percentages were then applied to the trip generation rates to obtain the number of WLC trucks to and from the port for each analysis period. The estimated quantity of WLC trucks going to the ports per day is 242 for the Year 2012 scenario, 254 for the Year 2022 scenario, and 786 for the Year 2035 scenario. Tests with the SCAG traffic model showed that these trips would split approximately evenly between SR-60 and SR-91 routes.

Determination of Whether Impacts are Significant. The potential for traffic impacts along the SR-60 and SR-91 corridors was assessed by manually adding the forecasts for WLC trucks to and from the port to the No-Project condition from the SCAG model. Because the ports and the freeways leading to

them are in Los Angeles County, the threshold of significance for the analysis was taken from the Los Angeles County Congestion Management Program (CMP). The CMP states that a significant impact would be deemed to occur if the project increased demand on a highway by at least 2 percent causing LOS F or, if the highway facility already operates at LOS F, then a significant impact would be deemed to occur if the project increases traffic demand by 2 percent or more of capacity.

Analysis of the project's impacts to each section of the SR-60 and SR-91 corridors and in each direction, for both the a.m. and p.m. peak periods, was conducted for the 2012, 2022, and 2035 scenarios. The addition of the WLC traffic would increase freeway traffic volume ranging from 0.05 percent to 1.17 percent of non-project traffic, would not cause a significant impact on any segment of these freeways.

4.15.7 Mitigation of Significant Impacts

As described in detail in Section 4.15.4, the level of service performance standards used in this EIR are as follows:

- Roadway segments and intersections: LOS C, LOS D, or LOS E as outlined in previously referenced Tables 4.15.B, 4.15.C, and 4.15.D.
- Freeway mainline: LOS D (or existing density if currently operating at LOS E or F).
- Freeway Ramp Merge/Diverge: LOS D.

The methodology used to identify mitigation measures included:

1) Determining whether the LOS exceeded the target threshold in the Plus Project condition.
2) If so, then determining whether the appropriate measure of effectiveness under Plus Project conditions was below that under No Project conditions. Some study freeway segments were found to exceed the threshold of significance under Plus Project conditions but the traffic density was lower under Plus Project conditions than No Project conditions. This could happen because the project would cause some commuters to switch from the peak direction to the off-peak direction, thus reducing congestion at some locations. The project's impacts (both project direct and cumulative impacts) were considered significant only when the Plus Project condition was worse than the No-Project condition.
3) If the project had a significant ~~project direct or cumulative~~ impact, capacity-increasing improvements were then added incrementally until the LOS was within the target threshold of significance.
4) ~~D~~For cumulative impacts, determining whether the mitigations could be funded as part of an established fee program such as TUMF or DIF. If ~~the identified facility was already part of the TUMF or DIF Program~~so, then payment into the TUMF or DIF program constitutes mitigation of impacts to the TUMF and DIF facilities.
5) For improvements that would not be funded from an established fee program the project's fair-share contribution was computed using the formula in Caltrans' *Guide for the Preparation of Traffic Impact Studies - Appendix "B"*. This formula defines the project's fair-share as the project-related traffic's percentage share of overall traffic growth, not including new traffic attributable to projects that have already been approved. Where there were significant impacts in both the a.m. and p.m. peak periods, the period with the higher share of project traffic was used to determine the fair-share contribution.

Potential mitigation measures were analyzed to determine whether they were feasible or not. Improvements were deemed to be infeasible if they would require the acquisition of existing homes or

businesses, if they would result in excessive air, noise, or vibration impacts on existing homes, businesses, or sensitive natural environments, or would create safety impacts that could be considered less acceptable than a reduced traffic LOS. In cases where feasibility is uncertain, the recommended improvement was treated as feasible in order to produce a conservative estimate of project responsibilities (i.e. "conservative" in the sense that the project's responsibilities would not be under-estimated).

In cases where a proposed modification to an existing intersection would result in the elimination of an existing bus stop or bicycle lane the proposed mitigation would include the replacement of the bicycle lane or bus stop even if not explicitly stated. This is also true of the replacement of existing curbs, gutters, sidewalks, lights, and other existing design features.

Timing of Improvements. It is important to note that the specific timing of installation of the various identified improvements will occur as indicated by subsequent traffic studies when specific development is proposed in the future, as outlined in **Mitigation Measure 4.15.7.4A**. It is therefore not possible at this time, in this programmatic document, to identify the specific timing of roadway or other circulation improvements identified in this document.

4.15.7.1 The TUMF Program

In 1988, the voters of Riverside County approved Measure A, a half-cent sales tax to fund transportation projects. In 2002, voters approved a 20-year extension of Measure A, this time including a Transportation Uniform Mitigation Fee or TUMF. The rationale behind TUMF was that having a single uniform fee program to mitigate the cumulative regional impacts of new development on the area's arterial highway system would be more effective than having multiple and potentially uncoordinated fee programs with varying policies, fee amounts, and project lists. Under the TUMF, developers of residential, industrial, and commercial property pay a development fee to fund transportation projects that will be required as a result of the growth the projects create. The program is recognition by voters that residents and employees in all of Western Riverside County's jurisdictions benefit from arterials located not just in their own city, but also in nearby cities as well.

The TUMF program is designed to provide a network of roads, bridges, interchanges, and railroad grade separations, known as the Regional System of Highways and Arterials (RSHA), needed to accommodate future growth in the area through 2035. The RSHA was developed by the Public Works Directors of the Western Riverside Council of Governments (WRCOG) member jurisdiction. A "Nexus Study" was then prepared in accordance with the California Mitigation Fee Act, which requires that a reasonable relationship exist between the impact fee collected and the proposed improvements for which a fee is used. The study determined the proportion of the cost of the improvements should be borne by different types of development based on the trip generating characteristics of each land use type. The Nexus Study was updated in 2010 and the RSHA was revised to reflect the most current transportation needs and costs for Western Riverside County. The new network reflected several changes due to completed projects and recommendations from the WRCOG Public Works Committee (PWC) to better represent the transportation needs of Western Riverside County.

TUMF is administered by the WRCOG. As administrator, WRCOG receives all fees generated from the TUMF as collected by the local jurisdictions. TUMF funds are programmed by WRCOG's partner agencies, which are responsible for prioritizing projects and overseeing their development.

The TUMF program uses ~~five~~six categories of land uses: two residential categories and ~~three~~four non-residential categories. The two residential types are single-family residential and multifamily residential. Non-residential uses are industrial, retail, ~~and~~ service commercial, and high-cube warehouse, with fees assessed at different rates depending on the category. The high-cube warehouses in the WLC would fall into the "~~industrial~~high-cube" category of non-residential

development~~ and, as such, would be assessed a fee of $1.73 per square foot~~. As this fee level, if the WLC builds out completely, it would potentially pay more than $70 million in TUMFs.

TUMF revenues are collected when a development reaches the Building Permit stage. Once collected and administrative costs and a mitigation allocation made to the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), TUMF revenues are allocated as follows:

- ~~48.1~~46.39 percent is allocated for regional improvements. These revenues are programmed by the RCTC pursuant to an agreement with WRCOG.
- ~~48.1~~46.39 percent is allocated to the geographic zone from which the fees are collected. Project prioritization and programming are undertaken by the jurisdictions in each of the five zones.
- ~~3.8~~1.64 percent is allocated for regional transit projects. WRCOG administers the funds on behalf of the RTA which prioritizes and programs capital transit projects.
- 1.59 percent is allocated to the Multiple Species Habitat Conservation Plan.
- 4.0 percent is used for program administration.

Since its inception, TUMF has collected more than $554 million in revenues, making it the largest multi-jurisdictional fee program in the nation. It has completed 46 projects with several dozen more under development. The projects successfully funded by the program include a variety of road widening, intersection improvements, and freeway interchanges, including:

- Widening Pigeon Pass Road from 2 lanes to 4 lanes from Climbing Rose Drive to Hidden Springs Drive;
- Widening the Ramona Expressway from 2 lanes to 6 lanes from I-215 to Evans Road;
- Improvements to the Ironwood Avenue/Moreno Beach Drive intersection;
- Improvements to the Ironwood Avenue/Nason Street intersection;
- Adding a northbound lane to Lasselle Street from John F Kennedy Drive to Alessandro Boulevard;
- Widening Oleander Avenue from Perris Boulevard to Indian Avenue;
- The Van Buren Boulevard/SR-91 Interchange Project;
- Widening State Street in Hemet from 2 to 4 lanes with a center turn lane; and
- Widening Sanderson Avenue from Menlo Avenue to Ramona Expressway.

This track record of success is a key reason why the TUMF projects have a good probability of being implemented. Between now and 2035, when the program is scheduled for completion, the TUMF program is forecast to provide nearly $~~3~~1.9 billion towards a total of $4.2 billion in arterial road, bridge, intersection, and interchange improvements in Western Riverside County. Those components of infrastructure that are subject to and included in the TUMF program are identified in the TIA and this Traffic and Circulation section of the EIR.

4.15.7.2 The City of Moreno Valley Development Impact Fee Program

The City of Moreno Valley's Development Impact Fee (DIF) program is used to fund road and intersection improvements needed to accommodate new residential, commercial, and industrial development~~ for funding roadways and intersections~~. The program collects fees from three categories of residential development (single-family, multifamily, and mobile homes) and five categories of

commercial development (general commercial, regional commercial, general industrial, high-cube warehouse, and office) based on their respective trip generating characteristics. In many cases, developers dedicate right-of-way and/or construct improvements that are part of the TUMF or DIF programs in lieu of paying the fees. These facilities are typically part of a project's direct frontage or are necessary to accommodate traffic capacities in the immediate area of the project. DIF fees on high-cube warehouses are currently set at $~~1.016~~0.9955 per square foot, which means that the WLC would potentially pay more than $~~41~~40 million in DIF fees if the project builds out completely as planned. Like the TUMF Program, the City's DIF Program is a bona-fide Mitigation Fee Program that has been created in accordance with AB 1600. All development is required to pay into the DIF Program; funds raised pursuant to the DIF Program are held in a separate interest-bearing account; an infrastructure capital improvement program is adopted that funds transportation improvements as they are needed to maintain targeted levels of service; and the capital improvement program is implemented as development occurs and DIF fees are collected.

DIF funds are overseen by the City's Public Works Department. Department staff monitors traffic volumes and periodically develops a capital improvement program designed to ensure that improvements are installed to help maintain the City's target LOS threshold. The CIP is reviewed and approved by the city council. Examples of projects successfully completed using DIF funds include:

- Iris Ave. from Indian St. to Perris Blvd.
- Lasselle St./Bay Ave. traffic signal
- Lasselle St./Cottonwood Ave. traffic signal
- Cactus Ave. eastbound improvements from I-215 to Veterans Way

Similar to the TUMF, this track record of success is a key reason why the DIF projects have a good probability of being implemented. The DIF program supplements the TUMF program by funding elements of the City's General Plan Circulation Element not covered by TUMF and, in some projects, by providing funds for additional capacity beyond what the TUMF project will provide. The DIF program has been updated several times, most recently in January 2013, to reflect changes in priorities as development occurs in different parts of the City.

Table 4.15.A~~T~~U shows a sample of transportation improvement projects from the City's Capital Improvement Program that used DI~~R~~F and/or TUM~~P~~F funds in combination with other funding sources.

Table 4.15.A~~T~~U: Projects Using DIF and TUMF in Combination with Other Funding Sources (new from TIA Table 73)

Project	DIF Funds	TUMF Funds	Other Funds	Sources of Other Funds
Iron Avenue / Heacock Street to Perris Boulevard	$1,509,420	$72,413	$57,358	2005 Lease Revenue Bonds
Nason Street / Cactus Avenue Street Improvements	$9,272,000		$15,910,845	Measure "A"; State-Local Partnership Program; General Fund; General City C.P.; Successor Agency Tax Revenue; Redevelopment Agency Cap. Proj.; Eastern Municipal Water District; Riverside County Flood Control; 2007 Taxable Lease Revenue Bonds
SR-60 / Moreno Beach Drive South Side of Interchange (Phase 1)		$3,500,000	$6,110,735	Successor Agency; Redevelopment Agency
SR-60 / Nason Street Interchange	$740,000		$13,285,777	Measure "A"; Federal Demonstration Funds; Demo Toll Credit - Const.; Surface Transportation Program Local (construction); Surface Transportation Program Local Toll Credit - Const.
Heacock Street South Extension		$300,000	$564,172	Measure "A"
Emergency Vehicle Pre-emption at 117 Traffic Signals	$93,534		$840,000	Highway Safety Improvement Program
Nason Street / Riverside County Regional Medical Center Main Driveway Traffic Signal	$250,000		$50,000	Measure "A"
Transportation Management Center	$316,578		$214,646	Air Quality Management
Lasselle Street / John F. Kennedy Drive to Alessandro Boulevard		$2,757,886	$1,058,143	2005 Lease Revenue Bonds
Kitching Street / Alessandro Boulevard to Gentian Avenue	$11,903		$1,639,854	2005 Lease Revenue Bonds
Pigeon Pass Road Widening / Climbing Rose Drive to North City Limits	$462,239	$679,953	$22,664	Measure "A"
Total	$12,655,674	$7,310,252	$39,754,194	
Percentage of Total	21%	12%	67%	

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

4.15.7.3 Required Improvements

Existing plus Project Direct and Cumulative Project Impacts. As individual projects within the WLC are processed, the City will require that each project do a traffic impact assessment in accordance with City guidelines. These project-level assessments will determine the timing of each ~~mitigation~~transportation improvement measure and will ensure that the impact assumptions made in this programmatic EIR document are consistent with the analysis of potential impacts at the project-specific implementation stage.

This section is devoted to ~~reporting~~disclosing project impacts and identifying required improvements to improve the impacted location to within the applicable level of service standard. ~~The situation for e~~Each impacted facility is discussed in the text and the results are summarized in Tables A~~T~~V through A~~X~~Y. These tables all follow a similar format which includes the following data fields (columns):

(A) This field identifies the location of the impact.

(B) This field identifies which agency has jurisdiction over the facility in question.

(C) This field shows the agency's target LOS for the facility in question.

(D) This field shows the LOS under Existing conditions. This is used to determine whether or not there is an existing deficiency.

(E) This field shows the LOS under Existing Plus Project conditions. This is used to determine whether or not the project has a significant impact.

(F) This field shows whether there is a significant impact. It is based on the thresholds of significance described in Chapter 4.

(G) This field describes what improvements would be required to achieve the target LOS under Existing Plus Project conditions.

(H) This field states whether the measure described in Column G is feasible or not. In some cases the needed improvements may not be feasible. For example, it may be infeasible to widen a road because doing so would cause major negative impacts to an adjacent neighborhood.

(I) This field shows the LOS after all feasible mitigations have been implemented. If mitigation is infeasible then Column I will be the same as Column E.

(J) This field states whether the impact would still be significant after all feasible mitigation measures have been implemented. For those facilities under the jurisdiction of the City of Moreno Valley (see Column B) a "No" in Column J indicates that the impact will be mitigated to a less than significant level. For those facilities outside the jurisdiction of the City of Moreno Valley, Column J indicates what would happen if the jurisdiction that controls the facility implements the recommended feasible mitigations. However, because the City of Moreno Valley cannot guarantee that the other agency will implement the needed improvement the City cannot guarantee that the impact will be mitigated to a less than significant level.

(K) This field shows whether or not there is an existing deficiency. Generally speaking, under state law a developer is responsible for mitigating the impacts of their project but is not responsible for rectifying existing deficiencies that are the result of earlier projects. They need only pay a fair-share representing the portion of the deficiency that is attributable to their own project.

(L) This field reports the action that the developers of the WLC will be required to take as a condition of approval.

PROJECT DIRECT IMPACTS (SHORT-TERM)

The direct impacts of the WLC project were determined by comparing the LOS of study facilities under Existing and Existing Plus Project conditions. The direct impacts of the project and the associated improvements necessary to obtain the target LOS are as follows.

Road Section Direct Impacts. The project's direct impacts on road sections are summarized in Table 4.15.A~~U~~V. These impacts and the associated improvements necessary to obtain the target LOS would be:

- ***Cactus Avenue from Redlands Boulevard to Street D (S-22)*** currently has one westbound lane and two eastbound lanes. The WLC would involve the reconstruction of Alessandro Boulevard along a new alignment that ends ~~at Street D, which would connect~~ Cactus Avenue Extension, which would connect Cactus Avenue and Alessandro Boulevard (Street E) as the main route for east-west through traffic. Cactus Avenue would need to be widened to four lanes in conjunction with this change. The City will require the developer to pay a fair share for this improvement as a condition of approval.
- ***Gilman Springs Road from Alessandro Boulevard to Bridge Street (S-16)*** is already deficient and needs to be widened to four lanes and will need to be widened to six lanes in the future. ~~T~~In accordance with General Plan Policy 5.5.7, the City will require the developer to widen Gilman Springs Road to provide three southbound lanes and one northbound lane along the frontage of

the WLC project. The developer will receive a TUMF credit for the portion of the cost of this improvement that exceeds the project's fair share contribution.

~~The widening of Gilman Springs Road from Alessandro Boulevard to Bridge Street from a two-lane road to a six-lane road is included in the SCAG FTIP (Project ID RIV080909) and the FTIP shows full funding of this Gilman Springs Road segment in fiscal year 2016/2017.~~ However, because Gilman Springs Road is partially a Riverside County facility and is thus partially outside the jurisdiction of the City of Moreno Valley, the City cannot ~~control the costruction schedule or~~ ensure that the identified improvements would be made outside of its jurisdiction. Moreover, there are right-of-way constraints involving sensitive environmental areas that may limit widening to four lanes between Alessandro Boulevard and Bridge Street, or even preclude any widening at all. The project's ~~cumulative~~ impacts in the Existing Plus Project scenario on Gilman Springs Road must therefore be considered significant and unavoidable. The City will work with Riverside County find funding for improvements that would provide an acceptable LOS on this road to the extent feasible.

- ***Gilman Springs Road from SR-60 to Alessandro Boulevard (S-17)*** is already deficient and needs to be widened to four lanes. ~~T~~In accordance with General Plan Policy 5.5.7, the City will require the developer to widen Gilman Springs Road to provide three southbound lanes and one northbound lane along the frontage of the WLC project. The developer will receive a TUMF credit for the portion of the cost of this improvement that exceeds the project's fair share contribution.

  ~~The widening of Gilman Springs Road from SR-60 to Alessandro Boulevard from a two-lane road to a six-lane road is included in the SCAG FTIP (Project ID RIV080908) and the FTIP shows full funding of this Gilman Springs Road segment in fiscal year 2015/2016.~~ However, because Gilman Springs Road is partially a Riverside County facility and is thus partially outside the jurisdiction of the City of Moreno Valley, the City cannot ~~control the costruction schedule or~~ ensure that the identified improvements would be made outside of its jurisdiction. The project's ~~cumulative~~ impacts in the Existing Plus Project scenario on Gilman Springs Road must therefore be considered significant and unavoidable. The City will work with Riverside County to find funding for improvements that would provide an acceptable LOS on this road to the extent feasible.

Table 4.15.A~~U~~V: Existing plus Project Direct Impacts and Mitigation Measures on Roadway Segments

Study Roadway		From	To	Jurisdiction	LOS Standard*	Existing LOS	Existing Plus Project LOS	Does the Project Have a Significant Impact?	Mitigation Measures Required to Reduce Project Impacts to Less than significant	Is Mitigation Feasible?	LOS After Feasible Mitigations are Implemented	Impact Significant After Mitigation?	Is There an Existing~~Difficiency~~ Deficiency?	Developer Action Required
(A)				(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)
Road Section Direct Impacts that can be Mitigated to a Less than significant Level														
S-22	Cactus Ave.	Redlands Blvd	Cactus Avenue Extension	Moreno Valley	C	A	E	Yes	Widen to 4 lanes	Yes	A	No	No	Pay fair share (95.9%)
Road Section Cumulative Impacts that are Considered Significant and Unavoidable (because they are not under the control of the City of Moreno Valley)														
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge Street	Riverside County	D	~~E~~F	E	Yes	Widen to 4 lanes	Yes	C	No	Yes	Pay fair share (12.2%)
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	Riverside County	D	E	E	Yes	Widen to 4 lanes	Yes	C	No	Yes	Pay fair share (17.8%)

* ~~Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways.~~LOS standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.

~~** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.~~

Indicates LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

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Intersection Direct Impacts. The project's direct impacts on study intersections are summarized in Table 4.15.A~~V~~W. These impacts and the associated improvements necessary to obtain the target LOS would be:

- ***Redlands Boulevard/Locust Avenue Intersection (IN-10)*** already exceeds the LOS threshold in both the a.m. and p.m. peak hours and traffic using the intersection would experience longer delays resulting in ~~a cumulative~~an impact in the Existing Plus Project scenario. ~~A~~Signalizing the intersection and adding left turn lanes on the eastbound and westbound approaches to the intersection would reduce ~~cumulative~~ project impacts to a less than significant level. The City will require the developer to pay a fair share contribution towards this improvement as a condition of approval.
- ***Redlands Boulevard/SR-60 Westbound Ramps Intersection (IN-13)*** already exceeds the LOS threshold in both the a.m. and p.m. peak hours and traffic using the intersection would experience longer delays resulting in ~~a cumulative~~an impact in the Existing Plus Project scenario. ~~A~~Signalizing the intersection and adding a right turn lane on the northbound approach~~e~~ to the intersection would reduce ~~cumulative~~ project impacts to a less than significant level. It should be noted that the National Bridge Inventory 2012 Inspection Database[5] indicates that the Redlands Boulevard bridge over SR-60 was designed for MS18/HS20 design loads and has a sufficiency rating for 94.5. The City will require the developer to pay a fair share contribution towards this improvement as a condition of approval.
- ***Oliver Street/Alessandro Boulevard Intersection (IN-20)*** already exceeds the LOS threshold in the a.m. peak hour and traffic using the intersection would experience longer delays resulting in ~~a cumulative~~an impact in the Existing Plus Project scenario. Changing from side-street stop control to all-way stop control would reduce ~~cumulative~~ project impacts to a less than significant level. The City will require the developer to pay a fair share contribution towards this improvement as a condition of approval.
- ***Redlands Boulevard/Cactus Avenue Intersection (IN-27)*** currently operates within the LOS threshold but would exceed the threshold in both the a.m. and p.m. peak hour under Existing Plus Project conditions. ~~A~~Signalizing the intersection and adding left turn lanes on the eastbound and westbound approaches to the ~~the~~ intersection would reduce direct project impacts to a less than significant level. The City will require the developer to pay a fair share contribution towards this improvement as a condition of approval.
- ***Moreno Beach Drive/John Kennedy Drive Intersection (IN-28)*** currently operates within the LOS threshold but would exceed the threshold in the p.m. peak hour under Existing Plus Project conditions. Adding a westbound left-turn lane would reduce direct project impacts to a less than significant level. The City will require the developer to pay a fair share contribution towards this improvement as a condition of approval.
- ***Moreno Beach Drive/Ironwood Avenue Intersection (IN-36)*** currently operates within the LOS threshold but would exceed the threshold in the a.m. peak hour under Existing Plus Project conditions. Adding a northbound right-turn lane would reduce direct project impacts to a less than significant level. The City will require the developer to pay a fair share contribution towards this improvement as a condition of approval.
- ***Moreno Beach Drive/SR-60 Eastbound Ramps Intersection (IN-37)*** already exceeds the LOS threshold in the p.m. peak hour and traffic using the intersection would experience longer delays resulting in ~~a cumulative~~an impact in the Existing Plus Project scenario. Adding an eastbound right-turn lane would reduce ~~cumulative~~ project impacts to a less than significant level. ~~The City will require the developer to pay a fair share contribution towards this improvement as a condition of approval.~~At the time of publication, improvements were already being made to the intersection.

[5] http://nationalbridges.com/ Federal Highway Administration, searchable database last updated 2012

- ***Lasselle Street/Cactus Avenue Intersection (IN-53)*** already exceeds the LOS threshold in both the a.m. and p.m. peak hours and traffic using the intersection would experience longer delays resulting in ~~a cumulative~~an impact in the Existing Plus Project scenario. Constructing an additional lane for the westbound left turn, northbound left turn, and southbound left turn, and modifying the traffic signal to provide overlap phasing for northbound right turns and eastbound right turns would reduce cumulative project impacts to a less than significant level. The City will require the developer to pay a fair share contribution towards this improvement as a condition of approval.
- ***Arlington Avenue/Victoria Avenue Intersection (IN-94)*** currently operates within the LOS threshold but would exceed the threshold in the a.m. peak hour under Existing Plus Project conditions. ~~Adjusting the signal timing splits during the a.m. peak hour~~Adding an additional westbound left-turn lane would reduce direct project impacts to a less than significant level.

  This intersection is under the jurisdiction of the City of Riverside. The City of Moreno Valley will require the developer to pay a fair share contribution towards this improvement as a condition of approval. However, because the intersection is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.
- ***Alessandro Boulevard/Chicago Avenue intersection (IN-95)*** is already built out to near the practical limit before grade separation is required (it has five lanes for each approach). Despite this, it already operates at LOS "E" in the p.m. peak period and traffic using the intersection would experience longer delays resulting in ~~a cumulative~~an impact in the Existing Plus Project scenario. To achieve the target LOS under Existing Plus Project conditions, the addition of another northbound left-turn lane (with adjusted signal timing) would be required.

  This intersection is under the jurisdiction of the City of Riverside. The City of Moreno Valley will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. However, because this intersection is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. ~~In addition,~~ The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.
- ~~***Evans Road/Rider Street Intersection (IN-107)*** currently operates within the LOS threshold but would exceed the threshold in the a.m. peak hour under Existing Plus Project conditions. Modifying the signal timing to allow protected/permitted left-turns for the northbound and southbound approaches would reduce direct project impacts to a less than significant level.~~

  ~~Because this intersection is under the jurisdiction of the City of Perris and is thus outside the control of the City of Moreno Valley, the City cannot ensure that the signal timing will be changed. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Perris to change the signal timing for this intersection.~~
- ***Bridge Street/Ramona Expressway Intersection (IN-122)*** currently operates within the LOS threshold but would exceed the threshold in the a.m. and p.m. peak hours under Existing Plus Project conditions. Signalizing the intersection would reduce direct project impacts to a less than significant level. However, there is a plan to close this intersection in the future and replace it with a grade-separated crossing west of the current location as part of the Villages of Lakeview project. It may not be worthwhile to signalize this intersection for only a few years before closing it.

Table 4.15.A~~V~~W: Existing plus Project Direct Impacts and Mitigation Measures on Intersections

Study Intersection		Jurisdiction	LOS Standard	Existing Conditions		Existing Plus Build-out		Does the Project Have a Significant Impact?	Mitigation Measures Required to Reduce Impact to Less-Than-Significant	Is Mitigation Feasible?	LOS After Feasible Mitigations are Implemented		Impact Significant After Feasible Mitigations are Implemented?	Is There an Existing Deficiency?	Developer Action Required
				AM	PM	AM	PM				AM LOS	PM LOS			
(A)		(B)	(C)	(D)		(E)		(F)	(G)	(H)	(I)		(J)	(K)	(L)
Intersection Direct Impacts that can be Mitigated to a Less-Than-Significant Level															
IN-10	Redlands Blvd/Locust Ave	Moreno Valley	C	D	E	F	F	Yes	Signalize. Add 1 EB LT and 1 WB LT.	Yes	A	A	No	Yes	Implement improvement, with reimbursement agreement based on fair share contribution (34.8%)
IN-13	Redlands Blvd/SR-60 WB ramps	Moreno Valley	D	E	F	E	F	Yes	Signalize. Add 1 NB RT.	Yes	B	B	No	Yes	Implement improvement, with reimbursement agreement based on fair share contribution (49.6%)
IN-20	Oliver Str/Alessandro Blvd	Moreno Valley	C	D	B	F	C	Yes	Change to AWS.	Yes	C	B	No	Yes	Implement improvement, with reimbursement agreement based on fair share contribution (11.5%)
IN-27	Redlands Blvd/Cactus Ave	Moreno Valley	C	B	A	F	F	Yes	Signalize. Add 1 EB LT, 1 WB LT.	Yes	B	B	No	No	Implement improvement, with reimbursement agreement based on fair share contribution (60.7%)
IN-28	Moreno Beach Dr/John Kennedy Dr	Moreno Valley	D	B	B	C	F	Yes	Add 1 WB LT Lane.	Yes	B	B	No	No	Implement improvement, with reimbursement agreement based on fair share contribution (36.3%)
IN-36	Moreno Beach Dr/Ironwood Ave	Moreno Valley	D	D	D	E	D	Yes	Add 1 NB RT lane.	Yes	D	D	No	No	Implement improvement, with reimbursement agreement based on fair share contribution (14.9%)
IN-37	Moreno Beach Dr/SR-60 EB Ramps	Moreno Valley	D	D	E	D	F	Yes	Add 1 EB RT lane.	Yes	C	C	No	Yes	N/A*
IN-53	Lasselle Str/Cactus Ave	Moreno Valley	C	D	D	D	D	Yes	Add 1 WB LT, 1 NB LT, 1 SB LT, Add overlap phase for NB and EB RT.	Yes	D	C	No	Yes	Implement improvement, with reimbursement agreement based on fair share contribution (46.2%)
Intersection Direct Impacts that are Considered Significant and Unavoidable (either because they are not under the control of the City of Moreno Valley or because mitigation is infeasible)															
IN-94	Arlington Ave/Victoria Ave	City of Riverside	D	D	C	E	C	Yes	Add WB LT lane	Yes	D	C	No	No	Pay fair share (7.5%)
IN-95	Alessandro Blvd/Chicago Ave	City of Riverside	D	D	E	D	E	Yes	Add NB LT lane; adjust signal timings.	Yes	D	D	No	Yes	Pay fair share (10.3%)
IN-122	Bridge St/Ramona Expy	Riverside County	C	C	C	D	D	This intersection is due to be closed in the near future and replaced by a grade separated intersection further west. No improvements are warranted							
IN-123	Gilman Springs Rd/Bridge Str	Riverside County	C	D	C	E	D	Yes	Signalize.	Yes	A	A	No	Yes	Pay fair share (25.7%)
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	Riverside County	C	D	D	F	E	Yes	Signalize.	Yes	A	A	No	Yes	Pay fair share (13.6%)
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	Riverside County	C	D	E	E	F	Yes	Signalize.	Yes	A	A	No	Yes	Pay fair share (20.7%)
IN-132	San Timoteo Canyon Rd/Alessandro Rd	Redlands	D	F	C	F	F	Yes	Signalize.	Yes	D	B	No	Yes	Pay fair share (33.6%)
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	Riverside County	C	F	F	F	F	Yes	Signalize.	Yes	B	B	No	Yes	Pay fair share (32.1%)
IN-134	Redlands Blvd/San Timoteo Canyon Rd	Riverside County	C	F	F	F	F	Yes	Signalize. Add 1 EB RT. Also add EB RT overlap phase.	Yes	A	A	No	Yes	Pay fair share (34.1%)

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

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This intersection is under the jurisdiction of the Riverside County. However, because the intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with Riverside County to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- ***Gilman Springs Road/Bridge Street Intersection (IN-123)*** already exceeds the LOS threshold in a.m. peak hour and traffic using the intersection would experience longer delays resulting in ~~a cumulative~~an impact in the Existing Plus Project scenario. Signalizing this intersection would reduce ~~cumulative~~ project impacts to a less than significant level.

  This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair share contribution towards this improvement as a condition of approval. However, because the intersection is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with Riverside County to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- ***SR-79 (Sanderson Avenue) Northbound/Gilman Springs Road Intersection (IN-124)*** already exceeds the LOS threshold in both the a.m. and p.m. peak hours and traffic using the intersection would experience longer delays resulting in ~~a cumulative~~an impact in the Existing Plus Project scenario. Signalizing this intersection would reduce ~~cumulative~~ project impacts to a less than significant level.

  This intersection is under the jurisdiction of the Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval. However, because intersection is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the County of Riverside to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- ***SR-79 (Sanderson Avenue) Southbound/Gilman Springs Road Intersection (IN-125)*** already exceeds the LOS threshold in both the a.m. and p.m. peak hours and traffic using the intersection would experience longer delays resulting in ~~a cumulative~~an impact in the Existing Plus Project scenario. Signalizing this intersection would reduce ~~cumulative~~ project impacts to a less than significant level.

  This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval. However, because intersection is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable.

- ***San Timoteo Canyon Road/Alessandro Road Intersection (IN-132)*** already exceeds the LOS threshold in the a.m. peak hour and traffic using the intersection would experience longer delays resulting in ~~a cumulative~~an impact in the Existing Plus Project scenario. Signalizing this intersection would reduce ~~cumulative~~ project impacts to a less than significant level.

  This intersection is under the jurisdiction of the City of Redlands. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. However, because the intersection is outside the jurisdiction of the City of Moreno Valley and

because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Redlands to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- ***San Timoteo Canyon Road/Live Oak Canyon Road Intersection (IN-133)*** already exceeds the LOS threshold in both the a.m. and p.m. peak hours and traffic using the intersection would experience longer delays resulting in ~~a cumulative~~an impact in the Existing Plus Project scenario. Signalizing this intersection would reduce ~~cumulative~~ project impacts to a less than significant level.

  This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval. However, because intersection is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable.

- ***Redlands Boulevard/San Timoteo Canyon Road Intersection (IN-134)*** already exceeds the LOS threshold in both the a.m. and p.m. peak hours and traffic using the intersection would experience longer delays resulting in ~~a cumulative~~an impact in the Existing Plus Project scenario. Signalizing this intersection and adding an eastbound right-turn storage lane with an overlap phase would reduce ~~cumulative~~ project impacts to a less than significant level.

  This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval. However, because intersection is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable.

Freeway Direct Impacts. Unlike the surface streets, where intersection improvements are generally both feasible and desirable, the strategic situation for freeways in western Riverside County is such that major freeway improvements are becoming increasingly problematic over time. A key problem is that the rights-of way are essentially built out in many locations and cannot be expanded without severe impacts to existing communities (loss of homes and businesses, visual intrusion, increased noise and air quality impacts, etc.) and high costs to replace overcrossing structures. Moreover, there is a growing consensus that over-provision of freeway capacity facilitates long-distance commuting by car and leads to more auto-oriented residential development on the urban fringe, which in turn increases greenhouse gas emissions. This has resulted in a policy shift away from continued expansion of the freeway system, as reflected, for example, in the Riverside County Transportation Commission Ordinance No. 02-001 which reads in part:

> *"State Routes 91 and 60 and Interstate Routes 15 and 215 cannot cost effectively be widened enough to provide for the traffic expected as Riverside County continues to grow. In addition to the specific highway improvements listed in Section 1 above, congestion relief for these highways will require that new north–south and east-west transportation corridors will have to be developed to provide mobility within Riverside County and between Riverside County and its neighboring Orange and San Bernardino Counties."*

In other words, as a matter of policy, with the exception of spot improvements in some specific locations, the overall strategy to relieve congestion on SR-60 and SR-91 is to improve the capacity of surface streets that could serve as alternate routes to freeways. The policy to forego further widening

of some sections of SR-60 and SR-91 is also noted in the Riverside County Congestion Management Program (CMP) which permits LOS F for some of the study freeway sections because those sections already operated at LOS F when the CMP was established in 1991. For these reasons, some of the identified mitigation measures may not be pursued even if they are deemed feasible in an engineering sense. In such cases, the project's payment into the TUMF and DIF programs and funding for the surface street improvements ~~that~~ would constitute their mitigation because they help create viable alternative routes that would substitute for freeway travel for some trips. For the purposes of this EIR, however, impacts to freeways were treated as significant and unavoidable.

The project's direct ~~and cumulative~~ impacts on the regional freeway system are summarized in Table~~s 4.15.AW,~~ 4.15.AX~~, and 4.15.AY~~. These impacts and the associated improvements necessary to obtain the target LOS would be:

- ***Direct Impacts on Freeway Mainline Basic Sections***
  - *Eastbound SR-60 from Euclid Avenue to Grove Avenue (F-6)* already exceeds the LOS threshold in the p.m. peak hour and traffic density would increase resulting in ~~a cumulative~~an impact in the Existing Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept ~~Route~~ Report.[6]

    SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.
  - *Eastbound SR-60 from Martin Luther King Boulevard to Central Avenue (F-24)* already exceeds the LOS threshold in the p.m. peak hour and traffic density would increase resulting in ~~a cumulative~~an impact in the Existing Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The Transportation Concept ~~Route~~ Report does not call for further widening of this section, because further widening could only be accomplished by eliminating the existing shoulder resulting in no space for disabled vehicles to pull over. Since this would create safety problems that would be less acceptable than a low LOS, mitigating this impact is infeasible. This impact is therefore significant and unavoidable.
  - *Westbound SR-60 from I-215 to Day Street (F-27)* already exceeds the LOS threshold in the a.m. peak hour and traffic density would increase resulting in ~~a cumulative~~an impact in the Existing Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

    SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

    Westbound SR-60 from Pigeon Pass Road/Frederick Street to Heacock Street (F-29) currently operates at an acceptable LOS but would exceed the LOS threshold in the p.m.

[6] A transportation concept report is Caltrans' analysis of long-range demand for a highway.

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~~Table 4.15.AW-1: Existing Plus Build-out Freeway Mainline Impacts and Mitigations (Northbound/Eastbound)~~

			~~Determination of Impact~~					~~Existing Plus Buildout & Mitigations~~						
			~~AM Peak Hour~~		~~PM Peak Hour~~			~~AM Peak Hour~~			~~PM Peak Hour~~			
~~ID~~	~~Freeway~~	~~Segment~~	~~No-Project LOS~~	~~Plus Buildout LOS~~	~~No-Project LOS~~	~~Plus Buildout LOS~~	~~Project Impact?~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Mitigation Measures Required to Reduce Impact to Less-Than-Significant~~
~~F-6~~	~~SR-60~~	~~Euclid Ave to Grove Ave~~	~~D~~	~~E~~	~~E~~	~~E~~	~~Yes~~	~~8,010~~	~~26.9~~	~~D~~	~~8,950~~	~~29.2~~	~~D~~	~~Add 1 mixed flow lane~~
~~F-24~~	~~SR-60~~	~~Martin Luther King Blvd to Central Ave~~	~~C~~	~~D~~	~~F~~	~~F~~	~~Yes~~	~~6,620~~	~~24.7~~	~~C~~	~~8,760~~	~~32.5~~	~~D~~	~~Add 1 mixed flow lane~~
~~F-49~~	~~SR-91~~	~~Central Ave to 14th St~~	~~D~~	~~E~~	~~D~~	~~D~~	~~Yes~~	~~6,100~~	~~23.7~~	~~C~~	~~5,410~~	~~21.5~~	~~C~~	~~Add 1 mixed flow lane~~
~~F-71~~	~~I-215~~	~~SR-74 to Redlands Ave~~	~~D~~	~~D~~	~~E~~	~~E~~	~~Yes~~	~~3,240~~	~~17.1~~	~~B~~	~~4,230~~	~~21.5~~	~~C~~	~~Add 1 mixed flow lane~~

~~Indicates that the LOS exceeds the target level~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, January 2013.~~

~~Table 4.15.AW-2: Existing Plus Build-out Freeway Mainline Impacts and Mitigations (Southbound/Westbound)~~

			~~Determination of Impact~~					~~Existing Plus Buildout & Mitigations~~						
			~~AM Peak Hour~~		~~PM Peak Hour~~			~~AM Peak Hour~~			~~PM Peak Hour~~			
~~ID~~	~~Freeway~~	~~Segment~~	~~No-Project LOS~~	~~Plus Buildout LOS~~	~~No-Project LOS~~	~~Plus Buildout LOS~~	~~Project Impact?~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Mitigation Measures Required to Reduce Impact to Less-Than-Significant~~
~~F-27~~	~~SR-60~~	~~I-215 to Day St~~	~~F~~	~~F~~	~~B~~	~~C~~	~~Yes~~	~~7,000~~	~~29.1~~	~~D~~	~~3,530~~	~~14.6~~	~~B~~	~~Add 1 mixed flow lane~~
~~F-29~~	~~SR-60~~	~~Pigeon Pass Rd/Frederick St to Heacock St~~	~~C~~	~~C~~	~~D~~	~~E~~	~~Yes~~	~~2,980~~	~~15.7~~	~~B~~	~~3,770~~	~~20.9~~	~~C~~	~~Add 1 mixed flow lane~~
~~F-41~~	~~SR-91~~	~~Pierce St to Magnolia Ave~~	~~C~~	~~C~~	~~F~~	~~F~~	~~Yes~~	~~4,470~~	~~17.0~~	~~B~~	~~7,230~~	~~31.9~~	~~D~~	~~Add 1 mixed flow lane~~
~~F-42~~	~~SR-91~~	~~Magnolia Ave to La Sierra Ave~~	~~C~~	~~C~~	~~F~~	~~F~~	~~Yes~~	~~4,740~~	~~18.0~~	~~C~~	~~7,210~~	~~31.7~~	~~D~~	~~Add 1 mixed flow lane~~
~~F-71~~	~~I-215~~	~~SR-74 to Redlands Ave~~	~~E~~	~~F~~	~~D~~	~~D~~	~~Yes~~	~~4,600~~	~~23.6~~	~~C~~	~~3,650~~	~~18.1~~	~~C~~	~~Add 1 mixed flow lane~~
~~F-83~~	~~I-215~~	~~Baseline Rd to Highland Ave~~	~~E~~	~~F~~	~~F~~	~~F~~	~~Yes~~	~~4,630~~	~~23.9~~	~~C~~	~~4,610~~	~~23.5~~	~~C~~	~~Add 1 mixed flow lane~~

~~Indicates that the LOS exceeds the target level~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, January 2013.~~

~~Table 4.15.AX-1: Existing plus Project Direct and Cumulative Impacts and Mitigation Measures on Freeway Weaving Segments (Northbound/Eastbound)~~

			~~Determination of Impact~~					~~Existing Plus Buildout & Mitigations~~						
			~~AM Peak Hour~~		~~PM Peak Hour~~			~~AM Peak Hour~~			~~PM Peak Hour~~			
~~ID~~	~~Freeway~~	~~Weaving Segment~~	~~No-Project LOS~~	~~Plus Buildout LOS~~	~~No-Project LOS~~	~~Plus Buildout LOS~~	~~Project Impact?~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Mitigation Measures Required to Reduce Impact to Less-Than-Significant~~
~~W-21~~	~~SR-60~~	~~SR-91 to W Blaine St/3rd St~~	~~B~~	~~B~~	~~E~~	~~E~~	~~Yes~~	~~4,590~~	~~15.4~~	~~B~~	~~9,270~~	~~31.9~~	~~D~~	~~Add 1 mixed flow lane~~
~~W-22~~	~~SR-60~~	~~W Blaine St/3rd St to University Ave~~	~~B~~	~~C~~	~~E~~	~~E~~	~~Yes~~	~~4,520~~	~~19.9~~	~~B~~	~~6,930~~	~~30.5~~	~~D~~	~~Add 1 mixed flow lane~~
~~W-25~~	~~SR-60~~	~~Central Ave to Fair Isle Dr/Box Springs Rd~~	~~B~~	~~C~~	~~D~~	~~E~~	~~Yes~~	~~4,700~~	~~16.9~~	~~B~~	~~7,820~~	~~26.8~~	~~C~~	~~Add 1 mixed flow lane~~
~~W-48~~	~~SR-91~~	~~Arlington Ave to Central Ave~~	~~E~~	~~E~~	~~B~~	~~B~~	~~Yes~~	~~7,220~~	~~34.0~~	~~D~~	~~4,080~~	~~18.2~~	~~B~~	~~Add a second off-ramp lane~~

~~Indicates that the LOS exceeds the target level~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, January 2013.~~

~~Table 4.15.X-2: Existing plus Project Direct and Cumulative Impacts and Mitigation Measures on Freeway Weaving Segments (Southbound/Westbound)~~

			Determination of Impact					Existing Plus Buildout & Mitigations						
			AM Peak Hour		PM Peak Hour			AM Peak Hour			PM Peak Hour			
~~ID~~	~~Freeway~~	~~Weaving Segment~~	~~No-Project LOS~~	~~Plus Buildout LOS~~	~~No-Project LOS~~	~~Plus Buildout LOS~~	~~Project Impact?~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Freeway Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Mitigation Measures Required to Reduce Impact to Less-Than-Significant~~
~~W-25~~	~~SR-60~~	~~Central Ave to Fair Isle Dr/Box Springs Rd~~	~~E~~	~~E~~	~~D~~	~~E~~	~~Yes~~	~~6,860~~	~~29.6~~	~~D~~	~~6,500~~	~~27.3~~	~~C~~	~~Add 1 mixed flow lane~~
~~W-50~~	~~SR-91~~	~~14th St to University Ave~~	~~C~~	~~C~~	~~E~~	~~E~~	~~Yes~~	~~5,230~~	~~22.7~~	~~C~~	~~7,080~~	~~33.7~~	~~D~~	~~Add a second off-ramp lane~~

~~Indicates that the LOS exceeds the target level~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, January 2013.~~

~~Table 4.15.AY: Existing plus Project Direct and Cumulative Impacts and Mitigation Measures on Freeway Ramps~~

				Determination of Impact					Existing Plus Buildout & Mitigations								
				AM Peak Hour		PM Peak Hour			AM Peak Hour				PM Peak Hour				
~~ID~~	~~Freeway / Direction~~	~~Ramp Segment~~	~~Ramp No. of Lanes~~	~~No-Project LOS~~	~~Plus Buildout LOS~~	~~No-Project LOS~~	~~Plus Buildout LOS~~	~~Project Impact?~~	~~Mainline Volume~~	~~Ramp Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Mainline Volume~~	~~Ramp Volume~~	~~Density (pc/mi/ln)~~	~~LOS~~	~~Mitigation Measures Required to Reduce Impact to Less-Than-Significant~~
~~R-2~~	~~SR-60 EB~~	~~On Ramp from Central Ave~~	~~1~~	~~B~~	~~C~~	~~F~~	~~F~~	~~Yes~~	~~6,510~~	~~480~~	~~16.7~~	~~B~~	~~8,630~~	~~1,000~~	~~24.8~~	~~C~~	~~Add 1 mixed flow lane~~

~~Indicates that the LOS exceeds the target level~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff,January 2013.~~

Table 4.15.AX: Existing Plus Project Freeway Impacts and Mitigations (note: this is a completely new table to replace previous Tables 4.15.AW, 4.15.AX, and 4.15.AY)

Study Facility		Juris-diction	LOS Standard	Determination of Impact: Existing AM	Existing PM	Existing Plus Build-out AM	Existing Plus Build-out PM	Does the Project Have a Significant Impact?	Mitigation Measures Required to Reduce Impact to Less-Than-Significant	Is Mitigation Feasible?	LOS After Feasible Mitigations are Implemented: AM LOS	PM LOS	Impact Significant After Feasible Mitigations are Implemented?	Is There an Existing Deficiency?	Developer Action Required
(A)		(B)	(C)	(D)		(E)		(F)	(G)	(H)	(I)		(J)	(K)	(L)
Freeway Mainline Basic Sections - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
F-6	EB SR-60 Euclid Ave to Grove Ave	Caltrans	D	D	E	E	E	Yes	Add one mixed flow lane.	Yes	D	D	No	Yes	Pay fair share (11.6%)
F-24	EB SR-60 Martin Luther King Blvd to Central Ave	Caltrans	D	C	F	D	F	Yes	Add one mixed flow lane.	No	D	F	Yes	Yes	N/A*
F-27	WB SR-60 I-215 to Day St	Caltrans	D	F	B	F	C	Yes	Add one mixed flow lane.	Yes	D	B	No	Yes	Pay fair share (52.7%)
F-29	WB SR-60 Pigeon Pass Rd/Frederick St to Heacock St	Caltrans	D	C	D	C	E	Yes	Add one mixed flow lane.	Yes	B	C	No	No	Pay fair share (36.8%)
F-41	WB SR-91 Pierce St to Magnolia Ave	Caltrans	D	C	F	C	F	Yes	Add one mixed flow lane.	Yes	B	D	No	Yes	Pay fair share (9.4%)
F-42	WB SR-91 Magnolia Ave to La Sierra Ave	Caltrans	D	C	F	C	F	Yes	Add one mixed flow lane.	No	C	F	Yes	Yes	N/A*
F-49	EB SR-91 Central Ave to 14th St	Caltrans	D	D	D	E	D	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (3.3%)
F-71	NB I-215 SR-74 to Redlands Ave	Caltrans	D	D	E	D	E	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	N/A**
F-71	SB I-215 SR-74 to Redlands Ave	Caltrans	D	E	D	F	D	Yes	Add one mixed flow lane.	Yes	C	C	No	Yes	N/A**
F-83	SB I-215 Baseline Rd to Highland Ave	Caltrans	D	E	F	F	F	Yes	Add one mixed flow lane.	Yes	C	C	No	Yes	N/A**
Freeway Weaving Sections - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
W-21	EB SR-60 SR-91 to Blaine St/3rd St	Caltrans	D	B	E	B	E	Yes	Add one mixed flow lane.	No	B	E	Yes	Yes	N/A*
W-22	EB SR-60 Blaine St/3rd St to University Ave	Caltrans	D	B	E	C	E	Yes	Add a second off-ramp lane.	Yes	B	D	No	Yes	Pay fair share (10.1%)
W-25	EB SR-60 Central Ave to Fair Isle Dr/Box Springs Rd	Caltrans	D	B	D	C	E	Yes	Add one mixed flow lane.	No	C	E	Yes	No	N/A*
W-25	WB SR-60 Central Ave to Fair Isle Dr/Box Springs Rd	Caltrans	D	E	D	E	E	Yes	Add one mixed flow lane.	Yes	D	C	No	Yes	N/A**
W-48	EB SR-91 Arlington Ave to Central Ave	Caltrans	D	E	B	E	B	Yes	Add a second off-ramp lane.	Yes	D	B	No	Yes	Pay fair share (6.3%)
W-50	WB SR-91 14th to University Ave	Caltrans	D	C	E	C	E	Yes	Add a second off-ramp lane.	Yes	C	D	No	Yes	Pay fair share (6.0%)
Freeway Ramps - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
R-2	SR-60 EB On-Ramp from Central Ave	Caltrans	D	B	F	C	F	Yes	Add one mixed flow lane.	No	C	F	Yes	Yes	N/A*

Indicates LOS exceeds the target level

** Improvement identified in the current RTP and planned to be completed independent of the WLC project

* Not applicable because mitigation is infeasible

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

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peak hour under Existing Plus Project conditions. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.

SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- *Westbound SR-91 from Pierce Street to Magnolia Avenue (F-41)* already exceeds the LOS threshold in the p.m. peak hour and traffic density would increase resulting in ~~a cumulative~~an impact in the Existing Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- *Westbound SR-91 from Magnolia Avenue to La Sierra Avenue (F-42)* already exceeds the LOS threshold in the p.m. peak hour and traffic density would increase resulting in ~~a cumulative~~an impact in the Existing Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. However, this could only be accomplished by eliminating the existing shoulder resulting in no space for disabled vehicles to pull over. Since this would create safety problems that would be less acceptable than a low LOS, mitigating this impact is infeasible. This impact is therefore significant and unavoidable.

- *Eastbound SR-91 from Central Avenue to 14th Street (F-49)* currently operates at an acceptable LOS but would exceed the LOS threshold in the a.m. peak hour under Existing Plus Project conditions. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution toward improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- *Northbound I-215 from SR-74/Case Road to Redlands Boulevard (F-71)* already exceeds the LOS threshold in the p.m. peak hour and traffic density would increase resulting in ~~a cumulative~~an impact in the Existing Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold~~, resulting in a less than sigfnicant impact~~. The improvement is identified in the current SCAG RTP and planned to be completed by 2022 independent of the WLC project.

- *Southbound I-215 from SR-74/Case Road to Redlands Boulevard (F-71)* already exceeds the LOS threshold in the a.m. peak hour and traffic density would increase resulting in ~~a cumulative~~an impact in the Existing Plus Project scenario. Adding a mixed-flow lane would

bring the LOS to within the target threshold. The improvement is identified in the current SCAG RTP and planned to be completed by 2022 independent of the WLC project.

- *Southbound I-215 from Baseline Road to Highland Avenue (F-83)* already exceeds the LOS threshold in both the a.m. and p.m. peak hours and traffic density would increase resulting in ~~a cumulative~~an impact in the Existing Plus Project scenario. Adding a mixed-flow lane would reduce the ~~cumulative~~ impact to a less than significant level. The improvement is identified in the current SCAG RTP and planned to be completed by 2022 independent of the WLC project.

- ***Direct Impacts on Freeway Weaving Sections***
  - *Eastbound SR-60 from SR-91 to W. Blaine Street/3rd Street (W-21)* already exceeds the LOS threshold in the p.m. peak hour and traffic density would increase resulting in ~~a cumulative~~an impact in the Existing Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without impacting the adjacent residential community. Since widening the freeway is infeasible, this impact is significant and unavoidable.
  - *Eastbound SR-60 from W Blaine Street/3rd Street to University Avenue (W-22)* already exceeds the LOS threshold in the p.m. peak hour and traffic density would increase resulting in ~~a cumulative~~an impact in the Existing Plus Project scenario. Adding a second off-ramp lane would bring the LOS to within the target threshold.

    SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.
  - *Eastbound SR-60 from Central Avenue to Fair Isle Drive/Box Springs Road (W-25)* currently operates near capacity and the addition of the project would increase traffic above the target LOS threshold. Adding a mixed-flow lane would reduce the impact to a less than significant level. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without eliminating the adjacent frontage road. Since widening the freeway is infeasible, this impact is significant and unavoidable.

    Westbound SR-60 from Central Avenue to Fair Isle Drive/Box Springs Road (W-25) already exceeds the LOS threshold in the a.m. peak hour and traffic density would increase resulting in ~~a cumulative~~an impact in the Existing Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level and bring the LOS to within the target threshold. The improvement is identified in the current SCAG RTP and planned to be completed by 2022 independent of the WLC project.
  - *Eastbound SR-91: Arlington Avenue to Central Avenue (W-48)* already exceeds the LOS threshold in the a.m. peak hour and traffic density would increase, resulting in ~~a cumulative~~an impact in the Existing Plus Project scenario. ~~Adding a second off-ramplane would bring the LOS to within the target threshold.~~ Adding a second off-ramp lane would bring the LOS to within the target threshold.

    SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the

non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- *Westbound SR-91 from 14th Street to University Avenue (W-50)* already exceeds the LOS threshold in the p.m. peak hour and traffic density would increase resulting in ~~a cumulative~~an impact in the Existing Plus Project scenario. Adding a second off-ramp lane would reduce the ~~cumulative~~ impact to a less than significant level.

  SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- ***Direct Impacts on Freeway Ramps***
  - *Eastbound SR-60 from On-Ramp from Central Avenue (R-2)* already exceeds the LOS threshold in the p.m. peak hour and traffic density would increase resulting in ~~a cumulative~~an impact in the Existing Plus Project scenario. Adding a mixed-flow lane would reduce the ~~cumulative~~ impact to a less than significant level. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without eliminating the adjacent frontage road. Since widening the freeway is infeasible, this impact is significant and unavoidable.

PROJECT CUMULATIVE IMPACTS (LONG-TERM)

The long-term cumulative impacts of the WLC project were determined by comparing the LOS of study facilities under 2035 No Project and 2035 Plus Project conditions.

The long-term cumulative impacts of the project and the associated improvement measures necessary to obtain the target LOS are described below. In cases where the facility had mitigation measures identified for direct (Existing Plus Project) impacts and requires additional improvements under cumulative conditions, the improvements described below are the improvements required beyond those described in the previous section on direct impacts.

Cumulative Impacts on Road Sections. The project's direct impacts on road sections are summarized in Table 4.15.A~~Z~~Y. These impacts would be:

- ~~***Theodore Street from SR-60 Westbound Ramps to Ironwood Avenue (S-1)*** may need to be widened to four lanes sometime in the 2022–2035 timeframe. The 2022 Plus Project analysis indicates that this section would not have capacity problems upon full buildout of the WLC; problems would arise only when additional traffic is generated by the buildout of the City's General Plan. This road is eligible for funds under the DIF program. The City will collect DIFs in accordance with City Municipal Code 3.42.030 and 3.42.040, and use these fees to widen the road to 4 lanes.~~
- ***Gilman Springs Road from Alessandro Boulevard to Bridge Street (S-16)*** should be widened from 2 lanes to 4 lanes in the short term (see previous section on direct impacts) and may need to be further widened from 4 lanes to 8 lanes sometime in the 2022–2035 timeframe. Gilman Springs Road is a TUMF facility. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this

impact. However, because Gilman Springs Road is partially a Riverside County facility and is thus partially outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made outside of its jurisdiction. Moreover, there are right-of-way constraints involving sensitive environmental areas that may limit widening to six lanes between Alessandro Boulevard and Bridge Street, or even preclude any widening at all. The project's impacts on Gilman Springs Road must therefore be considered significant and unavoidable. The City will work with Riverside County and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS on this road to the extent feasible.

Cumulative Impacts on Study Intersections. The WLC project's cumulative impacts on study intersections are summarized in Table 4.15.~~B~~AZ, and described in detail below:

- ***Redlands Boulevard/Ironwood Avenue Intersection (IN-11)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a second southbound left-turn lane would reduce cumulative impacts to a less than significant level. This intersection is eligible for funds under the DIF program. The City will collect DIF funds in accordance with City Municipal Code 3.42.030 and 3.42.040, and use these fees to improve this intersection when the need for the improvement becomes warranted.
- ***Theodore Street/Ironwood Avenue Intersection (IN-12)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Signalizing the intersection would reduce cumulative impacts to a less than significant level. This intersection is eligible for funds under the DIF program. The City will collect DIF funds in accordance with City Municipal Code 3.42.030 and 3.42.040, and use these fees to improve this intersection when the need for the improvement becomes warranted.
- ***Moreno Beach Drive/Cactus Avenue Intersection (IN-25)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a second eastbound left-turn lane would reduce cumulative impacts to a less than significant level. This intersection is eligible for funds under the DIF program. The City will collect DIF funds in accordance with City Municipal Code 3.42.030 and 3.42.040, and use these fees to improve this intersection when the need for the improvement becomes warranted.
- ***Redlands Boulevard/Cactus Avenue intersection (IN-27)*** requires signalization and the installation of eastbound and westbound left-turn lanes in the short term (see previous section on direct impacts) and may exceed the target LOS threshold at some point in the 2022-to 2035 period. Constructing a westbound left-turn lane would reduce project impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval.
- ***Moreno Beach Drive/Locust Avenue Intersection (IN-35)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Signalizing the intersection and constructing a westbound left-turn lane would reduce cumulative impacts to a less than significant level. This intersection is eligible for funds under the DIF program. The City will collect DIF funds in accordance with City Municipal Code 3.42.030 and 3.42.040, and use these fees to improve this intersection when the need for the improvement becomes warranted.
- ***Moreno Beach Drive/Ironwood Avenue Intersection (IN-36)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Adding northbound and southbound left-turn lanes and changing north/south lefts from split to protected left-turn phase would reduce cumulative impacts to a less-than-significant level. This intersection is eligible for funds under the DIF program. The City will collect DIF fees in accordance with City Municipal Code 3.42.030 and 3.42.040, and use these fees to improve this intersection when the need for the improvement becomes warranted.

~~Table 4.15.AZ: General Plan Buildout Cumulative Impacts and Mitigation Measures on Roadway Segments~~

	Roadway	From	To	LOS Standard***	2035 No Project			2035 Plus Project			Project Significant Impact?	Mitigation Measures Required to Reduce Project Impacts to Less than significant	LOS After Mitigation
					Roadway Section*	Daily Volume	LOS	Roadway Section*	Daily Volume	LOS			
S-1	Theodore Street (A)	SR-60 WB Ramps	Ironwood Avenue	D	2U	9,774	C	2U	10,267	D	No		
S-2	Theodore Street (A)	SR-60 EB Ramps	Fir (Eucalyptus) Ave.	D	2U	8,726	B	6D	33,082	A	No		
S-3	Fir (Eucalyptus) Ave.	Redlands Blvd	Theodore Street (A)	D	2U	6,847	A	4D	10,513	A	No		
S-4	Eucalyptus Ave (B)	Theodore Street (A)	Gilman Springs Rd	N/A	Future Road			4D	6,565	A	No		
S-5	Theodore Street (A)	Fir (Eucalyptus) Ave.	Street E	D	2U	3,295	A	6D	35,374	B	No		
S-6	Street E	Theodore Street (A)	Cactus Ave Extension	D	Future Road			4U	13,862	A	No		
S-7	Street F	Theodore Street (A)	Alessandro Blvd (Street C)	D	Future Road			2U	5,009	A	No		
S-8	Theodore Street (A)	Fir (Eucalyptus) Ave.	Alessandro Blvd (Street C)	D	2U	3,437	A	4D	13,001	A	No		
S-9	Alessandro Blvd (Street E)	Merwin Street	Theodore Street (A)	D	2U	10,854	D	4U	13,486	A	No		
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave	D	Future Road			4U	17,423	B	No		
S-11	Alessandro Blvd (Street C)	Theodore Street (A)	Street F	D	2U	7,437	A	4U	14,680	A	No		
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	7,437	A	4U	21,164	D	No**		
S-14	Alessandro Blvd	Moreno Beach Dr	Redlands Blvd	D	4U	6,373	A	4U	5,416	A	No		
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge Street	D	6D	49,434	D	6D	54,288	F	No****	Widen to 8 lanes	C
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	6D	41,537	C	6D	47,958	D	No		
S-18	Redlands Blvd	SR-60 EB Ramps	Fir (Eucalyptus) Ave.	D	4U	13,411	A	4U	17,626	C	No		
S-19	Redlands Blvd	Fir (Eucalyptus) Ave.	Alessandro Blvd	C	4U	7,665	A	4U	5,037	A	No		
S-20	Alessandro Blvd	Redlands Blvd	Merwin Street	C	4U	11,038	A	4U	1,677	A	No**		
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave.	C	4U	11,511	A	4U	5,663	A	No		
S-22	Cactus Ave.	Redlands Blvd	Cactus Ave Extension	C	4U	1,144	A	4U	16,916	B	No		

~~* Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways~~

~~** Due to the severing of Alessandro Blvd. and the diversion of traffic to other routes, there is no need to widen this section beynd the current 2U confirguration.~~

~~*** LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways~~

~~**** WLC's impacts would already be mitigated with the measures identified for direct impacts.~~

~~Indicates that the LOS exceeds the target level~~

~~Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, January 2013.~~

Table 4.15.AY: Year 2035 Cumulative Impacts and Mitigation Measures on Roadway Segments (note: this is a completely new table to replace previous Tables 4.15.AZ)

Roadway		From	To	Jurisdiction	LOS Standard*	2035 No-Project LOS	2035 Plus Build-out LOS	Does the Project have a Significant Impact?	Mitigation Measures Required to Reduce Project Impacts to Less-Than-Significant	Is the Mitigation Feasible?	LOS After Feasible Mitigations are Implemented	Impact Significant After Feasible Mitigations are Implemented?	Is There an Existing Deficiency?	Developer Action Required
(A)				(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)
Road Section Cumulative Impacts that are Considered Significant and Unavoidable (because they are not under the control of the City of Moreno Valley)														
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge Street	Riverside County	D	D	**F**	Yes	Widen to 8 lanes	Partially (to 6 lanes)	**F**	**Yes**	**Yes**	Pay Fair Share (12.2%)

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.
** WLC's impacts would already be mitigated with the measures identified for direct impacts.
Indicates LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.~~BA~~Z: ~~General Plan Buildout~~Year 2035 Cumulative Intersection Impacts and Mitigations

Study Intersection		Jurisdiction	LOS Standard	2035 No-Project		2035 Plus Build-out		Does the Project Have a Significant Impact?	Mitigation Measures Required to Reduce Impact to Less-Than-Significant	Is Mitigation Feasible?	LOS After Feasible Mitigations are Implemented		Impact Significant After Feasible Mitigations are Implemented?	TUMF Facility?	DIF Facility?	Developer Action Required
				AM	PM	AM	PM				AM LOS	PM LOS				
(A)		(B)	(C)	(D)		(E)		(F)	(G)	(H)	(I)		(J)	(K)	(L)	(M)
Intersection Cumulative Impacts that can be Mitigated to a Less-Than-Significant Level																
IN-11	Redlands Blvd/Ironwood Ave	Moreno Valley	D	D	D	D	E	Yes	Add 1 SB LT lane.	Yes	D	D	No	Yes	Yes	Pay DIF
IN-12	Theodore Street/Ironwood Avenue	Moreno Valley	D	C	F	E	F	Yes	Signalize.	Yes	A	A	No	No	Yes	Pay DIF
IN-25	Moreno Beach Dr/Cactus Ave	Moreno Valley	C	C	C	C	D	Yes	Add 1 EB LT lane.	Yes	B	C	No	No	Yes	Pay DIF
IN-27	Redlands Blvd/Cactus Ave	Moreno Valley	C	B	B	F	F	Yes	Add 1 WB LT lane.	Yes	B	C	No	No	No	Pay fair share (60.7%)
IN-35	Moreno Beach Dr/Locust Ave	Moreno Valley	C	D	E	D	F	Yes	Signalize. Add 1 WB LT lane.	Yes	A	B	No	Yes	Yes	Pay DIF
IN-36	Moreno Beach Drive & Ironwood Avenue	Moreno Valley	D	D	D	D	E	Yes	Change N/S from split to protected LT phase. Add NB and SB LT lanes.	Yes	D	D	No	Yes	Yes	Pay DIF
IN-37	Moreno Beach Dr/SR-60 EB Ramps	Moreno Valley	D	F	F	F	F	Yes	Change EB from 1 shared LT/TH to 1 LT and 1 TH. Add 1 SB LT lane. Change split phasing on E/W movement to protected LT phasing.	Yes	C	D	No	Yes	Yes	Pay DIF
IN-39	Iris Ave/Perris Blvd	Moreno Valley	D	E	E	E	F	Yes	Add 1 WB LT and 1 SB LT lane.	Yes	D	D	No	Yes	Yes	Pay DIF
IN-40	Kitching St/Iris Ave	Moreno Valley	C	E	F	E	F	Yes	Add 1 WB LT and change NB shared TH/RT to RT lane and add another RT lane. Provide overlap phase for NB RT. Add 1 EB TH lane.	Yes	C	C	No	No	No	Pay fair share (16%)
IN-41	Lasselle Str/Iris Ave	Moreno Valley	D	C	E	D	F	Yes	Add 1 WB LT lane (resulting 3 turn lanes), and 1 EB RT Need to widen Lasselle in the SB to have 3 receiving lanes.	Yes	C	D	No	Yes	No	Pay TUMF
IN-57	Graham Str/Alessandro Blvd	Moreno Valley	D	D	F	D	F	Yes	Add 1 NB LT and 1 WB LT lanes.	Yes	C	D	No	Yes	Yes	Pay DIF
IN-74	Elsworth Str/Cactus Ave	Moreno Valley	D	F	F	F	F	Yes	Widen NB approach and change NB lane geometry from: 1 LT and 1 shared LT/TH/RT lanes to 3 LTs and 1 TH and 1 RT. Add 1 WB LT and EB RT lanes.	Yes	D	D	No	Yes	Yes	Pay DIF
Intersection Cumulative Impacts that are Considered Significant and Unavoidable (because they are not feasible, not under the control of the City of Moreno Valley, or are not part of an existing fee program)																
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	City of Riverside	D	D	F	D	F	Yes	Add SB RT overlap.	Yes	C	D	No	Yes	No	Pay TUMF
IN-73	I-215 NB Ramps/Cactus Ave	March AFB	D	E	F	E	F	Yes	Add 1 EB RT, 1 WB RT, 1 NB LT, and 1 SB LT lanes.	Yes	B	D	No	Yes	No	Pay TUMF
IN-75	Central Ave/Lochmoor Dr.	City of Riverside	D	B	E	B	F	Yes	Change NB approach to 1 LT and 1 shared LT/RT lane.	Yes	B	D	No	Yes	No	Pay TUMF
IN-80	Alessandro Blvd/Mission Grove Pkwy	City of Riverside	D	C	E	C	F	Yes	Add EB LT lane. Add WB LT lane. Add NB TH lane.	Yes	C	D	No	Yes	No	Pay TUMF
IN-85	Martin Luther King Blvd/I-215 NB Ramps	City of Riverside	D	E	C	E	C	Yes	Signalize.	Yes	B	A	No	No	No	Pay fair share (6.2%)
IN-86	Central Ave/Chicago Ave	City of Riverside	D	D	E	E	F	Yes	Add NB RT overlap.	Yes	C	D	No	Yes	No	Pay TUMF
IN-88	Central Ave/Canyon Crest Dr	City of Riverside	D	D	F	D	F	Yes	Change EB approach to 1 LT, 2 THs and 1 RT. Add WB LT lane. Add NB LT lane. Change SB approach to 2 LTs, 2 THs and 1 RT lane. Adjust splits.	Yes	D	D	No	Yes	No	Pay TUMF
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	City of Riverside	D	D	E	D	E	Yes	Add SB LT lane.	Yes	C	D	No	Yes	No	Pay TUMF
IN-94	Arlington Ave/Victoria Ave	City of Riverside	D	F	F	F	F	Yes	Add EB TH lane. Add WB LT and RT. Adjust timings.	Yes	D	D	No	Yes	No	Pay TUMF
IN-95	Alessandro Blvd/Chicago Ave	City of Riverside	D	E	F	E	F	Yes	Add EB TH lane. Add WB LT lane. Add WB TH lane. Add NB LT lane. Reconfigure SB approach to 3 LTs, 3 THs and 1 RT.	No	E	F	**Yes**	Yes	Yes	N/A*
IN-98	Alessandro Blvd/Canyon Crest Dr	City of Riverside	D	E	F	E	F	Yes	Reconfigure EB approach to 1 LT, 1 TH and 2 RTs. Add WB TH lane. Add NB LT and NB RT lane. Reconfigure SB approach to 1 LT, 3 THs and 1 shared TH/RT lane.	Yes	D	D	No	Yes	No	Pay TUMF

Table 4.15.~~BA~~Z: ~~General Plan Buildout~~Year 2035 Cumulative Intersection Impacts and Mitigations

Study Intersection		Jurisdiction	LOS Standard	2035 No-Project		2035 Plus Build-out		Does the Project Have a Significant Impact?	Mitigation Measures Required to Reduce Impact to Less-Than-Significant	Is Mitigation Feasible?	LOS After Feasible Mitigations are Implemented		Impact Significant After Feasible Mitigations are Implemented?	TUMF Facility?	DIF Facility?	Developer Action Required
				AM	PM	AM	PM				AM LOS	PM LOS				
(A)		(B)	(C)	(D)		(E)		(F)	(G)	(H)	(I)		(J)	(K)	(L)	(M)
IN-101	Ramona Expy/Indian St	Perris	E	F	F	F	F	Yes	Add 1 EB RT lane. Add 2nd NB LT and 1 NB RT. Provide signal phase overlap for all RTs.	Yes	E	E	No**	Yes	No	Pay TUMF
IN-107	Evans Rd/Rider St	Perris	C	D	C	D	C	Yes	Reconfigure SB approach to include 1 LT, 2 THs and 1 RT.	Yes	C	C	No	Yes	No	Pay TUMF
IN-129	W 6th St/California Ave	Beaumont	C	F	F	F	F	Yes	Signalize.	Yes	B	C	No	Yes	No	Pay TUMF
IN-130	W 6th St/Beaumont Ave	Beaumont	C	D	F	D	F	Yes	Reconfigure EB approach to 2 LTs, 2 THs and 1 RT. Make EB/WB LT protected phasing. Add 1 WB LT and 1 WB TH lane. Reconfigure NB approach to 1 LT, 2 THs and 1 RT. Add SB LT.	Yes	C	C	No	Yes	No	Pay TUMF
IN-131	Reche Canyon Rd/Reche Vista Dr	Riverside County	C	D	F	D	F	Yes	Adjusted NB approach to a dedicated LT and a shared LT/RT lane.	Yes	B	C	No	Yes	No	Pay TUMF

Notes: "CSS" means cross-street is stop-controlled "RABT" means roundabout "NB" and "SB" denote northbound and southbound respectively "LT" and "RT" denote left turn and right turn respectively

"AWS" means all-way stop * Not applicable because mitigation is infeasible "EB" and "WB" denote eastbound and westbound respectively "TH" denotes through lanes

Indicates LOS exceeds the target level ** The "Plus Build-out and Mitigations" condition is better than the "No-Project" condition

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

- ***Moreno Beach Drive/SR-60 EB Ramps Intersection (IN-37)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a southbound left-turn lane and changing the eastbound approach to one left-turn lane and one through lane would reduce cumulative impacts to a less than significant level. This intersection is eligible for funds under the DIF program. The City will collect DIF funds in accordance with City Municipal Code 3.42.030 and 3.42.040, and use these fees to improve this intersection when the need for the improvement becomes ~~warrented~~ warranted.
- ***Iris Avenue/Perris Boulevard Intersection (IN-39)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a second westbound left-turn lane and a second southbound left-turn lane would reduce cumulative impacts to a less than significant level. This intersection is eligible for funds under the DIF program. The City will collect DIF funds in accordance with City Municipal Code 3.42.030 and 3.42.040, and use these fees to improve this intersection when the need for the improvement becomes warranted.
- ***Kitching Street/Iris Avenue Intersection (IN-40)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a third eastbound through lane, a second westbound left-turn lane, widening and reconfiguring the northbound approach to provide ~~1~~one left-turn lane, ~~1~~one through lanes, and ~~2~~two right-turn lanes, and modifying the traffic signal to provide overlap phasing for the northbound right-turn movement would reduce cumulative impacts to a less than significant level. ~~However, there are established residential communities on the intersection corners that would be impacted by such a widening or by a grade separation. These mitigation measures are thus likely to be infeasible, and the project impact at this location is therefore considered to be a significant and unavoidable.~~ The City will impose as a condition of approval that the WLC will provide fair-share funds to cover the cost of this improvement, which the City will use to construct the needed improvements.
- ***Lasselle Street/Iris Avenue Intersection (IN-41)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Adding a third westbound left-turn lane and an eastbound right-turn lane would reduce ~~project~~cumulative impacts to a less than significant level. This improvement is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact.
- ***Graham Street/Alessandro Boulevard Intersection (IN-57)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a northbound left-turn lane and a westbound left-turn lane would reduce cumulative impacts to a less than significant level. This intersection is eligible for funds under the DIF program. The City will collect DIF funds in accordance with City Municipal Code 3.42.030 and 3.42.040, and use these fees to improve this intersection when the need for the improvement becomes warranted.
- ~~***Indian Street/Cactus Avenue Intersection (IN-64)*** will exceed the target LOS threshold at some point in the 2022–2035 period this intersection. Constructing a second northbound left-turn lane would reduce cumulative impacts to a less than significant level. This intersection is eligible for funds under the DIF program. The City will collect DIF funds in accordance with City Municipal Code 3.42.030 and 3.42.040, and use these fees to improve this intersection.~~
- ***Alessandro Boulevard/Sycamore Canyon Boulevard Intersection (IN-66)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Providing a southbound right-turn overlap phase at the signal would reduce cumulative impacts to a less than significant level.

  This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this

intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.

- ~~***I-215 SB Ramps/Cactus Avenue Intersection (IN-72)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a westbound left-turn lane would reduce cumulative impacts to a less than significant level.~~

  ~~This intersection is under the jurisdiction of the March AFB Joint Powers Authority. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the March AFB Joint Powers Authority and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.~~

- ***I-215 NB Ramps/Cactus Avenue Intersection (IN-73)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing an eastbound right-turn lane, a westbound right-turn lane, a second northbound left-turn lane, and a second southbound left-turn lane would reduce cumulative impacts to a less than significant level.

  This intersection is under the jurisdiction of the March AFB Joint Powers Authority. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the March AFB Joint Powers Authority and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.

- ***Elsworth Street/Cactus Avenue Intersection (IN-74)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Widening the northbound approach to provide three left-turn lanes, one through lane, and one right-turn lane, and adding a westbound left-turn lane and eastbound right-turn lane would reduce cumulative impacts to a less than significant level. This intersection is eligible for funds under the DIF program. The City will collect DIF funds in accordance with City Municipal Code 3.42.030 and 3.42.040, and use these fees to improve this intersection when the need for the improvement becomes warranted.

- ***Central Avenue/Lochmoor Drive Intersection (IN-75)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Converting the northbound approach to one left-turn lane and a shared left-right-turn lane would reduce cumulative impacts to a less than significant level.

  This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.

- ***Alessandro Boulevard/Mission Grove Parkway Intersection (IN-80)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Modifying the traffic signal to provide an

additional eastbound left-turn, westbound left-turn, and northbound through lane would reduce cumulative impacts to a less than significant level.

This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.

- ***Martin Luther King Boulevard/I-215 Northbound Ramps Intersection (IN-85)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Signalizing the intersection would reduce cumulative impacts to a less than significant level.

  This intersection is under the jurisdiction of the City of Riverside. It is not eligible for TUMF funding. The City will work with the City of Riverside to establish a mechanism for collecting and distributing payments from developers for inter-jurisdictional impacts not covered by the TUMF program. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable.

- ***Central Avenue/Chicago Avenue. Intersection (IN-86)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Modifying the traffic signal to provide overlap phasing for the northbound right-turn movement would reduce cumulative impacts to a less than significant level.

  This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.

- ***Central Avenue/Canyon Crest Drive Intersection (IN-88)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a southbound right-turn lane (and adjust signal timings), an eastbound right-turn lane, a second westbound left-turn lane, and a second northbound left-turn lane would reduce cumulative impacts to a less than significant level.

  This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.

- ***Arlington Avenue/Riverside Avenue/SR-91 Southbound Ramps Intersection (IN-90)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a third southbound left-turn lane would reduce cumulative impacts to a less than significant level.

  This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and

payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.

- ***Arlington Avenue/Victoria Avenue Intersection (IN-94)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a fourth eastbound through lane, a second westbound left-turn lane, and a second westbound right-turn lane would reduce cumulative impacts to a less than significant level.

  This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.

- ***Alessandro Boulevard/Chicago Avenue Intersection (IN-95).*** This intersection is already built out to near the practical limit before grade separation is required (it has five lanes for each approach). Despite this, it already operates at LOS ~~E~~F in the p.m. peak period. To achieve the target LOS in 2035 would require the addition of lanes to the eastbound through, westbound left-turn, westbound though, northbound left-turn, southbound left-turn, and southbound right-turn movements. There are established residential communities on each corner that would be impacted by such a widening or by grade separation. These mitigation measures are thus likely to be infeasible, and the project impact at this location is therefore considered to be a significant and unavoidable.

- ***Alessandro Boulevard/Canyon Crest Drive Intersection (IN-98)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Widening and reconfiguring the eastbound approach to provide one left-turn lane, one through lane, and two right-turn lanes; adding an additional westbound through lane; adding an additional northbound left-turn and northbound right-turn lane; and reconfiguring the southbound approach to one left-turn lane, three through lanes, and one shared through-right-turn lane would reduce cumulative impacts to a less than significant level.

  This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.

- ***Ramona Expressway/Indian Street Intersection (IN-101)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing one eastbound right-turn lane, a second northbound left-turn lane, and one northbound right-turn lane, and modifying the traffic signal to provide overlap phasing for all right-turn movements would reduce cumulative impacts to a less than significant level.

  This intersection is under the jurisdiction of the City of Perris. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment

of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Perris and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.

- ***Evans Road/Rider Street Intersection (IN-107)*** will exceed the target LOS threshold at some point in the 2022–2035 period. ~~Modifying traffic signal to provide protected/permitted phasing for all left-turn movements~~Constructing an exclusive right-turn lane on the southbound approach would reduce cumulative impacts to a less than significant level.

  This intersection is under the jurisdiction of the City of Perris. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Perris and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.

- ***W. 6th Street/California Avenue Intersection (IN-129)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Signalizing this intersection would reduce ~~project~~cumulative impacts to a less than significant level.

  This intersection is under the jurisdiction of the City of Beaumont. Although it is a TUMF facility, signalization is not currently eligible for TUMF funding. The City will work with the City of Beaumont to establish a mechanism for collecting and distributing payments from developers for inter-jurisdictional impacts not covered by the TUMF program. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable.

- ***W. 6th Street/Beaumont Avenue Intersection (IN-130)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a northbound right-turn lane, an eastbound right-turn lane, ~~and~~ a second southbound left-turn lane, a second westbound left-turn lane, removing on-street parking and restriping to provide a second westbound through lane, ~~and~~ modifying the traffic signal to provide protected~~/permitted~~ phasing for eastbound and westbound left-turn movements, and overlap phasing for northbound and eastbound right-turn movements would reduce cumulative impacts to a less than significant level.

  There are established commercial buildings on the corners on the northern part of the intersection that would be impacted by such a widening. These mitigation measures are thus infeasible, and the project impact at this location is therefore considered to be significant and unavoidable.

- ***Reche Canyon Road/Reche Vista Drive Intersection (IN-131)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Converting the existing right-turn lane into a shared left-turn-and-right-turn lane would reduce cumulative impacts to a less than significant level.

  This intersection is under the jurisdiction of the Riverside County. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the

Riverside County and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.

Cumulative Freeway Mainline Mitigations. The WLC's cumulative impacts on the freeways system are summarized in Table 4.15.B~~B~~A, and described in detail below:

- ***Eastbound SR-60 from Reservoir Street to Ramona Avenue (F-2)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  The state freeway system is owned and operated by Caltrans and is thus outside the jurisdiction of the City of Moreno Valley. The City will work with Caltrans to establish a mechanism for collecting funds from developers for use in funding needed freeway improvements. However,

Table 4.15.B~~B~~A: ~~General Plan Buildout~~Year 2035 Cumulative Impacts and Mitigation Measures on Freeway Facilities

Study Facility		Juris-diction	LOS Standard	Determination of Impact: 2035 No-Project AM	2035 No-Project PM	2035 Plus Build-out AM	2035 Plus Build-out PM	Does the Project Have a Significant Impact?	Mitigation Measures Required to Reduce Impact to Less-Than-Significant	Is Mitigation Feasible?	LOS After Feasible Mitigations are Implemented: AM LOS	PM LOS	Impact Significant After Feasible Mitigations are Implemented?	Is There an Existing Deficiency?	Developer Action Required
(A)		(B)	(C)	(D)		(E)		(F)	(G)	(H)	(I)		(J)	(K)	(L)
Freeway Mainline Basic Sections - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
F-2	EB SR-60 Reservoir St to Ramona Ave	Caltrans	D	E	E	E	E	Yes	Add one mixed flow lane.	Yes	D	D	No	No	Pay fair share (9.5%)
F-2	WB SR-60 Reservoir St to Ramona Ave	Caltrans	D	E	D	E	E	Yes	Add one mixed flow lane.	Yes	D	C	No	Yes	Pay fair share (7.9%)
F-3	EB SR-60 Ramona Ave to Central Ave	Caltrans	D	E	F	E	F	Yes	Add one mixed flow lane.	Yes	D	D	No	Yes	Pay fair share (9.5%)
F-4	EB SR-60 Central Ave to Mountain Ave	Caltrans	D	E	F	F	F	Yes	Add one mixed flow lane.	Yes	D	E	No**	Yes	Pay fair share (10.1%)
F-5	EB SR-60 Mountain Ave to Euclid Ave	Caltrans	D	E	D	F	D	Yes	Add one mixed flow lane.	Yes	D	C	No	No	Pay fair share (10.6%)
F-5	WB SR-60 Mountain Ave to Euclid Ave	Caltrans	D	C	E	C	E	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (6.9%)
F-6	WB SR-60 Euclid Ave to Grove Ave	Caltrans	D	D	E	C	E	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (8.0%)
F-7	EB SR-60 Grove Ave to Vineyard Ave	Caltrans	D	F	F	F	F	Yes	Add one mixed flow lane.	Yes	D	E	No**	Yes	Pay fair share (11.3%)
F-7	WB SR-60 Grove Ave to Vineyard Ave	Caltrans	D	C	E	C	E	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (8.5%)
F-8	EB SR-60 Vineyard Ave to Archibald Ave	Caltrans	D	F	F	F	F	Yes	Add one mixed flow lane.	Yes	D	E	No**	Yes	Pay fair share (11.9%)
F-9	EB SR-60 Archibald Ave to Haven Ave	Caltrans	D	E	D	E	D	Yes	Add one mixed flow lane.	Yes	D	C	No	No	Pay fair share (14.2%)
F-17	EB SR-60 Valley Way to Rubidoux Blvd	Caltrans	D	E	C	E	C	Yes	Add one mixed flow lane.	Yes	D	B	No	No	Pay fair share (19.1%)
F-17	WB SR-60 Valley Way to Rubidoux Blvd	Caltrans	D	C	E	C	E	Yes	Add one mixed flow lane.	Yes	B	C	No	No	Pay fair share (9.42%)
F-18	EB SR-60 Rubidoux Blvd to Market St	Caltrans	D	E	C	F	C	Yes	Add one mixed flow lane.	Yes	D	B	No	No	Pay fair share (22.7%)
F-19	EB SR-60 Market St to Main St	Caltrans	D	E	E	E	F	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	Pay fair share (20.9%)
F-19	WB SR-60 Market St to Main St	Caltrans	D	D	E	D	E	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (8.7%)
F-20	WB SR-60 Main to SR-91	Caltrans	D	D	E	D	E	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (8.9%)
F-24	WB SR-60 Martin Luther King Blvd to Central Ave	Caltrans	D	D	D	D	E	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (18.3%)
F-26	WB SR-60 Fair Isle Dr/Box Springs Rd to I-215	Caltrans	D	D	F	D	F	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (9.0%)
F-29	EB SR-60 Pigeon Pass Rd/Frederick St to Heacock St	Caltrans	D	D	E	D	E	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (19.5%)
F-30	EB SR-60 Heacock St to Perris Blvd	Caltrans	D	C	E	D	E	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (13.1%)
F-30	WB SR-60 Heacock St to Perris Blvd	Caltrans	D	D	D	D	E	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (37.2%)
F-34	WB SR-60 Redlands Blvd to Theodore St	Caltrans	D	E	D	E	E	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (12.5%)
F-36	EB SR-60 Gilman Springs Rd to Jack Rabbit Trail	Caltrans	D	C	F	C	F	Yes	Add one mixed flow lane.	Yes	B	D	No	No	Pay fair share (4.9%)
F-37	EB SR-60 Jack Rabbit Trail to Potrero Blvd	Caltrans	D	C	F	C	F	Yes	Add one mixed flow lane.	Yes	B	D	No	No	Pay fair share (7.0%)
F-41	EB SR-91 Pierce St to Magnolia Ave	Caltrans	D	E	E	E	E	Yes	Add one mixed flow lane.	Yes	D	C	No	No	Pay fair share (12.4%)
F-43	EB SR-91 La Sierra Ave to Tyler St	Caltrans	D	E	E	E	E	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (10.0%)
F-43	WB SR-91 La Sierra Ave to Tyler St	Caltrans	D	D	E	D	E	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (10.9%)
F-44	WB SR-91 Tyler St to Van Buren Blvd	Caltrans	D	D	E	D	E	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (8.7%)

Indicates LOS exceeds the target level

** Although the target LOS is not met, conditions with the project and the mitigation measure would be better than No-Project conditions

* Not applicable because mitigation is infeasible

*** The mitigation measures are in addition to the mitigation measure needed for direct Project impacts (see Table 76)

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.BA: Year 2035 Cumulative Impacts and Mitigation Measures on Freeway Facilities (continued)

	Study Facility	Juris-diction	LOS Standard	Determination of Impact: 2035 No-Project AM	2035 No-Project PM	2035 Plus Build-out AM	2035 Plus Build-out PM	Does the Project Have a Significant Impact?	Mitigation Measures Required to Reduce Impact to Less-Than-Significant	Is Mitigation Feasible?	LOS After Feasible Mitigations are Implemented: AM LOS	PM LOS	Impact Significant After Feasible Mitigations are Implemented?	Is There an Existing Deficiency?	Developer Action Required
	(A)	(B)	(C)	(D)		(E)		(F)	(G)	(H)	(I)		(J)	(K)	(L)
F-45	WB SR-91 Van Buren Blvd to Adam St	Caltrans	D	D	D	D	E	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (8.2%)
F-46	EB SR-91 Adam St to Madison St	Caltrans	D	E	C	E	C	Yes	Add one mixed flow lane.	No	E	C	Yes	No	N/A*
F-47	WB SR-91 Madison St to Arlington Ave	Caltrans	D	D	E	D	E	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (4.9%)
F-75	SB I-215 Center St to La Cadena Dr	Caltrans	D	E	C	E	C	Yes	Add one mixed flow lane.	No	E	C	Yes	No	N/A*
F-52	EB I-10 SR-60 to Beaumont Ave	Caltrans	D	C	E	C	E	Yes	Add one mixed flow lane.	Yes	B	D	No	No	Pay fair share (2.5%)
F-52	WB I-10 SR-60 to Beaumont Ave	Caltrans	D	E	C	E	C	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (2.9%)
F-54	EB I-10 Pennsylvania Ave to Highland Springs Ave	Caltrans	D	C	E	C	E	Yes	Add one mixed flow lane.	Yes	B	D	No	No	Pay fair share (1.9%)
F-54	WB I-10 Pennsylvania Ave to Highland Springs Ave	Caltrans	D	E	C	E	C	Yes	Add one mixed flow lane.	Yes	D	C	No	No	Pay fair share (3.2%)
F-55	EB I-10 Highland Springs Ave to Sunset Ave	Caltrans	D	C	E	C	E	Yes	Add one mixed flow lane.	Yes	B	D	No	No	Pay fair share (0.7%)
F-55	WB I-10 Highland Springs Ave to Sunset Ave	Caltrans	D	E	C	E	C	Yes	Add one mixed flow lane.	Yes	D	B	No	No	Pay fair share (3.3%)
F-58	EB I-10 8th St to Hargrave St	Caltrans	D	C	D	C	E	Yes	Add one mixed flow lane.	Yes	B	C	No	No	Pay fair share (2.1%)
F-58	WB I-10 8th St to Hargrave St	Caltrans	D	E	C	E	C	Yes	Add one mixed flow lane.	Yes	C	B	No	No	Pay fair share (2.1%)
F-59	EB I-10 Hargrave St to Fields Rd	Caltrans	D	C	E	C	E	Yes	Add one mixed flow lane.	Yes	B	D	No	No	Pay fair share (1.2%)
F-61	EB I-10 Morongo Trail to Main St	Caltrans	D	B	E	B	E	Yes	Add one mixed flow lane.	Yes	B	C	No	No	Pay fair share (1.9%)
F-71	SB I-215 SR-74 to Ellis Ave	Caltrans	D	F	E	F	E	Yes	Add one mixed flow lane.***	Yes	D	C	No	Yes	Pay fair share (0.8%)
F-83	SB I-215 Baseline Rd to Highland Ave	Caltrans	D	F	D	F	D	Yes	Add one mixed flow lane.***	No	F	D	Yes	Yes	N/A*
Freeway Weaving Sections - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
W-1	EB SR-60 SR-71/Garey Ave to Reservoir St	Caltrans	D	E	E	E	E	Yes	Add one mixed flow lane.	Yes	D	E	No**	Yes	Pay fair share (8.3%)
W-9	WB SR-60 Haven Ave to Archibald Ave	Caltrans	D	D	E	D	E	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (6.1%)
W-20	EB SR-60 Main St to SR-91	Caltrans	D	D	E	E	E	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (19.1%)
W-21	WB SR-60 SR-91 to Blaine St/3rd St	Caltrans	D	D	E	D	F	Yes	Add one mixed flow lane.	No	D	F	Yes	No	N/A*
W-22	WB SR-60 Blaine St/3rd St to University Ave	Caltrans	D	C	E	C	E	Yes	Add one mixed flow lane.	No	C	E	Yes	No	N/A*
W-23	WB SR-60 University Ave to Martin Luther King Blvd	Caltrans	D	D	E	D	E	Yes	Add a second off-ramp lane.	Yes	C	E	No**	No	Pay fair share (10.4%)
W-25	WB SR-60 Central Ave to Fair Isle Dr/Box Springs Rd	Caltrans	D	E	E	E	E	Yes	Add one mixed flow lane.***	Yes	D	E	No**	Yes	Pay fair share (16.6%)
W-28	WB SR-60 Day St to Pigeon Pass Rd/Frederick St	Caltrans	D	D	D	D	E	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (35.6%)
Freeway Ramps - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
R-1	SR-60 EB On-Ramp from Martin Luther King Blvd	Caltrans	D	D	D	D	E	Yes	Add one mixed flow lane.	No	D	E	Yes	No	N/A*
R-10	SR-60 EB On-Ramp from Gilman Springs Rd	Caltrans	D	B	F	B	F	Yes	Add one mixed flow lane.	Yes	A	C	No	No	See F-36
R-14	SR-60 WB On-Ramp from Theodore St	Caltrans	D	E	D	E	D	Yes	Add one mixed flow lane.	Yes	C	C	No	No	See F-34
R-15	SR-60 WB Off-Ramp to Redlands Blvd	Caltrans	D	D	D	E	D	Yes	Add one mixed flow lane.	Yes	C	B	No	No	See F-34
R-16	WB SR-60 Loop On-Ramp from Redlands Blvd	Caltrans	D	E	E	D	D	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (14.0%)
R-17	SR-60 WB Direct On-Ramp from Redlands Blvd	Caltrans	D	D	D	F	D	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (14.0%)
R-18	SR-60 WB Off-Ramp to Central Ave	Caltrans	D	D	D	D	E	Yes	Add one mixed flow lane.	Yes	C	D	No	No	See W-25 (Table 74)
R-19	SR-60 WB Off-Ramp to Martin Luther King Blvd	Caltrans	D	D	D	D	E	Yes	Add one mixed flow lane.	Yes	C	D	No	No	See F-24

Indicates LOS exceeds the target level

* Not applicable because mitigation is infeasible

** Although the target LOS is not met, conditions with the project and the mitigation measure would be better than No-Project conditions

*** The mitigation measures are in addition to the mitigation measure needed for direct Project impacts (see Table 76)

Study Facility		Juris-diction	LOS Standard	Determination of Impact: 2035 No-Project AM	2035 No-Project PM	2035 Plus Build-out AM	2035 Plus Build-out PM	Does the Project Have a Significant Impact?	Mitigation Measures Required to Reduce Impact to Less-Than-Significant	Is Mitigation Feasible?	LOS After Feasible Mitigations are Implemented: AM LOS	PM LOS	Impact Significant After Feasible Mitigations are Implemented?	Is There an Existing Deficiency?	Developer Action Required
(A)		(B)	(C)	(D)		(E)		(F)	(G)	(H)	(I)		(J)	(K)	(L)
F-45	WB SR-91 Van Buren Blvd to Adam St	Caltrans	D	D	D	D	**E**	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (8.2%)
F-46	EB SR-91 Adam St to Madison St	Caltrans	D	**E**	C	**E**	C	Yes	Add one mixed flow lane.	No	**E**	C	Yes	No	N/A*
F-47	WB SR-91 Madison St to Arlington Ave	Caltrans	D	D	**E**	D	**E**	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (4.9%)
F-75	SB I-215 Center St to La Cadena Dr	Caltrans	D	**E**	C	**E**	C	Yes	Add one mixed flow lane.	No	**E**	C	Yes	No	N/A*
F-52	EB I-10 SR-60 to Beaumont Ave	Caltrans	D	C	**E**	C	**E**	Yes	Add one mixed flow lane.	Yes	B	D	No	No	Pay fair share (2.5%)
F-52	WB I-10 SR-60 to Beaumont Ave	Caltrans	D	**E**	C	**E**	C	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (2.9%)
F-54	EB I-10 Pennsylvania Ave to Highland Springs Ave	Caltrans	D	C	**E**	C	**E**	Yes	Add one mixed flow lane.	Yes	B	D	No	No	Pay fair share (1.9%)
F-54	WB I-10 Pennsylvania Ave to Highland Springs Ave	Caltrans	D	**E**	C	**E**	C	Yes	Add one mixed flow lane.	Yes	D	C	No	No	Pay fair share (3.2%)
F-55	EB I-10 Highland Springs Ave to Sunset Ave	Caltrans	D	C	**E**	C	**E**	Yes	Add one mixed flow lane.	Yes	B	D	No	No	Pay fair share (0.7%)
F-55	WB I-10 Highland Springs Ave to Sunset Ave	Caltrans	D	**E**	C	**E**	C	Yes	Add one mixed flow lane.	Yes	D	B	No	No	Pay fair share (3.3%)
F-58	EB I-10 8th St to Hargrave St	Caltrans	D	C	D	C	**E**	Yes	Add one mixed flow lane.	Yes	B	C	No	No	Pay fair share (2.1%)
F-58	WB I-10 8th St to Hargrave St	Caltrans	D	**E**	C	**E**	C	Yes	Add one mixed flow lane.	Yes	C	B	No	No	Pay fair share (2.1%)
F-59	EB I-10 Hargrave St to Fields Rd	Caltrans	D	C	**E**	C	**E**	Yes	Add one mixed flow lane.	Yes	B	D	No	No	Pay fair share (1.2%)
F-61	EB I-10 Morongo Trail to Main St	Caltrans	D	B	**E**	B	**E**	Yes	Add one mixed flow lane.	Yes	B	C	No	No	Pay fair share (1.9%)
F-71	SB I-215 SR-74 to Ellis Ave	Caltrans	D	**F**	**E**	**F**	**E**	Yes	Add one mixed flow lane.***	Yes	D	C	No	Yes	Pay fair share (0.8%)
F-83	SB I-215 Baseline Rd to Highland Ave	Caltrans	D	**F**	D	**F**	D	Yes	Add one mixed flow lane.***	No	**F**	D	Yes	Yes	N/A*
Freeway Weaving Sections - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
W-1	EB SR-60 SR-71/Garey Ave to Reservoir St	Caltrans	D	**E**	**E**	**E**	**E**	Yes	Add one mixed flow lane.	Yes	D	**E**	No**	Yes	Pay fair share (8.3%)
W-9	WB SR-60 Haven Ave to Archibald Ave	Caltrans	D	D	**E**	D	**E**	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (6.1%)
W-20	EB SR-60 Main St to SR-91	Caltrans	D	D	**E**	**E**	**E**	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (19.1%)
W-21	WB SR-60 SR-91 to Blaine St/3rd St	Caltrans	D	D	**E**	D	**F**	Yes	Add one mixed flow lane.	No	D	**F**	Yes	No	N/A*
W-22	WB SR-60 Blaine St/3rd St to University Ave	Caltrans	D	C	**E**	C	**E**	Yes	Add one mixed flow lane.	No	C	**E**	Yes	No	N/A*
W-23	WB SR-60 University Ave to Martin Luther King Blvd	Caltrans	D	D	**E**	D	**E**	Yes	Add a second off-ramp lane.	Yes	C	**E**	No**	No	Pay fair share (10.4%)
W-25	WB SR-60 Central Ave to Fair Isle Dr/Box Springs Rd	Caltrans	D	**E**	**E**	**E**	**E**	Yes	Add one mixed flow lane.***	Yes	D	**E**	No**	Yes	Pay fair share (16.6%)
W-28	WB SR-60 Day St to Pigeon Pass Rd/Frederick St	Caltrans	D	D	D	D	**E**	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (35.6%)
Freeway Ramps - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
R-1	SR-60 EB On-Ramp from Martin Luther King Blvd	Caltrans	D	D	D	D	**E**	Yes	Add one mixed flow lane.	No	D	**E**	Yes	No	N/A*
R-10	SR-60 EB On-Ramp from Gilman Springs Rd	Caltrans	D	B	**F**	B	**F**	Yes	Add one mixed flow lane.	Yes	A	C	No	No	See F-36
R-14	SR-60 WB On-Ramp from Theodore St	Caltrans	D	**E**	D	**E**	D	Yes	Add one mixed flow lane.	Yes	C	C	No	No	See F-34
R-15	SR-60 WB Off-Ramp to Redlands Blvd	Caltrans	D	D	D	**E**	D	Yes	Add one mixed flow lane.	Yes	C	B	No	No	See F-34
R-16	WB SR-60 Loop On-Ramp from Redlands Blvd	Caltrans	D	**E**	D	**E**	D	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (14.0%)
R-17	SR-60 WB Direct On-Ramp from Redlands Blvd	Caltrans	D	D	D	**F**	D	Yes	Add one mixed flow lane.****	Yes	C	C	No	No	Pay fair share (14.0%)
R-18	SR-60 WB Off-Ramp to Central Ave	Caltrans	D	D	D	D	**E**	Yes	Add one mixed flow lane.	Yes	C	D	No	No	See W-25 (Table 74)
R-19	SR-60 WB Off-Ramp to Martin Luther King Blvd	Caltrans	D	D	D	D	**E**	Yes	Add one mixed flow lane.	Yes	C	D	No	No	See F-24

Indicates LOS exceeds the target level

** Although the target LOS is not met, conditions with the project and the mitigation measure would be better than No-Project conditions

* Not applicable because mitigation is infeasible

*** The mitigation measures are in addition to the mitigation measure needed for direct Project impacts (see Table 76)

**** The additional lane needed between Redlands Blvd. and Moreno Beach Dr. as mitigation for R-16 is the same lane that is needed to mitigate impacts to R-17. Only one lane is needed; not one for R-16 and a second for R-17.

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

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since at the present time no such mechanism exists that would ensure that WLC funds contributed to Caltrans or any other state agency would be used to implement specific improvements that mitigate WLC impacts, and there is no mechanism by which the City can construct or guarantee the construction of any improvements to the freeway system by itself, this and all other freeway impacts must be considered as significant and unavoidable.

- ***Westbound SR-60 from Reservoir Street to Ramona Avenue (F-2)*** already exceeds the target LOS threshold and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold, resulting in a less than ~~sigfnicant~~ significant impact.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-60 from Ramona Avenue to Central Avenue (F-3)*** already exceeds the LOS threshold and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-60 from Central Avenue to Mountain Avenue (F-4)*** already exceeds the LOS threshold and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-60 from Mountain Avenue to Euclid Avenue (F-5)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-60 from Mountain Avenue to Euclid Avenue (F-5)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level.

  The existing freeway right-of-way in this section cannot accommodate additional lanes and the right-of-way cannot be expanded without severe impacts to the adjacent residential community. Since widening the freeway is infeasible, this impact is significant and unavoidable.

- ***Westbound SR-60 from Euclid Avenue to Grove Avenue (F-6)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a

cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level.

The existing freeway right-of-way in this section cannot accommodate additional lanes and the right-of-way cannot be expanded without severe impacts to the adjacent residential community. Since widening the freeway is infeasible, this impact is significant and unavoidable.

- ***Eastbound SR-60 from Grove Avenue to Vineyard Avenue (F-7)*** already exceeds the LOS threshold and traffic density would increase and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-60 from Grove Avenue to Vineyard Avenue (F-7)*** will exceed the target LOS threshold at some point in the 2022–2035 period this intersection. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-60 from Vineyard Avenue to Archibald Avenue (F-8)*** already exceeds the LOS threshold and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less-than-significant level.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-60 from Archibald Avenue to Haven Avenue (F-9)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-60 from Valley Way to Rubidoux Boulevard (F-17)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level. The addition of a lane is identified in the Transportation Concept Report.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-60 from Valley Way to Rubidoux Boulevard (F-17)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a

cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level. The addition of a lane is identified in the Transportation Concept Report.

As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means to either widen the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-60 from Rubidoux Boulevard to Market Street (F-18)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level. The addition of a lane is identified in the Transportation Concept Report.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-60 from Market Street to Main Street (F-19)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the ~~Transprtation~~ Transportation Concept Report.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-60 from Market Street to Main Street (F-19)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-60 from Main Street to SR-91 (F-20)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce bring the LOS to within the target threshold.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-60 from Martin Luther King Boulevard to Central Avenue (F-24)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing

that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-60 from Fair Isle Drive/Box Springs Road to I-215 (F-26)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-60 from Pigeon Pass Road/Frederick Street to Heacock Street (F-29)*** currently operates at an acceptable LOS but will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-60 from Heacock Street to Perris Boulevard (F-30)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-60 from Heacock Street to Perris Boulevard (F-30)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-60 from Redlands Boulevard to Theodore Street (F-34)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-60 from Gilman Springs Road to Jack Rabbit Trail (F-36)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

Caltrans already has plans to build a truck climbing lane in this area. However, as explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-60 from Jack Rabbit Trail to Potrero Road (F-37)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less-than-significant level.

  Caltrans already has plans to build a truck climbing lane in this area. However, as explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-91 from Pierce Street to Magnolia Avenue (F-41)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-91 from La Sierra Avenue to Tyler Street (F-43)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-91 from La Sierra Avenue to Tyler Street (F-43)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-91 from Tyler Street to Van Buren Boulevard (F-44)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-91 from Van Buren Boulevard to Adam Street (F-45)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-91 from Adam Street to Madison Street (F-46)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without impacting the adjacent residential community. Since widening the freeway is infeasible, this impact is significant and unavoidable.

- ***Westbound SR-91 from Madison Street to Indiana Avenue (F-47)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound I-10 from SR-60 to Beaumont Avenue (F-52)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound I-10 from SR-60 to Beaumont Avenue (F-52)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound I-10 from Pennsylvania Avenue to Highland Springs Avenue (F-54)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound I-10 from Pennsylvania Avenue to Highland Springs Avenue (F-54)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound I-10 from Highland Springs Avenue to Sunset Avenue (F-55)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound I-10 from Highland Springs Avenue to Sunset Avenue (F-55)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound I-10 from 8th Street to S. Hargrave Street (F-58)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound I-10 from 8th Street to S. Hargrave Street (F-58)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound I-10 from S. Hargrave Street to Field Road (F-59)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some

other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound I-10 from Main Street (Cabazon) to Main Street (F-61)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Southbound I-215 from SR-74 to Ellis Avenue (F-71[1])*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because I-215 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Southbound I-215 from Center Street to Iowa Avenue/La Cadena Drive (F-75)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without impacting the adjacent frontage road. Since widening the freeway is infeasible, this impact is significant and unavoidable.

- ***Southbound I-215 from Baseline Road to Highland Avenue (F-83)*** will exceed the target LOS threshold at some point in the 2022-to-2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than-significant level. The freeway right-of-way in this section cannot accommodate an additional lane (beyond the lane already identified in the current SCAG RTP) and cannot be widened without impacting the adjacent railroad. Since widening the freeway is infeasible, this impact is significant and unavoidable.

Cumulative Freeway Weaving Mitigations

- ***Eastbound SR-60 from SR-71/Garey Avenue to Reservoir Street (W-1)*** already exceeds the target LOS threshold and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level.

  SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impact on this section must therefore be considered significant and unavoidable.

[1] I-215 currently runs unbroken between SR-74 and Redlands Avenue. The RTP includes a project (3M0731) that would split this freeway mainline section by adding a new interchange at Ellis Avenue. For this reason, this freeway section is listed as "I-215 SR-74 to Redlands" on tables describing conditions prior to construction of the Ellis Avenue interchange.

- **Westbound SR-60 from Haven Avenue to Archibald Avenue (W-9)** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would ~~reduc~~bring the LOS to within the target threshold.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-60 from Main Street to SR-91 (W-20)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-60 from SR-91 to W. Blaine Street/3rd Street (W-21)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without impacting the adjacent residential community. Since widening the freeway is infeasible, this impact is significant and unavoidable.

- ***Westbound SR-60 from W Blaine Street/3rd Street to University Avenue (W-22)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without impacting the adjacent residential community. Since widening the freeway is infeasible, this impact is significant and unavoidable.

- ***Westbound SR-60 from University Avenue to Martin Luther King Boulevard (W-23)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a second on-ramp lane would reduce the cumulative impact to a less than significant level.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-60 from Central Avenue to Faire Isle Drive/Box Springs Road (W-25)*** already exceeds the LOS threshold and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-60 from Day Street to Pigeon Pass Road/Frederick Street (W-28)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would

increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

Cumulative Freeway Ramp Mitigations

- ***Eastbound SR-60 from On-Ramp from Martin Luther King Boulevard (R-1)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level. The Transportation Concept Report does not call for further widening of this section, which could only be accomplished by eliminating the existing shoulder and thus leaving no space for disabled vehicles to pull over. Since this would create safety problems that would be less acceptable than a low LOS, mitigating this impact is infeasible. This impact is therefore significant and unavoidable.
- ***Eastbound SR-60 from On-Ramp from Gilman Springs Road (R-10)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. (This improvement is already identified as the mitigation for freeway mainline segment F-36.)

  Caltrans has plans to re-configure the SR-60/Gilman Springs Road interchange in the future. However, as explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.
- ***Westbound SR-60 from On-Ramp from Theodore Street (R-14)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. (This improvement is already identified as the mitigation for freeway mainline segment F-34.)

  The City has a study underway to develop alternative designs for this interchange. The City will collect a fair-share contribution from the developer to implement this improvement in conjunction with the reconfiguration of the SR-60/Theodore Street Interchange. It should be noted the National Bridge Inventory 2012 Inspection Database[1] indicates that the Theodore Street `bridge over SR-60 was designed for MS18 design loads and has a sufficiency rating for 97.9.
- ***Westbound SR-60 from Off-Ramp to Redlands Boulevard (R-15)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold, resulting in a less than significant impact. (This improvement is already identified as the mitigation for freeway mainline segment F-34.)

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

[1] http://nationalbridges.com/ Federal Highway Administration, searchable database last updated 2012

- ***Westbound SR-60 from Direct On-Ramp from Redlands Boulevard (R-17)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-60 from Off-Ramp to Central Avenue (R-18)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. (This improvement is already identified as the mitigation for freeway weaving segment W-25 in the direct impacts and mitigation list, Table 4.15.AX.)

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-60 from Off-Ramp to Martin Luther King Boulevard (R-19)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. (This improvement is already identified as the mitigation for freeway mainline segment F-24.)

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

4.15.7.4 Mitigation Measures

~~**4.15.7.4A** When processing future individual development permits under the World Logistics Center Specific Plan, as part of the City's discretionary approval process, the City shall require each project to perform a project-specific traffic impact study to ensure that the assumptions set forth in the TIA prepared for the programmatic level entitlement remain valid. These traffic impact analyses shall conform to the traffic impact analysis guidelines prepared by the City of Moreno Valley and the California Department of Transportation and shall be used to impose project-specific mitigation on the individually-proposed projects. These traffic analyses shall be completed prior to the issuance of grading permits for the requested development. It should be noted that the City will require that the applicant to fully fund or to pay a fair share of some of the improvements identified in Tables 4.15.AX through 4.15.BC. These improvements will be required by the City as a Condition of Approval.~~

4.15.7.4A A traffic impact analysis ("TIA") conforming to the guidelines for traffic impact analysis adopted by the City shall be submitted in conjunction with each Plot Plan application within the World Logistics Center Specific Plan. Prior to the approval of the Plot Plan, the City shall review the traffic impact analysis to determine if any of the traffic improvements listed in Final EIR Volume 2 Tables 4.15.AV through 4.15.BA (TIA Tables 74 through 79) of the traffic impact analysis prepared for the Program Environmental Impact Report are required to be completed prior to the issuance of a certificate of occupancy for each building. If the City determines that any of the

improvements within Moreno Valley are required to be constructed in order to ensure that the traffic impacts which will result from the construction and operation of the building will be mitigated into insignificance, then the completion of construction of the improvements prior to the issuance of a Certificate of Occupancy for the building shall be made a Condition of Approval of the Plot Plan. Construction of improvements within the City shall be subject to credit/reimbursement agreement for those DIF and/or TUMF eligible costs. If the City determines that any of the improvements outside Moreno Valley are required to be constructed in order to ensure that the traffic impacts which will result from the construction and operation of the building will be mitigated to a less than significant level, then the payment of any necessary fair share contribution as prescribed in Mitigation Measure 4.15.7.4G prior to the issuance of a Certificate of Occupancy for the building shall be made a Condition of Approval of the Plot Plan. If the City determines that the traffic impacts which will result from the construction or operation of a building will be significantly more adverse than those shown in the Program Environmental Impact Report, further environmental review shall be conducted prior to the approval of the Plot Plan pursuant to Public Resources Code § 21166 and CEQA Guidelines § 15162 to determine what additional mitigation measures, if any, will be required in order to maintain the appropriate levels of service.

4.15.7.4B As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require the dedication of appropriate right-of-way consistent with the Subdivision Map Act for frontage street improvements contained within the World Logistics Center Specific Plan Circulation Map, as shown in this Program EIR Figure 3-10 (or Figure 22 in the TIA prepared for this Program EIR). Required dedications shall be made prior to the issuance of occupancy permits for the requested development.

4.15.7.4C As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require each project to pay the Development Impact Fee (DIF) as set forth in Municipal Code Chapter 3.42. Required DIF payments shall be made prior to the issuance of occupancy permits for the requested development.

4.15.7.4D As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require each project to pay the requisite Transportation Uniform Mitigation Fee (TUMF) as set forth in Municipal Code ~~Chapter 3.44~~ Sections 3.55.050 and 3.55.060. Required ~~Transportation Uniform Mitigation Fee~~ TUMF payments shall be made prior to the issuance of occupancy permits for the requested development.

~~**4.15.7.4E** As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require each project to pay the requisite fair-share obligation for infrastructure improvements not covered by the City's DIF or TUMF and demonstrated to be required by the individual project-level traffic impact analysis to mitigate project-level impacts to less than significant levels. Required fair share payments shall be made prior to the issuance of occupancy permits for the requested development.~~

4.15.7.4E In order to ensure that all of the Project's traffic impacts are mitigated to the greatest extent feasible, the Applicant shall contribute its fair share of the cost of the needed traffic improvements that are not within the City as identified in the World Logistic Center Specific Plan Traffic Impact Analysis (i.e., under the jurisdiction of other cities,

the County of Riverside or Caltrans, pursuant to Mitigation Measure 4.15.7.4F). As used in this mitigation measure, the Applicant's "fair share" has been determined in compliance with the requirements of the Fee Mitigation Act, Government Code § 66000 et seq., and, pursuant to § 66001(g), does not require that the Applicant be responsible for making up for any existing deficiencies.

For example, the intersection of Martin Luther King Blvd. and the I-215 northbound ramps (Intersection 85) in the City of Riverside was identified as a place where the World Logistic Center contributes to cumulatively significant impacts, and where the fair share contribution of the World Logistic Center project as a whole was computed to be 6.2%. If the City of Riverside establishes a fair share contribution program consistent with this Mitigation Measure 4.15.7.4F to improve that intersection, then when a certificate of occupancy is to be issued for a 2-million square feet high-cube warehouse in the World Logistic Center (approximately 5% of the entire World Logistic Center project) the amount of the fair share payment due from the Applicant to the City of Riverside would be computed as follows:

Amount Due	=	Total cost of Improvement	×	Total World Logistics Center fair share (6.2%) as determined by Traffic Impact Analysis	×	% attributable to the building that is subject to the certificate of occupancy (5%)

A × B × C = D
A= % attributable to the building that is subject to the certificate of occupancy (5%) B= Total World Logistics Center fair share (6.2%) as determined by Traffic Impact Analysis C= Total cost of Improvement D= Amount Due

A similar calculation would be done for each subsequent building, with payments for each due at the time of issuance of the certificate of occupancy. As a result, while each building individually would not produce a significant impact, and therefore would not be required to pay any mitigation fees if considered by itself, the total amount of the payments for all of the buildings would be equal to the fair share payment for the entire World Logistic Center to the extent that the responsible jurisdiction has chosen to adopt a fair share contribution funding program consistent with Mitigation Measure 4.15.7.4F.

~~**4.15.7.4F** City shall participate in a multi-jurisdictional effort with Caltrans and adjacent cities to develop a study to identify fair-share contribution funding sources to supplement other regional and State funding sources necessary to implement the State facility and extra-territorial improvements identified in Tables 4.15.AZ and 4.15.BC necessary to mitigate the identified programmatic impacts to less than significant levels. The study shall include fair-share contributions related to other private and public development and shall be based on the nexus requirements contained in the Mitigation Fee Act (Govt. Code Section 66000, et seq.) and 14 Cal. Code of Regs. Section 15126.4(a)(4). The Study shall also be compliant with Government Code Section 66001(g) and other applicable provisions of law. The Study shall set forth a~~

~~timeline and other agreed upon relevant criteria for implementation of the improvements recommended in this EIR. Once the study is approved, the City shall impose the fair-share fees on each project that is developed under the World Logistics Center as part of the individual review of each development project. Prior to the adoption of the Study, City shall impose a fair-share payment requirements on each development project processed under the World Logistics Center Specific Plan in accordance with the requirements of the Mitigation Fee Act. Required fair share payments shall be made prior to the issuance of occupancy permits for each requested development.~~

4.15.7.4F The Applicant shall pay a portion of the fair share of the cost of traffic improvements identified in the Transportation Impact Analysis for those significantly impacted road segments and intersections for each warehouse building within the World Logistics Center if the impacted jurisdiction has established a fair share contribution program prior to the approval of a building-specific plot plan. The City shall determine whether a fair share program exists in the impacted jurisdiction and, if one does exist, require that the appropriate fees are paid by the Applicant, consistent with the requirements below, prior to the issuance of a certificate of occupancy for the building in question. If no fair share program exists or if the existing programs are not consistent with the requirements below, then no payment of fees shall be required. The impacts are to be determined on a road segment or intersection basis. Nothing in this condition requires the payment of a traffic impact fee imposed by another jurisdiction which covers improvement to facilities where the project does not have a significant impact. Fair-share contributions will be determined on a building-by-building basis as a share of the impact of the Project as a whole (for each segment or intersection where the World Logistics Center project as a whole has a significant impact identified in the Programmatic Environmental Impact Report) as determined by the Traffic Impact Analysis and will be due as each certificate of occupancy is issued. The fair share payments for the significantly impacted road segments and intersections identified in the Programmatic Environmental Impact Report will be required even though the impact resulting from a specific building does not, by itself, cause a significant impact.

~~**4.15.7.4G** City shall work directly with WRCOG to request that TUMF funding priorities be shifted to align with the improvements identified in this TIA.~~

4.15.7.4G City shall work directly with Western Riverside Council of Governments to request that Transportation Uniform Mitigation Fee funding priorities be shifted to align with the needs of the City, including improvements identified in the World Logistics Center Specific Plan traffic impact analysis. Toward this end, City shall meet regularly with Western Riverside Council of Governments.

~~**4.15.7.4H** The City will work directly with WLCSP development and other jurisdictions to coordinate the funding and installation of intersection and roadway improvements outside of the City of Moreno Valley. This measure shall be implemented to the satisfaction of the City Engineer.~~

Congestion Management

In addition to and in concert with the mitigation measures defined above for or traffic impacts, the World Logistics Center would incorporate a number of measures that reduce single occupancy vehicle trips as part of design features and required mitigation measures to reduce air quality impacts. These design features and measures, described in more detail in Section 4.3 Air Quality, would

create alternatives to single occupancy vehicle trips for those individuals that would be employed at the World Logistics Center. These measures include:

- Participation in Riverside County's Rideshare Program
- Class II bike lanes for all project streets
- Pedestrian pathways throughout the project site
- Pedestrian connections to nearby residential areas
- Provision of bicycle storage space
- Preferential carpool/vanpool parking

In addition, the World Logistics Center Specific Plan requires that mass transit features, such as bus stops, be incorporated into the project, based on consultation with the Riverside Transit Agency.

4.15.7.5 Level of Significance after Mitigation

Even with implementation of **Mitigation Measures 4.15.7.4.A through 4.15.7.4.G**, and implementation of all the improvements ~~i~~identified in Tables 4.15.A~~T~~V through 4.15.B~~A~~A~~B~~, direct and cumulative impacts on study area roadway segments, intersections, and freeway facilities would not be reduced to less than significant levels, including all improvement locations not under the control of the lead agency (i.e., outside of the City of Moreno Valley). This is because the primary determinant of the level of significance after mitigation is the agency responsible for the transportation facility in question. The City has no means for controlling when transportation improvements are made outside of its jurisdiction, and therefore, cannot guarantee when such improvements would be made. These roadways, intersections, and freeway facilities are grouped into four categories based on the jurisdiction the transportation facility is located and are summaries as follows.

On-Site Improvements. These are improvements and changes to the road system within the WLC project site that are being undertaken as part of the WLC project. The developer shall be responsible for constructing the improvements described in the TIA (Chapter 4, "Proposed Road Network") in accordance with City standards for roadway construction and the roadway cross-sections in the proposed Specific Plan. Completion of these improvements shall constitute the developer's mitigation of the project's on-site impacts. When these improvements are completed, the project's impacts on the roadway system within the WLC project site will be mitigated to a less-than-significant level.

Off-Site Improvements for Non-TUMF Roads Under the Jurisdiction of the City of Moreno Valley. These are improvements and changes to public streets in Moreno Valley that are outside the area covered by the proposed WLC Specific Plan Amendment. The developer shall be responsible for paying the DIF as set forth in Municipal Code Chapter 3.42 which the City shall use to implement the mitigation measures identified in Tables 4.15.AV, 4.15.AW, 4.15.AY, and 4.15.AZ (TIA Tables 74, 75, 77, and 78) pertaining to DIF facilities. The developer shall also be required to pay its fair share of the improvements to City streets that are not in the DIF program where there are significant project impacts. These payments shall constitute the developer's mitigation of project impacts on this category of roads. When these improvements are completed, the project's impacts on the City roadway and intersection system will be mitigated to a less-than-significant level.

Off-Site Improvements to TUMF Facilities. These are improvements and changes to roads and intersections that are part of the TUMF Regional System of Highways and Arterials, some of which

are under the jurisdiction of Moreno Valley and others are located in other jurisdictions. The developer shall be responsible for paying the TUMF fees in effect at the time of approval. These payments shall constitute the developer's mitigation of project impacts to this category of roads and intersections.

The City shall implement the mitigation measures identified in Tables 4.15.AV, 4.15.AW, 4.15.AY, and 4.15.AZ pertaining to TUMF facilities under the City's jurisdiction. When these improvements are completed, the project's impacts on the roadway and intersection system within the WLC project site will be mitigated to a less than-significant level.

The City shall work with the other member agencies of WRCOG to program TUMF funds to implement the mitigation measures identified in 4.15.AV, 4.15.AW, 4.15.AY, and 4.15.AZ pertaining to TUMF facilities outside the jurisdiction of the City of Moreno Valley. To the extent that TUMF fees provided by the developer are used to implement the recommended improvements the project's impacts would be less-than-significant. However, because the City does not have direct control over TUMF funding the City cannot ensure that the identified improvements would be made. The project's impacts on these facilities must be considered significant and unavoidable.

Off-Site Improvements to Roads Outside the Jurisdiction of the City and Not Part of the TUMF Program. This category includes all of the recommended mitigation measures that are under the jurisdiction of Riverside County, Caltrans, and other municipalities and that are not included in the TUMF Regional System of Highways and Arterials.

At this time, the City does not have cooperative agreements with neighboring jurisdictions that would serve as a mechanism for collecting and distributing developer funds to cover the cost of cross-jurisdictions mitigation measures, other than the TUMF program. The City shall therefore work with the City of Redlands and Riverside County to collect funds from the developer and to implement the signalization of the San Timoteo Road/Alessandro Road intersection and the San Timoteo Road/Live Oak Canyon intersection (respectively). The City shall also work with the City of Riverside to collect a fair-share contribution from the developer to signalize the Martin Luther King Boulevard/I-215 northbound ramp intersection. To the extent that the City is able to establish such a mechanism (as described in Mitigation Measure 4.15.7.4F) and the other jurisdiction constructs the recommended improvement, the project's impacts would be less-than-significant. However, because the City cannot guarantee that such a mechanism will be established and does not have direct control over facilities outside of its jurisdiction the City cannot ensure that the identified improvements would be made. Thus, at this point the project's impacts on these facilities must be considered significant and unavoidable.

Similarly, the City has not entered into an agreement with Caltrans for the collection of developer payments for improvements to the state highway system other than freeway interchange improvements funded through the TUMF program. Nor has Caltrans established a program to collect fair-share contributions to freeway improvements such as those identified in Tables 4.15.AX and 4.15.BA. Instead, Caltrans has traditionally relied on other means to fund freeway improvements; means involving multiple stages of review and input from other agencies, with priorities and constraints applied at each stage, that preclude a direct connection between developer-provided fair-share funds and specific highway improvements.

Decisions on funding for improvements to the state highway system are made by four bodies, namely:

- **Legislature:** Establishes overall policies, including determining funding sources and distribution, and spending priorities through state statutes such as Revenue and Taxation Code, Streets and

Highways Code, and Government Code. The Legislature appropriates funds through the annual budget for transportation projects and has authority to designate transportation projects statutorily.

- **California Transportation Commission (CTC):** The nine-member CTC, appointed by the Governor, reviews and adopts the state transportation programs and approves projects nominated by Caltrans and regional agencies for funding. The CTC recommends policy and funding priorities to the Legislature and is also responsible for project delivery oversight.
- **California Department of Transportation (Caltrans):** Caltrans owns, operates and maintains the state highway system. Caltrans plans, designs, and nominates interregional capital improvement projects on the state highway system and also manages the intercity rail operation.
- **Metropolitan Planning Organizations (MPOs) and Regional Transportation Planning Agencies (RTPAs):** MPOs and RTPAs are responsible for planning, coordinating and administering funds for regional transportation systems. In California, 17 MPOs and 48 RTPAs develop 20-year Regional Transportation Plans (RTPs) as well as 5-year Regional Transportation Improvement Program (RTIP), which identify projects for the regional portion of the State Transportation Improvement Program (STIP). SCAG is the MPO for Riverside County.

Most funds for improvements to the state highway system come through the State Highway Account (SHA), which receives funding from a variety of sources including:

- Motor vehicle fuel taxes, part of which goes into the Highway Users Tax Account, a portion of which goes to the SHA and the rest goes to cities and counties according to a statutory formula.
- The fuel tax swap, enacted in 2011 (Fuel Tax Swap Fix), reenacted the provisions of the Fuel Tax Swap of 2010 addressing issues raised by the passage of Propositions 22 and 26. The Fuel Tax Swap eliminated the state sales tax on gasoline and instead imposed an additional excise tax on gasoline of 17.3¢ (July 2010). The increase in the excise tax would generate revenues equivalent to what would have been collected from the state sales tax on gasoline. These revenues are intended for new road construction (STIP), highway maintenance and operations (SHOPP), and local roadways.
- The federal fuel tax, which goes into the Highway Trust fund for use on the portions of the system that are designated ad federal aid highways.

In addition, local sales tax measures, such as Measure A in Riverside County, and the proceeds of Proposition 1B provide funding for improvements to certain portions of the state highway system.

The key feature of this system pertaining to the recommended freeway mitigation measures is that this system is outside the control of the City of Moreno Valley. The City shall work with Caltrans to establish a mechanism for collecting funds from developers for use in funding needed freeway improvements. However, since at the present time no such mechanism exists that would ensure that WLC funds contributed to Caltrans or any other state agency would be used to implement specific improvements that mitigate WLC impacts, and there is no mechanism by which the City can construct or guarantee the construction of any improvements to the freeway system by itself, the project's impacts on the state highway system must be considered significant and unavoidable.

4.15.8 Summary of Project-Related Traffic Impacts

Based on the preceding analyses in Sections 4.15.5.1 through 4.15.6.4, the WLC project will have the following direct and cumulative air quality impacts:

Table 4.15.BB: Summary of Project-Related Traffic Impacts

Impact	Traffic and Circulation Topic/Issue	Impact Conclusion
4.15.5.1	Air Traffic Patterns	Less than Significant No Mitigation Required
4.15.5.2	Design Hazard Features	Less than Significant No Mitigation Required
4.15.5.3	Emergency Access	Less than Significant No Mitigation Required
4.15.5.4	Alternative Transportation Policies, Plans, or Programs	Less than Significant No Mitigation Required
4.15.6.1	Existing (2012) With Phase 1 Conditions Traffic and Level of Service	Less than Significant with Mitigation (on-site roads and intersections) Less than Significant with Mitigation (roads and intersections included in DIF within City) Less than Significant with Mitigation (roads and intersections included in TUMF within City) Significant and Unavoidable with Mitigation (roads and intersections included in TUMF outside City) Significant and Unavoidable with Mitigation (roads and intersections not in TUMF outside City) Significant and Unavoidable with Mitigation (all freeway mainline, weaving, and ramp facilities)
4.15.6.2	Existing (2012) With Project (Buildout) Conditions Traffic and Level of Service	Less than Significant with Mitigation (on-site roads and intersections) Less than Significant with Mitigation (roads and intersections included in DIF within City) Less than Significant with Mitigation (roads and intersections included in TUMF within City) Significant and Unavoidable with Mitigation (roads and intersections included in TUMF outside City) Significant and Unavoidable with Mitigation (roads and intersections not in TUMF outside City) Significant and Unavoidable with Mitigation (all freeway mainline, weaving, and ramp facilities)

Table 4.15.BB: Summary of Project-Related Traffic Impacts

Impact	Traffic and Circulation Topic/Issue	Impact Conclusion
4.15.6.3	Year 2022 With Phase 1 Conditions Traffic and Level of Service Impacts	Less than Significant with Mitigation (on-site roads and intersections) Less than Significant with Mitigation (roads and intersections included in DIF within City) Less than Significant with Mitigation (roads and intersections included in TUMF within City) Significant and Unavoidable with Mitigation (roads and intersections included in TUMF outside City) Significant and Unavoidable with Mitigation (roads and intersections not in TUMF outside City) Significant and Unavoidable with Mitigation (all freeway mainline, weaving, and ramp facilities)
4.15.6.4	Year 2035 Cumulative With Project Conditions Traffic and Level of Service Impacts	Less than Significant with Mitigation (on-site roads and intersections) Less than Significant with Mitigation (roads and intersections included in DIF within City) Less than Significant with Mitigation (roads and intersections included in TUMF within City) Significant and Unavoidable with Mitigation (roads and intersections included in TUMF outside City) Significant and Unavoidable with Mitigation (roads and intersections not in TUMF outside City) Significant and Unavoidable with Mitigation (all freeway mainline, weaving, and ramp facilities)

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4.16 UTILITIES AND SERVICE SYSTEMS: TABLE OF CONTENTS

FIGURES

TABLES

NOTE TO READERS. *Revisions have been made to this section to address changes in the Specific Plan, revisions to the project hydrology study, and in response to comments regarding drainage and mitigation.*

4.16 UTILITIES AND SERVICE SYSTEMS

This section analyzes the existing and planned water supply, wastewater facilities, drainage or storm water facilities (as they relate to water), solid waste facilities, and natural gas and electrical facilities for the project site and the surrounding area, and evaluates the impacts to utility providers that could result from the construction and operation of the proposed on-site uses.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers ~~3,918~~ 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes ~~3,814~~ 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering ~~3,814.~~ 3,714 acres, which redesignates approximately ~~71~~70 percent of the area (~~2,710~~ 2,610 acres) for logistics warehousing (new LD and LL~~, LS~~ zones) and the remaining ~~29~~30 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the ~~2,710~~ 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*. ~~The environmental impacts of all of these entitlements on the entire project area are addressed in this EIR and the accompanying technical reports and analyses.~~

This section is based on information obtained from utility providers serving the proposed WLC project site, most of which are included in Appendix J of this EIR:

- *City of Moreno Valley General Plan;*[1]

[1] *City of Moreno Valley General Plan*, City of Moreno Valley, adopted by City Council Resolution No. 2006-83, July 11, 2006.

- Eastern Municipal Water District's *2010 Urban Water Management Plan;*[1]
- *Water Supply Assessment* (WSA) approved by the Eastern Municipal Water District Board of Directors on March 21, 2012);
- *Technical Memorandum – Dry Utilities World Logistics Center, Moreno Valley, CA*, Utilities Specialists, ~~December 19, 2012~~October 24, 2013; and
- *Sanitary Sewer Analysis Memorandum,* CH2MHill, ~~November 2, 2012~~October 18, 2013.

This section differs slightly from other sections in that it is organized by utility/service system type so continuity is maintained. Water Supply is found in Section 4.16.1, Wastewater Services are discussed in Section 4.16.2, Solid Waste Services are found in Section 4.16.3, and Energy Consumption is addressed in Section 4.16.4.

4.16.1 Water Supply

4.16.1.1 Existing Setting

The project site is located within the service area of the Eastern Municipal Water District (EMWD),[2] which owns, operates, and maintains the water system within the limits of the City and will be the purveyor of water to the proposed WLC project site. As illustrated in Figure 4.16.1, the EMWD's service area encompasses approximately 555 square miles. The water supply available to the EMWD in 2010 totals approximately 154,700 acre-feet (AF).[3] Water sources for the EMWD include imported water purchased from the Metropolitan Water District of Southern California (Metropolitan), groundwater sources, desalted groundwater, and recycled water from the EMWD's five regional water reclamation facilities. Imported water from Metropolitan is delivered to EMWD in several ways: directly as potable water; as raw water and treated at two local EMWD filtration plants; or as raw water for non-potable use. Approximately 80 percent of the EMWD's water is imported from Metropolitan and the remaining 20 percent is supplied by groundwater wells. Approximately 33 percent of the water produced by EMWD is recycled water. Groundwater supplies are drawn from the EMWD wells located in the Hemet, San Jacinto, Moreno Valley, Perris Valley, and Murrieta areas.

The following information was added at the request of the Metropolitan Water District of Southern California (Letter C-2) regarding their Inland Feeder facility. The figure showing the location of the Inland Feeder can be found at the end of comment Letter C-2 from the Metropolitan Water District of Southern California.

> "Metropolitan owns property and owns and operates facilities on and adjacent to the site of the proposed project. As shown on the attached map, Metropolitan's irregularly shaped fee-owned property (APN 422-040-009 and 422-040-015), Inland Feeder Tunnel, and appurtenant tunnel access structure are located within the proposed specific plan area. In addition, Metropolitan's 145-inch-inside-diameter Inland Feeder pipeline and appurtenant structures extend through the specific plan area in the street rights-of-way for Eucalyptus Avenue, Theodore Street, and Davis Road. Metropolitan also has a 110-foot-wide easement along Davis Road."

In June of 2011, the EMWD adopted its *2010 Urban Water Management Plan* (UWMP), which details the EMWD's current and future water supply. The document found that with all of its existing and

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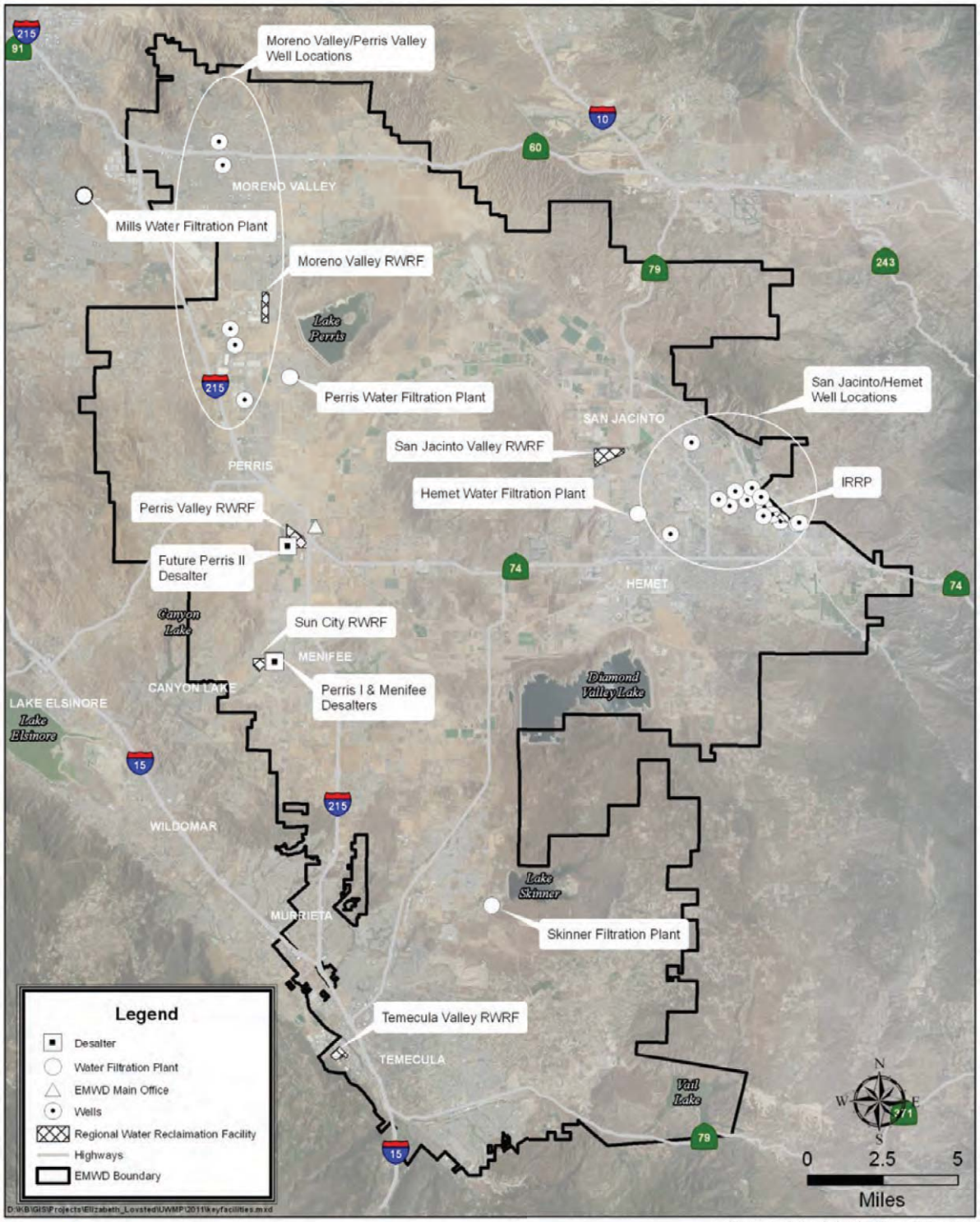
1 *EMWD 2010 Urban Water Management Plan,* Eastern Municipal Water District, June 2011.
2 *Eastern Municipal Water District Service Area,* Eastern Municipal Water District, http://www.emwd.org/index.aspx?page=59, website accessed April 2, 2012.
3 An acre-foot covers one acre to a depth of one foot. An acre-foot is approximately 326,000 gallons which is enough to meet the needs of two average southern California households a year.



LSA

FIGURE 4.16.1

World Logistics Center Specific Plan Project
Environmental Impact Report

Location of Eastern Municipal Water District Supplies

SOURCE: Eastern Municipal Water District 2010 Urban Water Management Plan, 2011

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planned supplies, the EMWD can meet 100 percent of projected supplemental demand through 2035, even with a repeat of a severe drought. In addition, the UWMP addresses conservation, local supplies and reliability of imported supplies. Table 4.16.A identifies the ~~EWMD's~~ EMWD's projected water supplies and demand.

Table 4.16.A: EMWD Water Supplies and Demand for Average Year Hydrology

		2015	2020	2025	2030	2035
EMWD Water Supplies						
Supply Type	**Supply Source**	**acre-feet per year**				
Imported	Metropolitan Water District	149,300	170,700	190,700	210,000	226,200
Imported-Locally Treated	Metropolitan Water District					
Groundwater	West San Jacinto Management Area	13,200	13,200	13,200	13,200	13,200
Desalination	West San Jacinto Management Area	7,500	7,500	7,500	7,500	7,500
Recycled	EMWD Regional Water Reclamation Facilities	43,900	50,000	53,900	54,900	55,300
	Supply Total	**213,900**	**241,400**	**265,300**	**285,600**	**302,200**
EMWD Water Demands						
Demand Source		**acre-feet per year**				
Retail Potable Water Sales		113,800	120,700	136,100	150,300	162,200
Water Sales to Other Agencies		47,600	61,600	65,000	69,000	72,400
Other Water Uses/Losses		52,500	59,100	64,200	66,300	67,600
	Demand Total	**213,900**	**241,400**	**265,300**	**285,600**	**302,200**

Source: *EMWD 2010 Urban Water Management Plan*, Eastern Municipal Water District, June 2011 (Tables 3 and 9, WSA 2012).

The proposed WLC project site is located within EMWD Pressure Zones (PZ) 1764 and 1900. Water is supplied to the project area via a pump station (1900 PZ pump station) located north of the intersection of Redlands Boulevard and Cottonwood Avenue. This pump station also delivers water to areas north of State Route 60 (SR-60). A 20-inch transmission main underlying Redlands Boulevard (Redlands Transmission Pipeline) delivers the pumped water from the 1900 PZ pump station to the 2080 PZ pump station located at Redlands Boulevard and Ironwood Avenue. The nearest recycled water line is a 24-inch transmission main located approximately 0.25 mile southwest of the project site, at the intersection of Redlands Boulevard and Cactus Avenue. Although there are no active recycled water lines adjacent to the project site, in the future, it may be possible to serve this project site with recycled water.

Water imported by the EMWD is treated at two facilities owned and operated by Metropolitan, the Mills and Skinner Filtration Plants, which serve the northwest and southern areas of the EMWD service area. Treated water is supplied north of the EMWD service area by the Mills Metropolitan Water Treatment Facility and in the southeastern portion of the EMWD service area by the Lake Skinner Water Treatment Facility. The City is located within the area served by the Mills Filtration Plant, which has a treatment capacity of 326 million gallons per day (mgd). The EMWD also utilizes untreated water delivered by Metropolitan from the State Water Project (SWP) pipeline running through the EMWD's jurisdiction. The EMWD currently treats the raw water for potable use or uses it raw for agriculture and for recharge. Treatment of raw water occurs at water filtration plants in Perris and in Hemet. The Hemet microfiltration plant has a capacity to filter 8,800 acre-feet per year (AFY) and the Perris microfiltration plant has the capacity to filter 17,600 AFY.

The EMWD constructed the Menifee Desalter and Perris Desalter facilities to recover high total dissolved solids (TDS) groundwater for potable use. In addition to being a source of water, the desalter facilities play a part in managing the groundwater subbasins by addressing the migration of brackish groundwater into areas of good quality groundwater. Additionally, the EMWD is currently in the process of constructing a third desalter facility, the Perris II Desalter.[1] This additional facility will increase the production of desalinated water to approximately 12,000 AFY.

Based on the Water Allocation analysis released by the California Department of Water Resources (DWR) on March 22, 2010, export restriction could reduce Metropolitan deliveries by 150 to 200 thousand acre-feet (TAF) under mean hydrologic conditions, and operations could remain restricted until a long-term solution is found to improve the stability of the Bay-Delta region.

The SWP and Central Valley Project (CVP) are the responsible partners for operation of the DWR and Bureau of Reclamation (Reclamation), respectively. In November 1986, DWR and Reclamation signed the Coordinated Operations Agreement (COA). The COA was subsequently authorized and approved by the California State Legislature and Congress. Under COA, DWR and Reclamation agree to operate the SWP and CVP in a balanced manner to coordinate releases from upstream reservoirs and unregulated flows to meet Sacramento Valley in-basin and in-Delta uses, including water quality standards established by the State Water Resources Control Board (SWRCB).

Reclamation, as a Federal agency is required to consult with National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS) under Section 7 of the Federal Endangered Species Act (FESA) to determine if a Federal action that it authorizes, funds, or implements could jeopardize the continued existence of a listed species in the wild, or destroy or modify the species' critical habitat. Because the SWP and CVP are operated in a balanced manner, the findings under Section 7 of the FESA affect operations of both the SWP and CVP.

The initial biological opinions related to long-term operations of the SWP and CVP were issued in 1993 by NMFS for protection of the winter-run Chinook salmon and by USFWS for protection of delta smelt. Operations of the SWP and CVP were modified to reduce potential adverse impacts to these species primarily through:

- Increased storage volumes of water in upstream reservoirs to provide adequate flows with appropriate temperatures for the winter-run Chinook salmon and adequate flows in the Delta for both species;
- Flows released from upstream reservoirs to provide adequate in-Delta flows and Delta outflows for these species; and
- Modification of periods of time when water can be diverted at the SWP and CVP south Delta intakes to reduce the potential for reverse flows, reduce the potential for high salinity in the south Delta, and reduce the potential for entrainment and entrapment of fish in the SWP and CVP south Delta intake facilities.

The biological opinions were modified as DWR and Reclamation modified operations of the SWP and CVP and new information related to aquatic resources became available. During this period, NMFS redesignated the Sacramento River winter-run Chinook salmon as "endangered" and designated two species as "threatened" (i.e., Central Valley spring-run Chinook salmon and Central Valley steelhead). Therefore, the consultations under Section 7 of the FESA were modified and new biological opinions were issued between 2000 and 2004. In 2005, the Department of the Interior was

[1] *Water Supply Desalination Infrastructure South Perris Project, Perris II Desalter,* http://www.emwd.org/modules/showdocument.aspx?documentid=90, website accessed April 2, 2012.

sued with respect to 2004 biological opinion issued by USFWS. Subsequently, USFWS re-issued the biological opinion in 2005; however, the Department of the Interior was sued in 2005 with respect to the re-issued biological opinion. The 2005 USFWS biological opinion was invalidated and United States District Court for the Eastern District of California (the Court) ordered a new biological opinion and issued interim operations orders to protect delta smelt until a new biological opinion could be issued in 2008. The interim operations criteria included limitations for operation of the SWP and CVP south Delta intakes to protect delta smelt.

In response to these actions, Reclamation requested consultation with USFWS and NMFS in August 2008 with respect to the coordinated long-term operation of the SWP and CVP. In December 2008, the USFWS issued a new biological opinion on the coordinated long-term operation of the SWP and CVP on the effects to delta smelt. In June 2009, the NMFS issued a new biological opinion on the coordinated long-term operation of the SWP and CVP on the effects to currently listed species (e.g., Central Valley spring-run Chinook salmon, Central Valley steelhead, Southern District Population Segment of North American green sturgeon, and Southern Resident killer whale). Reclamation provisionally accepted and then implemented the Reasonable and Prudent Alternatives included in these biological opinions. The operational criteria included in the Reasonable and Prudent Alternatives resulted in changes to operations of upstream reservoirs, stream flows, Delta outflow, and SWP and CVP south Delta intakes.

Several lawsuits were filed in the Court related to various aspects of the USFWS and NMFS biological opinions, and to the acceptance and implementation of the associated Reasonable and Prudent Alternatives by Reclamation. Between 2009 and 2010, the Court ruled that Reclamation failed to conduct an environmental analysis under the National Environmental Policy Act (NEPA) of potential impacts to the human environment before provisionally accepting and implementing the Biological Opinion Reasonable and Prudent Alternatives. In 2010, the Court found certain portions of the USFWS biological opinion to be arbitrary and capricious, and remanded those portions of the biological opinion to USFWS. The Court ordered Reclamation to review the biological opinion and Reasonable and Prudent Alternative in accordance with NEPA. In 2011, the Court remanded the biological opinion to NMFS.

Reclamation has continued the consultation with USFWS and NMFS for modification of the biological opinions, and has initiated the NEPA process through publication of the Notice of Intent on March 28, 2012. The Court order required completion by Reclamation of the Environmental Impact Statement (EIS) and the USFWS biological opinion related to delta smelt by December 1, 2013. The Court order also required completion by Reclamation of the EIS and the NMFS biological opinion related to Central Valley spring-run Chinook salmon, Central Valley steelhead, Southern District Population Segment of North American green sturgeon, and Southern Resident killer whale by February 1, 2016. The Court did not vacate the biological opinions and, therefore, SWP and CVP operations are analyzed each year with respect to the Reasonable and Prudent Alternatives.

The most recent Metropolitan Regional Urban Water Management Plan (RUWMP) (Metropolitan November 2010, page 1-18) indicates that operational constraints similar to the most recent biological opinions and associated Reasonable and Prudent Alternatives would likely be continued until future long-term plans, such as the Bay Delta Conservation Plan (BDCP), would be implemented. A similar discussion was included in the EMWD Urban Water Management Plan (UWMP) (2010, page 38).

To address potential constraints on the SWP, Metropolitan is working with stakeholders throughout the State to develop and implement long-term solutions to the problem in the Bay Delta. The BDCP developed by State and Federal resource agencies, addresses ecosystem needs and securing long-term operating permits for the SWP. A working draft of the BDCP was released in November 2010

and reflects significant progress toward consensus on a plan to restoring the Bay-Delta ecosystem and associated sensitive species and provide for improved water supply and reliability.

The Metropolitan RUWMP also indicates that the SWP supplies with these considerations plus other water supplies (e.g., conservation, local and regional supplies, and Colorado River) would be adequate to meet Metropolitan water demands during dry years when water supplies generally are restricted (Metropolitan November 2010, page 1-34, Figure 1-9). A similar discussion was included in the EMWD UWMP (2010, page 30, Table 3.3).

In evaluating the supply reliability for the 2010 RUWMP, Metropolitan assumed a new Delta conveyance would be fully operational by 2022, bringing supply reliability close to 2005 levels prior to supply restrictions imposed due to the Biological Opinions. This assumption is consistent with Metropolitan's long-term Delta action plan approved in 2007, and supported by recently passed legislation that included a roadmap for establishing governance structures and financing approaches to implement and manage a Delta solution. In response to the recent developments in the Delta, Metropolitan is engaged in planning processes that will identify solutions that, when combined with the rest of its supply portfolio, it will ensure a reliable long-term water supply for its member agencies. In the near term, Metropolitan will continue to rely on the plans and policies outlined in its RUWMP and Integrated Resources Plan (IRP) to address water supply shortages and interruptions (including potential shut downs of SWP pumps) to meet water demands. An aggressive campaign for voluntary conservation and recycled water usage, curtailment of groundwater replenishment water and agricultural water delivery are some of the actions outlined in the RUWMP. Metropolitan is maximizing supplies from existing agreements for water supply from its Palo Verde Crop Management and Water Supply Program and working with the State of Arizona in withdrawing water previously stored in that state's groundwater basin.

Imported sources of water will be supplemented by an increase in desalination of brackish groundwater, recycled water use, and water use efficiency. Metropolitan has analyzed the reliability of water delivery through the SWP and the Colorado River Aqueduct. Metropolitan's IRP and 2010 RUWMP conclude that, with the storage and transfer programs developed by Metropolitan, there will be a reliable source of water to serve its member agencies' needs through 2035.[1]

NOP/Scoping Comments. A few residents asked how much water the project would use and if there was enough if we had another drought.

4.16.1.2 Existing Policies and Regulations

Policies and regulations for water sources include the following:

- Federal Water Pollution Control Act;
- Water Conservation in Landscaping Act;
- Water Recycling in Landscaping Act;
- Sections 13550–13556 of the State Water Code;
- Urban Water Management Planning Act;
- Senate Bill 901;
- Senate Bill 610; and

[1] *Eastern Municipal Water District 2010 Urban Water Management Plan,* Eastern Municipal Water District, June 2011.

- City of Moreno Valley General Plan.

Federal Water Pollution Control Act. The Federal Water Pollution Control Act requires discharges (from point and non-point sources) into navigable water to meet stringent National Pollutant Discharge Elimination System (NPDES) permit standards. The U.S. Environmental Protection Agency (EPA) has published regulations establishing requirements for application of storm water permits for specified categories of industries, municipalities, and certain construction activities. The regulations require that discharges of storm water from construction activity of 1.0 acre or more must be regulated and covered by an NPDES permit. When a construction area exceeds 1.0 acre in size, the applicant must develop and implement a Storm Water Pollution Prevention Plan (SWPPP). Additional analysis and information regarding NPDES requirements and regulations is provided in Section 4.9, *Hydrology and Water Quality*, of this EIR.

Water Conservation in Landscaping Act. To ensure adequate supplies are available for future uses and to promote the conservation and efficient use of water, local agencies are required to adopt water-efficient landscape ordinances. When such an ordinance has not been adopted, a finding as to why (based on the climatic, geologic, or topographical conditions) such an ordinance is not necessary must be adopted. In the absence of such, an ordinance drafted by the State of California applies within the affected jurisdiction. The City of Moreno Valley implements landscape and irrigation design standards (Chapter 9.17 of the City's Municipal Code), which address the proper maintenance of landscaping or irrigation systems.[1]

Water Recycling in Landscaping Act. The Water Recycling in Landscaping Act requires that a water producer capable of providing recycled water that meets certain conditions notify local agencies eligible to receive the recycled water. It also requires necessary infrastructure be provided to support the delivery of recycled water. The EMWD enforces Ordinance No. 68.2 *Amended Rules and Regulations Governing the Provision of Recycled Water System Facilities and Service,* to promote the conservation and reuse of water resources and to ensure maximum public benefit from the use of the EMWD's recycled water supply by regulating its use in accordance with applicable Federal, State, and local regulations. Upon the determination that the EMWD is capable of providing recycled water services to the proposed site, the project applicant must submit an application form for the EMWD to review. The EMWD may prescribe requirements in writing to the applicant as to the off-site or on-site facilities necessary to be constructed, the manner of connection, the financial responsibility, and the use of the recycled water. Prior to receiving recycled water service, the proposed use shall be approved by the DHS. The EMWD will inspect on-site recycled water facilities to ensure initial and future continued compliance with the EMWD's regulations and other applicable requirements.

Sections 13550–13556 of the State Water Code. These sections of the State Water Code state that local, regional, or state agencies shall not use water from any quality source of potable water for non-potable uses if suitable recycled water is available as provided in Section 13550 of the Water Code.

Urban Water Management Planning Act (Cal. Water Code Section 10631). Since 1984, the Urban Water Management Planning Act, has required "urban water suppliers" to develop written "urban water management plans." While generally aimed at encouraging water suppliers to implement water conservation measures, it also created long-term planning obligations.

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[1] *Landscape Requirements City of Moreno Valley, California,* City of Moreno Valley.

In preparing urban water management plans, urban water suppliers must describe the following:

- Existing and planned water supply and demand;
- Water conservation measures and a schedule for implementing and evaluating such measures; and
- Water shortage contingency measures.

The Urban Water Management Planning Act requires that urban water suppliers use a 20-year planning horizon and update the data in the urban water plans every five years.

In preparing their 20-year management plans, water suppliers must directly address the subject of future population growth. The suppliers must also identify sources of supply to meet demand. The plan must "identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier." In identifying these future water sources, the suppliers need not conduct environmental review.

Senate Bill 901: Water Supply and Demand Reliability Assessment (Cal. Water Code Section 10910). Signed into law on October 16, 1995, Senate Bill 901 (SB 901) requires every urban water supplier to identify as part of its UWMP the existing and planned sources of water available to the supplier over a prescribed five-year period. SB 901 requires additional information to be included as part of an urban water management plan if groundwater is identified as a source of water available to the supplier. Provisions of SB 901 would require an urban water supplier to include in the plan a description of all water supply projects and programs that may be undertaken to meet total project water use. A city or county shall request each public water system serving a project to assess the projected water demand associated with said project and an assessment of whether the projected water demand associated with selected projects was included as part of the most recent UWMP. As part of this assessment, the public water system is required to indicate whether its total projected water supplies available during normal, single-dry, and multiple-dry water years will meet the project demand associated with the proposed WLC project, in addition to the public water system's existing and planned uses.

Pursuant to Section 10912 of the State Water Code, a "project" is specifically defined as development meeting any of the following criteria:

- 500 or more dwelling units;
- Commercial center employing more than 1,000 persons or having more than 500,000 square feet;
- Office building employing more than 1,000 persons or having more than 250,000 square feet;
- A hotel/motel with 500 or more rooms;
- An industrial, manufacturing, processing plant, or industrial park employing more than 1,000 persons or occupying more than 40 acres, or having more than 650,000 square feet of floor area;
- A mixed-use project that would demand an amount of water equal to the amount of water required by a 500-dwelling unit project; or
- In areas where the public water system has fewer than 5,000 service connections, any development that would increase water demand by 10 percent or greater in the number of existing service connections, or in the case of a mixed-use development, an increase in water required by residential development representing a 10 percent or greater increase in the number of existing service connections.

After receiving such information, cities and counties may agree or disagree with the conclusions of the water purveyors, but cannot approve projects in the face of documented water shortfalls without first making certain findings.

The proposed WLC project is an Industrial Specific Plan that would meet the definition of a "project" and the water purveyor (EMWD) is therefore required to conduct a Water Supply Assessment (included as Appendix J) to indicate a reliable supply of water for the proposed WLC project.

Senate Bill 610: Water Supply Planning (Cal. Water Code Section Sections 10910 through 10915). Signed into law October 9, 2001, Senate Bill 610 (SB 610) resulted in amendments to Section 21151.9 of the Public Resources Code. Additionally, several sections of the Water Code were amended, one was repealed, while portions of one section were added and/or repealed. Revising provisions established by SB 901 and SB 610 requires that any city or county having determined that a project is subject to CEQA identify any public water systems that may supply water for the project and to request those public water systems to prepare a specified water supply assessment if the project exceeds the specified threshold for a water supply assessment (WSA). Such an assessment would include, among other information, the following:

- Identification of existing water entitlements, water rights, or water service contracts relevant to the water supply identified for a proposed WLC project; and
- The amount of water received pursuant to such entitlements, rights, or contracts.

SB 610 requires the public water system, city, or county to submit plans for acquiring the required water supply for the proposed WLC project if the WSA concludes that water supplies are or will become insufficient. Any such WSA and other information would be included in the environmental document prepared for the project pursuant to CEQA. A WSA[1] was prepared for the proposed WLC project to identify existing water entitlements, water rights, and/or water service contracts relevant to the water supply as it relates to the operation of the proposed WLC project.

City of Moreno Valley General Plan. The following policies within the *Community Development Element* and *Conservation Element* of the *City of Moreno Valley General Plan* pertain to utilities and are applicable to the proposed WLC project.

Community Development Element Policies

Policy 2.11.1 Permit new development only where and when adequate water services can be provided.

Policy 2.13.1 Limit the amount of development to that which can be adequately served by public services and facilities, based upon current information concerning the capability of public services and facilities.

Policy 2.13.2 Unless otherwise approved by the City, public water, sewer, drainage and other backbone facilities needed for a project phase shall be constructed prior to or concurrent with initial development within that phase.

Policy 2.13.3 It shall be the ultimate responsibility of the sponsor of a development project to ensure that all necessary infrastructure improvements (including system-wide improvements) needed to support project development are available at the time that they are needed.

[1] *Water Supply Assessment for the World Logistics Center Specific Plan*, EMWD, March 21, 2012.

The following changes have been made in response to Comment F-13-32 in Letter F-13 from Johnson & Sedlack on Behalf of Sierra Club, Moreno Valley Group & Residents for a Livable Moreno Valley.

Conservation Element Policies and Objectives

Policy 7.3.1 Require water-conserving landscape and irrigation systems through development review. Minimize the use of lawn within private development, and within parkway areas. The use of mulch and native and drought-tolerant landscaping shall be encouraged.

Policy 7.3.2 Encourage the use of reclaimed wastewater, stored rainwater, or other legally acceptable non-potable water supply for irrigation.

Objective 7.5 Encourage efficient use of energy resources.

Policy 7.5.5 Encourage the use of solar power and other renewable energy systems.

4.16.1.3 Methodology

The WSA is based on evaluating the existing water supply available to the City, future water supply that is anticipated to be available to the City, and the identification of existing water demand and future demand with the development of the proposed WLC project. The analysis also identifies water conservation measures that would be incorporated by the proposed WLC project to reduce the project's total water demand, with special reference to outdoor water usage and associated landscaping systems.

4.16.1.4 Thresholds of Significance

The following thresholds of significance regarding impacts to utilities and service systems are based on the recommended questions contained in *Guidelines for California Environmental Quality Act* (as amended through January 1, 2011). A project would have a significant impact on the provision of utilities or service systems related to water supply if it would result in any of the following:

- Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; and/or
- Have insufficient water supplies available to serve the project from existing entitlements and resources, or need new or expanded entitlements.

For the purpose of this EIR, significant and unavoidable impacts would occur if the aforementioned conditions cannot be overcome by reasonable design, construction, and maintenance practices.

4.16.1.5 Less than Significant Impacts

4.16.1.5.1 Construction or Expansion of Water Treatment Facilities

Threshold	Would the proposed WLC project require the construction of new water treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?

As previously identified, Metropolitan currently does not have surplus water available, due in part to pumping restrictions imposed on the SWP to avoid and minimize impacts to Federal- and State-protected fish species in the Delta. Imported sources of water will be supplemented by an increase in desalination of brackish groundwater, recycled water use, and water use efficiency. Metropolitan and the EMWD have analyzed the reliability of water delivery through the SWP and the Colorado River Aqueduct. Metropolitan's IRP and 2010 RUWMP conclude that, with the storage and transfer programs developed by Metropolitan, there will be a reliable source of water to serve its member agencies' needs through 2035. Based on the WSA prepared for the proposed WLC project, water demand for the proposed on-site uses would total approximately 1,991.25 AFY.[1] As identified in previously referenced Table 4.16.A, anticipated water supplies for the EMWD total 213,900 and 302,200 AFY in 2015 and 2035. The water demand required for the proposed WLC project totals 0.93 and 0.66 percent of the 2015 and 2035 projected EMWD supplies.

The EMWD's *2010 Urban Water Management Plan* and Metropolitan's *2010 Regional Urban Water Management Plan*[2] have stated that, with the addition of all existing and planned water supplies, it would have the ability to meet all of its member agencies' projected supplemental demand through 2035, despite the latest ruling regarding the allocation of SWP water. This is based on continued commitment to conservation programs, water recycling, and development of local water resources.

While the EMWD is capable of meeting all of its member agencies' projected demand through 2035, other efforts are taken to further reduce the retail demand due to demographics change and population growth. Passive conservation efforts already implemented by the EMWD include adherence to the plumbing code and installation of low-flow toilets and showerheads in all new construction. In addition to passive programs, active conservation programs/measures are also implemented. The EMWD has implemented all of the California Urban Water Conservation Council (CUWCC) and Best Management Practices (BMPs). The CUWCC was created to increase efficient water use throughout the State through partnership with urban water agencies (including the EMWD), public interest organizations, and private entities. In 1992, the EMWD signed the CUWCC's Memorandum of Understanding (MOU) Regarding Water Conservation in California and committed to developing and implementing fourteen comprehensive BMPs for urban water management.

The BMPs correspond to the fourteen Demand Management Measures (DMMs) listed in the Water Code Section 10631 (f) and include the following:

- Water survey programs for single-family residential and multifamily customers;
- Plumbing retrofits;
- Distribution system water audits, leak detection, and repair;
- Metering with commodity rates;
- Large landscape water audits and incentives;
- High-efficiency washing machine rebates;
- Public information;
- School education;
- Commercial, industrial, and institutional water conservation;
- Wholesale agency programs;

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1 0.75 acre-foot per acre × 2,655 acres = 1,991.25 acre-feet per year.

2 *The Metropolitan Water District of Southern California Regional Urban Water Management Plan,* Metropolitan Water District of Southern California, November 2010.

- Conservation pricing;
- Conservation corridor;
- Water waste prohibition; and
- Ultra-low flush toilet replacements.

With implementation of passive and active conservation measures, the EMWD can significantly reduce its retail water demand and continue to do so in the future.

As previously identified, Metropolitan has analyzed the reliability of water delivery through the SWP and the Colorado River Aqueduct. Metropolitan's IRP and 2010 RUWMP conclude that, with the storage and transfer programs developed by Metropolitan, there will be a reliable source of water to serve its member agencies' needs through 2035.

The amount of water demand would be within the existing available supply even with a reduction in deliveries from the SWP. Imported sources of water will be supplemented by an increase in desalination of brackish groundwater, recycled water use, and water use efficiency, and implementation of aggressive conservation measures by the EMWD. The proposed WLC project would not require the construction of new water treatment facilities or expansion of existing facilities, which could cause significant environmental effects.

Annually, a 5-year Capital Improvement Plan (CIP) is prepared by the EMWD. The EMWD's CIP outlines specific projects and their funding sources. Each project is also submitted individually to the Board for authorization and approval. This allows the EMWD to match needed facilities with development trends accurately. Funding for the EMWD's microfiltration plants, distribution pipes, and the recharge and recovery program is listed in the most recent EMWD CIP.

All necessary water distribution facilities would be installed simultaneously with required roadway frontage improvements for each phase of development of the proposed WLC project. Therefore, the connection to the existing water delivery system would not result in substantial disturbance of existing roadways or water facilities. As previously identified, the potable water demand that would be required for the proposed WLC project would total 1,991.25 AFY. The amount of water demand would be within the existing available supply even with a reduction in deliveries from the SWP. Imported sources of water will be supplemented by an increase in desalination of brackish groundwater, recycled water use, and water use efficiency, and implementation of aggressive conservation measures by the EMWD. The proposed WLC project would not require the construction of new water treatment facilities or expansion of existing facilities, which could cause significant environmental effects.

It should be noted that the water consumption estimates in this section for future logistics uses within the WLCSP are likely overestimated by a significant factor, as a result of the emphasis on xeriscape or low-impact development (i.e., water conserving) design in the WLCSP. Sections 1.3.2 and 5.4) of the Specific Plan indicates that project design will incorporate features such as low-flow faucets and fixtures, rainwater harvesting systems for irrigation (where practical), and native non-irrigated landscaping to reduce the project's reliance on water. The size and composition of the landscape palette and the landscaping plan of the Specific Plan were developed in consultation with Robert Perry, a well-known horticultural scientist with many years of experience with drought-tolerant and low-water maintenance landscaping. Although water consumption on the WLC property will likely be much lower than anticipated, the analysis of environmental impacts relative to water consumption used a "worst-case" scenario as outlined in the WSA prepared by the EMWD (March 21, 2012).

Adherence to standard requirements identified by EMWD and the City associated with the design and installation of new water infrastructure, including the additional water storage tanks and connections to existing and future water infrastructure, would ensure that no significant impacts would result from the construction or operation of the proposed WLC project. Therefore, impacts related to this issue would be less than significant and no mitigation measures would be required other than those measures recommended in other sections addressing potential impacts of off-site improvements (e.g., cultural resources and biological resources).

In summary, development of the proposed WLC project will not result in the need for the construction of new water treatment facilities by the Eastern Municipal Water District, Metropolitan Water District of Southern California, or others. However, it will result in the need for several new water storage reservoirs, as shown in previously referenced Figure 3.7, *Offsite Improvement Areas*, and Figure 3.13, *Water System*.

4.16.1.6 Significant Impacts

4.16.1.6.1 Adequate Water Supply

Threshold	Would the proposed WLC project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

A project-specific WSA[1] was prepared for the proposed WLC project to assess the water supply availability to the project site to satisfy the requirements under SB 610 and to make a determination that adequate water supplies are and will be available to meet the water demand associated with the proposed WLC project. In accordance with Water Code Section 10910(d) – (f), the WSA identifies:

- Any existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed WLC project, and provides a description of the quantities of water received in prior years by the public water system, under existing water supply entitlements, water rights, or water service contracts.
- If no water has been received in prior years by the public water system, identify other public water systems or water service contract holders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts to the same source of water as the public water system.
- If groundwater is included in the proposed supply, identify the groundwater basin or basins from which the proposed WLC project will be supplied, and include any applicable documentation of adjudicated rights to pump. If the basin is not adjudicated, regardless of whether the basin has been identified as over-drafted, provide a detailed description and analysis of the amount and location of groundwater pumped by the public water system for the past five years from any groundwater basin from which the proposed WLC project will be supplied, and provide a detailed description and analysis of the amount and location of groundwater from the basin or basins from which the proposed WLC project will be supplied to meet the projected water demand associated with the proposed WLC project.

There has been a shift in the water demand patterns in the last 15 years, as the residential market has replaced the agricultural market as the largest local consumer of water. Metropolitan, based on

[1] *Water Supply Assessment for the World Logistics Center Specific Plan*, EMWD, March 21, 2012.

its 2010 RUWMP,[1] has stated that, with the addition of all water supplies existing and planned, it would have the ability to meet all of its member agencies' projected supplemental demand through 2035 even under a repeat of a worst drought scenario. Based on this assertion, the EMWD has stated it is able to meet an increased demand for water over the next 20 years, even during drought conditions. This is based on continued commitment to conservation programs, additional water recycling, and continued development of local water resources.

It should be noted that the project site currently contains several non-potable agricultural water wells, but no yields from these wells were used to calculate water supply or demand related to the proposed project.

The EMWD continues to work closely with Metropolitan in the implementation of water management plans as a means of ensuring the reliability of the EMWD's water supplies. Efforts to ensure reliable water supplies include the preparation and/or implementation of Groundwater Management Plans, Desalination Program, Seasonal Storage, and Conjunctive Use Water Recycling. The EMWD's 2010 UWMP presents fifteen DMMs related to water conservation and water recycling programs split into two types (Foundational and Programmatic).

The potable water demand estimated for the proposed WLC project is within the limit of retail growth projected by the EMWD. Table 4.16.B presents the EMWD's total water use. To develop the projections used in the WSA, the EMWD used a development-tracking database that assesses future water demands for specific projects. The EMWD uses this database to help plan for future water supply and infrastructure needs by monitoring new projects through various stages of development. Changes in density and land use are also tracked in this database for planning purposes.

Table 4.16.B: EMWD Average Water Demand (2010–2035)

	Actual	Projected				
Demand Sources (acre-feet/year)	**2010**	**2015**	**2020**	**2025**	**2030**	**2035**
Retail Potable Water Sales	77,700	113,800	120,700	136,100	150,300	162,200
Water Sales to Other Agencies	27,100	47,600	61,600	65,000	69,000	72,400
Other Water Uses/Losses	49,900	52,500	59,100	64,200	66,300	67,600
Total Average Demand	**154,700**	**213,900**	**241,400**	**265,300**	**285,600**	**302,200**

Source: *Water Supply Assessment, Table 9*, EMWD, March 21, 2012.

The EMWD's *2010 UWMP* also discusses the supply reliability for the EMWD during dry years. The supply for dry years is driven by demand. Demand increases slightly (less than 2%) during dry years, primarily due to the increased demand in winter for landscaping or agricultural water, and can be decreased up to 10 percent due to conservation as dry periods are extended. Tables 4.16.C, 4.16.D, and 4.16.E present estimates of demand from 2015 to 2035 in five-year increments for an average year, single dry year, and multiple dry years, respectively.

Neither groundwater production nor recycled water deliveries are expected to increase or decrease significantly during dry years. The EMWD depends on Metropolitan to supply additional water during dry years. Based on Metropolitan's 2010 RUWMP, the EMWD is confident of its ability to meet customer demands beyond the next 20 years in all reasonably predictable hydrological scenarios. For water shortages and interruptions, the plans and policies outlined in the RUWMP will be implemented.

[1] IRPSIM is a sophisticated water supply and demand-balancing model that utilizes 77 sequential hydrologies to determine variations in supply and demand due to changes in weather conditions.

Table 4.16.C: EMWD Water Resources, Average Year Hydrology (2015–2035)

Water Conditions [1]	2015	2020	2025	2030	2035
Metropolitan Water District	149,300	170,700	190,700	210,000	226,200
Recycled Water	43,900	50,000	53,900	54,900	55,300
Groundwater	13,200	13,200	13,200	13,200	13,200
Existing Desalter	7,500	7,500	7,500	7,500	7,500
Existing Total Supplies	**213,900**	**241,400**	**265,300**	**285,600**	**302,200**
Total Projected Demand	**213,900**	**241,400**	**265,300**	**285,600**	**302,200**

[1] based on a repeat of 2004–2009 conditions
Source: *Water Supply Assessment, Table 11*, EMWD, March 21, 2012.

Table 4.16.D: EMWD Water Resources, Single Dry Year Hydrology (2015–2035)

Water Conditions [1]	2015	2020	2025	2030	2035
Metropolitan Water District	155,300	177,600	198,300	218,300	235,100
Recycled Water	45,500	51,800	55,800	56,900	57,300
Groundwater	13,200	13,200	13,200	13,200	13,200
Existing Desalter	7,500	7,500	7,500	7,500	7,500
Existing Total Supplies	**221,500**	**250,100**	**274,800**	**295,900**	**313,100**
Total Projected Demand	**221,500**	**250,100**	**274,800**	**295,900**	**313,100**

[1] based on a repeat of 1977 conditions
Source: *Water Supply Assessment, Table 12*, EMWD, March 21, 2012.

Table 4.16.E: EMWD Water Resources, Multiple Dry Years Hydrology (2015–2035)

Water Conditions [1]	2015	2020	2025	2030	2035
Metropolitan Water District	156,600	179,000	199,800	219,900	236,900
Recycled Water	45,800	52,200	56,200	57,300	57,700
Groundwater	13,200	13,200	13,200	13,200	13,200
Existing Desalter	7,500	7,500	7,500	7,500	7,500
Existing Total Supplies	**223,100**	**251,900**	**276,700**	**297,900**	**315,300**
Total Projected Demand	**223,100**	**251,900**	**276,700**	**297,900**	**315,300**

[1] based on a repeat of 1990–1992 conditions
Source: *Water Supply Assessment, Table 13*, EMWD, March 21, 2012.

NOTE: The following revision has been added in response to Comment F-1-74 in Letter F-1 from the Center for Biological Diversity/San Bernardino Valley Audubon Society and F-11-44 in Letter F-11 from the Sierra Club.

The Water Supply Assessment considered the impact of climate change on water supplies. Climate change has the potential to affect not only local demand and supplies, but to reduce the amount of water available for import. Potential changes that may impact water supply include:

- Warmer temperatures leading to higher demand for water within EMWD's service area and throughout California;
- Reduction in the Sierra Nevada snow pack;
- Increased intensity and frequency of extreme weather events; and

- Rising sea levels resulting in increased risk of damage from storms in the Delta, high tide event and the erosion of levees in the Delta.

One of the outcomes of climate change could be more frequent limitations on imported supplies. To limit the impact of climate change, EMWD's long term planning focuses on the development of reliable local recourses and the implementation of water use efficiency. This includes the full utilization of recycled water and the recharge of local groundwater basins to increase supply reliability during periods of water shortage. EMWD is also focused on reducing demand for water supplies, especially outdoors. Increasing the use of local resource and reducing the need for imported water has the dual benefit of not only improving water quality reliability, but reducing the energy required to import water to EMWD's service area. The project developer is committed to water use efficiency and minimizing the use of potable water for landscape irrigation by using low water use fixtures, drought tolerant plants and recycled water where available as outlined in Mitigation Measure 4.16.1.6.1B.

It is anticipated that the majority of water for future development would be supplied by imported water from Metropolitan, recognizing the following conditions:

- The ability of Metropolitan to meet the demands of member agencies as described in the 2010 RUWMP as the majority of EMWD's current and future supply rely on Metropolitan's supplies. This assessment is based on representations by Metropolitan that it will provide the water requested by the EMWD for the next 20 years under the conditions set forth in Water Code Section 10910 as authorized by Water Code Section 10631(k). This assessment is subject to review, modification, or rescission in the event that regulations, court decisions, or other events reduce or impair Metropolitan's ability to provide such water.
- The cost of new water supplies will continue to increase. The developer of this project is required to help fund the acquisition of new water supplies, new treatment or recycled water facilities, and water efficiency measures for existing customers to develop new water supplies.
- New customers may also be required to pay a higher commodity rate for water used than existing customers to offset the rising costs to the EMWD for new water supplies.
- The developer will install water-efficient devices such as low-flow toilets and landscaping according to the requirements of the EMWD's water use efficiency ordinance(s) at the time of construction to reduce the impact of this project on water supplies.

Metropolitan does not place imported water limits on a member agency, but predicts the future water demand based on regional growth information. Metropolitan stated in its 2010 RUWMP that, with the addition of all water supplies, existing and planned, Metropolitan would have the ability to meet all of its member agencies' projected supplemental demand through 2035 even under a repeat of historic drought scenarios. For any short-term water shortages and interruptions caused by disaster or unprecedented drought, the plans and policies outlined in the 2010 RUWMP will be implemented.

The proposed WLC project may be conditioned by the City to construct off-site and on-site water facilities needed to distribute water throughout the project area. A plan of service for the proposed WLC project would be approved by the EMWD that would identify specific on-site improvements. The nearest recycled water line is a 24-inch transmission main located approximately 0.25 mile southwest of the project site, at the intersection of Redlands Boulevard and Cactus Avenue. Although currently active recycled water lines are not adjacent to the project site, in the future, it may be possible to serve this project site with recycled water. Irrigated landscaped areas of the proposed WLC project site will be designed to connect to the recycled water system and would utilize recycled water in landscape areas to the extent feasible. EMWD policy recognizes recycled water as the preferred source of supply for all non-potable water demands, including irrigation of recreation areas, green-belts, open space common areas, commercial landscaping, and supply for aesthetic impoundment or

other water features. The majority of irrigated landscaped areas within the project site will be designed to use recycled water to the greatest extent possible when it becomes available.

Water Demand Based on the Existing General Plan Land Uses for the Project Site. As noted in Section 3.0, *Project Description*, the Community Development Element[1] of the City's General Plan currently designates the project site as a mix of residential, commercial, business park, and open space land uses. These land use designations are based on the previously approved (1992) Moreno Highlands Specific Plan (MHSP) and were used in developing EMWD's 2010 UWMP. Table 4.16.F summarizes the current land use designations at the project site, their associated acreages, and expected water demand from the 1992 MHSP EIR. The EIR prepared for the MHSP indicated that project would consume 11.8 million[2] gallons per day (mgd) or 9,840 acre-feet/year (AFY) of water at buildout of all the residential and non-residential uses.

Table 4.16.F: Moreno Highland Specific Plan Land Use Designations and Acreages

Land Use Designation	Acreage	Demand (AFY)
Residential Community		
Residential (7,763 dwelling units)	1,359.3	4,315
Parks and Open Space	701.9	3,159
Neighborhood Commercial	10.0	22
Cemetery	16.5	74
Public Facilities	347.7	1,168
Planned Business Center		
Business Park	360.8	271
Mixed Use	80.5	218
Community Commercial	16.0	36
Parks and Open Space	77.9	351
Public Facilities	67.4	226
Total	**3,038**	**9,840**

Source: Moreno Highlands Specific Plan, 1992.

The WSA prepared for the proposed project by the EMWD concluded that the water demand for the proposed on-site uses would be approximately 1,991.25 AFY.[3] The EMWD considers this a "worst-case" estimate based on the total acres and amount of square footage of warehousing proposed by the project. This estimate does not take into account the proposed project landscaping design with xeriscape (drought-tolerant plants) and on-site collection of runoff and channeling it to landscaped areas to minimize irrigation on the interior of the project site. For example, the "Water Budget Technical Memorandum' prepared by CH2MHill (see Appendix N) in September 2011 for the WLC project indicates that actual water usage of on-site buildings, based on the specific development characteristics of the WLC Specific Plan, would be on the order of 450 AFY, which is less than a quarter of the amount estimated by EMWD; however, this estimate does not include on-site irrigation of landscaping and could only be achieved if all on-site landscaping was irrigated by collection and distribution of on-site runoff from roofs and hardscape areas.

1 *City of Moreno Valley General Plan Community Development Element,* City of Moreno Valley, July 11, 2006.
2 Based on 27,015 population times 200 gallons/person/day and 24,019 jobs at buildout
3 *Water Supply Assessment Report for the World Logistics Center Specific Plan in Moreno Valley,* Eastern Municipal Water District, March 21, 2012.

Taking into account the proposed water xeriscape landscaping plan, it is likely that actual water use for development within the WLC Specific Plan will be substantially less than the worst-case EMWD estimate. Therefore, for the purposes of analysis in this EIR, both the CH2MHill figure of 450 AFY and the EMWD's worst-case estimate of 1,991 AFY figure will be used relative to water consumption. Under either scenario, the anticipated water demand for the proposed WLC project is substantially less than what is identified above for the General Plan land uses and what was used in the formulation of the 2010 UWMP. As identified in previously referenced Table 4.16.A, anticipated water supplies in the EMWD total 213,900 and 302,200 AFY in 2015 and 2035, respectively. The water demand required for the proposed WLC project would total 0.93 and 0.66 percent of the EMWD's 2015 and 2035 supplies under worst-case conditions. The demand estimated for this project is substantially less and therefore still within the limit of growth projected in the 2010 UWMP.

When compared to the currently approved MHSP, there would be an 80 percent decrease in projected water demand (7,849 AFY) with the development of the proposed WLC project. The site's water usage would decrease under the current development plan for the proposed WLC project and it would remain lower than what is anticipated in the General Plan and the 2010 UWMP. Additionally, the increased water demand for the site has been analyzed by the WSA, which determined that a suitable water supply exists for the proposed WLC project well into the future.

The project's water consumption represents substantially less than 1 percent of the consumption yearly capacity and because the EMWD indicates that water to service the project's proposed industrial uses is available, no significant water supply impacts would occur with implementation of the industrial use, and no mitigation would be necessary.

Metropolitan is currently engaged in planning processes that will identify solutions that, when combined with the rest of its supply portfolio, will ensure a reliable long-term water supply for its member agencies, the EMWD has determined that it will be able to provide adequate water supply to meet the potable water demand for the project in addition to existing and future users. However, until these supplies are secured, potential impacts of the proposed project on regional water supplies may be significant, and mitigation is required.

Specific Plan Design Features. Section 6.0 of the Specific Plan requires the careful use of xeriscape or drought-tolerant vegetation with minimal mechanical irrigation to minimize water use for landscaping. Sections 4.2 and 5.4 require implementation of water-conserving landscaping and Section 5.2.3 provides architectural design guidelines that will help minimize the consumption of water for landscape irrigation.

Mitigation Measures. The following measures are recommended to help ensure that the proposed WLC project will have less than significant impacts on long-term regional water supplies.

4.16.1.6.1A Prior to ~~issuancerecordation of a Final Map~~ approval of a precise grading permit for each plot plan for development within the World Logistics Center Specific Plan (WLCSP), the developer shall submit landscape plans that demonstrate compliance with the World Logistics Center Specific Plan, the State of California Model Water Efficient Landscape Ordinance (AB 1881), and Conservation in Landscaping Act (AB 325). ~~Landscape plans shall be approved prior to issuance of building permits and~~ This measure shall be implemented to the satisfaction of the Planning Division. Said landscape plans shall incorporate the following:

- Use of xeriscape, drought-tolerant, and water-conserving landscape plant

materials wherever feasible and as outlined in Section 6.0 of the World Logistics Center Specific Plan;

- Use of vacuums, sweepers, and other "dry" cleaning equipment to reduce the use of water for wash down of exterior areas;
- Weather-based automatic irrigation controllers for outdoor irrigation (i.e., use moisture sensors);
- Use of irrigation systems primarily at night or early morning, when evaporation rates are lowest;
- Use of recirculation systems in any outdoor water features, fountains, etc.;
- Use of low-flow sprinkler heads in irrigation system;
- Provide information to the public in conspicuous places regarding outdoor water conservation; and
- Use of reclaimed water for irrigation if it becomes available.

4.16.1.6.1B ~~Prior to issuance of any building permit for development within the WLCSP, the developer~~ All buildings shall ~~submit building plans that demonstrate the project has~~ include water-efficient design features outlined in Section 4.0 of the ~~WLCSP including~~ World Logistics Center Specific Plan. This measure shall be implemented to the satisfaction of the Land Development Division/Public Works. These design features shall include, but not be limited to the following:

- Instantaneous (flash) or solar water heaters;
- Automatic on and off water facets;
- Water-efficient appliances;
- Low-flow fittings, fixtures and equipment;
- Use of high efficiency toilets (1.28 gallons per flush [gpf] or less);
- Use of waterless or very low water use urinals (0.0 gpf to 0.25 gpf);
- Use of self-closing valves for drinking fountains;
- Infrared sensors on drinking fountains, sinks, toilets and urinals;
- Low-flow showerheads;
- Water-efficient ice machines, dishwashers, clothes washers, and other water-using appliances;
- Cooling tower recirculating system where applicable;
- Provide information to the public in conspicuous places regarding indoor water conservation; and
- Use of reclaimed water for wash down if it becomes available.

4.16.1.6.1C Prior to ~~issuance of any~~ approval of a precise grading permit for ~~development within~~ each plot plan, irrigation plans shall be submitted to and approved by the ~~WLCSP, the developer shall submit irrigation plans that~~ ~~demonstrate~~ City demonstrating that the development will have separate irrigation lines for recycled water. ~~The irrigation~~

~~plans shall be approved prior to issuance of a building permit.~~ All irrigation systems shall be designed so that they will function properly with recycled water if it becomes available. This measure shall be implemented to the satisfaction of the City Planning Division and Land Development Division/Public Works.

Level of Impact After Mitigation. With implementation of the recommended mitigation measures, expected impacts to water supply over the long term will be reduced to less than significant levels.

4.16.1.6.2 Storm Water Drainage Requirements

Threshold	Would the proposed WLC project result in the construction of new storm_water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

As identified in the *Draft Master Plan of Drainage Report for World Logistics Center Specific Plan and Environmental Impact Report*[1] (Draft Drainage Report) and Section 4.9, *Hydrology and Water Quality*, the proposed WLC project storm water flows from the project site eventually drain into the Perris Valley Storm Channel (PVSC) then into Reach 3 of the San Jacinto River. The storm channel is owned and maintained by the Riverside County Flood Control and Water Conservation District (RCFCWCD). Flows routed to the PVSC are transported through Perris Valley and ultimately to the San Jacinto River. Flows are then conveyed through the San Jacinto River, Canyon Lake, again to the San Jacinto River (Reach 1), and ultimately to Lake Elsinore. In the event Lake Elsinore is at or beyond capacity, flows continue through Temescal Creek, the Santa Ana River (Reaches 1–3) and then to the Pacific Ocean.

~~The proposed WLC project includes the development of up to approximately 41.6 million square feet of logistics warehouse facilities and related uses on approximately 2,635 acres.~~ It is anticipated that the development of these logistics warehouse facilities would include the construction of buildings, parking areas, sidewalks, roads and other infrastructure such as water, recycled water, and sewer infrastructure features. Because the development of the proposed WLC project would introduce a greater percentage of impervious surfaces, the post-development flow volumes generated on site are anticipated to be substantially higher than the pre-development flows.

Conditions resulting from this change would include increased runoff volumes and velocity; reduced infiltration; increased flow frequency, duration, and peak; shorter time to reach peak flow; and degradation in water quality. The majority of the proposed WLC project area currently has a low runoff coefficient, meaning that runoff during storms represents a relatively small portion of the total rainfall. The majority of the precipitation, particularly in smaller storms, infiltrates into the subsurface. The development of the proposed WLC project with impervious surfaces (such as roadways, parking lots, and buildings) would result in a condition in which nearly all rainfall becomes runoff. A significant impact would occur in the event that post-development storm water flows are greater than pre-development storm water flows leaving the site.

As detailed in the *Draft Master Plan of Drainage Report,*[2] the storm water runoff from the proposed WLC project site generally flows in a southerly direction toward the San Jacinto River. A topographic divide generally located west of Theodore Street separates storm water flows to the San Jacinto River in two directions. Runoff east of the divide flows at a gradient ranging from 1 to 2 percent

[1] *Draft Master Plan of Drainage Report for World Logistics Center Specific Plan and Environmental Impact Report*, CH2M Hill, September 2014~~November 2012~~.
[2] *Ibid.*

toward the San Jacinto Wildlife Area (SJWA) and ultimately drains toward the Gilman Hot Springs hydro-subarea; and runoff west of the divide flows to the Perris Valley Storm Drain at a gradient ranging from 1 to 2 percent and ultimately drains toward the Perris Valley hydro-subarea. Both hydro-subareas eventually flow to the San Jacinto River, approximately 10 miles south of the project site. The project site is located in the Moreno Valley drainage area and is tributary to the San Jacinto River.

The westerly portion of the proposed WLC project site is located within the Moreno Master Drainage Plan (MMDP). The existing MMDP indicates that storm flows north of SR-60 will be routed to the proposed Sinclair Detention Basin. Flows released from the proposed basin will pass under SR-60 through the existing culverts and be conveyed to the drainage system identified as Line “F” in MMDP. The proposed basin will not be constructed prior to the proposed WLC project; therefore, this analysis assumes that the Sinclair Detention Basin is not in place prior to construction and operation of the proposed WLC project.

As detailed in the *Draft Master Plan of Drainage Report*, storm flows originating from the Badlands reaching SR-60 are conveyed through a series of five culverts under SR-60 between Redlands Boulevard and Theodore Street, to earthen ditches that flow in a southerly direction. Based on the Logistic Building Runoff Management Plan (LBRMP) prepared by RBF in 2008, some of the culverts were partially blocked by sediment and debris allowing little flow from the culverts to enter the proposed WLC project site thus attenuating the flow during a 100-year storm event. Drainage peak flow rates from water ponds north of SR-60 are reduced due to the capacity of the existing culverts. As part of the construction of the Highland Fairview Corporate Park (HFCP) project, these existing culverts were combined into a 12-foot by 8-foot reinforced concrete box (RCB).[1] The RCB drains to the south along the west side of the logistics building within the HFCP project. A 36-inch and 42-inch storm drain underlying Eucalyptus Avenue join the RCB. The outflow from the drainage system sheet flows via a spreading area in to the agricultural land downstream. Farther south, the agricultural land drains to a RCFCWCD earthen channel at Redlands Boulevard, which flows to a Greenbelt Channel located south of Cactus Avenue and East of Redlands Boulevard and ultimately drains to the Perris Valley Storm Drain. Along the east side of Redlands Boulevard from Dracaea Street to the earthen channel collects flows from the west side of the project boundary. The v-ditch also outlets to the existing RCFCWCD earthen channel.

Open ditches along the Theodore Street convey runoff from adjacent areas. A series of existing drainage culverts crosses Gilman Springs Road conveying off-site runoff from the Badlands area onto the project site. Four of these culverts drain into somewhat defined natural drainage courses and drain into the SJWA. The existing culverts along Gilman Springs Road are undersized and therefore inadequate. The culverts provide some level of peak flow mitigation under a 100-year storm event; however, runoff will pond and overtop the road crossing onto the eastern portion of the proposed WLC project site. Therefore, the existing drainage courses in this area are undersized for the 100-year flow.

Previously referenced Tables 4.9.L, 4.9.M, and 4.9.N (Section 4.9, *Hydrology and Water Quality*) identify changes in the flows, velocities, and volume of storm water runoff that would result from the development of buildings and impermeable surfaces without and with the development of the on-site basins. Due to the installation of impervious surfaces on the project site, the post-development flows would be higher than the pre-development flows. To avoid a significant impact to the existing drainage capacity, the post-development flows coming from the proposed WLC project site are

[1] The drainage facilities planned in the RCFCWCD MMDP (dated April 1991) were considered and incorporated in to the RCB storm drain system.

required to be equal to or less than pre-development flows.[1] To reduce flows to below or equal to pre-development conditions, the on-site storm water flows would be routed to a series of on-site detention and infiltration basins[2] by phase before flows are routed off site. While the increase in impervious surfaces attributable to the proposed WLC project would contribute to a greater volume and higher velocity of storm water flows, the proposed WLC project's detention and infiltration basins would accept and accommodate runoff that would result from project construction at pre-project conditions (previously referenced Tables 4.9.L, 4.9.M and 4.9.N).

As identified in the *Draft Master Plan of Drainage Report*[3] prepared for the project, the hydrology analysis consisted of dividing the area into six existing and proposed off-site and on-site tributary areas (A through F; refer to previously referenced Figure 4.9.1). There are five proposed drainage systems to be constructed as part of the proposed WLC project and are identified as Line A (consistent with Line F in the MMDP), Line B, Line C, Line D, and Line F as depicted in previously referenced Figure 4.9.4. Hydrologic modeling results identify that the 100-year 3-hour storm provides the highest peak flows.

The land uses and roadway facilities proposed under the Specific Plan would require modifications to the existing sub watersheds of the project vicinity. Table 4.16.G provides a comparison of the existing and proposed drainage areas and shows the proposed modifications to the existing sub watersheds would not substantially alter the existing drainage pattern of the project vicinity. A comparison of the total area in acres shows no change.

Table 4.16.G: Comparison of Existing and Proposed Drainage Areas (Revised)

Existing Condition			Proposed Condition		
Watershed	**Area (acres)**	**Hydro-subarea**	**Watershed**	**Area (acres)**	**Hydro-subarea**
A	2,657	Perris Valley	A	2,746	Perris Valley
B	1,361	Gilman Hot Springs	B	1,147	Gilman Hot Springs
C	1,061	Gilman Hot Springs	C	1,149	Gilman Hot Springs
D	965	Gilman Hot Springs	D	1,013	Gilman Hot Springs
E	2,510	Gilman Hot Springs	E	2,545	Gilman Hot Springs
F	445	Gilman Hot Springs	F	399	Gilman Hot Springs
Total	**8,999**			**8,999**	

Source: Table 4.1, Draft Master Plan of Drainage Report, CH2MHILL, ~~November 2013~~ September 2014

To adequately contain and store the greatest volume that would be generated during the 2-year, 5-year, 10-year, and 100-year storm events (i.e., 100-year 3-hour storm event), the project site would require the construction of on-site detention and infiltration basins, on-site culverts, and on-site energy dissipaters. Table 4.16.H provides a comparison of the existing and proposed storm water runoff for the 100-year 3-hour storm events. As shown in Table 4.16.H, the proposed WLC project site in the existing condition currently discharges at a rate of 2,~~810~~470 cfs to the Perris Valley Hydro-Subarea and 5,250 cfs to the Gilman Hot Springs Hydro-Subarea. With the installation of the on-site detention basins, culverts, and energy dissipaters, expected discharges that would occur as a result

[1] As part of the MS4 Permit issuance requirements, projects must identify any Hydrologic Conditions of Concern and demonstrate that changes to hydrology are minimized to ensure that post-development runoff rates and velocities from a site do not adversely impact downstream erosion, sedimentation or stream habitat.

[2] A detention basin is an area where excess storm water is stored or held temporarily and then slowly drains when water levels in the receiving channel recede. In essence, the water in a detention basin is temporarily detained until additional room becomes available in the receiving channel.

[3] *Draft Master Plan of Drainage Report for World Logistics Center Specific Plan and Environmental Impact Report*, CH2M Hill, September 2014~~November 2012~~.

of development of the site under the Specific Plan would discharge at a rate of 2,~~190~~170 cfs to the Perris Valley Hydro-Subarea and ~~5,020~~4,665 cfs to the Gilman Hot Springs Hydro-Subarea, which is less than the existing condition.

Table 4.16.H: Comparison of Existing and Proposed Storm Water Runoff for 100-Year 3-Hour Storm Event (Revised)

Hydro-Subarea	Watershed	Existing Condition	Proposed Condition
		Peak Discharge (cfs)	
Perris Valley	A	2,470	2,170
Gilman Hot Springs	B	1,130	930
	C	820	750
	D	815	795
	E	1,990	1,800
	F	495	390
	Total	**5,250**[1]	**4,665**

Source: Table 4-2 Draft Drainage Report, CH2MHill, ~~November 2013~~ September 2014

Specific Plan Design Features. The preceding information has outlined the Drainage Master Plan (DMP) for the proposed WLCSP. The DMP is designed to retain increased on-site runoff that will occur due to the presence of more impervious surfaces (e.g., roofs, parking lots, and streets) and channel it to landscaped areas. The DMP is also designed to prevent off-site runoff from exceeding that which occurs under existing conditions. Section 6.0 of the Specific Plan requires the careful use of xeriscape or drought-tolerant vegetation with minimal mechanical irrigation to minimize water use for landscaping. Sections 4.2 and 5.4 require implementation of water-conserving landscaping, and Section 5.2.3 provides architectural design guidelines that will help minimize the consumption of water for landscape irrigation.

In addition to the Specific Plan design features, the following mitigation is recommended to ensure that impacts associated with project-related drainage capacity are reduced to less significant levels.

Mitigation Measures. Implementation of **Mitigation Measure 4.16.1.6.2A** would ensure that the proposed WLC project would not result in storm water drainage flows that would require the construction of new storm water drainage facilities or expansion of existing storm water drainage facilities that would in turn cause significant environmental effects.

~~**4.16.1.6.2A** Concurrent with the submittal of applications for discretionary approvals in the WLCSP, the applicant shall submit grading and drainage studies for each development area, with supporting engineering calculations, to the City Engineer for review and approval. The plans shall specify that detention basins shall be placed within each proposed watershed to mitigate the impacts of increased peak flow rate, velocity, flow volume, and reduced time of concentration by storing increased runoff for a limited period of time and release of the outflow in a way that the flow existing the project boundary will return to a sheet flow pattern similar to the existing condition. This measure shall be implemented to the satisfaction of the City Engineer.~~

~~**4.16.1.6.2B** Concurrent with the submittal of applications for discretionary approvals along the southern boundary of the WLCSP, the applicant shall submit grading and~~

~~drainage studies, with supporting engineering calculations, to the City Engineer for review and approval. The plans shall specify that energy dissipaters shall be used in the spillways of basins to reduce the runoff velocity and dissipate the flow energy. Basins with weir structures shall be constructed where the existing drainages exit the WLCSP property onto the San Jacinto Wildlife Area property to spread the outflow in a way that the flow exiting the project boundary will return to a sheet flow pattern similar to the existing condition. This measure shall be implemented to the satisfaction of the City Engineer.~~

~~**4.16.1.6.2C** Concurrent with the submittal of applications for discretionary approvals in the WLCSP, the applicant shall submit a concept grading and drainage plan, with supporting engineering calculations, to the City Engineer for review and approval. The plans shall specify that offsite flows shall be conveyed through the project in such a way~~

4.16.1.6.2A ~~**4.16.1.6.2C** Concurrent with the submittal of applications for discretionary approvals in the WLCSP, the applicant shall submit a concept grading and drainage plan, with supporting engineering calculations, to the City Engineer for review and approval. The plans shall specify that offsite flows shall be conveyed through the project in such a way~~ Each Plot Plan application for development shall include a concept grading and drainage plan, with supporting engineering calculations. The plans shall be designed such that the existing sediment carrying capacity of the drainage courses exiting the project area is similar to the existing condition. The runoff leaving the project site shall be comparable to the sheet flow of the existing condition to maintain the sediment carrying capacity and amount of available sediment for transport so that no increased erosion will occur downstream. This measure shall be implemented to the satisfaction of the City ~~Engineer~~ Land Development Division/Public Works.

Level of Significance after Mitigation. Adherence to **Mitigation Measure 4.16.1.6.2A** would result in the project's compliance with the City's existing storm water infrastructure requirements, reducing the potential impact associated with storm water drainage capacity to a less than significant level. Discussion of hydrological impacts from construction and operation of the WLC project are addressed in Section 4.9.6.1, *Construction-Related Water Quality Impacts,* and Section 4.9.6.2, *Operational Water Quality Impacts.*

4.16.1.7 Cumulative Impacts to Water Supply Services

The cumulative area for water supply-related issues is the EMWD service area (previously referenced Figure 4.16.1). Existing and future development within the EMWD's service area would demand additional quantities of water. The adopted UWMP (2010) projects population within the EMWD service area to increase to 1,111,729 persons by the year 2035. Increases in population, square footage, and intensity of uses would contribute to increases in the overall regional water demand. The anticipated conversion of water-intensive uses (i.e., agriculture) and the implementation of existing water conservation measures and recycling programs would reduce the need for increased water supply.

As previously identified, Metropolitan will continue to rely on the plans and policies outlined in its RUWMP and IRP to address water supply shortages and interruptions (including potential shut downs of SWP pumps) to meet water demands. An aggressive campaign for voluntary conservation and

recycled water usage, curtailment of groundwater replenishment water and agricultural water delivery are some of the actions outlined in the RUWMP. As previously stated, Metropolitan currently does not have surplus water available, due in part to pumping restrictions imposed on the SWP in place to avoid and minimize impacts to Federal- and State-protected fish species in the Delta. However, Metropolitan has analyzed the reliability of water delivery through the SWP and the Colorado River Aqueduct. Metropolitan's IRP and RUWMP conclude that, with the storage and transfer programs developed by Metropolitan, there will be a reliable source of water to serve its member agencies' needs through 2035. The EMWD would have water supplies for projected growth through 2035 in wet, dry, and multiple-dry years, so cumulative impacts to water supply would be less than significant. The proposed WLC project would connect to existing conveyance infrastructure and adequate treatment capacity is available, so the proposed WLC project would not make a significant contribution to any cumulatively considerable impacts on water supply or infrastructure.

With implementation of the WLC Specific Plan as proposed and **Mitigation Measures 4.16.6.1A** through **4.16.6.1C**, potential cumulative impacts to regional long-term water supplies will not be cumulatively considerable.

4.16.2 Wastewater Services

4.16.2.1 Existing Setting

The EMWD and the Edgemont Community Services District (ECSD) provides wastewater (sewer) services in the City of Moreno Valley. The EMWD provides wastewater treatment, collection, and disposal service to most of the City and surrounding area and the ECSD provides sewer service to a small area in the southwestern portion of the City limits. The EMWD owns, operates, and maintains four regional water reclamation facilities including the Moreno Valley Regional Water Reclamation Facility (MVRWRF). The MVRWRF facility is located south of the City limits and east of Perris Boulevard, south and adjacent to Mariposa Avenue. The MVRWRF treats domestic, commercial, and industrial wastewater, and currently accepts an average daily flow of approximately 11.2[1] mgd, with an existing capacity of approximately 16 mgd.[2] Reclaimed water from the MVRWRF is primarily used to irrigate agriculture lands, greenbelts, and median strip areas. The existing development on the site (seven residences and associated farming facilities) is served by private septic tank systems. An existing sewer pipeline is located underlying Redlands Boulevard along the western perimeter of the project limits and Fir Avenue along the northern perimeter of the project limits.

NOP/Scoping Comments. No comments were received during the scoping period specifically regarding wastewater service.

4.16.2.2 Existing Policies and Regulations for Wastewater Services

Federal Water Pollution Control Act The major piece of Federal legislation dealing with wastewater is the Federal Water Pollution Control Act, which is designed to restore and preserve the integrity of the nation's waters. In addition to the Federal Water Pollution Control Act, other Federal environmental laws have a bearing on the location, type, planning, and funding of wastewater treatment facilities.

[1] Plus 0.4 mgd diverted to the Perris Valley Regional Water Reclamation Facility.
[2] Eastern Municipal Water District Moreno Valley Regional Water Reclamation Facility, http://www.emwd.org/modules/showdocument.aspx?documentid=1423, website accessed April 3, 2012.

Regional Water Quality Control Board. Operation of the MVRWRF is subject to regulations set forth by the California Department of Health Services (DHS) and the Regional Water Quality Control Board (RWQCB). NPDES permits are required for operators of publically owned treatment works, municipal separate storm sewer systems (MS4s), construction, projects, and industrial facilities who discharge to surface waters within the City.

City of Moreno Valley General Plan. The following are policies in the City's General Plan that pertain to wastewater services and are applicable to the proposed WLC project:

Community Development Element

Policy 2.12.1 Prior to the approval of any new development application, ensure that adequate septic or sewer service capacity exists or will be available in a timely manner.

Policy 2.13.1 Limit the amount of development to that which can be adequately served by public services and facilities, based upon current information concerning the capability of public services and facilities.

Policy 2.13.2 Unless otherwise approved by the City, public water, sewer, drainage and other backbone facilities needed for a project phase shall be constructed prior to or concurrent with initial development within that phase.

Policy 2.13.3 It shall be the ultimate responsibility of the sponsor of a development project to ensure that all necessary infrastructure improvements (including system-wide improvements) needed to support project development are available at the time that they are needed.

4.16.2.3 Methodology

The methodology of determining wastewater service impacts is based on evaluating the existing wastewater infrastructure and capacity available to the City, future wastewater demand and capacity that is anticipated to be available to the City, and the identification of existing wastewater demands and future wastewater demands with the development of the proposed WLC project.

4.16.2.4 Wastewater Services Thresholds of Significance

The proposed WLC project is considered to have a significant impact on wastewater services if any of the following occurs:

- The project would exceed wastewater treatment requirements of the Santa Ana Regional Water Quality Control Board;
- The project would result in a determination by the wastewater treatment provider, which serves or may serve the project, that it lacks adequate capacity to serve the project's projected demand in addition to the provider's existing commitments; and/or
- The project would require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

4.16.2.5 Less than Significant Impacts

4.16.2.5.1 Wastewater Treatment Requirements

Threshold	Would the proposed WLC project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Local governments and water districts are responsible for complying with Federal regulations, both for wastewater plant operation and the collection systems (e.g., sanitary sewers) that convey wastewater to the wastewater treatment facility. Proper operation and maintenance is critical for sewage collection and treatment as impacts from these processes can degrade water resources and affect human health. For these reasons, publicly owned treatment works (POTWs) receive Waste Discharge Requirements (WDRs) to ensure that such wastewater facilities operate in compliance with water quality regulations set forth by the State. WDRs, issued by the State, establish effluent limits on the kinds and quantities of pollutants that POTWs can discharge. These permits also contain pollutant monitoring, recordkeeping, and reporting requirements. POTWs that intend to discharge into the nation's waters must obtain a WDR prior to initiating discharge.

The proposed WLC project would result in a connection to the sewer line underlying Redlands Boulevard in the vicinity of the intersection of Redlands Boulevard and Brodiaea Avenue. It is anticipated that all wastewater generated by the proposed WLC project would be routed to and treated by the MVRWRF. The MVRWRF is considered to be a POTW, so operational discharge flows treated at the MVRWRF would be required to comply with waste discharge requirements contained within the WDRs for that facility. Compliance with condition or permit requirements established by the City, and waste discharge requirements at the MVRWRF would ensure that discharges into the wastewater treatment facility system from the operation of the proposed WLC project would not exceed applicable Santa Ana RWQCB wastewater treatment requirements. Expected wastewater flows from the proposed WLC project will not exceed the capabilities of the serving treatment plant, so no significant impact related to this issue would occur and no mitigation would be required.

4.16.2.5.2 Wastewater Treatment Capacity and/or New or Expanded Wastewater Treatment Facilities

Threshold	Would the proposed WLC project result in a determination by the wastewater treatment provider, which serves or may serve the project, that it lacks adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
Threshold	Would the proposed WLC project require the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

As previously noted, the proposed WLC project would connect to the existing sewer pipeline underlying Redlands Boulevard in the vicinity of the intersection of Redlands Boulevard and Brodiaea Avenue. Wastewater flows from the proposed WLC project site would be handled by the EMWD and would be conveyed to the MVRWRF located in the southwestern portion of the City, southwest of the proposed WLC project site. Current capacity at this facility is 16 mgd[1] with an existing average inflow of approximately 11.2 mgd.[2] Under current conditions, the average daily surplus treatment capacity is

[1] *5.13 Public Services and Utilities*, City of Moreno Valley General Plan Final EIR, July 2006.
[2] Eastern Municipal Water District Moreno Valley Regional Water Reclamation Facility, http://www.emwd.org/modules/showdocument.aspx?documentid=1423, website accessed April 2, 2012.

approximately 4.5 mgd. Generally, water use and wastewater flows are related in that wastewater is generated from indoor water uses.

Flow from the Logistics Development is based on a factor of water use equivalent to 0.01 gpd/sf. These values were determined based on a water demand analysis and benchmarking study conducted to determine water generation factors for similar facilities as outlined in the Technical Memorandum titled *World Logistics Center Water Demands and Waste Water Generation for Buildings* dated March 13, 2012. Since this study is for Specific Plan purposes and because these wastewater generation factors are less than rates used to cover the broad spectrum of light industrial uses, a facility sizing factor was added. This factor is 2.0 times the 0.01 gpd/sf for a wastewater generation factor of 0.02 gpd/sf. Based on a square footage of ~~41~~40.6 million, the wastewater generated from the logistics uses on the site is ~~832~~812,000 gpd. An additional 5,100 gpd of flow was added to account for the in-project fueling station. Thus, the total wastewater generated from the site is ~~837~~817,100 (0.~~837~~82 mgd). The additional wastewater treatment demand of 0.~~837~~82 mgd resulting from development of the proposed WLC project totals approximately 18.~~6~~2 percent of current surplus treatment capacity. Improvements planned for the MVRWRF facility would increase capacity at this facility from 16 mgd to 18 mgd with an ultimate expansion of this facility of 41 mgd. The planned expansion of the MVRWRF to increase capacity from 16 mgd to 18 mgd ~~is anticipated to be~~was completed ~~by June~~ in December 2013.[1] Impacts associated with wastewater facilities would be less than significant because the amount of wastewater generated by the project would be within the existing surplus treatment capacity at the MVRWRF. The proposed WLC project would not require the construction of new wastewater treatment facilities or expansion of existing facilities, which could cause significant environmental effects. Therefore, impacts associated with wastewater facilities would be less than significant and no mitigation is required.

4.16.2.6 Significant Impacts

No impacts related to wastewater services or facilities have been identified as significant for the proposed WLC project.

4.16.2.7 Cumulative Impacts to Wastewater Facilities

The cumulative area for wastewater-related issues is the MVRWRF service area (previously referenced Figure 4.16.1). Cumulative population increases and development within the area serviced by the MVRWRF would increase the overall regional demand for wastewater treatment service. The ~~current~~previous treatment capacity at the MVRWRF ~~is~~was 16 mgd. Improvements ~~planned for~~ to this facility ~~would~~have increased capacity at this facility ~~from 16 mgd~~ to 21 mgd ~~by June 2013~~. Ultimate expansion of this facility is expected to be 41 mgd. The MVRWRF is expected to have adequate capacity to service the City's wastewater needs through 2030. Any proposed changes to capacity of the MVRWRF or any facility maintained by EMWD are reviewed throughout the year. EMWD has a funding and construction mechanism in place that ensures improvements to EMWD facilities occurs in a timely manner. This funding mechanism is referred to as EMWD's Sewer Financial Participation Charge Program. For all new development within the EMWD service area, the Sewer Financial Participation Charge is allocated to assist in the financing of any future collection and disposal facilities and any future sewer treatment plant facilities. Cumulative development would not exceed the capacity of the wastewater treatment system because the MVRWRF would expand as growth occurred.

[1] Approval and Authorize an Amendment (246,044) to the Agreement with Carollo Engineers for Constuction Management and Engineering Support Services During Construction of the MVRWRF, Eastern Municipal Water District, July 2, 2014, http://www.emwd.org/home/showdocument?id=10415.

The proposed WLC project would not have a cumulatively significant impact on wastewater infrastructure because the proposed WLC project would not require the expansion of existing infrastructure, only connections to existing infrastructure would be required by the project. By adhering to the wastewater treatment requirements established by the Santa Ana RWQCB through the NPDES permit, wastewater from the project site that is processed through the MVRWRF would meet established standards. As the wastewater from all development within the service area of the MVRWRF would be similarly treated under the NPDES, no cumulatively significant exceedance of Santa Ana RWQCB wastewater treatment requirements would occur.

4.16.3 Solid Waste Services

4.16.3.1 Existing Setting for Solid Waste Services

Solid waste disposal and recycling services for the proposed WLC project site would be provided by Waste Management of the Inland Empire. [1] Waste Management of the Inland Empire separates and markets recyclable materials collected within its service area. Solid wastes would primarily be transported to the Badlands Sanitary Landfill located at 31125 Ironwood Avenue in Moreno Valley. Additionally, Waste Management of the Inland Empire will also use other County landfills in the area, such as the Lamb Canyon Landfill on County land near the City of Beaumont and the El Sobrante Landfill in the City of Corona. The Badlands Sanitary Landfill is designated a Class III landfill run by the County of Riverside.[2] Waste types accepted at the Badlands Sanitary Landfill include agricultural, construction/demolition, industrial, mixed municipal, and tires.

The Badlands Sanitary Landfill currently has a permitted capacity of 33.5 million cubic yards with a remaining capacity of 14.7 million cubic yards.[3] The tonnage of any mass of solid waste is dependent on the material (e.g., metals, paper, and green waste) and its density (compacted or uncompacted). Utilizing conversion factors from various jurisdictions, one cubic yard of compacted municipal solid waste typically weighs 750 pounds (0.37 ton).[4] Based on this conversion factor, remaining space at the Badlands Sanitary Landfill totals approximately 5.45 million tons with an estimated closure date of January 2024. The maximum daily permitted throughput of this facility is 4,000 tons/day. The Badlands Sanitary Landfill currently accepts approximately 1,683 tons/day.[5]

Recyclable materials collected by Waste Management of the Inland Empire are handled at the Moreno Valley Transfer Station owned and operated by Waste Management, Inc. The Moreno Valley Transfer Station is a large volume transfer and processing facility that accepts the following waste types: construction and demolition materials, green materials, metals, and mixed municipal waste. The Moreno Valley Transfer Station currently has a permitted capacity of 2,600 tons per day and currently accepts 2,000 tons per day. This facility currently has the capacity to accept an additional 600 tons per day.

NOP/Scoping Comments. No comments were received during the scoping period specifically regarding solid waste service.

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1 Trash service in the City of Moreno Valley is mandatory and Waste Management of Inland Valley is the only solid waste service provider.

2 Class III landfills are required to be located where adequate separation can be provided between non-hazardous solid waste and surface and subsurface waters. This class of landfill is not permitted to accept hazardous waste.

3 *Badlands Sanitary Landfill Facility/Site Summary Details,* CalRecycle website, http://www.calrecycle.ca.gov/SWFacilities/Directory/33-AA-0006/Detail/, website accessed April 2, 2012.

4 http://www.recyclemaniacs.org/doc/measurement-tracking/CURC-profile-input-form-with-conversion-guide.xls, website accessed December 21, 2011.

5 Based on 2011 average; e-mail correspondence with John Farrar, Administrative Services Assistant, County of Riverside Waste Management Department, December 21, 2011.

4.16.3.2 Existing Policies and Regulations

Assembly Bill 939 (AB 939) California Integrated Waste Management Act. AB 939 was signed into law in 1989 and established a 50 percent waste reduction requirement for cities and counties by the year 2000, along with a process to ensure environmentally safe disposal of waste that could not be diverted. Jurisdictions select and implement the combination of waste prevention, reuse, recycling, and composting that best meets the needs of their residents while achieving the diversion requirements of the Act. Cities and counties also have the flexibility to work cooperatively toward the 50 percent goal by forming a regional agency. According to the provisions of the Act, in the year 2000, waste-to-energy or biomass conversions may contribute 10 percent toward the goal, with the remaining 40 percent accomplished through source reduction, recycling, and composting. The statute also allows a time extension to meet these goals for cities and counties that experience adverse market or economic conditions.

Assembly Bill 1327 (AB 1327) California Solid Waste Reuse and Recycling Access Act of 1991. Signed into law in 1991, AB 1327 added Chapter 18 to Part 3 of Division 30 of the Public Resources Code. Chapter 18 required the California Integrated Waste Management Board (CIWMB) to develop a model ordinance for adoption of recyclable materials in development projects. Local agencies were then required to adopt the model, or ordinances of their own, in order to govern adequate areas for collection and loading of recyclable materials in development projects by September 1, 1993. If a local agency had not adopted a model ordinance by that date, the CIWMB model would be adopted and enforced by the local agency.

Senate Bill 1016 (SB 1016). As previously identified, the California Integrated Waste Management Act of 1989 (AB 939) requires each jurisdiction to divert 50 percent of its solid waste from being disposed in landfills. The new per capita disposal measurement system (SB 1016, Wiggins, Chapter 343, Statutes of 2008) became effective January 1, 2009. It builds on AB 939 compliance requirements by implementing a simplified measure of local jurisdictions' performance. SB 1016 accomplishes this by changing to a disposal-based indicator: the per capita disposal rate, which uses only two factors: a jurisdiction's population and its disposal as reported by disposal facilities. SB 1016 changes how each jurisdiction's progress is measured to reach the 50 percent goal for diverting waste from landfills. This measurement is no longer determinative of compliance. In order for the CIWMB and jurisdictions to more properly focus on successful program implementation, SB 1016 shifts from the historical emphasis on using calculated generation and estimated diversion to using annual disposal as a factor when evaluating jurisdictions' program implementation.

Riverside County Integrated Waste Management Plan. The Riverside Countywide Integrated Waste Management Plan (RCIWMP), adopted by the Riverside County Board of Supervisors on January 14, 1997, and approved by the CIWMB on September 23, 1998, outlines the goals, policies, and programs the County and its cities, including the City of Moreno Valley, would implement to create an integrated and cost-effective waste management system that complies with the provisions of AB 939 and its diversion mandates. The RCIWMP is composed of the Riverside Countywide Summary Plan, the Source Reduction and Recycling Element (SRRE) for the County and each of its cities, the Nondisposal Facility Element (NDFE) for the County and each of its cities, the Household Hazardous Waste Element (HHWE) for the County and each of its cities, and the Riverside Countywide Siting Element.

City of Moreno Valley General Plan. The following are policies and programs in the City's General Plan that pertain to solid waste and are applicable to the proposed WLC project:

Conservation Element

Policy 7.8.1 Encourage recycling projects by individuals, non-profit organizations, or corporations and local businesses, as well as programs sponsored through government agencies.

Program 7-1 Support regional solid waste disposal efforts by the County of Riverside.

4.16.3.3 Methodology

The solid waste analysis is based on evaluating the existing capacity of nearby landfills that serve the City, future solid waste capacity that would be available to the City, and the identification of existing solid waste demand and future solid waste demand associated with the development of the proposed WLC project. The analysis also identifies existing City goals, policies, and programs that the City implements to reduce generated waste.

4.16.3.4 Solid Waste Services Thresholds of Significance

Based on Appendix G of the *CEQA Guidelines,* a project is considered to have a significant impact on solid waste services if it results in either of the following:

- The project would be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs; and/or
- The project would fail to comply with applicable Federal, State, and local statutes and regulations related to solid waste.

4.16.3.5 Less than Significant Impacts

The following solid waste impacts were determined to be less than significant. Adherence to established regulations, standards, and policies would reduce potential solid waste impacts to a less than significant level.

4.16.3.5.1 Solid Waste Facilities

Threshold	Would the proposed WLC project be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?

Solid waste collection is a "demand-responsive" service and current service levels can be expanded and funded through user fees without difficulty. ~~Based on a solid waste generation of 0.006 pound per square foot per day for industrial uses,~~[1] ~~t~~ The proposed WLC project is anticipated to generate approximately ~~124.8~~104.6 tons of solid waste per day (~~45,552~~ 38,164 tons/year).[2] Solid waste from the proposed WLC project would be hauled by Waste Management of Inland Valley and transferred to the Badlands Sanitary Landfill, located in Moreno Valley. The Badlands Sanitary Landfill has a daily permitted throughput of 4,000 tons per day, a remaining capacity of 14,730,025 cubic yards, and

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1 ~~*Estimated Solid Waste Generation Rates,* California Integrated Waste Management Board, http://www.ciwmb.ca.gov/WasteChar/WasteGenRates/Industrial.htm, website accessed on April 2, 2012.~~

2 South Coast Air Quality Management District. CalEEMod Manual, Appendix D. Table 10.1. Solid Waste Disposal Rate for Unrefrigerated Warehouse. http://www.aqmd.gov/caleemod/user's-guide. Calculation: 0.94 tons/thousand square feet/year ~~0.006 pound per square foot per day × 41,600,000~~ 40,600,000 thousand square feet = ~~249,600~~ ~~243,600 lbs per day; 1 ton/2000 lbs × 249,600 lbs~~ = 38,164 ~~124.8~~ tons per ~~day~~ year.

an estimated closure date of 2024.[1] The average daily throughput at the Badlands Sanitary Landfill for 2011 is estimated at 1,683 tons/day[2] with a current surplus capacity totaling 2,317 tons/day.

The volume of solid waste generated by the proposed WLC project per day represents ~~3.12~~2.6 percent of the current permitted throughput and ~~5.39~~4.5 percent of the current surplus capacity at the Badlands Sanitary Landfill. As adequate daily surplus capacity exists at the receiving landfill, development of the proposed WLC project would not significantly affect current operations or the expected lifetime of the landfill serving the project area. No significant solid waste disposal impact would occur and no mitigation is required.

4.16.3.5.2 Solid Waste Reduction

Threshold	Would the proposed WLC project fail to comply with applicable federal, state, and local statutes and regulations related to solid waste?

Federal, State and local governments have enacted a variety of laws and established programs to deal with the transport, use, storage, and disposal of hazardous materials to reduce the risks to public health and the environment. These laws and programs supplement existing regulations designed to control the contamination of air and water resources. There are no active landfills operating in Riverside County that accept hazardous wastes. Hazardous wastes generated within the County are disposed of at distant “Class I” landfills. The DHS regulates companies that haul hazardous waste. The California Highway Patrol (CHP) is responsible for the inspection of motor carriers that haul hazardous wastes. Inspections are made on roadways, at freeway truck scales and truck yards. The shipment of hazardous materials by truck or rail is regulated by Federal safety standards under the jurisdiction of the USDOT. Federal safety standards are also included in the California Administrative Code, Environmental Health Division. The EPA ensures that containers of hazardous materials are properly labeled with instructions for use. The California Department of Industrial Relations, Cal-OSHA Division regulates the use of hazardous materials in the workplace. Regulations governing the storage and use of hazardous materials are also contained in the Uniform Building Code and the Uniform Fire Code. The Hazardous Materials Branch (HMB) of the Environmental Health Services Division of the Riverside County Health Department operates a hazardous waste program. The HMB inspects those involved in generating, hauling, storage, treating, and disposing of these wastes. The HMB also operates mobile household hazardous waste roundups and checks loads at local landfills for hazardous wastes.

The City of Moreno Valley is responsible for meeting the requirements of AB 939 and SB 1016, which includes a 50 percent reduction in disposal by the start of 2000 and preparation of a solid waste reduction plan to help reduce the amount of solid waste disposed of at the landfills. Programs implemented by the City of Moreno Valley to satisfy the mandated reduction in solid waste include, but are not limited to, the following:

- Public outreach via print and electronic media (public education);
- Municipal solid waste ordinances and product and landfill bans (policy incentives); and
- Operation of material recovery and composting facilities (facility recovery).

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1 *Badlands Sanitary Landfill Facility/Site Summary Details,* CalRecycle website, http://www.calrecycle.ca.gov/SWFacilities/Directory/33-AA-0006/Detail/, website accessed April 2, 2012.

2 Based on 2011 average; e-mail correspondence with John Farrar, Administrative Services Assistant, County of Riverside Waste Management Department, December 2, 2012.

The proposed WLC project would be required to coordinate with the waste hauler to develop collection of recyclable materials for the project on a common schedule as set forth in applicable local, regional, and State programs. Recyclable materials that would be recycled by the project include paper products, glass, aluminum, and plastic.

Additionally, the proposed WLC project would be required to comply with applicable elements of AB 1327, Chapter 18 (California Solid Waste Reuse and Recycling Access Act of 1991) and other applicable local, State, and Federal solid waste disposal standards, thereby ensuring that the solid waste stream to the Badlands Sanitary Landfill is reduced in accordance with existing regulations. Impacts are considered less than significant and require no mitigation.

4.16.3.6 Significant Impacts

No impacts related to solid waste services or facilities have been identified as significant for the proposed WLC project; therefore, no mitigation is required.

4.16.3.7 Cumulative Impacts to Solid Waste Services

AB 939 mandates the reduction of solid waste disposal in landfills. While the Badlands Sanitary Landfill has an estimated closure date of 2024, as previously identified, the City's waste hauler will also use other County landfills in the area (e.g., Lamb Canyon Landfill and El Sobrante Landfill). The estimated closure date of the Lamb Canyon Landfill is 2023 and the estimated closure date of the El Sobrante Landfill is 2030. With planned expansion activities of landfills in the project vicinity and projected growth rates contained in the City's General Plan EIR, sufficient landfill capacity would exist to accommodate future disposal needs through City buildout in 2030. Therefore, buildout of the City General Plan would not create demands for solid waste services that would exceed the capabilities of the County's waste management system. Consequently, cumulative impacts associated with solid waste within the City would be considered less than significant.

4.16.4 Energy Consumption

This section discusses the conditions that exist on the project site and the regulatory framework that governs the supply and demand for direct and indirect energy requirements. Appendix F of the *CEQA Guidelines* describes the energy conservation information and analyses that should be included in an EIR, including emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. Energy conservation is defined in terms of decreased reliance on natural gas and oil, decreased per capita energy consumption, and increased reliance on renewable energy sources.

4.16.4.1 Existing Setting

Electricity. Southern California Edison (SCE) currently has two existing 115 kilovolt (kV) overhead power transmission lines within the proposed WLC project limits. One is located along Gilman Springs Road from the south to Eucalyptus Avenue, then east on Eucalyptus Avenue to Theodore Street and then north on Theodore Street across SR-60. The second 115 kV transmission line is located along Brodiaea Avenue from the west to Davis Road then southeast into the San Jacinto Wildlife Area. In the project area, SCE also maintains 12 kV overhead distribution lines along Redlands Boulevard, Theodore Street, and Alessandro Boulevard just west of the project site.

The proposed WLC project would be supplied electricity by Moreno Valley Electric Utility (MVEU). MVEU currently has an existing electrical substation west of the project area at the southwest corner

of Moreno Beach Drive and Cottonwood Avenue. This substation currently has a capacity to distribute 28 megawatts (MW) of electricity based on two existing 28 MW units (i.e., if one unit goes off, the other unit still maintains capacity to handle the demand). Ultimate capacity of this substation is 90 MW based on four 28 MW units. The current peak load for this substation is 22 to 26 MW; therefore, there is an existing 2 to 6 MW surplus capacity available. MVEU has underground 12 kV distribution lines along Cottonwood Avenue from the west to Redlands Boulevard, then north along Redlands Boulevard to Fir Street (now Eucalyptus Avenue), and then east along Eucalyptus Avenue to Theodore Street. The existing underground conduit underlying Eucalyptus Avenue currently serves the existing Skechers warehouse, office, and factory store. It should be noted that the MVEU indicated these assumptions are valid at this time, but could change if other development occurs before the proposed project.

Natural Gas. The proposed WLC project would be supplied natural gas by the Southern California Gas Company (SCGC). SCGC currently maintain a 4-inch medium-pressure service line underlying Redlands Boulevard that runs from SR-60 on the north to Cactus Avenue on the south and then runs west along Cactus Avenue with a stub-out to the north at Merwin Street. SCGC has low-pressure facilities that serve the residential areas located west of Redlands Boulevard and southwest of Merwin Street and Bay Avenue.

Throughout the proposed WLC project area, there are existing high-pressure natural gas transmission mains ranging in diameters of 16 inches up to 36 inches. SCGC currently maintains two 30-inch diameter transmission pipelines traversing the project site that run in an east-west direction and are located north and south of Alessandro Boulevard. There are also three transmission pipelines (a 16-inch, 30-inch, and 36-inch diameters) that run in a north-south direction along Virginia Street, south of Alessandro Boulevard. The 36-inch diameter pipeline also runs east from Virginia Street parallel with the 30-inch pipeline that runs south of Alessandro Boulevard.

Within the proposed WLC project site, SCGC maintains a gas line blow-down facility and flow metering station at Alessandro Boulevard and Virginia Street. Further south on Virginia Street, the San Diego Gas and Electric Company (SDG&E) maintains a natural gas compression station, known as the Moreno Compressor Station, which supplies gas to San Diego via 16-inch, 30-inch, and 36-inch transmission pipelines that continue to the south. SCGC has a gas transmission regulator station located at the southeast corner of Gilman Springs Road and Laurene Lane east of the proposed WLC project site.

Questar currently maintains a 16-inch gas transmission pipeline that underlies Alessandro Boulevard from Gilman Springs Road to Theodore Street, where it heads south to the Maltby Avenue alignment and then heads west toward Redlands Boulevard.

NOP/Scoping Comments. There were no specific comments regarding energy systems during the scoping process.

4.16.4.2 Existing Policies and Regulations

4.16.4.2.1 Federal Regulations

Energy Policy and Conservation Act. The Energy Policy and Conservation Act of 1975 sought to ensure that all vehicles sold in the U.S. would meet certain fuel economy goals. Through this Act, Congress established the first fuel economy standards for on-road motor vehicles in the U.S. Pursuant to the Act, the National Highway Traffic and Safety Administration (NHTSA), which is part of

the U.S. Department of Transportation (USDOT), is responsible for establishing additional vehicle standards and for revising existing standards. Since 1990, the fuel economy standard for new passenger cars has been 27.5 mpg. Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 mpg. The Corporate Average Fuel Economy (CAFE) program, administered by the EPA, was created to determine vehicle manufacturers' compliance with the fuel economy standards. The EPA calculates a CAFE value for each manufacturer based on city and highway fuel economy test results and vehicle sales. Based on the information generated under the CAFE program, the USDOT is authorized to assess penalties for noncompliance.

Energy Policy Act of 1992. The Energy Policy Act (EPAct) of 1992 was passed to reduce the country's dependence on foreign petroleum and improve air quality. EPAct includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. EPAct requires certain Federal, State, and local governments and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are also included in EPAct. Federal tax deductions will be allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the act to consider a variety of incentive programs to help promote AFVs.

Energy Policy Act of 2005. The Energy Policy Act of 2005 includes provisions for renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a Federal purchase requirement for renewable energy.

4.16.4.2.2 State Regulations

California Code of Regulations Title 24, Part 6. Enacted in 1978, this part of the California Code established energy efficiency standards for residential and nonresidential buildings in response to a legislative mandate to reduce California's energy consumption. These standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The most recent standards were adopted and went into effect January 1, 2010.[1] Such standards include the provision of cool roofs, demand control ventilation, skylights for day-lighting in buildings, thermal breaks for metal building roofs, and lighting power limits. These standards are expected to reduce the growth in electricity use of residential and non-residential buildings. Continual updates to Title 24 along with the State's implementation of AB 1493 and SB 1368 will have a major impact on the State's attainment of the AB 32 goals.

California Code of Regulations Title 24, Part 11. This part of the California Code is known as the California Green Building Standards Code (CALGreen Code) and was enacted to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts with positive environmental impacts and through encouragement of sustainable construction practices. The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC). This update to Part 11 of Title 24 of the California Code of Regulations was effective January 1, 2011.

[1] *Nonresidential Compliance Manual for California's 2008 Energy Efficiency Standards*, California Energy Commission, effective January 1, 2010, http://www.energy.ca.gov/title24/2008standards/index.html, website accessed on March 4, 2010.

California Code of Regulations Titles 14 and 27. These parts of the California Code require energy efficient practices as part of solid and hazardous waste handling and disposal.

4.16.4.2.3 Regional and Local Regulations

City of Moreno Valley General Plan. The City's General Plan Chapter 9 (Goals and Objectives) establishes goals and objectives to guide development within the City. Specific policies associated with energy facilities relevant to the proposed WLC project include:

Objective 7.5 Encourage efficient use of energy resources.

Policy 7.5.1 Encourage building, site design, and landscaping techniques that provide passive heating and cooling to reduce energy demand.

Policy 7.5.5 Encourage the use of solar power and other renewable energy systems.

Policy 7.7.2 Require new electrical and communication lines to be placed underground.

4.16.4.3 Methodology

The energy analysis is based on evaluating the existing energy supply available to the City, future energy supply that is anticipated to be available to the City, and the identification of existing electricity and natural gas demand and future demand with the development of the proposed WLC project. The analysis also identifies energy conservation measures that would be incorporated by the proposed WLC project to reduce the project's total energy demand.

4.16.4.4 Thresholds of Significance

Appendix G of the *CEQA Guidelines* (2011) does not include thresholds to determine potential environmental impacts resulting from project-related electrical and natural gas demand and use. However, Appendix F of the *CEQA Guidelines* (2011) provides guidance on what should be considered in an EIR's discussion of energy impacts. This includes but is not limited to energy-consuming equipment and processes operation; total energy requirements of the project by fuel type and end use; energy conservation equipment and design features; and identification of energy supplies that would serve the project. Consideration of environmental impacts includes an evaluation of the project's energy requirements and energy use during operation and the degree to which the project complies with current energy standards. The guidance suggests that particular emphasis be placed on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy (see Public Resources Code section 21100(b)(3)).

4.16.4.5 Less than Significant Impacts

Based its size, energy impacts of the WLC project are potentially significant.

4.16.4.6 Significant Impacts

Impact 4.16.4.6.1 Construction or Expansion of Electrical and Natural Gas Facilities

Threshold	Would the proposed WLC project require the construction of new electrical and/or natural gas facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?

Based on calculations contained Tables 4.16.I and 4.16.J, the proposed WLC project would consume approximately ~~385,698~~376,426 megawatt-hours (MWh) of electricity and almost ~~25~~14.6 million cubic feet of natural gas per year. The estimated electrical demand assumes no on-site electrical generation by photovoltaic panels.

Table 4.16.I: Electrical Demand and Consumption (Revised)

Land Use Type	% of Total Square Footage	Building Area (sf)	Electrical Demand Factor (w/sf)[1]	Electrical Demand (MW)	Electrical Consumption (MWh/Yr)[2]
Logistics (including offices)	100	40.6 million	1.68	68.2	376,426.3
Total	**100**	**40,600,000**	**—**	**68.2**	**376,426.3**

[1] Electric demand factors based on electric utility demand information from Moreno Valley Electric Utility
[2] Assumes a 63% load factor for all use types. Assumes Logistics and Office Space will operate 24 hours per day 7 days per week or 8,760 hours per year.
sf = square feet, w = watts, MW = Megawatts MWh = megawatt-hours
Source: Technical Memorandum – Dry Utilities, Utility Specialists, October 24, 2013.

Table 4.16.J: Natural Gas Demand and Consumption (Revised)

Land Use Type	% of Total Square Footage	Building Area (sf)	Natural Gas Consumption Factor (cf/yr/sf)[1]	Natural Gas Consumption (cf/yr)
Logistics	97	39,382,000	—	—
Office Space	3	1,218,000	12.00	14,616,000
Total	**100**	**40,600,000**	**—**	**14,616,000**

cf = cubic feet.
Source: Technical Memorandum – Dry Utilities, Utility Specialists, October 24, 2013.

The WLC Specific Plan ~~allows for the~~requires future installation of solar photovoltaic panels ~~(i.e., buildings will be "solar-ready") or other alternative energy systems~~ on the roof of each warehouse building to offset the energy demands of the office portion of the building ~~up to full roof coverage~~. The following utility improvements are based on a "worst-case" assumption that on-site solar electrical generation is not available and electrical service would have to be provided by MVEU. In addition, partial or complete connection to the existing electrical grid may be necessary even with roof-mounted solar photovoltaic panels so there is redundancy (backup) in case of an emergency or during nighttime when no on-site power is being generated (i.e., some warehouses may operate 24/7). At this time, it is not anticipated that any uses will install sufficient on-site power generation and storage to be totally independent of the existing electrical grid.

A number of SCE facilities would still require relocation and expansion of MVEU facilities in order to provide network backup (i.e., if the solar generation equipment were to fail) and accommodate the potential increase in electrical demand no matter the contribution of project alternative energy generated. Power poles, guy poles, and guy anchors for the existing overhead 115 kV line along Theodore Street and Gilman Springs Road will need to be relocated at the time these roadways are widened. The portion of the existing 115 kV line along Eucalyptus Avenue may also need to be relocated into the new Eucalyptus Avenue alignment between Theodore Street and Gilman Springs Road at the time the roadway is constructed. The existing 115 kV line along Brodiaea Avenue may be able to be protected in place except for a few hundred feet where the transmission line intersects with the new Merwin Street, which will need to be relocated to accommodate street and storm drain channel improvements.

The existing 12 kV overhead power distribution lines along Redlands Boulevard will need to be undergrounded when the roadway is developed to its ultimate width. The existing 12 kV overhead

power feeder lines located along Theodore Street and Alessandro Boulevard will need to be relocated and undergrounded as these roadway improvements take place during the development of the proposed WLC project. The existing 12 kV overhead power feeder line running south along Virginia Street to the Moreno Compressor Station (planned as Open Space) will be protected in place. The existing overhead service lines from the Theodore Street 12 kV line along Dracaea Avenue to the east and along Cottonwood Avenue to the west can be abandoned when existing on-site residences served by these facilities are abandoned. Per SCE requirements, SCE 12 kV undergrounded lines cannot be in a common trench with MVEU facilities and require a separate underground facility with a minimum 6 feet from other utility lines.

Based on the *Technical Memorandum – Dry Utilities World Logistics Center, Moreno Valley, CA*, (Utility Specialists, ~~December 19, 2012~~October 24, 2013) prepared for the proposed WLC project, construction of the first three logistics buildings that would occur during the initial phase of construction can be served by the existing MVEU substation at Cottonwood Avenue and Moreno Beach Drive, as long as capacity is still available at that station. Subsequent buildings in Phase 1 of construction will require the expansion of this substation. The expansion that would occur to meet this demand would be the addition of two new 28 MW transformer units which can be accommodated within the existing substation property. New 12 kV underground feeder circuits, including trenching, conduit, electrical vaults, and conductors will need to be installed from the substation to the proposed WLC project site. These improvements will occur along Cottonwood Avenue, along Moreno Beach Drive, and along Alessandro Boulevard, Brodiaea Avenue, and Cactus Avenue. These improvements are expected to take place concurrently with roadway construction.

To meet the proposed WLC project's ultimate annual demand of ~~385,698~~376,426 MW, a new 112 MW substation will be constructed within the project limits at a central location near one of SCE's 115 kV transmission lines that will feed power to the substation. The *Dry Utilities* memo for the project indicates two potential locations; the first adjacent to the SCE transmission lines along Gilman Springs Road, and the other adjacent to the SCE transmission lines along Brodiaea Avenue. Impacts of constructing the new station at either of these on-site locations may be the same.

SCE will require approximately 2 acres for a switching station near the new 112 kV substation proposed by MVEU to serve the proposed WLC project. All MVEU primary distribution conductors within the project will be installed within underground conduits and vaults within the public roadway rights-of-way or within easements as a joint trench with telephone, cable television, and natural gas. Since the installation or relocation of electrical facilities would take place concurrently with roadway construction and/or within dedicated easements, or protected in place, the construction of these facilities would not result in significant environmental effects. Previously referenced Figure 3.16 depicts the proposed electrical facilities assuming 100 percent backup electrical service to the WLC site.

SCGC has indicated that the existing 4-inch medium-pressure line underlying Redlands Boulevard and Cactus Avenue can be extended into and looped around the proposed WLC project roadway alignments to serve the proposed development. New two-inch gas lines will also be installed to accommodate the proposed WLC project's demand. No gas lines will be installed on Gilman Springs Road since all buildings will be served from the interior gas lines. Natural gas facilities will be installed in the public street rights-of-way and easements as a joint trench with telephone, cable TV and electrical services. The gas main in Eucalyptus Avenue will be on the south side of the street and in its own trench as it was not included in the common trench installed to serve the Skechers building.

Relocation of natural gas transmission lines within the proposed WLC project into public street rights-of-way and easements will be necessary to support site development and grading. These include 11,100 feet of the 30-inch gas pipeline in Cottonwood Avenue from Redlands Boulevard to Theodore

Street and then southeast to Virginia Street and Alessandro Road intersection; 1,900 feet of 30-inch gas line from Gilman Springs Road at Lisa Lane southwest to Alessandro Boulevard; 1,000 feet of 16-inch gas line owned by Questar from Gilman Springs Road southwest to Alessandro Road and 4,000 feet of 16-inch gas line owned by Questar on the Maltby Avenue alignment from Merwin Street to Theodore Street. The remaining transmission gas lines are anticipated to be protected in place within the proposed streets or easements between buildings. The regulator station located at the southeast corner of Gilman Springs Road and Laurene Lane east of the proposed WLC project will need to be relocated as part of the widening of this road. The gas facility on Alessandro Boulevard and Virginia Street will remain in place as the project develops in this area. The SDG&E natural gas compression station on Virginia Street south of the project site, known as the Moreno Compressor Station, along with a smaller facility on Virginia Street at Boadicea Avenue will be protected in place. Since the installation or relocation of natural gas facilities would take place concurrently with roadway construction and or within dedicated easements, or protected in place, the construction of these facilities would not result in significant environmental effects. Previously referenced Figure 3.16 depicts the proposed natural gas facilities.

The supply of natural gas and electricity is demand-responsive. The project proponent would be required to meet the service requirements of these utility providers, which would ensure that a less than significant impact related to the provision of power would result from development of the proposed logistics uses.

Additionally, the proposed WLC project would be required to adhere to Title 24, Part 6, of the California Code of Regulations, which identifies energy efficiency standards for residential and nonresidential buildings. These standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The most recent standards were adopted and went into effect January 1, 2011. The 2011 standards for residential and non-residential buildings are expected to reduce the growth in electricity use and reduce the growth in natural gas use. Such standards include the provision of cool roofs, demand control ventilation, skylights for day-lighting in buildings, thermal breaks for metal building roofs and lighting power limits.

Specific Plan Design Features. As noted in Section 3.5.9.1 of the Project Description, the project intends to achieve applicable elements of certification from the U.S. Green Building Council Leadership in Energy and Environmental Design (LEED), and encourages LEED Certification. The project will encourage sophisticated construction techniques that will provide pollution prevention and control such as noise, air quality, erosion and sediment controls. Both site planning and future building design will encourage current best practices for use of recycled materials and products, such as recycled steel, and crushed concrete and pavement materials. The use low-emitting VOC building materials will be used on site.

~~Project design will encourage options for alternative energy generation through the use of rooftop solar systems (i.e., WLCSP will provide “solar ready” buildings) or other technologies reasonably available at the time of development. Project design and construction techniques will be incorporated to reduce heat island effect, to create thermal gradient differences between developed and undeveloped areas. Such techniques will include the use of materials that have a low solar reflectance index such as white roofs and light-colored pavements.~~

~~The project will encourage passive heating and cooling opportunities into the design or modification of the high-cubed warehouse developments and ancillary land uses. On-site renewable energy such as wind and solar will be designed in conformance with the appearance and aesthetics of the proposed WLC project area, including active and passive solar designs.~~

Compliance with such standards would be reviewed before the issuance of a building permit by the City. Because the proposed WLC project would be required to adhere to standards contained in Title 24 in addition to requirements set forth by the respective utility providers, development of the proposed WLC project would not result in the wasteful, inefficient or unnecessary consumption of energy.

NOTE: The following addition is in response to Comment F-13-32 in Letter F-13 from the Sierra Club et al.

The WLCSP will require extensive energy conservation measures, solar energy systems, and underground utilities to be installed on future development. In these ways, the WLC project is consistent with General Plan Objective 7.5 and Policies 7.5.1, 7.5.5, and 7.7.2.

NOTE: The following measures include many of the mitigation recommendations in Comment E-2A-25 in Letter E-2A from the City of Riverside.

Mitigation Measures. Even with implementation of the WLCSP design measures regarding energy conservation, the following specific measures are recommended to help ensure that potential impacts of the WLC project relative to energy use will remain at less than significant levels:

4.16.4.6.1A ~~Prior to the issuance of any~~ Each application for a building permit ~~within the WLCSP, each project developer~~ shall ~~submit~~include energy calculations ~~used~~ to demonstrate compliance with the ~~performance approach to the~~ California Energy Efficiency Standards ~~to the Building Department~~ confirming that ~~shows~~ each new structure meets applicable Building and Energy Efficiency Standards. The plans shall also ensure that buildings are in conformance with the State Energy Conservation Efficiency Standards for Nonresidential buildings (Title 24, Part 6, Article 2, California Administrative Code). This measure shall be implemented to the satisfaction of the Building and Safety and Planning Divisions. Plans shall show the following:

Energy-efficient roofing systems, such as “cool” roofs, that reduce roof temperatures significantly during the summer and therefore reduce the energy requirement for air conditioning. ~~Examples of energy-efficient building materials and suppliers can be found at http://eetd.lbl.gov/ CoolRoofs or similar websites.~~

Cool pavement materials such as lighter-colored pavement materials, porous materials, or permeable or porous pavement, for all roadways and walkways not within the public right-of-way, to minimize the absorption of solar heat and subsequent transfer of heat to its surrounding environment. ~~Examples of cool pavement materials are available at http://www.epa.gov/heatisld/images/extra/level3_pavingproducts.html or similar websites.~~

Energy-efficient appliances that achieve the 2008 Appliance Energy Efficiency Standards (e.g., EnergyStar Appliances) and use of sunlight-filtering window coatings or double-paned windows.

4.16.4.6.1B Prior to the issuance of any building permits within the World Logistics Center Specific Plan, each project developer shall submit energy calculations used to demonstrate compliance with the performance approach to the California Energy Efficiency Standards to the Building~~Department~~ and Safety and Planning Divisions that shows each new structure meets the applicable Building and Energy Efficiency Standards. Plans may include but are not necessarily limited to implementing the following as appropriate:

High-efficiency air-conditioning with electronic management system (computer) control.

Variable Air Volume air distribution.

Outside air (100 percent) economizer cycle.

Staged compressors or variable speed drives to flow varying thermal loads.

Isolated High-efficiency air-conditioning zone control by floors/separable activity areas.

Specification of premium-efficiency electric motors (i.e., compressor motors, air handling units, and fan-coil units).

Use of occupancy sensors in appropriate spaces.

Use of compact fluorescent lamps in place of incandescent lamps.

Use of cold cathode fluorescent lamps.

Use of Energy Star exit lighting or exit signage.

Use of T-8 lamps and electronic ballasts where applications of standard fluorescent fixtures are identified.

Use of lighting power controllers in association with metal-halide or high-pressure sodium (high intensity discharge) lamps for outdoor lighting and parking lots.

Use of skylights (may conflict with installation of solar panels in some instances).

Consideration of thermal energy storage air conditioning for spaces or hotel buildings, meeting facilities, theaters, or other intermittent-use spaces or facilities that may require air-conditioning during summer, day-peak periods.

- ~~Use of high efficiency toilets (1.28 gallons per flush [gpf] or less).~~
- ~~Use of zero to low water use urinals (0.0 gpf to 0.25 gpf).~~
- ~~Use of weather-based irrigation controllers for outdoor irrigation.~~
- ~~Use of drought-tolerant and native plants in outdoor landscaping.~~

4.16.4.6.1C Prior to the issuance of a building permit, new development shall demonstrate that each building has implemented the following:

1) Install solar panels with a capacity equal to the peak daily demand for the ancillary office uses in each warehouse building;

2) Increase efficiency for buildings by implementing either 10 percent over the 2008 Title 24's energy saving requirements or the Title 24 requirements in place at the time the building permit is approved, whichever is more strict; and

3) Require the equivalent of "Leadership in Energy and Environmental Design Certified" for the buildings constructed at the World Logistics Center based on Leadership in Energy and Environmental Design Certified standards in effect at the time of project approval.

This measure shall be implemented to the satisfaction of the Building and Safety and Planning Divisions.

4.16.4.7 Cumulative Impacts to Energy Facilities

As indicated in Section 4.16.4.6.1, the proposed WLC project would not result in significant impacts related to energy consumption with implementation of the WLC Specific Plan as proposed, and with the recommended project-specific mitigation measures. The project will adhere to Title 24, Part 6, of the CCR, which identifies state energy efficiency standards. Adherence to these energy efficiency standards would reduce the amount of energy consumed by the proposed WLC project. The WLCSP will require future development to install solar photovoltaic panels on the roof of each building ~~(i.e., W LCSP will provide "solar ready" buildings), or other alternative energy systems to~~ to meet the electrical demand of the office portion of each warehouse building. The proposed WLC project will implement "green building" characteristics and its design will help reduce energy consumption. With these measures, the WLC project will not make a significant contribution to cumulative energy facility impacts.

5.0 OTHER CEQA TOPICS: TABLE OF CONTENTS

TABLE

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NOTE TO READERS. *Revisions have been made to this section to reflect changes in Programmatic DEIR Sections 2 through 4 in response to comments on the DEIR and as a result of changes in the WLC project.*

5.0 OTHER CEQA TOPICS

Section 15126 of the *CEQA Guidelines* requires that all aspects of a project must be considered when evaluating its impacts on the environment, including planning, acquisition, development, and operation. As part of this analysis, the EIR must also identify (1) significant environmental effects of the proposed WLC project; (2) significant environmental effects that cannot be avoided if the proposed WLC project is implemented; and (3) growth-inducing impacts.

5.1 SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROPOSED WLC PROJECT IS IMPLEMENTED

Table 5.A illustrates the significant unavoidable impacts anticipated to result from the proposed WLC project, even with implementation of the project-specific mitigation measures identified in the Section 4.0 analyses.

Table 5.A: Significant Environmental Effects Which Cannot Be Avoided

Topic	Type of Impact	Impact
Aesthetics	Scenic Vistas	~~No~~The DEIR originally indicated no feasible mitigation was available to mitigate for the direct impacts associated with the loss of existing viewsheds in the area. Mitigation was modified/added to help reduce these impacts.
Aesthetics	Scenic Resources and Scenic Highways	The DEIR originally indicated no feasible mitigation was available to mitigate the changes to existing viewsheds from SR-60 and from Gilman Springs Road, both considered local scenic roads by the City. Mitigation was modified/added to help reduce these impacts. With this mitigation, these impacts are consistent with relevant General Plan policies regarding views ~~in the General Plan~~.
Aesthetics	Substantial degradation of the existing visual character or quality of the site and its surroundings	The DEIR originally indicated no feasible mitigation was available to mitigate for the direct impacts associated with the substantial change in visual character from agriculture to high cube warehouse uses with building heights of 60 to 80 feet. Mitigation was modified/added to help reduce these impacts.
Aesthetics	Cumulative Aesthetic Impacts	The cumulative effect of development in the region will continue to result in the modification of existing viewsheds especially along SR-60. Construction of the proposed WLC project, in conjunction with other planned development, would contribute to the obstruction of existing views. Even with the revised mitigation measures, the project's cumulative impact will not be reduced to a less than significant level.
~~**Agricultural Resources**~~	~~Loss of State Designated Farmland~~	~~No mechanism for the mitigation of impacts to the loss of 25 acres of Unique Farmland and/or existing agricultural operations has been enacted by either the City of Moreno Valley or the County of Riverside. Therefore, impacts associated with the conversion of State Designated Farmland~~

Table 5.A: Significant Environmental Effects Which Cannot Be Avoided

Topic	Type of Impact	Impact
		~~remain significant and unavoidable.~~
~~**Agricultural Resources**~~	~~Conversion to a Non- agricultural Use~~	~~No feasible mitigation is available to mitigate for the direct impacts associated with the conversion of existing agricultural operations and loss of locally important farmland. Therefore, impacts associated with the conversion of farmland to a non-agricultural use remain significant and unavoidable.~~
~~**Agricultural Resources**~~	~~Cumulative Loss of Agricultural Resources~~	~~The cumulative effect of development in the region will continue to result in the conversion of agricultural lands to non-agricultural uses. Construction of the proposed WLC project, in conjunction with other planned development within the cumulative study area, would contribute to the conversion of agricultural lands to non- agricultural uses. Therefore, cumulative impacts to agricultural resources would remain significant and unavoidable.~~
Air Quality	Construction Air Pollutant Emissions	Construction activities would result in exceedance of SCAQMD threshold for VOC, CO, NO_X, PM_{10}, and $PM_{2.5}$. Even after application of mitigation measures, estimated air pollutant emissions during construction activities would remain significant and unavoidable for NO_X, and PM_{10}~~, and $PM_{2.5}$~~ and localized PM_{10} concentrations.
~~**Air Quality**~~	~~Architectural Coating Emissions~~	~~The amount of VOC generated per day during the application of architectural coatings would exceed the SCAQMD VOC threshold. Although the identified mitigation measures would reduce the amount of VOC generated, the SCAQMD threshold would still be exceeded. Impacts would remain significant and unavoidable.~~
Air Quality	Operational Air Pollutant Emissions	No feasible mitigation is available. Estimated air pollutant emissions during operation of the project will remain significant and unavoidable for VOC, CO, NO_X, PM_{10}, and $PM_{2.5}$ and localized PM_{10} concentrations.
Air Quality	Consistency with Air Quality Management Plan (AQMP)	The project will produce significant amounts of air pollutants on a daily and cumulative basis, both during construction and operation. Even with implementation of proposed mitigation, emissions will result in exceedances that are not consistent with implementation of the current AQMP.
Air Quality	Cumulative Air Pollutant Emissions	The Basin is in nonattainment for PM_{10} and ozone at the present time. Construction of the proposed WLC project, in conjunction with other planned developments within the cumulative study area, would contribute to the existing nonattainment status. Therefore, the proposed WLC project would exacerbate nonattainment of air quality standards within the SCAQMD and contribute to adverse cumulative air quality impacts.
Air Quality	Sensitive Receptors	Residents inside the project boundary could be exposed to significant short-term and long-term PM10 concentrations on an ongoing basis. The health effects from short-term PM exposure include irritation of the eyes, nose, throat, coughing, and chest tightness; and aggravation of existing lung diseases. Long-term exposure can reduce lung functions; chronic bronchitis; changes in lung morphology; and/or death. Even with mitigation measures air quality impacts from the project will be significant and unavoidable.

Table 5.A: Significant Environmental Effects Which Cannot Be Avoided

Topic	Type of Impact	Impact
~~**Climate Change**~~	~~Cumulative greenhouse gas emissions~~	~~Project contributions to cumulatively considerable greenhouse gas emissions are in excess of recommended SCAQMD standards.~~
NOTE: Climate change was removed as a cumulative impact because the project can take credit for regional GHG emission reductions from the State's cap-and-trade program involving refineries and diesel truck fuel.		
Land Use and Planning	Divide an existing neighborhood (impacts on existing residences)	The site contains seven rural residences that cannot be effectively buffered against the impacts of adjacent warehouse buildings and operations (i.e., air pollution and health risks). Mitigation was added to help reduce noise, dust and other air pollutant-related impacts on the rural residences.
Noise	Short-Term Construction Noise	Project construction will create significant noise levels for on-site uses and off site away from the project site due to construction vehicle travel.
Noise	~~Operational Impacts to Surrounding Roadways~~Long-Term Traffic Noise	Residential land uses along a number of local roadways will experience noise levels that are projected to exceed City standards from project-related traffic. Potential noise attenuation improvements may not be physically or economically feasible due to building and roadway constraints.
Noise	Cumulative Noise Levels	Noise from project-related traffic and cumulative development will eventually exceed City noise standards and the project will make a substantial contribution to that cumulative impact.
Transportation	~~Opening Year (2013) with Project Level of Service~~Off-Site Impacts to TUMF Facilities	These are impacts requiring improvements and changes to roads that are part of the TUMF Regional System of Highways and Arterials, some of which are under the jurisdiction of Moreno Valley and others are located in other jurisdictions. The developer shall be responsible for paying the TUMF fees in effect at the time of approval. These payments shall constitute the developer's mitigation of project impacts to this category of roads. The City shall work with the other member agencies of WRCOG to program TUMF funds to implement the mitigation measures identified in 4.15.AT through 4.15.AY pertaining to TUMF facilities outside the jurisdiction of the City of Moreno Valley. To the extent that TUMF fees provided by the developer are used to implement the recommended improvements the project's impacts would be less-than-significant. However, because the City does not have direct control over TUMF funding the City cannot ensure that the identified improvements would be made. The project's impacts on these facilities must be considered significant and unavoidable.
Transportation	Off-Site Improvements to Roads Outside the Jurisdiction of the City and Not Part of the TUMF Program	These are impacts requiring improvements to transportation facilities that are under the jurisdiction of Riverside County, Caltrans, and other municipalities and that are not included in the TUMF Regional System of Highways and Arterials. The City does not have cooperative agreements with neighboring jurisdictions that would serve as a mechanism for collecting and distributing developer funds to cover the cost of cross-jurisdictions mitigation measures, other than the TUMF program. To the extent that the City is able to establish such a mechanism and the other jurisdiction constructs the recommended improvement, the project's impacts would be less-than-significant. However, because the City cannot guarantee that such a mechanism will be established and does not have direct control over facilities outside of its jurisdiction the City cannot ensure that the identified

Table 5.A: Significant Environmental Effects Which Cannot Be Avoided

Topic	Type of Impact	Impact
		improvements would be made. The project's impacts on these facilities must be considered significant and unavoidable. Similarly, the City has not entered into an agreement with Caltrans for the collection of developer funds for improvements to the state highway system other than freeway interchange improvements funded through the TUMF program. Nor has Caltrans established a program to collect fair-share contributions to freeway improvements such as those identified in EIR Tables 4.15.AX and 4.15.BA (TIA tables 40 and 68). The City shall work with Caltrans to establish a mechanism for collecting funds from developers for use in funding needed freeway improvements. However, since at the present time no such mechanism exists that would ensure that WLC funds contributed to Caltrans or any other state agency would be used to implement specific improvements that mitigate WLC impacts, and there is no mechanism by which the City can construct or guarantee the construction of any improvements to the freeway system by itself, the project's impacts on the state highway system must be considered significant and unavoidable.
~~**Transportation**~~	~~Opening Year (2013) Cumulative with Project Level of Service~~	~~If the improvements defined in **Mitigation Measures 4.11.6.2A** are constructed, then minimum level of service standards would be maintained for the opening year (2013) cumulative with project scenario and study area intersections and impacts would be reduced to a less than significant level. Because improvements to the freeway roadways and infrastructure are under the authority of Caltrans, it is uncertain if improvements to these roadways would be constructed prior to project opening and impacts to these~~ intersections would be significant and unavoidable.
~~**Transportation**~~	~~Interim Year (2017)~~	~~Study area intersections will experience Levels of Service in excess of accepted standards as development occurs through 2017. Because improvements to the freeway roadways and~~ infrastructure are under the authority of Caltrans, it is uncertain if improvements to these roadways would be constructed prior to ~~project opening and impacts to these intersections would be significant and unavoidable.~~
~~**Transportation**~~	~~Buildout Year (2023)~~	~~Study area intersections will experience Levels of Service in excess of accepted standards as development occurs through 2023. Because improvements to the freeway roadways and~~ infrastructure are under the authority of Caltrans, it is uncertain if improvements to these roadways would be constructed prior to ~~project opening and impacts to these intersections would be significant and unavoidable.~~

1 The DEIR originally indicated there was no mechanism for the mitigation of impacts to the loss of 25 acres of Unique Farmland and/or existing agricultural operations. The acquisition of an offsite agricultural conservation easement was added as mitigation which will reduce the project's impact to State Designated Farmland to a less than significant level.

5.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES WHICH WOULD BE CAUSED BY THE PROPOSED PROJECT SHOULD IT BE IMPLEMENTED

Section 15126(c) of the *CEQA Guidelines* mandates that the EIR must address any significant irreversible environmental changes which would be involved in the proposed action should it be implemented. An impact would fall into this category if it resulted in any of the following:

1. The project would involve a large commitment of non-renewable resources;
2. The primary and secondary impacts of the project would generally commit future generations of people to similar uses;
3. The project involves uses in which irreversible damage could result from any potential environmental incidents associated with the project; and/or
4. The project will consume large amounts of energy that are produced from non-renewable fossil fuels, although the WLC Specific Plan indicates the proposed uses will efficiently consume energy and water resources.

Determining whether the proposed WLC project may result in significant irreversible effects requires a determination of whether key resources would be degraded or destroyed in such a way that there would be little possibility of restoring them. The project site is generally ~~fallow~~ marginal agricultural land; however, as identified within the City's General Plan, the City anticipates the eventual conversion of agricultural uses to urban uses and the proposed WLC project would permanently alter the site by converting predominantly agricultural uses to urban warehousing. This is a significant irreversible environmental change that would occur as a result of project implementation. Because no significant mineral resources were identified within the project limits, no significant impacts related to this issue would result from development of the project site. Natural resources in the form of construction materials would be utilized in the construction of the proposed WLC project and energy resources in the form of electricity and natural gas would be used during the long-term operation of the project; however, their use is not expected to result in a negative impact related to the availability of these resources. Existing scenic vistas were identified as being visible from the project limits. Implementation of the proposed WLC project would result in the obstruction of views of the Badlands, Mt. Russell and Mystic Lake/San Jacinto Wildlife Preserve from the nearest sensitive visual receptors and those traveling along roadways in the project vicinity. This is a significant and irreversible environmental change that would occur as a result of project implementation. Cumulatively, future development along SR-60 would also result in the obstruction of the existing views of surrounding mountains and visual features.

In addition, this logistics warehouse project, in concert with the other built or approved industrial warehouse projects to the north and west, will fundamentally change the character and land use pattern of this portion of the City. Many of the project-specific impacts are addressed, as outlined above, but the land use change represented by this and other industrial projects represents a substantial irreversible change in community character for this area.

5.3 GROWTH-INDUCING IMPACTS

The project area is largely vacant undeveloped land, although there are seven existing single-family homes in various locations on the proposed WLC project site along with associated ranch/farm buildings. The site has been farmed since the early 1900s and has supported dry (non-irrigated) farming, livestock grazing, and limited citrus groves. Much of the site continues to be used for dry farming.

The northern side of the proposed WLC project site abuts SR-60 and the eastern side abuts Gilman Hot Springs Road. Additionally, the southwestern portion of the project site is adjacent to existing single-family residential uses at the intersection of Redlands Boulevard and Alessandro Boulevard. With implementation of the General Plan Amendment and new Specific Plan, the project has the potential to induce or create conditions that would accelerate development of vacant parcels in the surrounding area from the creation of new employment opportunities and increasing the demand for goods and services.

The following changes have been made due to revision to the Specific Plan project size.

The City's population has grown steadily over the past decades. Population projections developed by SCAG estimate the City's population will reach approximately 213,700 persons by the year 2020 and approximately 255,200 persons by the year 2035. The extent to which the new jobs created by a project are filled by existing residents is a factor that tends to reduce the growth-inducing effect of a project. Construction of the proposed WLC project will create short-term construction jobs. These short-term positions are anticipated to be filled by workers who, for the most part, reside in the project area; therefore, construction of the proposed WLC project will not generate a permanent increase in population within the project area. Development envisioned under the proposed Specific Plan consists of approximately ~~41~~40.6 million square feet of logistics warehouse and general warehouse facilities.

Development of the proposed high-cube logistics warehouse and general warehouse facilities will create jobs in the local economy. It is estimated that the WLCSP project would result in approximately ~~29,500~~27,684 new ~~obs (24,960~~ job opportunities (20,300 on-site jobs plus ~~4,540~~7,384 direct/induced jobs). The new employment opportunities resulting from development of the proposed high-cube logistics warehouse and general warehouse uses will raise the City's current jobs-to-housing ratio by providing additional jobs to local residents. While the place of residence of the persons accepting employment provided by the proposed uses is uncertain, due to the City's projected jobs/housing ratio, it is reasonable to assume ~~and therefore expect~~ that a large percentage of these jobs would be filled by persons already living within the City or project area. The project does not include a residential component. The proposed WLC project is located within an area that is currently largely vacant and planned for mix of residential, commercial, business park, and open space land uses in accordance with the General Plan Community Development Element. The proposed WLC project includes a General Plan Amendment to change the existing mix of land use designations to Logistics Development and Light Logistics. Therefore, no significant increase in population of the City would result from the development or operation of the proposed WLC project.

The *Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California* ("Study," DTA 2013) estimates that approximately 7,384 indirect/induced jobs will be created in the County, of which 3,692 jobs are projected to be within the City as a result of project implementation. While the specific location of the potential additional indirect/induced jobs created within the County cannot be specifically determined, it is reasonable to assume that a large percentage of these jobs will be support service jobs and are likely to be located in the proposed WLC project vicinity, and therefore the City. As detailed in the Study, total recurring revenues available to the City are estimated at approximately $11,~~099,672~~272,323 per year. The greatest percentage of revenue is attributed to the Property Tax In-Lieu of Vehicle License Fee (~~41.77~~40.1%), followed by Secured Property Tax (~~23.51~~29.1%), and Business Receipts Tax and Licenses (~~13.41~~10.7%). Total recurring costs to the City are estimated at approximately $5, ,~~453,848~~473,736 per year. The greatest percentage of cost is attributed to the Police Services (~~44.89~~36.4%), followed by Infrastructure and Parks Maintenance Costs (~~19.26~~33.2%), and Fire Services (~~16.66~~13.5%).

Project recurring annual fiscal surplus that would be available to the City is estimated at $5, ,~~645,825~~798,587 which is equal to 2.~~04~~06 times the project annual City General Fund costs.

The following changes have been made due to revision to the Specific Plan project size. The project proposes to eliminate the potential for 7,700 units of residential housing planned under the Moreno Highlands Specific Plan, although this anticipated change is already included in the City's current Housing Element which has been certified by HCD. This change would incrementally reduce the population and housing growth potential for this property from that projected in the current SCAG regional growth forecast. However, the project would add ~~41~~40.6 million square feet of logistics warehouse space in the eastern portion of the City. Since the City currently has a jobs-to-housing ratio substantially lower than the region (i.e., SCAG region), it is likely that much of the employment that would be generated by this project can be accommodated by the existing workforce in the City and surrounding area. In that way, the project is growth-inducing in terms of employment. Due to relatively high vacancy rates in the City, it is also likely that the housing needs of new employees that do not already live in the City (i.e., own or rent) could largely be accommodated by the City's existing housing stock. Therefore, the proposed WLC project would only produce modest (i.e., not significant) growth inducement within Moreno Valley.

As previously noted, the specific location of the additional indirect jobs created within the County cannot be specifically determined; however, it is likely that some percentage of these jobs will be support service jobs and are likely to be located in the project vicinity. The Study assumes that one-half of these indirect jobs will be located within the City. The Study indicates that the creation of new jobs to the City will lead to more consumer spending by employees in existing retail establishments within the City, as well as new retail development that will be attracted to the City as a result of this spending. Job creation also results in increased tax revenues to the City through increased property taxes and sales taxes associated with development of the proposed WLC project. However, it is important to note that because of the difference in timing of the development of the various phases of the proposed WLC project, the number of employees summarized above will not be realized at the same time.

Development of the proposed WLC project is projected to create approximately 16,~~935521~~ construction-related jobs within the City. Similar to recurring employment (i.e., permanent), it is likely that a large percentage of these jobs will be located in the general vicinity of the proposed WLC project and therefore within the City.

The proposed WLC project does not include a residential component; therefore, the jobs generated by the proposed WLC project would not need to support new households as a result of direct employment or indirect employment. Based on the potential increase in jobs (additional ~~24,642~~20,300 direct jobs) within the City and no substantial increase in population as a result of the project, the City's jobs-to-housing ratio would improve from the existing (~~2010~~2011) ratio of 0.45 to ~~1.02~~0.88, thus achieving a greater jobs-to-housing balance within the City. As development of the proposed WLC project is expected to occur over the course of many years, the jobs-to-housing ratio will not be significantly changed immediately. The City's current jobs-to-housing ratio is exceptionally low when compared to SCAG standards; therefore, the need for employment is immediate. A balance between jobs and housing within the City would have a positive impact by decreasing costs associated with commuting, traffic congestion, air pollution, and improves the standard of living. It also provides savings and a better quality of life to consumers in the operation and maintenance of automobiles, lessening commute times and saving to local public agencies in terms of the need to construct and maintain new road improvements.

Streets, water and sewer utilities, and municipal services would be extended to serve the proposed WLC project. The proposed WLC project will benefit other development projects in the project area, and therefore, could potentially induce additional business and job growth by removing an impediment to growth, such as a lack of basic infrastructure or services. However, the proposed WLC project is located proximate to other existing warehouse, commercial, and residential uses. Therefore, the project will necessitate extension of major infrastructure, however, the project will not result in

substantial population growth that has not already been planned for in the ~~expansion of existing utility (e.g., water and wastewater treatment) facilities, the development of the proposed WLC project would not induce growth in an area currently devoid of public improvements or promote the extension of infrastructure in a manner facilitating an uneven pattern (e.g., leapfrog development) of development in the~~ City's General Plan. As the type and intensity of use proposed for the project site would be consistent once implementation of the General Plan Amendment and Zone Change take place, and because the improvements necessary for development of the site would not facilitate growth that has not been anticipated in the project area, no significant growth-inducing effect would occur, and no mitigation is required.

5.4 URBAN DECAY

A detailed analysis of potential employment and fiscal impacts of the project is provided in Section 4.13, *Population, Housing, and Employment*. This analysis concludes the proposed project is not expected to cause or contribute to any conditions of urban decay within the City of Moreno Valley.

5.5 ENERGY CONSUMPTION

A detailed analysis of energy consumption, according to Appendix F of the *CEQA Guidelines*, is included in Section 4.16, *Utilities and Service Systems*.

6.0 ALTERNATIVES: TABLE OF CONTENTS

FIGURE

TABLES

NOTE TO READERS. *This section has been revised based on changes to the WLC Specific Plan and in response to comments on the Programmatic DEIR, mainly taking out the CDFW Conservation Buffer Area in the No Project/General Plan Alternative.*[1]

6.0 ALTERNATIVES TO THE PROPOSED PROJECT

6.1 INTRODUCTION

An EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment. In compliance with *CEQA Guidelines* Section 15126.6(a), this Draft EIR must also describe "a range of reasonable alternatives to the project, or to the location of the project which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project." The EIR need not consider every conceivable alternative; rather it must consider a reasonable range of potentially feasible alternatives to the project, or to the location of the project, which would avoid or substantially lessen significant effects of the project, even if "these alternatives would impede to some degree the attainment of the project objectives, or would be more costly" (CEQA *Guidelines Section* 15126.6(b)). The discussion of project alternatives must "include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project." An EIR must evaluate a "No Project" alternative in order to allow decision-makers to compare the effect of approving the project to the effect of not approving the project.

The City of Moreno Valley (City), acting as the CEQA Lead Agency, is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. The range of alternatives addressed in an EIR is governed by a "rule of reason," which requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. Of the alternatives considered, the EIR need examine in detail only those the Lead Agency determines could feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project. Per *CEQA Guidelines* Section 15364, "feasible" has been defined as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors."

6.1.1 Summary of the Proposed Project

NOTE: The following changes have been made due to revisions to the Specific Plan project size.

The proposed World Logistics Center (WLC) project is generally located in the eastern portion of the City in northwestern Riverside County. The project site is immediately south of SR-60, between Redlands Boulevard and Gilman Springs Road (the easterly city limit), extending to the southerly city limit. Previously referenced Figure 1.1 in the *Executive Summary* depicts the location of the proposed project within the region and the City. The major roads that currently provide access to the project site are Redlands Boulevard, Theodore Street, Alessandro Boulevard, and Gilman Springs Road.

The overall project site covers ~~3,918~~ 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes ~~3,814~~ 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of ~~adjacent unincorporated~~ land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering ~~3,914~~ 3,714 acres, which redesignates approximately ~~71~~70 percent of the area (~~2,710~~ 2,610 acres) for logistics warehousing ~~including up to a maximum of 41.4 million square feet of "Logistics Development"~~ (new LD and LL~~, LS~~ zones)

[1] *Comment G-95-83 in Letter G-95 from Thomas Thornsley*.

and the remaining ~~29~~30 percent ~~of the project area~~ (1,104 acres)~~ will be designated~~ for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the ~~2,710~~ 2,610 acres ~~that will be governed by the Specific Plan~~. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 ~~acre site (a portion of the~~ acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.

The land owned by the California Department of Fish and Wildlife (CDFW; formerly California Department of Fish and Game [CDFG]) immediately south of the WLC Specific Plan property is utilized for dry farming agriculture and forms the northern end of the San Jacinto Wildlife Area (SJWA). The SJWA contains a wide diversity of birds and other wildlife in and around Mystic Lake. The project proposes an amendment to the General Plan to designate this area as Open Space from its current residential and industrial land use designations.~~ The environmental impacts of all of these entitlements on the entire project area are addressed in this EIR and the accompanying technical reports and analyses.~~

6.1.2 Project Objectives

NOTE: The following changes have been made due to revisions to the Specific Plan project size.

The primary purposes of the proposed project are to 1) establish the 2,610–acre WLC Specific Plan land use designations and development standards that will direct the development of a world-class corporate park specifically designed to support the logistics warehouse and operational needs of large companies and corporate users; and 2) designate 1,084 acres of vacant land owned by the CDFW as Open Space in the City's General Plan to ensure the continued and intended purpose of the SJWA. The WLC Specific Plan outlines the following overall objectives for development proposed in the Specific Plan:

- ~~Maximize~~Create substantial employment opportunities for the ~~City~~citizens of Moreno Valley and surrounding communities.~~ by seeking to entitle one of the fastest-growing economic sectors in California~~.
- Provide the land use designation and infrastructure plan necessary to meet current market demands and to support the City's Economic Development Action Plan.
- Create a major logistics center ~~in Rancho Belago that takes advantage of the area's close proximity to various freeways~~ with good regional and freeway access.~~ transportation corridors.~~

- ~~Cluster logistics uses near efficient access points to the State highway system to reduce traffic congestion on surface streets and to reduce concomitant air pollutant emissions from vehicle sources~~
- Establish design standards and development guidelines to ensure a consistent and attractive appearance throughout the entire project.
- Establish a master plan for the entire project area to ensure that the project is efficient and business-friendly to accommodate the next-generation of logistics buildings.
- Provide a major logistics center to accommodate a portion of the ever-expanding trade volumes at the Ports of Los Angeles and Long Beach.
- Create a project that will provide a balanced approach to the City's fiscal viability, economic expansion, and environmental integrity.
- Provide the infrastructure improvements required to meet project needs in an efficient and cost-effective manner.
- Encourage new development consistent with regional and municipal service capabilities.
- ~~Maximize employment opportunities within the City to~~Significantly improve the City's jobs/housing balance and help reduce unemployment within the City.
- Provide thousands of construction job opportunities ~~within the City~~ during the project's buildout phase ~~and help reduce short-term unemployment within the City~~.
- Provide appropriate transitions between on-site and off-site uses.

6.1.3 Summary of Proposed Project Significant Impacts

NOTE: The following changes have been made to the project-related significant impacts due to the revised agricultural and air quality reports (refer to Sections 4.2 and 4.3 in this EIR).

The analysis provided in Section 4.0 determined that, despite the implementation of mitigation measures, significant environmental impacts would result from the construction and operation of the proposed project. To satisfactorily provide the CEQA-mandated alternatives analysis, the alternatives considered must reduce any of the following project-related significant unavoidable impact(s):

- Aesthetics: Loss of views, scenic highways, and visual character;
- ~~Agriculture: Loss of unique and locally important farmland;~~
- Air Quality: Short-term emissions of ~~NO_2~~VOC, NO_x, CO, and PM_{10}, ~~and $PM_{2.5}$~~ in excess of SCAQMD daily limits during construction and localized PM_{10} concentrations;
- Air Quality: Long-term emissions of CO, VOC, NO_X, PM_{10}, and $PM_{2.5}$ resulting from increased vehicular trips and operation of the proposed on-site uses and localized PM_{10} concentrations;
- Air Quality: Inconsistent with AQMP due to change in land uses from existing General Plan;
- Air Quality: Short-term emissions from VOC, NOx, CO, and PM10 cumulatively exacerbating the nonattainment of air quality standards within the Basin.
- Air Quality: Long-term emissions of ozone, PM10 and PM2.5 cumulatively exacerbating the nonattainment of air quality standards within the Basin.
- ~~Air Quality: Individual cancer risks in excess of 10 in 1 million for both on-site uses and on a cumulative basis in the surrounding region;~~

- ~~Climate Change: Project contributions to cumulatively considerable greenhouse gas emissions in excess of recommended SCAQMD standard;~~
- Land Use: Impacts to onsite residences from adjacent warehouse development;~~ that cannot be effectively mitigated~~
- Noise: On-site and off-site levels of project-related traffic noise; ~~cannot be feasibly mitigated with existing level of road and residential development~~ and
- Transportation: Project contributions to cumulatively considerable impacts to various extra-territorial facilities, various TUMF facilities, and State-controlled transportation facilities.

6.2 ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD FOR DETAILED ANALYSIS

NOTE: The following changes have been made due to revisions to the Specific Plan project size.

In determining an appropriate range of alternatives to be evaluated in the EIR, three possible alternatives were considered and rejected because they could not accomplish the basic objectives of the project as listed above or they were considered infeasible. Per the *CEQA Guidelines* (Section 15126.6(c)), factors that may be considered when addressing the feasibility of alternatives include failure to meet most of the stated project objectives, infeasibility, or inability to avoid significant environmental effects. The purpose of the proposed project is to establish the ~~2,710~~ 2,610-acre WLC Specific Plan that will result in the development of ~~41.6~~ 40.6 million square feet of high-cube logistics warehouse uses and designation of 1,085 acres of vacant land owned by CDFW as Open Space. The proposed project would provide for and expand employment and revenue opportunities within the City.

The following development scenarios were considered and rejected as potential alternatives to implementation of the proposed project:

- All Residential Use Alternatives; and
- Mixed Use Alternatives that emphasize residential uses.

Based on Section 15126.6 of the *CEQA Guidelines*, these alternatives were rejected based on the criteria of not feasibly attaining most of the basic objectives of the project while reducing or avoiding any of the significant effects of the proposed project. The reason or reasons for not selecting each of the rejected alternatives are discussed below.

6.2.1 All Residential Uses[1]

A number of residential uses, including very low density (2-acre or 5-acre lots) were considered prior to deciding on all warehousing uses, but it was concluded that any residential alternatives, or alternatives that emphasized residential uses, would further exacerbate the City's jobs/housing imbalance and did not meet any of the project goals. In addition, the City's Economic Strategy Plan excludes additional residential development in this area. For these reasons, all Residential Use Alternatives were rejected for further analysis. However, an evaluation of the largely residential Moreno Highlands Specific Plan (MHSP) was provided under the No Project/Existing General Plan alternative (see below).

[1] Ones that are exclusively residential or ones that emphasize residential uses.

6.2.2 Mixed Use Alternatives

The EIR examines two Mixed Use Alternatives with varying amounts of residential and non-residential uses. The No Project-Existing General Plan Alternative is based on the approved mixed use MHSP. In addition, Alternative 3 (Mixed Use B) evaluates the impacts of substituting logistics warehouse uses for the non-residential uses currently included in the MHSP. After extensive evaluation, it was concluded that any reasonable combination of residential and non-residential uses (i.e., light industrial, business park, office, commercial) would result in impacts similar to those of the MHSP, Alternative 2 (mixed non-residential uses but no residential uses), or Alternative 3 (Moreno Highlands Specific Plan with logistics warehousing as the main non-residential use). For this reason, no other Mixed Use Alternatives were considered further in this analysis.

6.3 ALTERNATIVES ANALYSIS

NOTE: Changes were made to the project alternatives as a result of the reduction in the proposed project site by 100-acres which resulted in reductions of land uses for certain alternatives as indicated below and shown in Tables 6.A and 6.B, as well as subtraction of 910 acres from the Moreno Highlands Specific Plan due to the purchase of land by the State for conservation purposes.

6.3.1 Summary of Alternatives

The following alternatives have been identified and evaluated to provide decision-makers with a reasonable range of alternatives that would eliminate or reduce the impacts of the project. Factors considered in selecting the alternatives include site suitability, availability of infrastructure, other plans or regulatory limitations, economic viability, and whether the project proponent can reasonably acquire, control, or otherwise have access to the alternative site. An EIR need not consider an alternative whose impact cannot be reasonably ascertained and whose implementation is remote or speculative. In accordance with *CEQA Guidelines*, the alternatives considered in this EIR include those that 1) could accomplish most of the basic objectives of the project, 2) are reasonably feasible given the nature of the project and surrounding land uses, and 3) could avoid or substantially lessen one or more of the significant effects of the project. ~~An EIR need not consider an alternative if impacts cannot be reasonably ascertained and it implementation is remote or speculative.~~ It should also be noted that alternatives proposed in the DEIR are theoretical and may never be developed even if approved. The following development scenarios have been identified as potential alternatives to implementation of the proposed project:

- No Project/No Build Alternative;
- No Project/Existing General Plan (modified Moreno Highlands Specific Plan);
- Alternative 1: Reduced Density (~~29~~28 MSF or 30 percent less logistics warehousing);
- Alternative 2: Mixed Use A – Warehousing/Business Park/Office/Commercial;
- Alternative 3: Mixed Use B – MHSP with logistics warehousing; and
- Alternative Sites: Moving the project to some other available site.

Tables 6.A and 6.B summarize the alternatives. Table 6.C shows the current land use designations.

Table 6.A: Summary of Analyzed Alternatives

Project Alternative	Alternative Description
No Project/No Build ("baseline" conditions)	*The following changes have been made due to revision to the Specific Plan project size.* The proposed WLC Specific Plan would not be developed with 2,~~710~~610 acres proposed for high-cube logistics warehouse. No development would occur and the majority of the site would remain in dry farming, with a small amount in rural residential uses.
No Project/Existing General Plan (modified Moreno Highlands Specific Plan)	*The following changes have been made in response to comments on the DEIR.* This alternative would result in development of the project with the land uses currently shown in the City's General Plan which currently designates the project area as a mix of residential, commercial, business park, and open space land uses. The 3,038-acre Moreno Highlands Specific Plan (MHSP) is a master planned, mixed-use community that originally consisted of 7,763 residential units on approximately 2,435 acres and approximately 603 acres of business, retail, institutional, and other uses. During review of the DEIR, a comment was made that the MHSP could not be built as originally approved because since that time the State had purchased 1000 acres as a buffer for the San Jacinto Wildlife Area. Therefore, the portion of the MHSP that could be built today would consist of up to 4,051 residential dwelling units on approximately 709.3 acres and approximately 603 acres of business, retail, institutional, and other uses. In addition, the 1,085 acres owned by the CDFW are currently designated as Residential, Public Facilities, and Open Space in the City's General Plan and would be designated as permanent Open Space under this alternative, similar to the proposed project.
Alternative 1 Reduced Density	*The following changes have been made due to revision to the Specific Plan project size.* This alternative would develop approximately 28 million square feet of logistics warehousing (approximately 30% less than under the proposed project) on the 2,610 acres of land under the Specific Plan, including 74.3 acres for open space. The 1,085 acres owned by the CDFW would be designated as Open Space in the City's General Plan, similar to the proposed project.
Alternative 2 Mixed Use A	This alternative would result in development of the entire property with a mix of 1,400 acres of logistics warehousing (22 million square feet), 1,000 acres of light manufacturing, assembly, or business park uses (20 million square feet), 50 acres of retail commercial uses (500,000 square feet), 100 acres of professional or medical office uses (1 million square feet), and ~~150~~70 acres of open space. The 1,085 acres owned by the CDFW would be designated as Open Space in the City's General Plan, similar to the proposed project.
Alternative 3 Mixed Use B	This alternative would develop the project site similar to the land use plan of the MHSP but with 10 million square feet of logistics warehousing on the 603 acres proposed for business, retail, institutional, and other uses under the MHSP. The 1,085 acres owned by the CDFW would be designated as Open Space in the City's General Plan, similar to the proposed project.
Alternative Sites	This alternative would relocate development under the proposed project to another site of 2,610 acres in the surrounding region. This analysis included potential sites in nearby cities and several unincorporated sites in the general project area.

NOTE: The following changes to the table have been made due to revision to the Specific Plan project size.

Table 6.B: Alternatives to the World Logistics Center Specific Plan (Revised)

Alternative	Logistics Warehousing	Light Industrial	Retail Commercial	Office	Other
Proposed Project	2,610 acres 40.6 MSF (100%) 0.28 FAR	0 acres 0 SF	0 acres 0 SF	0 acres 0 SF	74.3 acres Open Space

Table 6.B: Alternatives to the World Logistics Center Specific Plan (Revised)

Alternative	Logistics Warehousing	Light Industrial	Retail Commercial	Office	Other
No Project/No Build (baseline)	0 acres 0 SF (0%)	0 acres 0 SF	0 acres 0 SF	0 acres 0 SF	2,610 acres Agriculture
No Project/General Plan Modified Moreno Highlands Specific Plan[1]	0 acres 0 SF (0%)	361 acres (BP)	106.5 acres 1.1 MSF (various) 0.23 FAR	0 acres 0 SF	709.3 acres Residential 4,051 units 861 acres Open Space and Public Facilities
Alternative 1 Reduced Density	2,610 acres 28 MSF (70%) 0.25 FAR	0 acres 0 SF	0 acres 0 SF	0 acres 0 SF	74.3 acres Open Space
Alternative 2 Mixed Use A	1,400 acres 22 MSF (54%) 0.36 FAR	1,000 acres 20 MSF 0.46 FAR	50 acres 0.5 MSF 0.23 FAR	100 acres 1.0 MSF 0.23 FAR	70 acres Open Space
Alternative 3 Mixed Use B[2]	603 acres 10 MSF (25%) 0.38 FAR	0 acres 0 SF	0 acres 0 SF	0 acres 0 SF	1,146 acres Residential 6,532 units 861 acres Open Space and Public Facilities
Alternative Sites	2,610 acres 40.6 MSF (100%) 0.28 FAR	0 acres 0 SF	0 acres 0 SF	0 acres 0 SF	0 acres 0 SF

FAR = Floor Area Ratio (gross) M = million SF = square feet MHSP = Moreno Highlands Specific Plan BP = business park
1 See Table 6.C below ("Other" includes public facilities, cemetery, open space, etc.).
2 Assumes residential land uses similar to MHSP but with logistics warehousing on land designated for non-residential uses ("Planned Business Center") under the Specific Plan.

NOTE: the following table was revised in response to Comment G-95-83 in Letter G-95 from Thomas Thornsley.

Table 6.C: Moreno Highlands Specific Plan (Land Use Designations) modified table (Revised)

Land Use	Original Acreage[1]	Modified Acreage[2]
Residential Community		
Residential (dwelling units)	1,359.3 (7,763)	709.3 (4,051)
Parks and Open Space	701.9	352.0
Neighborhood Commercial	10.0	10.0
Cemetery	16.5	16.5
Public Facilities	347.7	347.7
Subtotal Residential	**2,435.5**	**1,435.5**
Planned Business Center		
Business Park	360.8	360.8
Mixed Use	80.5	80.5
Community Commercial	16.0	16.0
Parks and Open Space	77.9	~~77.9~~ 168.7

Table 6.C: Moreno Highlands Specific Plan (Land Use Designations) modified table (Revised)

Land Use	Original Acreage[1]	Modified Acreage[2]
State Conservation Land (SJWA)	0.0	~~1,000.0~~ 910
Public Facilities	67.4	67.4
Subtotal Non-Residential	**602.6**	**1,602.6**
Project Total	**3,038.0**	**3,038.0**

1 MHSP adopted by City Council March 17, 1992.
2 Based on removal of ~~1,000~~ 910 acres purchased by the State as a buffer for the San Jacinto Wildlife Area.

6.3.2 Environmental Impacts That Are Similar to the Proposed Project

Eight of the seventeen environmental issues for all the alternatives considered would result in a similar level of impact when compared to the project. Rather than repeat a discussion of these non-significant impacts under each alternative, a summary of these impacts is presented below.

- Agricultural Resources
- Biological Resources
- Hydrology and Water Quality
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Land Use and Planning
- Mineral and Forestry Resources
- Public Services/Recreation

The level of impact associated with these topics would be similar if developed as proposed by the project or if developed with any of the alternatives. Where impacts related to any of these issues do differ among project alternatives, an appropriate discussion is provided for the respective alternative.

6.3.2.1 Agricultural and Forestry Resources

Development of any of the alternatives, with the exception of the Off-Site Alternative, would have similar agricultural-related impacts. The Moreno Valley General Plan policies and zoning designations support agriculture only as an interim use. No land in the City is designated solely for agricultural use or for agricultural preservation and no property within the City limits is located within a Williamson Act contract area. As such, no impacts related to Williamson Act land would occur with implementation of any of the alternatives. As identified in Sections 4.2.6.1 and 4.2.6.2 of the EIR, the development of the project site with urban uses would result in the conversion of State- and locally-designated Farmland (Unique Farmland and Farmland of Local Importance, respectively). ~~Because no feasible~~With implementation of the revised mitigation ~~measure is available to fully mitigate~~, including acquisition of an offsite conservation easement for the loss of ~~State- and locally-designated~~ unique farmland, impacts ~~associated with development of any of the on-site alternatives~~ to agricultural resources would ~~remain~~be reduced to less than significant ~~and unavoidable.~~levels. Therefore, compared with the proposed project, all on-site alternatives would have less than significant ~~and unavoidable impact~~impacts on agricultural resources.

There are no lands within the City of Moreno Valley designated as forest or forestland, according to the Fire and Resource Assessment Program mapping system maintained by the California Department of Forestry and Fire Protection. Therefore no impacts related to forestry resources would occur and no mitigation is required.

6.3.2.2 Biological Resources

All build alternatives would require site development resulting in the grading of the entire project site. According to the project biological report, the project area does not contain any wildlife movement corridors or linkages. The project biological report concluded that development of the project as proposed would not have any significant impact on wildlife movement in the area, and would not fragment habitat or adversely affect wildlife movement through the surrounding areas. Therefore, all on-site build alternatives would also similarly have a less than significant impact on wildlife movement and corridors.

~~While none of the identified special-status species (Table 4.4.E of the EIR) were observed or are believed to be present on the project site, it is possible that one or more of them, especially the listed birds, may utilize the SJWA on a seasonal or permanent basis.~~ Burrowing owl, a species of concern, was identified within the southern portion of in the WLCSP project site and offsite facilities during focused surveys conducted in 2013. Based on available research and expected site conditions, the project and all on-site alternatives may create potentially significant impacts on wildlife, including listed species, from diesel particulate emissions and toxic air contaminants related to truck exhaust (although somewhat reduced by prevailing winds), increased roadkill on Gilman Springs Road and new roadkill on future local streets close to the SJWA, and increased indirect impacts from additional lighting and noise. No federal or state endangered/threatened species were detected on the project site during the focused biological resource surveys. However, it is likely that one or more endangered or threatened species or bird or other wildlife may be present on the SJWA property near the project site at various times of the year. With implementation of the recommended Mitigation Measures 4.4.6.1A through 4.4.6.1C, impacts to listed species will be reduced to less than significant levels for all on-site alternatives.

The project site is within the Stephen's Kangaroo Rat Habitat Conservation Plan (SKR HCP) Fee Area, but is not within a Stephen's Kangaroo Rat Core Area. Focused surveys for SKR are not required for this project as it lies within the SKR Fee Area; therefore, under the SKR HCP, only payment of a local mitigation fee is required.

The project area is located within the Reche Canyon/Badlands Area of the MSHCP. Development of the project area would not conflict with the conservation goals established by the MSHCP for Cell Group X or Cell Group E. In addition, no conflict from development would occur in relation to the Reche Canyon/Badlands Area Plan, the Area Plan Subunit 4, the Area Plan Subunit 3, Proposed Core 3, or Existing Core H. No development is proposed within the portion of the project area that lies within Cell Group D and the SJWA. This area is already owned by the State and managed by the CFDW. However, development that will be adjacent to the SJWA property may cause significant indirect impacts to species within the SJWA, which will require mitigation (i.e., designing an appropriate buffer along this "urban edge" will help minimize potential impacts on the SJWA). ~~The project area is not adjacent to any Cores or Linkages identified in the MSHCP. However, it~~ The project is adjacent to the SJWA and is subject to the project guidelines provided in MSHCP Section 6.1.4 (Guidelines Pertaining to the Urban/Wildlands Interface). Development occurring on the project site is also required to adhere to the Best Management Practices (BMPs) found in Appendix C of the MSHCP. The project site is not located within any Amphibian, Mammalian, or Special Linkage Areas identified by the MSHCP. The project site is in an area requiring burrowing owl surveys, is within the MSHCP Criteria Area Species Survey Area (CASSA), and is within the Narrow Endemic Plant Species Survey Area (NEPSSA); however, surveys performed for the site confirmed such plants do not exist on the project site. From available information, potential indirect impacts to avian and other biological resources within Mystic Lake and the SJWA will be reduced to less than significant levels by the creation of a 250-foot on-site setback or buffer area in Mitigation Measure 4.4.6.1A, which will be in addition to the existing setback provided by the CDFW Conservation Buffer Area just south of the proposed development area.

The MSHCP and its Implementation Agreement contain a fee mitigation program pursuant to which local agencies collect development impact fees and remit such fees to the Riverside Conservation Authority (RCA). These fees are in turn used to acquire lands that are suitable for habitat preservation for species covered by the MSHCP. Payment of the local MSHCP mitigation fee will be required of the project and all on-site alternatives prior to the issuance of building permits. Participation in the MSHCP and contribution of MSHCP fees provides compensation for the loss of raptor foraging habitat due to approved projects. Typically, a project proponent would participate as outlined in the MSHCP, so that loss of raptor foraging habitat is typically considered to be less than significant and no mitigation is required.

The project is consistent with the major MSHCP requirements relative to core areas, criteria cells, threatened and endangered species. In addition, the project complies with the MSHCP guidelines for urban/wildland interface, riparian/riverine areas, or related buffers (with implementation of Mitigation Measures 4.4.6.1A, 4.4.6.1B, 4.4.6.2A, and 4.4.6.2B). In addition, future development will be required to demonstrate that it is also consistent with all MSHCP requirements, including indirect impacts such as lighting, noise, and air pollution effects, which shall be implemented through adherence to Mitigation Measures 4.4.6.~~2A~~3A through 4.4.6.3C and 4.4.6.4A through 4.4.6.4J.

With implementation of Mitigation Measures 4.4.6.1A ~~through 4.4.6.1C and 4.4.6.2A~~ and 4.4.6.1B, 4.4.6.2A and 4.4.6.2B, 4.4.6.3A through 4.4.6.3C, and 4.4.6.4A through 4.4.6.4J, potential impacts related to MSHCP consistency will be reduced to less than significant levels for all on-site alternatives.

A formal jurisdictional delineation (JD) was conducted within the WLCSP and offsite facilities by MBA in September 2007 and again in March 2012. A total of 15 primary drainage features were identified during these combined surveys. The 2013 JD report concludes that two drainage features (Drainage 12 and 15) have been determined to be jurisdictional waters of the U.S. under Section 404 and 401 of the CWA. Drainages 7, 8, 9, 12, and 15 were determined to be waters of the state and subject to the jurisdiction of both the CDFW and RWQCB. A number of sub-drainages or tributaries were also identified. Implementation of Mitigation Measures 4.4.6.3A through 4.4.6.3C will ensure there will be no significant impacts to Waters of the U.S. or Waters of the State as a result of future development within the project.

One catch basin and portions of Drainage Feature 7 and 9 on the project site are considered riparian/ riverine areas, as defined by the MSHCP. If impacts to any of these areas cannot be avoided, a DBESP report and relevant mitigation will be required by the RCA for the project and all on-site alternatives. The project area does not contain habitat suitable for sensitive riparian species, such as least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo. Additionally, no vernal pools or ephemeral ponds were observed on the project area and no suitable habitat for any fairy shrimp species was identified on site. The project area currently contains extensive raptor foraging habitat, which is considered a type of sensitive natural community. Impacts to the large amount of raptor foraging habitat is a significant impact that requires mitigation.

The project may have a potentially significant indirect impact on Mystic Lake from diesel fuel emissions and nitrogen deposition. However, it is anticipated that indirect impacts from diesel fuel emissions and nitrogen deposition would be reduced under all other alternatives as each would result in a reduction in the number of diesel trucks and resultant diesel emissions.

~~The 2012 Jurisdictional Delineation contained in the DEIR determined that the on-site drainages were not under the jurisdiction of the U.S. Army Corps of Engineers, but one or more may be under the jurisdiction of the California Department of Fish and Wildlife. Therefore, Mitigation Measure 4.4.6.3A will ensure there will be no significant impacts to riparian areas associated with Waters of the U.S. or Waters of the State as a result of future development within the project.~~ With implementation of Mitigation Measures 4.4.6.1A ~~through 4.4.6.1D, and 4.4.6.3A and 4.4.6.3B~~ and 4.4.6.1B, 4.4.6.2A

and 4.4.6.2B, 4.4.6.3A through 4.4.6.3C, and 4.4.6.4A through 4.4.6.4J, potential impacts to riparian habitat or other sensitive natural communities, including on-site drainages, will be reduced to less than significant levels for all on-site alternatives.

No USFWS designated Critical Habitat for any species is located within the project area; therefore, no further action with regard to Critical Habitat is necessary. Extensive surveys were completed in 2005 2010, 2012, and ~~2010~~2013 and concluded that Los Angeles pocket mouse was not present. However, to ensure that no impacts occur, Mitigation Measure 4.4.6.4E has been recommended.

For those species that are not covered by the take and incidental take provisions of the MSHCP (e.g., burrowing owl), the MSHCP requirements dictate that further protective action be taken. ~~While no burrowing owls were identified within the project's proposed area of disturbance, because~~ Burrowing owl, a species of concern, was identified within the southern portion of in the WLCSP project site and offsite facilities during focused surveys conducted in 2013. Because suitable habitat is present within the project area for the burrowing owl and because the species is highly mobile, a potential exists that, at some future date prior to project development, this species may occupy the development sites. This is a potentially significant impact requiring mitigation. Implementation of Mitigation Measures 4.4.6.4A through 4.4.6.4E would reduce impacts to burrowing owl and migratory bird species, and Los Angeles pocket mouse to less than significant levels for all on-site alternatives.

The only substantial differences among the built alternatives and the No Project/Existing General Plan (Moreno Highlands Specific Plan) is that any residential uses proximate to the San Jacinto Wildlife Area may incrementally increase adverse impacts by introducing domestic dogs and cats into the area that might prey on native wildlife.

6.3.2.3 Cultural Resources

Development of any of the identified build alternatives would result in extensive ground-disturbing activities affecting the entire project site, and similar cultural resource impacts would be anticipated when compared to the proposed project. There is no evidence to suggest that the project site has ever been utilized for human burials. In the unlikely event that human remains are discovered during grading or construction activities within the project site, compliance with State law (Health and Safety Code § 7050.5) (HSC § 7050.5) would be required. Compliance with existing State law would ensure that impacts related to the discovery of buried human remains would be less than significant and no mitigation is required. The *Cultural Resources Assessment* prepared for the proposed project concluded that it is possible that unknown cultural resources could be discovered during project-related construction. Adherence to Mitigation Measures 4.5.6.1A through 4.5.6.1E will reduce potential impacts to archaeological resources to less than significant levels for all on-site alternatives.

Mitigation Measure 4.5.6.1A requires surveying the seven occupied residential parcels for archaeological resources since these properties could not be surveyed at the time the EIR was prepared. These surveys will identify the potential for significant historical resources on these properties. In addition, Mitigation Measure 4.5.6.2A will further reduce the potential impacts of the project on historical resources for all on-site alternatives.

As described in the *Paleontological Resources Assessment*, no paleontological resources were observed during the field survey. However, the project site is considered to have a moderate paleontological sensitivity; therefore, impacts are considered potentially significant and mitigation is required. Adherence to Mitigation Measures 4.5.6.3A and 4.5.6.3B will reduce potential impacts to paleontological resources to less than significant levels for all on-site alternatives.

6.3.2.4 Geology and Soils

Development of any of the on-site build alternatives would have similar geologic and soil-related impacts. Although no active faulting was observed, some local discontinuous fracturing was observed and documented. The A-P Earthquake Fault Zone is located on the eastern border of the project site (refer to Figure 4.6.1 of the EIR). Adherence to Mitigation Measures 4.6.6.1A through 4.6.6.1C, as well as other requirements identified and required by the City, will ensure fault rupture hazards are reduced to a less than significant level for all on-site alternatives.

The level of potential ground motion is considered moderate to high in the City of Moreno Valley and, therefore, in the project area. In accordance with the City's General Plan Safety Element (Objective 6.1),[1] project development, as well as alternatives, will require geological and geotechnical investigations by State-licensed professionals. The geotechnical investigations will provide design considerations and earthwork recommendations to ensure that ground shaking impacts are appropriately mitigated. In addition, California Code of Regulations (CCR), Title 24, also known as the California Building Standards Code, contains building design and construction requirements relating to fire and life safety, and structural safety. The California Building Code (CBC) also includes standards designed to ensure that structures within California are built to withstand expected levels of seismic activity for each earthquake region throughout the State. Adherence to Mitigation Measure 4.6.6.2A, as well as other requirements identified and required by the City, will ensure ground shaking hazards are reduced to a less than significant level for all on-site alternatives.

On-site soils are identified as having a moderate to low shrink-swell potential. Implementation of Mitigation Measures 4.6.6.3A through 4.6.6.3D, and adherence to actions identified in subsequent geotechnical investigations, as well as other requirements identified and required by the City, will ensure that the potential impact from expansive soils are reduced to a less than significant level for all on-site alternatives.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

A large older landslide has been mapped primarily off site on the northeasterly flanks of Mount Russell, near the southwest portion of the property. The landslide appears to have originated on the higher slopes off site and moved northeast, partially onto the subject property. The Specific Plan designates ~~75~~74.3 acres in the southwestern portion of the property as open space. This ~~75~~74.3 acres includes the steepest slopes on site (i.e., the Mount Russell foothills), which will reduce the potential for significant landslide or rockfall impacts on the project to less than significant levels; therefore, no mitigation is needed. Because this condition exists, it is anticipated that all other on-site alternatives would also restrict development within this area resulting in a less than significant impact, similar to the proposed project.

Development of the site would require the movement of on-site soils. Portions of the site have been and are being used for dry farming, and several rural residences are present. Prior to the issuance of grading permits, the project proponent will be required to prepare and submit detailed grading plans as each phase is developed. These plans will be prepared in conformance with applicable standards of the City's Grading Ordinance. Soils covering the project site have a slight-to-high erosion hazard potential and because the project would be required to adhere to the City's Grading Ordinance, obtain an NPDES Permit, prepare an SWPPP and a WQMP, construction and operational impacts associated with soil erosion hazards are considered to be less than significant for all on-site alternatives, and no mitigation is required.

Septic tanks would not be used under any of the on-site alternatives as existing sewer infrastructure is readily available to serve any on-site development.

[1] Moreno Valley General Plan, Chapter 9 Goals and Objectives, pg. 9-30.

None of the on-site alternatives propose any activity known to cause damage by subsidence (e.g., oil, gas, or groundwater extraction). The project site is underlain by relatively dense alluvial and dense sedimentary bedrock materials at depth and the potential for settlement is considered low. Because the project site does not exhibit characteristics of a high potential for subsidence or settlement, impacts are considered less than significant. No mitigation is required.

The potential for liquefaction generally occurs during strong ground shaking within relatively cohesionless loose sediments where the groundwater is typically less than 50 feet below the surface. Because the project site does not exhibit characteristics of a high potential for liquefaction induced settlement (i.e., relatively dense soils with groundwater levels in excess of 100 feet), impacts are considered less than significant for all on-site alternatives. No mitigation is required.

6.3.2.5 Hazards/Hazardous Materials

Development of the any of the on-site build alternatives would result in the on-site handling of hazardous substances, both during project construction and operation. It is assumed that, like any current use, these substances would continue to be used in accordance with applicable local, State, and Federal standards. There are no existing or proposed schools within a quarter mile of the proposed project site and the site is not identified on the DTSC's hazardous materials sites. Air traffic-related hazards would not occur at the proposed project site as it is not located within the safety hazard zones of March Air Reserve Base.

A portion of the project area is mapped as a very high fire hazard area, while the Badlands directly east of the project area are considered a High Fire Hazard Area.[1] Development of the eastern portion of the project could expose persons or property to wildland fire risks given the designation of a portion of the project area as a Very High Fire Hazard Area. Regardless of these designations, all new structures in the project area must be constructed in compliance with Title 24 of the California Code of Regulations to safeguard life and property from fire hazards, including the installation of automated fire suppression systems. Compliance with these standards would be enforced during building permit review and the construction inspection period for all on-site alternatives. Given the proximity of Station #58 and with all new structures constructed in compliance with Fire and Building Code regulations, the susceptibility and exposure of the project to wildland fires would be limited. The WLCSP addresses potential impacts related to future fire protection services for this area by including a new fire station site. In addition, buildings will be setback from the western side of Gilman Springs Road due to the location of the San Jacinto Fault through this area, which will further reduce the potential for project fire risks. Implementation of these measures will help reduce potential wildland fire risks to a less than significant level, and no additional mitigation is required.

All on-site alternatives will be designed, constructed, and maintained in accordance with applicable standards associated with vehicular access, ensuring that adequate emergency access and evacuation will be provided. Construction activities that may temporarily restrict vehicular traffic would be required to implement appropriate measures to facilitate the passage of persons and vehicles through/around any required road closures. Compliance with existing regulations for emergency access and evacuation will ensure that impacts related to this issue are less than significant, and no mitigation is required.

Due to the suspected age of the rural residential structures on the site, it is possible that demolition of these structures may involve asbestos-containing materials (ACMs) and/or lead-based paint (LBP). Demolition of these structures may need to be supervised or conducted by contractors certified to remove and dispose of ACMs and/or LBP.

[1] Letters from Fire Chief dated May 4 and June 27, 2011, and City of Moreno Valley General Plan, Final Program EIR, Section 5.5 Hazards, Figure 5.5-2.

In addition, Alternatives 1, 2, and 3 include a liquefied natural gas/compressed natural gas (LNG/CNG) fueling station to be constructed somewhere in the Logistics Development (LD) land use area. This LNG/CNG facility is referred to as "logistics support" ~~(LS)~~ in the WLC Specific Plan. It would sell natural gas to fuel vehicles serving or visiting the project. This facility is not proposed under the No Project/No Build Alternative or the No Project/Existing General Plan Alternative. Since this facility would store natural gas under liquefied and/or compressed conditions, there is a potential for fire and/or explosion, creating a potentially significant hazards impact requiring mitigation.

With implementation of Mitigation Measures 4.8.6.1A and 4.8.6.1B, impacts associated with potential hazardous materials in existing rural residential structures (all on-site alternatives) or from the proposed fueling facility will be reduced to less than significant levels for Alternatives 1, 2, and 3.

6.3.2.6 Hydrology and Water Quality

As with the proposed project, the development of any of the on-site alternatives would require the modification of the existing on-site pattern of drainage and would require the installation of drainage improvements that may include on-site collection/routing pipes, landscaped swales, sand filters, and porous pavement features.[1] While the extent of the impermeable surfaces (rooftops, driveways, parking areas, etc.) required under each alternative is reduced from that required for the proposed project, the environmental impact of these improvements would be similar. All local, State, and Federal policies and regulations pertaining to surface water and groundwater resources would remain in effect under these alternatives. Sedimentation and erosion from any on-site development has the potential to affect water quality. Similar to the proposed project, the construction of any on-site use would be required to follow applicable NPDES requirements, including the preparation of and adherence to an SWPPP and BMPs.[2] These requirements have been incorporated as Mitigation Measures 4.9.6.1A through 4.9.6.1C (refer to Section 4.9.6.1 of the EIR) and Mitigation Measures 4.9.6.2A through 4.9.6.2C (refer to Section 4.9.6.2 of the EIR). As with the proposed project, runoff from paved surfaces, especially during "first-flush" events, may be contaminated by sediment, debris, and other contaminants. A standard condition with any such development would be preparation and implementation of a Water Quality Management Plan, which would effectively mitigate post-construction water quality impacts from the developed area. This requirement has been incorporated as Mitigation Measure 4.9.6.2A (refer to Section 4.9.6.2 of the EIR). The project site is not identified as a groundwater recharge area, so none of the on-site alternatives would interfere with groundwater recharge. Anticipated on-site flows would be routed to the onsite and off-site water quality features such as vegetated swales, clarifiers, and sand filters to protect downstream water quality.

New development is required to maintain off-site flows to below or equal to pre-development conditions, and this is incorporated as Mitigation Measure 4.9.6.1A (refer to Section 4.9.6.1). The project site is not located within a flood zone and the project site is not susceptible to mudslides, tsunamis, seiches, or flooding as a result of dam or levee failure. Similar to the proposed project, potential impacts related to hydrology and water quality would be less than significant for all on-site alternatives.

6.3.2.7 Land Use and Planning

Like the proposed project, these alternatives would comply with applicable provisions of local and regional plans (e.g., Water Quality Control Plan and Air Quality Management Plan). However, the proposed project was not included as part of the 2007 AQMP and is considered to not be consistent with the AQMP. This is a significant and unavoidable impact. Compliance with applicable City policies

[1] *Draft Master Plan of Drainage Report for World Logistics Center Specific Plan and Environmental Impact Import,* CH2MHILL, September 2014.
[2] *Preliminary Water Quality Management Plan for World Logistics Center Specific Plan,* CH2MHILL, September 2014.

related to development within the project site would ensure that on-site alternative uses would be compatible with existing development in the project area. Land uses associated with less intense alternatives may have less impact on existing on-site land uses compared to the proposed project, depending on the types of uses proposed.

6.3.2.8 Mineral Resources

There are no lands within the City of Moreno Valley designated by the California Department of Conservation as known significant resource areas, defined by the state as Mineral Resources Zone 2 areas. As identified in the City's General Plan, lands within the City of Moreno Valley and its Sphere of Influence are designated MRZ-3 and MRZ-4 zones, which are not defined as significant mineral resource areas. Development of the project site with any build alternatives would not result in the loss of or reduce the availability of mineral resources or the resource base from which they would be derived. Compared with the proposed project, no greater impact would occur for any of the on-site project build alternatives.

6.3.2.9 Public Services/Recreation

As with the proposed project, none of the build alternatives would include a residential component (with the exception of the No Project/Existing General Plan Alternative) and potential jobs generated by the build alternatives would be filled to some degree by people already residing in the City, similar to the proposed project. Therefore, there would be no increase in existing population and no increase in demand for park and recreation facilities resulting from development of Alternatives 1 or 2. Alternative 3 would have increased population from new housing under the MHSP land use plan; it would also have parks to serve those new residents. Because no increase in demand for City recreational facilities would occur, impacts associated with recreation for any of the build alternatives would be similar in magnitude as the proposed project. Compared with the proposed project, no greater impact would occur for any of the project build alternatives.

6.3.3 Description and Impact Analysis of Alternatives

The following discussion compares the impacts of each alternative with the impacts of the proposed project, as detailed in Sections 4.1 through 4.16 of this EIR. A conclusion is provided as to whether each alternative would result in one of the following:

- Reduction or elimination of the impact;
- A greater impact than the project;
- The same impact as the project; or
- A new impact in addition to the impacts of the proposed project impacts.

6.3.4 No Project/No Build Alternative

NOTE: The following changes have been made due to revision to the Specific Plan project size.

Under the No Build Alternative, no development would take place within the project limits. No ground-disturbing activities would take place, nor would any form of structure or facility be erected. Impacts associated with this alternative, when compared to the proposed project, would not occur. In the absence of development, no impacts would occur and this alternative would be the environmentally superior alternative. However, prohibiting development of the site, as suggested by this alternative, would not fulfill any of the primary objectives of the proposed project. Retention of the project site in its

current condition would not create a high cube logistics facility consisting of approximately 2,610 acres of high-cube warehouse uses and it would not expand employment opportunities within the City and surrounding area. This alternative provides a baseline comparison to the proposed project.

Impact Analysis. The No Project/No Build Alternative would not result in any new physical environmental effects. However, this alternative would not meet any of the project objectives as identified in Table 6.D.

Note: The objectives outlined in this table did not correspond to the Project Objectives outlined in the Project Description of the DEIR, therefore, they are being corrected at this time.

Table 6.D: Comparison of No Project/No Build Alternative to the Project Objectives (Revised)

Project Objectives	Does the Alternative Meet the Project Objectives?
Create substantial employment opportunities for the citizens of Moreno Valley and surrounding communities.	No
Provide the land use designation and infrastructure plan necessary to meet current market demands and to support the City's Economic Development Action Plan.	No
Create a major logistics center with good regional and freeway access.	No
Establish design standards and development guidelines to ensure a consistent and attractive appearance throughout the entire project.	No
Establish a master plan for the entire project area to ensure that the project is efficient and business-friendly, accommodating the next-generation of logistics buildings.	No
Provide a major logistics center to accommodate a portion of the ever-expanding trade volumes at the Ports of Los Angeles and Long Beach.	No
Create a project that will provide a balanced approach to the City's fiscal viability, economic expansion, and environmental integrity.	No
Provide the infrastructure improvements required to meet project needs in an efficient and cost-effective manner.	No
Encourage new development consistent with regional and municipal service capabilities.	No
Significantly improve the City's jobs/housing balance and help reduce unemployment within the City.	No
Provide thousands of construction job opportunities during the project's buildout phase.	No
Provide appropriate transitions or setbacks between on-site and off-site uses.	No

6.3.5 No Project/Existing General Plan Alternative

This section has been revised in response to Comment G-95-83 in Letter G-95 from Thomas Thornsley. The CDFW Conservation Buffer Area (approximately 1,000 acres) has been removed from this alternative analysis. The 1,000 acre CDFW Conservation Buffer Area is approximately 33 percent of the existing General Plan. Therefore, this analysis was revised by reducing impacts estimated in the original DEIR by approximately 33 percent.

Pursuant to CEQA (§15126.6[e][2]), the No Project Alternative should discuss what would reasonably be expected to occur, based on current plans and consistent with available infrastructure and community services, in the foreseeable future. It is reasonable in the event the proposed project were

not approved, the site would be developed in accordance with the existing General Plan land uses in the future.

The No Project/Existing General Plan Alternative would result in development of the project with the land uses currently shown in the City's General Plan. The City's General Plan currently designates the project area as a mix of residential, commercial, business park, and open space land uses in accordance with the MHSP. The approved ~~3~~2,038-acre MHSP (without the CFDW Conservation Buffer Area) is a master planned, mixed-use community, consisting of up to 4,051 residential dwelling units on approximately ~~2~~1,435 acres and approximately 603 acres of business, retail, institutional, and other uses. The 1,085 acres owned by the CDFW are currently designated as Residential, Public Facilities, and Open Space in the City's General Plan however, as it is owned by the CDFW, this area would not be developed and the property will not remain with these designations as part of this alternative. ~~but it is unlikely that this area would be developed as it is owned by the CDFW~~.

The following impact analysis for this alternative evaluates the same seventeen environmental topics addressed for the proposed project as contained in Sections 4.1 through 4.16 of this EIR.

Impact Analysis. Eight environmental issues would have impacts similar to those identified for the proposed project. These include the following:

- Agricultural and Forestry Resources
- Cultural Resources
- Biological Resources
- Geology and Soils
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Recreation

Impacts associated with these topics would be similar to the proposed project because development of the site under the No Project/Existing General Plan Alternative would result in a similar footprint of development. For this reason, impacts to these land-oriented impact topics would be similar resulting in the same level of impact. The remaining environmental issues would, in some cases, result in similar impacts, but would be different enough to be discussed separately.

Aesthetics: The No Project/Existing General Plan Alternative would introduce a variety of residential and non-residential buildings on the site that would be much lower in height than the proposed WLC project in conformance with City Development Code standards. As a result, views of surrounding uplands from adjacent roadways (e.g., Redlands Boulevard, SR-60, and Gilman Springs Road) would not be blocked and aesthetic impacts would likely be less than significant, subject to architectural and design review of actual proposed buildings in the future. Development under this alternative would reduce potential aesthetic impacts to less than significant levels.

Air Quality: The No Project/Existing General Plan Alternative would require site grading and construction similar to that required of the proposed project. As identified in Section 4.3 of this EIR, short-term construction emission impacts associated with construction activities on the project site were significant and unavoidable for all criteria pollutants with the exception of SO_X. Since the No Project/Existing General Plan Alternative would require that the same amount of land be graded, it would require similar grading and construction activities on site. Therefore, it is reasonable to anticipate that short-term construction emission impacts would also be significant and unavoidable for all criteria pollutants, with the exception of SO_X, under this alternative. Air quality impacts associated with the remaining criteria pollutants would significant and unavoidable with this alternative, similar to what was identified for the proposed project.

Under the No Project/Existing General Plan Alternative, the site would be developed with approximately 361 acres of business park uses, 106.5 acres of professional/medical office uses, and up to ~~7,283~~4,051 residential units on ~~1,359~~709.3 acres. ~~Approximately 1,212 acres of open space~~

~~uses as would be established under the existing zoning and land use designations.~~ Based on these land uses, the No Project/Existing General Plan Alternative would generate approximately ~~178,608~~119,667 daily vehicle trips. The total trip generation associated with this alternative is approximately ~~2.5 times~~ 72 percent higher than that identified for the proposed project.

~~The volume of each operational pollutant emitted during operation of this alternative would be correspondingly decreased due the absence of a logistics warehouse component. However,~~ Similar to the proposed project, the traffic increase under this alternative contributes to significant and unavoidable emissions of CO, VOC, NO_x, PM_{10}, and $PM_{2.5}$ based on SCAQMD daily air quality significance thresholds. Therefore, this alternative would also have significant and unavoidable impacts on local air quality. The long-term air quality impacts resulting from this alternative would still contribute criteria pollutants to an air basin that is in nonattainment for these criteria pollutants, similar to the proposed project. As identified in Table 6.E, long-term operational air pollutant emissions associated with the No Project/Existing General Plan Alternative would exceed SCAQMD emissions thresholds for all criteria pollutants, with the exception of SO_X.

When compared with the proposed project, ~~air quality impacts~~ emissions of NOx and PM_{10} associated with the No Project/Existing General Plan Alternative would ~~be correspondingly decreased in magnitude~~ decrease and emissions of CO and VOC would increase. $PM_{2.5}$ emissions are similar for both the project and the No Project. Similar to the proposed project, the generation of these emissions would still result in a cumulative contribution of air pollutants in a nonattainment basin; therefore, impacts remain significant and unavoidable.

Note: The air pollutant and greenhouse gas emissions for this alternative were revised, as the dwelling units assumed in the DEIR (7,283 units), was changed to 4,051 units. In addition, the home-work trip length was increased from 10 miles to 27 miles (see the 2015 Air Quality, Greenhouse Gas, and Health Risk Assessment Report).

Table 6.E: No Project/Existing General Plan Alternative Operational Emissions

Source	Pollutant Emissions, lbs/day					
	CO	VOC	NO_X	SO_X	PM_{10}	$PM_{2.5}$
Proposed Project (mitigated; without existing)[1]	~~1,895~~ 1,396	~~704~~ 593	~~1,903~~ 1,097	~~21~~ NA	~~1,134~~ 1,121	~~345~~ 304
No Project/Existing General Plan[2]	3,494	765	712	14	973	300
Net Change (no project minus proposed)	~~-1,599~~ 2,098	~~-61~~ 172	~~1,191~~ 385	~~7~~ NA	~~161~~ 148	~~45~~ 4
SCAQMD thresholds	**550**	**55**	**55**	**150**	**150**	**55**
Alternative exceeds thresholds?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015
~~[2] From Moreno Highlands Specific Plan updated by MBA using CalEEMod software~~

Global Climate Change: GHG emissions associated with the No Project/Existing General Plan Alternative are correspondingly decreased as this alternative does not include a logistics warehouse component. ~~In addition, the No Project/Existing General Plan Alternative would decrease the amount of water utilized and wastewater generated.~~ As identified in Table 6.F, the No Project/Existing General Plan Alternative would generate ~~228,719~~ metric tons of 2,601 uncapped CO_2 equivalent[1] (mt CO_2e), which is approximately ~~60~~58 percent less than what was identified for the proposed project.

[1] Carbon dioxide equivalent (CO_2e) is an internationally accepted measure that expresses the amount of other greenhouse gases (e.g., methane and nitrous oxide) in terms of the amount of carbon dioxide (CO_2). The CO_2e measure is used as a way to measure the warming potential of a greenhouse gas as compared to CO_2.

Table 6.F: Comparison of Greenhouse Gas Emissions (Revised)

Type of Development	AB 32 Capped Annual Mitigated $MTCO_2e$ Emissions	Uncapped Annual Mitigated $MTCO_2e$ Emissions	Change from Uncapped Project Emissions
Proposed Project	~~381,241~~ 372,073	~~6,227~~ 6,210	0%
No Project/No Build[1]	59	0	-100%
No Project/Existing General Plan[2]	264,089	2,601	-58%
Alternative 1: Reduced Density	~~266,869~~ 260,451	~~4,359~~ 4,347	-30%
Alternative 2: Mixed Use A	~~579,713~~ 574,763	~~6,866~~ 6,856	+10%
Alternative 3: Mixed Use B	~~224,527~~ 222,235	~~2,929~~ 2,925	-53%
Alternative Sites	~~381,241~~ 372,073	~~6,227~~ 6,270	0%

$MTCO_2e$ is metric tons of carbon dioxide equivalents, which is a standard unit of measure for greenhouse gases.
[1] Estimated based on existing tractor uses.
[2] Based on approved Moreno Highland Specific Plan.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015.

Hazards and Hazardous Materials: Development of the No Project/Existing General Plan Alternative would still result in the on-site handling of hazardous substances, both during project construction and operation. It is reasonable to assume that, like any current use, these substances would continue to be used in accordance with applicable local, State, and Federal standards. Impacts associated with the transport or use of hazardous materials or potential upsets or accidents would not be increased in magnitude because the intensity of development is still below what is envisioned under the proposed project. Therefore, it is not expected that increased quantities of hazardous materials would be present on site. With the adherence to existing hazardous materials regulations, impacts associated with hazards and hazardous materials under the No Project/Existing General Plan Alternative would remain less than significant.

Under this alternative, a liquefied natural gas/compressed natural gas (LNG/CNG) fueling station would not be constructed on the site, so there would be no potential for fire and/or explosion involving natural gas. Therefore, this impact is reduced from that identified under the proposed project.

Noise: The No Project/Existing General Plan Alternative would result in the construction of a mix of residential, commercial, business park, and open space land uses in accordance with the MHSP. As identified in Section 4.12 of this EIR, short-term construction noise impacts associated with the development of the project site were significant and unavoidable for both on-site and off-site uses. Since the No Project/Existing General Plan Alternative would require similar site development during construction, short-term construction noise impacts would also be significant and unavoidable and similar in magnitude compared to the proposed project. The ~~decrease~~increase in project-related traffic under the No Project/Existing General Plan Alternative would result in an increase in ~~decrease~~ traffic-related noise. When compared to the proposed project, noise impacts associated with the No Project/Existing General Plan Alternative would be ~~reduced~~ increased in magnitude as there would be a reduction in vehicles. However, impacts would remain significant and unavoidable as some noise would still be generated under this alternative and there is no feasible mitigation to reduce noise impacts.

Population and Housing: The No Project/Existing General Plan Alternative would result in the development of up to ~~7,763~~4,051 residential dwelling units on ~~approximately 2,435~~709.3 acres and

approximately 603 acres of business, retail, institutional, and other uses. Based on the California Department of Finance Population and Housing Estimates,[1] the City of Moreno Valley is estimated to have approximately 3.783 persons per household. Based on this figure, the construction of up to ~~7,763~~4,051 residential dwelling units is projected to increase the City's population by approximately ~~29,367~~15,325 persons resulting in a direct population increase in the City. This level of population growth is not accounted for with the proposed project and potential impacts related to population growth are greater than that identified for the proposed project. Construction of the development envisioned under this alternative would create temporary construction jobs, and some portion of these jobs would be likely filled by people already residing within the City. Utilizing an employment factor of one employee for every 629 square feet of commercial retail/service space,[2] the No Project/Existing General Plan Alternative is anticipated to generate approximately 1,749 commercial service jobs.[3] Utilizing an employment factor of one employee for every 1,548 square feet of business park (light industrial) space,[4] the No Project/Existing General Plan Alternative is anticipated to generate approximately 5,103 business park jobs.[5] Under this alternative, additional jobs would be generated by the introduction of commercial retail/service uses (addition of 1,749 jobs) and business park uses (addition of 5,103). When this alternative is compared to the proposed project, the number of new jobs in the City would be a ~~73~~72 percent decrease from the proposed project (6,852 jobs opposed to approximately 24,~~960~~000 jobs).

The No Project/Existing General Plan Alternative would result in a decreased number of jobs created from the development of commercial retail/service and business park uses in comparison to the proposed project. However, a large influx of new residents to the City is anticipated due to the construction of up to ~~7,763~~ 4,051 residential dwelling units envisioned by this alternative. The project would not directly affect population growth as compared with new residential development, because it is not creating homes. While the proposed project would generate employment opportunities, the jobs created are not expected to induce substantial growth in the City or region over and above the growth anticipated by the City's General Plan and the SCAG's regional growth forecasts. Population and housing impacts under this alternative would be greater in magnitude when compared to the proposed project. Therefore, impacts associated with this issue would be greater.

Public Services: Unlike the proposed project, demands on schools, parks, other public facilities, law enforcement, and fire protection services would be greater in magnitude as residential uses (impacts to schools and parks) are proposed under this alternative. Like the proposed project, development under this alternative would require payment of development impact fees for schools, police services, and fire services. The payment of development impact fees would be expected to offset impacts to these public services that would result from the development of this alternative. Therefore, when compared to the proposed project, impacts associated with public services would remain less than significant with the payment of development impact fees and increased property tax revenues.

Unlike the proposed project, the No Project/Existing General Plan Alternative proposes the construction of residential uses. Therefore, implementation of this alternative would result in an increase in existing population and a corresponding increase in demand for park and recreation facilities resulting from development. Because a potential increase in demand for recreational facilities would occur, impacts associated with recreation for this alternative would be greater in magnitude as compared to the proposed project, but would still be expected to be less than

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1 State of California, Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011 and 2012, with 2010 Benchmark*. Sacramento, California, May 2012.

2 *Table IIB Average Number Employee per Square Foot, Employment Density Report*, Southern California Association of Governments, Natelson Company, Inc, October 2001.

3 Utilizing 1 employee/629 square feet of service use × 1,100,000 square feet of commercial retail/service use = 1,749 jobs.

4 *Table IIB Average Number Employee per Square Foot, Employment Density Report*, Southern California Association of Governments, Natelson Company, Inc, October 2001.

5 1 employee/1,548 square feet of business park (light industrial) use × 7,900,000 square feet of service use = 5,103 jobs.

significant with the provision of parkland and open space as part of the alternative project, increased property tax revenues, and payment of park fees as applicable.

Traffic: As indicated in Table 6.G, the No Project/Existing General Plan Alternative would generate approximately ~~178,608~~119,668 daily vehicle trips. Compared to the proposed project, the No Project/Existing General Plan Alternative, which assumes development of existing General Plan uses, would result in an increase of ~~51~~72 percent of daily traffic trips. ~~It is reasonable to assume that an increase of 25 percent in traffic trips would increase traffic on local roadways and intersections.~~ The increase in traffic may cause an existing intersection or roadway segment to operate at a deficient LOS. While significant traffic impacts may occur under this alternative, these impacts would be mitigated in a manner similar to those of the proposed project. However, despite the identification of mitigation measures, certain freeway segments and interchange improvements would not be under the jurisdiction of the City and cannot be guaranteed to be in place when development under this alternative would become operational. Therefore, when compared to the proposed project, traffic impacts would be greater due to the additional trip generation. However, the resulting impact significance would be similar and would remain significant and unavoidable until the improvements are in place.

Table 6.G: Comparison of Average Daily Trips (Revised)

Type of Development	Average Daily Trips	Change
Proposed Project[1]	69,542	
No Project/No Build	314	-99.6%
No Project/Existing General Plan[2]	119,668	+72%
Alternative 1: Reduced Density	48,321	-28%
Alternative 2: Mixed Use A	208,988	+201%
Alternative 3: Mixed Use B	78,985	+14%
Alternative Sites	69,542	0%

[1] Based on WLC project traffic study by Parsons Brinckerhoff dated September 2014.
[2] Based on modified Moreno Highland Specific Plan (see Table 6.C).
Source: Parsons Brinckerhoff estimates based on project traffic study, September 2014 (see Appendix D).

Utilities and Service Systems: Existing utility infrastructure for storm water and wastewater is present in adjacent roadways or parcels. Like the proposed project, the applicant would connect to existing utility infrastructure subject to the terms and conditions of the City, EMWD, and RCFCWCD. As indicated in Table 6.H, the No Project/Existing General Plan Alternative would generate approximately ~~2,820,940~~1,569,083 gallons of wastewater per day, which is almost ~~ten~~nine times the amount of wastewater that would be generated by the proposed project. Similar to the proposed project, development under this alternative would be required to pay infrastructure fees and obtain approval from the wastewater treatment provider that would ensure there is excess capacity for the wastewater that would be generated by the proposed development. Therefore, impacts related to wastewater and wastewater treatment would remain less than significant when compared to the proposed project.

Table 6.H: Comparison of Average Wastewater Generation (Revised)

Type of Development	Gallons per day
Proposed Project	286,459
No Project/No Build	2,156
No Project/Existing General Plan (MHSP)	1,569,083
Alternative 1: Reduced Density	198,376
Alternative 2: Mixed Use A	1,830,000

Table 6.H: Comparison of Average Wastewater Generation (Revised)

Type of Development	Gallons per day
Alternative 3: Mixed Use B	1,681,656
Alternative Sites	286,459 ~~8,286,489~~

Source: EIR Section 16 and Sewage Generation Rates, Draft CEQA Thresholds Guide, 2006.

The development of the existing General Plan land uses associated with this alternative would also require the installation of water supply infrastructure to serve the project site. As indicated in Table 6.I, the No Project/Existing General Plan Alternative would require approximately ~~8,788,603~~4,888,456 gallons of water per day, which is almost ~~five~~three times what would be required by the proposed project. When compared to the proposed project, water usage demands would be substantially increased in magnitude.

Table 6.I: Comparison of Average Water Use (Revised)

Type of Development	Gallons per day
Proposed Project	1,761,260
No Project/No Build	5,569
No Project/Existing General Plan (MHSP)	4,888,456
Alternative 1: Reduced Density	1,202,011
Alternative 2: Mixed Use A	3,420,000
Alternative 3: Mixed Use B	5,196,801
Alternative Sites	1,761,260

Source: DEIR Section 16 and *Water System Planning and Design Principle Guidelines Criteria,* Eastern Municipal Water District, February 2006.

Like the proposed project, the No Project/Existing General Plan Alternative would also generate solid waste. As identified in Table 6.J, this alternative would generate ~~26,110~~17,494 tons of solid waste per year, which is ~~43~~ 47 percent less than what the proposed project would generate. Therefore, demands on solid waste services and landfill capacity would be decreased in magnitude. Similar to the proposed project, development under the No Project/Existing General Plan Alternative would be required to adhere to the provisions of the solid waste provider that would service the project site. When compared to the proposed project, solid waste impacts under this alternative would remain less than significant.

Table 6.J: Comparison of Average Solid Waste Generation (Revised)

Type of Development	Tons per year
Proposed Project	37,016
No Project/No Build	125
No Project/Existing General Plan	17,494
Alternative 1: Reduced Density	30,786
Alternative 2: Mixed Use A	481,344
Alternative 3: Mixed Use B	116,880
Alternative Sites	37,016

Source of proposed project and alternative sites: Table 10.1 of the CalEEMod manual
Source: DEIR Section 16 and *Estimated Solid Waste Generation Rates,* California Integrated Waste Management Board, http://www.ciwmb.ca.gov/WASTECHAR/WasteGenRates/Commercial.htm, website accessed December 3, 2012.

Cumulative Impacts: Similar to the proposed project, this alternative would contribute toward the permanent conversion of farmland, air quality operational emissions, short-term and long-term noise impacts, and increased traffic operations on local roadways and at local intersections. Although this alternative would have a greater amount of traffic, the amount of operational emissions would be

reduced in magnitude from that identified for the proposed project as this alternative does not include a logistics warehouse component. Because there are no feasible mitigation measures to reduce the cumulative impacts associated with long-term operational air pollutant emissions, noise, and increased traffic, long-term air quality and traffic impacts would remain significant and unavoidable. ~~Since there is no feasible mitigation that would reduce the cumulative impacts associated with the conversion of farmland, cumulative impacts associated with farmland conversion would remain significant and unavoidable.~~

Impact Conclusions. Under the No Project/Existing General Plan Alternative, impacts related to short-term construction-related air quality would be similar to the proposed project as the same amount of land would be disturbed and the same mix of equipment would be utilized. Long-term operational-related air quality impacts would be reduced from that identified for the proposed project but would remain significant and unavoidable. Under this alternative, population and housing impacts would be greater in magnitude as residential uses are proposed. Similar to the proposed project, the associated increases in employment are accounted for in the City General Plan and other applicable local and regional plans.

The development of the No Project/Existing General Plan Alternative would have increased demands on public services and recreation facilities due to the residential component and population growth, however, the payment of fees, provision of onsite parkland and open space, higher property tax revenues, and adherence to development requirements would reduce these impacts to a less than significant level. Water supply availability is expected to be available although water demand is increased. Water demand was determined to be available for the proposed project. Because of the increase in vehicle trips achieved under this alternative, impacts to the operation of local roadways and intersections would be proportionally greater that what was identified for the proposed project; therefore, long-term traffic impacts would remain significant and unavoidable. Traffic-related noise would be greater in magnitude and noise impacts would be significant and unavoidable like the proposed project.

Meets Project Objectives. Under this alternative, only some of the proposed project objectives would be met as a variety of uses would be built, as shown in Table 6.K. Development of this alternative would provide new employment opportunities for residents of Moreno Valley but not nearly to the degree as the proposed project.

Note: The objectives outlined in this table did not correspond to the Project Objectives outlined in the Project Description of the DEIR; therefore, they are being corrected at this time.

Table 6.K: Comparison of No Project/Existing General Plan Alternative to the Project Objectives (Revised)

Project Objectives	Does the Alternative Meet the Project Objectives?
Create substantial employment opportunities for the citizens of Moreno Valley and surrounding communities.	No
Provide the land use designation and infrastructure plan necessary to meet current market demands and to support the City's Economic Development Action Plan.	No
Create a major logistics center with good regional and freeway access.	No
Establish design standards and development guidelines to ensure a consistent and attractive appearance throughout the entire project.	Yes
Establish a master plan for the entire project area to ensure that the project is efficient and business-friendly, accommodating the next-generation of logistics buildings.	No

Table 6.K: Comparison of No Project/Existing General Plan Alternative to the Project Objectives (Revised)

Project Objectives	Does the Alternative Meet the Project Objectives?
Provide a major logistics center to accommodate a portion of the ever-expanding trade volumes at the Ports of Los Angeles and Long Beach.	No
Create a project that will provide a balanced approach to the City's fiscal viability, economic expansion, and environmental integrity.	No
Provide the infrastructure improvements required to meet project needs in an efficient and cost-effective manner.	No
Encourage new development consistent with regional and municipal service capabilities.	Yes
Significantly improve the City's jobs/housing balance and help reduce unemployment within the City.	Yes
Provide thousands of construction job opportunities during the project's buildout phase.	No
Provide appropriate transitions or setbacks between on-site and off-site uses.	Yes

6.3.6 Alternative 1: Reduced Density

NOTE: The following changes have been made due to revision to the Specific Plan project size.

With the intent of avoiding or substantially reducing significant impacts, and in particular the significant impacts that cannot be reduced to a less than significant level through implementation of mitigation measures created by the project's traffic, air quality, and noise impacts, the City has considered a Reduced Density Alternative. This alternative includes development of the project site with approximately ~~29~~28 million square feet of logistics warehousing, including ~~75~~74.3 acres for open space. The 1,085 acres owned by the CDFW would be designated as Open Space in the City's General Plan, similar to the proposed project. Under this alternative, the proposed logistics uses would represent a net decrease of approximately ~~28~~31 percent (~~30~~28 million square feet) as compared with the proposed project.

Because of the large area, approximately ~~3,000~~2,610 acres, of the proposed project that is proposed for development, public facilities, or off-site improvements, a variety of reduced density alternatives could be considered that might substantially reduce or eliminate one or more of the significant and unavoidable impacts of the proposed project. For example, warehousing development on the site would have to be reduced to approximately one percent of the project site, or 400,000 square feet, of the WLC project's proposed high-cube logistics warehouse building area in order to eliminate significant and unavoidable impacts associated with air quality in order to reduce air pollution emissions to less than applicable SCAQMD thresholds. The only way this could logically occur would be to develop a small portion of the site (i.e., less than one percent) and leave the rest of the site vacant. In addition, even this substantial reduction in the proposed high-cube logistics warehouse building area and/or developable area would not eliminate the proposed project's other significant and unavoidable impacts associated with aesthetics, ~~gricultural resources, biological resources, cultural resources~~ air quality, noise, and transportation listed above in 6.1.3. Any of the viable alternatives that are examined in this EIR would entail some type of development on all or most of the project site, rather than development of an illogically small portion of the site (i.e., one percent).

Impact Analysis. The following nine environmental issues would have impacts similar to those identified for the proposed project:

- Aesthetics
- Agricultural and Forestry Resources
- Cultural Resources
- Biological Resources
- Geology and Soils
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Recreation

Impacts associated with these topics would be similar to the proposed project because development of the site under Alternative 1 would result in a similar footprint of development but with less square footage for logistics warehouse buildings. For this reason, impacts to these land-oriented impact topics would be similar resulting in the same level of impact.

As identified in Section 4.1 of this EIR, the proposed project would result in significant and unavoidable impacts associated with scenic vistas, local scenic roads, character of the site and surroundings, and cumulatively considerable aesthetic impacts. Implementation of this alternative would result in development of the same high-cube logistics land uses, building heights and mass, but at a level equivalent to 70 percent of the proposed project. For this reason, and in the same exact manner as the proposed project, this alternative would result in significant and unavoidable impacts associated with scenic vistas, local scenic roads, character of the site and surroundings, individually and on a cumulatively considerable basis.

As identified in Section 4.2 of this revised EIR, the proposed project would not result in significant impacts associated with the loss of unique farmland, the elimination of existing agricultural operations, or cumulatively considerable agricultural resources impacts with implementation of the recommended mitigation, including acquisition of an offsite agricultural conservation easement. Implementation of this alternative would result in development on the same existing agricultural lands, but each development site would be developed at a level equivalent to 70 percent of the proposed project. ~~For this reason, and in the same exact manner as the proposed project~~ Therefore, this alternative would not result in significant ~~and unavoidable~~ impacts associated with the loss of unique farmland, the elimination of existing agricultural operations, and on a cumulatively considerable basis.

The remaining environmental issues would, in some cases, result in similar impacts, but would be different enough to be discussed separately as follows.

Air Quality: Because the amount of land to be graded with Alternative 1 would be the same to that of the proposed project, the same quantity of construction equipment would be used and a similar quantity of building materials would be used during earthmoving activities. Therefore, construction emissions from the development of Alternative 1 would be ~~the same~~ similar as the proposed project~~,~~ perhaps slightly decreased. As identified in Section 4.3 of this EIR, the proposed project would result in significant and unavoidable air quality impacts from CO, VOC, NO_X, and PM_{10}~~, and $PM_{2.5}$~~ air pollution emissions and localized PM_{10} concentrations. Implementation of this alternative would result in development on the same land areas, but each development site would be developed at a level equivalent to 70 percent of the proposed project. For this reason, and in approximately the same manner as the proposed project, the Reduced Density Alternative would result in significant and unavoidable air quality impacts from CO, VOC, NO_X, and PM_{10}~~, and $PM_{2.5}$~~ emissions during project construction.

Assuming the same level of mitigation as the proposed project, there would be no cancer risks associated with this alternative since the use of new technology diesel engines do not contribute to cancer risk as described in Section 4.3.

Under this alternative, average daily traffic volumes would be reduced by ~~28~~ approximately 30 percent in comparison with the proposed project. As indicated in Table 6.L, the volume of each

operational pollutant emitted during operation of this alternative would be correspondingly reduced. However, operational emissions for CO, VOC, NO_X, PM_{10}, and $PM_{2.5}$ would exceed daily SCAQMD thresholds for air pollution emissions as shown in Table 6.L, in the same manner as the proposed project. Although the application of green building design principles may reduce emissions from building operations (such as heating and cooling), such standards and principles would not reduce CO, VOC, NO_X, PM_{10}, and $PM_{2.5}$ emissions to below SCAQMD thresholds.

NOTE: The Alternative 1 air pollutant and greenhouse gas emissions have decreased because part of the emissions were based on a percentage of the project's emissions (which have decreased) and the other emissions were remodeled.

Table 6.L: Alternative 1 Operational Emissions (Revised)

Source	Pollutant Emissions, lbs/day					
	CO	VOC	NO_X	SO_X	PM_{10}	$PM_{2.5}$
Proposed Project	~~1,882~~ 1,396	~~702~~ 593	~~1,893~~ 1,097	21	~~1,127~~ 1,121	~~343~~ 304
Alternative 1	~~1,325~~ 977	~~491~~ 415	~~1,325~~ 768	15	~~789~~ 785	~~240~~ 213
Net Change	~~-557~~ -419	~~-211~~ -178	~~-568~~ -329	-6	~~-338~~ 336	~~-103~~ 91
SCAQMD thresholds	550	55	55	150	150	55
Alternative 1 exceeds thresholds?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015.

As shown in Table 6.L, the volume of operational air pollutant emissions would be reduced when compared to the proposed project. As identified in Section 4.3 of this EIR and as stated above, the proposed project would result in air quality impacts from CO, VOC, NO_X, PM_{10}, and $PM_{2.5}$ operational emissions that cannot be mitigated to below SCAQMD thresholds, resulting in significant and unavoidable impacts. Similarly, the Reduced Density Alternative would result in air quality impacts from CO, VOC, NO_X, PM_{10}, and $PM_{2.5}$ operational emissions that cannot be mitigated to below SCAQMD thresholds, resulting in significant and unavoidable impacts in approximately the same manner as the proposed project.

Global Climate Change: As identified in Section 4.7 of this EIR, the proposed project would generate ~~665,321 mt CO_2e~~ approximately 6,200 $MTCO_2$e per year at buildout from uncapped operational sources after mitigation, resulting in a less than significant ~~and unavoidable~~ impact. As identified in Table 6.F, the Reduced Density Alternative would generate ~~465,725 mt CO_2e~~ 4,347 $MTCO_2$e per year of uncapped emissions. GHG emissions resulting from operation of the uses envisioned under the Reduced Density Alternative would be correspondingly reduced in comparison to the proposed project, as this alternative would reduce the number of daily traffic trips and energy consumed by approximately 30 percent. Although the Reduced Density Alternative would generate approximately 30 percent less GHG than the proposed project, impacts associated with cumulative global climate change would remain less than significant ~~and unavoidable~~ in approximately the same manner as the proposed project, since it is assumed that this alternative would incorporate similar mitigation ~~measures are available to reduce cumulative greenhouse gas emissions to less than significant levels~~ as for the project.

Noise: As identified in Section 4.12 of this EIR, construction-related noise impacts of the proposed project were reduced through mitigation measures. However, construction-related noise impacts within the Specific Plan area and off-site construction area would remain significant and unavoidable, even with implementation of the mitigation measures. Under the Reduced Density Alternative, the

same amount of land would be disturbed, the same quantity of construction equipment would be used, and a similar quantity of building materials would be used. Therefore, noise impacts associated with the construction of this alternative would be the same as those identified under the proposed project, but would likely occur over a shorter period of time due to the reduced square footage`. As identified in Section 4.12 of this EIR and as stated above, the proposed project would result in construction-related noise impacts within the Specific Plan area and off-site construction area that cannot be mitigated to below a level of significance. Consequently, impacts would remain significant and unavoidable. With the implementation of mitigation identified for the proposed project, the short-term construction-related noise impacts associated with the Reduced Density Alternative would also remain significant and unavoidable in the same exact manner as the proposed project, as construction noise is not able to be reduced to noise levels less than 60 dBA (L_{eq}). As with the proposed project, the noise generated under the Reduced Density Alternative would also be generated during loading/unloading, truck movements on roadways, and parking lot activities.

As identified in Section 4.12 of this EIR under the proposed project, the increase in future traffic noise along certain local roadway segments would increase beyond the threshold of perception resulting in an impact and the need for mitigation. However, as stated in the EIR, there are no feasible mitigation measures to reduce noise levels to below significant levels. The reduction in project-related traffic under the Reduced Density Alternative (i.e., minus approximately 30%) would result in a similar decrease in long-term traffic noise due to the reduction of traffic trips to the project site. However, under this alternative, the future increases in traffic-related noise would have a similar effect on local roadway segments, resulting in significant impacts in approximately the same manner as the proposed project. Although this alternative's contribution to future traffic noise would be reduced, thereby reducing overall mobile source noise impacts within the area, even with a reduction in overall mobile source noise, roadway noise along certain roadway segments would remain significant and unavoidable in approximately the same manner as the proposed project.

Population and Housing: This alternative would result in the development of approximately ~~29~~28 million square feet of logistics space. Utilizing an employment factor of one employee for every 1,667 square feet of logistics space,[1] the Reduced Density Alternative is anticipated to generate approximately ~~17,396~~16,797 jobs.[2] It is anticipated that most of these jobs would be filled by persons already residing in the area; therefore, no significant population increase would occur with the development of these logistics jobs. When this alternative is compared to the proposed project, the number of new jobs would be approximately 30 percent less than the proposed project. Similar to the proposed project, impacts related to population and housing would remain less than significant as this alternative would continue the existing development trend envisioned by the City. This alternative would not improve the City's jobs/housing ratio to nearly the same degree as the proposed project.

Public Services: Demands on schools, parks, other public facilities, law enforcement, and fire protection services would be incrementally less but in general similar in magnitude as that associated with the proposed project as no residential uses (and corresponding impacts to schools and parks) are proposed under this alternative. Like the proposed project, development under this alternative would require payment of development impact fees for schools, police services, and fire services. The increase in property taxes and payment of development impact fees would offset impacts to public services that may result from the development of the uses envisioned under this alternative. Similar to the proposed project, impacts associated with public services would remain less than significant.

Traffic: As identified in Section 4.15 of this EIR, the proposed project would result in significant impacts to freeways and interchanges in the baseline condition ~~(2012)~~ and future year (~~2017, 2023,~~ 2022, 2030, and 2035) time horizons. Because improvements to freeways and interchanges are

[1] Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California, David Taussig & Associates, Inc., September 2014.

[2] 1 employee/1,667 square feet of logistics uses × 28,000,000 square feet of logistics use = - 16,797 logistics jobs.

under the authority of Caltrans, it is uncertain if improvements to these roadways would be constructed prior to when project impacts would occur, resulting in a significant and unavoidable significant to freeways and interchanges. As identified in previously referenced Table 6.G, the Reduced Density Alternative would generate approximately ~~50,047~~48,321 total vehicle trips, which is approximately 30 percent less than the total trip generation for the proposed project (~~71,085~~69,542 total vehicle trips). The reduction in traffic under the Reduced Density Alternative (i.e., minus approximately 30%) would result in a similar decrease in traffic volumes on local roadways. However, under this alternative, the future increases in traffic volumes would have a similar effect on freeways and interchanges, resulting in significant impacts similar to those identified for the proposed project. Since the City does not have control over when freeway improvements would occur, traffic impacts to freeways and interchanges would remain significant and unavoidable in approximately the same manner as the proposed project, until such improvements can be installed or constructed by Caltrans.

Utilities and Service Systems: Limited storm water and wastewater infrastructure is currently located in adjacent roadways or parcels within the project area. Like the proposed project, development under this alternative would be required to provide necessary infrastructure to support the future development of the site. The resulting development under this alternative would be subject to the terms and conditions of the City and EMWD. Similar to the proposed project, development under the Reduced Density Alternative would also include implementation of master plans for potable water, sewer, recycled water, and drainage for the project study area. Since the development under this alternative would be similar in use and size to the proposed project, it is anticipated that the same type and quantity of utility infrastructure would be required for the area. Therefore, implementation of these master plans under this alternative would have similar impacts to those identified for the proposed project.

The development of the Reduced Density Alternative would require the installation of water supply infrastructure of a size and extent needed to serve the proposed project. As indicated in previously referenced Table 6.I, the amount of water demand associated with the Reduced Density Alternative (1,~~244,940~~202,011 gallons per day) would be ~~30~~32 percent less than that required for the proposed project. Similar to the proposed project, development under this alternative would be required to obtain verification from the water purveyor that water is available to serve the development. Since this alternative would utilize less water than the proposed project and because EMWD has stated that water supply required for the proposed project is available, it is reasonable to conclude that if this alternative was built, adequate water would be available. Therefore, impacts related to water usage and water treatment/conveyance facilities would remain less than significant with mitigation implemented, similar to the proposed project.

As identified in previously referenced Table 6.H, the Reduced Density Alternative would generate approximately ~~205,46~~198,376 gallons of wastewater per day, which is approximately 30 percent less than that generated by the proposed project. This alternative's demands on wastewater treatment and capacity at existing wastewater treatment facilities would be reduced in magnitude. Similar to the proposed project, development under this alternative would be required to pay infrastructure fees and obtain approval from the wastewater treatment provider that would ensure there is excess capacity for the wastewater that would be generated by the proposed development. Therefore, like the proposed project, adherence to existing requirements identified by the City and EMWD would result in impacts remaining at a less than significant level.

Like the proposed project, the Reduced Density Alternative would also generate solid waste. As identified in previously referenced Table 6.J, the Reduced Density Alternative would generate ~~31,886~~ 30,786 pounds of solid waste per day, which is approximately 30 percent less than what the proposed project would generate. The reduction in solid waste generated by the uses under this alternative would have a reduced demand of solid waste services and landfill capacity. Therefore, demands on solid waste services and landfill capacity would be reduced in magnitude. However, similar to the proposed project, development under the Reduced Density Alternative would be required to adhere to

the provisions of the solid waste provider that would service the project site. As with the proposed project, solid waste impacts would remain less than significant.

Cumulative Impacts: The Reduced Density Alternative would contribute to the permanent conversion of farmland, ~~Since there is no feasible~~ but the proposed mitigation, including acquisition of an offsite agricultural conservation easement, will reduce impacts to less than significant levels, as also reduce the cumulative impacts associated with the conversion of farmland, cumulative impacts associated with farmland conversion to ~~would remain~~ less than significant ~~and unavoidable in the same manner as~~levels, similar to the proposed project. Although the amount of operational air pollutant emissions would be reduced in magnitude, because there are no feasible mitigation measures to reduce long-term air pollutant operational emissions, cumulative impacts would remain significant and unavoidable in approximately the same manner as the proposed project. ~~Although the greenhouse gas emissions associated with this alternative are less than that identified for the proposed project, such emissions would still contribute to global climate change and would remain significant and unavoidable in approximately the same manner as the proposed project.~~

The Reduced Density Alternative would reduce traffic volumes that would occur in the project vicinity. However, the additional traffic associated with this alternative would contribute to deficient levels of service on freeway segments during the lifetime of the project. Since the City is not in control of when freeway improvements are made, impacts associated with deficient LOS on freeway segments would remain significant and unavoidable in approximately the same manner as the proposed project, until such time that the freeway improvements are installed or constructed by Caltrans. Similarly, noise generated from traffic on roadway segments within the project area may result in certain roadway segments experiencing noise levels beyond the City's noise standard. Implementation of the identified mitigation measures would reduce noise but it would not reduce noise levels to a less than significant level. Therefore, cumulative impacts associated with traffic noise levels would remain significant and unavoidable in approximately the same manner as the proposed project.

As identified in Section 4.1 of this EIR, the proposed project would result in significant and unavoidable impacts associated with scenic vistas, local scenic roads, character of the site and surroundings, and cumulatively considerable aesthetic impacts. Implementation of this alternative would result in development of the same high-cube logistics land uses, building heights and mass, but at a level ~~equivalent to 72~~approximately 70 percent of the proposed project. For this reason, and in the same manner as the proposed project, this alternative would result in significant and unavoidable impacts associated with scenic vistas, local scenic roads, character of the site and surroundings, and on a cumulatively considerable basis.

Impact Conclusions. Under the Reduced Density Alternative, development of the same high-cube logistics land uses, building heights and mass, but at a floor area level ~~equivalent to 72~~approximately 70 percent of the proposed project, would be constructed resulting in significant and unavoidable impacts associated with scenic vistas, local scenic roads, character of the site and surroundings, and on a cumulatively considerable basis in the same exact manner as the proposed project. Impacts related to short-term construction-related air quality would be the same as the proposed project, because the same amount of land would be disturbed and the same mix of equipment would be utilized. The Reduced Density Alternative would result in significant and unavoidable air quality impacts from CO, VOC, NO_X, PM_{10}, and $PM_{2.5}$ emissions during project construction, in the same exact manner as the proposed project. Long-term operational-related air quality impacts would be incrementally reduced when compared to the project, but the emissions cannot be mitigated to below SCAQMD thresholds and would remain significant and unavoidable in approximately the same manner as the proposed project. Similarly, impacts related to short-term construction-related noise cannot be mitigated to a less than significant level and would be significant and unavoidable in the exact same manner as the proposed project. Although traffic-related noise would be reduced when compared to the project, impacts would have a similar effect on local roadway segments and would remain significant and unavoidable as there are no feasible mitigation measures that would be able to

reduce impacts to a less than significant level, in approximately the same manner as the proposed project. Under this alternative, the volume of water required and the amount of wastewater and solid waste generated would be reduced in comparison to the proposed project and the decrease in the amount of logistics uses would result in a reduction of permanent jobs that would be created. Consequently, this alternative would have incrementally reduced demands on public services, recreation, and water use. Similar to the proposed project, increased property tax revenues, the payment of fees, ~~dedication of parkland,~~and adherence to City development and utility requirements would reduce these impacts to less than significant levels.

Because of the decrease in vehicle trips achieved under this alternative, impacts to the operation of local roadways and intersections would be proportionally reduced from those identified for the proposed project. However, under this alternative, the future increases in traffic volumes would have a similar effect on freeways and interchanges, resulting in significant impacts similar to those identified for the proposed project. Since the City does not have control over when freeway improvements would occur, traffic impacts to freeways and interchanges would remain significant and unavoidable for impacts associated with freeway segments in approximately the same manner as the proposed project, as the City does not have control of when such freeway improvements can be installed or constructed by Caltrans.

In summary, the Reduced Density Alternative would incrementally reduce almost all of the project impacts by reducing the total square footage of development. However, all of the impacts identified as significant and unavoidable under the proposed project, including aesthetics, ~~agricultural resources,~~ air quality, ~~greenhouse gas emissions,~~ noise, and traffic would still be significant and unavoidable under this alternative ~~in approximately the same and/or in the same exact manner as the proposed project~~.

Meets Project Objectives. As shown in Table 6.M, under this alternative, some of the project objectives are met, but not nearly to the same degree as the proposed project.

Note: The objectives outlined in this table did not correspond to the Project Objectives outlined in the Project Description of the DEIR; therefore, they are being corrected at this time.

Table 6.M: Comparison of Reduced Density Alternative to the Project Objectives (Revised)

Project Objectives	Does the Alternative Meet the Project Objectives?
Create substantial employment opportunities for the citizens of Moreno Valley and surrounding communities.	Not to the same degree as the proposed project
Provide the land use designations and infrastructure plans necessary to meet current market demands and to support the City's Economic Development Action Plan.	Not to the same degree as the proposed project
Create a major logistics center with good regional and freeway access.	Not to the same degree as the proposed project
Establish design standards and development guidelines to ensure a consistent and attractive appearance throughout the entire project.	Yes
Establish a master plan for the entire project area to ensure that the project is efficient and business-friendly, accommodating the next-generation of logistics buildings.	Yes
Provide a major logistics center to accommodate a portion of the ever-expanding t rave volumes at the Ports of Los Angeles and Long Beach.	Not to the same degree as the proposed project
Create a project that will provide a balanced approach to the City's fiscal viability, economic expansion, and environmental integrity.	Not to the same degree as the proposed project
Provide the infrastructure improvements required to meet project needs in an efficient and cost-effective manner.	Not to the same degree as the proposed project

Table 6.M: Comparison of Reduced Density Alternative to the Project Objectives (Revised)

Project Objectives	Does the Alternative Meet the Project Objectives?
Encourage new development consistent with regional and municipal service capabilities.	Not to the same degree as the proposed project
Significantly improve the City's jobs/housing balance and help reduce unemployment within the City.	Not to the same degree as the proposed project
Provide thousands of construction job opportunities during the project's buildout phase.	Not to the same degree as the proposed project
Provide appropriate transitions or setbacks between on-site and off-site uses.	Yes

6.3.7 Alternative 2: Mixed Use A

With the intent of avoiding or substantially reducing significant impacts created by the project's traffic, air quality, and noise impacts, the City has considered Mixed Use A Alternative. This alternative includes development of the project site with approximately 1,410 acres of logistics warehousing (22 million square feet), 1,000 acres of light industrial uses (~~21~~20 million square feet), 50 acres of retail commercial uses (500,000 square feet), 100 acres of professional or medical office uses (1.0 million square feet), and 150 acres of open space. The 1,085 acres owned by the CDFW would be designated as Open Space in the City's General Plan, similar to the proposed project.

Impact Analysis. The following nine environmental issues would have impacts similar to those identified for the proposed project:

- Aesthetics
- Agricultural and Forestry Resources
- Cultural Resources
- Biological Resources
- Geology and Soils
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Recreation

The remaining environmental issues would, in some cases, result in similar impacts, but would be different enough to be discussed separately.

Air Quality: Because the amount of land to be graded with Alternative 2 would be similar to that of the proposed project, a similar mix of equipment as the proposed project would operate during earthmoving activities. Therefore, construction emissions from the development of Alternative 2 would be similar to the proposed project, which is significant and unavoidable for CO, VOC, NO_X, and PM_{10}, ~~and $PM_{2.5}$~~.

Assuming the same level of mitigation as the proposed project, there would be no cancer risks associated with this alternative since the use of new technology diesel engines do not contribute to cancer risk as described in Section 4.3.

As indicated in Table 6.N, the volume of each operational pollutant emitted during operation of this alternative would be correspondingly increased due to the substantial increase in traffic from this alternative relative to the proposed project. Like the proposed project, operational emissions for CO, VOC, NO_X, PM_{10}, and $PM_{2.5}$ would still exceed daily SCAQMD thresholds. Application of green building design principles could reduce emissions from building operations such as heating and cooling; however, such standards and principles would not reduce CO, VOC, NO_X, and PM_{10}, and $PM_{2.5}$ emissions to below SCAQMD thresholds.

NOTE: The Alternative 2 air pollutant and greenhouse gas emissions have decreased because part of the emissions were based on a percentage of the project's emissions (which have decreased) and the other emissions were remodeled.

Table 6.N: Alternative 2 Operational Emissions (Revised)

Source	Pollutant Emissions, lbs/day					
	CO	VOC	NO_X	SO_X	PM_{10}	$PM_{2.5}$
Proposed Project	~~1,882~~ 1,396	~~702~~ 593	~~1,893~~ 1,097	21	~~1,127~~ 1,121	~~343~~ 304
Alternative 2	~~5,945~~ 5,683	~~1,366~~ 1,307	~~2,224~~ 1,794	35	~~2,139~~ 2,135	~~624~~ 603
Net Change (Alternative minus project)	~~+4,063~~ +4,287	~~+664~~ +714	~~+331~~ +697	+14	~~+1,012~~ +1,014	~~+281~~ +299
SCAQMD thresholds	550	55	55	150	150	55
Alternative 2 exceeds thresholds?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

The volume of operational air pollutant emissions would be increased when compared to the proposed project during operations only and impacts would remain significant and unavoidable.

Global Climate Change: This alternative would generate ~~794,828~~6,856 metric tons of ~~carbon dioxide equivalents, and~~ uncapped GHG emissions resulting from operation of the uses envisioned under the Mixed Use A Alternative would be approximately ~~20~~10 percent higher than those of the proposed project (see Table 6.F). The Mixed Use A Alternative would generate more greenhouse gas than the proposed project; impacts associated with cumulative global climate change would ~~remain significant and unavoidable since no mitigation measures are available to fully reduce cumulative greenhouse gas emissions~~ be less than significant.

Noise: Under the proposed project, construction-related noise impacts were mitigated through adherence to the identified mitigation measures. However, even with the mitigation measures, construction-related noise impact within the Specific Plan area and off-site construction area would remain significant and unavoidable. Under the Mixed Use A Alternative, a similar amount of land would be disturbed; therefore, noise impacts associated with the construction of this alternative would be similar to those identified under the proposed project. With the implementation of mitigation identified for the proposed project, the short-term construction-related noise impacts associated with this alternative would still remain significant and unavoidable as construction noise is not able to be reduced to below noise levels less than 60 dBA (L_{eq}). As with the proposed project, the noise generated under the Mixed Use A Alternative would be generated during loading/unloading, trash compacting, truck movements on roadways, and parking lot activities. The operation-related noise impacts associated with this alternative would remain less than significant with implementation of the mitigation measures, as identified for the proposed project.

The increase in project-related traffic under this alternative would result in an incremental increase in long-term traffic noise due to an increase of traffic trips to the project site. Under the proposed project, the increase in future traffic noise along certain local roadway segments would increase beyond the threshold of perception resulting in the need for mitigation. However, as stated in the EIR, there are no feasible mitigation measures to reduce noise levels to below appropriate levels. Under this alternative, future increases in traffic-related noise would have a similar effect on local roadway segments. When compared to the proposed project, this alternative's contribution to future traffic noise would be increased, thereby increasing overall mobile source noise impacts within the area. It

is anticipated that roadway noise along certain roadway segments would remain significant and unavoidable.

Population and Housing: The Mixed Use A Alternative would result in the development of 22 million square feet of logistics warehousing, 20 million square feet of light industrial uses, half a million square feet of retail commercial uses, one million square feet of professional/medical office uses, and 150 acres of open space. Utilizing an employment factor of one employee for every 1,667 square feet of logistics space,[1] the logistics warehousing component of the Mixed Use A Alternative is anticipated to generate approximately 13,197 jobs.[2] Utilizing the same employment factor of one employee for every 1,667 square feet of light industrial uses, the light industrial component of the Mixed Use A Alternative is anticipated to generate approximately 11,998 jobs.[3] Utilizing employment factors of one employee for every 628 square feet of commercial use and one employee for every 481 square feet of office use,[4] this alternative would additionally create up to 2,875 jobs (796 retail jobs[5] and 2,079 office jobs[6]). Many of the logistics warehousing, light industrial, and retail jobs are likely to be filled by persons already residing in the area.

However, unlike logistics, light industrial, and retail jobs, which can often be filled by most working adults, professional/medical office jobs under this alternative may require the employment of persons in specialized fields, which may not include persons already living in the area. Persons from outside of the area may be required to relocate to Moreno Valley to fill positions in the office space, resulting in ~~a population increase in the City. To analyze a worst-case scenario, it is assumed that all professional/medical office jobs would be filled by people who are not living in the area. Therefore, under this alternative, it is assumed that a direct population increase would occur within the City.~~an incremental population increase in the City. When this alternative is compared to the proposed project, the number of new residents would be higher than that identified for the proposed project. Under this alternative, up to approximately 28,070 jobs could be created. The number of new jobs in the City would be ~~13.9~~17 percent greater than the proposed project (24,~~642~~000 potential jobs). However, similar to the proposed project, impacts related to population and housing would remain less than significant as this alternative would continue the existing development trend envisioned by the City.

Public Services: As discussed above, the Mixed Use A Alternative could result in an incremental population increase within the City. Because of the increased amount of office development that would occur within the project limits, demands on schools, parks, other public facilities, law enforcement, and fire protection services would be greater in magnitude than what was identified for the proposed project. However, similar to the proposed project, development under this alternative would result in higher property tax revenues and payment of development impact fees for schools, police services, and fire services. The payment of development impact fees would offset any impacts to these public services that may result from the development of this alternative. Therefore, when compared to the proposed project, impacts associated with public services would remain less than significant with the payment of development impact fees.

~~The increase in potential residents through the creation of commercial and office jobs under Mixed Use A Alternative could directly contribute to an increase in existing population in the City, which would increase the demand for park and recreation facilities. Because the Mixed Use A~~

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[1] Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California, David Taussig & Associates, Inc., September 2014.

[2] 1 employee/1,667 square feet of logistics uses × 22 million square feet of logistics use = 13,197 logistics jobs.

[3] 1 employee/1,667 square feet of light industrial uses × 20 million square feet of light industrial use = 11,998 light industrial jobs.

[4] *Table II-B Average Employees Per Acre*, Southern California Association of Governments Employment Density Study, The Natelson Company, October 31, 2001.

[5] 1 employee/628 square feet of commercial uses × 500,000 square feet of commercial uses = 796 retail jobs.

[6] 1 employee/481 square feet of office uses × 1 million square feet of office uses = 2,079 office jobs.

~~Alternative would directly contribute to the existing population, impacts associated with recreation and park demands are greater in magnitude than the proposed project. However, it is anticipated that the dedication of land or the payment of parkland fees would reduce these recreation impacts to a less than significant level, similar to the proposed project.~~

Traffic: As identified in previously referenced Table 6.G, this alternative would generate approximately 208,988 total traffic trips. In comparison to the proposed project, this alternative would almost triple total traffic trips. With such an increase in traffic, an increase in volumes on nearby roads and intersections would be greater in magnitude when compared to the proposed project. Impacts to LOS at nearby intersections and roadway segments would occur under the Mixed Use A Alternative to an even greater degree than under the proposed project, and would require even more extensive mitigation. The addition of traffic volumes associated with this alternative could result in deficient LOS at many more intersections in the project vicinity during the lifetime of the development. While significant traffic impacts may occur under this alternative, these impacts would be mitigated in a manner similar to those of the proposed project. Even if mitigation measures were identified for all these intersections, certain roadway improvements would not be under the jurisdiction of the City and cannot be guaranteed to be in place when development under this alternative would become operational. Therefore, as identified for the proposed project, traffic-related impacts would remain significant and unavoidable under the Mixed Use A Alternative.

Utilities and Service Systems: Like the proposed project, development under the Mixed Use A Alternative would connect to existing utility infrastructure subject to the terms and conditions of the City and EMWD. As indicated in previously identified Table 6.H, this alternative would generate approximately 1,830,000 gallons of wastewater per day, which is over six times what the proposed project would generate (~~293,515~~286,459 gallons of wastewater per day). When compared to the proposed project, wastewater treatment demand would be increased in magnitude as more wastewater would be generated under this alternative. However, like the proposed project, adherence to existing requirements identified by the City and EMWD may result in impacts remaining at a less than significant level.

The development of the warehousing, light industrial, commercial, and office uses associated with this alternative would also require the installation of water supply infrastructure to serve the project site. As previously indicated in Table 6.I, the Mixed Use A Alternative would require approximately 3,420,000 gallons of water per day, which is almost twice as much as would be required by the proposed project (1,~~ 778,486~~761,260 gallons of water per day). When compared to the proposed project, water usage demands would be increased. However, similar to the proposed project, development under this alternative would be required to obtain verification from the water purveyor that water is available to serve the development. Therefore, impacts related to water usage and water treatment/conveyance facilities would remain less than significant when compared to the proposed project.

Like the proposed project, the Mixed Use A Alternative would also generate solid waste. As previously identified in Table 6.J, this alternative would generate 481,344 pounds of solid waste per day, which is over ~~ten~~ thirteen times as much as the proposed project would generate (~~45,552~~37,016 pounds of solid waste per day). Therefore, demands on solid waste services and landfill capacity would be increased in magnitude. Similar to the proposed project, development under the Mixed Use A Alternative would be required to adhere to the provisions of the solid waste provider that would service the project site. As with the proposed project, solid waste impacts under this alternative would remain less than significant.

Cumulative Impacts: Similar to the proposed project, this alternative would contribute toward the permanent conversion of farmland, long-term operational air pollutant emissions, and increased traffic operations on local roadways and at local intersections. The amount of operational air pollutant emissions and traffic would be increased in magnitude and there are no mitigation measures that would reduce long-term air quality operational impacts to below SCAQMD thresholds. Likewise, there are no

mitigation measures that would reduce impacts associated with increased traffic in the area. Therefore, cumulative impacts associated with long-term air quality and long-term traffic would remain significant and unavoidable. Similarly, noise generated from traffic on roadway segments within the project area may result in certain roadway segments experiencing noise levels beyond the City's noise standard. Implementation of the identified mitigation measures would reduce noise but it would not reduce noise levels to a less than significant level. Therefore, cumulative impacts associated with traffic noise levels would remain significant and unavoidable. This alternative would also require the development of the project site. The revised EIR contains mitigation (acquisition of an offsite agricultural conservation easement) that would reduce the cumulative impacts associated with the conversion of ~~Prime~~Unique Farmland, cumulative impacts associated with farmland conversion ~~would remain~~ to less than significant ~~and unavoidable like the~~ ~~proposed project~~ levels.

Impact Conclusions. Under this alternative, impacts related to short-term construction-related air quality and noise impacts would remain significant and unavoidable, similar to the proposed project. Long-term air quality operational impacts under this alternative would be increased in magnitude, remain significant and unavoidable, and would result in similar conditions as identified for the proposed project. The Mixed Use A Alternative would decrease the amount of logistics warehousing and would add light industrial, commercial, and office uses that would generate more permanent and more varied jobs than the proposed project, but some uses may require skilled workers who are not current residents of the City. The office uses proposed under this alternative may incrementally increase the total number of people that would be added to the City's population and could have greater demands on public services and recreation. However, the increased property tax revenues, payment of fees, and dedication of parkland would reduce these impacts to a less than significant level. This alternative would increase the amount of wastewater generated, increase the amount of potable water required, and increase the amount of solid waste produced on site. Similar to the proposed project, adherence to utility requirements would reduce these impacts to less than significant levels. Because of the increase in vehicle trips resulting from this alternative, impacts to the operation of local roadways and intersections would be proportionally increased from the proposed project and remain significant and unavoidable.

Because of the increase in vehicle trips under this alternative, impacts to the operation of local roadways and intersections would be proportionally increased from what was identified for the proposed project. Long-term traffic impacts would remain significant and unavoidable for impacts associated with freeway segments as the City does not have control of when such freeway improvements would occur. Similarly, traffic-related noise would be increased in magnitude and cannot be mitigated to a less than significant level in a manner similar to the proposed project.

In summary, the Mixed Use A Alternative would increase employment opportunities but would substantially increase traffic, noise, and air quality impacts. All the impacts identified as significant under the proposed project, including air quality health risks, would still be significant under this alternative.

Meets Project Objectives. Under this alternative, four of the proposed project objectives are not met as shown in Table 6.O.

Note: The objectives outlined in this table did not correspond to the Project Objectives outlined in the Project Description of the DEIR; therefore, they are being corrected at this time.

Table 6.O: Comparison of the Mixed Use A Alternative to the Project Objectives (Revised)

Project Objectives	Does the Alternative Meet the Project Objectives?
Create substantial employment opportunities for the citizens of Moreno Valley and surrounding communities.	Yes

Table 6.O: Comparison of the Mixed Use A Alternative to the Project Objectives (Revised)

Project Objectives	Does the Alternative Meet the Project Objectives?
Provide the land use designation and infrastructure plan necessary to meet current market demands and to support the City's Economic Development Action Plan.	Yes
Create a major logistics center with good regional and freeway access.	No
Establish design standards and development guidelines to ensure a consistent and attractive appearance throughout the entire project.	Yes
Establish a master plan for the entire project area to ensure that the project is efficient and business-friendly, accommodating the next-generation of logistics buildings.	Yes
Provide a major logistics center to accommodate a portion of the ever-expanding trade volumes at the Ports of Los Angeles and Long Beach	No
Create a project that will provide a balanced approach to the City's fiscal viability, economic expansion, and environmental integrity.	No
Provide the infrastructure improvements required to meet project needs in an efficient and cost-effective manner.	No
Encourage new development consistent with regional and municipal service capabilities.	Yes
Significantly improve the City's jobs/housing balance and help reduce unemployment within the City.	Yes
Provide thousands of construction job opportunities during the project's buildout phase.	Yes
Provide appropriate transitions or setbacks between on-site and off-site uses.	Yes

6.3.8 Alternative 3: Mixed Use B

This alternative would develop the project site similar to the land use plan of the Moreno Highlands Specific Plan (MHSP) but with 10 million square feet of logistics warehousing on the 603 acres proposed for business, retail, institutional, and other uses under the MHSP. The 1,085 acres owned by the CDFW would be designated as Open Space in the City's General Plan, similar to the proposed project.

Impact Analysis. Many of the environmental impacts of this alternative would be equivalent to those identified for the No Project/Existing General Plan Alternative, the main differences being traffic, health risks, and greenhouse gas emissions.

Air Quality: Alternative 3 would require site grading and construction similar to that required of the proposed project. As identified in Section 4.3 of this EIR, short-term construction emission impacts associated with construction activities on the project site were significant and unavoidable for all criteria pollutants with the exception of SO_X. Since Alternative 3 would require that the same amount of land be graded, it would require similar grading and construction activities on site. Therefore, it is reasonable to anticipate that short-term construction emission impacts would also be significant and unavoidable for all criteria pollutants, with the exception of $PM_{2.5}$ and SO_X, under this alternative. Air quality impacts associated with the remaining criteria pollutants would significant and unavoidable with this alternative, similar to what was identified for the proposed project.

Under Alternative 3, the site would be developed at the same residential density and intensity as the MHSP but would have 10 million square feet of logistics warehousing on 603 acres instead of the mixed non-residential uses proposed under the MHSP. Based on these land uses, Alternative 3

would generate approximately ~~80,187~~78,985 daily vehicle trips (see Table 6.G) compared to ~~71,085~~69,542 trips from the proposed project (a ~~13~~14% increase).

NOTE: Alternative 3 air pollutant and greenhouse gas emissions have decreased because part of the emissions were based on a percentage of the project's emissions (which have decreased) and the other emissions were remodeled.

Table 6.P: Alternative 3 Operational Emissions (Revised)

Source	Pollutant Emissions, lbs/day					
	CO	VOC	NOx	SOx	PM_{10}	$PM_{2.5}$
Proposed Project	~~1,882~~ 1,396	~~702~~ 593	~~1,893~~ 1,097	21	~~1,127~~ 1,121	~~343~~ 304
Alternative 3	~~3,034~~ 2,912	~~597~~ 569	~~961~~ 762	15	~~962~~ 960	~~288~~ 278
Net Change (Alternative minus project)	~~+1,152~~ +1,516	~~-105~~ 24	~~-932~~ 335	-6	~~-165~~ 161	~~-55~~ 26
SCAQMD thresholds	550	55	55	150	150	55
Alternative 3 exceeds thresholds?	**Yes**	**Yes**	**Yes**	No	**Yes**	**Yes**

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

The volume of each operational pollutant emitted during operation of this alternative would be incrementally increased due the proposed mix of land uses. Therefore, this alternative would also have significant and unavoidable impacts on local air quality. The long-term air quality impacts resulting from this alternative would still contribute criteria pollutants to an air basin that is in nonattainment for these criteria pollutants, similar to the proposed project. As identified in previously referenced Table 6.P, long-term operational air pollutant emissions associated with Alternative 3 would exceed SCAQMD emissions thresholds for all criteria pollutants, with the exception of SO_X. ~~Also similar to the proposed project,~~ Assuming the same level of mitigation as the proposed project, there would be no cancer risks associated with this alternative since the use of new technology diesel engines do not contribute to cancer risk as described in Section 4.3. ~~this alternative would likely create significant health risk impacts as there would be logistics warehousing and related truck activities proximate to new proposed residential uses, although these new warehouses would be removed from the existing residences along Redlands Boulevard, so the health risks would shift from existing to future residents.~~

When compared with the proposed project, air quality impacts associated with Alternative 3 would be mixed in that criteria pollutants would be higher but diesel particulate matter and truck-related emissions would be ~~substantially~~ less, and potential health risks would be shifted from existing to future residents; more residents could be exposed to health risks. Similar to the proposed project, the generation of these emissions would still result in a cumulative contribution of air pollutants in a nonattainment basin; therefore, impacts remain significant and unavoidable.

Global Climate Change: GHG emissions associated with Alternative 3 are substantially decreased. As identified in previously referenced Table 6.F, Alternative 3 would generate ~~318,808~~ uncapped emissions of 2,925 metric tons of carbon dioxide equivalents, which is approximately half (~~48~~53%) of that identified for the proposed project.

Noise: Under the proposed project, construction-related noise impacts were mitigated through adherence to the identified mitigation measures. However, even with the mitigation measures, construction-related noise impact within the Specific Plan area and off-site construction area would remain significant and unavoidable. Under the Mixed Use B Alternative, a similar amount of land

would be disturbed; therefore, noise impacts associated with the construction of this alternative would be similar to those identified under the proposed project. With the implementation of mitigation identified for the proposed project, the short-term construction-related noise impacts associated with this alternative would still remain significant and unavoidable as construction noise cannot be reduced to noise levels less than 60 dBA (L_{eq}). As with the proposed project, the noise generated under the Mixed Use B Alternative would be generated during resident trips to and from the project, as well as non-residential loading/unloading, trash compacting, truck movements on roadways, and parking lot activities. The operational-related noise impacts associated with this alternative would be significant and adverse, even with implementation of the mitigation measures, similar to the proposed project.

Population and Housing: The Mixed Use B Alternative would result in the development of ~~7,283~~6,532 residential units on 1,~~359~~146 acres, plus 10 million square feet of logistics warehousing and 150 acres of open space. Utilizing an employment factor of one employee for every 1,667 square feet of logistics space,[1] the logistics warehousing component of the Mixed Use B Alternative is anticipated to generate approximately 6,000 jobs.[2] Utilizing a household size of 3.8 persons per unit, it is estimated this alternative would generate ~~27,675~~24,821 new residents in the City as well. ~~Many of the logistics warehousing jobs are likely to be filled by persons already residing in the area.~~ The number of new jobs in the City would be ~~76~~82 percent less than the proposed project (24,~~642~~000 potential jobs). This alternative would eventually have a jobs/housing ratio of 0.22, which is much lower than the existing job/housing ratio of the City. Therefore, this alternative would have substantially greater impacts related to population and housing compared to the proposed project.

Public Services: As discussed above, the Mixed Use B Alternative could result in a substantial population increase within the City. Because of the increased population, demands on schools, parks, other public facilities, law enforcement, and fire protection services would be greater in magnitude than what was identified for the proposed project. Similar to the proposed project, development under this alternative would provide increased property tax revenues and payment of development impact fees for schools, police, fire, and recreation services. The payment of development impact fees would offset any impacts to these public services that may result from the development of this alternative. Therefore, when compared to the proposed project, impacts associated with public services would remain less than significant with the payment of development impact fees.

Traffic: As identified in previously referenced Table 6.G, this alternative would generate approximately ~~80,187~~78,985 total traffic trips, which is approximately ~~13~~12 percent more than the proposed project. This would incrementally increase traffic and impacts to LOS at nearby intersections and roadway. The addition of traffic associated with this alternative could result in deficient LOS at more intersections in the project vicinity during the lifetime of the development. While significant traffic impacts may occur under this alternative, these impacts would be mitigated in a manner similar to those of the proposed project. Even if mitigation measures were identified for all these intersections, certain roadway improvements would not be under the jurisdiction of the City and cannot be guaranteed to be in place when development under this alternative would become operational. Therefore, as identified for the proposed project, traffic-related impacts would remain significant and unavoidable under the Mixed Use B Alternative.

Utilities and Service Systems: Like the proposed project, development under the Mixed Use B Alternative would connect to existing utility infrastructure subject to the terms and conditions of the City and EMWD. As indicated in previously identified Table 6.H, this alternative would generate approximately 1,~~875,090~~681,656 gallons of wastewater per day, which is more than a six-fold increase to what the proposed project would generate (~~293,515~~286,459 gallons of wastewater per day). When compared to the proposed project, wastewater treatment demand would be substantially

[1] Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California (David Taussig & Associates, Inc., September 2014.

[2] 1 employee/1,667 square feet of logistics uses × 10 million square feet of logistics use = 5,999 logistics jobs.

increased under this alternative, but adherence to existing requirements identified by the City and EMWD would likely result in less than significant impacts with planned expansion of wastewater treatment capacity.

The development of logistics rather than commercial and other non-residential uses under the MHSP would require the installation of water supply infrastructure to serve the project site. As previously indicated in Table 6.I, the Mixed Use B Alternative would require approximately 5,~~794,290~~196,801 gallons of water per day, which is over three times what would be required by the proposed project (1,~~778,486~~761,261 gallons of water per day). When compared to the proposed project, water usage demands would be substantially increased. Similar to the proposed project, development under this alternative would be required to obtain verification from the water purveyor that water is available to serve the development. Therefore, impacts related to water usage and water treatment/conveyance facilities are assumed to remain at less than significant levels similar to the proposed project.

Like the proposed project, the Mixed Use B Alternative would also generate solid waste. As previously identified in Table 6.J, this alternative would generate ~~130,318 pounds~~ 116,800 tons of solid waste per ~~day~~year, which is almost three times more than what the proposed project would generate (~~45,552 pounds~~ 37,016 tons of solid waste per ~~day~~ year). Therefore, demands on solid waste services and landfill capacity would be substantially increased. Similar to the proposed project, development under the Mixed Use B Alternative would be required to adhere to the provisions of the solid waste provider that would service the project site. As with the proposed project, solid waste impacts under this alternative would remain less than significant.

Cumulative Impacts: Similar to the proposed project, this alternative would contribute toward the permanent conversion of farmland, air quality operational emissions, short-term and long-term noise impacts, and increased traffic operations on local roadways and at local intersections. This alternative would have slightly more traffic and operational emissions ~~although health risks would likely be less than under the proposed project~~. Because there are no feasible mitigation measures to reduce the cumulative impacts associated with long-term operational air pollutant emissions, short-term and long-term noise, and increased traffic, these impacts would remain significant and unavoidable. Alternative 3 would also require the development of the project site. Since there is no feasible mitigation that would reduce the cumulative impacts associated with the conversion of farmland, cumulative impacts associated with farmland conversion would remain significant and unavoidable.

Impact Conclusions. Under Alternative 3, impacts related to short-term construction-related air quality would be similar to the proposed project as the same amount of land would be disturbed and the same mix of equipment would be utilized. Long-term operational-related ~~air pollutant~~ carbon monoxide emissions would be higher than the proposed project and would remain significant and unavoidable ~~with the exception of SO_X~~. Like the proposed project, long-term air quality relative to criteria pollutants would still be significant, with the exception of SO_X. Assuming the same level of mitigation as the proposed project, there would be no cancer risks associated with this alternative since the use of new technology diesel engines do not contribute to cancer risk as described in Section 4.3. ~~Health risks to existing residences would be reduced, possibly to less than significant levels, but, it is possible health risks to future residents in new housing on the project site would also be significant, depending on their location relative to the warehousing, and if adequate buffers were established. It is unclear if impacts from diesel-related air pollutant emissions would be reduced to less than significant levels for all existing and future sensitive receptors under this alternative.~~

The development of Alternative 3 would have increased demands on public services and recreation facilities to serve future residential uses. However, increased property tax revenues, payment of development impact fees, and adherence to development requirements would reduce these impacts to a less than significant level. Water supply availability is expected to be available as water demand is expected to be the same. Water demand was determined to be available for the proposed project. There would be an increase in vehicle trips under this alternative, and impacts to the operation of

local roadways and intersections would be similarly increased compared to that identified for the proposed project; therefore, long-term traffic impacts would remain significant and unavoidable. Development of this alternative would provide new employment opportunities and homes for residents of Moreno Valley, but new employment opportunities would be significantly reduced compared to the proposed project.

In summary, the Mixed Use B Alternative would incrementally increase traffic and not improve the City's jobs/housing balance over the long-term. However, this is the only alternative that would reduce a significant impact of the project (aesthetics – views) by substantially reducing the amount of warehousing on the site and replacing it with residential uses. Views of the area would still transition from vacant agricultural land to suburban development, but it would have a residential appearance compared to the proposed project. All the other impacts identified as significant under the proposed project, including likely air quality health risks, would still be significant under this alternative.

Meets Project Objectives. This alternative would not meet most of the objectives of the project related to employment and land use, as shown in Table 6.Q, and would not establish a major regional logistics center in this portion of the City.

NOTE: The objectives outlined in this table did not correspond to the Project Objectives outlined in the Project Description of the DEIR; therefore, they are being corrected at this time.

Table 6.Q: Comparison of Alternative 3 to the Project Objectives (Revised)

Project Objectives	Does the Alternative Meet the Project Objectives?
Create substantial employment opportunities for the citizens of Moreno Valley and surrounding communities.	No
Provide the land use designation and infrastructure plan necessary to meet current market demands and to support the City's Economic Development Action Plan.	No
Create a major logistics center with good regional and freeway access.	No
Establish design standards and development guidelines to ensure a consistent and attractive appearance throughout the entire project.	Yes
Establish a master plan for the entire project area to ensure that the project is efficient and business-friendly, accommodating the next-generation of logistics buildings.	No
Provide a major logistics center to accommodate a portion of the ever-expanding trade volumes at the Ports of Los Angeles and Long Beach.	No
Create a project that will provide a balanced approach to the City's fiscal viability, economic expansion, and environmental integrity.	No
Provide the infrastructure improvements required to meet project needs in an efficient and cost-effective manner.	No
Encourage new development consistent with regional and municipal service capabilities.	No
Significantly improve the City'sjobs/housing balance and help reduce unemployment within the City.	Yes
Provide thousands of construction job opportunities during the project's buildout.	No
Provide appropriate transitions or setbacks between on-site and off-site uses.	Yes

6.3.9 Alternative Sites Analysis

NOTE: The following changes have been made due to revision to the Specific Plan project size.

This alternative examines different sites in the surrounding region to determine if an alternative location would reduce or eliminate one or more significant impacts of the project. This analysis must be based on feasible sites that could realistically support the proposed project (i.e., a contiguous 2, ~~635~~610-acre site for ~~41~~40.6 million square feet of high-cube and light logistics warehouse uses as envisioned by the WLC Specific Plan). The surrounding jurisdictions were contacted to identify potential alternative sites for the proposed project. Figure 6.1 shows the locations of the various jurisdictions that were contacted and/or analyzed in this evaluation and Table 6.R presents the results of that analysis.

Table 6.R indicates that there are no feasible alternative sites in the surrounding or nearby jurisdictions that could support the proposed project (i.e., that have enough vacant land zoned or available for logistics warehousing with good freeway and/or rail access). Therefore, none of these sites will be evaluated further.

Table 6.R: Evaluation of Potential Alternative Sites

Jurisdiction/Map Reference*	Contact/Results
City of Moreno Valley	John Terell, the City's former Community Development Director, indicated there are no sites available within the City that have nearly that amount of vacant land planned or designated for industrial-related uses, which is why the WLC project is being proposed on the current site as this is the largest available vacant land left in the City (personal communication, December 2012).
City of Banning	Zai Abu Bakar, Community Development Director, indicated that the City does not have any vacant industrial property that large (personal communication, November 21, 2012). The City of Banning has a number of much smaller parcels (50–100 acres) zoned for industrial use along the I-10 Freeway corridor, but these are not contiguous and are under multiple ownerships. Therefore, there is no alternative site for the proposed project within the City of Banning.
City of Beaumont	Rebecca Deming, Director of Planning, indicated "the City does have some vacant industrial zoning and Specific Plan Zoning for industrial areas along the 60 freeway" (personal communication, November 26, 2012). A review of the City's online mapping indicates the following three potential sites of contiguous vacant land with freeway access that could support industrial uses: A. South of SR-60/East of SR-79: Site consists of 319 acres planned for general/community commercial and industrial uses, but with scattered rural residential uses adjacent to many of the vacant parcels. B. North of SR-60/West of I-10/South of Oak Valley Parkway: Site consists of approximately 463 acres planned for a variety of residential uses under the Oak Valley Specific Plan. C. South of SR-60/West of I-10/North of West 4th Street: Site includes 193 acres just west of new commercial center and planned for "urban village overlay" with industrial along the freeway. Even the largest site (B) is less than 20 percent of the size of the WLC project site in Moreno Valley, and even all together the three sites total 974 acres which is 36 percent of the WLC project site. None of the sites is owned by the developer; Site B is under single ownership, while the other two are under multiple ownership. Based on this information, there are no feasible alternatives sites in the City of Beaumont for the proposed project.
City of Calimesa	Gus Romo, Community Development Director, was contacted and indicated there are not 2,~~700~~600 acres designated or that have the potential to be zoned for warehouses in Calimesa (personal communication, November 21, 2012). Therefore, there is no alternative site for the proposed project within the City of Calimesa.
City of Menifee	Patti Nahill, contract City Planner, indicated that there was no place in the City with 2,~~700~~600 vacant acres available for industrial uses (personal communication, November

Table 6.R: Evaluation of Potential Alternative Sites

Jurisdiction/Map Reference*	Contact/Results
	27, 2012). The City was incorporated on October 1, 2008, and is still working on its General Plan, so the applicable zoning would be Industrial Park (IP). There are three areas in the City with vacant land that could support industrial uses: A. East of I-215 North of Scott Road: Approximately 280 acres with suburban and rural residential uses adjacent to the north and south, and an approved Specific Plan (140 acres) to the east. These areas have multiple owners. B. West of I-215 North of Scott Road: Approximately 600 acres with rural residential to the north, west, and south. This area has multiple owners. C. North Menifee Specific Plan: This area is only 120 acres and the current land use designation is Specific Plan, but the underlying zoning was industrial. This area is under single ownership. Even the largest area (A) is only 22 percent of the size of the WLC project site in Moreno Valley, and even all together the three areas only total 1,000 acres which is 37 percent of the WLC project site. None of the sites is owned by the developer; Area C is under single ownership, while the other two areas are under multiple ownership. Based on this information, there are no feasible alternative sites available in the City of Menifee for the proposed project.
City of Perris	According to the City's website (www.cityofperris.org), the Perris Valley Commerce Center Specific Plan (adopted January 2012) east of I-215 has 1,866 total acres designated for light industrial uses, but some of this area is already developed or planned/approved for development. If this entire area were dedicated to high cube logistics warehousing, it would represent about two-thirds of the land within the proposed WLC Specific Plan. This land is also under ownership of hundreds of individual owners, and the vacant land is not in large contiguous blocks. Therefore, there is no feasible alternative site for the proposed project within the City of Perris.
City of Riverside	Steve Hayes, City Planner, indicated there were no sites close to the required size within the City limits. The only large sites he was aware of were less than 50 acres each and not contiguous with each other (personal communication, November 26, 2012). Therefore, there is no feasible alternative site for the proposed project within the City of Riverside.
City of San Jacinto	Asher Hartel, former Planning Director (retired), said the City of San Jacinto did not have the required amount of vacant land available zoned for industrial use in the City, and there are no freeways or rail service immediately available to the City. He did say the City's "Gateway" area in the northwestern portion of the City, along Ramona Expressway, had approximately 1,700 acres and is mostly vacant, but the property is designated for a mix of residential, commercial, and business park uses in the General Plan, and any non-residential uses would have to be high employment generators (personal communication, November 27, 2012). Therefore, there is no feasible alternative site for the proposed project within the City of San Jacinto.
County of Riverside	Frank Coyle, former Deputy Director, Advanced Planning Division Riverside County Planning Department, suggested the County's GIS Department could identify all vacant unincorporated land zoned Light Industrial or Business Park along the I-215 corridor south of Moreno Valley to the City of Perris (personal communication, November 21, 2012). Larry Ross with the County's GIS Department said its research shows a total of 1,280 acres of vacant land designated for light industrial or business park uses where warehousing would be appropriate (see Figure 6.1)(personal communication, November 26, 2012 and data/mapping info sent November 29, 2012). This land constitutes hundreds of parcels under separate ownerships distributed along the west side of I-215 from Nandina Avenue south to Nuevo Road. This "corridor" land is spread out up to a half mile away from the freeway and is not in large contiguous blocks, and it is adjacent to many rural residential parcels and uses. In addition, it is less than half the size needed for a similar amount of logistics warehousing development as under the proposed project. For these reasons, it would be infeasible to consolidate and propose development of

Table 6.R: Evaluation of Potential Alternative Sites

Jurisdiction/Map Reference*	Contact/Results
	industrial-zoned unincorporated land along this portion of I-215. In addition to the I-215 corridor, the "Villages of Lakeview" property located south of Mystic Lake off of Ramona Expressway is at least one additional potential site in the general project area that has sufficient acreage to accommodate the WLC project. This property has already been proposed for a variety of residential uses (11,350 units on 2,800 acres) but the EIR for that project was successfully challenged in court this year (Riverside County EIR 471). While the property is large enough, it is already proposed for residential development so it would be infeasible to use this property to support development equivalent to the proposed project. Although it is relatively far from the project area (approximately 22 miles to the west-northwest along the east side of I-15 south of SR-60), the Mira Loma area of the County supports a variety of large warehouses and has rail service available, so it is a potential location for additional logistics warehouses. The Jurupa Area Plan indicates that warehouse uses are allowed only in the area bounded by San Sevaine Channel from Philadelphia Street southerly to Galena Street on the east, Galena Street from the San Sevaine Channel to Riverside Drive, then Riverside Drive westerly to Milliken Avenue, then Milliken Avenue north to Philadelphia Street on the west, and Philadelphia Street easterly to the San Sevaine Channel on the north. A visual inspection of aerial photographs of the Mira Loma area indicates the largest individual vacant parcel or group of adjacent vacant parcels in this area occupies approximately 800 acres, most of which is currently being used for agriculture (i.e., vineyards)(east of I-15 on both sides of Bellegrave Avenue). Otherwise, there are no vacant parcels of more than 100 acres in size in this area (not shown in Figure 6.1).
City of Jurupa Valley (not shown in Figure 6.1)	The newly incorporated City of Jurupa Valley, located south of SR-60 just west of the City of Riverside, also has vacant industrial-zoned land available for warehousing, but all currently vacant parcels are 50 acres or less in size and not contiguous as to be able to form a parcel nearly large enough to support the proposed project (Ernest Perea, former City contract planner, personal communication, January 4, 2013).
March Joint Powers Authority	The March JPA website (www.marchjpa.com) indicates there is a total of approximately 750 acres of developable land west of I-215, north of Van Buren Boulevard and south of Alessandro Boulevard within the MJPA. At present, this land is planned for a mixture of business park, commercial, industrial, public facilities, and open space uses. Even if all this land was committed to logistics warehousing, it would only represent 28% of the WLC project site. Therefore, an alternative site for the proposed project on March JPA property is infeasible.

* See Figure 6.1

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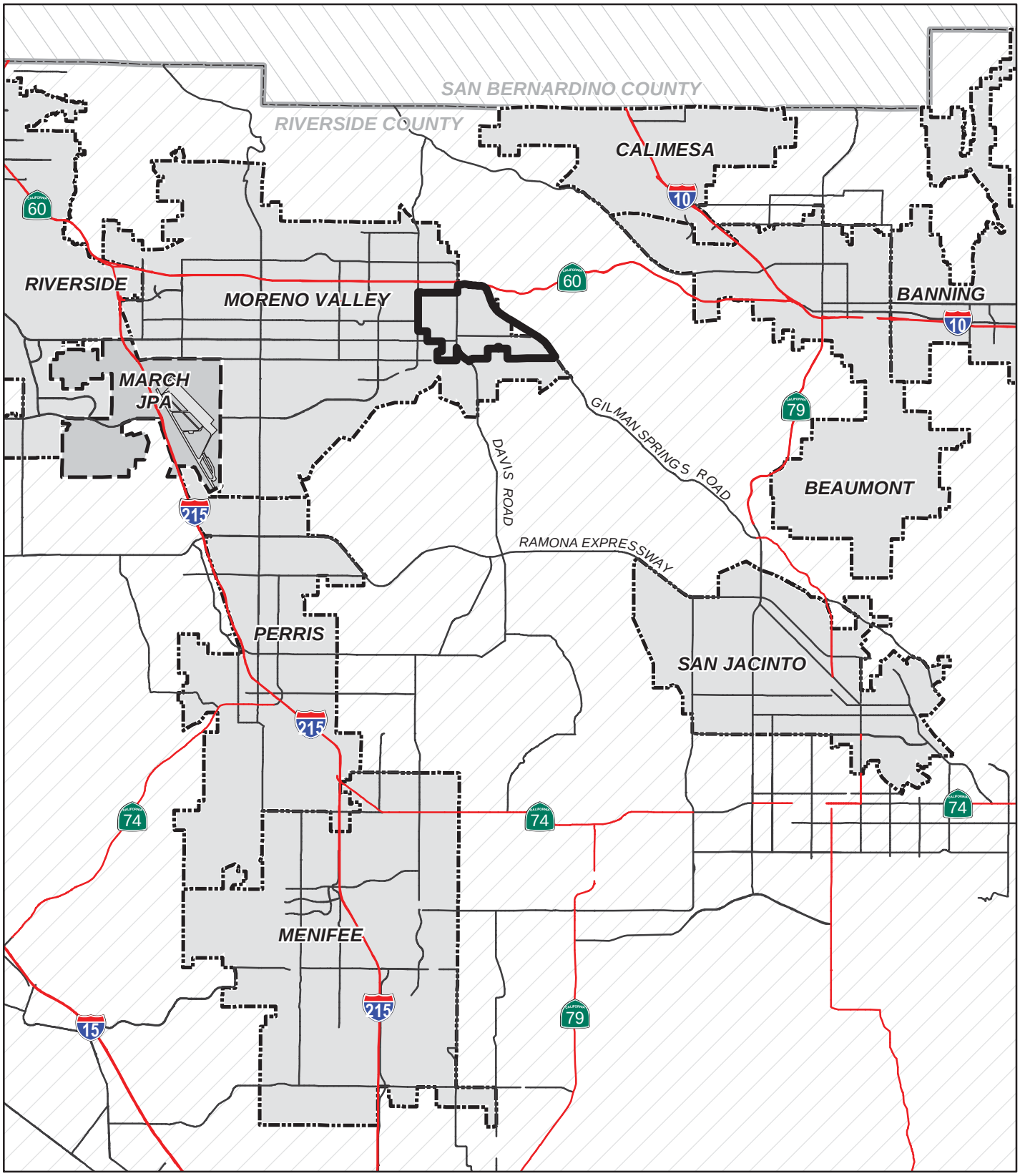

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MILES

Project Boundary

Cities

Riverside County

San Bernardino County

FIGURE 6.1

World Logistics Center Specific Plan Project
Environmental Impact Report

Alternative Sites Analysis

SOURCE: Riverside County, 2011.

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6.4 COMPARISON OF PROJECT ALTERNATIVES

The following discussion compares the impacts of each alternative with the impacts of the proposed project, as detailed in Sections 4.1 through 4.16 of this EIR. Table 6.S compares the impacts of the alternatives with those of the proposed project. This table identifies whether the alternative results in (1) a reduction of the impact; (2) a greater impact than the project; or (3) the same impact as the project.

Table 6.S: Comparison of Alternatives to the Proposed Project

Environmental Issue	Proposed Project	No Project No Build	No Project Existing General Plan	Alt. 1 Reduced Density	Alt. 2 Mixed Use A	Alt. 3 Mixed Use B
Aesthetics	SIG	NI	➔LTS	=	=	➔LTS
Agricultural and Forest Resources	~~SIG~~LTS/mit	NI	=	=	=	=
Air Quality	SIG	NI	SIG	➔SIG	➔SIG/+	➔SIG
Biological Resources	LTS/mit	NI	=	=	=	=
Cultural Resources	LTS/mit	NI	=	=	=	=
Geology and Soils	LTS/mit	NI	=	=	=	=
Global Climate Change	~~SIG~~LTS/mit	NI	➔~~SIG~~ LTS	➔~~SIG~~LTS/mit	➔~~SIG~~LTS/mit	➔~~SIG~~LTS/mit
Hazards and Hazardous Materials	LTS/mit	NI	=	=	=	=
Hydrology and Water Quality	LTS/mit	NI	=	=	=	=
Land Use and Planning	SIG	NI	LTS	=	=	=
Mineral Resources	NI	=	=	=	=	=
Noise	SIG	NI	➔SIG	➔SIG	➔SIG	➔SIG
Population, Housing, and Employment	LTS	NI	+	=	=	+
Public Services (police, fire, schools, parks)	LTS/mit	NI	=	=	=	=
Transportation and Traffic	SIG	NI	➔SIG	➔SIG	➔SIG+	➔SIG
Utilities and Service Systems (water, wastewater, etc.)	LTS/mit	NI	=	=	=	=

Table 6.S: Comparison of Alternatives to the Proposed Project

Environmental Issue	Proposed Project	No Project No Build	No Project Existing General Plan	Alt. 1 Reduced Density	Alt. 2 Mixed Use A	Alt. 3 Mixed Use B

Proposed Project
NI: No Impact
LTS: Less than Significant Impact
LTS/mit: Less than Significant Impact with Mitigation
SIG: Significant Impact with or without Mitigation

Project Alternatives
= Compared with the proposed project, no change in the significance of impact will occur.
➔ Compared with the proposed project, the significance of the impact is increased.
🡐 Compared with the proposed project, the significance of the impact is reduced.
+ Compared with the proposed project, a new impact has been identified.
🡐SIG Compared with the proposed project, the volume or extent of the impact is reduced, yet still significant.

6.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

As detailed above in Table 6.S, the No Project/Existing General Plan Alternative has mixed impacts relative to the proposed project; it reduces aesthetic impacts to less than significant levels but worsens the jobs/housing ratio by introducing more housing than employment-generating uses. The Reduced Density Alternative incrementally reduces a number of impacts of the proposed project (e.g., traffic, air quality, and noise) but cannot reduce them to less than significant levels even with mitigation. The Mixed Use A Alternative substantially increases traffic and related impacts compared to the project impacts, but it does not create any additional significant impacts. The Mixed Use B Alternative would incrementally increase traffic and would not improve the jobs/housing balance. ~~It would incrementally reduce health risks to existing residents along Redlands Boulevard (i.e., 30 percent less warehousing), but could create health risks for new residents depending on the ultimate location of warehouses and new residences.~~ In addition, this alternative would also worsen the jobs/housing ratio of the City by allowing the construction of many more homes than job-creating land uses. Regarding air quality impacts (criteria pollutants ~~and greenhouse gases~~), development of any land uses would likely exceed SCAQMD thresholds mainly due to the size of the proposed project site.

The *CEQA Guidelines* (Section 15126.6 (e[2]) requires that an environmentally superior alternative be identified in the EIR. Based on the analysis in this section and the summary contained in Table 6.S, Alternative 1 – Reduced Density – is the only alternative that reduces traffic, air quality, and related impacts by reducing the total square footage of warehousing by approximately 30 percent. Alternative 3—Mixed Use B—is the only alternative that would reduce a significant impact of the proposed project (i.e., aesthetics – views). However, it ~~could create health risks for future residents of the project, and~~ would worsen the jobs/housing balance of the City over the long term. For these reasons, Alternative 1 – Reduced Density —has been deemed to be environmentally superior to the proposed project. However, none of the alternatives achieves the objectives of the project to nearly the same degree as the proposed project.

Table 6.T compares Alternative 1 to the project objectives and indicates that Alternative 1 does not meet most of the major goals of the proposed project mainly because of the reduced total square footage by 30 percent, which also reduces the amount of new employment and property tax revenues generated to the City.

NOTE: The objectives outlined in this table did not correspond to the Project Objectives outlined in the Project Description of the DEIR; therefore, they are being corrected at this time. In addition, some numerical changes result from the changes to the Specific Plan area.

Table 6.T: Comparison of the Environmentally Superior Alternative to the Project Objectives (Revised)

Project Objectives	Degree to Which Alternative 1 Satisfies the Project Objectives
Create substantial employment opportunities for the citizens of Moreno Valley and surrounding communities.	**Not to the Same Degree as the Proposed Project.** This alternative would provide only 16,797 new employees compared to 24,000 from the proposed project (30% less).
Provide the land use designation and infrastructure plan necessary to meet current market demands and to support the City's Economic Development Action Plan.	**Not to the Same Degree as the Proposed Project.** The alternative introduces substantially less employment-generating uses on the site which is not consistent with the City's Economic Strategic Plan.
Create a major logistics center with good regional and freeway access.	**Not to the Same Degree as the Proposed Project.** The alternative would allow 28 MSF of logistics warehousing near the SR-60 Freeway but it would less attractive as a major regional logistics center compared to the proposed project.
Establish design standards and development guidelines to ensure a consistent and attractive appearance throughout the entire project.	**Meets Objective.** Development of the project area under this alternative would most likely proceed under some form of specific plan, which would help ensure future development was consistent with a comprehensive plan for the area.
Establish a master plan for the entire project area to ensure that the project is efficient and business-friendly, accommodating the next-generation of logistics buildings.	**Meets Objective.** The alternative would develop a smaller amount of logistics warehousing compared to the proposed project, but it would still be master planned, most likely under a specific plan.
Provide a major logistics center to accommodate a portion of the ever-expanding trade volumes at the Ports of Los Angeles and Long Beach.	**Not to the Same Degree as the Proposed Project.** The alternative would allow 28 MSF of logistics warehousing vs. 40.6 MSF for the proposed project.
Create a project that will provide a balanced approach to the City's fiscal viability, economic expansion, and environmental integrity.	**Not to the Same Degree as the Proposed Project.** The alternative would not provide nearly as much new warehouse capacity to form a regional port-oriented logistics center compared to the proposed project.
Provide the infrastructure improvements required to meet project needs in an efficient and cost-effective manner.	**Not to the Same Degree as the Proposed Project.** The alternative would produce 30% less employment than under the proposed project, and would also provide less property tax revenue and be able to pay for less public improvements and infrastructure compared to the proposed project.
Encourage new development consistent with regional and municipal service capabilities.	**Not to the Same Degree as the Proposed Project.** It is unclear if a substantially reduced logistics warehousing project could afford to provide the necessary infrastructure to support the planned development compared to the proposed project.
Significantly improve thejobs/housing balance and help reduce unemployment within the City.	**Not to the Same Degree as the Proposed Project.** This alternative would provide only 16,797 new employees compared to 24,000 from the proposed project (30% less).
Provide thousands of construction job opportunities during the project's buildout phase.	**Not to the Same Degree as the Proposed Project.** The alternative would not provide as much work for as many construction workers compared to the proposed project
Provide appropriate transitions or setbacks between on-site and off-site uses.	**Meets Objective.** A smaller logistics warehouse project may be able to provide equal or greater transitions and buffers from existing off-site residential uses compared to the proposed project.

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7.0 REFERENCES: TABLE OF CONTENTS

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7.2 ACRONYMS AND ABBREVIATIONS

§	Section
§§	Subsection
°C	degrees Celsius
°F	degrees Fahrenheit
$\mu g/m^3$	Micrograms per cubic meter
AAQS	Ambient Air Quality Standards
AB	Assembly Bill
ACC	Andrew Chang and Company
ACM	Asbestos-Containing Material
AF	acre-feet
AFRES	Air Force Reserve
AFV	Alternative Fuel Vehicle
AFY	acre feet per year
AICUZ	Air Installation Compatible Use Zone
ALUC	Airport Land Use Commission
ALUP	Airport Land Use Plan
amsl	above mean sea level
A-P Act	*Alquist-Priolo Earthquake Fault Zoning Act*
APN	Assessor's Parcel Number
AQMP	Air Quality Management Plan
AST	Aboveground Storage Tank
Basin	South Coast Air Basin
BAU	Business As Usual

BDCP	Bay Delta Conservation Plan
BMP	Best Management Practice
BP	Business Park
BV&A	Bear Valley and Alessandro Development Company
BVIC	Bear Valley Irrigation Company
BVLWC	Bear Valley Land and Water Company
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CalFire	California Department of Forestry and Fire Protection
CALGreen Code	California Green Building Standards Code
California Register	California Register of Historic Resources
Caltrans	California Department of Transportation
CAPSSA	Criteria Area Plant Species Survey Area
CARB	California Air Resources Board
CASQA	California Stormwater Quality Association
CASSA	Criteria Area Species Survey Area
CAT	California Climate Action Team
CBC	California Building Code
CBOC	California Burrowing Owl Consortium
CBSC	California Building Standards Commission
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFG	California Department of Fish and Game, former name of the California Department of Fish and Wildlife
CDFW	California Department of Fish and Wildlife, formerly known as the California Department of Fish and Game
CDGB	Community Development Block Grant

CDMG	California Department of Mines and Geology
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response Compensation Liability Act
CESA	California Endangered Species Act
CFCs	chlorofluorocarbons
CFR	Code of Federal Regulations
CFS	calls for service
cfs	cubic feet per second
CGP	Construction General Permit
CGS	California Geological Survey
CH_4	Methane
CHP	California Highway Patrol
CIP	Capital Improvement Plan
CIWMB	California Integrated Waste Management Board
CLUP	Comprehensive Land Use Plan
CNDDB	California Natural Diversity Data Base
CNEL	Community Noise Equivalent Level
CNG	Compressed Natural Gas
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
COA	Coordinated Operations Agreement
CPD	(HUD Office of) Community Planning and Development
CPUC	California Public Utilities Commission
CRA	California Resource Agency
CRA	Cultural Resource Assessment

CSC	California Species of Concern
CUPA	Certified Unified Program Agency
CUWCC	California Urban Water Conservation Council
CVC	California Vehicle Code
CVP	Central Valley Project
CWA	(Federal) Clean Water Act
CWC	California Water Code
DAMP	Drainage Area Management Plan
dB	decibel
dBA	decibel on the A-weighted scale
DBESP	Determination of a Biologically Equivalent or Superior Preservation
DCIA	Directly Connected Impervious Area
DE	Diesel Emissions
DEH	Department of Environmental Health
DHS	(California) Department of Health Services
DIF	Development Impact Fee
DMM	Demand Management Measure
DMP	Drainage Master Plan
DOC	(California) Department of Conservation
DOF	(California) Department of Finance
DTA	David Taussig & Associates, Inc.
DTSC	(California) Department of Toxic Substance Control
DWR	(California) Department of Water Resources
e.g.	*exemplī grātiā*, for example
ECSD	Edgemont Community Services District
EDR	Environmental Data Resources
EIC	Eastern Information Center
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EMWD	Eastern Municipal Water District

EPA	U.S. Environmental Protection Agency
EPAct	Energy Policy Act
ESA	Environmental Site Assessment
ESG	Emergency Solutions Grant
FAA	Federal Aviation Administration
FAR	Floor Area Ratio
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
ft	foot/feet
FTA	Federal Transit Administration
FTE	full-time equivalent
GCC	Global Climate Change
GHG	Greenhouse gas
GIS	Geographic Information Systems
GPA	General Plan Amendment
gpd	gallons per day
gpf	gallons per flush
GWP	Global Warming Potential
HANS	Habitat Evaluation and Acquisition Negotiation Strategy
HCD	(California) Department of Housing and Community Development
HCM	*Highway Capacity Manual*
HCP	Habitat Conservation Plan
HFCP	Highland Fairview Corporate Park
HHWE	Household Hazardous Waste Element
HI	Hazard Indices
HMB	Hazardous Materials Branch
HMBEP	Hazardous Materials Business Emergency Plan

HMMA	Hazardous Materials Management Act
HMMP	Habitat Mitigation and Monitoring Plan
HNL	Hourly Noise Level
HOME	HOME Investment Partnership
HOPWA	Housing Opportunities for Persons with AIDS
hp	horsepower
HRA	Health Risk Assessment
HSA	Hydrologic Subarea
HSC	Health and Safety Code
HUD	Housing and Urban Development
HVAC	Heating, Ventilating, and Air Conditioning
HWCL	Hazardous Waste Control Law
Hz	hertz
i.e.	*id est*, that is
IMPLAN	Impact Analysis for Planning
IPCC	United Nations Intergovernmental Panel on Climate Change
IRP	Integrated Resources Plan
IS	Initial Study
ITE	Institute of Transportation Engineers
kV	kilovolt
LAFCO	Local Agency Formation Commission
LAPM	Los Angeles pocket mouse
LBP	Lead-Based Paint
LBRMP	Logistic Building Runoff Management Plan
lbs	pounds
LCC	Land Capability Classification
LD	Logistics Development
L_{dn}	day-night average noise
LE	Land Evaluation
LEED	Leadership in Energy and Environmental Design

L_{eq}	Equivalent continuous sound level (L_{eq})
LESA	(California) Land Evaluation and Site Assessment
LHMP	Local Hazard Mitigation Plan
LI	Light Industrial
LID	Low Impact Development
LL	Light Logistics
L_{max}	maximum noise level
LNG	Liquefied Natural Gas
LNG/CNG	liquefied natural gas/compressed natural gas
LOS	Level of Service
~~LS~~	~~Logistics Support~~
LSA	LSA Associates, Inc.
LST	Local Significance Threshold
MARB	March Air Reserve Base
MATES	Multiple Air Toxics Exposure Study
MBA	Michael Brandman Associates
MBTA	Migratory Bird Treaty Act
MC	Municipal Code
Metropolitan	Metropolitan Water District of Southern California
mgd	million gallons per day
MHSP	Moreno Highlands Specific Plan
MICR	maximum individual cancer risk
MIP	March Inland Port
MJPA	March Joint Powers Authority
mm/yr	millimeters per year
MMDP	Moreno Master Drainage Plan
MMRP	Mitigation Monitoring and Reporting Program
mmt	million metric tons
MOU	Memorandum of Understanding
mpg	miles per gallon

mph	miles per hour
MPO	Metropolitan Planning Organization
MPOA	Master Property Owners Association
MPT	Master Plan of Trails
MRZ	Mineral Resource Zone
MS4	Municipal Separate Storm Sewer Systems
MSHCP	(Western Riverside County) Multiple Species Habitat Conservation Plan
mt	metric tons
mty	metric tons per year
MVEU	Moreno Valley Electric Utility
MVFD	Moreno Valley Fire Department
MVHS	Moreno Valley Historical Society
MVPD	Moreno Valley Police Department
MVRWRF	Moreno Valley Regional Water Reclamation Facility
MVUSD	Moreno Valley Unified School District
MW	megawatt
MWh	megawatt-hours
N_2O	nitrous oxide
NA	Native American
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NAIOP	National Association of Industrial and Office Properties
National Register	National Register of Historic Places
NCCP	Natural Communities Conservation Plan
NDDB	Natural Diversity Data Base
NDFE	Nondisposal Facility Element
NEPA	National Environmental Policy Act
NEPSSA	Narrow Endemic Plant Species Survey Area
NFIP	National Flood Insurance Program

NFPA	National Fire Protection Association
NHPA	National Historic Preservation Act
NHTSA	Highway Traffic and Safety Administration
NMFS	National Marine Fisheries Service
NO_2	Nitrogen Dioxide
NOI	Notice of Intent
NOP	Notice of Preparation
NO_X	Oxides of Nitrogen
NPDES	National Pollutant Discharge Elimination System
NRCP	Noise Reduction Compliance Plan
NRCS	Natural Resource Conservation Service
O_3	Ozone
OEHHA	Office of Environmental Health Hazard Assessment
OHP	Office of Historic Preservation
OHWM	Ordinary High Water Mark
OMB	(White House) Office of Management and Budget
OPR	Office of Planning and Research
OS	Open Space
PAH	Polycyclic Aromatic Hydrocarbon
Pb	Lead
PCBs	polychlorinated biphenyls
PEA	Preliminary Environmental Assessment
PM_{10}	Particulate Matter with a Diameter of 10 Microns or Less
$PM_{2.5}$	Particulate Matter with a Diameter of 2.5 Microns or Less
POTWs	Publicly Owned Treatment Works
POU	Publically Owned Utility
ppb	parts per billion
ppm	parts per million
PSB	Public Safety Building

PUC	Public Utilities Commission
PVC	Polyvinyl Chloride
PVCCSP	Perris Valley Commerce Center Specific Plan
PVSC	Perris Valley Storm Channel
PWC	Public Works Committee
PWQMP	Preliminary Water Quality Management Plan
PZ	Pressure Zone
q.v.	*quod vidē*, which see (presented elsewhere in the document)
RCA	Resource Conservation Agency
RCB	reinforced concrete box
RCC	Riverside Community College
RCFCWCD	Riverside County Flood Control and Water Conservation District
RCFD	Riverside County Fire Department
RCIP	Riverside County Integrated Project
RCIWMP	Riverside Countywide Integrated Waste Management Plan
RCP	Regional Comprehensive Plan
RCRA	Resource Conservation and Recovery Act
RCSD	Riverside County Sheriff's Department
RCTC	Riverside County Transportation Commission
RHNA	Regional Housing Needs Assessment
RivTAM	Riverside County Traffic Analysis Model
ROG	Reactive Organic Gas
RPR	(California) Rare Plant Ranking
RPS	Renewables Portfolio Standard
RPW	Relatively Permanent Water
RSHA	Regional System of Highways and Arterials
RTA	Riverside Transit Agency
RTIP	Regional Transportation Improvement Plan
RTP	Regional Transportation Plan

RUWMP	Regional Urban Water Management Plan
RWQCB	Regional Water Quality Control Board
SA	Site Assessment
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCGC	Southern California Gas Company
SCS	Sustainable Communities Strategy
SDG&E	San Diego Gas and Electric
SEDAB	Southeast Desert Air Basin
sf	square foot/feet
SF_6	Sulfur Hexafluoride
SHMA	Seismic Hazards Mapping Act
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SJUSD	San Jacinto Unified School District
SJWA	San Jacinto Wildlife Area
SKR	~~Stephen's~~ Stephens' kangaroo rat
SKR HCP	~~Stephen's~~ Stephens' Kangaroo Rat Habitat Conservation Plan
SMARA	Surface Mining and Reclamation Act
SO_2	Sulfur Dioxide
SO_X	Sulfur Oxides
SP	Service Population
SR-60	State Route 60
SRRE	Source Reduction and Recycling Element
SSURGO	Soil Survey Geographic
STC	Sound Transmission Class

SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan
SWQCB	State Water Quality Control Board
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
TAF	thousand acre-feet
TASAS	Traffic Accident Surveillance and Analysis System
TCM	Transportation Control Measures
TCP	Traditional Cultural Place
TDM	Transportation Demand Management
TDS	Total Dissolved Solids
TIA	Traffic Impact Analysis
TIS	Traffic Impact Study
TMDL	Total Maximum Daily Load
TNW	Traditional Navigable Water
tpy	tons per year
TRI	Toxics Release Inventory
TUMF	Transportation Uniform Mitigation Fee
UBC	Uniform Building Code
UC	University of California
UNFCCC	United Nations Framework Convention on Climate Change
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USDOT	United States Department of Transportation
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	Underground Storage Tank
UWMP	Urban Water Management Plan
VAV	Variable Air Volume
VIA	Visual Impact Assessment

VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds
VRP	Visibility-Reducing Particles
WDR	Wastewater Discharge Requirement
WLC	World Logistics Center
WLCSP	World Logistics Center Specific Plan
WQMP	Water Quality Management Plan
WRCOG	Western Riverside Council of Governments
WSA	Water Supply Assessment
WSP	Water Shortage Plan
ZOI	Zone of Influence

7.3 GLOSSARY OF GENERAL TERMS

Acre-Foot. An acre-foot is the quantity of volume of water that covers one acre to a depth of one foot; equal to 43,560 cubic feet or 325,851 gallons.

Aesthetics. The perception of artistic elements, or elements in the natural or human-made environment that are pleasing to the eye.

Air Quality Criteria. Air quality criteria are the levels of pollution and length of exposure at which adverse effects on health and welfare occur.

Air Quality Standards. Air quality standards are the prescribed level of pollutants in the outside air that cannot be exceeded legally during a specified time in a specified geographical area.

Ambient Noise. Ambient noise is the composite of noise from all sources near and far. The ambient noise level constitutes the normal or existing level of environmental noise at a given location.

Applicant. An applicant is a person who proposes to carry out a project that needs a lease, permit, license, certificate, or other entitlement, for use or financial assistance from one or more public agencies.

Arterial. An arterial is a major street carrying the traffic of local and collector streets to and from freeways and other major streets, with controlled intersections and generally providing direct access to non-residential properties.

Attainment. Attainment means that there is compliance with State and Federal ambient air quality standards within an air basin.

A-Weighted Decibel (dBA). The dB on the A-weighted scale is the sound level obtained by use of A-weighting. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.

California Environmental Quality Act (CEQA). Enacted in 1970, CEQA requires State and local agencies to estimate and evaluate the environmental implications of their actions. It aims to prevent

environmental effects of the agency actions by requiring agencies, when feasible, to avoid or reduce the significant environmental impacts of their decisions. If a proposed activity has the potential for a significant adverse environmental impact, an environmental impact report (EIR) must be prepared and certified as to its adequacy before taking action on the proposed project (*California Public Resources Code* §§21000 et seq.)

Capacity. The maximum rate of flow at which vehicles can be reasonably expected to traverse a point or uniform segment of a lane or roadway during a specified time period under prevailing roadway, traffic, and control conditions.

Collector. Relatively low-speed, low-volume street that provides circulation within and between neighborhoods. Collectors usually serve short trips and are intended for collecting trips from local streets and distributing them to the arterial network.

Community Noise Equivalent Level (CNEL). A 24-hour energy equivalent level derived from a variety of single-noise events, with weighting factors of 5 and 10 dBA applied to the evening (7 p.m. to 10 p.m.) and nighttime (10 p.m. to 7 a.m.) periods, respectively, to allow for greater sensitivity to noise during these hours.

Congestion Management Plan (CMP). A mechanism employing growth management techniques, including traffic level of service requirements, standards for public transit, trip reduction programs involving transportation systems management and jobs/housing balance strategies, and capital improvement programming, for the purpose of controlling and/or reducing the cumulative regional traffic impacts of development.

Cumulative Impact. As used in CEQA, the total impact resulting from the accumulated impacts of individual projects or programs over time.

Day-Night Average Level (L_{dn}). The average equivalent A-weighted sound level during a 24-hour day, obtained after the addition of 10 decibels to sound levels in the night after 10 p.m. and before 7 a.m. (Note: CNEL and L_{dn} represent daily levels of noise exposure averaged on an annual or daily basis, while L_{eq} represents the equivalent energy noise exposure for a shorter time period, typically one hour.)

Decibel (dB). The decibel (dB) is the unit of level that denotes the ratio between two quantities that are proportional to power; the number of decibels is 10 times the logarithm (to the base 10) of this ratio.

Emission Standard. The maximum amount of pollutant legally permitted to be discharged from a single source, either mobile or stationary.

Environment. In CEQA, the environment are “the physical conditions which exist within the area which will be affected by a proposed project, including land, air, water, mineral, flora, fauna, noise, and objects of historic or aesthetic significance.”

Environmental Impact Report (EIR). A report required pursuant to the California Environmental Quality Act that assesses all the environmental characteristics of an area, determines what effects or impacts will result if the area is altered or disturbed by a proposed action, and identifies alternatives or other measures to avoid or reduce those impacts.

Equivalent Energy Level (L_{eq}). L_{eq} is the sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. L_{eq} is typically computed over 1-hour, 8-hour, and 24-hour sample periods.

Feasible. To be feasible, according to CEQA, means to be capable of being accomplished in a successful manner within a reasonable time taking into account economic, environmental, social, and technological factors.

Findings. Findings required by CEQA are the conclusions made regarding the significance of a project in light of its environmental impacts. A Statement of Overriding Considerations does not obviate the need to make other required CEQA findings.

Floor Area Ratio (FAR). The FAR is the gross floor area permitted on a site divided by the total net area of the site, expressed in decimals to one or two places. For example, on a site with 10,000 net square feet of land area, a floor area ratio of 1.0 will allow a maximum of 10,000 gross square feet of building floor area to be built. On the same site, an FAR of 1.5 would allow 15,000 square feet of floor area; an FAR of 2.0 would allow 20,000 square feet; and an FAR of 0.5 would allow 5,000 square feet. Also commonly used in zoning, FARs typically are applied on a parcel-by-parcel basis as opposed to an average FAR for an entire land use or zoning district.

Floor Area, Gross. The sum of the horizontal areas of the several floors of a building measured from the exterior face of exterior walls, or from the centerline of a wall separating two buildings, but not including any space where the floor-to-ceiling height is less than six feet. Some cities exclude specific kinds of space (e.g., elevator shafts and parking decks) from the calculation of gross floor area.

Freeway. A freeway is a high-speed, high-capacity, limited-access road serving regional and countywide travel. Such roads are free of tolls, as contrasted with turnpikes or other toll roads. Freeways generally are used for long trips between major land use generators. Major streets cross at a different grade level.

Incorporation by Reference. "Incorporation by reference" is a CEQA term meaning reliance on a previous environmental document for some portion of the environmental analysis of a project. See *CEQA Guidelines* §15150.

Initial Study. An Initial Study is a preliminary CEQA analysis that can be prepared by a Lead Agency to determine whether an EIR or Negative Declaration must be prepared, and identifying the significant environmental effects to be analyzed in an EIR.

Land Use. Any land use is the determination by a governing authority of the use to which land within its jurisdiction may be put so as to promote the most advantageous development of the community.

Lead Agency. The lead agency is the public agency that has the principal responsibility for carrying out or approving a project. The Lead Agency decides whether an EIR or Negative Declaration is required for a project, and causes the appropriate document to be prepared.

Level of Service (LOS). LOS is a qualitative measure describing operational conditions within a traffic stream and how motorists and/or passengers perceive them.

Maximum Noise Level (L_{max}). The maximum A-weighted sound levels measured on a sound level meter, during a designated time interval, using fast time averaging.

Mitigation Measure. A mitigation measure is a change in a project designed to avoid, minimize, rectify, reduce, or compensate for a significant environmental impact.

Mitigation Monitoring and Reporting Program (MMRP). When a lead agency adopts a mitigated negative declaration or an EIR, it must adopt a program of monitoring or reporting which will ensure that mitigation measures are implemented. (See CEQA Statute §21081.6(a) and *CEQA Guidelines* §§15091(d) and 15097.)

Noise. Noise is any sound that is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying (unwanted sound).

Noise Contours. Noise contours are lines drawn about a noise source indicating equal levels of noise exposure.

Notice of Determination (NOD). An NOD is a brief notice filed with the State Clearinghouse to document project approval. The filing of the NOD starts the statute of limitations period. (See *CEQA Guidelines* §15373.)

Notice of Preparation (NOP). An NOP is a brief notice to notify the public, Responsible and Trustee Agencies that an EIR is being prepared for a project. The notice serves to solicit guidance from those agencies and the public about the scope and content of the environmental information to be included in the EIR. (See *CEQA Guidelines* §15375.)

Peak Hour. The hour of highest traffic volume on a given section of roadway between 7:00 a.m. and 9:00 a.m. or between 4:00 p.m. and 6:00 p.m.

Programmatic EIR. A programmatic EIR is an EIR that examines the impacts that would result from a conceptual plan or policy action envisioned by the lead agency, which is carried out at a more general level of analysis based upon the development information available. (See C*EQA Guidelines* §15161.)

Project. According to CEQA, a project is the whole of an action that has the potential to result in significant environmental change in the environment, directly or ultimately. (See *CEQA Guidelines* §15378.)

Project Description. A project description describes the basic characteristics of the project including location, need for the project, project objectives, technical and environmental characteristics, project size and design, project phasing and required permits. The level of detail provided in the project description varies according to the type of environmental document prepared.

Project EIR. A project EIR is an EIR that examines the impacts that would result from development of a specific project. (See C*EQA Guidelines* §15161.)

Public Hearing. A public hearing is a mechanism for providing the public an opportunity to comment on and present evidence relating to a proposed project and its Draft EIR.

Responsible Agencies. According to CEQA, responsible agencies are all public agencies other than the Lead Agency that have discretionary approval power over the project. (See *CEQA Guidelines* §15381.)

Reviewing Agencies. Reviewing agencies are local, State, and Federal agencies with jurisdiction over the project area or resources potentially affected by the project. Cities and counties are also considered reviewing agencies.

Scoping Meeting. A scoping meeting is an optional meeting pursuant to CEQA in which the lead agency meets with members of the public or agency representatives after the Notice of Preparation has been issued to discuss environmental issues related to a project. Scoping sessions provide the opportunity to discuss environmental issues, project alternatives and potential mitigation measures that may warrant in-depth analysis in the environmental review process.

Sensitive Receptors. Sensitive receptors are people or institutions with people that are particularly susceptible to illness from environmental pollution, such as the elderly, very young children, people already weakened by illness (e.g., asthmatics), and persons engaged in strenuous exercise.

Significant Effect on the Environment. A significant effect on the environment means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance (*CEQA Guidelines* §15382).

Thresholds of Significance. Thresholds of significance are criteria for each environmental issue area to assist with determinations of significance of project impacts. They are based on *CEQA Guidelines* Appendix G.

Trustee Agency. According to CEQA, a Trustee agency is a State agency that has jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California. (See *CEQA Guidelines* §15386.)

Volume (Transportation). The volume of traffic is the total number of vehicles that pass over a given point or section of a roadway during a given time interval. Volumes may be expressed in terms of annual, daily, hourly, or sub-hourly periods.

Wastewater. Wastewater is water carrying dissolved or suspended solids from homes, farms, businesses, and industries. The wastewater treatment process includes any process that modifies characteristics of the wastewater, usually for the purpose of meeting effluent standards.

Zoning. Regulation by zone districts of the height, use, and area of structures, the use of land, and the density of population and intensity of allowable uses.

7.4 GLOSSARY OF PROJECT-SPECIFIC DEFINITIONS

The following definitions are excerpts from Section 3.4, *Project Description*.

Annexation Area: This term refers to an 85-acre parcel located adjacent to Gilman Springs Road that is to be annexed into the City of Moreno Valley. The parcel is already within the City's adopted Sphere of Influence adopted on November 21, 1985.

CDFW Conservation Buffer Area: This term refers to a 910-acre parcel owned by the State of California as part of the San Jacinto Wildlife Area (SJWA). This land is within the City of Moreno Valley and is included in the approved Moreno Highlands Specific Plan. That plan designates this property for a broad mix of urban uses including suburban residential, schools, parks, and roads. This land was purchased by the State in 1991 to act as a buffer between the sensitive biological resources of the SJWA and the future urban development under the Moreno Highlands Specific Plan. This land has been actively farmed for many decades and most of it remains in active production. The southwestern portion contains areas of non-native grasslands, although aerial photographs show that this area has been intermittently tilled over the last 80 years. This property is included in the General Plan Amendment and the Zone Change to replace the current urban land uses that are permitted and replace them with Open Space and Public Facility designations. This property is not within the proposed World Logistics Center Specific Plan. This Buffer Area is a large part of the "Other Project Areas" described herein.

General Plan Amendment: One of the proposed entitlements is a General Plan Amendment (GPA) that will permit the establishment of logistics land uses on the ~~3,814~~ 3,714-acre property located east of Redlands and south of SR-60. The following General Plan Elements will be amended: Community Development; Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and General Plan Goals and Objectives. The GPA will replace the current Moreno Highland Specific Plan/General Plan Designations with the following land use designations: (a) ~~2,606~~2,610 acres for high cube logistics development; (b) 1,084 acres of Open Space; and (c) 20 acres for Public Facilities.

Moreno Highlands Specific Plan: This term refers to the currently approved Specific Plan that covers 3,038 acres of the project area. This Specific Plan permits the development of a master planned, mixed-use community consisting of up to 7,763 residential dwelling units and approximately 603 acres of business, retail, institutional, and other uses. This development will be replaced with the World Logistics Center Specific Plan and 1,104 acres of Open Space and Public Facilities uses.

Off-site Analysis Zone: This term refers to an approximately 1,000-foot wide zone adjacent to the south and east boundaries of the Specific Plan area that was studied by Michael Brandman Associates (MBA) as part of the assessment of potential impacts on biological resources. It covers approximately 1,637.5 acres.

Off-site Improvement Areas: Development under the Specific Plan will require construction of a number of offsite infrastructure improvements covering approximately 104 acres of land adjacent to the Specific Plan Site including, but not limited to the following facilities (see Figure 3.7):

- Debris Basins easterly of Gilman Springs Road;
- Water reservoirs and access roads located northeast, north, and west of the project site;
- SR-60 interchange improvements; and
- Roadway, water, sewer, drainage, and utility improvements extending north and west from the project.

Other Project Areas: The San Diego Gas & Electric Company (SDG&E) and the Southern California Gas Company (SCGC) own a total of 194 acres of land immediately south of the Specific Plan site. These properties are included in the proposed General Plan Amendment and the Zone Change to designate them for Open Space and Public Facilities uses. These designations are consistent with present uses. These properties are not within the proposed World Logistics Specific Plan. Approximately 174 acres of the land owned by SDG&E will be designated as Open Space. Nineteen acres of SDG&E land and one acre of SCGC land will be designated as Public Facilities.

Project Site or Project Area: This term refers to the entire ~~3,918~~3,818-acre area covered by the EIR encompassed by: (a) the Specific Plan Area (~~2,710~~2,610 acres); (b) the CDFW Conservation Buffer Area (910 acres); c) the Public Facilities Lands area (194 aces); and (d) the Off-site Improvement Area on 104 acres.

Proposed Project or World Logistics Center Project: General term applied to all of the entitlements outlined above that are addressed in this EIR, including:

WLC Specific Plan ..... ~~2,710~~2,610 acres
General Plan Amendment ..... ~~3,814~~3,714 acres
Zone Change ..... ~~3,814~~3,714 acres
Tentative Parcel Map ..... 1,539 acres
Annexation ..... 85 acres
Off-site improvements ..... 104 acres

Specific Plan Site: Approximately ~~2,710~~2,610 acres of the project area are included in the proposed World Logistics Center (WLC) Specific Plan, located generally south of the SR-60 Freeway, east of Redlands Boulevard, west of Gilman Springs Road, and north of the San Jacinto Wildlife Area.

State Lands: Refers to lands owned by the State of California and includes the San Jacinto Wildlife Area (SJWA) located south of the Specific Plan Site, and the Lake Perris State Recreation Area (LPSRA) located southwesterly of the Specific Plan Site.

Tentative Parcel Map Area: A Tentative Parcel Map is being processed to subdivide 1,539 acres of the project for financing purposes only. This property is owned by the project applicant. Approval of the map will confer no development rights to the property.

WLC Specific Plan: The WLC Specific Plan proposes a master-planned logistics campus to include up to ~~41.4~~40.4 million square feet of high-cube logistics warehousing, up to 200,000 square feet of light logistics uses, a site for logistics support uses (LS designation) and ~~75~~74.3 acres of Open Space in the southwest corner of the site. The Specific Plan includes extensive development standards, design guidelines and review procedures for all development within the project.

World Logistics Center Project: The term refers to all related development and planning activities currently proposed by Highland Fairview in the Rancho Belago area of the eastern end of the City of Moreno Valley. The WLC property is generally located south of the State Route 60 freeway, east of Redlands Boulevard, west of Gilman Springs Road, and north of Mystic Lake and the San Jacinto Wildlife Area.

Zone Change: The project includes a Zone Change covering ~~3,814~~3,714 acres which will designate 1,084 acres of land for Open Space (CDFW and SDG&E properties), 20 acres for Public Facilities (SDG&E, SCGC properties) and ~~2,710~~2,610 acres for the World Logistics Center Specific Plan.

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8.22 CBRE

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THE WORLD LOGISTICS CENTER™ ®

Final Programmatic Environmental Impact Report

Volume 3 - Final Environmental Impact Report

State Clearinghouse No. 2012021045

City of Moreno Valley
Riverside County, California

May 2015

LSA

FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT REPORT VOLUME 3

REVISED DRAFT ENVIRONMENTAL IMPACT REPORT (CLEAN)

STATE CLEARINGHOUSE NO. 2012021045

WORLD LOGISTICS CENTER PROJECT

CITY OF MORENO VALLEY

RIVERSIDE COUNTY, CALIFORNIA

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WORLD LOGISTICS CENTER PROJECT
CITY OF MORENO VALLEY
RIVERSIDE COUNTY, CALIFORNIA

General Plan Amendment
Specific Plan
Zone Change
Tentative Parcel Map
Development Agreement
Annexation

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May 2015

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1.0 EXECUTIVE SUMMARY

1.1 INTRODUCTION

The Draft Environmental Impact Report (EIR) for the World Logistics Center Project (proposed project) has been prepared to inform the decision-makers and the public of the environmental effects associated with implementation of the proposed project.

The Draft EIR (DEIR) was circulated for public review and comment on February 4, 2013. The comment period on the DEIR closed on April 8, 2013, however the City has continued to receive and accept letters and comments for an additional year through April 2014. The comments and written responses are contained in Volume 1 of this document.

This EIR is a program EIR. A program EIR is an EIR that may be prepared on a series of actions that can be characterized as one large project, and are related either:

- Geographically,
- As logical parts in the chain of contemplated actions,
- In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or
- As individual activities carried out under the same authorizing statutory or regulatory authority, and having generally similar environmental effects which can be mitigated in similar ways.

The use of a program EIR can provide the following advantages. The program EIR can:

- Provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action,
- Ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis,
- Avoid duplicative reconsideration of basic policy considerations,
- Allow the lead agency to consider broad policy alternatives and program wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts.

The project is considered regionally significant according to criteria set forth in CEQA Guidelines Section 15206(b). The EIR was prepared in accordance with the California Environmental Quality Act[1] (CEQA) and Sections 15120 through 15131 and 15161 of the *Guidelines for California Environmental Quality Act,*[2] which regulate the preparation of EIRs. The DEIR (State of California Clearinghouse No. 2012021045) has been prepared by LSA Associates, Inc. on behalf of the City of Moreno Valley (City) to: 1) identify the proposed project's impacts on the environment; 2) to discuss alternatives to the proposed project; and 3) to propose mitigation measures that will offset, minimize or otherwise avoid significant environmental impacts. Based on the potential impacts of the proposed project, including cumulative impacts, the City determined that an EIR should be prepared to analyze potential impacts of the proposed project with respect to the following environmental issues. The

[1] *California Environmental Quality Act*, as of January 1, 2014, §§21000–21189.3, Public Resources Code, State of California.

[2] *Guidelines for California Environmental Quality Act*, as of January 1, 2014, §§15000–15387, California Code of Regulations, Title 14, Chapter 3, State of California.

referenced environmental issues below are individually addressed in the *Environmental Analysis* Section 4.0, of this report:

- Aesthetics;
- Agricultural and Forest Resources;
- Air Quality;
- Biological Resources;
- Cultural Resources;
- Geology and Soils;
- Greenhouse Gas Emissions and Global Climate Change;
- Hazards and Hazardous Materials;
- Hydrology and Water Quality;
- Land Use and Planning;
- Mineral Resources;
- Noise;
- Population, Housing, and Employment;
- Public Services including Recreation;
- Traffic and Circulation; and
- Utilities and Service Systems.

1.2 PROJECT LOCATION AND SETTING

1.2.1 Project Site

The Project site is located in Rancho Belago, the eastern portion of the City of Moreno Valley, in northwestern Riverside County. As shown in Figure 1.1, the project site is immediately south of State Route 60 (SR-60), between Redlands Boulevard and Gilman Springs Road (the easterly city limit), extending to the southerly city limit. The major roads that currently provide access to the project site are Theodore Street, Redlands Boulevard, Alessandro Boulevard, and Gilman Springs Road. The project site slopes gently (approximately 2%) from north to south, with elevations ranging from approximately 1,760 feet above mean sea level (amsl) at the northeast corner to 1,480 feet amsl at the southeast corner.

1.2.2 City of Moreno Valley

Moreno Valley is Riverside County's second largest city with a population of nearly 200,000 people encompassing more than 46 square miles. Over the years, Moreno Valley has remained overwhelmingly residential in character with only 9 percent of its land allocated for job-producing land uses. Today, Moreno Valley has one of the lowest jobs-to-housing ratios in the region (0.47), representing about one-third of the rate of its neighboring City of Riverside (1.41). As a result of limited job opportunities in the City, a large number of Moreno Valley's residents commute great distances to jobs outside the City, with an average daily commute of 76 minutes. Long commutes result in more time in traffic, more time breathing polluted air, more stress, less time at home, and less time with families.

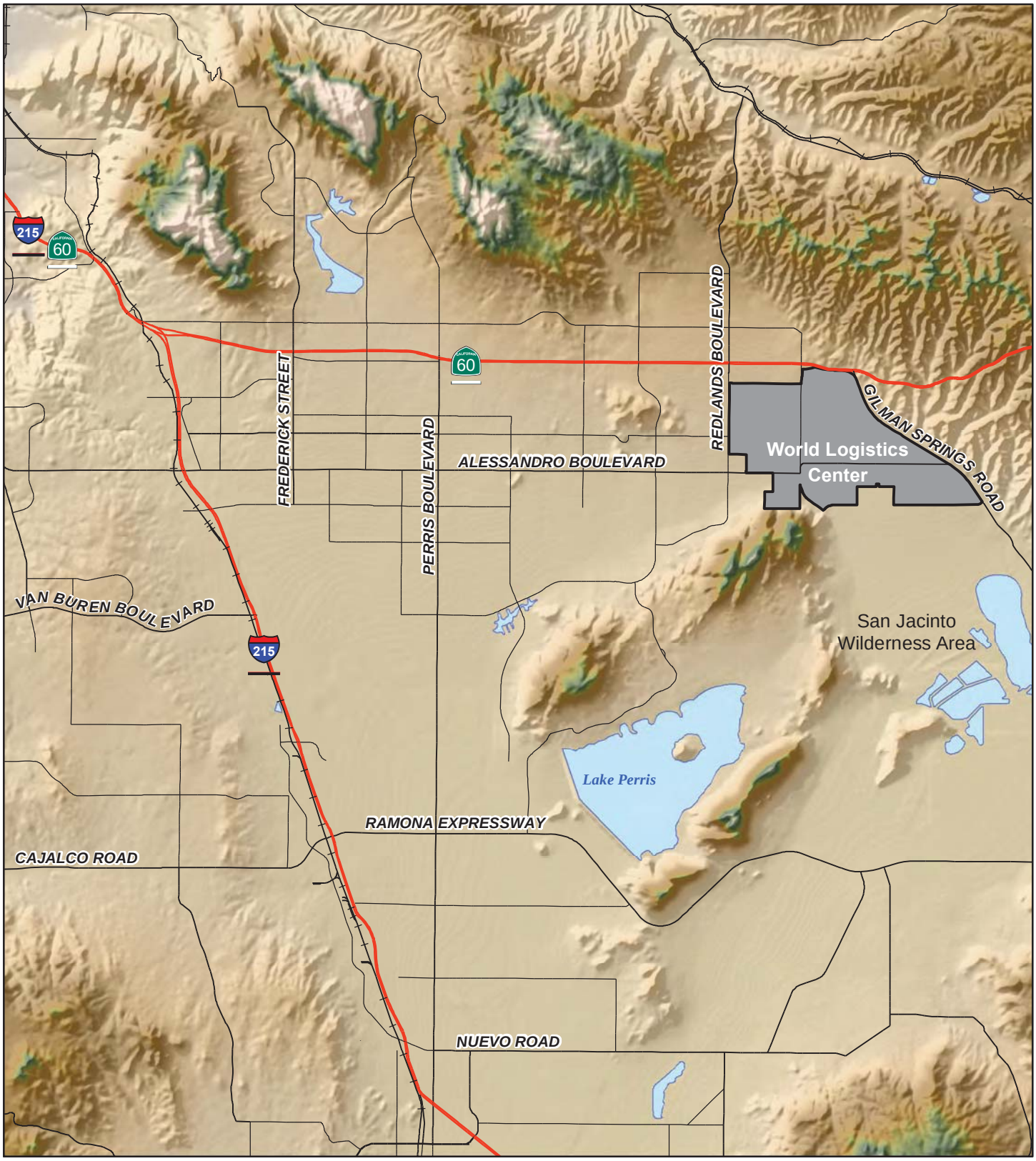

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FIGURE 1.1

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SOURCE: USGS DEM; Thomas Bros, 2009

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World Logistics Center Specific Plan Project
Environmental Impact Report

Regional Location

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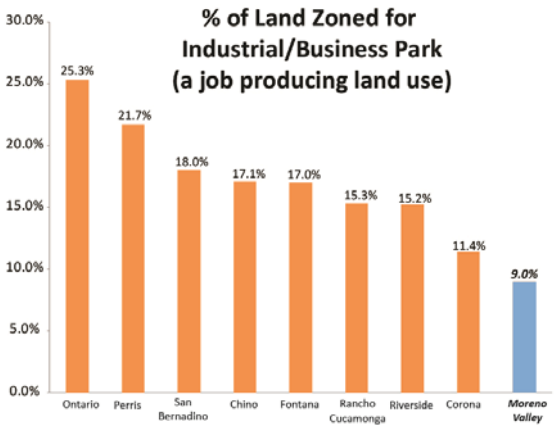
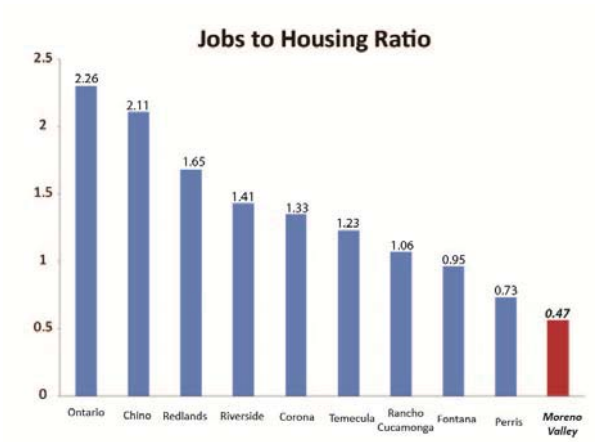
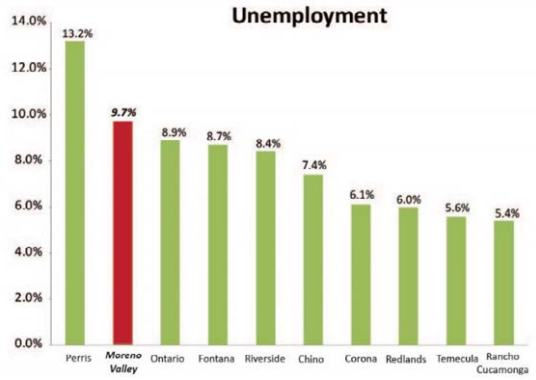
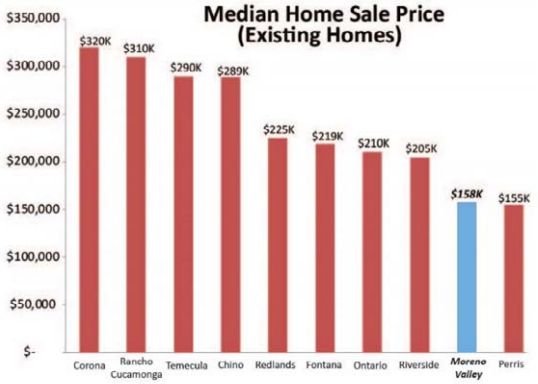




Under current municipal financial conditions, residential development does not "pay its way" in that property taxes and other revenues generated by residences do not cover the costs of municipal services for those residences. During times of rapid residential development, the City relied mainly on residential development fees to support its operations. In the early 1990s, when residential development slowed, revenues from development fees declined dramatically. This decline was exacerbated by reduced assessed valuations and property taxes, and Sacramento's decision to take a greater share of property tax revenues from cities. These factors resulted in the City becoming financially overextended. To provide the funds necessary for the City to continue to meet its obligations, a temporary Utility Users Tax was enacted by the voters in 1991. With no significant improvement to its financial condition, this tax was made permanent in 1996. The City has become dependent on this tax which now represents approximately $16 million or 20 percent of the City's budgeted revenue. The City does not currently have a sufficient tax base to fully fund its operations and provide the levels of service expected by its citizens. This has been a recurring challenge in the City for more than 20 years.

According to the U.S. Census Bureau, the per capita income in Moreno Valley is nearly 40 percent below the State of California average. Nearly 20 percent of the population in Moreno Valley is living below the national poverty level. Moreno Valley has one of the highest high-school drop-out rates in the County with over 50 percent of its adult residents having a high school education or less. Only 15 percent of the residents have a Bachelor's Degree or higher. The majority of the population, 77 percent, does not have a college degree. Unemployment in Moreno Valley remains among the highest in the region at 9.7 percent and median house prices are among the lowest in the Inland Empire.





To address these conditions, in 2010 the City of Moreno Valley developed an Economic Development Strategy focused on creating job opportunities in the City, which are responsive to the education and skill level of its residents. The logistics and healthcare industries were identified as the two primary areas of opportunity. In April 2011, the City held public hearings on its proposed Economic Development Action Plan which was then adopted by the Moreno Valley City Council on April 26, 2011. The Action Plan focused on five geographic areas within the City and established key initiatives for each. The eastern portion of the City was identified in the Action Plan as being a prime area for logistics development. "Logistics" facilities are warehouses which store, assemble and process manufactured goods and materials prior to their distribution. They also include the facilities to deal with the trucks which deliver goods to, and take goods from, the warehouses. In April 2012 an application was filed for the development of the World Logistics Center which was developed consistent with the City's Economic Development Action Plan. . A Notice of Preparation of the EIR was filed in February 2012 for The World Logistics Center project. In 2013, the City adopted a 3-year Economic Development Action Plan based upon the adopted 2011 Economic Development Strategy. See DEIR Section 3.6.1 for 2011 and 2013 Economic Development Action Plan Objectives related to the WLC.

According to the Inland Empire Economic Partnership January 2014 Quarterly Economic Report, "Logistics has been the fastest growing sector in the Inland Empire's economic base." The logistics industry offers an opportunity for upward mobility for workers providing access to skill ladders leading to the middle class and the number one contributor to job growth and upward mobility in the Inland Empire region.

1.3 EXISTING SITE DESCRIPTION

The project site is largely vacant agricultural land, with seven occupied single-family homes and associated ranch/farm buildings in various locations on the property. In the 1920s, several farm buildings and related houses were constructed on the property and, in the 1940s, a stock farm operated on a portion of the site that was later expanded into a commercial horse farm and training facility that operated until the mid-1990s. The overall project site has been farmed by a variety of owners since the early 1900s and has supported dry (non-irrigated) farming, livestock grazing, and limited citrus groves. Much of the site continues to be used for dry farming today.

San Diego Gas & Electric (SDG&E) operates a natural gas compressor plant, known as the Moreno Compressor Station, on 19 acres in the south-central portion of the site. The Southern California Gas Company (SCGC) operates a metering and pipe cleaning station on two separate parcels (totaling 1.5 acres) in the south-central portion of the site south of Alessandro Boulevard along existing Virginia Street. The site contains a variety of overhead and underground utility lines associated with oil, natural gas, and electrical service. At present, the project site contains a number of unimproved drainage features, but it does not contain any improved flood control facilities.

1.4 PROJECT DESCRIPTION

The proposed project is a master planned business park designed to support the logistics operations of large global companies that will be implemented through the adoption of the World Logistics Center Specific Plan. Although it is called a Specific Plan, it is not intended to depict individual building projects, but rather to, provide a guide for the development of infrastructure and building projects within the project area. The Specific Plan will establish the zoning for the project site and include a land use plan, designation of planning areas, design and landscaping guidelines, and development standards for the development. As shown in Figure 3.8 – *Specific Plan Land Use* and reflected in Table 1.A, *Land Use Summary* below, the World Logistics Center Specific Plan will consist of the following land uses:

- **Logistics Development (LD):** Approximately 2,382.8 acres of the Specific Plan Area are planned for development of logistics-oriented land uses to provide high-cube logistics warehouse uses consisting of buildings of 500,000 square feet or greater. Warehousing and logistics activities consistent with the storage and processing of manufactured goods and materials prior to their distribution to other facilities are permitted within this category along with facilities for the outdoor storage of trucks, trailers and shipping containers. Ancillary office, employee services and property management facilities are permitted in connection with primary uses. A permitted use within the LD category will include "logistics support" to provide fueling facilities and limited service commercial uses in support of the World Logistics Center.
- **Light Logistics (LL):** Approximately 37.1 acres of the project site are planned for development of Light Logistics land uses to provide warehouse uses less than 500,000 square feet in size, including self-storage and vehicle storage uses.
- **Open Space (OS):** Approximately 74.3 acres of the project site are planned for permanent open space to preserve the southwestern portion of the site, which is a portion of Mt. Russell.

Table 1.A: WLCSP Land Use Summary

Area/Land Use	Acres	Building Square Footage
Logistics Development (LD)	2,382.8	40,400,000
Light Logistics (LL)	37.1	200,000
Open Space (OS)	74.3	—
Right-Of-Way (ROW)[1]	115.8	—
TOTAL	**2,610.0**	**40,600,000**
Floor Area Ratio (FAR)[2]		**0.357**

[1] Right-of-Way included in each land use category
[2] Gross building area (sf) divided by gross site area (sf)

1.5 ACTIONS COVERED BY THE EIR

The proposed project covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing and the remaining 30 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use), Circulation, Parks, Recreation, and proposed Open Space, Safety, Conservation, and the General Plan Goals and Objectives

A new Specific Plan will be adopted to govern development of the 2,610-acre World Logistics Center. A separate zoning amendment is also proposed to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering a 1,539-acre portion of the site which has not yet been subdivided of the total 2,610-acres. This subdivision map is for financing purposes only creating new legal parcels but will not confer any development rights to said parcels.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project.

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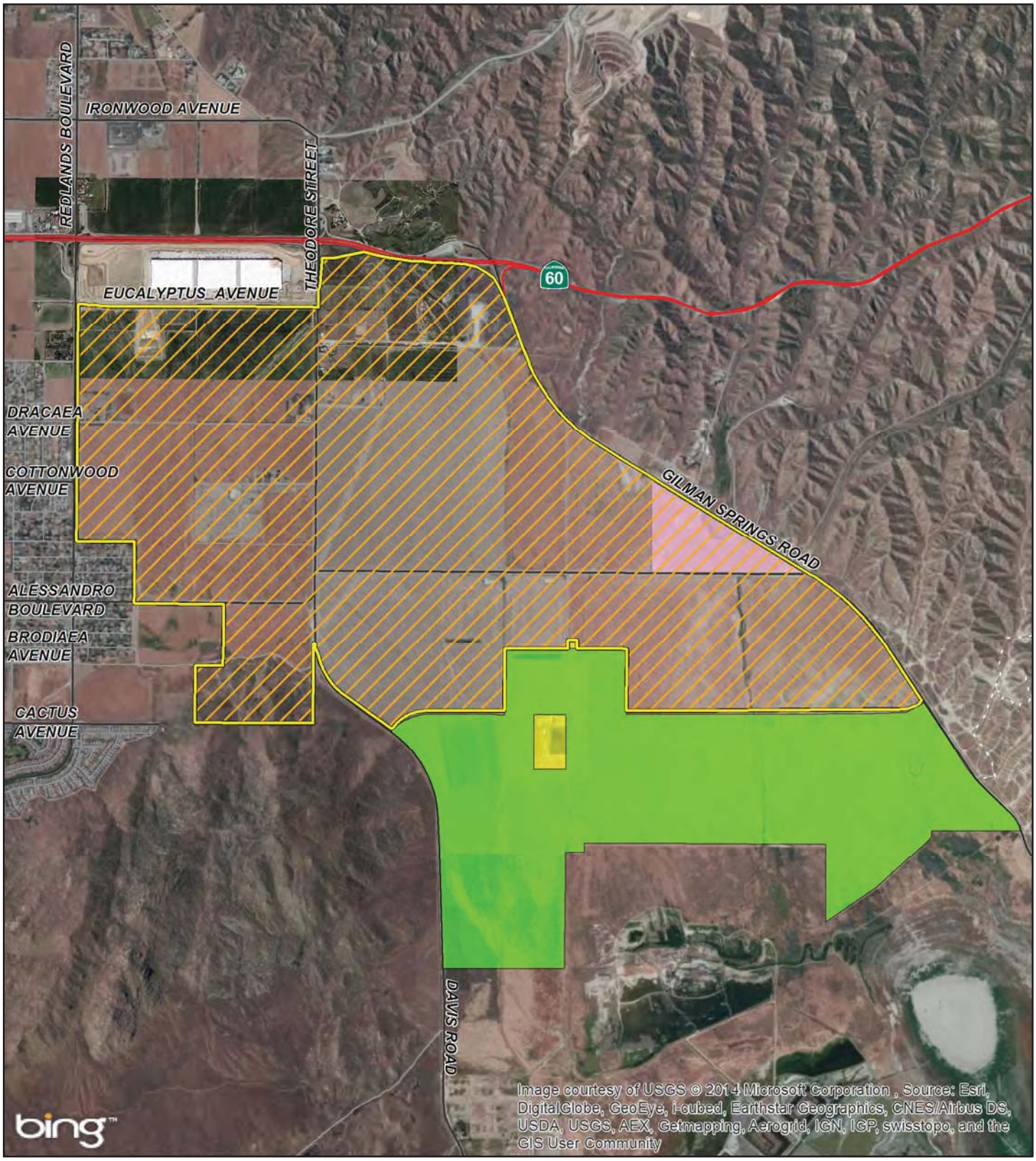

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FIGURE 1,2

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- Project Boundary
- Specific Plan
- CDFW Land - Open Space
- Public Utility
- Annexation Area

World Logistics Center Specific Plan Project
Environmental Impact Report

Component Areas

SOURCE: ESRI World Imagery, 2010; Bing Maps, 2010; Google Maps, 2011.

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Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*. The environmental impacts of all of these entitlements on the entire project area are addressed in this EIR and the accompanying technical reports and analyses.

1.6 SUMMARY OF ENVIRONMENTAL ISSUES

The following presents a short summary of the analysis conducted as part of this environmental assessment. It is intended to give the reader an easy to read summary of the analytical approach and results. It is not intended to be a comprehensive listing of project impacts or mitigation measures. For complete accounting of any analysis, please refer to the appropriate section of Chapter 4 of this EIR.

1.6.1 Aesthetics

The EIR evaluated potential impacts to Aesthetics (Section 4.1). Potential impacts to Scenic Vistas, Scenic Resources and Scenic Highways, Existing Visual Character and Surroundings, and Cumulative Aesthetics Impacts were analyzed and found that the proposed project has the potential to result in substantial adverse effects in these areas even after all feasible mitigation is applied. For the purposes of the analysis, the current undeveloped state of the property is analyzed in comparison to the project built out condition. It is important to note that the project area is currently covered by the Moreno Highlands Specific Plan which, if realized, would have transformed the site into an urbanized environment. The EIR found that the project's impact to light and glare could be mitigated to less than significant. Mitigation measures to address aesthetics impacts include a 250-foot setback from residential property lines, landscaping, berms and or fencing to screen and landscaped views of the project from existing residents, the dedication of 74.3 acres of open space, restriction on building heights to preserve views of Mt. Russell from SR-60, and restrictions on lighting and solar panels to protect existing resident from excess light and glare. Mitigation measures for each of these areas are listed in Table 1.B.

The Specific Plan contains extensive design guidelines to ensure a uniform architectural theme throughout the project. Similarly, landscape design standards are established project-wide. A process for the discretionary review of each proposed building is included in the Specific Plan which requires staff to evaluate all aesthetic aspects of each proposed building prior to its approval by the City.

1.6.2 Agriculture and Forestry Resources

The EIR evaluated potential impacts to Agricultural and Forestry Resources (Section 4.2) and found that impact to forest land zoning, loss or conversion of forest land, and existing zoning for agricultural use or a Williamson Act contract were less than significant and do not require mitigation. Mitigation is required for the loss of 25 acres of land designated as "Unique Farmland" through the provision of a conservation easement over comparably productive land.

The EIR contains an analysis of the state of the agriculture industry in the Inland Empire in Appendix C which concluded that the agriculture industry will continue to decline in the Inland Empire for three main reasons: 1) the more affordable housing market in the region compared to Los Angeles and Orange Counties, 2) the competition for cheaper farm labor from areas like the South Central Valley, and 3) lower water allocations to agriculture because of the growing urban population that receives priority for the water. The combination of the small size of the Inland Empire's agricultural industry and the three key economic constraints caused the EIR to conclude that the agriculture industry in the Inland Empire is in decline and that the agriculture industry within the Inland Empire will become less competitive and continue to decline regardless of whether or not this project is developed.

An additional study found in EIR Appendix C, was prepared focusing specifically on the World Logistics Center property by Cushman & Wakefield in 2013 which concluded the project impact was not considered significant based on the results of the LESA Model.

1.6.3 Air Quality

An air quality and health effects assessment examined emissions from construction and operation of the World Logistics Center from both mobile and stationary sources. Broadly, the analysis of project-related emissions examined the (1) total amount of emissions generated, (2) the resulting concentrations of criteria (regulated) pollutants in the vicinity of the project area, and (3) the health effects of project-related emissions over a sub-regional area. A detailed discussion of the methodology approach can be found in Section 4.3.3 of the EIR.

1.6.3.1 Emissions

The total daily emissions from the project were analyzed in the air quality assessment. The analysis considered emissions of volatile organic compounds (VOCs), oxides of nitrogen (NO_x), carbon monoxide (CO), particulate matter (PM_{10} and $PM_{2.5}$), and oxides of sulfur (SOx). Emissions from construction and operation of the proposed project were compared to South Coast Air Quality Management District's (SCAQMD) significance threshold separately and combined for those years that construction and operation overlap. For all pollutants, with the exception of SOx and $PM_{2.5}$ the daily emissions exceeded SCAQMD's significance thresholds after mitigation.

1.6.3.2 Localized Concentrations of Criteria (Regulated) Pollutants

Consistent with SCAQMD guidelines, localized concentrations of certain criteria pollutants in the vicinity of the project were also analyzed. The analysis considered the project's impacts on ambient concentrations of CO, NO_X, PM_{10}, and $PM_{2.5}$. The analysis considered multiple scenarios, including conservative assumptions that all work would have been completed in 2012 and in multiple years when construction and operation overlap. After mitigation, the project would exceed the localized significance thresholds at the existing residences located within the project boundaries for PM_{10} in five different analysis scenarios that are described in detail in Section 4.3.6.3. but would not affect any residences outside the project boundary. Therefore, the project's localized impacts would not exceed any significance thresholds for receptors located outside of the project boundaries.

1.6.3.3 Health Effects

CEQA requires public disclosure of reasonably foreseeable health related impacts. Section 4.3.6 of the EIR evaluated the Project for both the cancer and non-cancer impacts. No significant impacts were found for either

The assessment of health impacts is a continuing evolution of science and regulation. Since December 2014, three major scientific and regulatory activities have come forward that will affect how such assessments are performed and what such impacts mean to society as described below.

- On December 30, 2014, the ARB released its update to the Emissions Factor Model, EMFAC2014, which is used to estimated emissions from motor vehicles in California. The EFAC2014 model represents the ARB's current understanding of motor vehicle technologies and regulatory implementation of rules aimed at reducing air emissions from motor vehicles. Of significance in this regard are the new projections of air emissions from heavy duty diesel engines. Based on the results of the EMFAC2014 model, emissions of diesel particulate

matter range from 50 to 80 percent lower than previously estimated using the previous version of the EMFAC model, EMFAC2011. Since heavy duty trucks constitute nearly all of the project's diesel PM emissions, the incorporation of the emission information from the EMFAC2014 model is important in estimating the amount of diesel PM and in assessing the project's health risk impacts resulting from these emissions

- On January 27, 2015, the Health Effects Institute (HEI), an independent organization funded by the U.S. Environmental Protection Agency and industry, released the result of a comprehensive multiyear (5 ½ years) peer-reviewed scientific study titled *Effects of Lifetime Exposure to Inhaled New-Technology Diesel Exhaust in Rats.* The importance of this study is the finding that diesel PM emissions from new technology diesel engines (2007 or newer-compliant engine) do not cause any increase in the risk of lung cancer or other significant adverse health effects in study animals that, in fact, are more sensitive to particle exposure than humans.

  This is the first study to conduct a comprehensive evaluation of lifetime inhalation exposure to emissions from heavy-duty 2007-compliant engines (referred to as "new technology diesel exhaust," or NTDE). The study evaluated the long-term effects of multiple concentrations of inhaled NTDE, which has greatly reduced particle emissions compared with "traditional-technology diesel exhaust" (TDE) in male and female rats on more than 100 different biologic endpoints, including tumor development, and compared the results with biologic effects seen in earlier studies in rats after exposure to TDE. The study found that NTDE does not induce tumors or pre-cancerous changes in the lung and does not increase tumors that were considered to be related to NTDE.

  Previous studies directed at studying the effects of diesel PM on health were based on exposure studies that date 15 to 20 years ago when diesel emissions were significantly higher than the NTDE. The HEI study of lifetime inhalation exposure of rats exposed to one of three concentration levels of NTDE from a 2007-compliant engine, for 16 hours per day, 5 days a week, used a strenuous operating cycle that more accurately reflected the real-world operation of a modern engine than cycles used in previous studies. It is also important to highlight that the U.S. Environmental Protection Agency (EPA), the California Air Resources Board, the U.S. Department of Energy (DOE) and the U.S. Federal Highway Administration are sponsors and/or reviewers of this study in conjunction with the manufacturers of emissions control equipment.

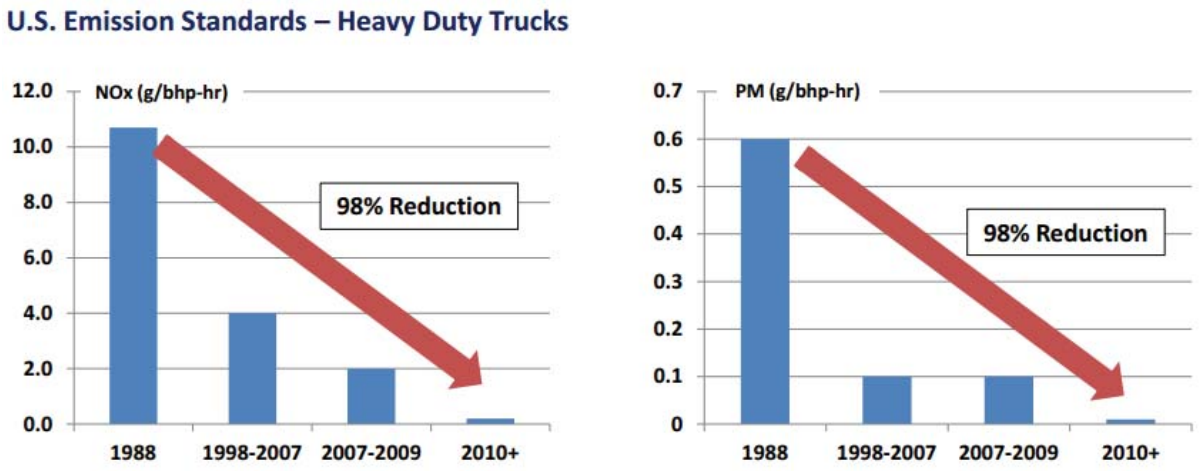
- On March 6, 2015, the California Office of Environmental Health Hazards Assessment (OEHHA) adopted a new guidance for estimating health risks from toxic air contaminants that incorporated the importance of early-in-life sensitivities of young children to exposures to toxics air contaminants and recommends a lifetime exposure duration of 30-years. Within the context of this assessment, this new assessment guidance is referred to as the "Current OEHHA Guidance". The new guidance updates earlier guidance recommended by OEHHA and SCAQMD referred to in this assessment as the "Former OEHHA Guidance", which was used in the DEIR. The "Former OEHHA Guidance" was based on a lifetime exposure of 70 years and does not incorporate early-in-life age sensitivity factors. The importance of the "Current OEHHA Guidance" is that the guidance produces much more conservative estimates of cancer risks from toxic air contaminant exposures.

It should be kept in mind that the mitigation measures which mandated that all diesel trucks accessing the project be compliant with the 2010 standards and which mandate that all off-road equipment be Tier 4, which results in emissions equivalent to 2010 compliant diesel trucks, means that there will be no adverse health related impacts. Nevertheless, because the DEIR included an analysis of the health related impacts resulting from exposure to diesel exhaust using the "Former OEHHA Guidance," the FEIR includes a similar analysis to allow the reader to understand how the

application of the "Current OEHHA Guidance" compares to that which resulted from the "Former OEHHA Guidance," i.e. what the impacts would be if the results of the Health Effects Institute study were disregarded.

1.6.3.4 Mitigation

The project would incorporate a number of mitigation measures to reduce the project's impacts on air quality. Those mitigation measures are detailed in Table 1.B in the Executive Summary and throughout Section 4.3 in this EIR. Among the many mitigation measures (MM) is MM 4.3.6.3B, which requires that all trucks using the World Logistics Center meet U.S. EPA 2010 emissions standards, the most stringent heavy-duty truck emissions standards ever imposed by the U.S. or California. The trucks that would serve the proposed project would be 90 percent cleaner than the typical truck on the road today.



In addition to requiring clean trucks, the project would require low emission construction equipment, limit vehicle idling to three minutes or less, prohibit trucks from going through residential areas, require that all on-site equipment will be powered by non-diesel fuels, provide electrical hook-ups for the future use of electric vehicles, and require the development of an alternative fuel station to encourage the use of non-diesel vehicles at the World Logistics Center.

1.6.4 Biological Resources

The project site has been the subject of numerous professional biological studies since 2005, with the most recent evaluations conducted in 2012 and 2013 in connection with the preparation of this EIR. These reports are included in the appendices of this EIR and are discussed in detail in Section 4.4 in this EIR. The biological studies show that the vast majority of the project site (97.4%) is disturbed by human activity, mostly dry-land farming, with less than 3 percent of the area consisting of native plant communities. These conditions are discussed in depth in Section 4.4 of this EIR.

The biological studies evaluated the project site for the presence of wildlife and specifically any threatened or endangered species. The studies conclude that the project site is not located within any United States Fish and Wildlife Service (USFWS) designated Critical Habitat area and no threatened or endangered species were observed within the project site during any of the field surveys. Further, no evidence of any California State endangered, threatened or protected wildlife species was found on the project site.

Suitable habitat was identified in the project site for the burrowing owl and the Los Angeles Pocket Mouse (both species of special concern) and mitigation measures are included to require site-specific biological evaluations to address these species prior to any site grading.

Impacts to jurisdictional waters/wetlands and to habitat fragmentation/wildlife movement were found to be less than significant. Impacts to endangered and threatened species may be significant and mitigation is included. The project has the potential to result in significant impacts to riparian habitat and sensitive natural communities and may require subsequent permits from various resource agencies depending on the details of each site-specific development proposal.

Other mitigation measures require the establishment of building setbacks along the boundary with the San Jacinto Wildlife Area (SJWA), a runoff management plan and a Biological Resources Management Plan for the SJWA edge, payment of Multi-Species Habitat Conservation Plan fees, prohibition of invasive plant species, and compensation for riparian habitat. A complete list of mitigation measures is included in Table 1.B in this Executive Summary.

More than 900 acres of the Moreno Highland master-planned community zoned for residential industrial and recreational uses was purchased by the State in 2001 to serve as a buffer from future development to the north. This development area to the north is being planned as the World Logistics Center. The referenced 900+ acres area will continue to serve that buffer purpose. Additionally, the WLC property is more than 4,000 feet (more than ¾ of a mile) from the closest sensitive habitat on SJWA property with the intervening property being used as cultivated farmland and disked regularly as it has for many decades.

The Specific Plan provides for a continuous buffer along the SJWA property that will include native landscaping, an extensive network of landscaped drainage facilities, trees and shrubs specifically selected to accommodate and support local wildlife, all of which will contribute to an environmentally-sensitive interface between the WLC and the SJWA property.

1.6.5 Cultural and Paleontological Resources

A thorough cultural resources study was conducted for the project area in connection with the project EIR and is discussed in Section 4.6. The area includes several known cultural (Native American) resources as well and other potential historical resources. This topic is discussed in Section 4.5.

The project has been designed to avoid any of the known Native American resources; designating sensitive areas as Open Space, realigning a proposed trail around the existing resources, and protecting the resources from disturbance. Further evaluations will be conducted in connection with site-specific project proposals prior to the issuance of any grading permits.

Consultations between Native American tribal groups and the City have been initiated pursuant to SB 18 and are ongoing.

Impacts to archaeological resources were determined to be potentially significant and mitigation measures are included to reduce the impacts. Mitigation measures include historical evaluations of all project sites, archaeological/paleontological monitoring of all project grading. Native American representatives will be invited to monitor all grading activities.

1.6.6 Geology and Soils

A detailed geotechnical evaluation was conducted for the project site in connection with the preparation of this EIR and is discussed in Section 4.6. The report evaluated faulting and seismicity,

soils and geologic and seismic hazards affecting the property. Impacts due to landslides and rockfalls, soil erosion or loss of topsoil, septic tanks, and seismic-related ground failure were considered less than significant and no mitigation is required. Impacts due to fault rupture, ground shaking and unstable soils were considered to be potentially significant and mitigation measures are included to reduce the significance of the identified impacts. Mitigation measures include preparation of site-specific design-level geotechnical investigations and application of all applicable code standards and requirements prior to the issuance of any grading or building permits.

1.6.7 Greenhouse Gas Emissions, Climate Change and Sustainability

An evaluation of the World Logistics Center's greenhouse gas impact and contribution to global climate change was conducted and is presented in Section 4.7. Greenhouse gas emissions were quantified for both direct emissions (e.g., motor vehicles) and indirect emissions (e.g., electricity generation and water delivery). In the past few years, the State of California has changed the way it regulates greenhouse gases. Under Assembly Bill 32, the Global Warming Solutions Act of 2006, the California Air Resources Board (CARB) has established a cap-and-trade program which differentiates between emissions that fall under the AB 32 restrictions and those that do not. Those emissions that fall under the restrictions of the cap include those emissions that derive from electricity generation, transportation fuels, natural gas use, and large industrial sources. This differentiation, explained in more detail in Section 4.7 and Appendix D, was used as part of the greenhouse gas analysis.

Greenhouse gas emissions were segregated between capped and uncapped emissions. The state has created a comprehensive regulatory program that determines the future allowable emissions that fall under the cap-and-trade cap. Significance was determined by comparing uncapped emissions to SCAQMD's significance threshold of 10,000 metric tons of CO_2 equivalent annually (CO_2e, or carbon dioxide equivalent, is a standard unit for measuring carbon footprints. It expresses the impact of each different greenhouse gas in terms of the amount of CO_2 that would create the same amount of warming). Examples of project emissions that fall under the cap include greenhouse gas emissions from transportation sources (trucks and cars), electricity use (from offsite power generation), and water use (from off-site power generation to convey water). Examples of project emissions that fall outside the cap include waste generation from landfill emissions caused by waste generated onsite and the use of refrigerants.

Mitigation for the proposed project includes increased waste diversion requiring 75 percent of all waste to be diverted to landfills and increased energy efficiency by exceeding California's Title 24 requirements (California's energy efficiency standards) by at least 10 percent. Additionally, the Specific Plan requires that on-site solar systems be provided to offset the demand of office space in the WLC, estimated at 13 megawatts of power at buildout. This is the equivalent amount of power used by over 1,700 homes. After mitigation, the remaining emissions from the project have a less than significant impact. A complete listing of mitigation measures can be found in Section 4.7 and Table 1.B in this Executive Summary.

1.6.8 Hazards and Hazardous Materials

An evaluation of Hazards and Hazardous Materials is discussed in Section 4.8 of the EIR. Historic land uses for the project site have included agricultural activities, two dairies, a chicken ranch, and scattered residential uses. Currently, nearly the entire site is used for dryland farming, which typically does not apply pesticides or other agricultural chemicals. The Phase 1 reports did not find significant residual pesticides on the project site and revealed no evidence of recognized environmental conditions on, at, in, or to the project site.

Sempra Energy operates a natural gas compressor facility near the WLC project. The EIR assessed the potential impacts of the facility on the future development of WLC property and found that compliance with existing safety regulations applicable to the Sempra plant plus the Specific Plan's requirement for a 1,000-foot setback between Sempra buildings and future WLC buildings reduced any potential impact to a less than significant level and no mitigation is required.

In addition, a fueling station is required to be constructed within the WLC project area. The EIR assessed the potential impacts of such a facility and found that with the application of a mitigation measure requiring preparation of a risk assessment prior to any project approvals, potential impacts would be reduced to a less than significant level.

1.6.9 Hydrology, Drainage, and Water Quality

The EIR evaluated potential impacts to hydrology, drainage, and water quality (Section 4.9) and found that environmental impacts in these areas were less than significant and do not require mitigation. Potential impacts from construction-related water quality impacts, operation-related water quality impacts, and drainage capacity-related impacts could be mitigated to less than significant. The project would incorporate a number of mitigation measures to reduce these impacts which are detailed in Table 1.B. Among the mitigation measures is MM 4.9.6.1A, which requires the management of flow rates, velocities, and volumes at pre-project levels and the maintenance of historic groundwater recharge (water balance) rates. The project would also be required to implement a Storm Water Pollution Prevention Plan (SWPPP), a Water Quality Management Plan (WQMP), and development of an ongoing Water Quality Sampling Program (WQSP) to protect the San Jacinto Wildlife Area.

1.6.10 Land Use and Planning

The EIR evaluates the WLC project's impact on current on-site and adjacent land uses as well at the project's impacts on existing City land use policies (Section 4.10). The WLC project will replace the present Moreno Highlands Specific Plan, a largely residential, mixed-use project that included 7,700 residential units and 600+ acres of business park and mixed-use designations, with a project proposing 40.6 million square feet of logistics uses.

The EIR concludes that the WLC project is consistent with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) and is generally consistent with SCAG's Regional Comprehensive Plan, Compass Plan and Regional Transportation Plan.

The project is consistent with the City's Economic Development Action Plan which encourages the development of job-producing land uses in the eastern portion of the City. See DEIR Section 3.6.1 for 2011 and 2013 Economic Development Action Plan Objectives related to the WLC.

1.6.11 Mineral Resources

The EIR evaluated whether the project site contains any significant mineral resource areas, defined by the State as Mineral Resources Zone 2 areas. See Section 4.11 for the detailed analysis.

Lands within the City of Moreno Valley are designated MRZ-3 and MRZ-4, pursuant to the Surface Mining and Reclamation Act of 1975. These zones are not defined as significant mineral resource areas. No sites have been designated as locally-important mineral resource recovery sites on any local plan.

The EIR concluded that the development of the WLC project would not result in a loss of statewide, regional or locally important mineral resources and will not have any significant impact regarding such resources. No mitigation is required.

1.6.12 Noise

Project noise impacts were analyzed and the results are described in Section 4.12. As part of the analysis, existing noise levels were measured. Estimates of future noise levels as a result of the project and increases in background noise levels were assessed to determine where significant noise impacts would occur. Generally, project-related noise impacts occur as a result of two types of activity: construction noise and traffic noise occurring as a result of increased project-related vehicle trips. Several measures have been identified that impose operational controls during construction activities to reduce noise impacts or require noise abatement, such as sound walls to reduce impacts from project operation. Examples of operational controls to reduce noise impacts include maintaining minimum distances from homes during nighttime grading activities and limiting the hours of offsite construction.

Examples of noise abatement mitigation measures include the construction of sound walls at various locations and the requirement for noise barriers located along the perimeter of property that faces any residential areas. While most noise impacts were able to be mitigated to a less than significant level, there are a few areas where significant impacts remain, either as a result of construction activities or the infeasibility of mitigation such as sound walls in specific locations, such as where residential access would be blocked. Section 4.12 details the location specific noise impacts and mitigation measures that have been identified for the proposed project. The majority of noise impacts from the WLC in residential areas are the result of passenger vehicles, not trucks. The WLC design directs all truck traffic away from residential areas. Other potential land uses for the project site could generate similar or greater noise impacts. For instance, the current Moreno Highlands Specific Plan would result in significantly more vehicle trips than the proposed World Logistics Center. As a result, Noise impacts would be expected to be higher under that scenario.

1.6.13 Population, Housing and Employment

The EIR evaluated potential impacts to Population, Housing and Employment (Section 4.13) and found impacts to population growth, displacement of housing/people, and cumulative impacts to population and housing were less than significant and did not require mitigation.

An economic study of the Project prepared by David Taussig and Associates (DTA) concluded that the WLC Project could generate approximately 20,307 new on-site jobs within the City. In addition to the projected on-site job creation, the DTA study estimates the WLC Project could generate new off-site jobs (i.e., indirect/induced employment) in all industries of the economy. The DTA study estimated that an additional 7,386 indirect/induced jobs could be created in the County, of which 3,693 jobs were projected to be within the City as a result of Project implementation. While the specific location of the potential additional indirect/induced jobs created within the County cannot be specifically determined, it is reasonable to assume that some percentage of these jobs will be support service jobs and are likely to be located in the WLC Project vicinity, and therefore the City. A stronger jobs base can support improved property values and the general economic well-being of the City.

The WLC project is directly consistent with the City's adopted Economic Development Action Plan, which calls for focused efforts to create more jobs-related land uses, specifically logistics uses in the eastern portion of the City. See DEIR Section 3.6.1 for 2011 and 2013 Economic Development Action Plan Objectives related to the WLC.

The Fiscal and Economic Impact Study prepared by DTA concluded that the WLC project could generate approximately $11,257,000 in annual revenues while causing the City to annually incur approximately $5,557,000 in costs resulting in an annual surplus of almost $5,700,000 once the project is fully built out. These surplus funds could be used to fund police, fire, heath and senior programs and services throughout the City. Additional funding surpluses were identified relative to the Moreno Valley Fire Tax which is estimated to generate an additional $1,800,000 from WLC development for other fire-related needs elsewhere in the City. Including the projected Fire Tax surplus, the build out of the WLC is expected to raise the projected tax surplus to the City of approximately $7,500,000.

1.6.14 Public Services and Facilities

The EIR evaluated the project's impact on police services, fire protection, schools and parks. See Section 4.14 for the complete analysis. The EIR concluded that as a result of the project's obligation to pay its fair share of applicable City costs the WLC project will not have a significant impact on the City's ability to provide these public services and facilities.

The EIR's Fiscal and Economic Impact Study (Appendix O) estimates that the projected build out of 40.6 million square feet of building will generate more than $4.7 million for police facilities and more than $10 million for fire facilities from the Development Impact Fee (DIF) program (using 2013 rates) and more than $19 million in school fees. In addition, the study estimates that the WLC will generate more than $11 million every year in taxes, fees, licenses, etc. while requiring $5.7 million in services, resulting in an annual surplus of nearly $6 million to the General Fund. A complete analysis is included in the Fiscal and Economic Impact Study.

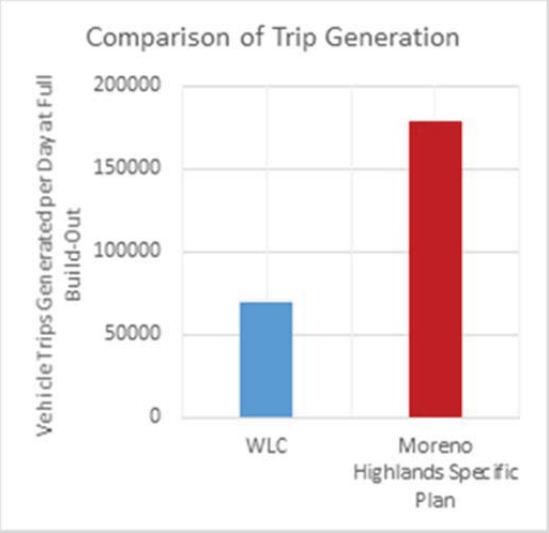
Notably, the WLC is estimated to generate additional funding for fire services through the Moreno Valley Fire property tax that is separate from General Fund revenue sources. The Moreno Valley Fire property tax averages 5.54 percent of the total property taxes levied in the Center, which yields a total of $1.8 million in recurring annually surplus that can be spent on fire services in other parts of the City. Adding this $1.8 million in Moreno Valley Fire property tax surplus to the $5.7 million General Fund surplus is estimated to yield a total annual recurring surplus of $7.5 million generated by the WLC.

The EIR concluded that the project will not have a significant impact to Public Services and Facilities. No mitigation measures are proposed.

1.6.15 Traffic and Circulation

A comprehensive Traffic Impact Analysis (TIA) was prepared to evaluate the WLC's impacts within Moreno Valley and throughout the region and is discussed in Section 4.15. The traffic analysis encompasses road segments spanning from the project site 75 miles to the west, all the way to the Ports of Los Angeles and Long Beach, 30 miles to the east beyond the City of Banning, 20 miles to the south and 15 miles to the north.

As indicated in the table to the right below, 80 percent of the traffic would be generated from Passenger Cars, 12 percent of the traffic generated by the project would be classified as Heavy-duty Trucks, and about 8 percent of the traffic would be generated by Light and Medium Duty Trucks.



Type of Vehicle	Number of Daily Trips
Passenger Cars	54,714
Light-duty Trucks (2-axle)	2,385
Medium-duty Trucks (3-axle)	3,181
Heavy-duty Trucks (4-axle)	8,440
Total Daily Trips	**68,720**

The total number of daily trips generated by the project is 68,720. As shown in the chart above to the left, this represents a 61% reduction, or 100,000 less daily trips generated, compared to the City's General Plan/zoning designations for the project area (i.e., the Moreno Highlands Specific Plan MHSP).

Located at the eastern end of the City, the WLC will result in a reverse commute travel pattern. The traffic analysis indicates that many residents currently head west out of Moreno Valley for jobs. With thousands of job opportunities created as a result of the project in the eastern portion of the City, future employees will travel in the eastbound direction to the WLC where there is much less traffic. Those who would continue to commute westbound in the morning will have less traffic to deal with as some of the residents that are now or would be headed westbound would be diverted in the eastbound direction traveling to their jobs at the WLC.

1.6.16 Utilities and Service Systems

The EIR evaluated potential impacts to Utilities and Service Systems (Section 4.16) and found that impacts to these systems were generally less than significant and do not require mitigation. Potential impacts to storm water drainage requirements, adequate water supply, and electrical and natural gas facilities were able to be mitigated to less than significant.

The World Logistics Center emphasizes water conservation, and the landscape program is designed to achieve the project's landscape goals while consuming as little water as possible. This approach represents a significant departure from conventional development strategies, particularly in a large-scale master-planned logistics campus setting. Most of the project will be designed without mechanical irrigation, relying instead on maximizing the collection and harvesting of runoff to be directed to landscape areas. Mitigation measures include use of drought tolerant landscaping, using "dry" cleaning equipment, use of weather-based automatic irrigation controllers, use of irrigation systems primarily at night or early morning, use of recirculation system for any outdoor water feature, use of low-flow sprinkler heads and use of reclaimed water for irrigation if it becomes available. Additional mitigation measures include use of flash water heaters, automatic on/off water facets, water efficient appliances, exceedance of the energy-conservation requirements of title 24 (2008) by 10 percent, LEED Certification, and solar panels to offset the power demand for office space in each building. Mitigation Measures for each of the affected areas are listed in Table 1.B.

1.7 PUBLIC INVOLVEMENT

The EIR process for the proposed project has involved input from the public and affected agencies at several steps. A Notice of Preparation (NOP) was issued on February 26, 2012, to notify state agencies and the public that an EIR was going to be prepared for the WLC project. The NOP was circulated for 30 days as required by CEQA. The distribution list, Notice of Public Scoping Meeting, and response letters are included in Appendix A of the Draft EIR. As of the close of the 30-day NOP public review period, ten responses to the NOP had been received from public agencies, four from conservation organizations, and 14 responses from members of the public.

On March 12, 2012, the City held a public scoping meeting to solicit input on concerns the public had about the project and issues that should be addressed in the EIR. There were 33 individual speakers including one agency (SCAQMD); 33 letters and comment cards were submitted during or subsequent to the scoping meeting.

The Draft EIR was circulated for a 60-day public review period, at which time agencies and the public were invited to comment on the technical studies and analysis of environmental issues in the EIR. The Draft EIR was circulated between February 5 and April 8, 2013;, a total of 63 days. All written comments on the Draft EIR received written responses, and the City carefully evaluated all available information on the project. A more thorough discussion of input from the public and affected agencies is presented in Section 2.0, *Introduction.* Table 2.A, in the next section, summarizes the comments received regarding the NOP.

1.8 AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

The EIR discusses impacts that would occur to on-site and off-site uses as a result of implementation of the project. This EIR also includes proposed mitigation measures that have been identified to reduce or avoid significant effects that would result from the construction and operation of the proposed on-site uses. *CEQA Guidelines* Section 15123(b)(2) requires that areas of controversy known to the Lead Agency (City of Moreno Valley) be stated in the EIR summary. The following discussion identifies issues raised by other agencies and the public during the 30-day public comment period of the NOP, as well as comments received during the public scoping meeting for the proposed project.

Local residents indicated they understood the desire of the City to add employment during these economic times, but also expressed concerns about the following potential impacts associated with the industrial warehouse uses proposed by the WLC project:

- Loss of views from SR-60 and Gilman Springs Road. This issue is discussed in Section 4.1, *Aesthetics,* of this EIR.
- Short-term and long-term air pollutant emissions including dust, diesel particulates, and health risks from truck exhaust that could negatively affect nearby residential uses. These issues are discussed in Section 4.3, *Air Quality,* of this EIR.
- Indirect impacts on wildlife utilizing the San Jacinto Wildlife Area south of the site. This issue is discussed in Section 4.4, *Biological Resources*, of this EIR.
- Potential loss of cultural (archaeological) resources by grading and development of the site, and suggestions to consult with local Native American tribes per SB 18. These issues are discussed in Section 4.4, *Biological Resources*, and 4.5, *Cultural Resources*, of this EIR.
- Concerns about several geologic faults that cross the project site. This issue is discussed in Section 4.6, *Geology and Soils*, in this EIR.

- In addition to air quality impacts, concerns were expressed about the project emitting large quantities of greenhouse gases and their influence on global climate change. These impacts are addressed in Section 4.7, *Greenhouse Gases and Global Climate Change*, in the EIR.
- Potential water-related impacts (drainage and water quality of runoff from the project) are addressed in Section 4.9, *Hydrology and Water Quality*, in the EIR.
- Loss of affordable housing identified in the Moreno Highlands Specific Plan currently approved for the project site. This issue is discussed in Section 4.10, *Land Use and Planning*, and Section 4.13, *Population, Housing, and Employment*, of this EIR.
- Short-term and long-term noise impacts that could affect nearby residential uses. These issues are discussed in Section 4.12, *Noise,* of this EIR.
- Project truck traffic causing congestion on local roads, potential of traveling through residential neighborhoods, intersections, and freeway ramps, primarily on Redlands Boulevard, and impacts to vehicular, bicycle, and pedestrian safety. These issues are discussed in Section 4.15, *Traffic and Transportation,* of this EIR.

1.9 SIGNIFICANT IMPACTS

The project will have significant adverse impacts even following adoption of all feasible mitigation measures. The following significant environmental impacts have been identified in the EIR and will require mitigation but cannot be mitigated to a level of insignificance. Sections 4.1 through 4.16 of the EIR identify the following significant impacts of the WLC project after mitigation:

- Aesthetics: Scenic Vistas.
- Aesthetics: Scenic Resources and Scenic Highways.
- Aesthetics: Substantial degradation of the existing visual character or quality of the site and its surroundings.
- Aesthetics: Cumulative Aesthetic Impacts.
- Air Quality: Construction Air Pollutant Emissions.
- Air Quality: Architectural Coating Emissions.
- Air Quality: Operational Air Pollutant Emissions.
- Air Quality: Consistency with Air Quality Management Plan (AQMP).
- Air Quality: Cumulative Air Pollutant Emissions.
- Land Use and Planning: Divide an Existing Neighborhood (impacts on existing residences).
- Noise: Short-Term Construction Noise.
- Noise: Long-Term Traffic Noise.
- Noise: Cumulative Noise Levels.
- Transportation: Off-Site Impacts to TUMF Facilities.
- Transportation: Off-Site Improvements to Roads Outside the Jurisdiction of the City and Not Part of the TUMF Program.

1.10 IMPACTS, MITIGATION, AND LEVEL OF IMPACTS SUMMARY TABLE

Table 1.B provides a summary of the proposed project impacts, proposed mitigation measures, and the level of significance of each impact following the application of identified mitigation measures.

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NOTE TO READER: The mitigation measure summaries have been removed from Revised DEIR Table 1.B World Logistics Center Project Environmental Impact Summary and replaced with the revised mitigation measures in their entirety. For this reason, Original DEIR Table 1.B List of All Mitigation Measures has also been deleted.

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures		Level of Significance
4.1 Aesthetics			
LESS THAN SIGNIFICANT IMPACTS			
None	Not applicable		Not applicable
SIGNIFICANT IMPACTS			
Impact 4.1.6.1 Scenic Vistas			
The WLC project will significantly impact viewsheds in the area, including views of the Mt. Russell Range and the Badlands.	**4.1.6.1A**	Each Plot Plan application for development along the western, southwestern, and eastern boundaries of the project (i.e., adjacent to existing or planned residential zoned uses) shall include a minimum 250-foot setback measured from the City/County zoning boundary line and any building or truck parking/access area within the project. The setback area shall include landscaping, berms, and walls to provide visual screening between the new development and existing residential areas upon maturity of the landscaping materials. The existing olive trees along Redlands Blvd. shall remain in place as long as practical to help screen views of the project site. This measure shall be implemented to the satisfaction of the Planning Official.	Significant and Unavoidable
	4.1.6.1B	Each Plot Plan application for development adjacent to Redlands Boulevard, Bay Avenue, or Merwin Street, shall include a plot plan, landscaping plan, and visual rendering(s) illustrating the appearance of the proposed development. The renderings shall demonstrate that views of proposed buildings and trucks can be reasonably screened from view from existing residents upon maturity of planned landscaping and to ensure consistency with the General Plan Objective 7.7. “Effective” screening shall mean that no more than the upper quarter (25%) of a building is visible from existing residences, which shall be achieved through a combination of landscaping, berms, fencing, etc. The location and number of view presentations shall be at the discretion of the Planning Division.	
	4.1.6.1C	Prior to the issuance of a certificate of occupancy for buildings adjacent to the western, southwestern, and eastern boundaries of the project (i.e., adjacent to existing residences at the time of application) the screening required in Mitigation Measure 4.1.6.1A shall be installed in substantial conformance with the approved	

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures		Level of Significance
		plans to the satisfaction of the Planning Official.	
	4.1.6.1D	Prior to the issuance of permits for any development activity adjacent to Planning Area 30 (74.3 acres in the southwest portion of the Specific Plan), the entirety of Planning Area 30 shall be offered to the State of California for open space purposes. In the event that the State does not accept the dedication, the property shall be offered to Western Riverside County Regional Conservation Authority or an established non-profit land conservancy for open space purposes. In the event that none of these organizations accepts the dedication, the property may be dedicated to a property owners association or may remain in private ownership and may be fenced and access prohibited.	
Impact 4.1.6.2 Scenic Resources and Scenic Highways			
The WLC project will significantly impact existing viewsheds from SR-60 which is a locally designated scenic route.	Previously referenced Mitigation Measures 4.1.1.6A through 4.1.16D		Significant and Unavoidable
Impact 4.1.6.3 Existing Visual Character and its Surroundings			
The WLC project will fundamentally change views of the area from agriculture to large warehouses.	**4.1.6.3A**	Each Plot Plan application for development shall include plans and visual rendering(s) illustrating any changes in views of Mount Russell and/or the Badlands, for travelers along SR-60, as determined necessary by the Planning Official. The plans and renderings shall illustrate typical views based on proposed project plans, with the location and number of view presentations to be determined by the Planning Official. These views shall be simulated from a height of six feet from the edge of the roadway travel lane closest to the visual resource. The renderings must demonstrate that the development will preserve at least the upper two thirds (67%) of the vertical view of Mt. Russell from SR-60.	Significant and Unavoidable
Impact 4.1.6.4 Light and Glare			
The WLC project will significantly impact the area by substantially increasing lighting and glare in the area.	**4.1.6.4A**	Each Plot Plan application for development adjacent to residential development shall include a photometric plot of all proposed exterior lighting demonstrating that the project is consistent with the requirements of Section 9.08.100 of the City Municipal Code. The lighting study shall indicate the expected increase in light levels at the property lines of adjacent residential uses. The study shall demonstrate that the proposed lighting fixtures and/or visual screening meet or exceed City standards regarding light impacts.	Less than Significant with Mitigation
	4.1.6.4B	Each Plot Plan application for development shall include an analysis of all proposed solar panels demonstrating that glare from panels will not negatively affect adjacent residential uses or negatively affect motorists along perimeter roadways. Design	

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	details to meet these requirements shall be implemented to the satisfaction of the Planning Official.	
Cumulative Aesthetic Impacts		
The cumulative effect of development in the region will continue to modify existing viewsheds, especially along SR-60. Cumulative impacts would remain significant and unavoidable.	Previously referenced Mitigation Measures 4.1.6.1A through 4.1.6.1D, 4.1.6.3A, 4.1.6.4A and 4.1.6.4B	Significant and Unavoidable
4.2 Agriculture		
LESS THAN SIGNIFICANT IMPACTS		
Forest Land Zoning		
There are no significant impacts because there are no areas designated as forest land or timberland on the project site,	No mitigation is required.	No Impact
Loss or Conversion of Forest Land		
There are no forest lands on the project site or in the surrounding area.	No mitigation is required.	No Impact
Existing Zoning and Williamson Act		
There are no Williamson Act Contracts on or adjacent to the project site.	No mitigation is required.	Less than Significant
SIGNIFICANT IMPACTS		
Impact 4.2.6.1 Farmland Conversion		
The project will convert 25 acres of land designated Unique Farmland by the state to urban uses.	**4.2.6.1A** Prior to the issuance of any grading permit affecting land designated as "Unique Farmland" (Figure 4.2.2 in the World Logistics Center Environmental Impact Report), an Agricultural Conservation Easement shall be recorded over land of equivalent or better agricultural economic productivity of the offsite easement property compared to the World Logistics Center property. The analysis will include a comparison of the project's "Unique Farmland" considering its relative economic potential as the best measure of productivity (i.e., net profitability per acre or potential net rental income per acre). It will include a consideration of various important physical factors including location and accessibility, soils and topography, micro and macro climatic conditions, water availability and quality, as well as local practices, good farm	Less than Significant with Mitigation

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	management and cultural (growing) costs. The form and content of this easement, as well as the estimates of agricultural productivity, shall be reviewed and approved in advance by the Planning Official.	
Impact 4.2.6.2 Conversion of Farmland to Non-Agricultural Uses		
The project will convert 2,610 acres of Farmland of Local Importance to urban uses.	Previously referenced Mitigation Measures 4.2.6.1A and 4.2.6.1B	Less than Significant with Mitigation
Cumulative Agricultural Impacts		
As urban development continues in the City and surrounding areas, there will be a cumulative loss of agricultural land through conversion to urban uses. This conversion is a long-established historical process based on local and regional economic conditions, resulting in the eventual relocation of farming to more rural and outlying areas (e.g., Coachella Valley, kern County, etc.).	No feasible mitigation is available.	Less than Significant with Mitigation
4.3 Air Quality		
LESS THAN SIGNIFICANT IMPACTS		
Odors		
The proposed project involves large warehouses and no uses that would generate substantial odors. The natural gas facilities on site sometimes generate temporary odors from natural gas blow-offs, but these are not considered significant impacts.	No mitigation is required.	Less than Significant.
Long-Term Microscale (CO Hot Spot) Emissions		
The project air quality study determined that project-related traffic would not create any CO hot spots on local roadways through project buildout.	No mitigation is required.	Less than Significant

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
SIGNIFICANT IMPACTS		
Impact 4.3.6.1 Air Quality Management Plan Consistency		
The land uses of the proposed project are not consistent with those used to prepare the most current AQMP. Although the project would substantially improve the jobs/housing balance of the City by introducing more employment-generating uses than new housing, it would exceed applicable thresholds for all criteria pollutants, with the exception of SO_X. Despite the implementation of mitigation measures for both construction and operation, emissions associated with the proposed project cannot be reduced below applicable SCAQMD thresholds.	Implementation of Mitigation Measures 4.3.6.2A through 4.3.6.2D, 4.3.6.3A through 4.3.6.3E, and 4.3.6.4A will help reduce air pollutant emissions of the project, but it will still be inconsistent with the AQMP.	Significant and Unavoidable
Impact 4.3.6.2 Construction Equipment Exhaust Emissions		
Future development within the WLCSP will exceed daily air pollutant significance criteria established by the SCAMQD for construction-related activities.	**4.3.6.2A** Construction equipment maintenance records (including the emission control tier of the equipment) shall be kept on site during construction and shall be available for inspection by the City of Moreno Valley. a) Off-road diesel-powered construction equipment greater than 50 horsepower shall meet United States Environmental Protection Agency Tier 4 off-road emissions standards. A copy of each unit's certified tier specification shall be available for inspection by the City at the time of mobilization of each applicable unit of equipment. b) During all construction activities, off-road diesel-powered equipment may be in the "on" position not more than 10 hours per day. c) Construction equipment shall be properly maintained according to manufacturer specifications. d) All diesel powered construction equipment, delivery vehicles, and delivery trucks shall be turned off when not in use. On-site idling shall be limited to three minutes in any one hour. e) Electrical hook ups to the power grid shall be provided for electric construction tools including saws, drills and compressors, where feasible, to reduce the need for diesel-powered electric generators. Where feasible and available, electric	Significant and Unavoidable

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	tools shall be used f) The project shall demonstrate compliance with South Coast Air Quality Management District Rule 403 concerning fugitive dust and provide appropriate documentation to the City of Moreno Valley. g) All construction contractors shall be provided information on the South Coast Air Quality Management District Surplus Off-road Opt-In "SOON" funds which provides funds to accelerate cleanup of off-road diesel vehicles. h) Construction on-road haul trucks shall be model year 2007 or newer. i) Information on ridesharing programs shall be made available to construction employees. j) During construction, lunch options shall be provided onsite. k) A publicly visible sign shall be posted with the telephone number and person to contact regarding dust complaints per AQMD Standards. l) Only non-diesel material handling equipment may be used in any logistics building in the WLC. m) Off-site construction shall be limited to the hours between 6 a.m. to 8 p.m. on weekdays only. Construction during City holidays shall not be permitted. **4.3.6.2B** Prior to issuance of any grading permits, a traffic control plan shall be submitted to and approved by the City of Moreno Valley that describes in detail the location of equipment staging areas, stockpiling/storage areas, construction parking areas, safe detours around the project construction site, as well as provide temporary traffic control (e.g., flag person) during construction-related truck hauling activities. Construction trucks shall be rerouted away from sensitive receptor areas. Trucks shall use State Route 60 using Theodore Street, Redlands Boulevard (north of Eucalyptus Avenue), and Gilman Springs Road. In addition to its traffic safety purpose, the traffic control plan can minimize traffic congestion and delays that increase idling emissions. A copy of the approved Traffic Control Plan shall be retained on site in the construction trailer. **4.3.6.2C** The following measures shall be applied during construction of the project to reduce volatile organic compounds (VOC): a) Non-VOC containing paints, sealants, adhesives, solvents, asphalt primer, and architectural coatings (where used), or pre-fabricated architectural panels shall	

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Issues/Impacts	Mitigation Measures		Level of Significance
		be used in the construction of the project to the maximum extent practicable. If such products are not commercially available, products with a VOC content of 100 grams per Liter or lower for both interior and exterior surfaces shall be used. b) Leftover paint shall be taken to a designated hazardous waste center. c) Paint containers shall be closed when not in use d) Low VOC cleaning solvents shall be used to clean paint application equipment. e) Paint and solvent-laden rags shall be kept in sealed containers.	
	4.3.6.2D	No grading shall occur on days with an Air Quality Index forecast greater than 150 for particulates or ozone as forecasted for the project area (Source Receptor Area 24).	
Impact 4.3.6.3 Localized Construction and Operation Emissions			
Future development within the WLCSP will exceed local significance thresholds of the SCAMQD for trucks and other operational activities.	**4.3.6.3A**	Prior to issuance of occupancy permits for each warehouse building within the WLCSP, the developer shall demonstrate to the City that vehicles can access the building using paved roads and parking lots.	Significant and Unavoidable
	4.3.6.3B	The following shall be implemented as indicated: **Prior to Issuance of a Certificate of Occupancy** a) Signs shall be prominently displayed informing truck drivers about the California Air Resources Board diesel idling regulations and the prohibition of parking in residential areas. b) Signs shall be prominently displayed in all dock and delivery areas advising of the following: engines shall be turned off when not in use; trucks shall not idle for more than three consecutive minutes; telephone numbers of the building facilities manager and the California Air Resources Board to report air quality violations. c) Signs shall be installed at each exit driveway providing directional information to the City's truck route. Text on the sign shall read "To Truck Route" with a directional arrow. Truck routes shall be clearly marked per the City Municipal Code. **On an Ongoing Basis** d) Tenants shall maintain records on fleet equipment and vehicle engine maintenance to ensure that equipment and vehicles are maintained pursuant to	

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Issues/Impacts	Mitigation Measures	Level of Significance
	manufacturer's specifications. The records shall be maintained on site and be made available for inspection by the City. e) Tenant's staff in charge of keeping vehicle records shall be trained/certified in diesel technologies, by attending California Air Resources Board approved courses (such as the free, one-day Course #512). Documentation of said training shall be maintained on-site and be available for inspection by the City. f) Tenants shall be encouraged to become a SmartWay Partner. g) Tenants shall be encouraged to utilize SmartWay 1.0 or greater carriers. h) Tenants' fleets shall be in compliance with all current air quality regulations for on-road trucks including but not limited to California Air Resources Board's Heavy-Duty Greenhouse Gas Regulation and Truck and Bus Regulation. i) Information shall be posted in a prominent location available to truck drivers regarding alternative fueling technologies and the availability of such fuels in the immediate area of the World Logistics Center. j) Tenants shall be encouraged to apply for incentive funding (such as the Voucher Incentive Program [VIP], Carl Moyer, etc.) to upgrade their fleet. k) All yard trucks (yard dogs/yard goats/yard jockeys/yard hostlers) shall be powered by electricity, natural gas, propane, or an equivalent non-diesel fuel. Any off-road engines in the yard trucks shall have emissions standards equal to Tier 4 Interim or greater. Any on-road engines in the yard trucks shall have emissions standards that meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025. l) All diesel trucks entering logistics sites shall meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025 or be powered by natural gas, electricity, or other diesel alternative. Facility operators shall maintain a log of all trucks entering the facility to document that the truck usage meets these emission standards. This log shall be available for inspection by City staff at any time. m) All standby emergency generators shall be fueled by natural gas, propane, or any non-diesel fuel. n) Truck and vehicle idling shall be limited to three (3) minutes.	
	4.3.6.3C Prior to the issuance of building permits for more than 25 million square feet of	

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Issues/Impacts	Mitigation Measures		Level of Significance
		logistics warehousing within the Specific Plan area, a publically-accessible fueling station shall be operational within the Specific Plan area offering alternative fuels (natural gas, electricity, etc.) for purchase by the motoring public. Any fueling station shall be placed a minimum of 1000 feet from any off-site sensitive receptors or off-site zoned sensitive uses. This facility may be established in connection with the convenience store required in Mitigation Measure 4.3.6.3D.	
	4.3.6.3D	Prior to the issuance of building permits for more than 25 million square feet of logistics warehousing within the Specific Plan area a site shall be operational within the Specific Plan area offering food and convenience items for purchase by the motoring public. This facility may be established in connection with the fueling station required in Mitigation Measure 4.3.6.3C.	
	4.3.6.3E	Refrigerated warehouse space is prohibited unless it can be demonstrated that the environmental impacts resulting from the inclusion of refrigerated space and its associated facilities, including, but not limited to, refrigeration units in vehicles serving the logistics warehouse, do not exceed any environmental impact for the entire World Logistics Center identified in the program Environmental Impact Report. Such environmental analysis shall be provided with any warehouse plot plan proposing refrigerated space. Any such proposal shall include electrical hookups at dock doors to provide power for vehicles equipped with Transportation Refrigeration Units (TRUs).	
Impact 4.3.6.4 Long-Term Operational Emissions			
Future development within the WLCSP will exceed daily air pollutant significance criteria established by the SCAMQD for trucks and other operational activities.	**4.3.6.4A**	The following measures shall be incorporated as conditions to any Plot Plan approval within the Specific Plan: a) All tenants shall be required to participate in Riverside County's Rideshare Program. b) Storage lockers shall be provided in each building for a minimum of three percent of the full-time equivalent employees based on a ratio of 0.50 employees per 1,000 square feet of building area. Lockers shall be located in proximity to required bicycle storage facilities. c) Class II bike lanes shall be incorporated into the design for all project streets. d) The project shall incorporate pedestrian pathways between on-site uses. e) Site design and building placement shall provide pedestrian connections between internal and external facilities.	Significant and Unavoidable

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Issues/Impacts	Mitigation Measures	Level of Significance
	f) The project shall provide pedestrian connections to residential uses within 0.25 mile from the project site. g) A minimum of two electric vehicle-charging stations for automobiles or light-duty trucks shall be provided at each building. In addition, parking facilities with 100 parking spaces or more shall be designed and constructed so that at least three percent of the total parking spaces are capable of supporting future electric vehicle supply equipment (EVSE) charging locations. Only sufficient sizing of conduit and service capacity to install Level 2 Electric Vehicle Supply Equipment (EVSE) or greater are required to be installed at the time of construction. h) Each building shall provide indoor and/or outdoor - bicycle storage space consistent with the City Municipal Code and the California Green Building Standards Code.-Each building shall provide a minimum of two shower and changing facilities for employees. i) Each building shall provide preferred and designated parking for any combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles equivalent to the number identified in California Green Building Standards Code Section 5.106.5.2 or the Moreno Valley Municipal Code whichever requires the higher number of carpool/vanpool stalls. j) The following information shall be provided to tenants: onsite electric vehicle charging locations and instructions, bicycle parking, shower facilities, transit availability and the schedules, telecommunicating benefits, alternative work schedule benefits, and energy efficiency.	
Impact 4.3.6.5 Impacts to Sensitive Receptors		
The construction and operation of the project would result in the emissions of several toxic air contaminants, the most ubiquitous being diesel particulate matter (diesel PM). The projects estimated cancer risk for sensitive receptors onsite would exceed the maximum cancer risk thresholds.	Implementation of the previously identified Mitigation Measures 4.1.6.1A, 4.3.6.2A through 4.3.6.2D, and 4.3.6.3A through 4.3.6.3E will help reduce short- and long-term project emissions and health risks to sensitive receptors, but not to less than significant levels.	Significant and Unavoidable
Cumulative Air Quality Impacts		
The project will increase short-term local and long-term regional air pollutant	Implementation of the previously identified Mitigation Measures 4.3.6.2A through 4.3.6.2D, 4.3.6.3A through 4.3.6.3E, and 4.3.6.4A will help reduce short- and long-term project emissions	Significant and Unavoidable

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Issues/Impacts	Mitigation Measures		Level of Significance
emissions and chronic health risks.	and health risks, but not to less than significant levels.		
4.4 Biological Resources			
LESS THAN SIGNIFICANT IMPACTS			
Adopted Policies and/or Ordinances			
There are no local policies or ordinances regarding the protection of biological resources.	No mitigation required		No Impact
Habitat Fragmentation/Wildlife Movement			
The project will not restrict the movement of wildlife to and from the Badlands and the SJWA/Mystic Lake area, and will protect Drainage 9 through the project area as a natural drainage channel.	No mitigation required		Less than Significant
SIGNIFICANT IMPACTS			
Impact 4.4.6.1 Endangered and Threatened Species			
There are 17 plant and animal species designated as endangered or threatened by state and/or federal authorizes that have the potential to occur within the general vicinity of the WLC project area. Development will remove agricultural land which provides minimal habitat value for most species present.	**4.4.6.1A**	All Plot Plan applications within Planning Areas 10 and 12 (i.e. adjacent to the San Jacinto Wildlife Area as shown in Final EIR Volume 2 Figure 4.1.6B) shall provide a 250-foot setback from the southerly property line. Permitted uses within this setback area include landscaping, drainage and water quality facilities, fences and walls, utilities and utility structures, maintenance access drives, and similar related uses. No logistics buildings or truck access/parking/maneuvering facilities are permitted in this setback area. In addition, logistics buildings within Planning Areas 10 and 12 may not be located within 400 feet of the southerly property line. All development proposals in Planning Areas 10 and 12 shall include a minimum six-foot tall chain link fence or similar barrier to separate warehouse activity from the setback area. This fence/barrier shall have metal mesh installed below and above ground level to prevent animals from moving between the development area and the setback area. Within Planning Areas 10 and 12, all truck activity areas adjacent to the 250-foot buffer area along the southern property line shall be enclosed by minimum 11-foot tall solid walls to reduce noise and lighting impacts on the adjacent property. This measure shall be implemented to the satisfaction of the Planning Official.	Less than Significant

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Issues/Impacts	Mitigation Measures		Level of Significance
		A preliminary landscape plan for the 250-foot setback area shall be submitted with all Plot Plan applications for lots adjacent to the California Department of Fish and Wildlife property. Precise landscape plans shall be submitted with any grading permit for said lots and must be approved prior to the issuance of any building permit on said lots. The landscape plan shall be prepared by a licensed landscape architect in consultation with a qualified biologist and shall be consistent with the design standards contained in the World Logistics Center Specific Plan. No plant species listed in Section 6.1.4 of the Western Riverside County Multiple Species Habitat Conservation Plan shall be installed within the setback area. Cottonwood trees shall be planted within the setback area consistent with the World Logistics Center Specific Plan. This measure shall be implemented to the satisfaction of the Land Development Division Manager.	
	4.4.6.1B	Each Plot Plan application in Planning Areas 10 and 12 shall provide runoff management and water quality facilities adequate to minimize downstream erosion, maintain water quality standards and retain pre-development flows in a manner meeting the approval of the City Engineer. All drainage improvements shall be designed to minimize runoff and erosional impacts on adjacent property. This measure shall be implemented to the satisfaction of the Land Development Division Manager of Public Works.	
Impact 4.4.6.2 Adopted Habitat Conservation Plans			
The project site is subject to the provisions of SKR HCCP and the MSHCP.	**4.4.6.2A**	Each Plot Plan application shall include a focused plant survey of the proposed development site prepared by a qualified biologist to identify if any of the following sensitive plants (i.e., Coulter's goldfields, smooth tarplant, Plummer's' mariposa lily, or thread-leaved brodiaea) are present. If any of the listed plants are found, they may be relocated to the 250-foot setback area outlined in the Specific Plan and discussed in Mitigation Measure 4.4.6.1A. Alternatively, at the applicant's discretion, an impact fee may be paid to the Western Riverside County Regional Conservation Authority (RCA) or other appropriate conservation organizations to offset for the loss of these species. This measure shall be implemented to the satisfaction of the Planning Official.	Less than Significant
	4.4.6.2B	Prior to the approval of any tentative maps for development including or adjacent to any Criteria Cells identified in the Western Riverside County Multiple Species Habitat Conservation Plan, the applicant shall prepare and process a Joint Project Review (JPR) with the Riverside County Resource Conservation Agency (RCA). All criteria cells shall be identified on all such tentative maps. This measure shall be implemented to the satisfaction of the City Planning Division and Riverside County	

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Issues/Impacts	Mitigation Measures		Level of Significance
		Resource Conservation Agency ("RCA").	
Impact 4.4.6.3 Jurisdictional Delineation, Riparian Habitat or Other Sensitive Natural Communities			
Drainage Features 7, 8, 9, 12, and 15 within the project area are considered riparian/riverine areas.	**4.4.6.3A**	Prior to the issuance of grading permits the applicant shall secure a jurisdictional determination from the United States Army Corps of Engineers (USACE) and confirm with the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (CDFW) if drainage features mapped on the property to be developed are subject to jurisdictional authority. If the features are subject to regulatory protection, the applicant will secure permit approvals with the appropriate agencies prior to initiation of construction. Compensatory riparian habitat mitigation will be provided at a minimum ratio of 1:1 (replacement riparian habitat to impacted riparian habitat) to ensure no net loss of riparian habitat or aquatic resources. It should be noted that this is a minimum recommended ratio but the actual permitting ratio may be higher. These detention basins will be oversized to accommodate the provision of areas of riparian habitat. Maintenance of the basins will be limited to that necessary to ensure their drainage and water quality functions while encouraging habitat growth. Riparian habitat mitigation will be provided concurrent to or prior to impacts. A Compensatory Mitigation Plan will be prepared for all unavoidable impacts and will be consistent with the United States Army Corps of Engineers (USACE)/United States Environmental Protection Agency's Compensatory Mitigation for Losses of Aquatic Resources; Final Rule and the United States Army Corps of Engineers Standard Operating Procedure for Determination of Mitigation Ratios. The applicant shall consult with United States Army Corps of Engineers, California Department of Fish and Wildlife, and Regional Water Quality Control Board to establish the need for permits based on the results of a recent jurisdictional delineation and final design plans for each of the proposed the facilities. Consultation with the three agencies shall take place and appropriate permits obtained for project-level development. Compensation for losses associated with the altering of drainages on site shall be in agreement with the permit conditions and in coordination with compensation outlined below. Mitigation will consist of onsite creation, offsite creation, or purchase of mitigation credits from an approved mitigation bank. As outlined in the WLC programmatic DBESP report, onsite riparian habitat will be created at a minimum 1:1 ratio due to the poor quality of onsite habitat. New habitat will be created within the onsite detention/infiltration basins to the extent allowed by the resource agencies to reduce storm flows, improve water quality, and reduce sediment transport. Habitat creation will include the installation of mule fat scrub or similar riparian scrub habitat to	Less than Significant

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		promote higher quality riparian habitat, but still maintain the basins for their primary role as detention facilities. The use of these areas as conservation areas would require consent from CDFW and the City of Moreno Valley (MM BIO-2b and MM DBESP 1 through 3).	
	4.4.6.3B	As required by the Resource Conservation Agency (RCA), a program-level Determination of a Biological Equivalent or Superior Preservation (DBESP) for impacts to Riverine/Riparian habitat has been prepared and shall be approved by the Resource Conservation Agency prior to project approval. The Determination of a Biological Equivalent or Superior Preservation includes a general discussion of mitigation options for impacts to riverine/riparian areas as well as general location and size of the mitigation area and includes a monitoring program. If impacts to riparian habitat within the World Logistics Center Specific Plan (WLCSP) cannot be avoided at the time of specific development, then a separate project-level Determination of Biologically Equivalent or Superior Preservation (DBESP) shall be prepared to identify project-specific impacts to riparian habitat and incorporate mitigation options identified in Mitigation Measure 4.4.6.3A. A project-level Determination of a Biological Equivalent or Superior Preservation for each specific development shall be prepared to document measures to reduce impacts to riparian/riverine habitats in accordance with the Western Riverside County Multiple species Habitat Conservation Plan (MSHCP). The project-level Determination of a Biological Equivalent or Superior Preservation shall include specific measures to reduce impacts to riparian areas and provide mitigation in the form of on-site preservation of riparian areas and/or a combination of compensation through purchase and placement of lands with riparian/riverine habitat into permanent conservation through a conservation easement and/or restoration or enhancement efforts at offsite or onsite locations. Therefore, mitigation required for compensation for impacts to riparian/ riverine areas will require a minimum of 1:1 mitigation ratio of riparian/riverine mitigation land. As outlined in the WLC programmatic DBESP, erosion control improvements will be installed within Drainage 9 to reduce sediment transport, and additional riparian habitat will be enhanced within this drainage following the installation of the erosion control improvements (MM DBESP 4 and 5).	
	4.4.6.3C	Prior to issuance of any grading permit for any offsite improvements that support development within the World Logistics Center Specific Plan, the developer shall retain a qualified biologist to prepare a jurisdictional delineation (JD) for any drainage	

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Issues/Impacts	Mitigation Measures		Level of Significance
		channels affected by construction of the offsite improvements. This jurisdictional delineation shall be submitted to the U.S. Army Corps of Engineers (USACE) and California Department of Fish and Wildlife (CDFW) for review and concurrence. If the offsite improvements will not affect any identified jurisdictional areas, no United States Army Corps of Engineers permitting is required. However, permitting through the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (i.e., Streambed Alternation Agreement) may still be required for these improvements. The applicant shall consult with United States Army Corps of Engineers, California Department of Fish and Wildlife and Regional Water Quality Control Board to establish the need for permits based on the results of the 2012 jurisdictional delineation and final design plans for each of the proposed the facilities. Consultation with the three agencies shall take place and appropriate permits obtained. Compensation for losses associated with any altered offsite drainages shall be in agreement with the permit conditions. Any landscaping associated with these offsite improvements shall use only native species to help protect biological resources residing within or traveling through these drainages per Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Table 6.1.2. This measure shall be implemented to the satisfaction of the City Planning Division in consultation with the U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, and the California Department of Fish and Wildlife.	
Impact 4.4.6.4 Candidate, Non-listed Sensitive, or Special-Status Species			
The project area contains suitable habitat for sensitive species, including a variety of nesting birds, including burrowing owl, and Los Angeles pocket mouse.	**4.4.6.4A**	Pursuant to the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code (CFGC), site preparation activities (removal of trees and vegetation) shall be avoided during the nesting season of potentially occurring native and migratory bird species (generally February 1 to August 31). If site preparation activities must occur during the nesting season, a pre-activity field survey shall be conducted by a qualified biologist prior to issuance of grading permits for such development. The survey shall determine if active nests of species protected by the Migratory Bird Treaty Act or California Fish and Game Code are present in the construction zone. If active nests of these species are found, the developer shall establish an appropriate buffer zone with no grading or heavy equipment activity within of 500 feet from an active listed species or raptor nest, 300 feet from other sensitive or protected bird nests (non-listed), 250 feet from passerine birds, or 100 feet for sensitive or protected songbird nests. All construction activity within the vicinity of active nests must be conducted in the presence of a qualified biological monitor. Construction activity may encroach into the buffer area at the discretion of the biological monitor in consultation with CDFW. In the event no special status avian species are identified	Less than Significant

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Issues/Impacts	Mitigation Measures	Level of Significance
	within the limits of disturbance, no further mitigation is required. In the event such species are identified within the limits of ground disturbance, mitigation measure 4.4.6.4B shall also apply. This measure shall be implemented to the satisfaction of the City Planning Division. **4.4.6.4B** If it is determined that project-related grading or construction will affect nesting migratory bird species, no grading or heavy equipment activity shall take place within the limits established in Mitigation Measure 4.4.6.4A until it has been determined by a qualified biologist that the nest/burrow is no longer active, and all juveniles have fledged the nest/burrow. This measure shall be implemented to the satisfaction of the City Planning Division. **4.4.6.4C** The loss of foraging habitat for golden eagle and white-tailed kite will be mitigated by payment of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) fee and the creation of a landscaped buffer area adjacent to the San Jacinto Wildlife Area property (SJWA). First, the payment of the Western Riverside County Multiple species Habitat Conservation Plan fee will be required on a project-by-project basis. Second, a 250-foot setback as described in Mitigation Measure 4.4.6.1A will be established within the World Logistics Center Specific Plan area. This area will reduce impacts to raptor species foraging in the adjacent San Jacinto Wildlife Area open space areas. ***Burrowing Owl*** **4.4.6.4D** A pre-construction clearance survey for burrowing owl shall be conducted by a qualified biologist no more than thirty (30) days prior to any grading or ground disturbing activities within the project area. In the event no burrowing owls are observed within the limits of ground disturbance, no further mitigation is required. If construction is to be initiated during the breeding season (February 1 through August 31) and burrowing owl is determined to occupy any portion of the disturbance area during the 30-day pre-construction survey, construction activity shall maintain a 500foot buffer area around any active nest/burrow until it has been determined that the nest/burrow is no longer active, and all juveniles have fledged the nest/burrow. If this avoidance buffer cannot be maintained, consultation with the California Department of Fish and Wildlife (CDFW) shall take place and an appropriate avoidance distance established. No disturbance to active burrows shall occur without appropriate permitting through the Migratory Bird Treaty Act and/or California	

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	Department of Fish and Wildlife. If active burrowing owl burrows are detected outside the breeding season (September through January), or within the breeding season but owls are not nesting or in the process of nesting, active and/or passive relocation may be conducted following consultation with the California Department of Fish and Wildlife. A relocation plan may be required by California Department of Fish and Wildlife if active and/or passive relocation is necessary. The relocation plan will outline the basic process and provides options for avoidance and mitigation. Artificial burrows - may be constructed within the buffer area south of the World Logistics Center Specific Plan. Construction activity may occur within 500 feet of the burrows at the discretion of the biological monitor in consultation with CDFW. A relocation plan may be required by California Department of Fish and Wildlife if active or passive relocation is necessary. Artificial burrows may be constructed within appropriate burrowing owl habitat within the proposed open space/conservation area (Planning Area 30), a 74.3-acre area in the southwest portion of the Specific Plan. This area abuts the Lake Perris State Recreation Area (LPSRA) which is already in conservation. If suitable habitat is not present in Planning Area 30, owls may be relocated to the SJWA, the 250-foot buffer area or other suitable on-site or off-site areas. Construction activity may occur within 500 feet of the burrows at the discretion of the biological monitor. ***Los Angeles Pocket Mouse*** **4.4.6.4E** Prior to the approval of any Plot Plans proposing the development of land including or adjacent to Drainage 9, a protocol survey for the Los Angeles Pocket Mouse (LAPM), including 100 feet upstream and downstream of the affected reach shall be prepared by a qualified biologist and submitted to the City. If the affected drainage is not occupied, the area is considered not to be occupied and development can continue without further action. If the species is found within the specific survey area, no development shall occur until an appropriate mitigation fee is paid or appropriate amount of land set aside on the project site or off site to compensate for any loss of occupied Los Angeles Pocket Mouse habitat. Alternatively, individuals may be relocated to the 250-foot setback zone along the southern boundary of the property identified in Mitigation Measure 4.4.6.1A, or other appropriate areas as determined by the United States Fish and Wildlife Service. If necessary, this measure shall also be coordinated with Mitigation Measure 4.4.6.2B regarding preparation and processing of a Determination of a Biological Equivalent or Superior Preservation report. This measure shall be implemented to the satisfaction of the City Planning	

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Issues/Impacts	Mitigation Measures	Level of Significance
	Division. ***Resource Management*** **4.4.6.4F** Prior to approval of any discretionary permits for development within Planning Areas 10 and 12, a Biological Resource Management Plan (BRMP) shall be prepared to prescribe how the 250-foot setback area outlined in Mitigation Measure 4.4.6.1A will be developed and maintained This plan will identify frequent and infrequent vegetation management requirements (i.e., removal of invasive plants) and the planting and maintaining trees to provide roosting and nesting opportunities for raptors and other birds. The Biological Resource Management Plan will also describe how relocation of listed or sensitive species will occur from other locations as outlined in Mitigation Measures 4.4.6.2A, 4.4.6.4D, and 4.4.6.4E. The Biological Resource Management Plan shall be reviewed and approved by the Planning Official in consultation with the San Jacinto Wildlife Area Manager. The Biological Resource Management Plan shall cover all the land within the 250-foot setback zone within Planning Areas 10 and 12 Implementation of the plan shall be supervised by a qualified biologist, to the satisfaction of the City Planning Division. **4.4.6.4G** Mitigation Measure 4.4.6.1A specifies that a landscape plan shall be submitted with any development proposal for lots adjacent to the California Department of Fish and Wildlife (CDFW) San Jacinto Wildlife Area (SJWA) property prior to issuance of a precise grading permit. The landscape plan shall be prepared by a licensed landscape architect in consultation with a qualified biologist and shall be consistent with the design standards contained in the Specific Plan. No plant species listed in Section 6.1.4 or Table 6.2 of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) shall be installed within the setback area. In conjunction with development adjacent to the San Jacinto Wildlife Area (SJWA), cottonwood trees shall be planted within the 250-foot setback area, consistent with the World Logistics Center Specific Plan plant palette (per DBESP MM 8). During construction, the runoff leaving construction areas will be directed to onsite detention basins and away from downstream drainage features located offsite. All projects within the WLCSP will be required to prepare a Storm Water Pollution Prevention Plan (as outlined in MM 4.9.6.2B). Regarding the 250-foot setback area, pedestrian and vehicular access to areas of riparian/riverine habitat will be prohibited except for controlled maintenance access. Finally, no grading shall be permitted within conserved riparian/riverine habitat areas except for grading necessary to established or enhance habitat areas (DBESP MM 6, 7, 9, and 10).	

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	4.4.6.4H As outlined in Mitigation Measure 4.4.6.1A, development adjacent to the 250-foot open space setback shall have a six-foot chain link fence or similar barrier to help separate human activity and the buffer area. Any chain link fencing installed on any properties adjacent to the 250-foot buffer area shall have metal mesh installed below and above ground level to prevent animals from accessing new development areas.	
	4.4.6.4I The individual property owner and/or Property Owners Association (POA) as appropriate shall be responsible for maintaining the various onsite landscaped areas, open improved or natural drainage channels, and detention or flood control basins in a manner that provide for fuel management and vector control pursuant to standards maintained by the City Fire Marshall and County Department of Environmental Health- Vector Control Group. This measure requires the individual owner or Property Owners Association (POA) to manage vegetation in and around these areas or improvements so as to not represent a fire hazard as defined by the City Fire Department through the substantial buildup of combustible materials. This measure also requires the individual owner or Property Owners Association to manage vegetation and standing water in drainage channels and basins such that they do not encourage or allow vectors to occur (primarily rats and mosquitoes). Runoff shall not be allowed to stand in channels or basins for more than 72 hours without treatment or maintenance to prevent establishment of mosquitoes per published County vector control guidelines and "Best Management Practices for Mosquito Control on California State Properties" which is available from the California West Nile Virus website at http://www.westnile.ca.gov/resources. This measure shall be implemented by the Property Owners Association in consultation with the City Fire Department and Riverside County Department of Environmental Health – Vector Control Group.	
	4.4.6.4J A Fuel Management Plan shall be prepared on a project-by-project basis for those Planning Areas adjacent to the south and east boundary of the World Logistics Center Specific Plan adjacent to Western Riverside County Multiple Species Habitat Conservation Plan Conservation Areas. The Fuel Management Plan shall be prepared by the project proponent and submitted for approval to the prior to plot plan approval for those projects on the southern and eastern Western Riverside County Multiple Species Habitat Conservation Plan boundary. Per the Western Riverside County Multiple Species Habitat Conservation Plan guidelines, the Fuel Management Plan shall include the following: • A plant palette of adequate plant species that may be planted within the Fuel Management Area, which will be approved by a biologist familiar with the plant	

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Issues/Impacts	Mitigation Measures	Level of Significance
	requirements of the area. • A list of non-native invasive plants that are prohibited from installation. • Maintenance activities and a maintenance schedule. Fuel modification zones shall be mapped and include an impact assessment as required under California Environmental Quality Act guidelines for a project-level analysis. The plan shall demonstrate that the adjacent Western Riverside County Multiple Species Habitat Conservation Plan Areas are adequately protected from expected fire risks. **4.4.6.4K** Prior to approval of any plot plans for development adjacent to the SJWA, the applicant shall demonstrate that direct light rays have been contained within the development area, per requirements of the MSHCP Section 6.0 which states, "Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting." This measure shall be implemented to the satisfaction of the City Planning Division.	
Cumulative Biological Impacts		
With implementation of the stated project-specific mitigation and payment of required MSHCP fees, no significant cumulative effect on biological resources would result from development of the WLC project.	Previously referenced Mitigation Measures 4.4.6.1A through 4.4.6.1C, 4.4.6.2A and 4.4.6.2B, 4.4.6.3A and 4.4.6.3B, and 4.4.6.4A through 4.4.6.4K.	Less than Significant
4.5 Cultural Resources		
LESS THAN SIGNIFICANT IMPACTS		
Human Remains		
There is no evidence that the site has been utilized for human burials, and there is state law dealing with human remains that are found during grading or excavation.	No mitigation required.	Less than Significant

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures		Level of Significance
SIGNIFICANT IMPACTS			
Impact 4.5.6.1 Archaeological Resources			
Most of the site has been previously surveyed, and previously identified resources have been surveyed and retrieved according to required protocols. Nine on-site rural residential properties (designated "Light Logistics") have not been previously surveyed and would need to be surveyed prior to development. The City has conducted SB 18 Consultation with local Native American tribes and the Pechanga and Soboba tribes have expressed a desire to consult.	**4.5.6.1A**	Prior to the approval of any grading permit for any of the "Light Logistics" parcels, the parcels shall be evaluated for significance by a qualified archaeologist. A Phase 1 Cultural Resources Assessment shall be conducted by the project archaeologist and an appropriate tribal representative(s) on each of the "Light Logistics" parcel to determine if significant archaeological or historical resources are present. A Phase 2 significance evaluation shall be completed for any of these sites in order to determine if they contain significant archaeological or historical resources. Cultural resources include but are not limited to stone artifacts, bone, wood, shell, or features, including hearths, structural remains, or historic dumpsites. All resources determined to be prehistoric or historic shall be documented using DPR523 forms for archival research/storage in the Eastern Information Center (EIC). If the particular resource is determined to be not significant, no further documentation is required. If prehistoric resources are determined to be significant, they shall be considered for relocation or archival documentation. If any resource is determined to be significant, a Phase 3 recovery study shall be conducted to recover remaining significant cultural artifacts. If prehistoric archaeological/cultural resources are discovered during the Phase 1 survey and it is determined that they cannot be avoided through site design, they shall be subject to a Phase 2 testing program. The project archaeologist in consultation with appropriate tribal group(s) shall determine the significance of the resource(s) and determine the most appropriate disposition of the resource(s) in accordance with applicable laws, regulations and professional practices (per Cultural Report MM CR-1, MM CR-2, MM CR-7 Table 3, pg. 74).	Less than Significant with Mitigation
	4.5.6.1B	Prior to the issuance of any grading or ground-disturbing permit for construction of off-site improvements a qualified archaeologist shall be retained to prepare a Phase I cultural resource assessment (CRA) of the project site if an up to date Phase I cultural resource assessment is not available for the site at the time of development per Cultural Report MM CR-5, Table 3, pg. 74). Appropriate tribal representatives as identified by the City shall be invited by the Project Archeologist to participate in this assessment. If archaeological resources are discovered during construction activities, no further excavation or disturbance of the area where the resources were found shall occur until a qualified archaeologist evaluates the find. If the find is determined to be a unique archaeological resource, appropriate action shall be taken to (a) plan	

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	construction to avoid the archeological sites (the preferred alternative); (b) cap or cover archeological sites with a layer of soil before building on the affected project location; or (c) excavate the site to adequately recover the scientifically consequential information from and about the resource. At the discretion of the project archaeologist, work may continue on other parts of the project site while the unique archaeological resource mitigation takes place. This measure shall be implemented to the satisfaction of the Planning Official. If the project archaeologist, in consultation with the monitoring Tribe(s), determines that the find is a unique archaeological resource, the resource site shall be evaluated and recorded in accordance with requirements of the State Office of Historic Preservation (OHP). If the resource is determined to be significant, data shall be collected by the qualified archaeologist and the findings of the report shall be submitted to the City. If the find is determined to be not significant no mitigation is necessary. Should a future project-level analysis show that cultural resource site CA-RIV-3346 will be directly or partially impacted by project-level construction, an Addendum cultural resource report must be prepared and include an analysis of the alternatives associated with mitigation for impacts to this resource following CEQA Guidelines Section 15126.4(b)(3). This information must be included in any project-level CEQA compliance documentation. It should be noted that Phase 3 data recovery is an acceptable mitigation action under CEQA Guidelines Section 15126.4(b)(3)(C) (per Cultural Report MM CR-3, Table 3, pg. 74). Should it be determined through a future project-level EIR analysis that prehistoric cultural resource sites CA-RIV-2993 and/or CA-RIV-3347 shall be directly impacted by future construction, these sites must be Phase 2 tested for significance (per Cultural Report MM CR-4, Table 3, pg. 74).	
	4.5.6.1C Prior to the issuance of any grading permits a qualified archaeologist shall be retained to monitor all grading and shall invite tribal groups to participate in the monitoring. Project-related archaeological monitoring shall include the following requirements per Cultural Report MM CR-6, MM CR-8, Table 3, pg. 74): 1. All earthmoving shall be monitored to a depth of ten (10) feet below grade by the Project Archaeologist or his/her designated representative. Once all areas of the development project that have been cut to 10 feet below existing grade have been inspected by the monitor, the Project Archaeologist may, at his or her discretion, terminate monitoring if and only if no buried cultural resources have	

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	been detected; 2. If buried cultural resources are detected, monitoring shall continue until 100 percent of virgin earth within the specific project area has been disturbed and inspected by the Project Archaeologist or his/her designated representative. 3. Grading shall cease in the area of a cultural artifact or potential cultural artifact as delineated by the Project Archaeologist or his/her designated representative. A buffer of at a minimum 25 feet around the cultural item shall be established to allow for assessment of the resource. Grading may continue in other areas of the site while the particular find are investigated; and 4. If prehistoric cultural resources are uncovered during grading, they shall be Phase 2 tested by the Project Archaeologist, and evaluated for significance in accordance with §15064.5(f) of the CEQA Guidelines. Appropriate actions for significant resources as determined by the Phase 2 testing include but are not limited to avoidance or capping, incorporation of the site in green space, parks, or delineation into open space. If such measures are not feasible, Phase 3 data recovery of the significant resource will be required, and curation of recovered artifacts and/or reburial, shall be required. A report associated with Phase 2 testing or Phase 3 data recovery must be delivered to the City and, if necessary, the museum where any recovered artifacts have been curated. 5. No further grading shall occur in the area of the discovery until the City approves specific actions to protect identified resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution approved by the City where they would be afforded long-term preservation to allow future scientific study. 6. The developer shall make reasonable efforts to avoid, minimize, or mitigate significant adverse impacts on cultural resources The State Historic Preservation Office (SHPO) and local Native American tribes will be consulted and the Advisory Council on Historic Preservation will be notified within 48 hours of the find in compliance with 36 CFR 800.13(b)(3). This measure shall be implemented to the satisfaction of the Planning Official. **4.5.6.1D** Prior to the issuance of any grading permit the project archaeologist shall invite interested Tribal Group(s) representatives to monitor grading activities. Qualified representatives of the Tribal Group(s) shall be granted access to the project site to monitor grading as long as they provide 48-hour notice to the developer of their desire to monitor, so the developer can make appropriate safety arrangements on	

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures		Level of Significance
		the site. This measure shall be implemented to the satisfaction of the Planning Official.	
	4.5.6.1E	It is possible that ground-disturbing activities during construction may uncover previously unknown, buried cultural resources (archaeological or historical). In the event that buried cultural resources are discovered during grading and no Project Archaeologist or Historian is present, grading operations shall stop in the immediate vicinity of the find and a qualified archaeologist shall be retained to determine the most appropriate course of action regarding the resource. The Archeologist shall make recommendations to the City on the actions that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with §15064.5 of the *CEQA Guidelines*. Cultural resources could consist of, but are not limited to, stone artifacts, bone, wood, shell, or features, including hearths, structural remains, or historic dumpsites. Any previously undiscovered resources found during construction within the project area shall be recorded on appropriate California Department of Parks and Recreation forms and evaluated for significance in terms of CEQA criteria. If the resources are determined to be unique historic resources as defined under §15064.5 of the *CEQA Guidelines*, appropriate protective actions for significant resources such as avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds shall be implemented by the project archaeologist and the City. No further grading shall occur in the area of the discovery until the City and project archaeologist approve the measures to address these resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution approved by the City where they would be afforded long-term preservation to allow future scientific study.	
Impact 4.5.6.2 Historic Resources			
Seven on-site rural residential properties (designated "Light Logistics") have not been previously surveyed for historical resources, and would need to be surveyed prior to development. Juan Bautista de Anza crossed the southern portion of the site while exploring California in 1774.	**4.5.6.2A**	If any historic resources are found during implementation of Mitigation Measure 4.5.6.1A, the Project Archaeologist or Historian (as appropriate) shall offer any artifacts or resources to the Moreno Valley Historical Society (MVHS) or the Eastern Information Center/County Museum or the Western Science Center in Hemet as appropriate for archival storage. From the time any artifacts are turned over to the Moreno Valley Historical Society or other appropriate historical group, the developer shall have no further responsibility for their management or maintenance. In addition, the following measure is proposed to acknowledge the route of Juan Bautista de Anza	Less than Significant with Mitigation

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Issues/Impacts	Mitigation Measures	Level of Significance
	through the project area as an important historical event: **4.5.6.2B** As part of construction of the trail segment connecting Redlands Boulevard to the California Department of Fish and Wildlife property, the developer shall contribute $5,000 to the City for the installation of a historical marker acknowledging the passing of Juan Bautista de Anza through this area during his exploration of California. This measure shall be incorporated into trail plans for this segment which will be subject to review and approval by the City Park and Recreation Department in consultation with the Moreno Valley Historical Society. **4.5.6.2C** Streets C and E shall follow the historical alignment of Alessandro Boulevard and shall be named Alessandro Boulevard.	
Impact 4.5.6.3 Paleontological Resources		
The project area is considered moderately sensitive regarding paleontological resources, and fossiliferous materials have been found in the surrounding region in the past.	**4.5.6.3A** Prior to the issuance of any grading permits, a City-approved Paleontologist shall be retained to conduct paleontological monitoring as needed for all grading related to development. Development monitoring shall include the following actions: 1. Monitoring must occur in areas where excavations are expected to exceed twenty (20) feet in depth, in areas where fossil-bearing formations are found during grading, and in all areas found to contain, or are suspected of containing, fossil-bearing formations. 2. To avoid construction delays, paleontological monitors shall be equipped to salvage fossils and remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates if they are unearthed. 3. Monitors shall be empowered to temporarily halt or divert equipment to allow removal of specimens. 4. Monitoring may be reduced if the potentially fossiliferous units described herein are not present, or, if present, are determined upon exposure and examination by the Project Paleontologist to have low potential to contain fossil resources. This measure shall be implemented to the satisfaction of the Planning Official. The Project Paleontologist and the Project Archaeologist described in Mitigation Measure 4.5.6.1C may be the same person if he/she meets the qualifications of both positions per Cultural Report MM PR-1, Table 4, pg. 76). **4.5.6.3B** Prior to the issuance of any permits for the construction of off-site improvements, a qualified paleontologist shall conduct an assessment for paleontological resources on each off-site improvement location. If any site is determined to have a potential for	Less than Significant with Mitigation

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Issues/Impacts	Mitigation Measures	Level of Significance
	exposing paleontological resources, the project paleontologist shall monitor off-site grading/excavation, subject to coordination with the City. Development monitoring shall include the following mitigation measures: 1. Monitoring must occur in areas where excavations are expected to reach fossil-bearing formations during grading. This monitoring must be conducted by the Project Paleontologist in all areas found to or suspected of containing fossil-bearing formations. 2. To avoid construction delays, the Project Paleontologist shall be equipped to salvage fossils and remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates as they are unearthed. 3. The Project Paleontologist shall be empowered to temporarily halt or divert equipment to allow removal of specimens. 4. Monitoring may be reduced if the potentially fossiliferous units described herein are not present, or, if present, are determined upon exposure and examination by the Project Paleontologist to have low potential to contain fossil resources.	
Cumulative Cultural Impacts		
The project site and surrounding area, especially the uplands associated with Mt. Russell, have yielded cultural resources in the past. As this area develops, there is a potential for impacts to or loss of archaeological, historical, or paleontological resources.	Previously referenced Mitigation Measures 4.5.6.1A through 4.5.6.1E, 4.5.6.2A and 4.5.6.2B, and 4.5.6.3A and 4.4.6.3B.	Less than Significant
4.6 Geology and Soils		
LESS THAN SIGNIFICANT IMPACTS		
Landslides or Rockfalls		
A large older landslide has been mapped primarily off site on the north easterly flanks of Mount Russell, near the southwest portion of the property. The Specific Plan designates 74.3 acres in the southwest corner of the site as open space.	No development will occur in the potential landslide zone, so no mitigation is needed.	Less than Significant

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Issues/Impacts	Mitigation Measures	Level of Significance
Soil Erosion or Loss of Topsoil		
On-site soils have a slight erosion hazard, and uncontrolled runoff could result in erosion or loss of topsoil.	The project would be required to adhere to the City's Grading Ordinance, obtain an NPDES Permit, prepare an SWPPP and a WQMP, construction and operational impacts associated with soil erosion hazards are considered to be less than significant, and no mitigation is required.	Less than Significant
Septic Tanks		
The project would not involve the installation of septic tanks or alternative wastewater disposal systems, no impacts would occur.	No mitigation is required.	No Impact
Seismic-Related Ground Failure		
The City's General Plan and project geotechnical report indicates the site has little or no potential for seismically-induced failure or liquefaction.	No mitigation is required.	Less than Significant
SIGNIFICANT IMPACTS		
Impact 4.6.6.1 Fault Rupture		
The eastern portion of the site contains one or more splays of the San Jacinto Fault, and the Casa Loma Fault may be in in the general vicinity of the western portion of the site.	**4.6.6.1A** Prior to approval of any projects for development between Redlands Boulevard and Theodore Street, south of Dracaea Avenue (projected east from Redlands Boulevard), and the area south of Alessandro from the western boundary along the Mount Russell toe of slope easterly into the site 1,500 feet, the City shall determine if a detailed fault study of the Casa Loma Fault Zone area is required based on available evidence. If necessary, any additional geotechnical investigations shall be prepared by a qualified geologist and determine if structural setbacks are needed, and shall identify specific remedial earthwork and/or foundation recommendations. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and	Less than Significant with Mitigation

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Issues/Impacts	Mitigation Measures		Level of Significance
		approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur. Structures intended for human occupancy shall not be located within any structural setback zone as determined by those studies. This measure shall be implemented to the satisfaction of the City Engineer in consultation with the Project Geologist.	
	4.6.6.1B	Prior to approval of any projects for development within or adjacent to the San Jacinto Alquist-Priolo Earthquake Fault Zone, the City shall review and approve a geotechnical fault study prepared by a qualified geologist to confirm the alignment and size of any required building setbacks related to the fault zone. If necessary, this study shall identify a “special foundation or grading remediation zone” for the areas supporting structures intended for human occupancy where coseismic deformation (fractures) is observed. This zone shall be determined after subsurface evaluation based on proposed building locations. Specific remedial earthwork and foundation recommendations shall be evaluated as necessary based on proposed building locations. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur. This study may involve trenching to adequately identify the location of the Claremont segment of the San Jacinto Fault Zone that crosses the eastern portion of the World Logistics Center Specific Plan property. This measure shall be implemented to the satisfaction of the City Engineer in consultation with the Project Geologist.	

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Issues/Impacts	Mitigation Measures		Level of Significance
	4.6.6.1C	Prior to the approval of grading permits, or permits for construction of off-site improvements, the City shall review and approve plans confirming that the project has been designed to withstand anticipated ground shaking and other geotechnical and soil constraints (e.g., settlement). The project proponent shall submit plans to the City as appropriate for review and approval prior to issuance of grading permits or issuance of permits for the construction of any offsite improvements. This measure shall be implemented to the satisfaction of the City Engineer.	
Impact 4.6.6.2 Ground Shaking			
Southern California is located in a seismically active area and will continue to be subject to ground shaking resulting from seismic activity on regional and local faults.	**4.6.6.2A**	Prior to issuance of building permits for any portion of the project site, a site-specific, design level geotechnical investigation for each parcel shall be submitted to the City , which would comply with all applicable state and local code requirements, and includes an analysis of the expected ground motions at the site from known active faults using accepted methodologies. The report shall determine structural design requirements as prescribed by the most current version of the California Building Code, including applicable City amendments, to ensure that structures can withstand ground accelerations expected from known active faults. The report shall also determine final design parameters for walls, foundations, foundation slabs, utilities, roadways, parking lots, sidewalks, and other surrounding related improvements. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur.	Less than Significant with Mitigation
Impact 4.6.6.3 Unstable Soils			
On-site soils have a moderate to low shrink-swell potential, and there are some moderately expansive soils on site as	**4.6.6.3A**	Each Plot Plan application for development shall include a site-specific, design level geotechnical investigation for each parcel, in compliance with all applicable state and local code requirements, and including an analysis of the expected soil hazards at	Less than Significant with Mitigation

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Issues/Impacts	Mitigation Measures	Level of Significance
well.	the site. The report shall determine: 1. Structural design requirements as prescribed by the most current version of the California Building Code, including applicable City amendments, to ensure that structures can withstand ground accelerations expected from known active faults. 2. The final design parameters for walls, foundations, foundation slabs, utilities, roadways, parking lots, sidewalks, and other surrounding related improvements. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. These investigations shall identify any site-specific impacts from compressible and expansive soils based on the actual location of individual pads proposed in the future, so that differential movement can be further verified or evaluated in view of the actual foundation plan and imposed fill or structural loads. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur. Compliance with this measure will ensure that future buildings are designed to protect the structure and occupants from on-site soil limitations, consistent with State Building Code requirements. This measure shall be implemented to the satisfaction of the City Engineer. **4.6.6.3B** Any cut slopes in excess of five (5) feet in vertical height shall be constructed as “replacement fill slopes” per the project geotechnical report, due to the variable nature of the onsite alluvial soils. This measure shall be implemented to the satisfaction of the City Land Development Division and the City Engineer in consultation with the Project Geologist.	

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Issues/Impacts	Mitigation Measures	Level of Significance
	4.6.6.3C During all grading activities, a geotechnical engineer shall monitor site preparation, removal of unsuitable soils, mapping of all earthwork excavations, approval of imported earth materials, fill placement, foundation installation, and other geotechnical operations. Laboratory testing of subsurface materials to confirm compacted dry density and moisture content, consolidation potential, corrosion potential, expansion potential, and resistance value (R-value) shall be performed prior to and during grading as appropriate. This measure shall be implemented to the satisfaction of the City Engineer in consultation with the Project Geologist.	
Cumulative Geology and Soils Impacts		
It is reasonable to conclude that all development within this seismically active area will be required to adhere to applicable State regulations, CBC standards, and the design and siting standards required by local agencies.	Previously referenced Mitigation Measures 4.6.6.1A through 4.6.6.1C, 4.6.6.2A, and 4.6.6.3A through 4.6.6.3C.	Less than Significant
4.7 Greenhouse Gases and Global Climate Change		
LESS THAN SIGNIFICANT IMPACTS		
None	Not applicable	Not applicable
SIGNIFICANT IMPACTS		
Impact 4.7.6.1 Greenhouse Gas Emissions		
The proposed project will emit substantial quantities of greenhouse gases during construction and operation, mainly related to truck emissions, that will exceed recommended SCAQMD thresholds for greenhouse gases. These emissions, while generated by this project, are nonetheless considered cumulative impacts (see below).	**4.7.6.1A** The project shall implement the following requirements to reduce solid waste and greenhouse gas emissions from construction and operation of project development: a) Prior to January 1, 2020, divert a minimum of 50 percent of landfill waste generated by operation of the project. After January 1, 2020, development shall divert a minimum of 75 percent of landfill waste. In January of each calendar year after project approval the developer and/or Property Owners Association shall certify the percentage of landfill waste diverted on an annual basis. b) Prior to January 1, 2020, recycle and/or salvage at least 50 percent of non-hazardous construction and demolition debris. After January 1, 2020, recycle and/or salvage at least 75 percent of non-hazardous construction and demolition debris. In January of each calendar year after project approval the developer and/or Property Owners Association shall certify the percentage of landfill waste	Less than Significant

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Issues/Impacts	Mitigation Measures	Level of Significance
	diverted on an annual basis. Develop and implement a construction waste management plan that, at a minimum, identifies the materials to be diverted from disposal and whether the materials will be sorted on-site or co-mingled. Calculations can be done by weight or volume, but must be consistent throughout. c) The applicant shall submit a Recyclables Collection and Loading Area Plan for construction related materials prior to issuance of a building permit with the Building Division and for operational aspects of the project prior to the issuance of the occupancy permit to the Public Works Department. The plan shall conform to the Riverside County Waste Management Department's Design Guidelines for Recyclable Collection and Loading Areas. d) Prior to issuance of certificate of occupancy, the recyclables collection and loading area shall be constructed in compliance with the Recyclables Collection and Loading Area plan. e) Prior to issuance of certificate of occupancy, documentation shall be provided to the City confirming that recycling is available for each building. f) Within six months after occupancy of a building, the City shall confirm that all tenants have recycling procedures set in place to recycle all items that are recyclable, including but not limited to paper, cardboard, glass, plastics, and metals. g) The property owner shall advise all tenants of the availability of community recycling and composting services. h) Existing onsite street material shall be recycled for new project streets to the extent feasible.	
Impact 4.7.6.2 Greenhouse Gas Plan, Policy, Regulation Consistency		
The proposed project could be potentially inconsistent with established Greenhouse Gas plans, policies, or regulations.	Implementation of previously referenced Mitigation Measures 4.3.6.3B, 4.3.6.4A, 4.3.6.3C, 4.3.6.3D, 4.7.6.1A, 4.16.1.6.1A, 4.16.1.6.1B, 4.16.1.6.1C, 4.16.4.6.1A, 4.16.4.6.1B, and 4.16.4.6.1C will help reduce project-related GHG emissions	Less than Significant
Cumulative Greenhouse Gas Impacts		
The proposed project will emit substantial quantities of greenhouse gases during project operation, mainly related to truck emissions, that will exceed recommended	Project-specific energy conservation, air quality, and greenhouse gas Mitigation Measure 4.7.6.1A will help reduce project greenhouse gas emissions, the project will not_make a significant cumulative contribution to greenhouse gas emissions.	Less than Significant

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Issues/Impacts	Mitigation Measures	Level of Significance
SCAQMD thresholds for greenhouse gases. These emissions are considered cumulative in terms of global climate change.		
4.8 Hazards and Hazardous Materials		
LESS THAN SIGNIFICANT IMPACTS		
Within Two Miles of a Private Airport, Airport Land Use Plan, or Public Airport		
The nearest airport is 7 miles away so, the development of the WLC project area as proposed would not result in airport safety hazards for people working in the WLC project area.	No mitigation is required.	No Impact
Existing or Proposed School		
There are no existing planned schools on or within a quarter mile of the project site.	No mitigation is required.	Less than Significant
Routine Transport, Use, or Disposal of Hazardous Materials and Reasonable Foreseeable Upset and Accident Conditions		
The transport, use, handling, or disposal of hazardous materials is regulated by various local, state, and federal standards, ordinances, and regulations that would ensure that potential impacts associated with environmental and health hazards related to an accidental release of hazardous materials are less than significant, and no mitigation is required. Compliance with established safety laws and regulations regarding natural gas plants is expected to reduce this potential impact to a less than significant level, and no mitigation is required. Local soils would be extensively disturbed during grading, and would employ relatively stringent dust control measures	No mitigation is required.	Less than Significant

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Issues/Impacts	Mitigation Measures	Level of Significance
including regular watering, and revegetation as soon as possible after grading. Under these conditions, it is unlikely that *Coccidioides immitis* spores ("Valley Fever") would survive in the soil. This potential impact appears minimal and no mitigation is recommended.		
Located on a List of Hazardous Materials Sites		
The project site and surrounding areas are not on any list of the hazardous materials sites as defined by Government Code Section 65962.5. In addition, a number of Phase 1 Environmental Site Assessments (ESAs) prepared for various portions of the site indicate that the site does not contain pesticides or other hazardous materials.	No mitigation is required.	Less than Significant
Conflict with Emergency Response Plans		
Compliance with existing regulations for emergency access and evacuation would ensure that impacts related to this issue are less than significant, and no mitigation is required.	No mitigation is required.	Less than Significant
Wildlands Fire Risk		
The Badlands to the east, across Gilman Springs Road, is considered a Very High Fire Hazard Area. The project allows the construction of warehouse buildings which have a low fire potential, and the project will add a new roadway network to facilitate access for fire protection vehicles and services. Fire Station #58 is relatively close to the project site, but future development will generate a need for an additional fire	The WLC Specific Plan identifies a new on-site fire station, and payment of DIF and increased property taxes will fund future fire services. No other mitigation is required.	Less than Significant

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Issues/Impacts	Mitigation Measures		Level of Significance
station on the site. New structures will have to comply with current Fire and Building Code regulations.			
SIGNIFICANT IMPACTS			
On-site Conditions Involving Hazardous Materials			
A number of Phase 1 Environmental Site Assessments (ESAs) prepared for various portions of the site indicate that the site does not contain pesticides or other hazardous materials. However, the existing rural residences on site have not been surveyed as yet for hazardous materials.	**4.8.6.1A**	Prior to demolition of any existing structures on the project site, a qualified contractor shall be retained to determine if asbestos-containing materials (ACMs) and/or lead-based paint (LBP) are present. If asbestos-containing materials and/or lead-based paint are present, prior to commencement of demolition, these materials shall be removed and transported to an appropriate landfill by a licensed contractor. In addition, onsite soils shall be tested for contamination by agricultural chemicals. If present, these materials shall be removed and transported to an appropriate landfill by a licensed contractor. This measure shall be implemented to the satisfaction of the Building Division including written documentation of the disposal of any asbestos-containing materials, lead-based paint, or agricultural chemical residue in conformance with all applicable regulations.	Less than Significant with Mitigation
	4.8.6.1B	Prior to the issuance of any discretionary permits associated with the proposed fueling facility (“logistic support” site in the LD zone), a risk assessment or safety study that identifies the potential public health and safety risks from accidents at the facility (e.g., fire, tank rupture, boiling liquid, or expanding vapor explosion) shall be submitted to the City for review and approval This study shall be prepared to industry standards and demonstrate that the facility will not create any significant public health or safety impacts or risks, to the satisfaction of the City Building and Safety Division and the Fire Prevention Bureau.	
	4.8.6.1C	Prior to grading for any discretionary permits for development in Planning Areas 9-12 adjacent to the natural gas compressor plant, the applicant shall prepare a risk assessment report analyzing safety conditions relative to the existing compressor plant and planned development. The report must be based on appropriate industry standards and identify the potential hazards from the compressor plant (e.g., fire, explosion) and determine that the distance from the plant to the closest planned buildings in Planning Areas 9-12 is sufficient to protect the safety of workers from accidents that could occur (see Final EIR Volume 2 Figure 4.1.6B) at the compressor plant. This measure shall be implemented to the satisfaction of the City Building and	

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	Safety Division and the Fire Prevention Bureau. **4.8.6.1D** Prior to the issuance of any grading permit, the developer shall inform the City of any existing solid waste materials within the development area. In conjunction with grading activities, all solid waste matter within the development area shall be removed by a licensed contractor and disposed of in an approved landfill. A record of the removal and disposal of any waste materials, in compliance with applicable laws and regulations, shall be submitted to the City prior to the issuance of any building permits.	
Cumulative Hazards and Hazmat Impacts		
The risk to each future project is based on the location and interface between urbanized area and wildland areas. Potential risks associated with development in this area can be effectively reduced through conformance with Fire and Building Code regulations.	The WLC Specific Plan identifies a new on-site fire station, and increased property taxes will fund future police and fire services. No other mitigation is required.	Less than Significant
4.9 Hydrology and Water Quality		
LESS THAN SIGNIFICANT IMPACTS		
Seismic Flooding-Related Impacts		
The WLC project area is not identified as being located within the City's mapped inundation area.	No mitigation required	Less than Significant
Seismic-Related Impacts		
The southwest corner of the site has slopes associated with Mt. Russell, but this area is designated as open space and the rest of the WLC area gently sloping and landslides or mudslides would not occur here.	No mitigation is required	Less than Significant
Groundwater		
The proposed WLC project would not interfere with groundwater recharge as the project site is not identified as a	No mitigation is required	Less than Significant

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures		Level of Significance
groundwater recharge area and it will utilize water supplies from EMWD.			
100-Year Flooding-Related Impacts			
The project site does not lie within a 100-year floodplain and does not include housing, so impacts related to this issue are less than significant.	No mitigation is required		Less than Significant
SIGNIFICANT IMPACTS			
Impact 4.9.6.1 Drainage Pattern and Capacity-Related Impacts			
The project will modify local drainage patterns, increase impervious surfaces (roofs, hardscape, etc.), and add landscaped areas with irrigation.	**4.9.6.1A**	Prior to issuance of any building permit within the Specific Plan area, the developer shall construct storm drain pipes and conveyances, as well as, combined detention and infiltration basin(s), bioretention area(s), and spreading area(s) within each proposed watershed, as outlined in the project hydrology plan, to mitigate the impacts of increased peak flow rate, velocity, flow volume and reduce the time of concentration by storing and infiltrating increased runoff for a limited period of time and release the outflow at a rate that does not exceed the pre-development peak flows and velocities for the 2, 5, 10, 25, and 100-year storms and volumes as assessed in the water balance model for historical conditions. For the purpose of this mitigation measure, the term “construct” shall mean to substantially complete construction so as to function for its intended purpose during construction with complete construction prior to occupancy. Field investigations will be conducted to determine the infiltration rate of soils underlying the proposed locations of bioretention areas and detention basins. The infiltration rate of the underlying soils will be used to properly size the bioretention areas and detention basins/infiltration basins to ensure that adequate volumes of runoff, in cumulative total for all bioretention areas and detention basins, are captured and infiltrated. The water balance model will be updated and rerun for the site-specific conditions encountered to confirm the water balance. This measure shall be implemented to the satisfaction of the City Engineer. Energy dissipaters shall be used as the spillways of basins to reduce the runoff velocity and dissipate the flow energy. Drainage weir structures shall be constructed at the downstream end of the watersheds flowing to the San Jacinto Wildlife Area to control the runoff and spread the flow such that the flows exiting the project boundary will return to the sheet flow pattern similar to the existing condition. Detention basins and spreading areas shall be designed to account for the amount of the sediment transported through the project boundary so that the existing	Less than Significant with Mitigation

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures		Level of Significance
		sediment carrying capacity is maintained.	
	4.9.6.1B	The bioretention areas and detention/infiltration basins shall be designed to assure infiltrations rates. The monitoring plan will follow the guidelines presented by the California Storm Water Quality Association (CASQA) in the California Storm Water Best Management Program (BMP) Handbook, Municipal, January 2003 Section 4, Treatment Control Best Management Programs Fact Sheets TC-11 Infiltration Basin and TC-30 Vegetated Swale). For the Bioretention areas, as needed maintenance activities shall be conducted to remove accumulated sediment that may obstruct flow through the swale. Bioretention areas shall be monitored at the beginning and end of each wet season to assess any degradation in infiltration rates. The maintenance activities should occur when sediment on channels and culverts builds up to more than 3 inches (CASQA 2003). The swales will need to be cultivated or rototilled if drawdown takes more than 72 hours. For the Detention/infiltration Basins, a 3-5 year maintenance program shall be implemented mainly to keep infiltration rates close to original values since sediment accumulation could reduce original infiltration rate by 25-50%. Infiltration rates in detention basins will be monitored at the beginning and end of each wet season to assess any degradation in infiltration rates. If cumulative infiltration rates of all detention basins drops below the minimum required rates, then the detention basins will be reconditioned to improve infiltration capacity by scraping the bottom of the detention basin, seed or sod to restore groundcover, aerate bottom and dethatch basin bottom (CASQA 2003).	
Impact 4.9.6.2 Construction-Related Water Quality			
The construction and grading phases of the WLC Specific Plan area would temporarily disturb surface soils and removal of vegetative cover, which could potentially result in erosion and sedimentation within the WLCSP area.	**4.9.6.2A**	Prior to issuance of any grading permit for development in the World Logistics Center Specific Plan, the project developer shall file a Notice of Intent (NOI) with the Santa Ana Regional Water Quality Control Board to be covered under the National Pollutant Discharge Elimination System (NPDES) General Construction Permit for discharge of storm water associated with construction activities. The project developer shall submit to the City the Waste Discharge Identification Number issued by the State Water Quality Control Board (SWQCB) as proof that the project's Notice of Intent is to be covered by the General Construction Permit has been filed with the State Water Quality Control Board. This measure shall be implemented to the satisfaction of the City Engineer.	Less than Significant with Mitigation
	4.9.6.2B	Prior to issuance of any grading permit for development in the World Logistics Center	

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	Specific Plan, the project developer shall submit to the State Water Quality Control Board (SWQCB) a project-specific Storm Water Pollution Prevention Plan (SWPPP). The Storm Water Pollution Prevention Plan shall include a surface water control plan and erosion control plan citing specific measures to control on-site and off-site erosion during the entire grading and construction period. In addition, the Storm Water Pollution Prevention Plan shall emphasize structural and nonstructural best management practices (BMPs) to control sediment and non-visible discharges from the site. Best Management Practices to be implemented may include (but shall not be limited to) the following: • Sediment discharges from the site may be controlled by the following: sandbags, silt fences, straw wattles and temporary debris basins (if deemed necessary), and other discharge control devices. The construction and condition of the Best Management Practices are to be periodically inspected by the Regional Water Quality Control Board during construction, and repairs would be made as required. • Materials that have the potential to contribute non-visible pollutants to storm water must not be placed in drainage ways and must be placed in temporary storage containment areas. • All loose soil, silt, clay, sand, debris, and other earthen material shall be controlled to eliminate discharge from the site. Temporary soil stabilization measures to be considered include: covering disturbed areas with mulch, temporary seeding, soil stabilizing binders, fiber rolls or blankets, temporary vegetation, and permanent seeding. Stockpiles shall be surrounded by silt fences and covered with plastic tarps. • The Storm Water Pollution Prevention Plan shall include inspection forms for routine monitoring of the site during the construction phase. • Additional required Best Management Practices and erosion control measures shall be documented in the Storm Water Pollution Prevention Plan. • The Storm Water Pollution Prevention Plan would be kept on site for the duration of project construction and shall be available to the local Regional Water Quality Control Board for inspection at any time. The developer and/or construction contractor for each development area shall be responsible for performing and documenting the application of Best Management Practices identified in the project-specific Storm Water Pollution Prevention Plan.	

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures		Level of Significance
		Regular inspections shall be performed on sediment control measures called for in the Storm Water Pollution Prevention Plan. Monthly reports shall be maintained and available for City inspection. An inspection log shall be maintained for the project and shall be available at the site for review by the City of Moreno Valley and the Regional Water Quality Control Board.	
Impact 4.9.6.3 Operational-Related Water Quality			
During the operational phase of the WLC the major source of pollution in storm water runoff would be contaminants such as, a variety of pollutants such as sediment, petroleum products, commonly utilized construction materials, landscaping chemicals, and (to a lesser extent) trace metals such as zinc, copper, lead, cadmium, and iron that have accumulated on the land surface over which runoff passes. These contaminants may lead to the degradation of storm water in downstream channels and require mitigation to reduce impacts to less than significant.	**4.9.6.3A**	Prior to discretionary permit approval for individual plot plans, a site-specific Water Quality Management Plan (WQMP) shall be submitted to the City Land Development Division for review and approval. The Water Quality Management Plan shall specifically identify site design, source control, and treatment control Best Management Practices that shall be used on site to control pollutant runoff and to reduce impacts to water quality to the maximum extent practicable. The Water Quality Management Plan shall be consistent with the Water Quality Management Plan approved for the overall World Logistics Center Specific Plan project. At a minimum, the site developer shall implement the following site design, source control, and treatment control Best Management Practices as appropriate: **Site Design Best Management Practices** (a) Minimize urban runoff. (b) Maximize the permeable area. (c) Incorporate landscaped buffer areas between sidewalks and streets. (d) Maximize canopy interception and water conservation by planting native or drought-tolerant trees and large shrubs. (e) Use natural drainage systems. (f) Where soil conditions are suitable, use perforated pipe or gravel filtration pits for low flow infiltration. (g) Construct on-site ponding areas or retention facilities to increase opportunities for infiltration consistent with vector control objectives. (h) Minimize impervious footprint. (i) Construct streets, sidewalks and parking lot aisles to the minimum widths necessary, provided that public safety and a walkable environment for pedestrians are not compromised.	Less than Significant with Mitigation

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	(j) Reduce widths of street where off-street parking is available. (k) Minimize the use of impervious surfaces such as decorative concrete, in the landscape design. (l) Conserve natural areas. (m) Minimize Directly Connected Impervious Areas (DCIAs). (n) Runoff from impervious areas will sheet flow or be directed to treatment control Best Management Practices. (o) Streets, sidewalks, and parking lots will sheet flow to landscaping/ bioretention areas that are planted with native or drought tolerant trees and large shrubs. **Source Control Best Management Practices** Source control Best Management Practices are implemented to eliminate the presence of pollutants through prevention. Such measures can be both non-structural and structural. <u>Non-structural source control Best Management Practices include:</u> (a) Education for property owners, operator, tenants, occupants, or employees; (b) Activity restrictions; (c) Irrigation system and landscape maintenance; (d) Common area litter control; (e) Street sweeping private streets and parking lots; and (f) Drainage facility inspection and maintenance. <u>Structural source control Best Management Practices include:</u> (g) MS4 stenciling and signage; (h) Landscape and irrigation system design; (i) Protect slopes and channels; and (j) Properly design fueling areas, trash storage areas, loading docks, and	

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	outdoor material storage areas. **Treatment Control Best Management Practices** Treatment control Best Management Practices supplement the pollution prevention and source control measures by treating the water to remove pollutants before it is released from the project site. The treatment control Best Management Practice strategy for the project is to select Low Impact Development (LID) Best Management Practices that promote infiltration and evapotranspiration, including the construction of infiltration basins, bioretention facilities, and extended detention basins. Where infiltration Best Management Practices are not appropriate, bioretention and/or biotreatment Best Management Practices (including extended detention basins, bioswales, and constructed wetlands) that provide opportunity for evapotranspiration and incidental infiltration may be utilized. Harvest and Reuse Best Management Practice will be used to store runoff for later non-potable uses. Site-specific Water Quality Management Plans have not been prepared at this time as no site-specific development project has been submitted to the City for approval. When specific projects within the project are developed, Best Management Practices will be implemented consistent with the goals contained in the Master Water Quality Management Plan. All development within the project will be required to incorporate on-site water quality features to meet or exceed the approved Master Water Quality Management Plan's water quality requirements identified previously. **4.9.6.3B** The Property Owners Association (POA) and all property owners shall be responsible to maintain all onsite water quality basins according to requirements in the guidance Water Quality Management Plan and/or subsequent site-specific Water Quality Management Plans, and established guidelines of the Regional Water Quality Control Board. Failure to properly maintain such basins shall be grounds for suspension or revocation of discretionary operating permits, and/or referral to the Regional Water Quality Control Board for review and possible action. This measure shall be implemented to the satisfaction of the City Land Development Division, in consultation with the City Engineer, and Regional Water Quality Control Board. **4.9.6.3C** Prior to issuance of future discretionary permits for any development along the southern boundary of the World Logistics Center Specific Plan (WLCSP), the project developer of such sites, in cooperation with the Property Owners Association (POA), shall establish and annually fund a Water Quality Mitigation Monitoring Plan (WQMMP) to confirm that project runoff will not have deleterious effects on the adjacent San Jacinto Wildlife Area (SJWA). This program shall include at least	

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	quarterly sampling along the southern boundary of the site (i.e., at the identified outlet structures of the project detention basins) during wet season flows and/or when water is present, as well as sampling of any dry-season flows that are observed entering the San Jacinto Wildlife Area property from the project property, including Drainage 9, which is planned to convey only clean off-site flows from north of the World Logistics Center Specific Plan site across Gilman Springs Road. The program shall also include at least twice yearly sampling after completion of construction, and a pre-construction survey must be completed to determine general water quality baseline conditions prior to and during development of the southern portion of the World Logistics Center Specific Plan. This sampling shall be consistent with and/or comply with the requirements of applicable Storm Water Pollution Prevention Plans (SWPPPs) for the development site. The project developer of sites along the southern border of the World Logistics Center Specific Plan shall be responsible for preventing or eliminating any toxic pollutant (not including sediment) found to exceed applicable established public health standards. In addition, the discharge from the project shall not cause or contribute to an exceedance of Receiving Water Quality Objectives for the potential pollutants associated with the project as identified in Table 4.9.J. Once development is complete, the developer shall retain qualified personnel to conduct regular (i.e., at least quarterly) water sampling/testing of any basins and their outfalls to ensure the San Jacinto Wildlife Area will not be affected by water pollution from the project site. This measure shall be implemented to the satisfaction of the City Land Development Division Manager based on consultation with the project developer, Eastern Municipal Water District, the Regional Water Quality Control Board-Santa Ana Region, and the Mystic Lake Manager.	
Cumulative Hydrology and Water Quality		
The drainage system for the proposed WLC project would maintain post-development runoff at pre-development levels for off-site downstream properties. Therefore, the proposed WLC project will not make a significant contribution to any cumulatively considerable impacts related to drainage or water quality.	Previously referenced Mitigation Measures 4.9.6.1A, 4.9.6.1B, 4.9.6.2A and 4.9.6.2B, and 4.9.6.3A through 4.9.6.3C. No additional mitigation is required.	Less than Significant

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Issues/Impacts	Mitigation Measures	Level of Significance
4.10 Land Use and Planning		
LESS THAN SIGNIFICANT IMPACTS		
Conflict with Applicable Land Use Plans, Policies, or Regulations		
The land uses per se of the project are not consistent with SCAG growth projections and some Compass Plan policies because they are not residential in nature. However, the project will substantially improve the City's job/housing balance which is consistent with these regional plans. The WLC project is consistent with the City General Plan upon approval of the requested General Plan Amendment. The project is consistent with the City's Housing Element. Therefore, the project is consistent with both regional and local land use plans, policies, and regulations.	No mitigation is required.	Less than Significant
Conflict with any Applicable Habitat or Natural Community Conservation Plan		
The project will be required to comply with the requirements of the County's MSHCP and pay its development impact fee.	Previously referenced Mitigation Measures 4.4.6.1A through 4.4.6.1C, 4.4.6.2A and 4.4.6.2B, 4.4.6.3A and 4.4.6.3B, and 4.4.6.4A through 4.4.6.4F related to Biological Resources will be implemented, and no additional mitigation is required.	Less than Significant
Cumulative Land Use and Planning Impacts		
The WLC project would not have significant project-related impacts related to dividing an established community, conflicting with applicable land use plans, policies, or regulations, or conflicting with an approved habitat conservation plan. While the WLC project would represent a shift in land use policy, this policy shift does not represent a significant CEQA impact.	No mitigation is required.	Less than Significant

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
SIGNIFICANT IMPACTS		
Physically Divide an Established Community		
The WLC is located in the eastern end of the City, so its development would not physically divide an established community. However, development could adversely affect seven existing rural residences onsite, and the land plan cannot accommodate residences within logistics warehousing areas.	No feasible mitigation is available.	Significant and Unavoidable
4.11 Mineral Resources		
LESS THAN SIGNIFICANT IMPACTS		
Loss of Statewide, Regional, or Locally Important Mineral Resources		
The project site and surrounding area do not contain any identified regional or local mineral resources, nor are there any ongoing mineral resource extraction activities in the project area.	No mitigation is required.	No impact
Cumulative Mineral Resources		
The WLC project site does not contain significant forest resources, so it will not make a significant contribution to cumulatively considerable impacts relative to any forest resources.	No mitigation is required.	Less than Significant
SIGNIFICANT IMPACTS		
None	Not applicable	Less than Significant

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Issues/Impacts	Mitigation Measures		Level of Significance
4.12 Noise			
LESS THAN SIGNIFICANT IMPACTS			
Groundborne Vibration			
Project-related earthwork will create groundborne vibration, but the project noise study determined it would not exceed significance criteria for adjacent residential uses.	No mitigation is required.		Less than Significant
Airport Noise			
There are no public airports or private airstrips within two miles of the project site, so there will be no significant airport-related noise.	No mitigation is required.		No Impact
SIGNIFICANT IMPACTS			
Impact 4.12.6.1 Short-Term Construction Noise			
Project construction will create significant noise levels for on-site uses and off site away from the project site due to construction vehicle travel.	**4.12.6.1A**	Prior to issuance of any discretionary project approvals, a Noise Reduction Compliance Plan (NRCP) shall be submitted to and approved by the City. The Noise Reduction Compliance Plan shall show the limits of nighttime construction in relation to any then-occupied residential dwellings and shall be in conformance with City standards. Conditions shall be added to any discretionary projects requiring that the limits of nighttime grading be shown on the Noise Reduction Compliance Plan and all grading plans submitted to the City (per Noise Study MM N-2, pg. 51).	Significant and Unavoidable
	4.12.6.1B	All construction equipment, fixed or mobile, shall be equipped with operating and maintained mufflers consistent with manufacturers' standards.	
	4.12.6.1C	Construction vehicles shall be prohibited from using Redlands Boulevard south of Eucalyptus Avenue to access on-site construction for all phases of development of the Specific Plan (per Noise Study MM N-1, pg. 51).	
	4.12.6.1D	No grading shall occur within 2,800 feet of residences south of State Route-60 between 8 p.m. and 6 a.m. on weekdays and between 8 p.m. and 7 a.m. on weekends. These restrictions shall be included as part of the Noise Reduction Compliance Plan per Mitigation Measure 4.12.6.1A (per Noise Study MM N-2, pg.	

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Issues/Impacts	Mitigation Measures		Level of Significance
		51)	
	4.12.6.1E	As an alternative to Mitigation Measure 4.12.6.1D, a 12-foot tall temporary construction sound barrier may be installed for residences within 1,580 feet of active nighttime construction areas. The temporary sound barrier shall be constructed of plywood with a total thickness of 15 inches, or a sound blanket wall may be used. If sound blankets are used, they must have a Sound Transmission Class (STC) rating of 27 or greater. This shall be included as part of the Noise Reduction Compliance Plan required in Mitigation Measure 4.12.6.1A, which shall be reviewed and approved by the City prior to implementation (per Noise Study MM N-2 and N-3, pg. 51 and pg. 52).	
	4.12.6.1F	As an alternative to Mitigation Measure 4.12.6.1D and 4.12.6.1E, on-site noise measurements of construction areas may be taken by qualified personnel and specific buffer distances between construction activities and existing residences may be proposed based on actual noise levels. These measurements will be incorporated into the Noise Reduction Compliance Plan required in Mitigation Measure 4.12.6.1A, which shall be reviewed and approved by the City prior to implementation (per Noise Study MM N-2, pg. 51).	
	4.12.6.1G	Any discretionary approvals for development that proposes grading within 1,580 feet of occupied residential units shall require that all grading equipment be equipped with residential grade mufflers (or better). All stationary construction equipment shall be placed so that emitted noise is directed away from noise-sensitive receptors nearest the site. Additionally, stationary construction equipment shall have all standard acoustic covers in place during operation (per Noise Study MM N-4, pg. 52).	
	4.12.6.1H	All material stockpiles in connection with any grading operations shall be located at least 1,200 feet from existing residences (per Noise Study MM N-5, pg. 52).	
	4.12.6.1I	All project-related off-site construction shall be limited to 6 a.m. and 8 p.m. on weekdays only. Construction during weekends and City holidays shall not be permitted (per Noise Study MM N-6, pg. 53) to the satisfaction of the Land Development Division/Public Works.	
	4.12.6.1J	Prior to issuance/approval of any grading permits, off-site construction activities adjacent to residential uses shall provide for installation of 12-foot temporary sound barriers for construction activities lasting more than one month. The sound barrier will reduce noise levels by approximately 10 dB. The temporary sound barrier may be constructed of plywood with a total thickness of 1.5 inches, or a sound blanket	

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Issues/Impacts	Mitigation Measures		Level of Significance
		wall may be used. If sound blankets are used, the curtains must have a Sound Transmission Class (STC) rating of 27 or greater. No off-site construction is permitted during weekday nighttime hours (8 p.m. to 6 a.m.) or during weekends and City holidays except for emergencies (per Noise Study MM N-7, pg. 53).	
Impact 4.12.6.2 Long-Term Traffic Noise			
Project operations will create significant long-term noise impacts on site and along a number of off-site roadways. Not all off-site impacts can be mitigated to less than significant levels by installing sound-attenuation improvements.	**4.12.6.2A**	When processing future individual buildings under the World Logistics Center Specific Plan, as part of the City's approval process, the City shall require the Applicant to take the following three actions for each building prior to approval of discretionary permits for individual plot plans for the requested development: Action 1: Perform a building-specific noise study to ensure that the assumptions set forth in the FEIR prepared for the programmatic level entitlement remain valid. These procedure used to conduct these noise analyses shall be consistent with the noise analysis conducted in the programmatic FEIR and shall be used to impose building-specific mitigation on the individually-proposed buildings. Action 2: If the building-specific analyses identify that the proposed development triggers the need for mitigation from the proposed building, including all preceding developments in the specific plan area, the Applicant shall implement the mitigation identified in the WLC FEIR. Prior to implementing the mitigation, the Applicant shall send letters by registered mail to all property owners and non-owner occupants of properties that would benefit from the proposed mitigation asking them to provide a position either in favor of or in opposition to the proposed noise abatement mitigation within 45 days. Each property shall be entitled to one vote on behalf of owners and one vote per dwelling on behalf of non-owner occupants. If more than 50% of the votes from responding benefited receptors oppose the abatement, the abatement will not be considered reasonable. Additionally, for noise abatement to be located on private property, 100% of owners of property upon which the abatement is to be placed must support the proposed abatement. In the case of proposed noise abatement on private property, no response from a property owner, after three attempts by registered mail, is considered a *no* vote. At the completion of the vote at the end of the 45 day period, the Applicant shall provide the tentative results of the vote to all property owners by registered mail. During the next 15 calendar days following the date of the mailing, property owners may change their vote. Following the 15-day period, the results of the vote will be finalized and made public. Action 3: Upon consent from benefited receptors and property owners, the Applicant	Significant and Unavoidable

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures		Level of Significance
		shall post a bond for the cost of the construction of the necessary mitigation as estimated by the City Engineer to ensure completion of the mitigation. The certificate of occupancy permits shall be issued upon posting of the bond or demonstration that 50% of the votes from responding benefited receptors oppose the abatement or, if the abatement is located on private property, any property owners oppose the abatement (per Noise Study MM N-8, pg.53).	
	4.12.6.2B	Prior to issuance/approval of any building permits, the centerline of Cactus Avenue Extension will be located no closer than 114 feet to the residential property lines along Merwin Street. An alternative is to locate the roadway closer to the residences and provide a soundwall along Cactus Avenue Extension. The soundwall location and height should be determined by a Registered Engineer, and the soundwall shall be designed to reduce noise levels to less than 65 CNEL at the residences. The Engineer shall provide calculations and supporting information in a report that will be required to be submitted to and approved by the City prior to issuing permits to construct the road (per Noise Study, pg. 51, Cactus Avenue Extension, ID #50).	
	4.12.6.2C	Prior to the approval of any discretionary permits, cumulative impact areas shown in the WLC EIR Noise Study shall be included in the soundwall mitigation program outlined in Mitigation Measures 4.12.6.2A and 4.12.6.2D (per Noise Study MM N-9, pg. 62).	
	4.12.6.2D	Prior to issuance of a building permit, the applicant shall demonstrate that the development maintains a buffer with soundwall for noise attenuation at residential/warehousing interface (i.e., western and southwestern boundaries of the project site). To keep the noise levels at nearby residential areas less than typical ambient conditions, the warehousing property line shall be located a minimum of 250 feet from the residential zone boundary, and a 12-foot noise barrier shall be located along the perimeter of the property that faces any residential areas. The 12 foot noise barrier may be a soundwall, berm, or combination of the two. The height shall be measured relative to the pad of the warehouse. This requirement shall be implemented anytime residential areas are within 600 feet of the warehousing property line to insure that a noise level of 45 dBA (Leq) will not be exceeded at the residential zone. This requirement is consistent with Item 10 of Municipal Code Section 9.16.160 Business park/industrial that states, “All manufacturing and industrial uses adjacent to residential land uses shall include a buffer zone and/or noise attenuation wall to reduce outside noise levels” (per Noise Study MM N-10, pg.62)	

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Issues/Impacts	Mitigation Measures	Level of Significance
Impact 4.12.6.3 Long-Term Operational Noise		
Potential long-term stationary noise impacts would primarily be associated with operations at logistics facilities within the WLCSP area. With implementation of a minimum 250-foot setback from residential uses, potential long-term operational noise impacts would be less than significant.	The project noise assessment determined that operational noise impacts from warehouse activities would not exceed City standards at nearby residential areas with implementation of the 250-foot setback requirement.	Less than Significant with Mitigation
Impact 4.12.6.4 Long-Term Utility Noise		
Noise generated by SCGC blow-down events has the potential to cause permanent hearing loss in persons in the developed area of the project. This is a significant impact and mitigation is required.	**4.12.6.4A** Prior to the issuance of building permits for projects within 1,300 feet of the Southern California Gas Company (SCGC) and San Diego Gas and Electric (SDG&E) blow-down facilities, documentation shall be submitted to the City confirming that sound attenuation devices and/or improvements for the blow-down facilities providing at least a 40 dB reduction in noise levels during blow-down events are available and will be installed for all planned blow-down events. It shall be the responsibility of the developer to fund all sound attenuation improvements to the blow-down facilities required by this measure. It shall also be the responsibility of the developer to coordinate with San Diego Gas and Electric and/or Southern California Gas Company regarding the installation of any sound attenuation devices or improvements on the blow-down facilities at either the San Diego Gas and Electric compressor station or the Southern California Gas Company pipelines. This measure shall be implemented to the satisfaction of the City Land Management Division (per Noise Study MM N-11, pg.65).	Less than Significant with Mitigation
Impact 4.12.6.5 Cumulative Noise Impacts		
Traffic noise level increases from the existing baseline condition and the future (2022 and 2035) time horizons are attributable to the intermingled effects of both the cumulative development projects in the project vicinity and region as well as the proposed project. This is a significant impact and mitigation is required.	Previously referenced Mitigation Measures 4.12.6.1A through 4.12.6.1I, 4.12.6.2A through 4.12.6.2C, 4.12.6.3A, and 4.12.6.4A will be implemented, but cumulative noise impacts will still be significant.	Significant and Unavoidable

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
4.13 Population, Housing, and Employment		
LESS THAN SIGNIFICANT IMPACTS		
Population Growth		
The project proposes to develop logistics warehouses which will result in minimal direct population increase in the City, although some workers may move to the City to work at this project, and some local residents will also work at this project. The project will not necessitate extension of major infrastructure and the project will not remove obstacles that will result in substantial population growth.	No mitigation is required.	Less than Significant
Displace Substantial Housing/People		
The existing seven rural residences on the site will eventually convert to "Light Logistics" uses. The project will eliminate the potential for the site to provide 388 units of affordable housing that were proposed under the Moreno Highlands Specific Plan. However, the City can meet its regional housing goals without these units, and the project is consistent with the City's current Housing Element.	No mitigation required.	Less than Significant
SIGNIFICANT IMPACTS		
None	Not applicable	Not applicable
Cumulative Population, Housing, and Employment Impacts		
Implementation of the proposed WLC project would improve the City's jobs/ housing ratio by creating thousands of new construction and permanent jobs in the City. Therefore, it will not result in cumulatively considerable impacts to	No mitigation is required.	Less than Significant

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
population or housing.		
4.14 Public Services and Facilities		
LESS THAN SIGNIFICANT IMPACTS		
Police Protection		
As development under the WLCSP, the need for police services will increase. Future projects will pay applicable development impact fees and contribute property taxes to fund needed police services.	No mitigation is required.	Less than Significant
Fire Protection		
As development under the WLCSP, the need for fire services will increase. Under the WLCSP, a new fire station site will be contributed to the City. Future projects will pay applicable development impact fees and contribute property taxes to fund needed police services.	No mitigation is required.	Less than Significant
Schools		
Future industrial development will contribute no new students to local schools. Payment of the school impact fees to the MVUSD and SJUSD will reduce potential impacts to school services and facilities to less than significant levels.	No mitigation is required.	Less than Significant
Parks, Recreation, Trails		
Development under the WLCSP is logistics warehousing which will not generate new City residents who require additional parks and trails. The WLCSP proposes trail connections to Redlands Boulevard, Cactus Avenue, and the State-owned land to the south, plus a loop trail	No mitigation is required.	Less than Significant

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
through the WLCSP site.		
New or Physically Altered Recreation and Park Facilities		
Development under the WLCSP is logistics warehousing which will not generate new City residents who require additional or altered parks.	No mitigation is required.	Less than Significant
Cumulative Public Services and Facilities Impacts		
As development occurs, the need for public services will incrementally increase. Anticipated property tax increases and payment of DIF fees to the City will effectively mitigation potential cumulative impacts to public services.	No mitigation is required.	Less than Significant
SIGNIFICANT IMPACTS		
None	Not applicable	Less than Significant
4.15 Traffic and Circulation		
LESS THAN SIGNIFICANT IMPACTS		
Air Traffic Patterns		
The project site is not within two miles of a public airport or private airstrip, and there are no major air traffic patterns over or in the immediate vicinity of the project site.	No mitigation is required.	Less than Significant
Design Hazard Features		
The project site is currently vacant agricultural land with only two major roadways (Theodore Street and Alessandro Boulevard). Under the WLCSP, a complete arterial circulation network will eventually be constructed that will allow full truck access and minimize road-related hazards.	No mitigation is required.	Less than Significant

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
Emergency Access		
The project site is currently vacant agricultural land with only two major roadways and minimal need for emergency services. Development under the WLCSP will eventually result in the construction of a complete arterial circulation network which will allow full access for emergency vehicles and services.	No mitigation is required.	Less than Significant
Alternative Transportation Policies, Plans, or Programs		
The proposed project will create a complete roadway circulation network, install a loop trail system, have Class II bikeways and sidewalks on all internal arterial streets, and streets can accommodate bus turnouts when needed by the local transit agency.	Carpooling is required under Air Quality Mitigation Measure 4.3.6.4A. No additional mitigation is required.	Less than Significant
SIGNIFICANT IMPACTS		
Impact 4.15.6.1 Existing (2012) With Phase 1 Conditions Traffic and Level of Service		
Existing baseline (year 2012) with Phase 1 intersection levels of service for the study area intersections include 15 study intersections where Phase 1 of the project would have a significant impact. Twelve of these intersections already exceed the threshold of significance under existing conditions and would therefore be considered cumulative impacts and mitigation is required. Phase 1 of the project would cause a direct project impact at the other three intersections and mitigation is required.	**4.15.7.4A** A traffic impact analysis ("TIA") conforming to the guidelines for traffic impact analysis adopted by the City shall be submitted in conjunction with each Plot Plan application within the World Logistics Center Specific Plan. Prior to the approval of the Plot Plan, the City shall review the traffic impact analysis to determine if any of the traffic improvements listed in Final EIR Volume 2 Tables 4.15.AV through 4.15.BA (TIA Tables 74 through 79) of the traffic impact analysis prepared for the Program Environmental Impact Report are required to be completed prior to the issuance of a certificate of occupancy for each building. If the City determines that any of the improvements within Moreno Valley are required to be constructed in order to ensure that the traffic impacts which will result from the construction and operation of the building will be mitigated into insignificance, then the completion of construction of the improvements prior to the issuance of a Certificate of Occupancy for the building shall be made a Condition of Approval of the Plot Plan. Construction of improvements within the City shall be subject to credit/reimbursement	Significant and Unavoidable

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures		Level of Significance
		agreement for those DIF and/or TUMF eligible costs. If the City determines that any of the improvements outside Moreno Valley are required to be constructed in order to ensure that the traffic impacts which will result from the construction and operation of the building will be mitigated to a less than significant level, then the payment of any necessary fair share contribution as prescribed in Mitigation Measure 4.15.7.4G prior to the issuance of a Certificate of Occupancy for the building shall be made a Condition of Approval of the Plot Plan. If the City determines that the traffic impacts which will result from the construction or operation of a building will be significantly more adverse than those shown in the Program Environmental Impact Report, further environmental review shall be conducted prior to the approval of the Plot Plan pursuant to Public Resources Code § 21166 and CEQA Guidelines § 15162 to determine what additional mitigation measures, if any, will be required in order to maintain the appropriate levels of service.	
	4.15.7.4B	As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require the dedication of appropriate right-of-way consistent with the Subdivision Map Act for frontage street improvements contained within the World Logistics Center Specific Plan Circulation Map, as shown in this Program EIR Figure 3-10 (or Figure 22 in the TIA prepared for this Program EIR). Required dedications shall be made prior to the issuance of occupancy permits for the requested development.	
	4.15.7.4C	As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require each project to pay the Development Impact Fee (DIF) as set forth in Municipal Code Chapter 3.42. Required DIF payments shall be made prior to the issuance of occupancy permits for the requested development.	
	4.15.7.4D	As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require each project to pay the requisite Transportation Uniform Mitigation Fee (TUMF) as set forth in Municipal Code Sections 3.55.050 and 3.55.060. Required TUMF payments shall be made prior to the issuance of occupancy permits for the requested development.	
	4.15.7.4E	In order to ensure that all of the Project's traffic impacts are mitigated to the greatest extent feasible, the Applicant shall contribute its fair share of the cost of the needed traffic improvements that are not within the City as identified in the	

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	World Logistic Center Specific Plan Traffic Impact Analysis (i.e., under the jurisdiction of other cities, the County of Riverside or Caltrans, pursuant to Mitigation Measure 4.15.7.4F). As used in this mitigation measure, the Applicant's "fair share" has been determined in compliance with the requirements of the Fee Mitigation Act, Government Code § 66000 et seq., and, pursuant to § 66001(g), does not require that the Applicant be responsible for making up for any existing deficiencies. For example, the intersection of Martin Luther King Blvd. and the I-215 northbound ramps (Intersection 85) in the City of Riverside was identified as a place where the World Logistic Center contributes to cumulatively significant impacts, and where the fair share contribution of the World Logistic Center project as a whole was computed to be 6.2%. If the City of Riverside establishes a fair share contribution program consistent with this Mitigation Measure 4.15.7.4F to improve that intersection, then when a certificate of occupancy is to be issued for a 2-million square feet high-cube warehouse in the World Logistic Center (approximately 5% of the entire World Logistic Center project) the amount of the fair share payment due from the Applicant to the City of Riverside would be computed as follows: Amount Due = Total cost of Improvement × Total World Logistics Center fair share (6.2%) as determined by Traffic Impact Analysis × % attributable to the building that is subject to the certificate of occupancy (5%)	

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	A × B × C = D A= % attributable to the building that is subject to the certificate of occupancy (5%) B= Total World Logistics Center fair share (6.2%) as determined by Traffic Impact Analysis C= Total cost of Improvement D= Amount Due A similar calculation would be done for each subsequent building, with payments for each due at the time of issuance of the certificate of occupancy. As a result, while each building individually would not produce a significant impact, and therefore would not be required to pay any mitigation fees if considered by itself, the total amount of the payments for all of the buildings would be equal to the fair share payment for the entire World Logistic Center to the extent that the responsible jurisdiction has chosen to adopt a fair share contribution funding program consistent with Mitigation Measure 4.15.7.4F. **4.15.7.4F** The Applicant shall pay a portion of the fair share of the cost of traffic improvements identified in the Transportation Impact Analysis for those significantly impacted road segments and intersections for each warehouse building within the World Logistics Center if the impacted jurisdiction has established a fair share contribution program prior to the approval of a building-specific plot plan. The City shall determine whether a fair share program exists in the impacted jurisdiction and, if one does exist, require that the appropriate fees are paid by the Applicant, consistent with the requirements below, prior to the issuance of a certificate of occupancy for the building in question. If no fair share program exists or if the existing programs are not consistent with the requirements below, then no payment of fees shall be required. The impacts are to be determined on a road segment or intersection basis. Nothing in this condition requires the payment of a traffic impact fee imposed by another jurisdiction which covers improvement to facilities where the project does not have a significant impact. Fair-share contributions will be determined on a building-by-building basis as a share of the impact of the Project as a whole (for each segment or intersection where the World Logistics Center project as a	

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	whole has a significant impact identified in the Programmatic Environmental Impact Report) as determined by the Traffic Impact Analysis and will be due as each certificate of occupancy is issued. The fair share payments for the significantly impacted road segments and intersections identified in the Programmatic Environmental Impact Report will be required even though the impact resulting from a specific building does not, by itself, cause a significant impact. **4.15.7.4G** City shall work directly with Western Riverside Council of Governments to request that Transportation Uniform Mitigation Fee funding priorities be shifted to align with the needs of the City, including improvements identified in the World Logistics Center Specific Plan traffic impact analysis. Toward this end, City shall meet regularly with Western Riverside Council of Governments.	
Impact 4.15.6.2 Existing (2012) With Project (Buildout) Conditions Traffic and Level of Service Impacts		
When project traffic under buildout conditions is overlaid on existing roadway and freeway conditions, significant project-specific and cumulative traffic impacts will occur. Local and regional roadway and intersection impacts can be effectively mitigated, as outlined in the project TIA and described in the mitigation measures to the right. At this time, there is no effective mitigation for anticipated project impacts on local freeways. In addition, the City cannot control the timing of improvements required at locations outside of the City of Moreno Valley.	Implementation of previously identified Measures 4.15.7.4A through 4.15.7.4G as they apply to development that occurs from project opening until Buildout.	Significant and Unavoidable (see Cumulative Impacts)
Impact 4.15.6.3 Year 2022 with Project (Phase 1) Conditions Traffic and Level of Service Impacts		
The project will contribute significant amounts of traffic onto roadways and at intersections in the City of Moreno Valley and other cities, and area freeways, during Phase 1 development (approx. 2013 to 2022).	Implementation of previously identified Measures 4.15.7.4A through 4.15.7.4G as they apply to development that occurs from project opening until Year 2022 (considered to be Phase 1).	Significant and Unavoidable

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
Impact 4.15.6.4 Cumulative Impacts - General Plan Buildout (Year 2035) With Project Conditions Traffic and Level of Service Impacts		
The project will contribute significant amounts of traffic onto roadways and at intersections in the City of Moreno Valley and other cities, and area freeways, after completion of development under the WLCSP (i.e., after 2022).	Implementation of previously identified Measures 4.15.7.4A through 4.15.7.4G for development as it occurs during development under the WLCSP.	Significant and Unavoidable
4.16 Utilities and Service Systems		
LESS THAN SIGNIFICANT IMPACTS		
Construction or Expansion of Water Treatment Facilities		
The project can connect to the existing water supply and will not require the construction of any new water storage or treatment facilities.	No mitigation is required.	Less than Significant
Cumulative Water Supply		
The EMWD has determined that it will be able to provide adequate water supply to meet the potable water demand for the project area, including existing and future users, when planned groundwater storage improvements are completed.	No mitigation is required.	Less than Significant
Wastewater Treatment Requirements		
Expected wastewater flows from the proposed WLC project will not exceed the capabilities of the serving treatment plant.	No mitigation is required.	No Impact
Wastewater Treatment Capacity and/or New or Expanded Wastewater Facilities		
The proposed WLC project would not require the construction of new wastewater treatment facilities or expansion of existing facilities, which could cause significant environmental effects.	No mitigation is required.	Less than Significant

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
Cumulative Wastewater Treatment		
The proposed project, in conjunction with planned and future development within the service area, will incrementally increase the need for wastewater treatment over the long-term. However, the project itself would not require the construction of new wastewater treatment facilities or expansion of existing facilities.	No mitigation is required.	Less than Significant
Solid Waste Facilities		
Adequate daily surplus capacity exists at the receiving landfill, so project development would not significantly impact current operations or the expected lifetime of the landfill serving the project area.	No mitigation is required.	Less than Significant
Solid Waste Reduction		
The project would be required to comply with applicable elements of AB 1327, Chapter 18 (California Solid Waste Reuse and Recycling Access Act of 1991) and other applicable local, state, and federal solid waste disposal standards, thereby ensuring that the solid waste stream to the Badlands Sanitary Landfill is reduced in accordance with existing regulations.	Implementation of previously identified Air Quality Mitigation Measure 4.3.6.4B will help reduce long-term production of solid waste from the site, and no additional mitigation is required.	Less than Significant
Cumulative Solid Waste		
The proposed project, in conjunction with planned development in the surrounding region, will contribute increased volumes of solid waste to local landfills. However, these volumes will not exceed the capabilities of the County's waste management system. Consequently, cumulative impacts associated with solid waste within the City would be considered	Implementation of previously identified Air Quality Mitigation Measure 4.3.6.4B will help reduce long-term production of solid waste from the site.	Less than Significant

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
less than significant.		
Cumulative Energy Facilities and Consumption		
The WLC project, in conjunction with planned development in the region, will increase energy consumption as development occurs. The project will adhere to Title 24 and the California Green Building Code, and will exceed Title 24 energy consumption guidelines by at least 10 percent. Therefore, the project will not make a significant contribution to energy facilities or consumption.	Implementation of project as designed (i.e., with sustainability outlined in WLCSP) and allowance for future "solar ready" buildings (PV installations), plus implementation of Mitigation Measures 4.16.4.6.1A and 4.16.4.6.1C will reduce project's contribution to cumulative energy consumption to less than significant levels.	Less than Significant
SIGNIFICANT IMPACTS		
Impact 4.16.1.6.1 Adequate Water Supply		
The Water Supply Assessment prepared for the project by Eastern Municipal Water District determined there were sufficient supplies of water to serve the proposed project. However, the supply of water imported from the State is not currently guaranteed, so there may be significant impacts related to long-term water supply.	**4.16.1.6.1A** Prior to approval of a precise grading permit for each plot plan for development within the World Logistics Center Specific Plan (WLCSP), the developer shall submit landscape plans that demonstrate compliance with the World Logistics Center Specific Plan, the State of California Model Water Efficient Landscape Ordinance (AB 1881), and Conservation in Landscaping Act (AB 325). This measure shall be implemented to the satisfaction of the Planning Division. Said landscape plans shall incorporate the following: • Use of xeriscape, drought-tolerant, and water-conserving landscape plant materials wherever feasible and as outlined in Section 6.0 of the World Logistics Center Specific Plan; • Use of vacuums, sweepers, and other "dry" cleaning equipment to reduce the use of water for wash down of exterior areas; • Weather-based automatic irrigation controllers for outdoor irrigation (i.e., use moisture sensors); • Use of irrigation systems primarily at night or early morning, when evaporation rates are lowest; • Use of recirculation systems in any outdoor water features, fountains, etc.;	Less than Significant with Mitigation

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	• Use of low-flow sprinkler heads in irrigation system; • Provide information to the public in conspicuous places regarding outdoor water conservation; and • Use of reclaimed water for irrigation if it becomes available. **4.16.1.6.1B** All buildings shall include water-efficient design features outlined in Section 4.0 of the World Logistics Center Specific Plan. This measure shall be implemented to the satisfaction of the Land Development Division/Public Works. These design features shall include, but not be limited to the following: • Instantaneous (flash) or solar water heaters; • Automatic on and off water facets; • Water-efficient appliances; • Low-flow fittings, fixtures and equipment; • Use of high efficiency toilets (1.28 gallons per flush [gpf] or less); • Use of waterless or very low water use urinals (0.0 gpf to 0.25 gpf); • Use of self-closing valves for drinking fountains; • Infrared sensors on drinking fountains, sinks, toilets and urinals; • Low-flow showerheads; • Water-efficient ice machines, dishwashers, clothes washers, and other water-using appliances; • Cooling tower recirculating system where applicable; • Provide information to the public in conspicuous places regarding indoor water conservation; and • Use of reclaimed water for wash down if it becomes available. **4.16.1.6.1C** Prior to approval of a precise grading permit for each plot plan, irrigation plans shall be submitted to and approved by the City demonstrating that the development will have separate irrigation lines for recycled water. All irrigation systems shall be designed so that they will function properly with recycled water if it becomes	

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures		Level of Significance
		available. This measure shall be implemented to the satisfaction of the City Planning Division and Land Development Division/Public Works.	
Impact 4.16.1.6.2 Storm Water Drainage Requirements			
The development of the proposed WLC project would introduce a substantial amount of impervious surfaces on the site, which could result in significant increases in off-site runoff.	**4.16.1.6.2A**	Each Plot Plan application for development shall include a concept grading and drainage plan, with supporting engineering calculations. The plans shall be designed such that the existing sediment carrying capacity of the drainage courses exiting the project area is similar to the existing condition. The runoff leaving the project site shall be comparable to the sheet flow of the existing condition to maintain the sediment carrying capacity and amount of available sediment for transport so that no increased erosion will occur downstream. This measure shall be implemented to the satisfaction of the City Land Development Division/Public Works.	Less than Significant with Mitigation
Cumulative Impacts to Water Supply Services			
The proposed WLC project would connect to existing conveyance infrastructure and adequate treatment capacity is available, so the proposed WLC project would not make a significant contribution to any cumulatively considerable impacts on water supply or infrastructure.	Mitigation not required		Less than Significant with Mitigation
Impact 4.16.4.6.1 Construction or Expansion of Electrical and Natural Gas Facilities			
Based on calculations contained Tables 4.16.I and 4.16.J, the proposed WLC project would consume approximately 376,426 megawatt-hours (MWh) of electricity and almost 14.6 million cubic feet of natural gas per year. Therefore, the proposed project may induce the need to construct new electrical and natural gas facilities. This is a significant impact that requires mitigation.	**4.16.4.6.1A**	Each application for a building permit shall include energy calculations to demonstrate compliance with the California Energy Efficiency Standards confirming that each new structure meets applicable Building and Energy Efficiency Standards. The plans shall also ensure that buildings are in conformance with the State Energy Conservation Efficiency Standards for Nonresidential buildings (Title 24, Part 6, Article 2, California Administrative Code). This measure shall be implemented to the satisfaction of the Building and Safety and Planning Divisions. Plans shall show the following: Energy-efficient roofing systems, such as “cool” roofs, that reduce roof temperatures significantly during the summer and therefore reduce the energy requirement for air conditioning. Cool pavement materials such as lighter-colored pavement materials, porous materials, or permeable or porous pavement, for all roadways and walkways not within the public right-of-way, to minimize the absorption of solar heat and	Less than Significant with Mitigation

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	subsequent transfer of heat to its surrounding environment. Energy-efficient appliances that achieve the 2008 Appliance Energy Efficiency Standards (e.g., EnergyStar Appliances) and use of sunlight-filtering window coatings or double-paned windows. **4.16.4.6.1B** Prior to the issuance of any building permits within the World Logistics Center Specific Plan, each project developer shall submit energy calculations used to demonstrate compliance with the performance approach to the California Energy Efficiency Standards to the Building and Safety and Planning Divisions that shows each new structure meets the applicable Building and Energy Efficiency Standards. Plans may include but are not necessarily limited to implementing the following as appropriate: • High-efficiency air-conditioning with electronic management system (computer) control. • Variable Air Volume air distribution. • Outside air (100 percent) economizer cycle. • Staged compressors or variable speed drives to flow varying thermal loads. • Isolated High-efficiency air-conditioning zone control by floors/separable activity areas. • Specification of premium-efficiency electric motors (i.e., compressor motors, air handling units, and fan-coil units). • Use of occupancy sensors in appropriate spaces. • Use of compact fluorescent lamps in place of incandescent lamps. • Use of cold cathode fluorescent lamps. • Use of Energy Star exit lighting or exit signage. • Use of T-8 lamps and electronic ballasts where applications of standard fluorescent fixtures are identified. • Use of lighting power controllers in association with metal-halide or high-pressure sodium (high intensity discharge) lamps for outdoor lighting and parking lots.	

Table 1.B: World Logistics Center Project Environmental Impact Summary

Issues/Impacts	Mitigation Measures	Level of Significance
	• Use of skylights (may conflict with installation of solar panels in some instances). • Consideration of thermal energy storage air conditioning for spaces or hotel buildings, meeting facilities, theaters, or other intermittent-use spaces or facilities that may require air-conditioning during summer, day-peak periods. **4.16.4.6.1C** Prior to the issuance of a building permit, new development shall demonstrate that each building has implemented the following: 1) Install solar panels with a capacity equal to the peak daily demand for the ancillary office uses in each warehouse building; 2) Increase efficiency for buildings by implementing either 10 percent over the 2008 Title 24's energy saving requirements or the Title 24 requirements in place at the time the building permit is approved, whichever is more strict; and 3) Require the equivalent of "Leadership in Energy and Environmental Design Certified" for the buildings constructed at the World Logistics Center based on Leadership in Energy and Environmental Design Certified standards in effect at the time of project approval. This measure shall be implemented to the satisfaction of the Building and Safety and Planning Divisions.	

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1.11 ALTERNATIVES TO THE PROPOSED PROJECT

In compliance with *CEQA Guidelines* (Section 15126.6), an EIR must describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the project objectives as listed in Table 1.C and would avoid or substantially lessen significant effects of the project. The EIR need not consider every conceivable alternative; rather it must consider a reasonable range of potentially feasible alternatives. This EIR evaluates a "No Project/No Build" as well as a "No Project" alternative (i.e., development according to the General Plan and zoning) in order to allow decision-makers to compare the effect of approving the project to the effect of not approving the project. A more detailed description of each project alternative as well as an analysis of the potential environmental impacts associated with the construction and operation of each is provided in Section 6.0 *Alternatives*, It should be noted that, for all of the alternatives, the 1,084 acres owned by the California Department of Fish and Wildlife (CDFW) and San Diego Gas & Electric (SDG&E) would be designated as Open Space in the City's General Plan, similar to the proposed project.

1.11.1 No Project/No Development

CEQA requires an analysis of the environmental effects of not developing the proposed project. This allows the reviewer to see what the results of not developing the project site would be and also outlines existing or baseline conditions on the site. With the No Development Alternative, no development would occur and the majority of the site would remain in dry farming, with a small amount in rural residential uses.

1.11.2 No Project/Existing General Plan Alternative

Pursuant to CEQA (§15126.6[e][2]), this No Project Alternative discusses what would reasonably be expected to occur on the site based on current plans and consistent with available infrastructure and community services in the foreseeable future. This alternative would result in development of the project with the land uses currently shown in the City's General Plan (i.e., the Moreno Highlands Specific Plan or MHSP). The approved 3,038-acre MHSP is a master planned, mixed-use community, consisting of up to 7,763 residential dwelling units on approximately 2,435 acres and approximately 603 acres of business, retail, institutional, and other uses. The 1,084 acres owned by the CDFW and SDG&E are currently designated as Residential, Public Facilities, and Open Space in the City's General Plan and would be designated as permanent Open Space under this alternative, similar to the proposed project.

1.11.3 Alternative 1: Reduced Density

This alternative would develop approximately 29 million square feet of logistics warehousing (approximately 30% less than under the proposed project) on the 2,610 acres of land under the Specific Plan, including 74.3 acres for open space. The 1,084 acres owned by the CDFW and SDG&E would be designated as Open Space in the City's General Plan, similar to the proposed project.

1.11.4 Alternative 2: Mixed Use A Alternative

This alternative would result in development of the entire property with a mix of 1,410 acres of logistics warehousing (22 million square feet), 1,000 acres of light manufacturing, assembly, or business park uses (20 million square feet), 50 acres of retail commercial uses (500,000 square feet), 100 acres of professional or medical office uses (1 million square feet), and 150 acres of open space.

The 1,084 acres owned by the CDFW and SDG&E would be designated as Open Space in the City's General Plan, similar to the proposed project.

1.11.5 Alternative 3: Mixed Use B Alternative

This alternative would develop the project site similar to the land use plan of the MHSP but with 10 million square feet of logistics warehousing on the 603 acres proposed for business, retail, institutional, and other uses under the MHSP.

1.11.6 Alternative Sites

This alternative would relocate development under the proposed project to another site in the surrounding region. This analysis included potential sites in nearby cities and several unincorporated sites in the general project area. Due to the size and nature of the project, no feasible alternative sites were found in any of the eleven (11) jurisdictions evaluated.

1.11.7 Comparison of Project Alternatives

The following discussion compares the impacts of each alternative with the impacts of the proposed project, as detailed in Section 4.0 of this EIR. Table 1.C compares the impacts of the alternatives with those of the proposed project. This table identifies whether the alternative results in (1) a reduction of the impact; (2) a greater impact than the project; or (3) the same impact as the project.

Table 1.C: Comparison of Alternatives to the Proposed Project

Environmental Issue	Proposed Project	No Project/ No Build	No Project/ Existing General Plan	Alt. 1 Reduced Density	Alt. 2 Mixed Use A	Alt. 3 Mixed Use B
Aesthetics	SIG	NI	←LTS	=	=	←LTS
Agricultural and Forest Resources	LTS/mit	NI	=	=	=	=
Air Quality	SIG	NI	SIG	←SIG	→SIG/+	SIG
Biological Resources	LTS/mit	NI	=	=	=	=
Cultural Resources	LTS/mit	NI	=	=	=	=
Geology and Soils	LTS/mit	NI	=	=	=	=
Global Climate Change	LTS/mit	NI	LTS	LTS/mit	LTS/mit	LTS/mit
Hazards and Hazardous Materials	LTS/mit	NI	=	=	=	=
Hydrology and Water Quality	LTS/mit	NI	=	=	=	=
Land Use and Planning	SIG	NI	LTS	=	=	=
Mineral Resources	NI	=	=	=	=	=
Noise	SIG	NI	←SIG	←SIG	←SIG	←SIG
Population, Housing, and Employment	LTS	NI	+	=	=	+
Public Services (police, fire, schools, parks)	LTS/mit	NI	=	=	=	=

Table 1.C: Comparison of Alternatives to the Proposed Project

Environmental Issue	Proposed Project	No Project/ No Build	No Project/ Existing General Plan	Alt. 1 Reduced Density	Alt. 2 Mixed Use A	Alt. 3 Mixed Use B
Transportation and Traffic	SIG	NI	➔SIG	←SIG	➔SIG+	➔SIG
Utilities and Service Systems (water, wastewater, etc.)	LTS/mit	NI	=	=	=	=

Proposed Project
NI: No Impact
LTS: Less than Significant Impact
LTS/mit: Less than Significant Impact with Mitigation
SIG: Significant Impact with or without Mitigation

Project Alternatives
= Compared with the proposed project, no change in the significance of impact will occur.
➔ Compared with the proposed project, the significance of the impact is increased.
← Compared with the proposed project, the significance of the impact is reduced.
\+ Compared with the proposed project, a new impact has been identified.
←SIG Compared with the proposed project, the volume or extent of the impact is reduced, yet still significant.

1.11.8 Environmentally Superior Alternative

As shown above in Table 1.C, the No Project/Existing General Plan Alternative has mixed impacts relative to the proposed project; it reduces aesthetic impacts to less than significant levels but worsens the jobs/housing ratio by introducing more housing than employment-generating uses. The Reduced Density Alternative incrementally reduces a number of impacts of the proposed project (e.g., traffic, air quality, and noise) but cannot reduce them to less than significant levels even with mitigation. The Mixed Use A Alternative substantially increases traffic and related impacts compared to the project impacts, but it does not create any additional significant impacts. The Mixed Use B Alternative would incrementally increase traffic and would not improve the jobs/housing balance. In addition, this alternative would also worsen the jobs/housing ratio of the City by allowing the construction of many more homes than job-creating land uses. Regarding air quality impacts (criteria pollutants), development of any land uses would likely exceed SCAQMD thresholds mainly due to the size of the proposed project site.

The *CEQA Guidelines* (Section 15126.6 (e[2]) requires that an environmentally superior alternative be identified in the EIR. Based on the analysis in Section 6.0 *Alternatives* and the summary contained in Table 1.C, Alternative 1 – Reduced Density – is the only alternative that reduces traffic, air quality, and related impacts by reducing the total square footage of warehousing by approximately 30 percent. Alternative 3 - Mixed Use B - is the only alternative that would reduce a significant impact of the proposed project (i.e., aesthetics – views). However, it would worsen the jobs/housing balance of the City over the long term. For these reasons, Alternative 1 – Reduced Density - has been deemed to be environmentally superior to the proposed project. However, none of the alternatives achieves the objectives of the project to nearly the same degree as the proposed project.

Table 1.D compares Alternative 1 to the project objectives and indicates that Alternative 1 does not meet most of the major goals of the proposed project mainly because of the reduced total square footage by 30 percent, which also reduces the amount of new employment and property tax revenues generated to the City.

Note: *The objectives outlined in this table did not correspond to the Project Objectives outlined in the Project Description of the DEIR, therefore, they are being corrected at this time. In addition, some numerical changes result from the changes to the Specific Plan area.*

Table 1.D: Comparison of the Environmentally Superior Alternative to the Project Objectives

Project Objectives	Degree to Which Alternative 1 Satisfies the Project Objectives
Create substantial employment opportunities for the citizens of Moreno Valley and surrounding communities.	**Not to the Same Degree as the Proposed Project.** This alternative would provide only 16,797 new employees compared to 24,000 from the proposed project (30% less).
Provide the land use designation and infrastructure plan necessary to meet current market demands and to support the City's Economic Development Action Plan.	**Not to the Same Degree as the Proposed Project.** The alternative introduces substantially less employment-generating uses on the site which is not consistent with the City's Economic Strategic Plan.
Create a major logistics center with good regional and freeway access.	**Not to the Same Degree as the Proposed Project.** The alternative would allow 28 MSF of logistics warehousing near the SR-60 Freeway but it would less attractive as a major regional logistics center compared to the proposed project.
Establish design standards and development guidelines to ensure a consistent and attractive appearance throughout the entire project.	**Meets Objective.** Development of the project area under this alternative would most likely proceed under some form of specific plan, which would help ensure future development was consistent with a comprehensive plan for the area.
Establish a master plan for the entire project area to ensure that the project is efficient and business-friendly, accommodating the next-generation of logistics buildings.	**Meets Objective.** The alternative would develop a smaller amount of logistics warehousing compared to the proposed project, but it would still be master planned, most likely under a specific plan.
Provide a major logistics center to accommodate a portion of the ever-expanding trade volumes at the Ports of Los Angeles and Long Beach.	**Not to the Same Degree as the Proposed Project.** The alternative would allow 28 MSF of logistics warehousing vs. 40.6 MSF for the proposed project.
Create a project that will provide a balanced approach to the City's fiscal viability, economic expansion, and environmental integrity.	**Not to the Same Degree as the Proposed Project.** The alternative would not provide nearly as much new warehouse capacity to form a regional port-oriented logistics center compared to the proposed project.
Provide the infrastructure improvements required to meet project needs in an efficient and cost-effective manner.	**Not to the Same Degree as the Proposed Project.** The alternative would produce 30% less employment than under the proposed project, and would also provide less property tax revenue and be able to pay for less public improvements and infrastructure compared to the proposed project.
Encourage new development consistent with regional and municipal service capabilities.	**Not to the Same Degree as the Proposed Project.** It is unclear if a substantially reduced logistics warehousing project could afford to provide the necessary infrastructure to support the planned development compared to the proposed project.
Significantly improve the jobs/housing balance and help reduce unemployment within the City.	**Not to the Same Degree as the Proposed Project.** This alternative would provide only 16,797 new employees compared to 24,000 from the proposed project (30% less).
Provide thousands of construction job opportunities during the project's buildout phase.	**Not to the Same Degree as the Proposed Project.** The alternative would not provide as much work for as many construction workers compared to the proposed project
Provide appropriate transitions or setbacks between on-site and off-site uses.	**Meets Objective.** A smaller logistics warehouse project may be able to provide equal or greater transitions and buffers from existing off-site residential uses compared to the proposed project.

2.0 INTRODUCTION AND PURPOSE: TABLE OF CONTENTS

TABLES

NOTE TO READERS

The Programmatic Draft Environmental Impact Report (DEIR) for the World Logistics Center Specific Plan (WLCSP) was originally circulated for public review from February 4 to April 8, 2013. Since that time, a number of changes have been made to the WLCSP. The original DEIR has also been revised to account for the changes to the WLCSP and to respond to the many comments received on the DEIR.

The primary change in the WLC Project is the total Specific Plan area has been reduced from 2,710 acres to 2,610 acres and the proposed development reduced from 41.6 million to 40.6 million square feet (both a 3.7 percent reduction) due to the removal of 100 acres in the southwest corner of the Specific Plan. In addition, the Specific Plan land use plan was divided into sixteen (16) Planning Areas based on traffic impact zones which allows for more accurate estimates of potential traffic and air quality impacts of the WLC Project. The revised Specific Plan (September 2014) also now shows a specific location for a "Clean Fueling" facility in Planning Area (PA) 7 at the northeast corner of Theodore Street and Eucalyptus Avenue. In the original WLCSP, a trail was proposed along the edge of the Open Space area in the southwestern portion of the site to connect to existing trails along Redlands Boulevard and Cactus Avenue to the west and planned trails within the San Jacinto Wildlife Area and Mystic Lake to the south. In response to changes to the proposed project and concerns expressed by Native Americans, the trail in the revised WLCSP has been moved away from the northern boundary of the Open Space area (now Planning Area 30) to reduce potential impacts to the Mt. Russell foothills. The WLCSP phasing plan or schedule was also revised or extended from 10 to 15 years, so that Phase 1 runs from 2015 to 2022 and Phase 2 runs from 2023 to 2030. Please refer to FEIR Volume 1 Section 1.4 and Section 3.0, Project Description, in this revised DEIR for a more detailed description of changes to the WLC project.

The technical studies that supported the analysis of environmental impacts in the DEIR were also modified to address changes in the WLCSP and in response to the many comments on the EIR and technical studies. The following studies were revised: agriculture, air quality, biology, cultural resources, greenhouse gases, hydrology/water quality, noise, economic and fiscal impacts, traffic, and utilities. An additional study on agricultural resources was prepared as an independent assessment of onsite resources using the state LESA model (see Section 4.2 in this document). For details on the changes to the technical studies, please refer to FEIR Volume 1 Section 1.6 and the introductory paragraphs of each environmental analysis section of this revised DEIR (Sections 4.1 through 4.16).

In summary, the WLCSP DEIR has been revised based on changes to the WLC project, technical studies, and the many comments received on the DEIR and its related technical studies. Changes to the DEIR document are shown in <u>double underline</u> if they are additions to the original text, and shown as if they are deletions to the original text.

2.0 INTRODUCTION AND PURPOSE

This programmatic Environmental Impact Report (EIR) has been prepared to evaluate the environmental impacts associated with the proposed World Logistics Center Project ("proposed project" or "project") in Rancho Belago, the eastern potion of the City of Moreno Valley ("City"), and to identify mitigation measures to avoid or minimize significant environmental impacts. The City is the "public agency which has the principal responsibility for carrying out or approving the project" and, as such, is the "Lead Agency" for this project under the California Environmental Quality Act (CEQA) of 1970 (*CEQA Guidelines* section 15367). CEQA requires the Lead Agency to consider the information contained in the EIR prior to taking any discretionary action. The EIR is also a public disclosure document available to agencies and the public for review and comment prior to the consideration of the proposed project by the City, and is intended to serve as an informational document to be considered by the City, Responsible Agencies, and Trustee Agencies during deliberations on the proposed project. The project approvals associated with the proposed project are described in Section 3.0.

This section of the EIR outlines the document's format; describes the purpose of the EIR; summarizes public review of the EIR; describes the Mitigation Monitoring and Reporting Program (MMRP); identifies the environmental issues discussed in the EIR; and defines the parameters and data to be used in the analysis of cumulative impacts.

2.1 DOCUMENT FORMAT

To assist the reader's review of the document, the following describes the format of this EIR.

Section 1.0 *Executive Summary* provides a summary of the EIR document and (in Table 1.B) identifies potentially significant impacts, mitigation measures, and the level of significance of each impact following mitigation.

Section 2.0 *Introduction and Purpose* outlines the EIR document's format including technical appendices; describes the purpose of the EIR including the legal purpose of CEQA, the intended use of EIR, and the EIR's incorporated documents and referenced technical reports; summarizes the public review of the EIR to date; describes the role of the MMRP to be provided in the Final EIR; identifies the sixteen environmental issues that are discussed; and defines the cumulative analysis provided in the EIR.

Section 3.0 *Project Description* provides a detailed description of the geographical setting, project location, project setting, City of Moreno Valley General Plan designations, World Logistics Center Specific Plan land use designations, zoning designations, project characteristics, project objectives, and discretionary actions required to implement the proposed project. This section also explains the other areas in addition to the Specific Plan that are part of the proposed project (i.e., off-site improvement areas, California Department of Fish and Wildlife property, and public facilities lands).

Section 4.0 *Existing Setting, Impacts, and Mitigation Measures* evaluates the impacts associated with the proposed project. This section is organized by sixteen issue areas with each following the framework:

- *Existing Setting*. Information in the existing setting contains a discussion of the local and regional environment conditions (environmental and man-made) in existence at the time this EIR was prepared. Existing setting information provides the reader with the "baseline" from which future impacts are analyzed, and provides a standard against which to measure these impacts.

- *Existing Policies and Regulations.* Regulatory requirements and policies (federal, state, and local) applicable to the issue area are summarized.
- *Methodology*. A brief summary of the methods and resources utilized in the preparation of the environmental analysis.
- *Thresholds of Significance*. Determinations regarding the significance of potential impacts resulting from implementation of the proposed project are provided. These thresholds represent the criteria used in this programmatic EIR to determine whether identified impacts are significant.
- *Less than Significant Impacts*. Potential issues for which the proposed project was determined to have no impact or a less than significant impact are identified. For these issues, either no mitigation would be required or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level.
- *Significant Impacts*. Potential impacts from implementation of the proposed project are identified. Each of these issues contains an impact analysis, mitigation measures, and significance after mitigation discussion.
    - *Impact Analysis.* An analysis of potential programmatic impacts of the proposed project is presented in this section. This discussion focuses on the impacts of implementation of the proposed project, and includes potential short-term/long-term and direct/indirect project impacts, and consistency with applicable planning documents or regulations.
    - *Project Design Features.* Characteristics of the WLC Specific Plan or other aspects of the WLC project that help reduce potential environmental impacts.
    - *Mitigation Measures*. The measures proposed to mitigate any potential impacts of the proposed project are identified.
    - *Level of Significance after Mitigation* provides a conclusion as to whether implementation of the proposed project will reduce the project-related and cumulative impacts to a level that is less than significant.
- *Cumulative Impacts.* This discussion focuses on the potential environmental effect of the proposed project combined with the effects of reasonably foreseeable cumulative projects within the project study area.

Section 5.0 *Other CEQA Topics* contains discussions of additional topics required by CEQA, including effects found not to be significant, unavoidable effects of the proposed project, and significant irreversible environmental changes. The proposed project's consistency with regional plans (discussed in Section 4.10) and potential to induce growth (discussed in Sections 4.13) are summarized in this section.

Section 6.0 *Alternatives* contains discussion of alternatives to development of the proposed project. As allowed by CEQA, the impacts of these alternatives are evaluated at a more general level than the analyses of the proposed project that is contained in Section 4.0. This section also evaluates the proposed effects of the No Project Alternative and identifies the environmentally superior alternative.

Section 7.0 This section lists the organizations and persons consulted in preparation of the EIR.

Section 8.0 This section contains all the references cited in the EIR, acronyms and abbreviations used in the document, and definitions of terms used, including those specific to the proposed WLC project.

Appendices The Appendices contain a copy of the NOP, NOP mailing list, NOP comment letters and responses, public scoping meeting information, all of the various technical

studies that support the EIR analysis, referenced materials, and other relevant correspondence received during the course of the analysis of the proposed project.

2.2 PURPOSE OF CEQA AND THE ENVIRONMENTAL IMPACT REPORT

According to Section 15002 of *CEQA Guidelines*, the basic purposes of CEQA are to:

- Inform government decision-makers and the public about the potential significant environmental effects of proposed activities;
- Identify ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governing agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

CEQA requires that a project be reviewed to determine the environmental effects that would result if the project were approved and implemented. The City has the responsibility for preparing, processing, and determining whether to approve the proposed project and certify this EIR. As Lead Agency, the City has the authority to make decisions regarding discretionary actions relating to implementation of the proposed project.

2.2.1 Program EIR

This EIR will serve as a Program EIR pursuant to the *State CEQA Guidelines* Section 15168, which states that a Program EIR is appropriate for a project that involves "… a series of actions that can be characterized as one large project and are related either:

(1) Geographically;

(2) A logical parts in the chain of contemplated action;

(3) In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or

(4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways."

Section 15168 of the *CEQA Guidelines* explains how a Program EIR relates to future activities within the project area:

"(c) Use with Later Activities. Subsequent activities in the program must be examined in the light of the program EIR to determine whether an additional environmental document must be prepared.

(1) If a later activity would have effects that were not examined in the program EIR, a new Initial Study would need to be prepared leading to either an EIR or a Negative Declaration.

(2) If the agency finds that pursuant to Section 15162, no new effects could occur or no new mitigation measures would be required, the agency can approve the activity as being within the scope of the project covered by the program EIR, and no new environmental document would be required.

(3) An agency shall incorporate feasible mitigation measures and alternatives developed in the program EIR into subsequent actions in the program.

(4) Where the subsequent activities involve site-specific operations, the agency should use a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were covered in the program EIR.

(5) A program EIR will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible. With a good and detailed analysis of the program, many subsequent activities could be found to be within the scope of the project described in the program EIR, and no further environmental documents would be required.

(d) Use with Subsequent EIRs and Negative Declarations. A program EIR can be used to simplify the task of preparing environmental documents on later parts of the program. The program EIR can:

(1) Provide the basis in an Initial Study for determining whether the later activity may have any significant effects.

(2) Be incorporated by reference to deal with regional influences, secondary effects, cumulative impacts, broad alternatives, and other factors that apply to the program as a whole.

(3) Focus an EIR on a subsequent project to permit discussion solely of new effects which had not been considered before.

(e) Notice with Later Activities. When a law other than CEQA requires public notice when the agency later proposes to carry out or approve an activity within the program and to rely on the program EIR for CEQA compliance, the notice for the activity shall include a statement that:

(1) This activity is within the scope of the program approved earlier, and

(2) The program EIR adequately describes the activity for the purposes of CEQA."

2.2.2 World Logistics Center EIR

As previously noted, CEQA requires the Lead Agency to consider the information contained in the EIR prior to taking any discretionary action on a project. This EIR provides information to the Lead Agency and other public agencies, the general public, and decision-makers regarding the potential environmental impacts from the construction and operation of the proposed project. The purpose of the public review of the EIR is to evaluate the adequacy of the environmental analysis in terms of compliance with CEQA. Section 15151 of the *CEQA Guidelines* states the following regarding standards from which adequacy is judged:

> "An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among experts. The courts have not looked for perfection but for adequacy, completeness, and a good faith effort at full disclosure."

An EIR is the most comprehensive form of environmental documentation identified in CEQA and the *CEQA Guidelines*, and provides the information needed to assess the environmental consequences

of a proposed project. EIRs are intended to provide an objective, factually supported, full-disclosure analysis of the environmental consequences associated with a proposed project that has the potential to result in significant, adverse environmental impacts.

Under CEQA (PRC Section 21002.1[a]):

> "The purpose of an environmental impact report is to identify the significant effects on the environment of a project, to identify alternatives to the proposed project, and to indicate the manner in which those significant effects can be mitigated or avoided."

Note: The following revisions are based on project changes outlined in the WLC Specific Plan.

This programmatic EIR has been prepared to evaluate the potential environmental impacts associated with the entitlement, construction and operation of the proposed 40.4 million square feet of logistics warehouse facilities (i.e., the World Logistics Center), as well as its associated infrastructure, designation of the CDFW property as permanent open space, and designation of the Natural Gas Compressor Plant as Public Facility, along with related entitlements. As permitted under the *CEQA Guidelines* (Section 15084[d-e]), LSA Associates, Inc. (LSA) has prepared the EIR under the direction of professional City planning staff. However, prior to certification, the Planning Commission and the City Council must independently review the methodologies used, and conclusions reached in the EIR. The City is undertaking an independent review of this EIR by having City planning staff work with LSA on the EIR, and by employing a third-party consultant to independently review the EIR. If certified by the City, the information included in and the conclusions reached in the EIR will therefore represent the City's independent judgment.

This programmatic EIR has been prepared utilizing information from City planning and environmental documents, applicant-provided technical studies, and other publicly-available data. Alternatives to the proposed project are also discussed and mitigation measures that would offset, minimize, or otherwise avoid significant environmental impacts from the proposed project have been identified. This EIR has been prepared in accordance with CEQA, California Public Resources Code §21000 *et seq.*; the *Guidelines for California Environmental Quality Act* (California Code of Regulations, Title 14, Chapter 3); and the rules, regulations, and procedures for implementing CEQA as adopted by the City. The objective of the EIR is to inform City decision-makers, representatives of other affected/ responsible agencies, the public, and other interested parties of the potential environmental consequences that may be associated with the approval and implementation of the proposed project.

2.3 REGIONALLY SIGNIFICANT PROJECT

When an EIR is prepared for any project that is considered to be of statewide, regional, or area-wide significance, as defined by *CEQA Guidelines* Section 15206, then the Draft EIR must be submitted to the State Clearinghouse and the appropriate metropolitan area council of governments for review and comment. A project is considered to be of statewide, regional, or area-wide significance if it meets any of the following criteria:

(1) A proposed local general plan, element, or amendment thereof for which an EIR was prepared.

(2) A project has the potential for causing significant effects on the environment extending beyond the city or county in which the project would be located. Projects of this nature would include:

   (a) A proposed residential development of more than 500 dwelling units.

   (b) A proposed shopping center or business establishment employing more than 1,000 persons or encompassing more than 500,000 square feet of floor space.

(c) A proposed commercial office building employing more than 1,000 persons or encompassing more than 250,000 square feet of floor space.

(d) A proposed hotel/motel development of more than 500 rooms.

(e) A proposed industrial, manufacturing, processing plant, or industrial park planned to employ more than 1,000 persons, occupying more than 40 acres of land, or encompassing more than 650,000 square feet of floor area.

(3) A project which would result in cancellation of an open space contract made pursuant to the California Land Conservation Act of 1965 (Williamson Act) for any parcel of 100 or more acres.

(4) A project for which an EIR has been prepared that is located in and would substantially affect areas of critical environmental sensitivity.

(5) A project which would substantially affect sensitive wildlife habitats and habitats for endangered, rare, or threatened species.

(6) A project that would interfere with the attainment of regional water quality control standards as stated in the approved area-wide waste treatment management plan.

(7) A project that would provide housing, jobs, or occupancy for 500 or more persons within 10 miles of a nuclear power plant.

The World Logistics Center Project, as proposed, would be considered a “project of statewide, regional or area-wide significance” per criteria 2(e). In addition, the Southern California Association of Governments (SCAG) indicated in its NOP letter that this project was regionally significant. Therefore, the NOP, Draft EIR, and NOC will be transmitted to the State Clearinghouse and the appropriate metropolitan area council of governments, which in this case is the Western Riverside Council of Governments (WRCOG), for review and comment.

2.4 INCORPORATED DOCUMENTS

CEQA (§15150) permits the incorporation by reference of all or portions of other documents that are generally available to the public. Any document incorporated by reference shall be made available to the public for inspection at a public place or public building and requires that the EIR state where the incorporated documents will be made available for public inspection. The following documents have been incorporated by reference:

- *City of Moreno Valley General Plan, various elements,* adopted by City Council Resolution No. 2006-83, July 11, 2006, and last updated October 2006.
- City of Moreno Valley General Plan Final Environmental Impact Report, certified July 2006.
- City of Moreno Valley General Plan Land Use Map, last updated August 2010.
- City of Moreno Valley Zoning Atlas, last updated November 2011.
- City of Moreno Valley Municipal Code (various chapters), last updated February 2012.
- Moreno Highlands Specific Plan EIR, adopted 1992.

2.5 TECHNICAL REPORTS

Various technical or project-related reports have been prepared to assess specific issues that may result from the construction and operation of the proposed project. As relevant, information from the following documents and technical reports has been integrated into the EIR as appendices.

- **"**The World Logistics Center Specific Plan" (Highland Fairview) original dated January 30, 2013, revised dated September 2014.
- "An Agricultural Industry Analysis of the Inland Empire" (Andrew Chang & Co.), original dated March 2012, revised September 2014.
- "Agricultural Resources Assessment for the WLCSP" (Parsons Brinckerhoff), original dated March 2012, revised December 2013.
- "Agricultural Assessment for the WLCSP" (Cushman and Wakefield) new report dated December 20, 2013 (prepared for Final EIR in response to comments) and revised September 2014.
- "Air Quality, Greenhouse Gas, and Health Risk Assessment for the WLCSP" (MBA), original dated January 2013, revised April 2015.
- "Habitat Assessment, MSHCP Consistency Analysis, and JPR Review" (MBA), original dated December 20, 2012, revised September 2014.
- "Delineation of Jurisdictional Waters and Wetlands" (MBA), original dated November 2012, revised September 2014.
- "Phase I and Phase II Cultural Resources Assessment" (MBA), original dated May 2012, revised September, 2014.
- "Preliminary Geotechnical Investigation" (Leighton), original dated March 23, 2012, revised September 2014.
- "Supplemental Geotech Assessment for Offsite Improvements Related to the WLCSP" (Leighton), original dated March 23, 2013, revised September 2014.
- "Phase 1 Environmental Site Assessments" (various dates, LOR Geotechnical) (not revised).
- **"**Draft Master Plan of Drainage Study" (CH2MHill) original dated November 2012, revised dated September 2014.
- "Preliminary Water Quality Management Plan" (CH2MHill) original dated November 2012, revised September 2014.
- **"**Noise Assessment for the WLCSP" (Mestre Greve Associates) original dated January 2013, revised September 2014.
- "Traffic Impact Assessment (TIA) for the WLCSP" (Parsons Brinckerhoff) original dated January 2013, revised September 2014.
- "NAIOP Assessment of Available High-Cube Trip Generation Rates" (Kunzman Associates), December 20, 2011.
- "Water Supply Assessment for the WLCSP" (Eastern Municipal Water District), March 21, 2012.
- "Highlands Water Budget" (CH2MHill), original dated December 2012, revised September 2014.
- "Water System Modeling Results" (CH2MHill), original dated December 2012, revised dated October 22, 2013.
- "Sewer and Reclaimed Wastewater Memorandum" (CH2MHill), original dated April 25, 2012, revised September 2014.
- "Dry Utilities – Technical Memorandum" (Utility Specialists), original dated December 20, 2012, revised September 2014.
- "Electrical System Forecast of Utility Infrastructure" (MVU Engineering), original dated December 2012, revised September 2014.
- "Fiscal and Economic Impact Study for the World Logistics Center" (David Taussig and Associates), original dated January 15, 2013, revised September 2014.

In addition to their inclusion in their entireties as appendices to this EIR, these documents are available for review at the following location:

Moreno Valley City Hall
Community & Economic Development Department
Planning Division
14177 Frederick Street
Post Office Box 88005
Moreno Valley, California 92552
Phone: (951) 413-3238
Monday–Thursday 7:30 a.m.– 5:30 p.m.
Friday 7:30 a.m. – 4:30 p.m.

2.6 PUBLIC REVIEW OF THE DRAFT ENVIRONMENTAL IMPACT REPORT

This EIR was distributed to responsible and trustee agencies, other affected agencies, and interested parties. Additionally, in accordance with Public Resources Code Section 21092(b)(3), the EIR was provided to all parties who previously requested copies. The Notice of Completion (NOC) and Notice of Availability (NOA) of the EIR was distributed for a 63-day public review period in excess of the 45 days typically suggested by CEQA. During the public review period, the EIR and technical appendices were made available for review.

Written comments regarding this EIR were addressed to:

Richard Sandzimier, Planning Official
and
Mark Gross, Senior Planner
14177 Frederick Street
Post Office Box 88005
Moreno Valley, California 92552
Phone: (951) 413-3206
Email: RichardSa@moval.org
Markg@moval.org

After the public review period, written responses to all significant environmental issues raised were prepared and included in the Final EIR Volume 1 – Response to Comments. These responses will be available for review for a minimum of 10 days prior to the public hearings before the City of Moreno Valley Planning Commission and City Council, at which time the certification of the Final EIR will be considered. The Final EIR (which includes the Draft EIR, the public comments and responses to the Draft EIR, and findings) will be included as part of the environmental record for consideration by the City decision-makers. The City will respond as appropriate to comments made at public hearings on the WLC Project and EIR.

2.6.1 Notice of Preparation

The City initiated the environmental process without completion of an Initial Study. The City determined that, due to the nature and size of the proposed project, all environmental topics warranted further environmental review in an EIR. The City circulated over 40 copies of the Notice of Preparation (NOP) for the World Logistics Center EIR to state, regional, and local agencies, and nine

copies to owners of adjacent properties on February 26, 2012, for a 30-day review period.[1] The NOP was distributed to the State Clearinghouse, as well as agencies and organizations that may provide comment on the proposed project as well as the potential environmental impacts that may result from the construction and operation of the proposed on-site uses.

Comments received regarding the NOP were used to help identify impacts that could result from implementation of the proposed project. The City received 27 comment letters to the NOP and six comment cards from the public Scoping Meeting. In addition, 30 individuals spoke at the Scoping Meeting. The NOP and comment letters received regarding the NOP are included in Appendix A of the EIR. Table 2.A provides a brief summary of NOP comment letters, Table 2.B lists City-identified issues from the scoping process, and Table 2.C lists Senate Bill (SB) 18 Native American consultation contacts.

Table 2.A: Notice of Preparation Comments Received

Agency/ Organization/ Individual	Date	Comments*	Addressed in Section(s) of the EIR
Governor's Office of Planning and Research	2/22	Scott Morgan. This letter acknowledges receipt of the NOP and identified the 30-day review period (2/22–3/22). OPR issued State Clearinghouse No. 2012021045	(2.0) Introduction
California Department of Transportation (Caltrans)	2/29	Daniel Kopulsky. Must prepare a traffic impact study according to the Caltrans' Guide for the Preparation of Traffic Impact Studies. Also must prepare a drainage study and identify impacts to state drainage facilities. Existing capacity of the state drainage systems cannot be exceeded.	(4.15) Traffic
California Native American Heritage Commission (NAHC)	3/7	Dave Singleton. NAHC Sacred Lands File did not identify any resources within project area, but did list the following local tribes: Pechanga Band; Ramona Band; Santa Rosa Band; Morongo Band; San Manuel Band; Serrano Nation; Cahuilla Band; and Soboba Band (see Table 2.C).	(4.5) Cultural
Morongo Band	2/22	Franklin Dancy. Tribe indicated site was in its traditional use area and requested to be notified if human remains are found and the Morongo Band is determined to be the Most Likely Descendant, or if Native American artifacts are found during excavation/grading. They also requested that they be consulted if a Treatment Plan is needed for significant cultural resources on site.	(4.5) Cultural
Pala Tribe	3/8	Shasta Gaughen, Ph.D. Determined project was outside of traditional tribal area.	(4.5) Cultural
California Department of Fish and Wildlife (CDFW)	3/22	Jeff Brandt. EIR should address County's MSHCP, the San Jacinto Wildlife Preserve (SJWP), State jurisdictional areas and permitting, water resources, greenhouse gases, direct, indirect, and cumulative biological impacts.	(4.4) Biology (4.9) Hydrology
California Department of Parks and Recreation	3/21	Ron Krueper. Concerned about impacts to Lake Perris State Recreational Area to southwest. Also must evaluate MSHCP and keeping Davis Road closed to traffic.	(4.4) Biology (4.14) Services
Southern California Association of Governments (SCAG)	3/19	Jacob Lieb. Encouraged EIR to use data from Regional Transportation Plan (RTP) for jobs, housing, and employment. Project is regionally significant.	(4.10) Land Use (4.13) Population & Housing

[1] The Notice of Preparation 30-day public review period was from February 25 to March 26, 2012. City of Moreno Valley.

Table 2.A: Notice of Preparation Comments Received

Agency/ Organization/ Individual	Date	Comments*	Addressed in Section(s) of the EIR
South Coast Air Quality Management District (SCAQMD)	3/23	Ian MacMillan. All air quality studies need to provide actual CalEEMod files, and evaluate construction and occupancy impacts for criteria pollutants, LSTs, Health Risk Assessment, dust (PM_{10} and $PM_{2.5}$), and use Western Riverside Council of Governments (WRCOG) "Good Neighbors" guidelines for distribution centers.	(4.3) Air Quality
Eastern Municipal Water District (EMWD)	3/22	Joseph Lewis. Need to address water resources.	(4.9) Hydrology (4.16) Utilities
Sierra Club, San Gorgonio Chapter, Moreno Valley Group	3/26	George Hague. EIR needs to address environmental justice and notices should be in Spanish. Also NOP insufficient and public needs more time to review. Need to evaluate SJWP, MSHCP, loss or transfer of 7,700 housing units elsewhere in the City from loss of Moreno Highlands project, local and regional traffic impacts, air quality impacts on wildlife, especially diesel particulates. Trails, LEED certification, transit, alternative access, rail, March Inland Port, infrastructure, loss of logistics from Panama Canal expansion, impacts to existing onsite homes, possible truck stop, "toxic" runoff, groundwater, Water Supply Assessment, green-solar design, 90% offsets with Tier III trucks, loss of agricultural land, raptors and foraging land, parking, alternative fuels, truck routes through the City, noise barriers during construction, burrowing owls, greenhouse gases, global climate change effects, and reasonable range of alternatives. Suggested references.	(2.0) Introduction (3.0) Project Description (4.1) Aesthetics (4.2) Agriculture (4.3) Air Quality (4.4) Biology (4.5) Cultural (4.6) Geology (4.7) Greenhouse Gases (4.8) Hazards (4.9) Hydrology (4.10) Land Use (4.12) Noise (4.13) Population & Housing (4.14) Services (4.15) Traffic (4.16) Utilities (5.0) Other Topics (6.0) Alternatives
Friends of San Jacinto Valley	3/22	Tom Paulek. Concerned about CDFW land and impacts to SJWP and MSHCP analysis.	(4.4) Biology (4.9) Hydrology
San Jacinto Valley Wetlands Foundation	3/19	Michael Marshall. Impact of lights and diesel pollutants on SJWP, also noise and human disturbance too. Traffic, runoff and water quality, groundwater supplies, water use, and MSHCP analysis.	(4.1) Aesthetics (4.3) Air Quality (4.4) Biology (4.9) Hydrology (4.15) Traffic (4.16) Utilities (water)
Residents for a Livable Moreno Valley	3/26	Susan Gilchrist. Impacts to employment and income in the City, loss of 7,700 homes, overall EIR process, biology impacts with CDFW land, SJWP, runoff, lighting, buffers for SJWP and Lake Perris, impacts on biology excess runoff, views, traffic, glut of warehouses in the City and region, need jobs diversity, actual number of employees, will it have a truck stop, alternative fuels, and building setbacks.	(2.0) Introduction (3.0) Project Description (4.1) Aesthetics (4.3) Air Quality (4.4) Biology

Table 2.A: Notice of Preparation Comments Received

Agency/ Organization/ Individual	Date	Comments*	Addressed in Section(s) of the EIR
			(4.7) Greenhouse Gases (4.9) Hydrology (4.10) Land Use (4.13) Population & Housing (4.15) Traffic (4.16) Utilities (5.0) Other Topics
James Devlin	3/15	Devlin Eng. Representing Multivac (local property owners). Concerned about truck traffic through residential areas, concentrate trucks onto Theodore Street, use block walls to reduce noise impacts where houses are adjacent, need landscape buffers along Merwin Street and Redlands Boulevard, add lower intensity land uses along west side of project.	(4.1) Aesthetics (4.10) Land Use (4.12) Noise
Michael McCoy	3/21	Need site plan details, not Specific Plan; too vague, need accurate employment projections, seismic impacts, traffic, air quality, rail access, biological resources, drainage, and definition of high cube.	(3.0) Project Description (4.3) Air Quality (4.4) Biology (4.6) Geology (4.9) Hydrology (4.13) Population & Housing
Michael McKibben	3/25	NOP too short. Geologic and seismic constraints (San Jacinto, Casa Loma, and Farm Road Faults), Alquist Priolo earthquake zones, hazards, FEMA flooding, suggested references.	(4.6) Geology and Soils (4.9) Hydrology
Thomas Ketcham	3/12	Supports creation of new local jobs but not at expense of residents and environment. Skechers mainly transferred jobs from Ontario warehouse and Cabazon Outlet Mall. Also concerned that previous project by Highland Fairview (HF), called Aquabella, has cost the City a lot in terms of improvements while HF has not made its required improvements, and commenter is worried HF might do the same thing on this project. City does not need more debt. Project will generate jobs but does not need or want 100% warehouse jobs, need a mix. Already adequate of space and land for more warehouses in southern end of town where they are more appropriate. Also March JPA has space for warehouses too. City services, police, fire, street maintenance, and street landscaping should not be sacrificed “chasing” new jobs and more growth.	(3.0) Project Description (4.13) Population & Housing (4.14) Services (4.15) Traffic (4.16) Utilities (5.0) Other Topics
Ann McKibben	3/26	Aesthetics, open space, lighting on SJWP, Dark Skies, loss of agricultural land, air quality, biology, MSHCP, open space, energy and conservation, greenhouse gas emissions, water quality, land use and planning, noise, recreation, traffic, cumulative, and alternatives.	(4.1) Aesthetics (4.2) Agriculture (4.3) Air Quality (4.4) Biology (4.7) Greenhouse

Table 2.A: Notice of Preparation Comments Received

Agency/ Organization/ Individual	Date	Comments*	Addressed in Section(s) of the EIR
			Gases (4.8) Hazards (4.9) Hydrology (4.10) Land Use (4.12) Noise (4.14) Services (4.15) Traffic (5.0) Other Topics (6.0) Alternatives
Gerald Budlong	3/22	Aesthetics, views, geology and soils, Casa Loma Fault, land use and planning, population and housing, widening of Panama Canal, public services, biology (SJWP), transportation, rail alternatives, and utilities (water and gas lines).	(4.1) Aesthetics (4.3) Air Quality (4.4) Biology (4.10) Land Use (4.14) Services (4.15) Traffic (4.16) Utilities (5.0) Other Topics (6.0) Alternatives
Duncan Bush	3/13	On-site property owner, concerned about local and regional traffic impacts, public services, and cumulative impacts.	(4.13) Population & Housing (4.14) Services
Dave Simpson	3/13	Panama Canal to be expanded so west coast logistics will decline, new warehouses only transfer jobs from other cities (e.g., Skechers project and Ontario).	(3.0) Project Description (4.13) Population & Housing
Joshua Freeman	3/27	Quality of jobs and impacts on schools.	(3.0) Project Description (4.13) Population & Housing (4.14) Services
Ned and Dawn Newkirk	3/21	What will happen to existing homes on site and what will be the traffic impacts?	(4.10) Land Use (4.15) Traffic
Scott Simpson	3/26	Concerned about water use, loss of views, air quality, increased lighting, recreation, biological impacts on SJWP, and economics to City.	(4.1) Aesthetics (4.3) Air Quality (4.4) Biology (4.10) Land Use (4.13) Population & Housing (4.14) Services (4.16) Utilities

Table 2.A: Notice of Preparation Comments Received

Agency/ Organization/ Individual	Date	Comments*	Addressed in Section(s) of the EIR
Ron Roy	ND	Actual jobs (Skechers did not provide the jobs promised). Lease terms, amount of automation, no rail available for logistics, City mostly residential—do we need so much of one kind of employment? Gas costs for freight, traffic impacts (SR-60), changes to job base, visual impacts and loss of open space, and change in City identity.	(3.0) Project Description (4.1) Aesthetics (4.10) Land Use (4.13) Population & Housing (4.15) Traffic
Tom Thornsley	3/25	Air quality, aesthetics, drainage into SJWP, energy and conservation, water quality, land use, population, housing, employment changes, recreation, transportation, utilities, alternatives, and economic impacts.	(4.1) Aesthetics (4.3) Air Quality (4.4) Biology (4.9) Hydrology (4.10) Land Use (4.13) Population & Housing (4.14) Services (4.15) Traffic (4.16) Utilities (6.0) Alternatives
D. and M. Moreno	3/21	Fix local roads, project will reduce property values, air quality, and noise impacts.	(3.0) Project Description (4.1) Aesthetics (4.3) Air Quality (4.12) Noise (4.15) Traffic
Scoping Meeting Comment Cards			
Jaeger Jones	3/12	HF track record proves this project will not benefit City.	
Sandra Williams	3/12	Should consider less polluting projects within the City that still bring jobs; should not count on only warehouses.	(4.3) Air Quality (4.10) Land Use (6.0) Alternatives
Amber Reilly	3/12	Concerned about traffic, air quality, and local owls	(4.3) Air Quality (4.4) Biology (4.15) Traffic
Peggy Hadaway	3/12	Concerned about actual number of new jobs that will be created and air pollution. Need more variety of new jobs, not just warehousing.	(4.3) Air Quality (4.10) Land Use
George Hague (local Sierra Club representative)	3/12	EIR must look at viable alternatives that reduce impacts on SR-60. What will be transitional uses along the project boundaries to minimize impacts on adjacent residents? Need to clearly define “high cube” and project objectives. Scoping meeting is premature before Specific Plan is ready for the public to review. Does developer control all the land within the SP area? Will there be a truck stop and what would be the impacts of that facility? What level of LEED will be achieved? Project will displace not replace 7,700 housing units so this must be analyzed in EIR (i.e., where those units will be transferred to	(3.0) Project Description (4.1) Aesthetics (4.3) Air Quality (4.10) Land Use (4.15) Traffic (6.0) Alternatives

Table 2.A: Notice of Preparation Comments Received

Agency/ Organization/ Individual	Date	Comments*	Addressed in Section(s) of the EIR
		within the City). EIR must look at toxic diesel particulates in addition to "diesel vapors" (term undefined).	
"Residents for a Livable Moreno Valley" Scoping handout from local residents (at meeting)	3/12	Concerned about relocation of existing jobs rather than creating new jobs here, and not very many new jobs as compared to other uses. Existing zoning would generate more jobs, more sales, and higher property taxes. Displacement vs. replacement of 7,700 housing units. East end of Moreno Valley does not have infrastructure to support this amount of new warehouses. Air pollutant impacts to sensitive receptors. Why change zoning here when General Plan and regional planners anticipates new warehouses in southwest portion of City near I-215?	(4.3) Air Quality (4.10) Land Use (4.13) Population & Housing
Arturo Benitez	3/14	Very concerned about the process and that everything be transparent and "published" so all can participate.	(2.0) Introduction
Charles Robinson	3/15	Need to make provisions to hire local employees (i.e., City residents) on a prioritized basis.	(3.0) Project Description (4.13) Population & Housing
Scoping Meeting Comments (in order of presentation)			
Kenny Bell	3/12	EIR needs to show accurate estimate of job creation, not like the Skechers project.	(4.13) Population & Housing
Susan Nash	3/12	State land south of site must be protected. CDFW open space land within project should not count toward open space requirements for project.	(4.4) Biology
Mike McCoy	3/12	Concerned about seismic safety (Casa Loma and San Jacinto Faults nearby). Impacts of warehouses vs. housing vastly higher, global reductions in logistics due to Panama Canal widening and railroad expansions.	(4.6) Geology
Tom Thornsley (2×)	3/12	Should bring railroad spur into site, should not just rely on trucks, no plans to widen SR-60, would take 10–20 years to complete such a widening. Need accurate economic assessment. Localized flooding and project needs buffers for existing residents.	(4.1) Aesthetics (4.9) Hydrology (4.13) Population & Housing (4.15) Traffic
Cathy Godfree	3/12	Need buffers, open space, zero runoff, reduce flooding, so much more asphalt, Skechers did not take care of flooding on Redlands Boulevard as promised. Trucks get off at Redlands Boulevard and try to enter at Eucalyptus Avenue. Trucks park on Redlands Boulevard waiting to enter project block traffic. Will there be a truck stop? Will need big setbacks to not block views off Merwin Street and Bay Avenue	(4.1) Aesthetics (4.9) Hydrology (4.15) Traffic
Andrew Jones	3/12	Skechers is a nice project, new ones should also be attractive, low water use and runoff.	(4.1) Aesthetics (4.9) Hydrology
Nanette Bartenee	3/12	On board of "Friends of San Jacinto Valley" SJWP is world-famous raptor habitat. Need good alternatives analysis for regional impacts.	(4.4) Biology (6.0) Alternatives
Frank Wright	3/12	Need more jobs but this project will generate a lot of traffic and will need to widen freeways.	(4.13) Population & Housing (4.15) Traffic

Table 2.A: Notice of Preparation Comments Received

Agency/ Organization/ Individual	Date	Comments*	Addressed in Section(s) of the EIR
Ian McMillian (SCAQMD)	3/12	Works for SCAQMD. Project represents 25% of all planned warehouse space in region, big concern about diesel particulates and other pollutants. He would like to work with developer regarding alternative fuels for trucks.	(4.3) Air Quality (4.7) Greenhouse Gases
Rick Tendell (2x)	3/12	Need environmental design studies (compressed natural gas, hydrogen fuel cells, solar, etc.). Maybe even fuel trucks.	(4.7) Greenhouse Gases
Jim Randondoth	3/12	Skechers laid off 600 people in Ontario when it opened, what will all these projects do to regional employment?	(4.13) Population & Housing
Peggy Hadaway	3/12	Our Quality of Life will deteriorate from more warehouses. Need to bring in more varied employment and is concerned about air pollution.	(4.3) Air Quality (4.13) Population & Housing
Dave Slawson	3/12	Air quality, traffic, groundwater, noise	(4.3) Air Quality (4.9) Hydrology (4.12) Noise (4.15) Traffic
John Escobell	3/12	Need to offer some program for local hiring first.	(4.13) Population & Housing
Cody Muser	3/12	Project needs to be Gold LEED certified.	(4.7) Greenhouse Gases
Tom Thornsley	3/12	SP needs to come out with EIR. Need building plans to be able to estimate impacts to local residents.	(2.0) Introduction
Deanna Reader	3/12	Need an unbiased evaluation of impacts. Traffic will be massive, Skechers was poor first example. Keep traffic on Theodore. Panama Canal expansion will change west coast logistics needs, port at capacity.	(2.0) Introduction (4.13) Population & Housing (4.15) Traffic
George Hague (4×)	3/12	EIR must look at viable alternatives that reduce impacts on SR-60. What will be transitional uses along the project boundaries to minimize impacts on adjacent residents? Need to clearly define “high cube” and project objectives. Scoping meeting is premature before Specific Plan is ready. Does developer control all the land within the SP area? Will there be a truck stop and what would be the impacts of that facility? What level of LEED will be achieved? Project will displace not replace 7,700 housing units so this must be analyzed in EIR (i.e., where those units will be transferred to within the City). EIR must look at toxic diesel particulates in addition to “diesel vapors” (term undefined).	(3.0) Project Description (4.1) Aesthetics (4.3) Air Quality (4.10) Land Use (4.15) Traffic (6.0) Alternatives
Lorenzo Fiero	3/12	Alessandro already has lots of trucks and is half destroyed. Other streets have lots of potholes, flooding; this end of the City has poor public services. What will happen with construction and (even worse) project trucks operating on local streets?	(4.9) Hydrology (4.15) Traffic
Dawn Luoker	3/12	Local employment, traffic impacts on local streets to west, must involve Caltrans, need to see plans, also what about the results of the “community survey?” (Note: did not identify what survey.)	(2.0) Introduction (4.13)

Table 2.A: Notice of Preparation Comments Received

Agency/ Organization/ Individual	Date	Comments*	Addressed in Section(s) of the EIR
			Population & Housing (4.15) Traffic
Dan Newkirk	3/12	Must identify impacts on properties within the project (houses).	(3.0) Project Description (4.10) Land Use (4.13) Population & Housing
Brad Singer	3/12	With SoCal Audubon Club. Need to look at short- and long-term impacts of project, especially for local wildlife and SJWP, with gyre falcons and other raptors.	(4.4) Biology
Chris (no last name provided)	3/12	City needs growth and project will have to comply with all the various state environmental laws. Need to plan for our kids and grandkids.	(2.0) Introduction (5.0) Other Topics
Craig Gibbons	3/12	Need 1 mile buffer between project and habitat. Need to plan well because this is the last largest undeveloped part of City.	(4.4) Biology
Raul Wilson	3/12	14.5% unemployment, City needs jobs. Skechers took 3 years to approve, 18 months to build, need what's good for local residents and workers.	(4.13) Population & Housing
Lori Nickels	3/12	Area has historical significance. In 1775 Juan Bautista de Anza came by Mystic Lake and Juan Bautista National Trail runs nearby. Need to contact National Park Service. Served 13 years on RCTC, no way you will get a rail spur out here.	(4.5) Cultural (4.14) Services (4.15) Traffic
Tom Gerald	3/12	Was on original General Plan committee, SJWP is a national treasure and project needs to be compatible.	(4.4) Biology
Chris Bauk	3/12	Project will provide jobs; maybe now can take Davis Road south to Ramona Parkway.	(4.4) Biology (4.15) Traffic
Lacy Sikes	3/12	Unemployment equals crime so this project will help.	(4.14) Services
Marshall Scott	3/12	Wants to see more detailed plans; sad to see whole area agriculture lost since early days.	(4.2) Agriculture
Lewis Miramontes	3/12	Need to protect Old Moreno, houses along Redlands Boulevard, on Merwin Street, and Bay Avenue, etc. Need to keep employment local.	(4.10) Land Use (4.13) Population & Housing

* Notes: All NOP response letters are included in Appendix A of the EIR.
GHG = greenhouse gases
HF = Highland Fairview (project applicant)
LEED = Leadership in Energy and Environmental Design
MSHCP = Western Riverside County Multiple Species Habitat Conservation Plan
ND = No Date
NOP = Notice of Preparation
RTP = Regional Transportation Plan (SCAG)
SJWP = San Jacinto Wildlife Preserve
WSA = water supply assessment

Table 2.B: City-Identified Issues from Scoping Process

Issue	Addressed in Section(s) of the EIR
1. Number of jobs anticipated by the project; provide an independent analysis.	(4.13) Population & Housing
2. Identify impacts on local unemployment, including skill levels required.	(4.13) Population & Housing
3. Seismic safety related to the Casa Loma and San Jacinto fault lines.	(4.6) Geology
4. Impacts of current land use plan versus the proposal.	(4.10) Land Use
5. Potential impact of railroad and Panama Canal expansions on local demand for logistics.	(3.0) Project Description
6. Clear explanation of “high cube warehouse.”	(3.0) Project Description
7. Identify potential for rail spur to serve project.	(4.15) Traffic
8. Provide an economic assessment of the project (fiscal/cost benefit analysis)	(4.13) Population & Housing
9. Identify flooding impacts before and after project.	(4.9) Hydrology
10. Provide buffers to adjacent housing and wildlife areas.	(4.4) Biology
11. Do not use existing permanent open space as buffer.	(4.4) Biology
12. Identify impact on viability of adjacent residential areas with logistics adjacency.	(4.10) Land Use
13. Include list of other uses allowed in addition to logistics, and their impacts.	(4.10) Land Use
14. Include manufacturing and high tech as permitted uses.	(3.0) Project Description (4.10) Land Use
15. Impacts on views from Moreno neighborhood.	(4.1) Aesthetics
16. Include description of “net zero storm water treatment” and implementation.	(4.9) Hydrology
17. Potential for trucks to exit onto Redlands and need to turn around to access project.	(4.15) Traffic
18. Provide alternatives for waiting trucks rather than parking on off ramps and local streets.	(4.15) Traffic
19. Provide “solid” alternatives analysis to provide viable options.	(6.0) Alternatives
20. Include requirement for solar panels on building roofs.	(4.7) Greenhouse Gases
21. Include assessment on regional air quality including criteria pollutants.	(4.3) Air Quality
22. Work with SCAQMD on implementation of new truck technologies to reduce emissions.	(4.3) Air Quality
23. Identify air quality impacts specifically on children, elderly residents, and wildlife.	(4.3) Air Quality
24. Identify diesel emission impacts on workers in project area.	(4.3) Air Quality
25. Provide impact on wildlife by species.	(4.4) Biology
26. Identify light and noise impacts on wildlife area.	(4.4) Biology
27. Identify impact on groundwater.	(4.9) Hydrology
28. Identify noise impacts.	(4.12) Noise
29. Identify specific green technologies to be included in project.	(3.0) Project Description (4.7) Greenhouse Gases
30. Include potential for use of CNG, hydrogen fuel cell, solar electricity to supply trucks.	(4.7) Greenhouse Gases
31. Identify amount of traffic on local roads, specifically truck traffic.	(4.15) Traffic
32. Identify impacts on Alessandro pavement quality.	(4.15) Traffic

Table 2.B: City-Identified Issues from Scoping Process

Issue	Addressed in Section(s) of the EIR
33. Include potential diversion of truck traffic from Alessandro.	(4.15) Traffic
34. Identify impacts on wildlife, including owls and other raptors.	(4.4) Biology
35. Identify globally significant raptor habitat & impacts on grazing areas within project area.	(4.4) Biology
36. Identify impact on public services and funding.	(4.14) Services
37. Provide a comprehensive plan for review prior to completing environmental.	(3.0) Project Description
38. Identify all public improvements, including parks, to be provided by project.	(4.14) Services
39. Identify all impacts on current residents within project area.	(4.10) Land Use
40. Identify any use of roadways through the adjacent wildlife area.	(4.4) Biology
41. Identify where 7,700 housing units currently planned for project area will be replaced.	(4.13) Population & Housing
42. Identify traffic impact of relocated planned housing units.	(4.13) Population & Housing (4.15) Traffic
43. Impacts on route and historic views from Juan Bautista de Anza 1775 exploration.	(4.14) Services (trails)
44. Contact National Park Service related to Juan Bautista de Anza trail impacts.	(4.14) Services (trails)
45. Identify impact on crime rates.	(4.14) Services (police)

Source: Memo from John Terell, March 13, 2012

Table 2.C: SB 18 Native American Consultation Contacts

Agency/Tribe	Date[1]	Comments	Desire to Consult?
California Native American Heritage Commission (NAHC)	2/28	City notified NAHC that they would be contacting local tribes that may have an interest in this project. City has contacted these tribes and awaits reply during the SB 18 consultation period (90 days – ends May 30 - see Appendix A).	—
	3/7	NAHC sent letter requesting City contact local tribes and provided tribal contacts.	
	4/9	NAHC sent a second letter with a list of tribes and tribal representatives to contact.	
Cahuilla Tribe	2/29	City letter asking if tribe wished to consult on the WLC project.	No
	4/19	Tribe sent letter requesting consultation.	
Los Coyotes office	2/29	City letter asking if tribe wished to consult on the WLC project.	No
	—	No response from tribe within the 90-day noticing period.	
Morongo	2/29	City letter asking if tribe wished to consult on the WLC project.	No
	2/22	Tribe sent letter providing information to be included in the EIR but did not request consultation.	
	10/2	City sends additional letter regarding consultation.	
Pala Band	2/29	City letter asking if tribe wished to consult on the WLC project.	No
	3/8	Tribe sent letter indicating site was outside of Traditional Tribal Area and deferred to tribes in closer proximity.	
Pechanga	2/29	City letter asking if tribe wished to consult on the WLC project.	**Yes**

Table 2.C: SB 18 Native American Consultation Contacts

Agency/Tribe	Date[1]	Comments	Desire to Consult?
	3/16	Tribe sent letter providing information on cultural resources in the area, suggested mitigation language for EIR, and requested consultation on the project.	
	5/30	City met on site with tribe to consult regarding project activities.	
	10/2	City sends additional letter on consultation and EIR process.	
Ramona Band	2/29	City letter asking if tribe wished to consult on the WLC project.	No
	4/19	City sent consultation notification reminder to tribe. No response received from tribe within the 90-day noticing period.	
Rincon Band of Luiseño Indians	2/29	City letter asking if tribe wished to consult on the WLC project.	No
	3/23	Tribe sent letter indicating site was not within the historic boundaries of the tribe, and referred the City to the Soboba Band of Luiseno Indians for further comment.	
San Manuel	2/29	City letter asking if tribe wished to consult on the WLC project.	No
	4/19	City sent consultation notification reminder to tribe. No response received from tribe within the 90-day noticing period.	
Santa Rosa	2/29	City letter asking if tribe wished to consult on the WLC project.	No
	4/19	City sent consultation notification reminder to tribe. No response received from tribe within the 90-day noticing period.	
Serrano Nation	2/29	City letter asking if tribe wished to consult on the WLC project.	No
	4/19	City sent consultation notification reminder to tribe. No response received from tribe within the 90-day noticing period.	
Soboba	2/29	City letter asking if tribe wished to consult on the WLC project.	**Yes**
	4/16	Tribe sent letter with input on EIR regarding cultural resources.	
	4/19	City sent follow-up letter again to verify tribe's desire to consult.	
	4/30	Tribe sent follow-up letter again requesting consultation.	
	10/2	City sends letter discussing consultation and EIR process.	
	10/8	Tribe wants to be present during ground disturbing activities.	
	11/27	City met on site with tribe consult regarding project activities.	

Source: City Planning Department 2012 records on tribal correspondence (see DEIR Appendix A)
[1] NOP notices mailed February 21 so some tribes were responding to that notice before they received official SB 18 notice.

SB 18 Consultation. It should be noted that the city met with the Pechanga Tribe on May 30, 2012, and with the Soboba Tribe on November 27, 2012. No other Native American entities requested a government-to-government consultation meeting.

2.6.2 Public Scoping Meeting

A public Scoping Meeting was held at the City of Moreno Valley City Hall in the City Council Chambers on March 12, 2012, 6:00 p.m. There was one agency staff representative (from the Air Quality Management District) and over 150 individual members of the public in attendance. City staff and the developer briefly described the project, and then comments from the public were solicited. Local residents brought up essentially every major environmental concern, including traffic, truck traffic, air quality, noise, loss of views, and impacts to the nearby wildlife area. Copies of the written

scoping comment forms are included in Appendix A and a list of commenters is provided as part of previously referenced Table 2.A.

2.7 MITIGATION MONITORING AND REPORTING PROGRAM

A Mitigation Monitoring and Reporting Program (MMRP) will be prepared for this EIR to comply with the requirements of State law (Public Resources Code Section 21081.6). When mitigation measures are required to avoid or reduce the severity of significant impacts, State law requires the adoption of an MMRP. The monitoring program is intended to ensure compliance during implementation of the program. An MMRP will be adopted by the City Council concurrent with certification of the Final EIR for the proposed WLCSP project. A copy of the MMRP, revised to reflect all changes in the DEIR that resulted from changes in the project description, technical studies, and response to comments on the DEIR, is included in the Final EIR Volume 1 Response to Comments.

2.8 POTENTIAL IMPACTS OF THE PROJECT DISCUSSED IN THE EIR

This EIR focuses on the areas of concern identified in the NOP and comments submitted regarding the NOP. The following sixteen environmental topics are addressed in this EIR:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality, including Human Health
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions, Energy Conservation, and Global Climate Change
- Hazards and Hazardous Materials
- Hydrology, and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population, Housing, and Employment
- Public Services and Facilities
- Transportation and Traffic
- Utilities and Service Systems

2.9 EFFECTS FOUND NOT TO BE SIGNIFICANT

As required under CEQA (Section 15128), an EIR is to contain a statement supporting the Lead Agency's determination that some of the possible effects of a project are not significant and, therefore, are not discussed in detail in the EIR. In this case, the proposed project is not consistent with the City's General Plan or the currently approved Moreno Highlands Specific Plan and the respective EIRs prepared for each. Due to the size and scope of the project, the City determined that all potential environmental issues outlined above would be evaluated in this EIR. Section 4.0 of the EIR determined that only mineral resources and forest resources would not be significantly affected by the proposed project.

2.10 CUMULATIVE IMPACTS

2.10.1 Definition of Cumulative Impact

CEQA defines cumulative effects as "two or more individual effects that, when considered together, are considerable or which compound or increase other environmental impacts." (*State CEQA Guidelines* Section 15130). The *Guidelines* further state that the individual effects can be the various

changes related to a single project or the changes involved in a number of other closely related past, present, and reasonably foreseeable future projects (Section 15335). Substantial changes are anticipated to occur as the result of warehousing and employment growth of the proposed project, as well as growth in population, housing, and employment from development of other projects in the City of Moreno Valley and the surrounding region. Section 15130 of the *State CEQA Guidelines* requires that an EIR include a discussion of the potential cumulative impacts of a proposed project. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the development when added to the impacts of other closely related past, present, and reasonably foreseeable or probable future developments. Cumulative impacts can result from individually minor, but collectively significant, developments taking place over a period of time.

With respect to the analysis of cumulative impacts, CEQA generally requires the following:

(a) Cumulative impacts shall be discussed when the project's incremental effect is cumulatively considerable.

(b) The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided of the effects attributable to the project. The discussion should be guided by the standards of practicality and reasonableness.

Pursuant to *CEQA Guidelines*, Section 15130, the assessment of cumulative impacts contained in EIRs is typically based on either: (i) past, present, and probable future projects, which are either approved or being considered for approval by the City or other municipalities (or anticipated to be submitted for consideration, including projects in the design phase or under construction); or (ii) growth projections set forth in regional plans, including regional modeling plans.

Due to the size of the proposed project and its potential future new land use and employment implications for the City, the cumulative analysis for this EIR will use the City's General Plan growth projections. It is expected that the cumulative impact analysis set forth in this EIR will be conservative and would tend to overstate (rather than understate) cumulative impacts.

The significance of a cumulative impact may be greater than the effects resulting from the individual actions if the effects of more than one action are additive. Thus, as set forth above, this section evaluates the proposed project together with (i) the reasonably foreseeable potential effects of other closely related past, present, and reasonably foreseeable or probable future development in the area of the project, and (ii) growth projections set forth in regional plans.

Criteria for evaluating the significance of adverse effects are identified for each environmental issue in Section 4.0. These criteria, which are based on resource sensitivity, quality, and quantity, are also instructive when evaluating whether the environmental effect resulting from implementation of a particular project is cumulatively considerable. The timing and duration of each activity is also an important consideration for evaluating the potential cumulative effects of activities that may occur only for a limited period. In such cases, a cumulative effect may occur only when two or more of the activities are occurring simultaneously.

Because of the nature of individual environmental factors, the cumulative "universe" for every issue addressed in this EIR will not be identical. For example, the cumulative universe for air quality impacts is reasonably assumed to be the entire South Coast Air Basin, which is much larger than the cumulative universe for public service impacts (i.e., the service area of the various service providers.) The individual cumulative areas for the issues addressed in this EIR are provided within the cumulative impacts discussion in the respective impact sections, but range from the City of Moreno Valley to the County to the entire SCAG region when necessary.

To summarize, in determining the cumulative impacts of a proposed project with other area projects, the *CEQA Guidelines* provide that an EIR may either consider a list of past, present, and probable future projects, or it may consider a summary of projections method. This EIR utilizes the summary of projections method due to the size of the project and its growth implications for the City as a whole.

2.10.2 City of Moreno Valley Growth Projections

The Moreno Valley General Plan establishes policies to guide future development within the City and its implementation is long-term in nature. The Regional Growth Projections Method is the appropriate methodology in evaluating cumulative impacts because it provides general growth projections for the region and considers long-term growth. Table 2.D summarizes the cumulative growth information from the Final Program EIR for the City General Plan Update from July 2006 (Section 7, *Cumulative Impacts*). Table 2.D shows that the City expects to grow at an average annual rate of 2–3 percent from 2000 to 2030, with a population at that point of 238,703 persons and 71,619 households. The City will comprise approximately 7 percent of the County's population and housing stock at that time.

Table 2.D: General Plan Growth Projections for Moreno Valley (2000–2030)

Jurisdiction	Population		Households	
	2000	2030	2000	2030
City of Moreno Valley	142,655	238,703	39,264	71,619
Average Annual Increase	—	+2.24%	—	+2.75%
Riverside County	1,850,231	3,143,468	509,311	1,127,780
Average Annual Increase	—	+2.33%	—	+4.05%
City (Percent of County)	7.7%	7.6%	7.7%	6.4%

Sources: SCAG, 2008 RTP Growth Forecast, Table 7-1, General Plan Final EIR, Section 7.0, Cumulative Impacts.

2.10.3 Regional Growth Projections

The SCAG estimates regional growth for the Riverside County area for the purposes of planning and public policy development. The most recent set of growth projections are provided in the most recent *Regional Transportation Plan (RTP) Growth Forecast*, based on extensive analyses of the regional economic and demographic conditions. The *Draft 2012 RTP Growth Forecast* provides estimates and forecasts of employment, population, and housing for the period between 2011 and 2035. Consistent with the projections shown in previously referenced Table 2.D, Table 2.E shows that the population, housing, and employment of the City are expected to increase consistent with overall regional trends for that period (i.e., approximately 2–3% per year).

According to SCAG projections, the population of Moreno Valley is expected to increase by about 60,749 persons or approximately 31.2 percent between 2011 and 2035 to approximately 255,200 persons. By comparison, the population of Riverside County is projected to increase by 1.1 million persons or approximately 50 percent between 2011 and 2035 to approximately 3,324,000 persons. The number of households is estimated to increase approximately 30.9 percent in Moreno Valley and 35.7 percent in Riverside County over this same time period.

The number of jobs in Moreno Valley is estimated to increase by approximately 156 percent from 2011 to 2035. Over this same time period, jobs in Riverside County are expected to increase by 125 percent. At present, Moreno Valley has a relatively low jobs-to-housing ratio of 0.45 compared to the overall regional ratio of 1.14 (i.e., 1.14 jobs for each 1 housing unit). SCAG's Compass Blueprint Plan and the Regional Transportation Plan encourages "bedroom" communities (i.e., those with more housing than jobs) to encourage jobs growth instead of housing growth, which will eventually help

balance these factors across the region and help reduce commuter traffic. These plans forecast that the City's ratio of jobs to housing will increase in the future but will still be less than 1.0 (estimated 0.89 by 2035), compared to a projected ratio of 1.14 for the County and 1.29 for the entire SCAG area. The City's jobs/housing ratio is expected to still be less than 1.0 by 2035, but to achieve that ratio, the City would need to attract over 34,000 jobs in the next 20 years, compared to attracting 17,000 new houses during that same period.

Table 2.E: Regional Population, Housing, and Employment Forecasts through 2035

Forecast Category	2011	2020	2035
Population			
City of Moreno Valley	194,451[6]	213,700	255,200
Riverside County	2,205,731[6]	2,592,000	3,324,000
SCAG	18,163,664	19,663,000	22,091,000
Housing Units			
City of Moreno Valley	55,635	60,000	72,800
Riverside County	804,913	834,000	1,092,000
SCAG	6,348,741	6,458,000	7,325,000
Employment			
City of Moreno Valley	25,120[5]	48,000	64,400
Riverside County	551,492[5]	939,000	1,243,000
SCAG	7,224,670	8,414,000	9,441,000
Jobs/Housing Ratio			
City of Moreno Valley	0.45	0.80	0.89
Riverside County	0.69	1.13	1.14
SCAG	1.14	1.30	1.29

Sources:
(1) 2010 Employment is based on 2010 data presented in *Profile of the City of Moreno Valley,* Southern California Association of Governments, May 2011.
(2) *Draft 2012 RTP Growth Forecast*, Southern California Association of Governments, http://www.scag.ca.gov/forecast/index.htm, date accessed March 15, 2012.
(3) *Table 2: City/County Population and Housing Estimates, 1/1/2011,* State of California Department of Finance.
(4) *Table 1: Population, Age and Sex Characteristics, April 1, 2010, Incorporated Cities and Census Designated Places (CDP) by County in California.* State of California, Department of Finance, Sacramento, California, May 19, 2011.
(5) 2011 Employment data for the City and County is based on the California Employment Development Department, Labor Market Information Division, as reported by *Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California*, December 11, 2013.
(6) *2011 Employment and Housing data for City and County based on the E-5 Population and Housing Estimates, for Cities, Counties, and the State, 2011–2013, with 2010 Benchmark, State of California Department of Finance, http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php, website accessed February 7, 2014.*

2.10.4 Analysis of Cumulative Impacts

The analysis of each environmental issue or topic (EIR Sections 4.1 through 4.16) also discusses the cumulative impacts of the proposed project. Implementation of the mitigation measures identified in each specific section of this EIR will reduce the cumulative impact of the project to the extent feasible. In many cases, the mitigation measures result in reducing the project's cumulative impact to a less than significant level. For other impacts, the implementation of the identified mitigation measures will not avoid a significant cumulative impact. The sixteen subsections of Section 4.0 (i.e., 4.1 through 4.16) identify those significant, unavoidable cumulative impacts that will not be reduced to a less than significant level by implementation of the identified mitigation measures presented in each of those sections. In addition, the analyses indicate to what degree the project makes a significant contribution

to cumulatively considerable impacts for each environmental issue (air quality, biological resources, etc.).

It should be noted that the project Traffic Impact Assessment developed an extensive list of cumulative projects to more accurately estimate potential traffic impacts over time on local roadways and intersections (see Section 4.15, *Transportation*).

NOTE TO READERS. *A number of comments were raised on the Draft EIR about the validity of the growth projections used as the basis for the assessment of cumulative impacts of the WLC project. Some comments referred to a number of General Plan Amendments the City had approved since the last General Plan Update. In addition, some comments stated that the General Plan did not account for recent approvals of several warehouse projects, both within the City and in other nearby jurisdictions. However, the City's General Plan was updated in 2006, and SCAG's Regional Transportation Plan (RTP) was last updated in May 2008, although the Growth Forecasts that accompany the RTP were last updated in 2012 (Draft 2012 RTP Growth Forecast, Southern California Association of Governments, March 15, 2012). Both of these do constitute current applicable local and regional planning documents upon which to base the analysis of cumulative impacts in the programmatic WLCSP EIR. Therefore, there are no changes to the growth projections that are the basis for the cumulative impact analysis in this EIR.*

3.0 PROJECT DESCRIPTION: TABLE OF CONTENTS

FIGURES

TABLES

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NOTE TO READERS: *The original Specific Plan was prepared in December 2012 and was analyzed in the Programmatic Draft EIR that was circulated for public review from February 4 to April 8, 2013. In response to comments received on the public review of the DEIR, the Specific Plan was revised to change the Specific Plan boundary resulting in a loss of 100 acres and 1 million square feet of potential development. In addition, the phasing was extended from ten to fifteen years so Phase 1 is from 2015 to 2022 and Phase 2 is 2023 to 2030 instead of the project completing development in 2022 as analyzed in the original DEIR. Changes to the Project Description are shown in double underline for added text and in strikeout for text to be deleted, plus notes about the reasons for the various changes. The revised figures are included in this section rather than the original figures to provide the most accurate project information for the reader.*

3.0 PROJECT DESCRIPTION

The project description is provided in this section of the EIR in conformance with *CEQA Guidelines* Section 15124. It discusses the geographic setting, project location, project setting, City of Moreno Valley General Plan designations, World Logistics Center (WLC) Specific Plan designations, zoning designations, project characteristics, project objectives, and discretionary actions required to implement the proposed project. The project description is used as the basis for analyzing the proposed project's impacts on the existing physical environment in Section 4.0 of the EIR.

The term "World Logistics Center Project" refers to all related development and planning activities currently proposed by Highland Fairview in the Rancho Belago area of the eastern end of the City of Moreno Valley. The WLC property is generally located south of SR-60, east of Redlands Boulevard, west of Gilman Springs Road, and north of Mystic Lake and the San Jacinto Wildlife Area. The terms "Project Site" or "Project Area" refer to the entire 3,714-acre area covered by the project entitlements, which encompasses: (a) the General Plan Amendment and the Zone Change (including the revised WLC Specific Plan Area (2,610 acres); (b) the CDFW Conservation Buffer Area (910 acres); and (c) the Public Facilities Lands area (194 aces). Additional acreage that was evaluated in the EIR but that is not in the Project Area is the Off-site Improvement Area of 104 acres. See Section 3.4 for more details on these specific areas.

3.1 PROJECT LOCATION

The project is located in "Rancho Belago," the eastern portion of the City of Moreno Valley, in northwestern Riverside County. The project site is immediately south of SR-60, between Redlands Boulevard and Gilman Springs Road (the easterly city limit), extending to the southerly city limit. Figure 3.1 depicts the location of the proposed project within the region and the City of Moreno Valley. The major roads that currently provide access to the project site are Redlands Boulevard, Theodore Street, Alessandro Boulevard, and Gilman Springs Road.

The WLC project area is located in portions of Sections 1, 12, and 13 of Township 3 South, Range 3 West; and portions of Sections 6, 7, 8, 9, 16, 17, 18, 19, 20, and 21 of Township 3 South, Range 2 West, as depicted on the U.S. Geological Survey (USGS) 7.5-minute series *Sunnymead* and *El Casco, California* quadrangles. Figure 3.2 depicts the proposed project boundary on the applicable USGS quad sheets.

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FIGURE 3.1

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World Logistics Center Specific Plan Project
Environmental Impact Report

Regional Location

SOURCE: USGS DEM; Thomas Bros, 2009

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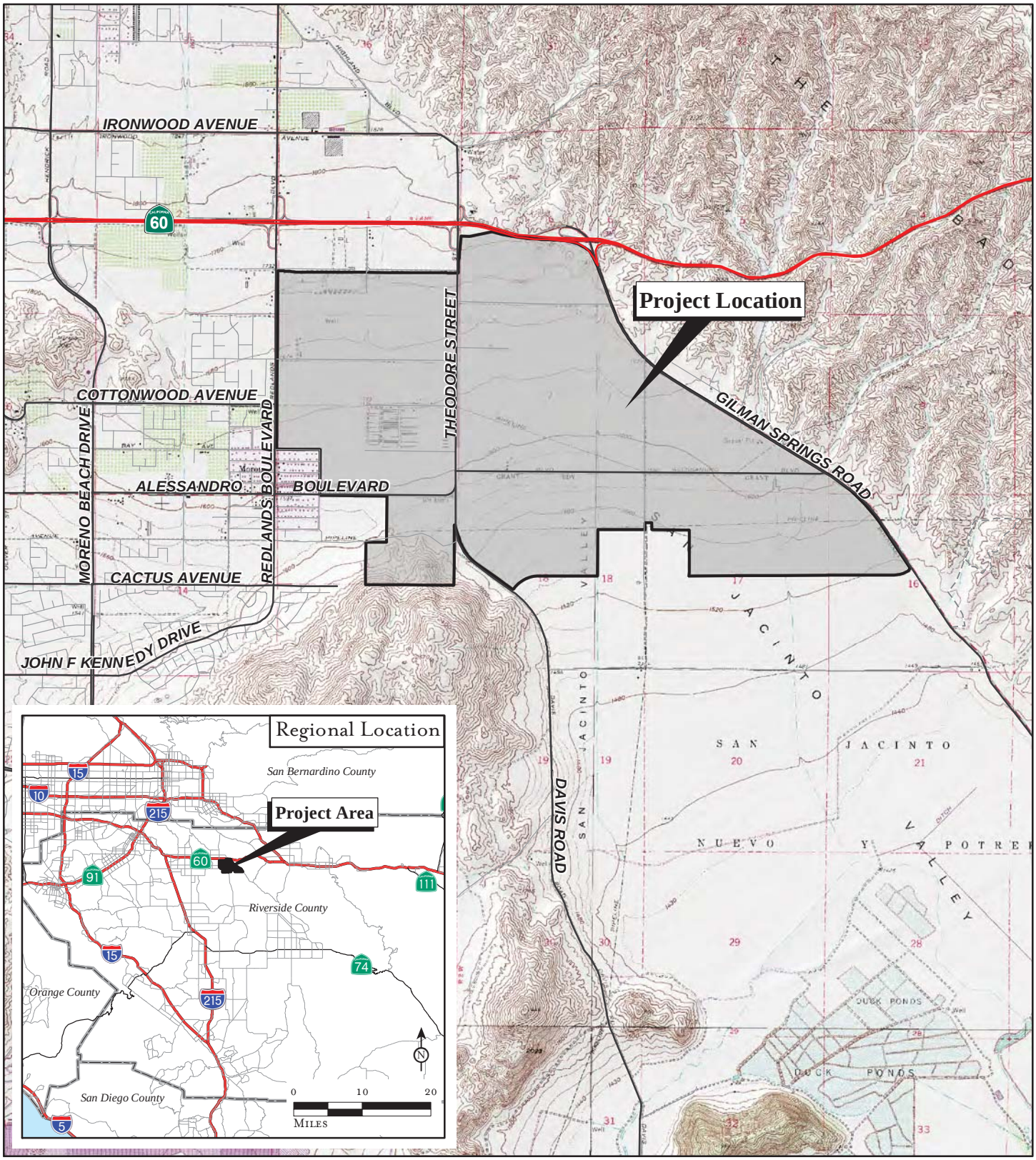

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FIGURE 3.2

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SOURCE: USGS 7.5' Quads: El Casco, Lakeview and Perris (1979), Sunnymead (1980), CA; Riverside County, 2011.

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World Logistics Center Specific Plan Project
Environmental Impact Report

Regional and Project Location

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3.2 PROJECT SETTING AND HISTORY

3.2.1 Project Setting

The project site slopes gently (approximately 2%) from north to south, with elevations ranging from approximately 1,760 feet above mean sea level (amsl) at the northeast corner to 1,480 feet amsl at the southeast corner. Soils within the proposed project consist of disturbed top soil and natural soils, with a mixture of various silty clays, sandy silts, silty sands, and sands.

3.2.2 On-site Land Uses

The project area is largely vacant undeveloped marginal agricultural land, with seven occupied single-family homes and associated ranch/farm buildings in various locations on the property. In the 1920s, several farm buildings and related houses were constructed on the property and, in the 1940s, a stock farm operated on a portion of the site that was later expanded into a commercial horse farm and training facility that operated until the mid-1990s. The overall project site has been farmed by a variety of owners since the early 1900s and has supported dry (non-irrigated) farming, livestock grazing, and limited citrus groves. Much of the site continues to be used for dry farming today.

San Diego Gas & Electric (SDG&E) operates a natural gas compressor plant, known as the Moreno Compressor Station, on 19 acres in the south-central portion of the site. The Southern California Gas Company (SCGC) operates a metering and pipe cleaning station on two separate parcels (totalling1.5 acres) in the south-central portion of the site south of Alessandro Boulevard along existing Virginia Street. The site contains a variety of overhead and underground utility lines associated with oil, natural gas, and electrical service.

At present, the project site contains a number of unimproved drainage features, but it does not contain any improved flood control facilities. As Figure 3.3 illustrates, the project vicinity is largely vacant agricultural land with scattered utility facilities and seven rural residential properties.

3.2.3 Surrounding Land Uses

Developed properties in the vicinity include a logistics building to the northwest (Skechers) and several residential neighborhoods along Redlands Boulevard along the western boundary of the project site. An area of the City known as “Old Moreno” is situated near the southwest portion of the project site, around the intersection of Redlands and Alessandro Boulevards. The homes along Bay Avenue, Merwin Street, and Redlands Boulevard constitute the closest off-site “sensitive receptors” to the project site (i.e., they are across the street from the property). Figure 3.3 shows the land uses on and around the project site.

The major roadways that currently provide access to the project area are SR-60 to the north, Redlands Boulevard to the west, Alessandro Boulevard (which traverses the site east-west), Gilman Springs Road to the east, and Theodore Street (which traverses the site north-south). Redlands Boulevard and Theodore Street are north-south arterial roadways that intersect with SR-60. Alessandro Boulevard is an east-west thoroughfare that runs through Moreno Valley from Interstate 215 (I-215) on the west to Gilman Springs Road on the east. Gilman Springs Road runs northwesterly-southeasterly connecting SR-60 to the Hemet-San Jacinto area.

Highland Fairview Corporate Park (HFCP) is located northwest of the project area between Redlands Boulevard and Theodore Street. It is currently under development and the first phase was completed in late 2011 (i.e., the Skechers logistics warehouse). The area north of SR-60 is largely undeveloped with clusters of low-density residential development.

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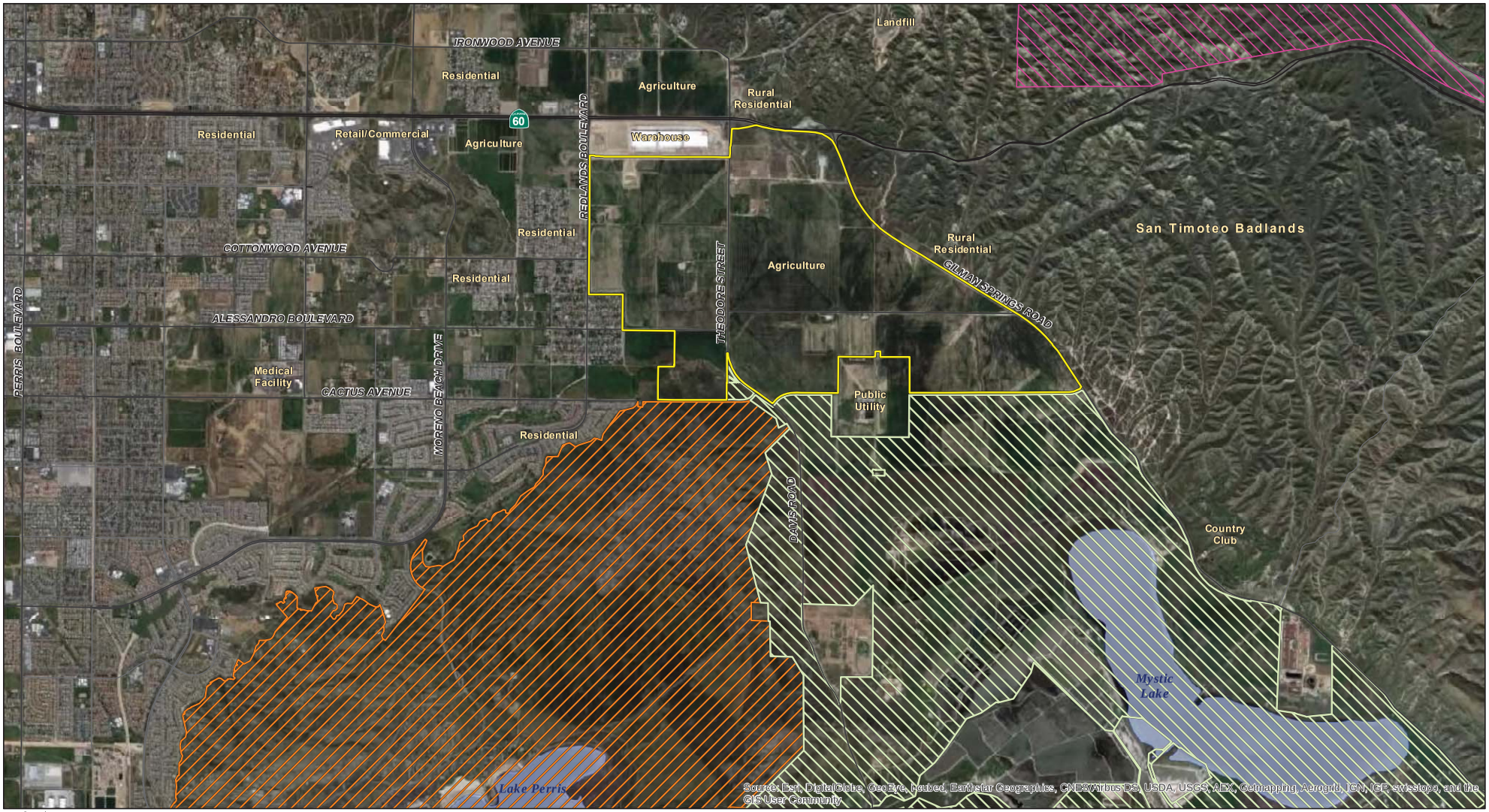

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- Project Boundary
- San Jacinto Wildlife Area (CDFW)
- Lake Perris State Recreation Area
- Norton Younglove Reserve
- Waterbody

SOURCE: County of Riverside, 2003 & 2011; California Dept. of Fish and Game, 2011; Google Earth, 2011

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FIGURE 3.3

World Logistics Center Specific Plan Project
Environmental Impact Report

Existing Land Use

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Near the southwest boundary of the project site is an existing residential neighborhood at the intersection of Redlands Boulevard and Alessandro Boulevard; a small market and a post office are also located near this intersection. This area is referred to as "Old Moreno." The Moreno Valley Ranch and Golf Club residential community is approximately one mile southwest of the project area.

There is little development adjacent to the east and south boundaries of the project area. The area east of the project site across Gilman Springs Road is commonly referred to as the Badlands, a rugged area that separates the City of Moreno Valley from San Timoteo Canyon and the City of Beaumont. Due to its steep slopes and canyons, the Badlands area has experienced little development; however, there are approximately ten single-family homes in the area east of Gilman Springs Road near the project site. The Badlands Sanitary Landfill, operated by the County of Riverside Waste Management Department, is located approximately 1.5 miles northeast of the project area.

Immediately south of the proposed project is the San Jacinto Wildlife Area (SJWA), which includes an "Upland Game Hunting Area," and Mystic Lake. These lands are state-owned and access to these areas is restricted. The Lake Perris State Recreation Area is west of the SJWA and is owned and operated by the California State Parks Department and contains approximately 6,000 acres of open space land, which is used both for recreation and preservation of the natural southern California landscape.

The closest large-scale commercial development is located on the south side of SR-60 at Moreno Beach Drive, approximately 1.25 miles to the west of the proposed project. This shopping complex includes a Walmart and Target along with restaurants and ancillary commercial and service uses, and the Moreno Valley Auto Center. The central core of Moreno Valley, which includes residential neighborhoods and more extensive commercial activity, is located approximately three miles west of the project area.

March Air Reserve Base (MARB) is located approximately seven miles southwesterly of the proposed project. The MARB is under the authority of the March Joint Powers Authority (MJPA), which acts as the land use authority as well as the March Inland Port Airport Authority for reuse of the former March Air Force Base.

3.2.4 Local History

In 1774, the Spanish explorer Juan Bautista de Anza traveled through this area, passing by Mystic Lake and traveling around the Mount Russell Range on his exploration of Alta California.

The project area was first developed in the late 1890s; prior to this, the property had been part of the *San Jacinto Nuevo y Potrero Rancho*. This Rancho, a subdivision of the massive San Jacinto Rancho (originally 8 square leagues in size or more than 50 square miles) lay vacant during the Spanish era and was not part of any rancho until 1842. Once defined, the old road from Temecula to San Jacinto was expanded such that a road was established between San Jacinto and the Box Springs area of the City of Riverside and points beyond. This road probably ran along the track now covered by Gilman Springs Road, headed to Box Springs across what is now Moreno Valley, thence to Riverside and points west. Because of the lack of reliable water, it is unlikely that the project area was used during the early historic period for anything except springtime grazing of sheep and cattle.

During the historic era, most of the parcels in the project area have been used sporadically for dry-land crops and the occasional irrigated farming plots. Horses were raised on one farm in the northwest corner of the site. Although plans were made to bring water from Big Bear to the project area as part of a regional California land boom scheme (circa 1891), the plan was never completed because the issue of water rights was adjudicated in favor of the City of Redlands.

The Moreno Valley area supported numerous military facilities from the early 1900s to today, with the March Air Reserve Base still functioning near I-215 on the west side of town. From the 1970s through the 1990s, Moreno Valley was one of the fastest-growing residential communities in the nation, and incorporated in 1984. In 1992, the City approved a master planned, mixed-use community called "Moreno Highlands Specific Plan" on most of the project site, but no uses within this community were ever built.

3.3 GENERAL PLAN AND ZONING DESIGNATIONS

3.3.1 Designations on the Project Site

The Community Development Element of the City's General Plan currently designates the project area as a mix of residential, commercial, business park, and open space land uses. The currently approved 3,038-acre Moreno Highlands Specific Pan (MHSP) proposes a master planned, mixed-use community consisting of up to 7,763 residential dwelling units on approximately 2,435 acres and approximately 603 acres of business, retail, institutional, and other uses. Table 3.A is a summary of land uses of the MHSP. Figure 3.4 depicts the City General Plan land use designations for the area.

Table 3.A: Moreno Highlands Specific Plan (Current Land Use Designations)

Land Use	Acreage
Residential Community	
Residential (7,763 du)	1,359.3
Parks and Open Space	701.9
Neighborhood Commercial	10.0
Cemetery	16.5
Public Facilities	347.7
Planned Business Center	
Business Park	360.8
Mixed Use	80.5
Community Commercial	16.0
Parks and Open Space	77.9
Public Facilities	67.4
Project Total	**3,038.0**

Adopted by City Council March 17, 1992

As a result of a variety of factors, the Moreno Highlands Specific Plan has not been implemented.

The City's 2006 Housing Element identified the Moreno Highlands Specific Plan as a potential source of vacant land that could accommodate possible future residential growth in the City. In 2011, the City updated its Housing Element and anticipated possible land use changes from mixed use and residential to jobs producing warehouses in the eastern part of the City. The 2011 Housing Element concluded that redesignating the entire land area east of Redlands to the eastern City border for warehouse uses would not impede the City's Housing Element Objectives. The State Department of Housing and Community Development certified the City's Housing Element as being in compliance with State law on February 22, 2011. The proposed project is consistent with the City's current Housing Element.

Highland Fairview currently owns or controls development rights on 1,754 acres or 46 percent of the total 3,714 acres within the WLC project area and 67 percent of the WLCSP area. The remainder of the project area property is owned by private individuals or entities such as the San Diego Gas & Electric Company, Southern California Gas Company, Metropolitan Water District, and California Department of Fish and Wildlife. Figure 3.5 depicts the property ownership within the WLC project area.

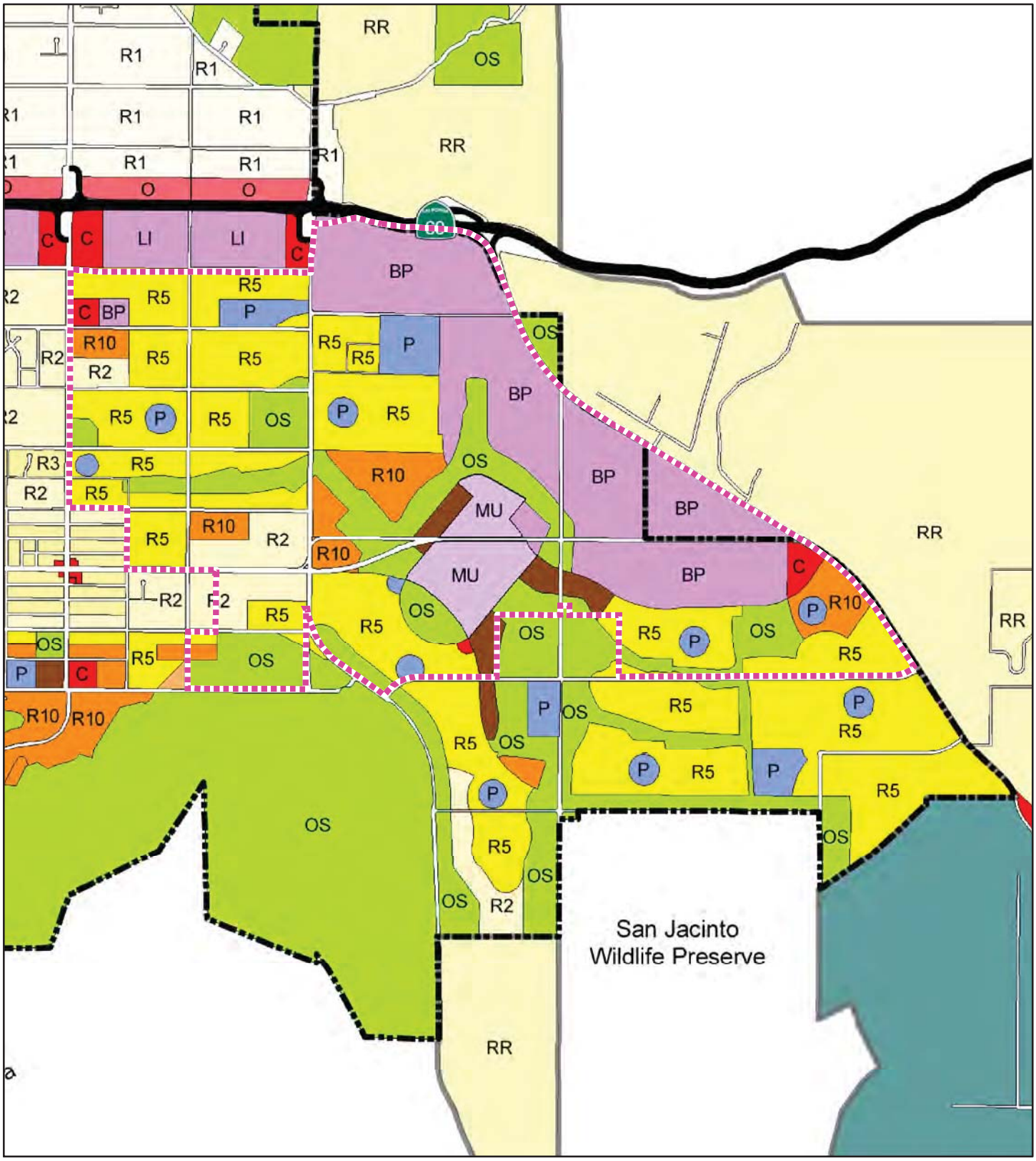

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FIGURE 3.4

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Project Boundary

Highways

City Boundary

Sphere of Influence

Land Use

Residential: Max. 1 du/ac

Mixed Use

Residential: Max. 2 du/ac

Residential: Max. 3 du/ac

Residential: Max. 5 du/ac

Residential: Max. 10 du/ac

Residential: Max. 20 du/ac

Office

Commercial

Business Park/Light Industrial

Open Space

Public Facilities

Floodplain

World Logistics Center Specific Plan Project
Environmental Impact Report

General Plan Land Uses

SOURCE: Riverside County and City of Moreno Valley, August, 2010.

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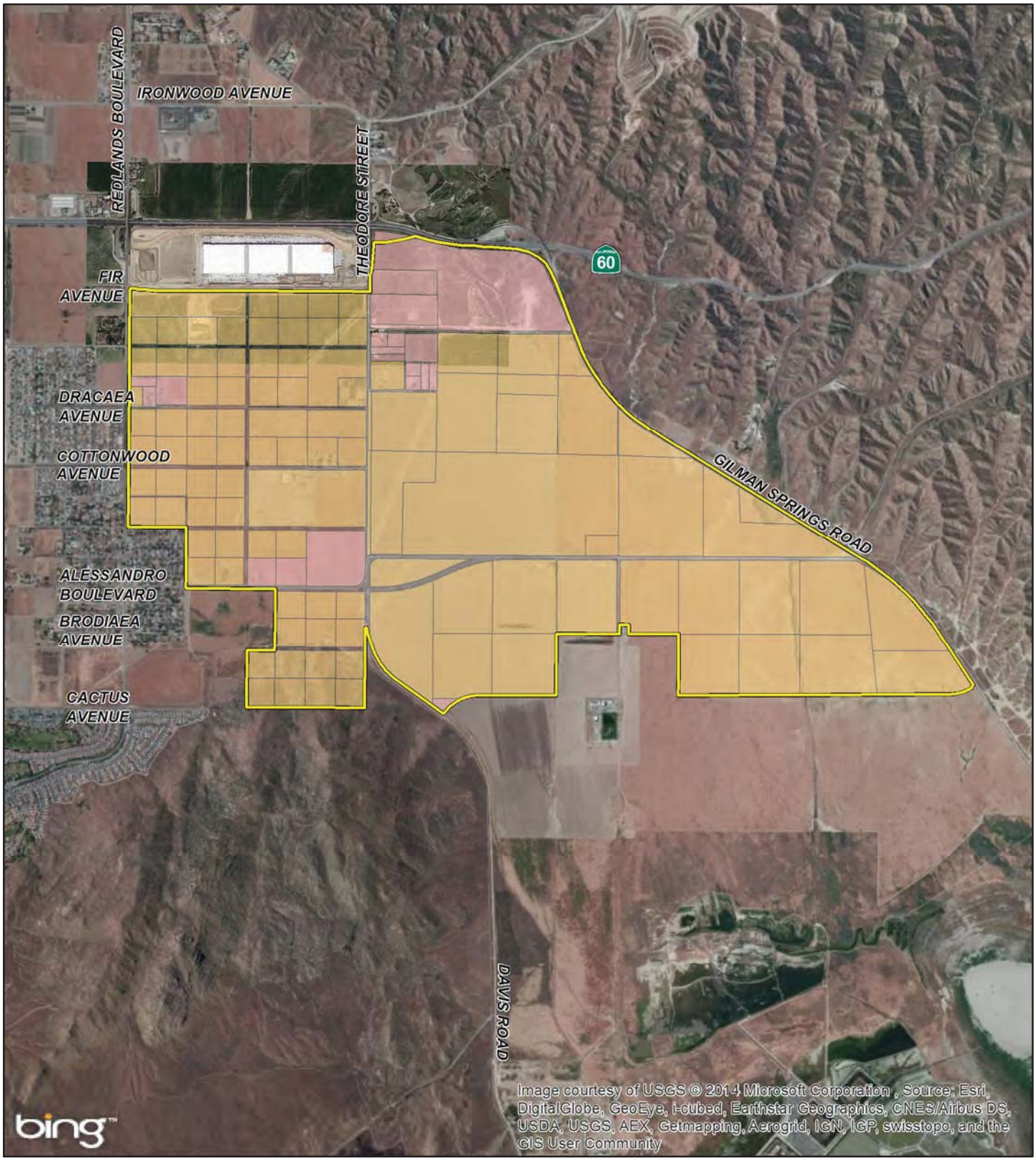

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FIGURE 3.5

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Project Boundary

Area Not Held by Highland Fairview

Area Held by Highland Fairveiw

World Logistics Center Specific Plan Project
Environmental Impact Report

Property Ownership

SOURCE: ESRI World Imagery, 2010; Bing Maps, 2010; Google Maps, 2011.

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An 85-acre parcel located on the west side of Gilman Springs Road near Alessandro Boulevard is within an unincorporated area of Riverside County and within the City Sphere of Influence adopted in 1985. The project will request a pre-annexation General Plan land use designation and zoning of Logistics Development (LD) within a Specific Plan for this parcel, and this EIR will be the environmental documentation used by the Local Agency Formation Commission (LAFCO) to complete the annexation action. The County's land use designation currently applicable to this parcel is W-2-2½. The W-2 area allows single-family residential and light agriculture (the suffix indicates minimum parcel size in acres) and the City's current General Plan land use designation for the site is Business Park (BP) under the MHSP.

The General Plan Amendment and Zone Change includes approximately 910 acres of land owned by the CDFW that are part of the San Jacinto Wildlife Area (SJWA). Much of this property is designated for residential development in the MHSP. The CDFW parcels were acquired by the State beginning in 1992 to act as a buffer from future development to the north (the MHSP) and to further the CDFW goal of eventually preserving approximately 20,000 acres of restored wetlands and ponds. The land around Mystic Lake was originally purchased as mitigation for habitat loss as a result of construction of the state water project.

The SJWA was the first state wildlife area to utilize reclaimed water to create and enhance wetlands, and improvements are ongoing. Waterfowl, wading birds, and quail are among the many animals found in this area. It also supports a number of private hunting clubs around its northwestern perimeter.

The following information was added at the request of the Metropolitan Water District of Southern California (Letter C-2) regarding the Inland Feeder.

The figure showing the location of the Inland Feeder can be found at the end of comment Letter C-2 from the Metropolitan Water District of Southern California.

> "Metropolitan owns property and owns and operates facilities on and adjacent to the site of the proposed project. As shown on the attached map, Metropolitan's irregularly shaped fee-owned property (APN 422-040-009 and 422-040-015), Inland Feeder Tunnel, and appurtenant tunnel access structure are located within the proposed specific plan area. In addition, Metropolitan's 145-inch-inside-diameter Inland Feeder pipeline and appurtenant structures extend through the specific plan area in the street rights-of-way for Eucalyptus Avenue, Theodore Street, and Davis Road. Metropolitan also has a 110-foot-wide easement along Davis Road."

3.3.2 Existing Conditions and Land Use Designations in Surrounding Areas

3.3.2.1 South of SR-60/East of Redlands Boulevard

Existing Conditions. This area is currently used mainly for dry farming, with several scattered rural residences. The only major improvements are several natural gas facilities and two local roadways (Alessandro Boulevard and Theodore Street).

Existing Land Use Designations. The Highland Fairview Corporate Park (HFCP) project is currently under development and Phase 1 (Skechers' North American Operational Headquarters) was completed in late 2011. HFCP is located immediately northwest of the project area, on the north side of Eucalyptus Avenue between Redlands Boulevard and Theodore Street. The HFCP project was

approved by the City of Moreno Valley in 2009. The City General Plan land use designation for the site is a mixture of Commercial (C) and Business Park/Light Industrial (LI).

3.3.2.2 North of SR-60

Existing Conditions. This area is relatively rural at present with mixed light industrial uses along the freeway and scattered residences farther away from the freeway.

Existing Land Use Designations. The land located on the north side of SR-60 and westerly of Theodore Street is within the City of Moreno Valley and has a land use designation of Office (O) and Residential (R1—density of one dwelling unit per acre). The area easterly of Theodore Street is in an unincorporated area of Riverside County with land use designations of Scenic Highway Commercial (C-P-S) and Controlled Development Area (W-2). The W-2 area allows single-family residential and light agriculture (the suffix indicates a 2-acre minimum parcel size); and the C-P-S district allows certain wholesale and retail commercial uses. This county territory is within the City's Sphere of Influence; the City land use designation for the area is Rural Residential (RR) and Residential (R1).

3.3.2.3 East of Gilman Springs Road

Existing Conditions. This area currently contains scattered rural residences east and a golf course southeast of the WLC project area.

Existing Land Use Designations. The Badlands area, lying easterly of Gilman Springs Road, is within the jurisdiction of the County of Riverside and has a land use designation of Controlled Development Area (W-2, W-2-1, and W-2-20). Allowed uses include single-family residential and light agriculture (the suffix indicates minimum parcel size in acres). A portion of this county territory is within the City's Sphere of Influence. The City land use designation for the area is Rural Residential (RR).

3.3.2.4 Southern Boundary

Existing Conditions. All the land south of the WLC project site is part of the Mystic Lake/San Jacinto Wildlife Area property, and currently provides various open space uses related to the presence of wildlife around the lake.

Existing Land Use Designations. The lands south of the project are within the San Jacinto Wildlife Area and the Lake Perris State Recreation Area, and are designated either Open Space (OS) or public facilities (PF).

3.3.2.5 West of Redlands Boulevard

The following change has been made to update the DEIR with the most current information.

Existing Conditions. The land north of Eucalyptus Avenue (currently Fir Avenue) was recently approved for industrial warehousing (West Ridge Project) but the City approval of an EIR for that project had been challenged in court. As of the printing of this EIR the court challenge has been settled and the project sold. The new owners are currently processing a plot plan with the City. The land south of Fir Avenue is planned for suburban residential uses. There are residential

neighborhoods along the west boundary of the project site, west of Redlands Boulevard south of Eucalyptus Avenue, and east of Redlands Boulevard south of Cottonwood Avenue.

Existing Land Use Designations. The City land use designations for the residential areas west of Redlands Boulevard are Residential R2 and R3 (maximum density of 2 and 3 dwelling units per acre, respectively). Residential areas southerly of the site along Alessandro Boulevard are subject to City land use designations of R2 and R5 (maximum density of 2 and 5 dwelling units per acre respectively).

Table 3.B summarizes on-site and adjacent land uses for the project site.

Table 3.B: On-site and Adjacent Land Use Designations

Location	Jurisdiction	Current Land Uses	General Plan Land Uses	Zoning Designations
On site	City of Moreno Valley	Agriculture/dry farming, rural residential	Moreno Highlands Specific Plan	Moreno Highlands Specific Plan
North	County and City of Moreno Valley	SR-60, rural residential north of freeway	County W-2, C-P-S City RR, R1	County W-2, C-P-S City O, R1
South	County and State of California	Agriculture, San Jacinto Valley Wildlife Area	MHSP and OS (City and County)	MHSP and OS (City and County)
East	Riverside County	Gilman Springs Road, rural residential	RR (City)	W-2, W-2-1 and W-2-20 (County)
West	City of Moreno Valley	Residential, Industrial [1]	R2, R3, R5, and LI	R2, R3, R5, and LI

Sources: City of Moreno Valley General Plan Land Use Map, adopted August 2010; City of Moreno Valley Zoning, online data accessed March 2012. County of Sphere of Influence, data from Transportation Land Management Agency (TLMA), County website accessed March 2012.

[1] approved Westridge project

3.4 PROJECT CHARACTERISTICS

The Specific Plan being evaluated in this EIR covers 2,610 acres and proposes a maximum of 40.4 million square feet of “high-cube logistics” warehouse distribution uses classified as “Logistics Development” (LD) and 200,000 square feet (approximately 0.5%) of warehousing-related uses classified as “Light Logistics” (LL). The lands within the WLC Specific Plan that are designated LL are existing rural lots, some containing residential uses, that will become “legal, non-conforming uses” once the WLC Specific Plan is approved. In addition, the LD designation includes land for two special use areas; a fire station and a “logistics support” facility for vehicle fueling and sale of convenience goods (3,000 square feet is assumed for planning purposes for the “logistics support”). The components of the proposed project are discussed below and are shown in Figure 3.6.

3.4.1 Project Terms

The following terms and areas are defined here for the purposes of analysis in the EIR:

- **World Logistics Center Project:** The term refers to all related development and planning activities currently proposed by Highland Fairview in the Rancho Belago area of the eastern end of the City of Moreno Valley. The WLC property is generally located south of SR-60, east of Redlands Boulevard, west of Gilman Springs Road, and north of Mystic Lake and the San Jacinto Wildlife Area.

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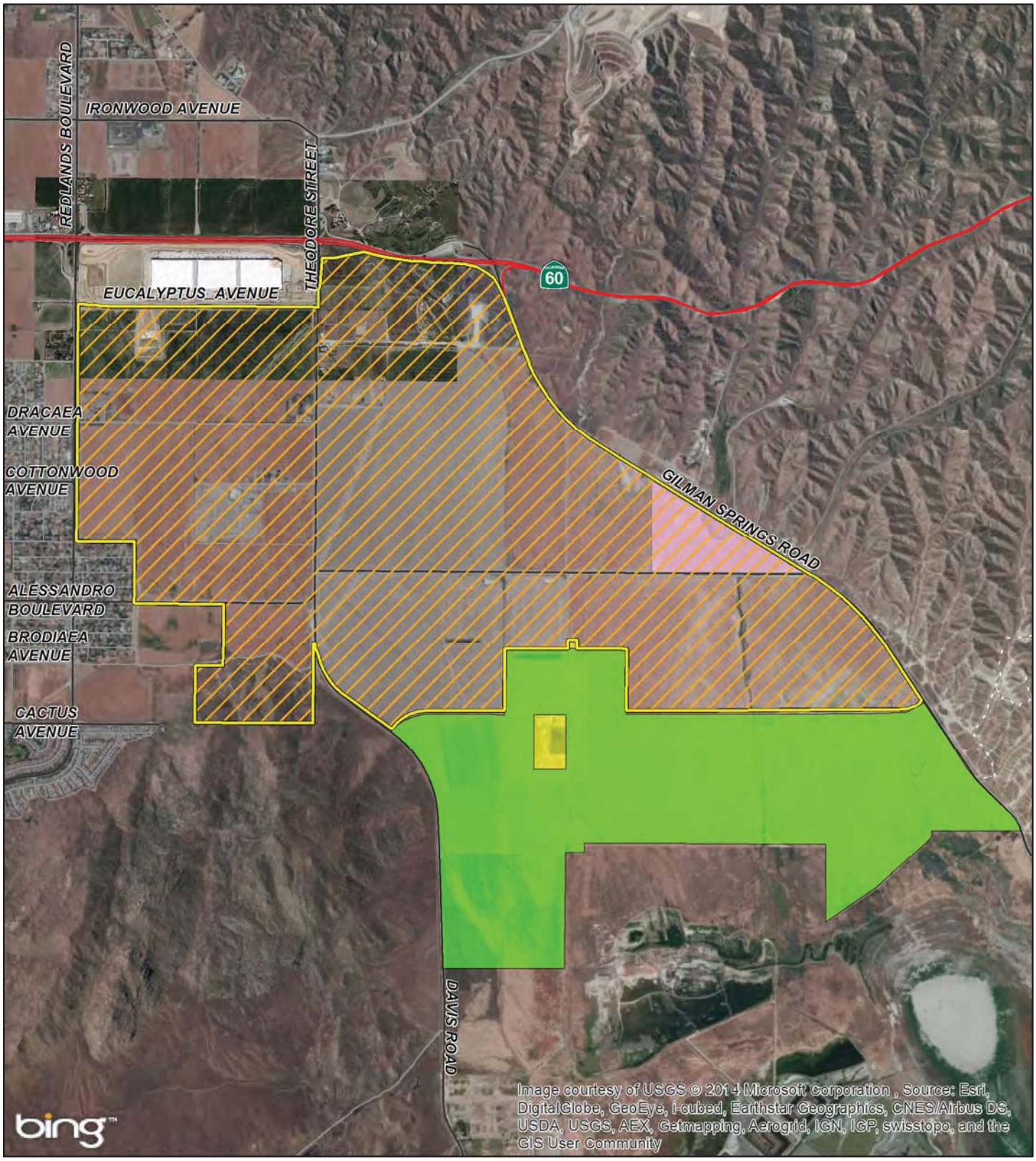

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FIGURE 3.6

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- Project Boundary
- Specific Plan
- CDFW Land - Open Space
- Public Utility
- Annexation Area

World Logistics Center Specific Plan Project
Environmental Impact Report

Component Areas

SOURCE: ESRI World Imagery, 2010; Bing Maps, 2010; Google Maps, 2011.

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- **Project Site or Project Area:** This term refers to the entire 3,818 acre area covered by the EIR encompassed by: (a) the Specific Plan Area (2,610 acres); (b) the CDFW Conservation Buffer Area (910 acres); c) the Public Facilities area (194 aces); and (d) the Off-site Improvement Area on 104 acres.
- **CDFW Conservation[1] Buffer Area:** This term refers to a 910-acre parcel owned by the State of California as part of the San Jacinto Wildlife Area (SJWA). This land is within the City of Moreno Valley and is included in the approved Moreno Highlands Specific Plan. That plan designates this property for a broad mix of urban uses including suburban residential, schools, parks, and roads. This land was purchased by the State in 1991 as additional upland habitat for the SJWA and also to act as a buffer between the sensitive biological resources of the SJWA and the future urban development under the Moreno Highlands Specific Plan. This land has been actively farmed for many decades and most of it remains in active production. The southwestern portion contains areas of non-native grasslands, although aerial photographs show that this area has been intermittently tilled over the last 80 years. This property is included in the General Plan Amendment and the Zone Change to replace the current urban land uses that are permitted and to replace them with Open Space and Public Facility designations. This property is **not** within the proposed World Logistics Center Specific Plan (i.e., not in the area planned for development). This Conservation Buffer Area is a large part of the "Other Project Areas" described herein.
- **Other Project Areas:** The San Diego Gas & Electric Company (SDG&E) and the Southern California Gas Company (SCGC) own a total of 194 acres of land immediately south of the Specific Plan site. These properties are included in the proposed General Plan Amendment and the Zone Change to designate them for Open Space and Public Facilities uses. These designations are consistent with present uses. These properties are not within the proposed World Logistics Specific Plan. Approximately 174 acres of the land owned by SDG&E will be designated as Open Space. Nineteen acres of SDG&E land and one acre of SCGC land will be designated as Public Facilities.
- **Off-site Improvement Areas:** Development under the Specific Plan will require construction of a number of off-site infrastructure improvements covering approximately 104 acres of land adjacent to the Specific Plan Site including, but not limited, to the following facilities (see Figure 3.7):
  - Debris basins easterly of Gilman Springs Road;
  - Water reservoirs and access roads located northeast, north, and west of the project site;
  - SR-60 interchange improvements; and
  - Roadway, water, sewer, drainage, and utility improvements extending north and west from the project.
- **Specific Plan Site:** Approximately 2,610 acres of the project area are included in the proposed WLC Specific Plan, located generally south of SR-60, east of Redlands Boulevard, west of Gilman Springs Road, and north of the San Jacinto Wildlife Area.
- **WLC Specific Plan:** The revised WLC Specific Plan proposes a master-planned logistics campus to include up to 40.4 million square feet of high-cube logistics warehousing, up to 200,000 square feet of light logistics uses, and 74.3 acres of Open Space in the southwest corner of the site. The Specific Plan includes extensive development standards, design guidelines, and review procedures for all development within the project.
- **Annexation Area:** This term refers to an 85-acre parcel located adjacent to Gilman Springs Road that is to be annexed into the City of Moreno Valley. The parcel is already within the City's Sphere of Influence, adopted on November 21, 1985.

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[1] Although there were many comments suggesting the term "buffer" be removed from the name of this area, it accurately reflects the purpose of its purchase by the State Conservation Board. However, it should be noted that this land **is**, and will remain, part of the SJWA.

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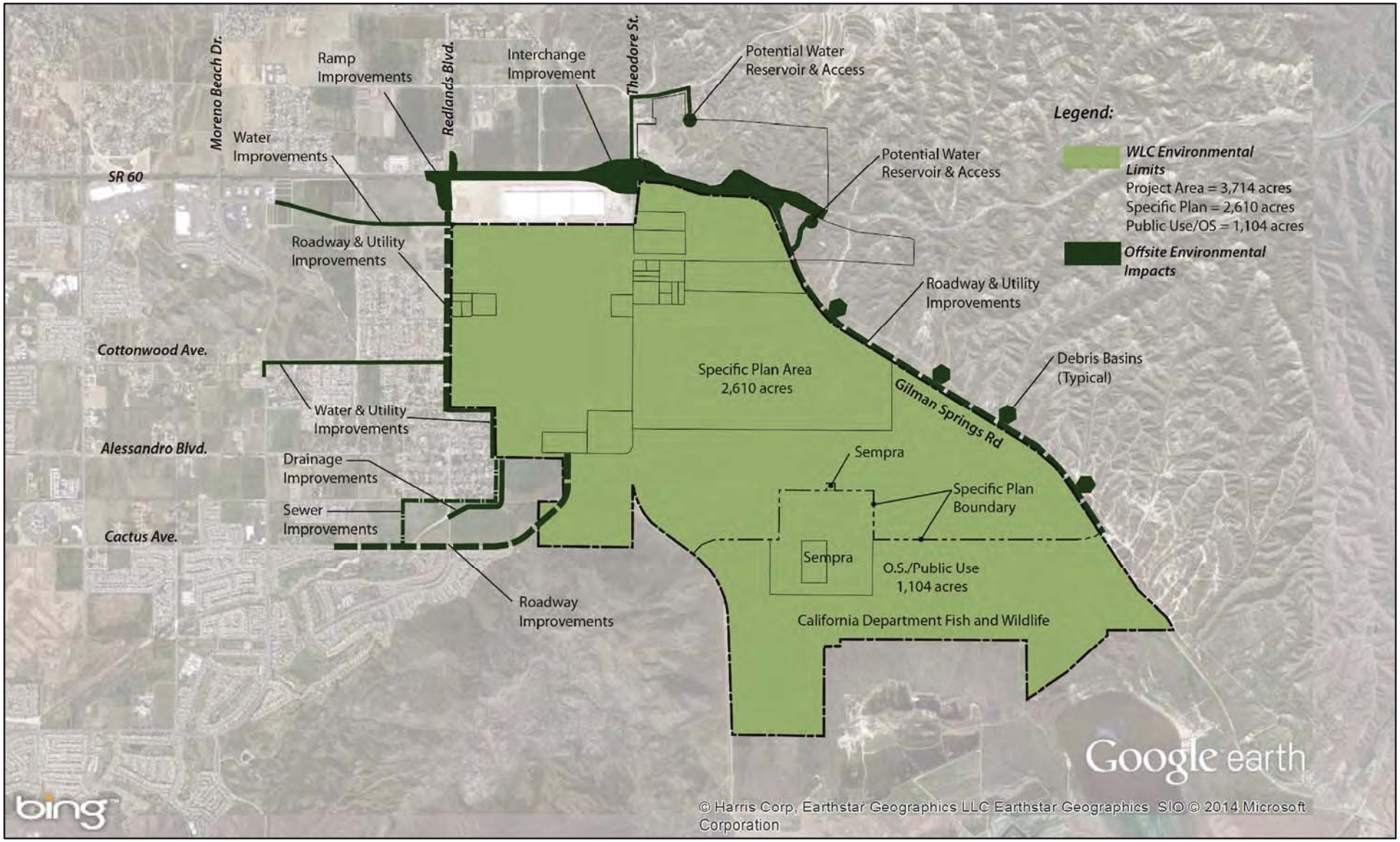

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FIGURE 3.7

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World Logistics Center Specific Plan Project
Environmental Impact Report

Offsite Improvements

SOURCE: HF, 2014.

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- **Tentative Parcel Map Area:** A Tentative Parcel Map is being processed to subdivide 1,539 acres of the project for financing purposes only. This property is owned by the project applicant. Approval of the map will confer no development rights to the property.
- **General Plan Amendment:** One of the proposed entitlements is a General Plan Amendment (GPA) that will permit the establishment of logistics land uses on 3,487 acres of property located east of Redlands Boulevard and south of SR-60. The following General Plan Elements will be amended: Community Development; Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and General Plan Goals and Objectives. The GPA will replace the current Moreno Highland Specific Plan/General Plan Designations with the following land use designations: (a) 2,383 acres for high cube logistics development; (b) 1,084 acres of Open Space; and (c) 20 acres for Public Facilities. The General Plan land use designation for the site would become Business Park/Light Industrial (BP).
- **Zone Change:** The project includes a Zone Change covering, 3,714 acres, which will designate 1,084 acres of land for Open Space (CDFW and SDG&E properties), 20 acres for Public Facilities (SDG&E and SCGC properties), and 2,610 acres for the World Logistics Center Specific Plan. The specific land use zones would be Logistics Development (LD) and Light Logistics (LL).
- **State Lands:** Refers to lands owned by the State of California and includes the San Jacinto Wildlife Area (SJWA) located south of the Specific Plan Site, and the Lake Perris State Recreation Area (LPSRA) located southwesterly of the Specific Plan Site.
- **Moreno Highlands Specific Plan (MHSP):** This term refers to the currently approved Specific Plan that covers 3,038 acres of the project area. This Specific Plan permits the development of a master planned, mixed-use community consisting of up to 7,763 residential dwelling units and approximately 603 acres of business, retail, institutional, and other uses.

NOTE: Several commenters indicated that any mention of the current MHSP land plan should include the loss of 1,000 acres of land in the south end of that property that was purchased by the state for conservation as part of the SJWA, which is referred to in this document as the State Conservation Buffer Area.

- **Proposed Project or World Logistics Center Project:** General term applied to all of the entitlements outlined above that are addressed in this EIR, including:
  - WLC Specific Plan ..... 2,610 acres
  - General Plan Amendment ..... 3,714 acres
  - Zone Change ..... 3,714 acres
  - Tentative Parcel Map..... 1,539 acres
  - Annexation..... 85 acres
  - Off-site improvements ..... 104 acres

3.4.2 Logistics Warehousing Development

Logistics warehouses are used primarily for the storage and/or consolidation of manufactured goods (with no manufacturing) prior to their distribution to secondary retail outlets. These facilities consist of large buildings typically larger than 500,000 square feet in size, often subdivided for multiple tenants, with typical ceiling heights of 24 feet or more, and can be characterized by highly automated material handling systems supported by truck activities frequently during off-peak hours, and good freeway access. Goods imported through the Ports of Long Beach and Los Angeles as well as other locations

are delivered via truck to the proposed distribution centers and distributed via truck to both in and out of state locations, thus benefiting both local and interstate commerce.

High-cube warehouse and logistics facilities include ancillary office and maintenance space along with the outdoor storage of trucks, trailers, and shipping containers. High cube-logistics warehouses provide businesses with a centralized location to sort, organize, and often transfer products from one shipping process to another where multiple forms of transport are available.

High-cube logistics warehouses are generally constructed with vertical-lift dock-high roll up doors to allow access for the loading and unloading of products from truck/trailers. Building interiors are typically large and open to accommodate the temporary storage and consolidation of the products to be distributed. Parking is provided for trucks and trailers in addition to parking for passenger vehicles in accordance with local standards.

3.4.3 Open Space Properties

The California Department of Fish and Wildlife (CDFW) owns 910 acres of vacant open space land within the project area. This area is the most northerly end of the San Jacinto Wildlife Area and all of it is being actively farmed. Section 4.4, *Biological Resources*, explains the importance of the SJWA in more detail, but generally supports a diversity of birds and other wildlife in and around Mystic Lake. This land was purchased by the State as a “buffer” between Mystic Lake and approved development under the Moreno Highlands Specific Plan within the City of Moreno Valley. This land is currently actively farmed and provides raptor foraging habitat in the northern portion of the SJWA. This land is designated as permanent open space on the proposed General Plan Amendment and Zone Change.

SDG&E owns and maintains 174 acres of open space around its 19-acre Moreno Compressor Station plant. The WLC project proposes this land be designated as permanent Open Space under the City General Plan and zoning.

The Specific Plan includes 74.3 acres of land designated as open space in the southwest corner of the property. It should be noted that Mount Russell and the Mount Russell Range are immediately southwest of the project area, along with the Lake Perris State Recreational Area. No development is proposed for the 74.3 acres designated as Open Space within the Specific Plan.

3.4.4 Moreno Compressor Plant and Public Facilities

SDG&E operates a regional natural gas compression-transmission facility on 19 acres in the south-central portion of the site. This site is bounded on three sides by the CDFW property identified in Specific Section 3.4.3. The project proposes to designate this facility as “Public Facility” under the City General Plan and zoning, and does not propose or anticipate any further development of this site. Any proposal to expand the existing facilities at the site would require separate evaluation under CEQA.

A one-acre natural gas facility operated by SCGC is located just north of the Moreno Compressor Facility. It is also proposed to be designated as “Public Facility” as part of the project.

3.4.5 Annexation Area

Approximately 85 acres of land within the project area are within an unincorporated area of Riverside County and within the City’s Sphere of Influence. The proposed project includes the completion of the annexation process for this land. This property is located just west of Gilman Springs Road and north of Alessandro Boulevard and is currently dry farmed similar to the land surrounding it. The project includes

approval of a pre-annexation General Plan and zoning land use designations of Logistics Development (LD) within the Specific Plan for this parcel. This EIR will be the environmental documentation used by the LAFCO to complete the annexation action, which commenced when the property was included in the City's Sphere of Influence in 1985. The County's land use designation currently applicable to this parcel is W-2-2½, which allows single-family residential and light agriculture, while the City's current General Plan land use designation for the site under the MHSP is Business Park (BP).

3.4.6 World Logistics Center Specific Plan

The proposed project includes a Specific Plan to implement the new General Plan Amendment and to set forth comprehensive land use regulations governing the proposed project. The Specific Plan is a master plan for the future development of up to 40.6 million square feet of building area on 2,610 acres, providing for mainly high-cube logistics and distribution facilities. This programmatic EIR provides a streamlined environmental review process for future development projects in the WLC Specific Plan area, including site-specific subdivisions and development entitlements that are consistent with the overall plan. Subsequent projects that the City determines to be within the scope of the EIR may be approved pursuant to the procedures set forth in *CEQA Guidelines* Sections 15162 and 15177.

The following sections provide a summary of key elements of the Specific Plan, and Table 3.C provides a summary of the land uses of the Specific Plan and other areas addressed by the project.

Table 3.C: WLC Project Characteristics (updated September 2014)

Area/Land Use	Original Project		Revised Project	
	Acres	Square Footage	Acres	Square Footage
World Logistics Center Specific Plan (WLCSP)				
LD Logistics Development[1]	2,606	41,400,000	2,382.8	40,400,000
LL Light Logistics	29	200,000	37.1	200,000
OS Open Space	75	—	74.3	—
ROW[2]	—	—	115.8	
WLCSP Total	**2,710**	**41,600,000**	**2,610.0**	**40,600,000**
Other Project Areas				
California Department of Fish and Wildlife	910	—	910	—
San Diego Gas and Electric – Open Space	174	—	174	—
San Diego Gas and Electric – Facility	19	—	19	—
Southern California Gas Company – Facility	1	—	1	—
Other Areas Total	**1,104**	**—**	**1,104**	**—**
Off-site Improvement Areas	**104**	**—**	**104**	**—**
TOTAL WLC PROJECT AREA **Floor Area Ratio (FAR)[3]**	**3,918** **NA**	**41,600,000** **0.352**	**3,818** **NA**	**40,600,000** **0.357**

1 Included in LD zone 3,000 square feet of "logistics support" in Planning Area 22 at northeast corner of Theodore and Eucalyptus.
2 Right-of-Way included in each land use category
3 Floor Area Ratio (FAR) is gross building area divided by gross site area

NOTE: The following changes are due to revisions to the Specific Plan size, land plan, and phasing.

3.4.6.1 Land Use Plan/Planning Areas

The WLC Specific Plan is a master plan for the development of up to 40.6 million square feet of development emphasizing modern high-cube logistics distribution facilities. The following information summarizes Section 2.0, *Land Use Plan*, of the WLC Specific Plan (see Appendix B), including three proposed land use designations, as shown in Figure 3.8.

High Cube-Logistics Development (LD). The WLC Specific Plan project proposes to develop approximately 2,383 acres with up to 40.4 million square feet of high cube logistics warehouse space. This represents approximately 99.5 percent of the total building area of the WLC Specific Plan project. Land uses allowed under this classification include high cube logistics warehouse buildings of 500,000 square feet or greater. High cube logistics warehouses are characterized by a high level of automated material handling systems and typical truck activities outside of the peak hour. High cube logistics warehouses are generally used for the storage of manufactured goods prior to their distribution to retail outlets (see Section 4.15 and Appendix J of this EIR). Warehouses permitted in the LD portion of the WLC would be no smaller than 500,000 square feet, with a maximum height of 80 feet. The Specific Plan prohibits buildings over 60 feet in height along the western, northern, and southern boundaries of the site (see Figure 3.9).

Warehousing and logistics activities consistent with the storage and processing of manufactured goods and materials prior to their distribution to other facilities and retail outlets will be permitted throughout the Specific Plan. Refrigerated warehouse space is not an allowed use within the Specific Plan area (see Mitigation Measure 4.3.6.3E). Ancillary office and maintenance space is included along with the outdoor storage of trucks, trailers, and shipping containers. LD land uses provide a location for businesses to sort, organize, and transfer products from one shipping process to another.

Special Uses. Two “special use” areas are proposed within the land designated LD within the WLCSP. The first special use is at least one City fire station in Planning Area 11 east of Street F and west of Gilman Springs Road, although the City Fire Chief has not determined the specific site yet. The second special use area is for “logistics support” which will provide alternative fueling services for onsite users. The WLCSP encourages the development of warehousing that uses trucks powered by non-diesel fuels such as natural gas. The Specific Plan requires that smaller on-site service vehicles associated with these same buildings will use non-diesel fuels such as compressed natural gas (CNG) (WLCSP Section 12.3). The use of LNG/CNG will substantially reduce vehicular emissions from the WLC project, including diesel particulate matter (DPM) and other diesel-related pollutants. This facility will include a maximum of 3,000 square feet of building area for diesel and LNG/CNG fuel sales, and for a small convenience store on a minimum of a 1 acre plot. This facility will be located a minimum of 250 feet away from any residential uses (see Specific Plan Section 2.2.5, Land Use Plan for more information on this facility). Other permitted uses within the “logistics support” area include construction yards within, or immediately adjacent to approved construction sites, cellular transmission facilities and structures and public utility uses and structures.

NOTE: Diesel Emissions and Project Operation Restrictions. All medium-heavy duty trucks and heavy-heavy duty trucks entering logistics sites will be required to meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025 or be powered by natural gas, electricity, or other diesel alternative. Year 2010 diesel engines are generally considered to be as “clean” in terms of emissions compared to natural gas engines. Facility operators must maintain a log of all trucks entering the facility to document that on average, the daily truck fleet meets the emission standards contained in this mitigation. This log shall be available for inspection by City staff at any time. All service yard trucks (hostlers, yard goats, etc.), pallet jacks, forklifts, and other on-site equipment used during operation shall be powered by electricity, natural gas, and/or propane. Electrical power sources shall be provided for service equipment.

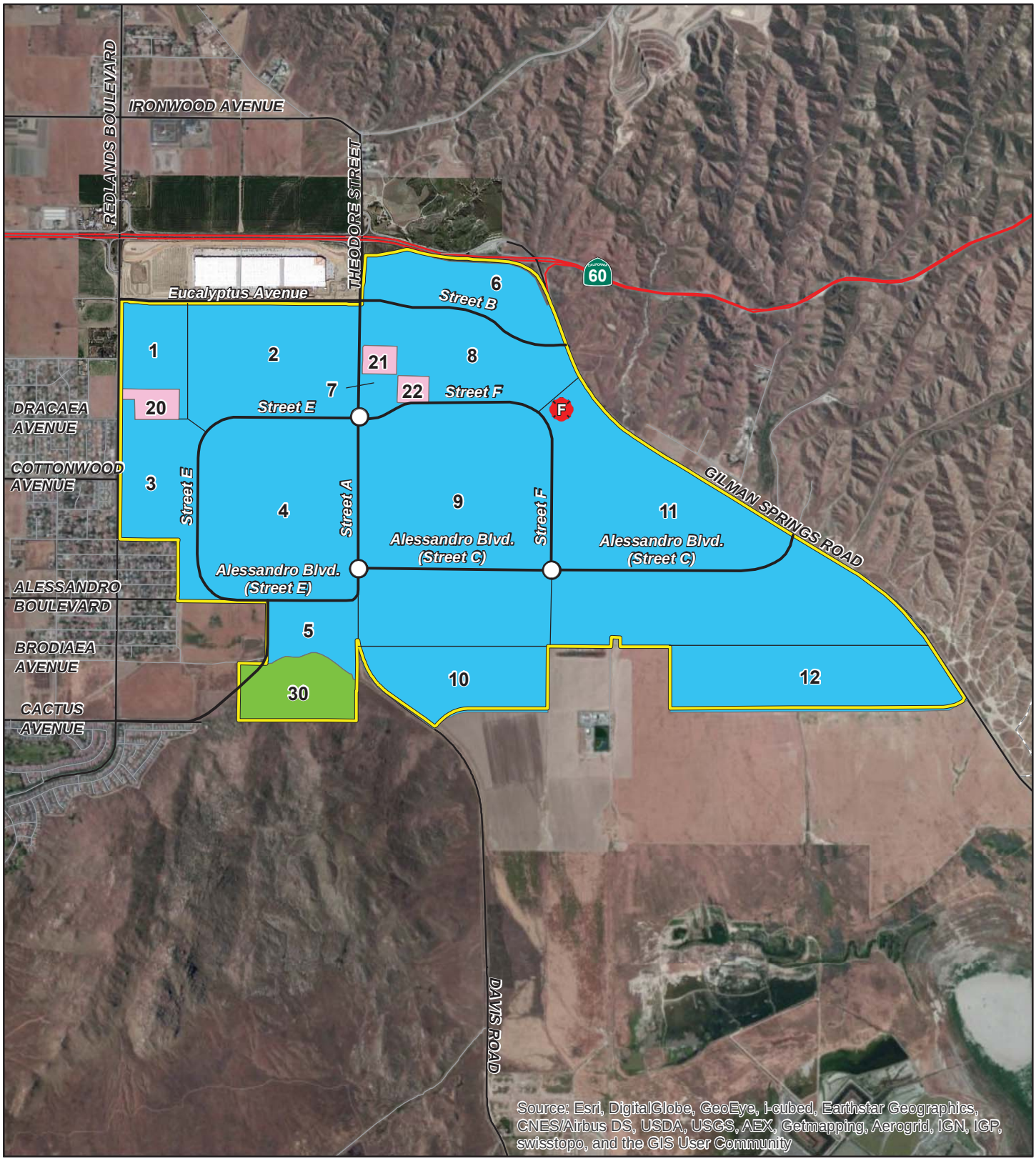

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FIGURE 3.8

Project Boundary
Light Logistics
Logistics Development
Open Space
Fire Station Site
1 Planning Area Number

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0 1,500 3,000
Feet

World Logistics Center Specific Plan Project Environmental Impact Report

Specific Plan Land Uses

SOURCE: ESRI World Imagery, 2010; Bing Maps, 2010; Google Maps, 2011.

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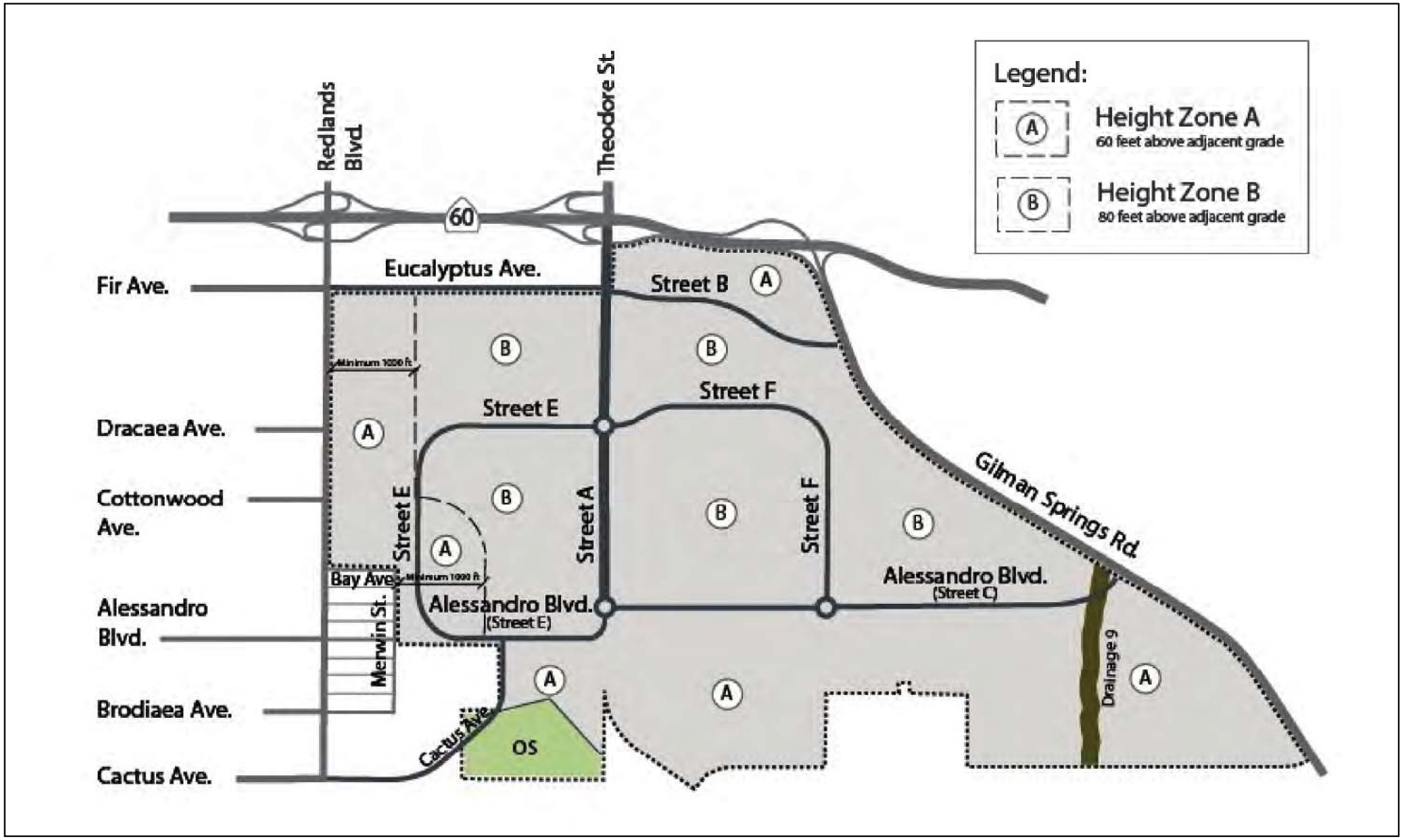

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FIGURE 3.9

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SOURCE: HF, September, 2014.

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World Logistics Center Specific Plan Project
Environmental Impact Report

Building Height Plans

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Light Logistics Uses (LL). This category provides for the storage of materials such as general warehouse, self-storage, or vehicle storage uses, and would also include related office and/or maintenance areas. The WLC Specific Plan applies this designation to approximately 37 acres of existing lots that are not large enough for LD buildings (minimum 500,000 square feet). Buildout of these areas could support up to 200,000 square feet of building area or 0.5 percent of the planned development of the site. Some of these lots are currently improved with residential uses and/or agricultural uses. Under the Specific Plan, the residential and agricultural uses would become legal, non-conforming uses.

Open Space (OS). Approximately 74.3 acres in the southwest corner of the project area is designated for open space use in the Specific Plan. This property is adjacent to Mount Russell and the Lake Perris State Recreational Area. The Specific Plan restricts this property to passive open space and recreation uses. According to the WLC Specific Plan Section 2.4 the entire Open Space in Planning Area 30 will be offered for dedication in fee to the State of California for expansion of its adjacent ownership, or other public or private conservation organizations (see DEIR Section 4.1.6.1 for details). It should be noted that the only improvement planned for this area is the extension of Cactus Avenue.

Planning Areas. The Specific Plan land use plan is divided into sixteen (16) Planning Areas based on traffic impact zones which allows for more accurate estimates of potential traffic and air quality impacts of the WLC Project. The specific land use of each planning area is outlined in Table 3.D. Planning Areas (PA) 1-12 are designated as Logistic Development (LD), PA 20-22 are designated as Light Logistics (LL), PA 7 has been specified as an alternative fueling station (refer to DEIR Section 3.4.7.5 for more information), and PA 30 is Open Space (OS). The previous Figure 3.8 shows the locations of the new planning areas for the WLCSP on the revised land use plan.

NOTE: The following table and figure have been added to show planning areas in the Specific Plan.

Table 3.D: WLC Project Land Uses by Planning Areas (all new from original DEIR)

Planning Area (PA)	Land Use Designation	Area (acres)	Building (square feet)
Logistics Development (LD)			
1	LD	77.8	1,100,000
2	LD	193.5	4,200,000
3	LD	120.3	1,600,000
4	LD	301.5	5,600,000
5	LD	64.2	600,000
6	LD	115.3	500,000
7	LD	10.3	50,000
8	LD	142.9	2,150,000
9	LD	485.8	10,400,000
10	LD	139.9	2,200,000
11	LD	500.0	8,000,000
12	LD	231.3	3,500,000
Subtotal		**2,382.8**	**40,400,000**
Light Logistics (LL)			
20	LL	16.1	45,500
21	LL	10.5	77,250
22	LL	10.5	77,250
Subtotal		**37.1**	**200,000**

Table 3.D: WLC Project Land Uses by Planning Areas (all new from original DEIR)

Planning Area (PA)	Land Use Designation	Area (acres)	Building (square feet)
Open Space (OS)			
30	OS	74.3	—
Other			
ROW		115.8	—
Total		**2,610.0**	**40,600,000**

Source: WLCSP September 2014

3.4.6.2 Circulation System

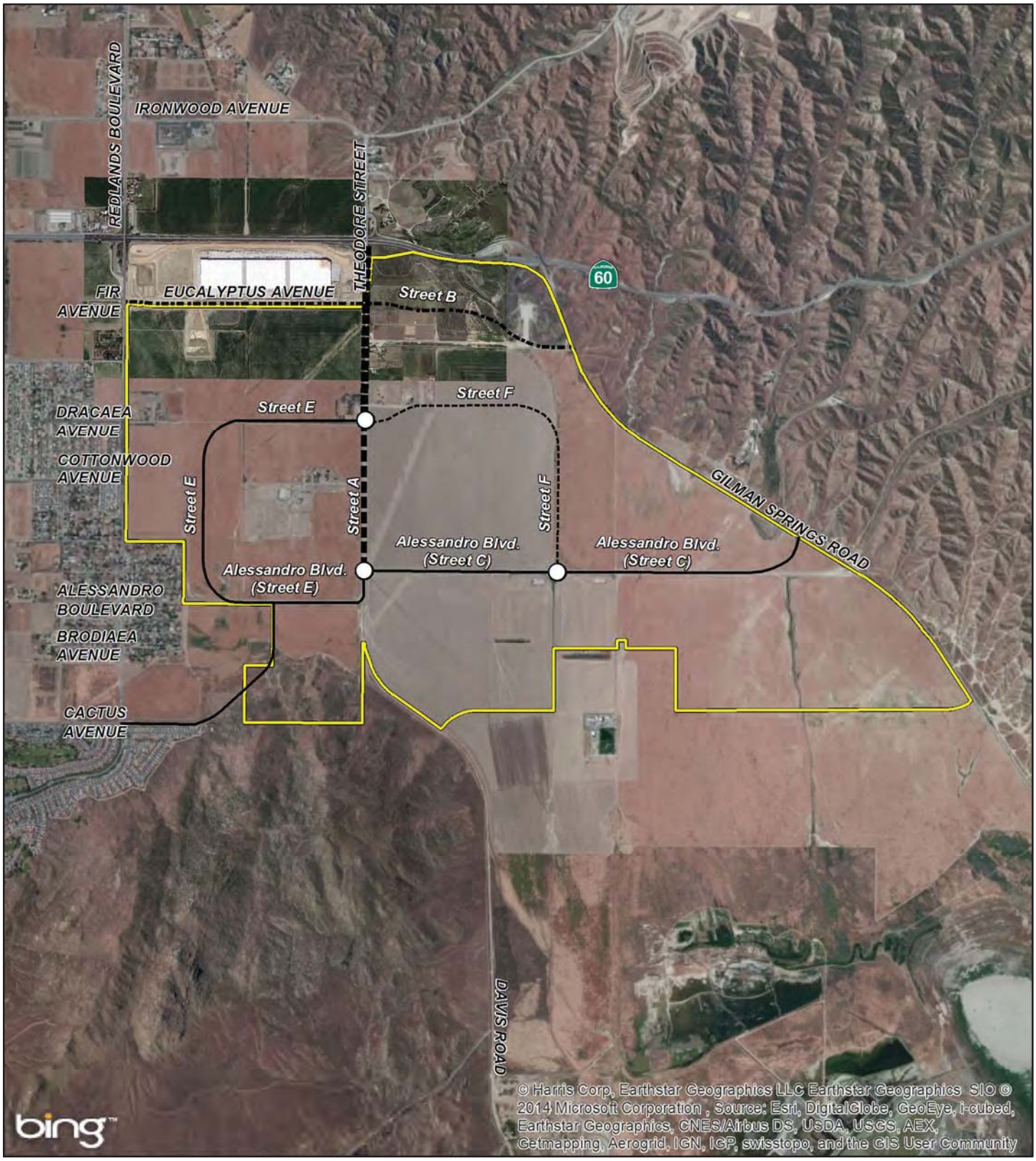
The revised General Plan Circulation Element (as amended by the proposed WLC project) and the Specific Plan's Circulation Plan (Specific Plan Section 3.1) provides for the movement of vehicles in and around the World Logistics Center area. It provides the details of the road/street designations, right-of-way design, and road improvement thresholds. This section addresses the interface of the planning area with existing roadways as defined in the City General Plan.

Four key roadways will provide access to the proposed project: Theodore Street, Eucalyptus Avenue (between Redlands Boulevard and Theodore Street), Gilman Springs Road, and Alessandro Boulevard (between Gilman Springs and the proposed extension of Cactus Avenue), as depicted in previously referenced Figure 3.6. The Specific Plan identifies five points of access for project traffic: (1) Eucalyptus Avenue at Redlands Boulevard; (2) Theodore Street at SR-60; (3) Street B at Gilman Springs Road; (4) Street C at Gilman Springs Road; and (5) Cactus Avenue Extension extended to Cactus Avenue (no trucks, passenger vehicles only). Primary vehicular access to the project would be from SR-60 at Theodore Street and interchange improvements are planned to accommodate the increase in traffic volumes.

The Traffic Section of the DEIR provides that Transportation Management Plans (TMPs) may be included with each future building-specific project proposal in order to address project parking requirements in order to support "green building" or sustainable concepts. The number of required parking spaces may be modified subject to the approval of a TMP based on the provision of carpooling, van pools, staggered work hours or other facilities and programs. TMP applications would be processed in connection with future project-specific development applications.

Street Improvements. The following roadways lie on the project perimeter. Future improvements to project-affected roadways will be completed in accordance with City General Plan standards. Figure 3.10 provides the WLCSP Circulation Plan and Figure 3.11 shows the typical street cross-sections.

- **State Route 60.** SR-60 is a State freeway that currently has two mixed-flow lanes in each direction. Future improvements are planned by Caltrans to add a separate truck lane eastbound on the freeway through the Badlands including a dedicated truck lane in the future. SR-60 provides primary access to the project area.
- **Redlands Boulevard.** Redlands Boulevard is a designated truck route between SR-60 and Eucalyptus Avenue only; therefore, truck travel would be prohibited on Redlands Boulevard south of Eucalyptus Avenue. The ultimate street section is a 4-lane Divided Arterial.
- **Eucalyptus Avenue (west of Theodore Street).** Eucalyptus Avenue is a 4-lane Divided Arterial within an ultimate right-of-way of 110 feet. Improvements on the north side of the street (two westbound lanes, a raised median, and one eastbound lane) were recently completed by the HFCP project.



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Project Boundary

Traffic Circle

6-Lane Divided (Wide Median)

4-Lane Divided (Wide Median)

4-Lane Divided (Std. Median)

4-Lane Undivided

2-Lane

See figure 3.11 for typical roadway cross sections.

N

0 1,500 3,000

Feet

FIGURE 3.10

World Logistics Center Specific Plan Project Environmental Impact Report

Circulation Plan

SOURCE: ESRI World Imagery, 2010; Bing Maps, 2010; Google Maps, 2011.

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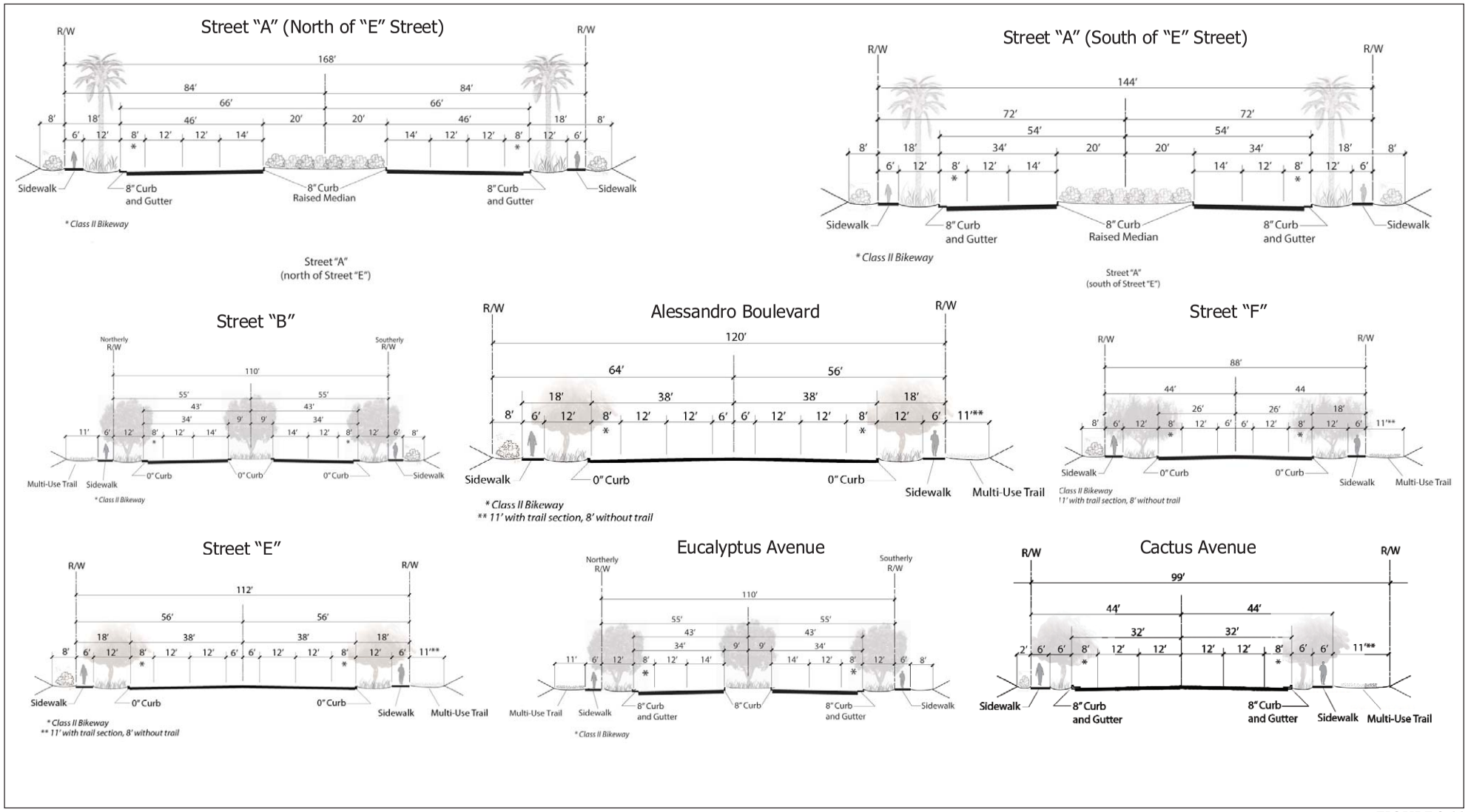

LSA

FIGURE 3.11

World Logistics Center Specific Plan Project
Environmental Impact Report

Typical Street Cross Sections

SOURCE: World Logistics Center Specific Plan, HF, September, 2014.

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- **Cactus Avenue (extension east of Redlands Boulevard).** This is proposed to be a 4-lane undivided north-south roadway connecting existing Cactus Avenue with the westerly internal loop street (Street "E"). The intersection with Street "E" and would be designed to prohibit large trucks from using Cactus Avenue Extension to prevent their travel through adjacent residential neighborhoods. Special design features and signage will reinforce this restriction.
- **Gilman Springs Road.** At project opening year 2013, Gilman Springs Road will remain in its current condition (i.e., a two-lane undivided roadway) and future improvements would occur based on demand. The ultimate street section is a Divided Major Arterial with six through lanes and a raised median. Gilman Springs Road is a City-designated truck route. However, because Gilman Springs Road is partially a Riverside County facility and is thus partially outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made outside of its jurisdiction.

The following roadways within the Specific Plan are classified as Arterials (see Figure 3.11). Access rights and intersections with other streets or highways are limited:

- **Theodore Street (Street A).** Theodore Street is a north/south Arterial and is the primary truck route to and from SR-60. The ultimate street section is a four- to six-lane Divided Arterial within a 144-foot right-of-way including a landscaped median. Traffic roundabouts are proposed at the two key intersections along Theodore Street within the project.
- **Street B (Eucalyptus Avenue east of Theodore Street)**. This roadway will ultimately extend through the project from Theodore Street to Gilman Springs Road. The proposed street section is currently a four-lane Divided Arterial with a 122-foot right-of-way and a standard median.
- **Streets C and E.** The WLCSP circulated for public review with the Draft EIR showed these roadways would be four-lane Minor Arterials each within a 112-foot right-of-way with no median. Traffic roundabouts were proposed at key intersections within the project to facilitate efficient movement of trucks. However, these streets have been realigned northward to maintain the local historical landmark designation of Alessandro Boulevard (see below).

- **Alessandro Boulevard.** Alessandro Boulevard currently runs through the WLC site in an east-west direction, connecting to Gilman Springs Road on the east and traveling through Moreno Valley to the west. The WLCSP circulated for public review with the Draft EIR showed Alessandro Boulevard realigned as Streets C and E (see below). However, this roadway has been designated a City historical landmark, so the WLCSP circulation plan has been modified to retain the name, ROW width, and current alignment of Alessandro Boulevard as an undivided roadway running east-west through the World Logistics Center, still intersecting with Gilman Springs Road on the east and the Cactus Avenue Extension on the west. An existing section of Alessandro Boulevard between Merwin Street and the Cactus Avenue Extension will be closed to vehicular traffic except for emergency vehicles and bicycles and pedestrians access. This is to prevent project traffic, both trucks and passenger vehicles, from traveling through the existing residential neighborhoods to the west.

The smaller roadways within the Specific Plan (Streets F through H) would convey truck and other vehicle traffic in and around the project site. These two-lane roadways will have an ultimate right-of-way of 88 feet.

As Figure 3.10 shows, the Specific Plan proposes traffic roundabouts at the three internal intersections (Theodore Street/Streets E & F, Theodore Street/Alessandro Boulevard, and Street C/ Street F.

Planned Improvements. As part of the analysis of project traffic impacts, it is important to note that development within the WLCSP will make a number of roadway and intersection improvements that are within or adjacent to project property (i.e. onsite improvements). As outlined in the project TIA, these improvements include but are not limited to:

- Gilman Springs/Alessandro Boulevard Intersection;
- Gilman Springs/Eucalyptus Avenue Intersection;
- SR-60 Westbound Ramp/Theodore Street Intersection;
- Redlands Boulevard/Eucalyptus Avenue Intersection;
- Theodore Street/Eucalyptus Avenue Intersection;
- Eucalyptus Avenue from Redlands Boulevard to Theodore Street (south side);
- Extension of Cactus Avenue east onto the WLC property; and
- Internal Streets A through F shown on WLCSP Circulation Plan (DEIR Figure 3-10).

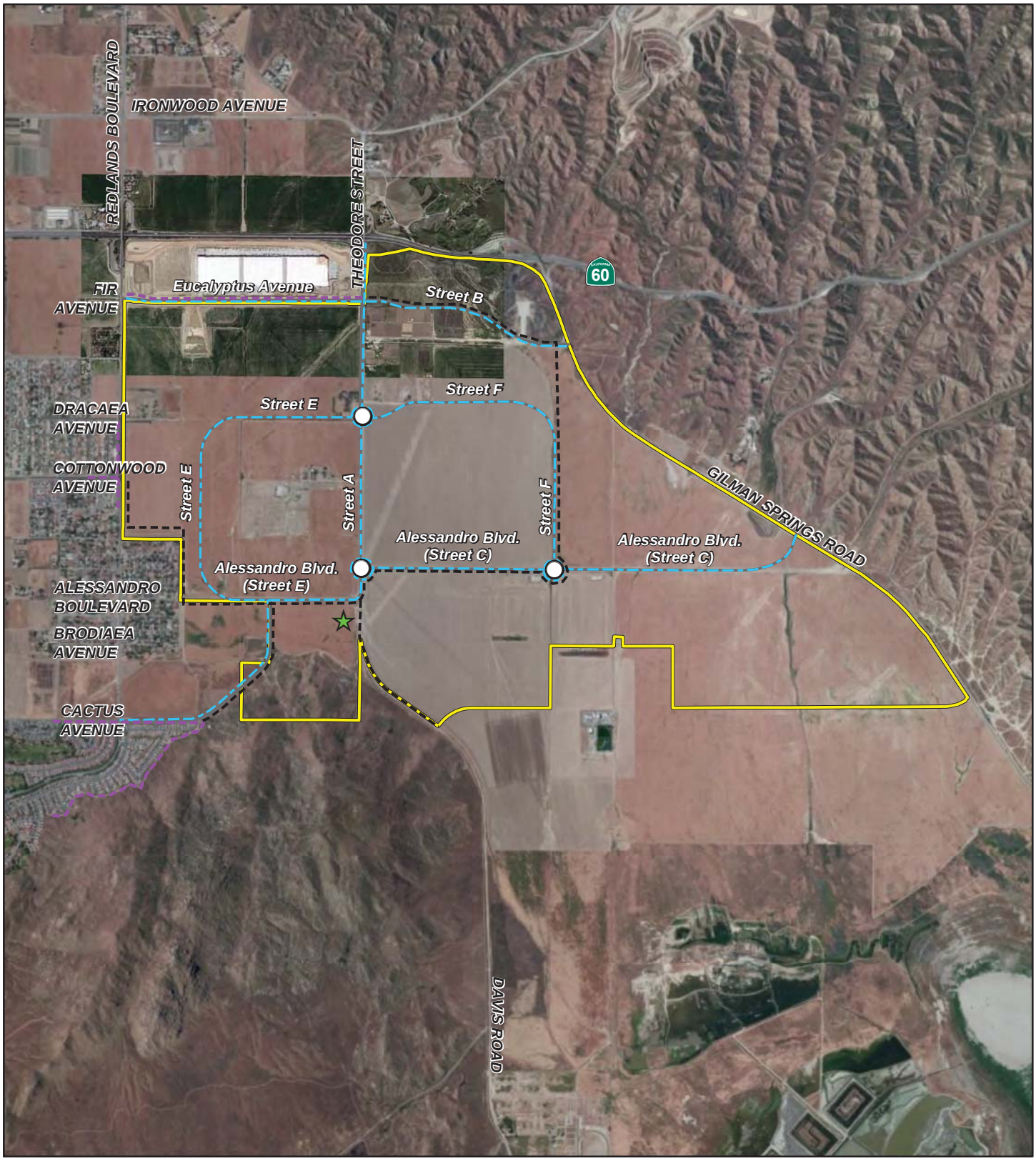
Mobility. Section 3.4, *Non-Vehicular Circulation*, of the Specific Plan indicates that the intent of the mobility, transit, and pedestrian movement section is to ensure that people are able to move from one destination to another with minimal delays, either by walking or using other means of non-motorized travel. This means separating vehicles from pedestrian pathways and incorporating shared modes of travel such as trucks, autos, and bikes in the same right-of-way area where feasible. Bicycles would be able to use the street right-of-way throughout the project area. The Specific Plan states that project site development will support alternative transportation options for employees through implementation of on-site bicycle storage, preferred parking for low-emitting and fuel-efficient cars, carpool high-occupancy vehicles, and access to public transit.

According to Section 3.4.3, *Bicycle Circulation*, the Specific Plan will provide Class II (on-street) bicycle access along all connecting project roadways (i.e., not cul-de-sac streets), as shown in Figure 3.12. These Class II bicycle lanes will be integrated into the City's Bikeway Plan as well as the WRCOG Non-Motorized Transportation Plan, with connectivity to Class II bicycle lanes in the City that are adjacent to the WLC project site.

The Specific Plan requires sidewalks along all project streets (Specific Plan Section 5.2.8). Pedestrian movement relies on sidewalks providing direct access from the street to entry points for properties and buildings. Sidewalks are required to be shown on project-specific plot plans submitted for review by the City. All public street improvement shall meet the standards set forth in Title 24.

Local bus service to the area is provided by the Riverside Transit Agency (RTA). Local bus routes will be extended into the project area when adequate demand is generated as determined by the RTA. All roadways within the WLC area will be designed to accommodate bus access. The need for bus stops, turnouts, etc. will be determined by the RTA during the review of subsequent project-specific applications.

In addition to public sidewalks provided adjacent to project streets, Section 3.4.2 of the Specific Plan, *Multi-Use Trails*, requires the construction of a trail connection between the Redlands Boulevard/ Cottonwood Avenue intersection and the existing Cactus Avenue trail connection to the Lake Perris Recreational Area. This new trail will continue along Street E avoiding the Open Space area and connect to a new trail head and a potential trail (by others) to the San Jacinto Wildlife Area at the former Davis Road alignment (see Figure 3.12). Engineering details of the new trail will be provided with project-specific development applications in this portion of the project area.



LSA

FIGURE 3.12

Project Boundary

Class III Bikeway

Conceptual Trail Alignment

Existing Trail Alignment

Staging Area

N

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World Logistics Center Specific Plan Project
Environmental Impact Report

Non-Vehicular Circulation

SOURCE: ESRI World Imagery, 2010; Google Maps, 2011.

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3.4.6.3 Utilities and Services

The Utilities section of the Specific Plan (Section 3.5) describes the infrastructure systems needed to support the development of the project. This section identifies facilities for potable water, reclaimed water, wastewater, storm drain systems, power, natural gas, and telecommunications. This section also addresses the demand for general City services.

Potable Water. The Eastern Municipal Water District (EMWD) provides water service to the project area. EMWD obtains its water from Metropolitan Water District (MWD) and local groundwater wells.

The 2009 EMWD Water Facilities Master Plan (Master Plan) in conjunction with the Moreno Valley Water Pressure Zone Realignment Study (Realignment Study) evaluated the existing and future water needs and facilities required for the Moreno Valley water system. The Master Plan and Realignment Study analyzed the existing water system operating pressures and flows and recommended improvements to the system including realignment of the 1764 and 1900 pressure zones to 1764, 1860, and 1967 pressure zones. The area is currently served by existing pipelines in the 1764 and 1900 pressure zones that range in size from 8-inch to 21-inch diameter pipes (see Figure 3.13). The Master Plan is included in Appendix M of this EIR. The Master Plan indicates that sufficient water is available for potable use and landscaping under expected conditions over a 20-year period.

The MWD owns and operates a 108-inch transmission line that runs north-south through the project area in Theodore Street, and then east-west in Eucalyptus Avenue, east of Theodore Street. Build-out of the proposed project site will require the construction of new water reservoirs to serve each of three water pressure zones (1967, 1860, and 1764). All three reservoir sites are located outside of the Specific Plan boundary. As development proceeds within the project area, new waterlines, ranging in size from 12 to 24 inches, will be constructed in the existing and future street rights-of-way to connect the future water tanks to the development area. The water system will require a new pump station at the 1764 reservoir and an upgrade to the existing EMWD pump station near Cottonwood Avenue and Redlands Boulevard.

All water facilities will be constructed to EMWD standards and will be subject to a Plan of Service approval by EMWD (Specific Plan Section 3.5.1). Previously referenced Figure 3.13 shows the new water system proposed for the project. The EIR will examine potential impacts of onsite and offsite water improvements including these reservoirs as outlined in Appendix M.

Reclaimed/Recycled Water. As stated in EMWD's Water Supply Assessment (Appendix M), EMWD policy recognizes recycled water as the preferred source of supply for all non-potable water demands, including irrigation of recreation areas, greenbelts, open space common areas, commercial landscaping, and aesthetic impoundment or other water features. The proposed project is near an existing recycled water line and EMWD has indicated that in the future, recycled water may be available for the project. If EMWD determines adequate recycled water supply is available, recycled water will be used on the proposed project to the greatest extent practical. The availability, feasibility, and reliability of recycled water use will be included in EMWD's evaluation of the Plan of Service for the project. Landscape irrigation may use potable water until recycled water facilities are in place. Information on reclaimed water is provided in Appendix N. "Purple" reclaimed water irrigation piping will be installed to certain landscaped areas as needed.

Wastewater. EMWD provides wastewater service to the project area at EMWD's Moreno Valley Regional Water Reclamation Facility (WRF) located in the southwestern portion of the City near Kitching Street and Mariposa Avenue. The WRF has the capacity to treat 16 million gallons per day

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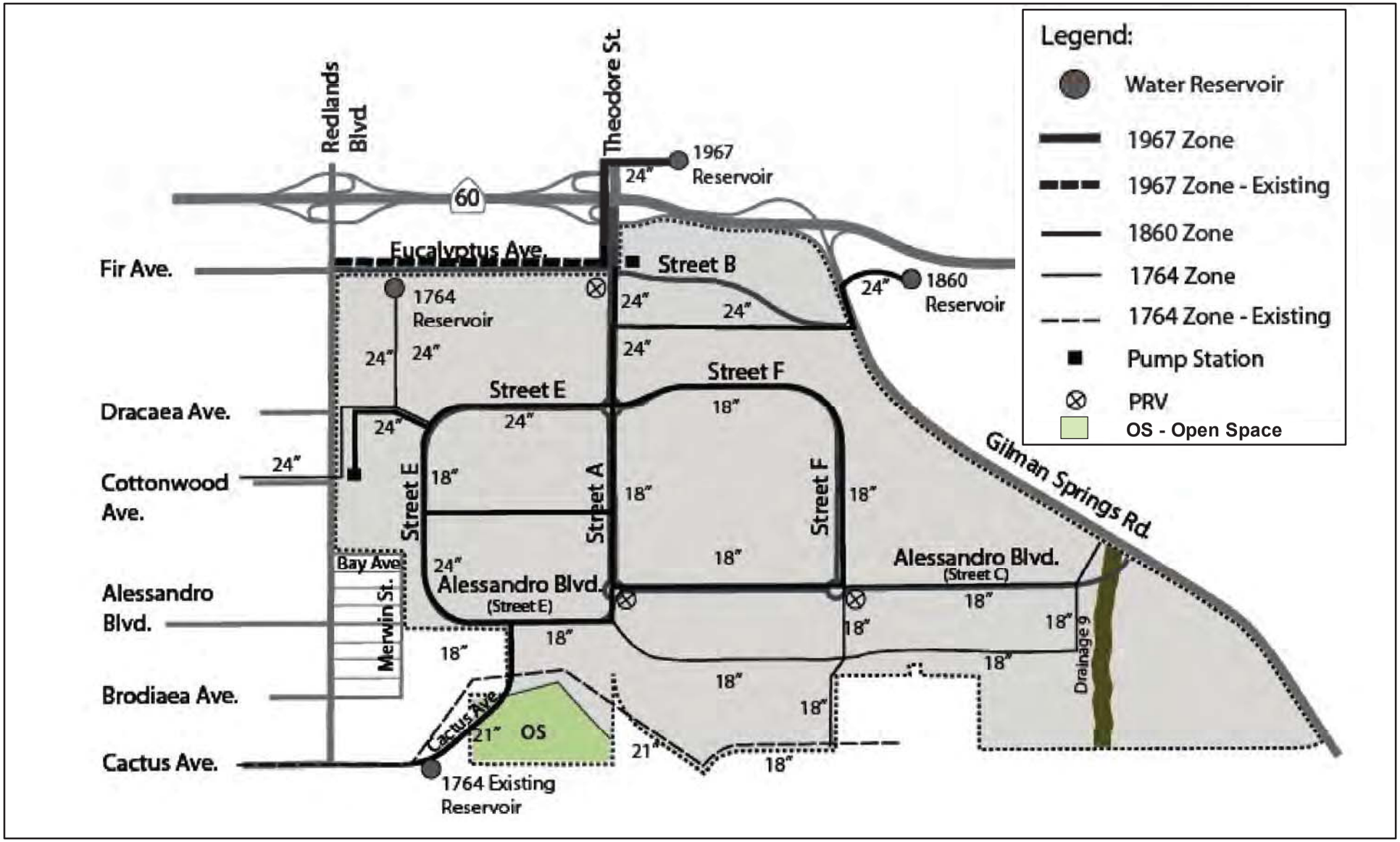

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FIGURE 3.13

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World Logistics Center Specific Plan Project
Environmental Impact Report

Water System

SOURCE: World Logistics Center Specific Plan, HF, September, 2014.

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(mgd) of wastewater. The analysis provided in Section 4.16, *Utilities and Service Systems*, indicates the WRF has a current excess capacity of 4.5 mgd and the proposed WLCSP would consume 0.3 mgd (6% of excess), so the WLC project does not by itself generate a need for new wastewater treatment facilities.

The primary trunk sewer line serving the project area is located within Redlands Boulevard. This trunk sewer line continues in a southerly direction within Cactus Avenue, JFK Drive, Iris Avenue, and Lasselle Streets conveying wastewater to the WRF (Specific Plan Section 3.5.2). The proposed sewer in Street A and all lines to the west of Theodore (Street A) are a gravity system and run generally southwest to a point of connection at Brodiaea Avenue and Redlands Boulevard. As demand requires, the segment of sewer line within Brodiaea Avenue that is west of Redlands Boulevard will be upsized from a 15-inch to a 21-inch line. The sewer system east of Theodore Street (Street A) will flow by gravity to a future sewer lift station at the southerly project boundary. From there, a force main will carry wastewater in a northwest direction, where it will join the gravity system west of Street A described above. Sewer lines will be located within public street rights-of-way to the greatest degree possible. Some of the buildings may require individual (private) lift stations due to building lengths, location of buildings, and phasing of improvements. Future sewer lines will range in size between 8 and 21 inches, and will be constructed to EMWD standards and will be subject to a plan of service approval. Figure 3.14 shows the proposed sewer/wastewater system for the Specific Plan. Technical studies related to wastewater services are provided in Appendix N.

Storm Water Drainage. The project area is within the San Jacinto River watershed, which is part of the larger Santa Ana River watershed. The storm water runoff from the project generally flows in a southerly direction to the San Jacinto River at an average gradient of 1 to 2 percent. A topographic divide located west of Theodore Street (Street A) separates storm water flows to the San Jacinto River into two subareas. Runoff east of the divide flows through the San Jacinto Valley to the San Jacinto Wildlife Area and ultimately to the Gilman Hot Springs hydro-subarea. Runoff west of the divide flows to the Perris Valley Storm Drain and ultimately the Perris Valley hydro-subarea. Both hydro-subareas eventually flow to the San Jacinto River, approximately 10 miles south of the project site (Specific Plan Section 3.5.4).

The Riverside County Flood Control and Water Conservation District (RCFCWCD) is the responsible agency for the project area's regional flood control system. The westerly portion of the project site is located within the Moreno Master Drainage Plan (MMDP). An existing 12-foot by 8-foot reinforced concrete box (RCB) owned and maintained by RCFCWCD is located east of Redlands Boulevard. This facility collects storm water passing under SR-60 and outlets south of Eucalyptus Avenue where it flows through a spreading basin then across agricultural land. Farther south, the agricultural land drains to an RCFCWCD earthen channel at Redlands Boulevard flows to a greenbelt channel located south of Cactus Avenue and east of Redlands Boulevard and ultimately drains to the Perris Valley Storm Channel.

There is no master plan of drainage on the east side of the project site. The existing drainage facilities consist of open ditches along Theodore Street that convey runoff from adjacent areas and lands northerly of SR-60. A series of existing drainage culverts crosses Gilman Springs Road conveying the off-site runoff from the Badlands through the project site. Four of these culverts drain into natural drainage courses which drain to the south. Based on the latest Flood Insurance Rate Map (FIRM) published by the Federal Emergency Management Agency (FEMA), the project site is not located within a 100-year floodplain.

Development according to the Specific Plan will result in the placement of impervious surfaces on the project site, which would substantially increase the potential for runoff from the site. Post-development flows are required to be equal or less than pre-development flows, so the on-site storm

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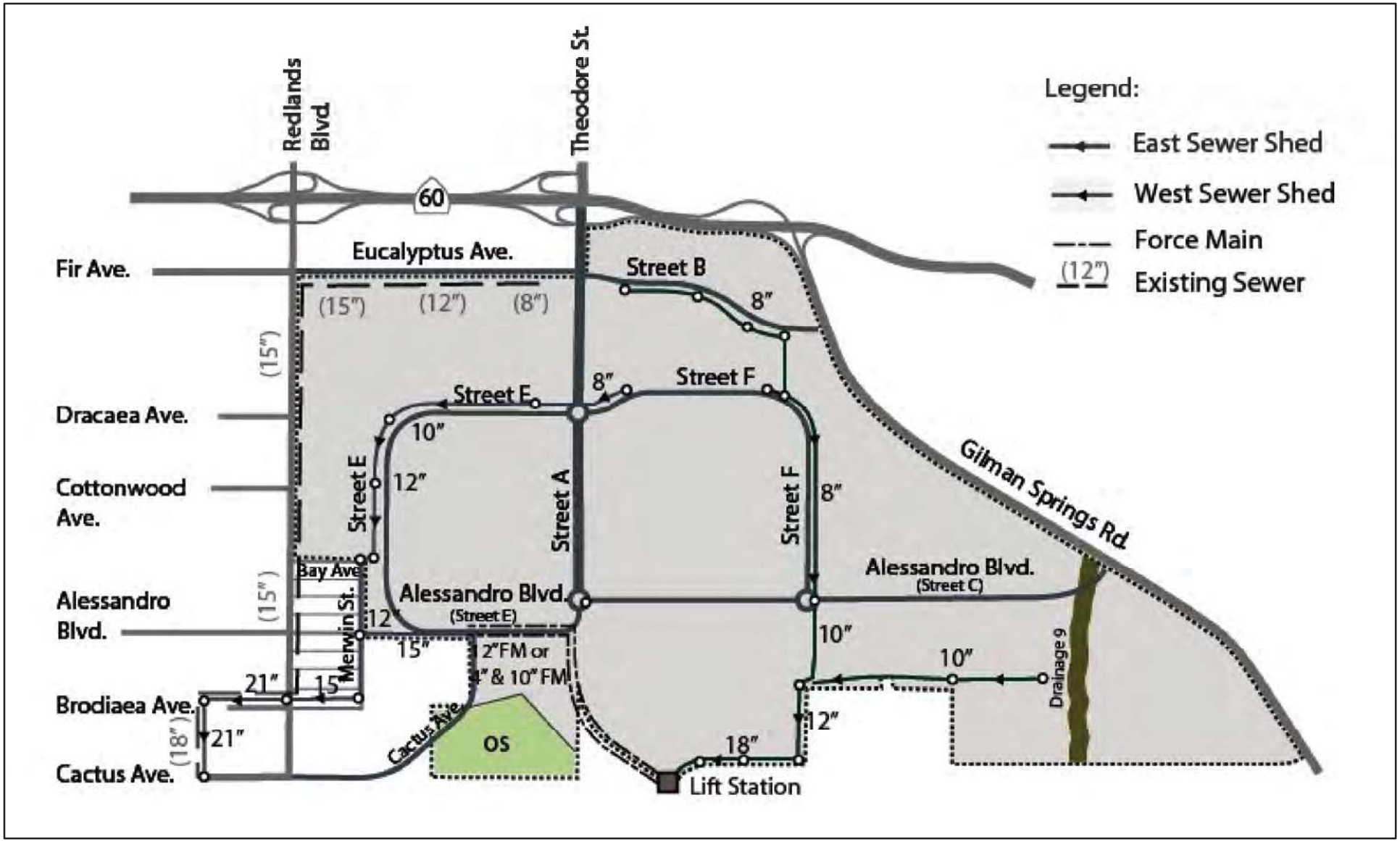

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FIGURE 3.14

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World Logistics Center Specific Plan Project
Environmental Impact Report

Wastewater System

SOURCE: HF, September, 2014.

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water flows will be routed through a new system of underground drainage lines to a series of on-site detention basins. While the increase in impervious surfaces attributable to the proposed project would contribute to a greater volume and higher velocity of storm water flows, the hydrology report for the project indicates that the proposed detention basins would be designed to accommodate runoff and maintain off-site flows at pre-project conditions. Drainage improvements will be phased as needed to ensure that the peak flows at downstream discharge points at the southerly project boundary will not exceed the peak flows for the existing condition (Specific Plan Section 3.5.4). Figure 3.15 shows the proposed drainage system for the Specific Plan area. The drainage study is included in Appendix J.

Drainage from east of Gilman Springs Road flows southwest and south out of the Badlands and flows under Gilman Springs Road through corrugated steel pipe culverts. These culverts are relatively small, and during times of high flow, runoff often causes repeated localized flooding along the roadway. When Gilman Springs Road is improved to its ultimate width by the County, improvements will include the installation of larger culverts where needed to eliminate flooding along the roadway.

Solid Waste. The Specific Plan encourages recycling and reducing waste generation. Examples of the recycling processes identified by the Specific Plan include:

- Support recycling programs to sort and store materials destined for landfills;
- Reuse and recycle construction and demolition waste as much as feasible during building construction;
- Encourage the City of Moreno Valley to support by either implementing or expanding recycling and composting programs for businesses;
- Extend the types of recycling services offered (e.g., to include food and green waste recycling);
- Provide public education and publicity about recycling services conducted at the World Logistics Center; and
- Promote recycling programs aimed at supporting sustainable certification programs such as LEED, CalGreen, or similar sustainability programs.

Energy. Moreno Valley Electric Utility (MVEU) is the electricity provider for the World Logistics Center. While it will not provide service within the Specific Plan area, Southern California Edison (SCE) has existing 12 kV and 115 kV overhead power lines throughout the project area. There are SCE 115 kV power lines along Gilman Springs Road, Eucalyptus Avenue east of Theodore Street, Theodore Street north of Eucalyptus Street, and along Brodiaea Avenue/Davis Road to the south. There are also SCE 12 kV power lines along Gilman Springs Road, Theodore Street, Alessandro Boulevard, Eucalyptus Avenue east of Theodore Street, and Redlands Boulevard. MVEU has an existing underground electrical system at the intersection of Dracaea Avenue and Redlands Boulevard. As the project builds out, the Moreno Beach Substation will be expanded to 112 MW and a new 60 MW substation will be constructed to serve the project. Many of the existing 115 kV and 12 kV lines will be relocated as the Specific Plan is built out. Electrical facilities are shown in Figure 3.16.

Solar Energy. The Specific Plan requires solar photovoltaic (PV) arrays to be installed on the project buildings to offset the electrical power requirements of the office portion of each proposed warehouse building (WLCSP Section 12.7, Solar Commitment).

The SCGC is the natural gas provider for the project. An existing 4-inch medium pressure service line is located within Redlands Boulevard. Low-pressure facilities serve the residential area located west of Redlands Boulevard and southwest of Merwin Street and Bay Avenue. Throughout the project, natural gas is transmitted through existing SDG&E underground pipelines serving the Southern

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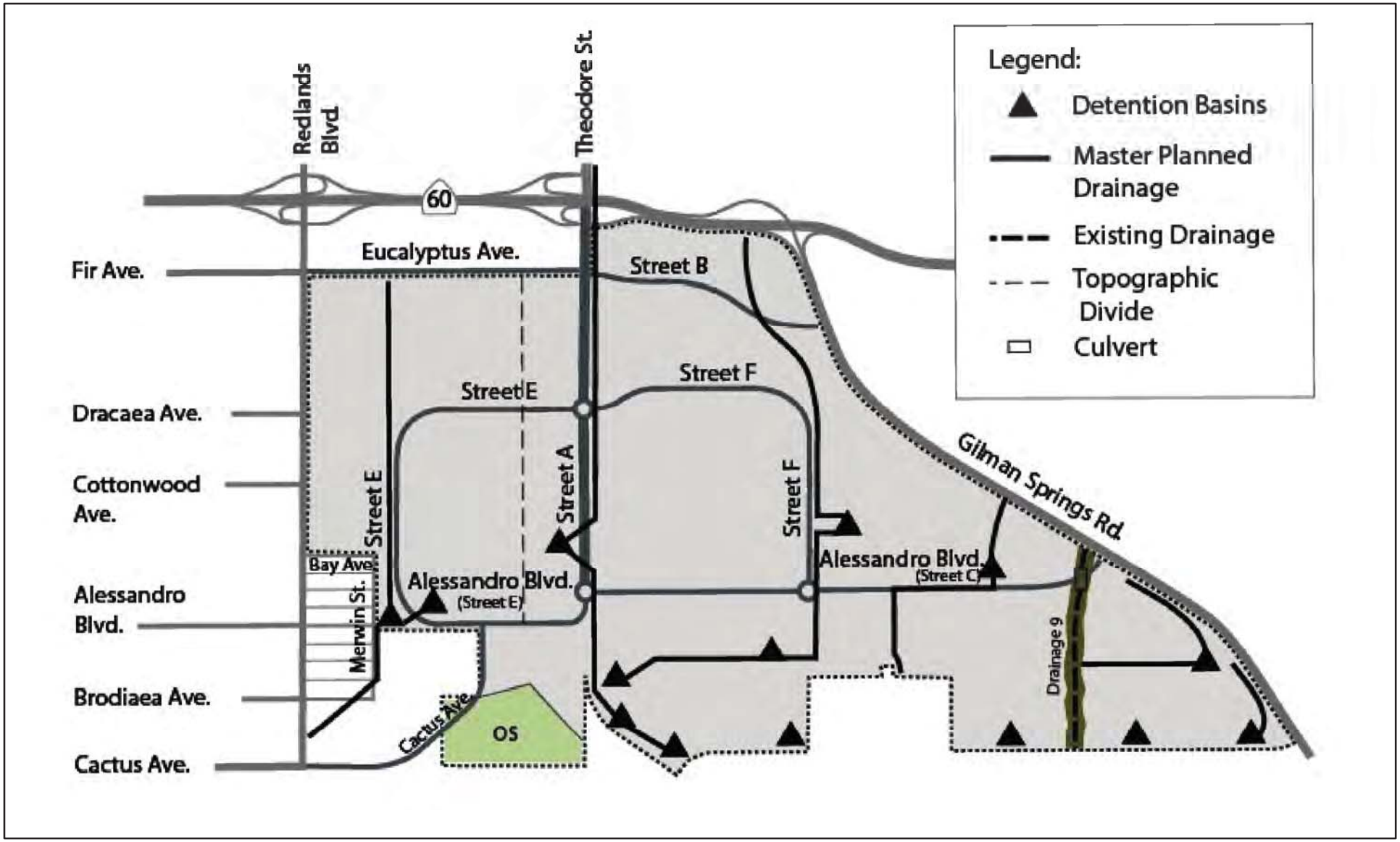

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FIGURE 3.15

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SOURCE: HF, September, 2014.

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World Logistics Center Specific Plan Project
Environmental Impact Report

Master Drainage System

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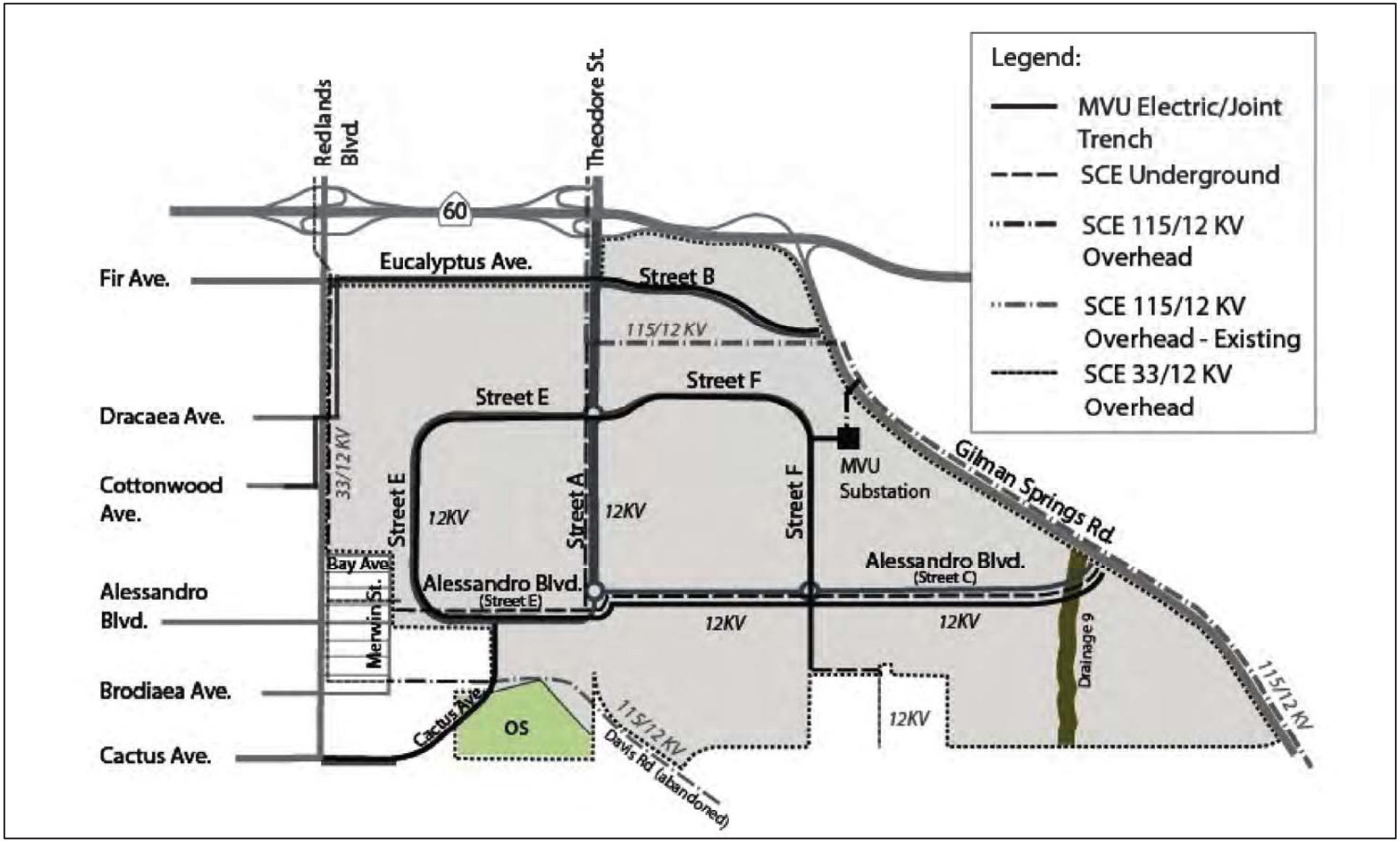

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FIGURE 3.16

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World Logistics Center Specific Plan Project
Environmental Impact Report

Electrical Facilities

SOURCE: World Logistics Center Specific Plan, HF, September, 2014.

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California region that range in size from 16 inches to 36 inches. Two 30-inch diameter transmission pipelines run in an east-west direction north and south of Alessandro Boulevard. Three transmission pipelines, 16, 24, and 36-inch diameters run in a north-south direction along Virginia Street, south of Alessandro Boulevard. The 36-inch diameter line also extends east from Virginia Street parallel with the 30-inch line that runs south of Alessandro Boulevard. Figure 3.17 shows planned natural gas facilities.

SCGC transmission facilities in the Specific Plan area include a gas line blow-down facility and flow metering station at Alessandro Boulevard and Virginia Street. Farther south on Virginia Street, SDG&E operates the Moreno Compressor Station, which supplies gas to San Diego via 16, 30, and 36-inch transmission pipelines. In addition, Questar, a private utility company, has a 16-inch natural gas transmission line that runs within Alessandro Boulevard from Gilman Springs Road to Theodore Street, where it turns south to Maltby Avenue, and then turns west to Redlands Boulevard.

SCGC has indicated the 4-inch medium-pressure service line that runs in Redlands Boulevard will be extended into the area to service the development. Gas service will be installed in the public street right-of-way or easements as a joint trench with telephone, cable TV, and electrical services. In connection with the development of the property, relocation of some natural gas transmission lines into public street right-of-way or easements will be necessary. SDG&E's Moreno Compressor Station will remain in place.

3.4.6.4 Public Services

Fire protection services in the project area are provided by the Riverside County Fire Department under contract to the City of Moreno Valley. The Fire Department has an existing fire station located on Eucalyptus Avenue just east of Moreno Beach Boulevard. Response times to the project site from this station are approximately five (5) minutes. The Specific Plan indicates a new fire station will be located in the LD zone in the northeast portion of the site. At present, it is proposed in the north end of Planning Area 11, and the Specific Plan requires it to be built during Phase I. Placement of the fire station is subject to review and approval by the Fire Chief (Specific Plan Section 2.2.4 First Station Site). As development progresses, fire protection services within the Specific Plan area will continue to be evaluated through the plan development process, and additional facilities and/or services may be needed in the future.

Police service is provided to the project area by the Riverside County Sheriff's Department under contract to the City of Moreno Valley. At present, the City's main police station is at its design capacity, and additional capacity may be needed in the future. No new police facilities are planned on the project site at this time.

Park facilities and programs are provided by the City of Moreno Valley. There are no local parks in or adjacent to the project site at present and none are planned with the project. The Lake Perris State Recreation Area is located southwest of the project site.

School facilities and services are provided by the Moreno Valley Unified School District. No school sites are existing in or adjacent to the project site and none are planned.

Library facilities and services are provided to local residents by the City of Moreno Valley. No library facilities are proposed to be included in the Specific Plan area.

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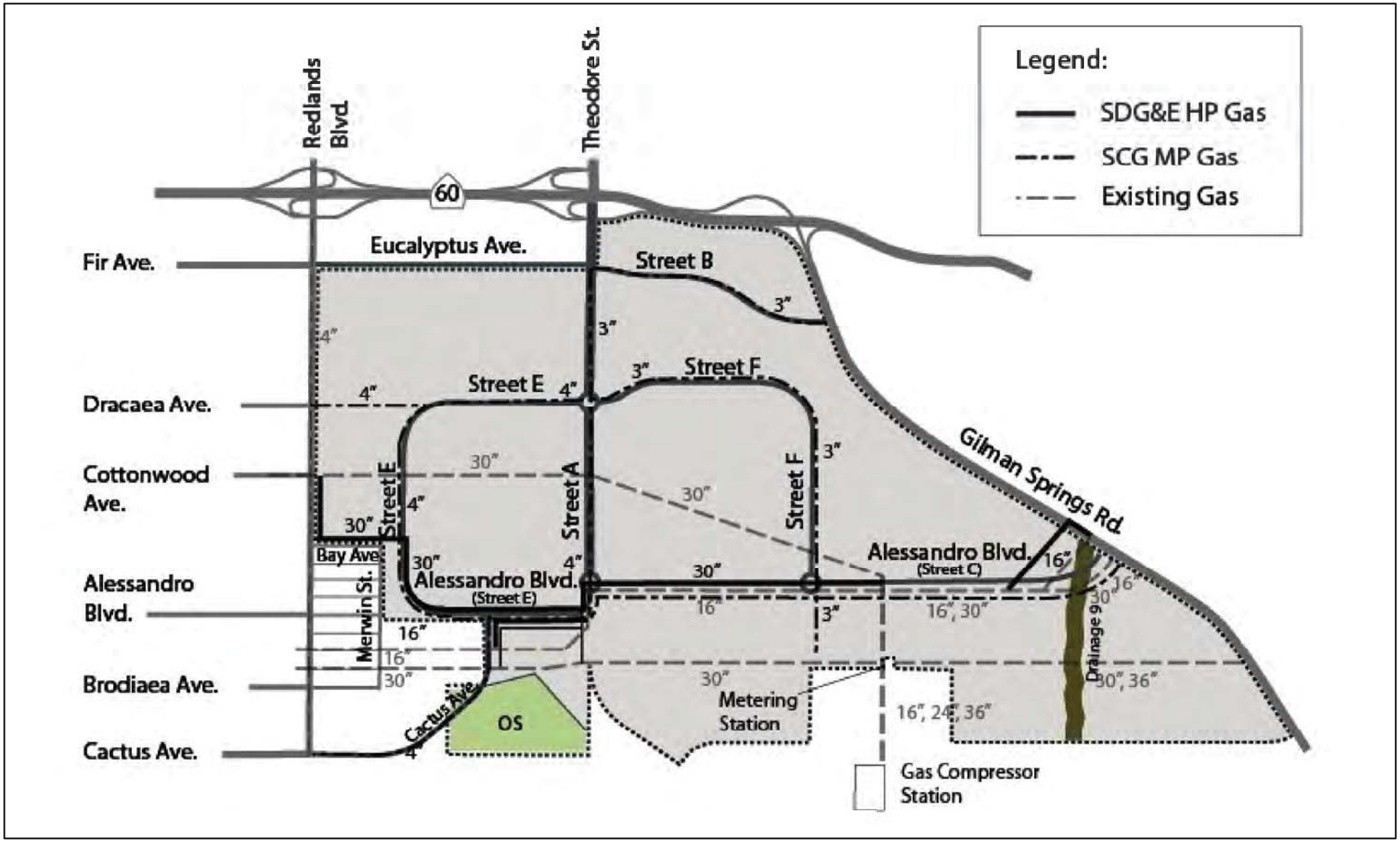

LSA

FIGURE 3.17

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World Logistics Center Specific Plan Project
Environmental Impact Report

Natural Gas Facilities

SOURCE: World Logistics Center Specific Plan,HF, September, 2014.

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3.4.7 Sustainability

Site and building design within the Specific Plan area will incorporate many sustainability and green building concepts. Green building is the practice of increasing building efficiency through site planning, water and energy management, material use, control of indoor air quality, and the use of innovative design concepts. These practices help to improve building operational efficiency, conserve water, reduce waste, and lessen the heat island effect of development.

All buildings within the project will comply with the Title 24 California Building Code. Adopted in 1978 in response to the energy crisis of the 1970s and updated every five years by the California Energy Commission (CEC), California's Title 24 contains the strictest and most energy-efficient building code in the nation. The Title 24 Building Codes are called California's "Green Building" codes because they create energy efficiencies of up to 30 percent in some categories above and beyond the energy efficiencies achieved under the previous versions of Title 24.

The 2013 version of standards went into effect January 1, 2014. The CEC adopted these changes to the Building Energy Efficiency Standards for the following reasons:

1. To provide California with an adequate, reasonably-priced, and environmentally-sound supply of energy.
2. To respond to Assembly Bill 32, the Global Warming Solutions Act of 2006, which mandates California reduce its greenhouse gas emissions to 1990 levels by 2020.
3. To pursue California policy that energy efficiency is the resource of first choice for meeting California's energy needs.
4. To act on California's Integrated Energy Policy Report (IEPR) findings that Standards are the most cost-effective means to achieve energy efficiency, that the Building Energy Efficiency Standards will continue to be upgraded over time to reduce electricity and peak demand, and that the Standards will play a role in reducing energy related to meeting California's water needs and in reducing greenhouse gas emissions.
5. To meet the Executive Order in the Green Building Initiative to improve the energy efficiency of nonresidential buildings through aggressive standards.

The Specific Plan requires sustainable development standards so that new development within the project area minimizes energy consumption, conserves water, and uses recycled or sustainable building materials, where feasible. It provides developers with a specific framework for identifying and implementing a variety of practicable and measurable green building design, construction, operations, and maintenance. All new development within the project area will be required to be designed to meet the CEC standards in effect at the time construction commences (WLCSP Section 1.3.2). In addition, buildings within the Specific Plan will be designed to be "solar ready" (i.e., allow the installation of solar photovoltaic systems on the roof of each building) (WLCSP Section 1.2.2, Green Building – Sustainable Development).

The sustainability guidelines for the World Logistics Center serve the following functions to:

- Assist in meeting California's greenhouse gas reduction targets as set forth through Executive Order S-3-05 and Assembly Bill 32 (also known as the Global Warming Solutions Act of 2006);
- Assist in the region's development of a sustainable communities strategy pursuant to Senate Bill 375;
- Assist in meeting other state and local goals and requirements, including Assembly Bill 1385, The Complete Streets Act;

- Establish practical and innovative solutions for the developer, business, and residential community to improve resource efficiency and reduce consumption of energy, water, and raw materials; and
- Support waste management reduction identified in AB 341.

3.4.7.1 Building Design and Construction

The Specific Plan requires sophisticated construction techniques that will provide pollution prevention and control such as noise, air quality, erosion, and sediment controls. Both site planning and future building design will require best practices for use of recycled materials and products, such as recycled steel, and crushed concrete and pavement materials.

Low-emitting volatile organic compound (VOC) building materials will be required to be used on site. Project design will allow the incorporation of alternative energy sources such as rooftop solar systems (i.e., “solar ready” buildings) or other technologies reasonably available at the time of development. Project design and construction techniques will be employed to reduce the heat island effect, which creates thermal gradient differences between developed and undeveloped areas. Such techniques will include the use of materials that have a low solar reflectance index such as white roofs and light-colored pavements.

All development within the Specific Plan will require the preparation of a waste management plan requiring the diversion of at least 50 percent of waste from landfill. This goal will be achieved through a comprehensive recycling and management program including storage and collection of recyclables, building and material reuse, and careful construction waste management.

The Specific Plan will incorporate the use of passive heating and cooling into the design or modification of the high-cube warehouse development (e.g., white building colors and roof insulation to minimize heat gain, and landscaping to help shade buildings).

Electrical power sources will be provided both indoors and outdoors to accommodate the use of electrical property maintenance equipment (Section 12.4 of the WLCSP).

3.4.7.2 Landscaping

The Specific Plan requires development to install xeriscape or drought-tolerant landscaping that requires minimal irrigation and to utilize on-site runoff into landscaped areas as much as possible for landscape irrigation.

3.4.7.3 Water Usage

Under the requirements of the Specific Plan, the project will employ water reduction and conservation principles, which will include advanced irrigation systems, drought-tolerant plants, the use of mulch, recycled and other permissible alternative sources of water, and turfless plantings with alternative landscaping materials such as rock and other materials that do not require potable water sources. The final design will be used to calculate the site’s water demand. The annual maximum allowable water budget (AMAWB) will be compared to the estimated annual water use (EAWU) to ensure that the design meets EMWD guidelines.

3.4.7.4 Storm Water Quality

Through implementation of the design standards in the Specific Plan, the project will incorporate storm water quality measures including infiltration basins, bioretention facilities, and extended detention basins to reduce pollutants in storm water (Specific Plan Section 5.1.8.5). Future development projects will be required to implement a Water Quality Management Plan (WQMP) in accordance with the National Pollutant Discharge Elimination System (NPDES) Permit Board Order R8-2010-0033. The current approved Riverside County WQMP for Urban Runoff addresses the Municipal Separate Storm Sewer Systems (MS4) NPDES permit. The most recent WQMP for the Santa Ana Region of Riverside County addresses the latest MS4 NPDES permit requirements. Projects identified as a "Priority Development Project" will be required to prepare a project-specific WQMP. The MS4 Permit mandates a Low Impact Development (LID) approach to storm water treatment and management of runoff discharges. Site-specific projects will be designed to minimize imperviousness, detain runoff, and infiltrate, reuse, or evapotranspirate runoff where feasible. LID design will be used to infiltrate, evapotranspirate, harvest and use, or treat runoff from impervious surfaces, in accordance with the *Design Handbook for Low Impact Development Practices*.

The project should also ensure that runoff does not create any hydrologic conditions of concern. The Regional Water Quality Control Board (RWQCB) continuously updates impairments as studies are completed. The most current version of impairment data should be reviewed prior to preparation of the Preliminary and Final Project-Specific WQMP (WLC Specific Plan Section 5.1.8, *Water Quality Site Design*).

The WLC Specific Plan contains extensive site design, source control, and treatment control Best Management Practices (BMPs) that will be analyzed in detail in Section 4.9, *Hydrology and Water Quality* of this EIR.

3.4.8 Architectural Design Guidelines

Sections 4.1 and 5.3 of the Specific Plan contain the architectural and building design standards that will be applicable to all future off-site conditions and specific on-site development proposals. The design standards provide for attractive, functional, compatible contemporary designs, which can also minimize energy consumption and the production of greenhouse gases, helping to reduce the project's contribution to global climate change. These Specific Plan sections include typical building elevations, cross-sections, and photographic renderings that illustrate how future development will appear. The architectural guidelines also address project details such as building setbacks, walls, fences, building materials, and colors.

Section 2.0 of the Specific Plan establishes building height limitations throughout the project, as shown in previously referenced Figure 3.9. Building heights are limited to 60 feet for buildings located along the north, west, and southern boundaries of the project and 80 feet along Gilman Springs Road and in the interior. The WLC Specific Plan contains a provision that portions of buildings could be raised an additional 10 percent to accommodate interior facilities (i.e., elevator shafts) and architectural design elements, which may be approved through the administrative variance process.

3.4.9 Landscaping Design Guidelines

Sections 2.5, 4.2, and 5.4 of the Specific Plan provide landscaping guidelines for the project. The intent of these guidelines is to develop a landscape program that reduces the use of mechanical irrigation systems, maximizing the collection and use of rainfall to irrigate carefully designed landscape areas. The Specific Plan includes a plant palette specifically designed for the project site to consume significantly less water than conventional landscaping concepts. The Specific Plan contains an extensive palette of drought-tolerant plants.

The Specific Plan calls for a more substantial landscape treatment to be installed along the perimeter of the site. These special edge treatment areas will be along the western boundary of the project site, north along SR-60, east along Gilman Springs Road, and along the southern boundary of the project adjacent to the SJWA. These areas have been designed to provide an aesthetic buffer and soften views between the surrounding land uses and the planned warehouse buildings and truck activity areas. Further description of the special edge treatment areas can be found in the Section 2.5 of the WLCSP and DEIR Section 4.1.6 and in DEIR Figure 4.1.6A. For areas not along the perimeter, landscaped areas would be grouped by water needs. Irrigation systems would be designed to irrigate at no more than 70 percent[2] of the plant groups' reference evapotranspiration rate (minimum required water for the plant groups' survival), and would be designed to minimize water runoff onto sidewalks or streets. The project will direct runoff to landscaped areas and employ techniques to promote percolation and water capture at the root zone, reducing the need for mechanical irrigation.

Section 5.4.2 of the WLCSP requires future development to consider the following water conservation measures: macro and micro climates, solar exposure, prevailing wind conditions; site analysis of, seasonal temperature patterns, soils and drainage, grades, and slopes; use of historical evapotranspiration rates and weather station (CIMIS) data; use of planting zones coordinated according to plant type, climatic exposure, soil condition and slope to facilitate use of zoned irrigation systems; use of low water or drought-tolerant plant species in landscape areas served by potable water; audit of water use and certification by a licensed landscape architect that the irrigation system was installed and operates as designed; use of reclaimed water systems if available and practical, use of best available irrigation technology to maximize efficient use of water, including moisture sensors, multi-program electronic timers, rain shutoff devices, remote control valves, drip systems, backflow preventers, pressure reducing valves and matched output sprinkler heads; use of gate valves to isolate and shut down mainline breaks; design to meet peak moisture demand of all plant materials within design zones, while avoiding flow rates that exceed infiltration rate of soil; design to prevent overspray or discharge onto roadways, non-landscaped areas or adjacent properties; and timing of irrigation cycles to operate at night when wind, evaporation, and human activities are at a minimum.

3.4.10 Lighting Design Guidelines

Section 5.5 of the Specific Plan contains guidelines for site lighting within the Specific Plan. The regulations prohibit direct light spillage onto adjacent properties, especially the San Jacinto Wildlife Area to the south (Specific Plan Sections 4.3 and 5.5), while providing sufficient light for nighttime activities and project security. The project will incorporate the design standards adopted by Ordinance 851 which established stricter controls on outdoor lighting.

3.4.11 Off-site Improvements

Development within the Specific Plan will require various infrastructure improvements, some of them located off site. Local roadways and intersections affected by project traffic will be improved as outlined in the project Traffic Impact Analysis (TIA). Electrical service will be extended from the Moreno Beach substation to the project. Electric power lines along Gilman Springs Road will be relocated when that road is widened. Providing potable water to the site will require the construction of three new reservoirs, one north of SR-60 off of Theodore Street, one east of Gilman Springs Road near the northeast corner of the site one in the northwestern portion of the project (see Figure 3.13). The Cactus extension will extend east through a portion of the Open Space area, then turn north to intersect with Alessandro Boulevard (see Figure 3.10), and a four-inch gas line will be constructed within this street extension (see Figure 3.10). A 21-inch sewer line will be extended to the west from

[2] Per the California Code of Regulations, Title 23 Waters Division, Department of Water Resources, Ch. 2.7 Model Water Efficient Landscape Ordinance, the County of Riverside Water Efficient Landscape Requirements Ordinance No. 859, and the Eastern Municipal Water District (EMWD) 2010 Urban Water Management Plan, or current Urban Water Management Plan.

the southwest corner of the site (see Figure 3.14) from Cactus Avenue. The existing County drainage channel near the southwest corner of the site will be improved to handle increased flows from project runoff. At such time as traffic demand dictates, the Theodore Street interchange on SR-60 will be reconstructed to accommodate project traffic. All of the off-site improvements needed to support development of the Specific Plan are shown in previously referenced Figure 3.7. This EIR examines the impacts of these off-site improvements on approximately 104 acres of off-site land that they affect.

NOTE: The analysis of environmental impacts from the project, including biological resources, cultural resources, geotechnical constraints, air quality, greenhouse gases, noise, etc., also address development of these offsite improvement areas as well as development of the WLCSP property.

3.4.12 Grading and Excavation

Approximately 42 million cubic yards (cy) of cut and fill will be required to rough/mass grade the entire project site, including remedial grading and overexcavation. Earthwork will balance on site within the Specific Plan, eliminating the need to import or export dirt for the project. See Figure 3.18 for the conceptual grading plan.

3.4.13 Phasing

Development of the Specific Plan is planned over a period of fifteen years, from 2015 through 2030. Under this projected development schedule, the project will absorb an average of approximately 2.7 million square feet of new development each year from 2015 to 2030, with actual development phasing based on future market conditions. Section 8.0 of the Specific Plan, *Project Phasing*, suggests that development will likely occur in two large phases, starting in the western portion of the site south of Eucalyptus Avenue This phasing concept is based on beginning construction where infrastructure presently exists and expanding southerly and easterly. It is anticipated that Phase 1 would be completed by 2022 and would contain approximately 50% of development or approximately 20,300,000 square feet of logistics warehouse uses. Phase 2 anticipates full development build-out by 2030. Figure 3.19 shows the proposed phasing plan.

As stated in the Specific Plan, project phasing predictions are conceptual. The actual amount and timing of development will be dependent upon numerous factors, many of which are outside the control of the City or the developer, including interest by building users, private developers and local, regional, and national economic conditions. These and other factors acting together will ultimately determine the location and rate at which development within the project area occurs.

City adoption of the project will establish the framework for development of the area in accordance with the Specific Plan, which identifies the type and intensity of land uses permitted within the project. It is anticipated that development of the project would occur over time, as the result of the construction of multiple separate independent projects of varying sizes and configurations. Each of these future projects would be required to be consistent with the General Plan and zoning and would comply with all applicable regulations of the Specific Plan. Table 3.E provides an estimate of the rate at which the project area could be built out, consistent with the Specific Plan, and estimated levels of construction projected to occur during each phase of development. Table 3.E also includes the approximate amount of equipment anticipated to be used during construction of the project.

NOTE: The analysis of environmental impacts from the project, including biological resources, cultural resources, geotechnical constraints, air quality, greenhouse gases, noise, etc., addressed development of these offsite improvement areas as well as development of the WLCSP property.

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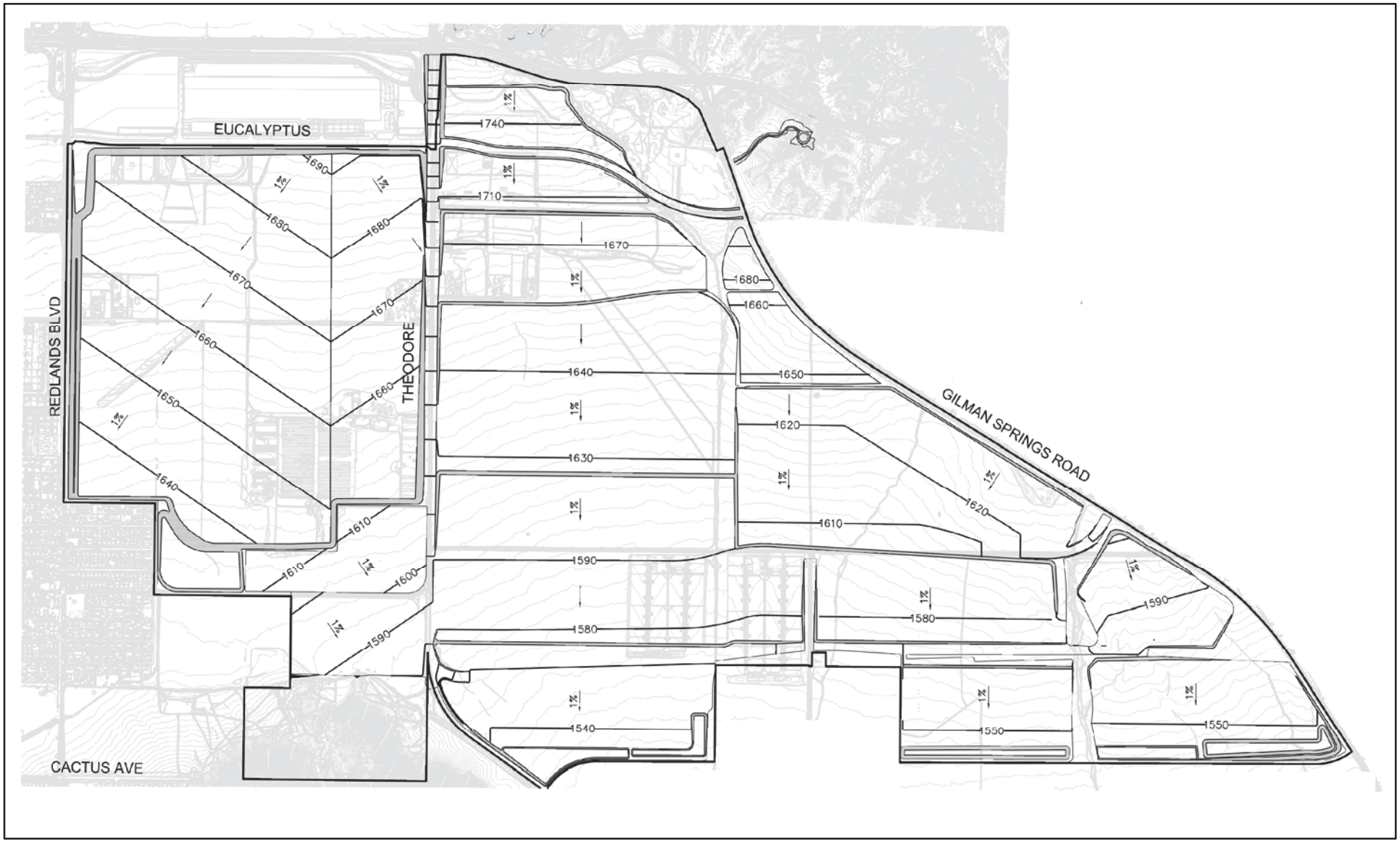

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SOURCE: RBF Consulting, 2014

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FIGURE 3.18

World Logistics Center Specific Plan Project
Environmental Impact Report

Conceptual Grading Plan

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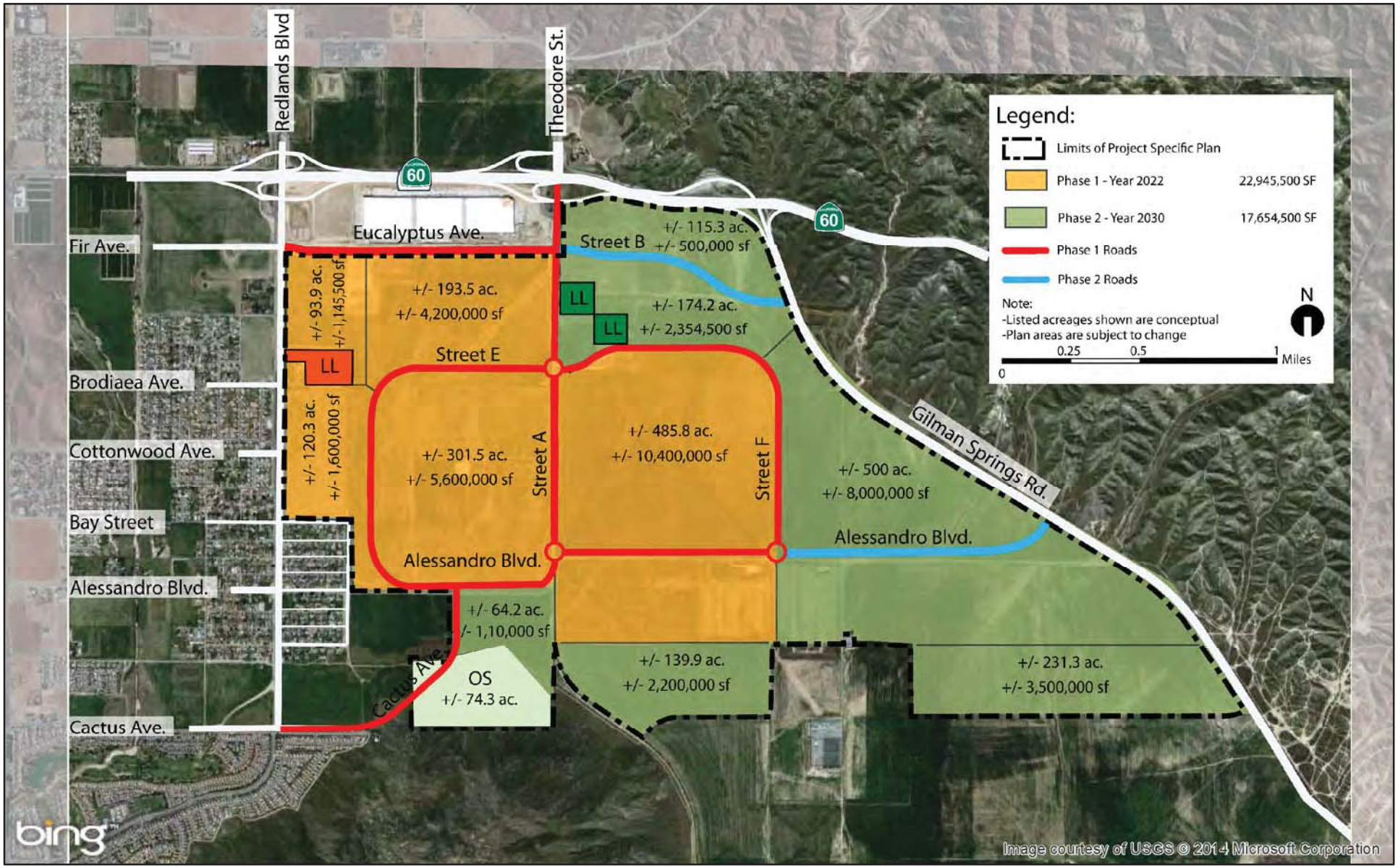

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FIGURE 3.19

World Logistics Center Specific Plan Project
Environmental Impact Report

Project Phasing

SOURCE: Air Quality, Greenhouse Gas, and Health Risk Assessment Report, July 2014.

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Table 3.E: Estimated Construction Equipment and Phasing (2015–2030) revised per new phasing plan

Activity/Equipment	#	Duration (months)	Phase 1–		Phase 2–	
			Start	End	Start	End
Mass Grading/Excavation						
Dozers (D8R, D9, D10)	4-21	96	The equipment will be used from January 1 to December 31 during the following years: 2015, 2017, 2019, and 2021		For the years 2022 to 2024 equipment will be used from October 1 to March 31 of the following year. For the years 2027, 2028, and 2030 equipment will be used from January 1 to June 30.	
Scraper (651E)	6-30					
Compactor (824C, 834)	2-6					
Motor Grader (140G)	1-3					
Service/Support Truck	7-27					
Other Dozers (D6M, 550)	2-9					
Other[1]	8-18					
Finish Grading						
Dozer (D6M, 550)	3-9	32	Equipment will be used two months out of the following years 2015, 2017, 2019, and 2021		Equipment will be used two months out of the following years 2022, 2023, 2024, 2025, 2027, 2028, and 2030	
Backhoe (420D)	1-3					
Water Truck	1-3					
Service/Support Truck	1-3					
Building						
Backhoe (590)	6	186	July 1, 2015	December 31, 2021	January 1, 2022	December 31, 2030
Concrete Truck	36					
Excavators (9060, 270, 240, mini)	16					
Material Delivery Trucks	11					
Forklift (420 and 544D)	10					
Case and Skip Loaders[2]	28					
Service/Support Truck	24					
Other[3]	12					
Utilities						
Excavators[4]	26-30	186	July 1, 2015	December 31, 2021	January 1, 2022	December 31, 2030
Loaders	8					
Water Truck	17					
Backhoe (420)	2					
Service/Support Trucks	18					
Delivery Trucks	10					
Concrete Trucks	8					
Other[5]	4-8					
Interchange						
Dozer (D9, D10)	1	18	January 1, 2020	September 30, 2021	--	--
PW Scraper (623)	1					
Excavator (324)	1					
Backhoe (430)	1					
Crane	1					
Concrete Truck	4					
Service/Support Truck	4					
Drill Rig	1					
Dump Truck	5					
RT Wheel Loader (950)	1					

Table 3.E: Estimated Construction Equipment and Phasing (2015–2030) revised per new phasing plan

Activity/Equipment	#	Duration (months)	Phase 1–		Phase 2–	
			Start	End	Start	End
Concrete Screed Mach.	1					
Skip Loader (414)	1					
Dozer (D5, D6)	1					
Motor Grader (14M)	1					
Curbing						
Curb Machine/Screed	2	62	July 1, 2015[3]	December 31, 2021	January 1, 2022	December 31, 2030
Skip Loader (210)	1					
Concrete Truck	6					
Service/Support Truck	4					
Paving						
Roller/Paving/Blade/ Scraper	10	32	January 1, 2015[4]	December 31, 2021	January 1, 2022	December 31, 2030
Skip Loader	4					
Bottom Dump Truck	4					
Delivery Truck	7					
Service/Support Truck	6					
Landscaping						
Loader (310G, 210LE, 544J)	6	186	January 1, 2015	December 31, 2021	January 1, 2022	December 31, 2030
Water Truck	2					
Excavator (mini) /Lift (544D)/ Steer (S190R)	6					
Trencher (RT-45)	2					
Service/Support Truck	14					

Source: Highland Fairview, February 2014

1. Includes: Water Puller, 420D Backhoe, water trucks, support trucks
2. Includes: 414, 721, cat skip loader, 310G, 210LE, 544J
3. Includes: boom pump/truck, water truck, trencher, skid steer, water truck
4. Includes: 65,000 lbs to 175,000 lbs, 250G, and cat mini
5. Includes: dump truck, crane, fork lift

3.4.14 Construction Hours

Similar to the Highland Fairview Corporate Park, construction of warehousing buildings within the Specific Plan will occur on a 24 hour-a-day, 7 day-a-week basis. This is necessitated by the extensive use of poured concrete in the construction of building sites and the logistics buildings themselves. Major concrete pours are most efficiently and economically done in the cooler night and early morning hours. Additionally, the large number of concrete delivery trucks necessary for this construction has a minimal traffic impact in the nighttime hours.

The City's Municipal Code contains the following language regarding construction hours:

> ***Section 8.14.040*** *Hours of Construction. Any construction within the city shall only be as follows: Monday through Friday (except for holidays which occur on weekdays), six a.m. to eight p.m.; weekends and holidays (as observed by the city and described in Chapter 2.55 of this code),*

[3] Two months a year
[4] Four weeks a year

seven a.m. to eight p.m., unless written approval is obtained from the city building official or city engineer.

Section 8.21.050 *Time of Grading Operations. Grading and equipment operations shall only be completed between the hours of seven a.m. and six p.m. Monday through Friday, excluding holidays and from eight a.m. to four p.m. on weekends and holidays. The city engineer may, however, permit grading or equipment operations before or after the allowable hours of operation if he or she determines that such operations are not detrimental to the health, safety, or welfare of residents or the general public. Permitted hours of operations may be shortened by the city engineer's finding of a previously unforeseen effect on the health, safety, or welfare of the surrounding community.*

If necessary, future developers within the WLCSP can apply to the City for extended hours of operation under the Municipal Code guidelines, as outlined in Condition of Approval #7 for the Highland Fairview Corporate Center (Skechers):

Construction and Demolition. No person shall operate or cause the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between the hours of eight p.m. and seven a.m. the following day such that the sound there from creates a noise disturbance, except for emergency work by public service utilities or for other work approved by the city engineer or designee.

3.4.15 Specific Plan Implementation

Although financial and economic parameters of a project are not typically included in an EIR, the size and complexity of the Specific Plan project dictate that a certain amount of this information be included in the EIR to demonstrate that the project is feasible and that the City will not incur undue risk relative to the installation of public infrastructure and other facilities and services (Specific Plan Section 11.0).

Funding for the transportation, infrastructure, and other improvements identified in the Specific Plan would be provided by a variety of sources. For example, Highland Fairview would construct certain backbone roads at the outset of project development; future development would install road connections and on-site improvements. All projects would contribute to the City's Development Impact Fee (DIF) program to help fund future roadway improvements in the immediate surrounding City area. In addition, future development would contribute to the County's Transportation Uniform Mitigation Fee (TUMF) program to fund identified regional improvements such as the SR-60 ramps at Redlands Boulevard. The Specific Plan contains a discussion of potential financing measures and mechanisms the City would need to enact, adopt, or participate in for the proposed infrastructure improvements.

One of the available regional infrastructure funding mechanisms is the TUMF managed by the Western Riverside Council of Governments (WRCOG). The primary purpose of the TUMF program is to fund regional transportation improvements. The TUMF program has become a key way to ensure that growth does not create gridlock on regional and local thoroughfares. Under the TUMF program, Western Riverside County is divided into five zones, with the Specific Plan located in the "Central" zone. The TUMF is structured so that 48.7 percent of funds generated in each zone go back to that zone to be programmed for projects. Another 48.7 percent is allocated to regional inter-zone projects programmed by the Riverside County Transportation Commission (RCTC), and 2.6 percent is allocated for regional transit projects programmed by the RTA. TUMF-eligible roadways within the proposed project include Redlands Boulevard, Alessandro Boulevard, Gilman Springs Road, and freeway interchanges at Gilman Springs Road and Redlands Boulevard.

The City of Moreno Valley has implemented a Capital Improvement Program (CIP) that is closely linked to the City DIF program. According to the 2011–2012 CIP, the City has experienced a reduction in DIF as well as other development-related funding sources. The current CIP reflects the new projects that have been funded. DIF funding is collected for "Arterial Streets," "Interchange Improvements," and "Traffic Signals." The CIP describes approximately $1.66 billion in capital projects through build out of the City.

There are several identified CIP projects within the project area including traffic signals along Alessandro Boulevard at Redlands Boulevard, Sinclair Street, Theodore Street, Virginia Street, and Gilman Springs Road; Eucalyptus Avenue at Redlands Boulevard, Sinclair Street, Theodore Street, Virginia Street, and Gilman Springs Road; SR-60 eastbound ramps at Theodore Street, and westbound ramps at Theodore Street and Redlands Boulevard. Future street improvements within the project area include SR-60 interchanges at Redlands Boulevard and/or Theodore Street, and Gilman Springs Road; although these are included in the City CIP program, the funding sources are TUMF and private developer contributions. Other future CIP identified street improvements include Alessandro Boulevard through the project area, Eucalyptus Avenue, Gilman Springs Road (within the city limits), Theodore Street, and Virginia Street. Updates to the CIP program may include future streets within the WLC project.

3.5 GENERAL PLAN AMENDMENT

Approval of the project includes amendments to the following General Plan text and Elements to incorporate the many aspects of the WLC Specific Plan (also see Figures 3.20a-j):

1. **Community Development Element**

    a. Revise Land Use Map (Figure 2-2) to include WLCSP land plan

    b. Revise Section 2.1.3

    … intersection of Virginia Street and Gato del Sol. ~~The acquisitions encompasses about one third of the land within the Moreno Highlands Specific Plan.~~

    ~~Neither of the aforementioned land purchases are likely to be developed as envisioned in the original specific plan, and are likely to remain substantially vacant. In that the Moreno Highlands Specific Plan Development Agreement precludes the City from making unilateral changes to the specific plan land use plan, no changes were recommended for the Moreno Highland Specific Plan as part of the General Plan Update.~~

2. **Parks, Recreation and Open Space Element**

    a. Revise Open Space Map (Figure 4-1) (page 4-2) to include WLCSP.

    b. Revise Future Parkland Acquisition Areas map (Figure 4-2) (page 4-6).

    c. Revise Master Plan of Trails (Figure 4-3) (page 4-13) to include WLCSP.

3. **Circulation Element**

    a. Revise discussion on Industrial Development (Section 5.3.2.2).

    Industrial and business park development is concentrated in the southern part of the City, located south of Iris Avenue and north of San Michele Road to the Perris city limits, <u>and in the eastern part of the City, generally between Redlands Boulevard and Gilman Springs Road</u>. This development … (page 5-7)

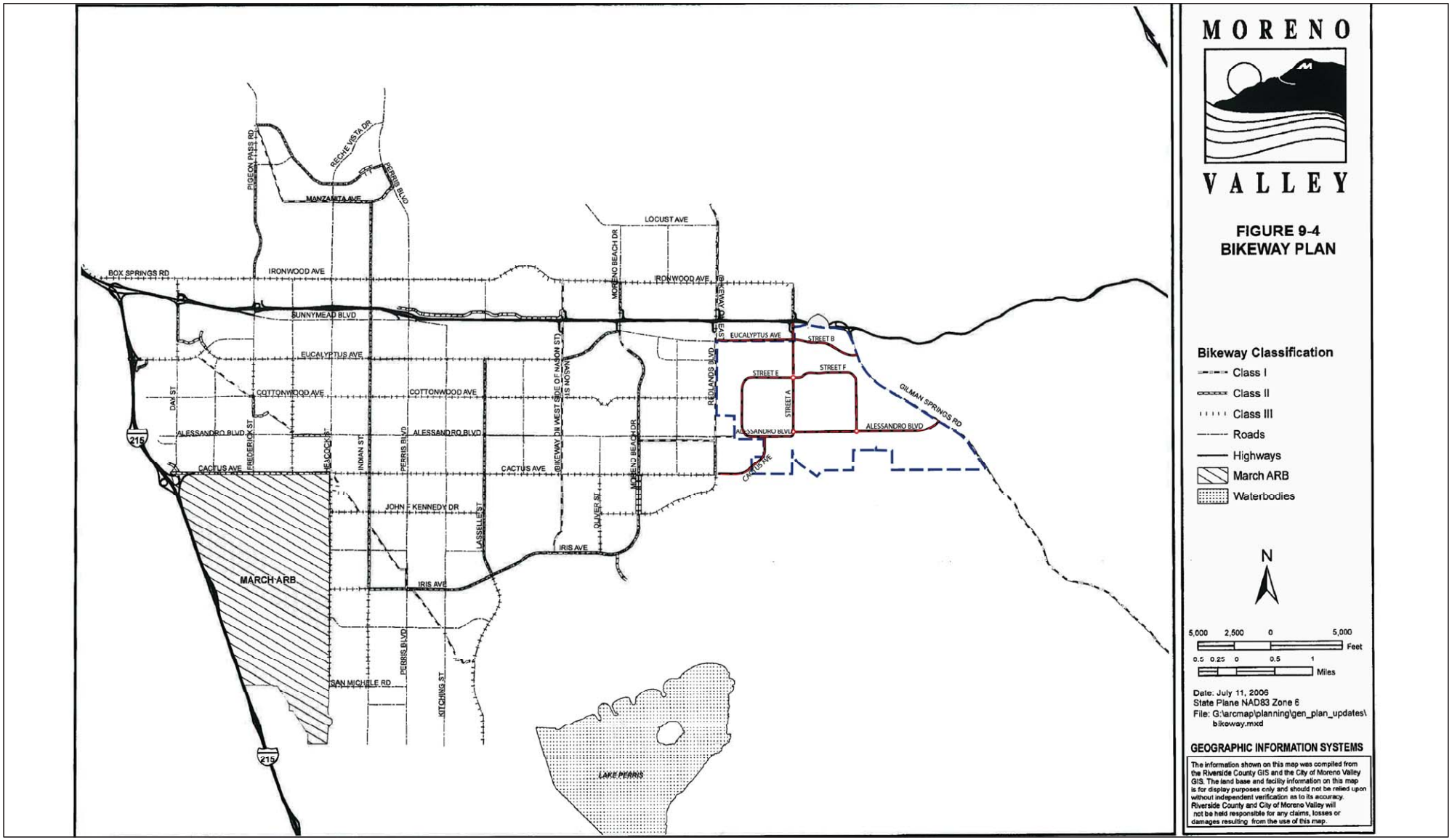

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FIGURE 3.20A

World Logistics Center Specific Plan Project
Environmental Impact Report
General Plan Amendment

SOURCE: Moreno Valley, September, 2014.

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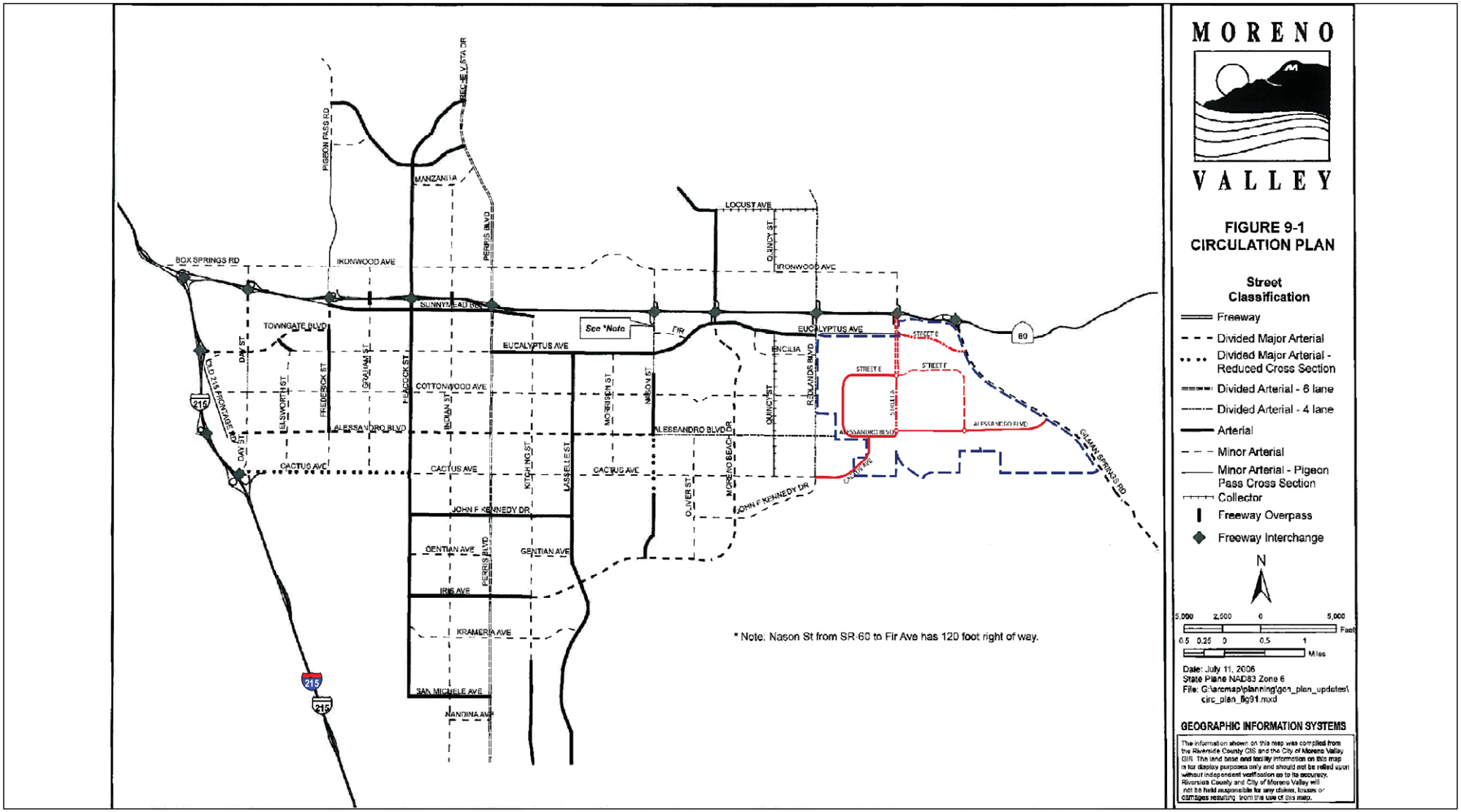

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FIGURE 3.20B

World Logistics Center Specific Plan Project
Environmental Impact Report

General Plan Amendment

SOURCE: Moreno Valley, September, 2014.

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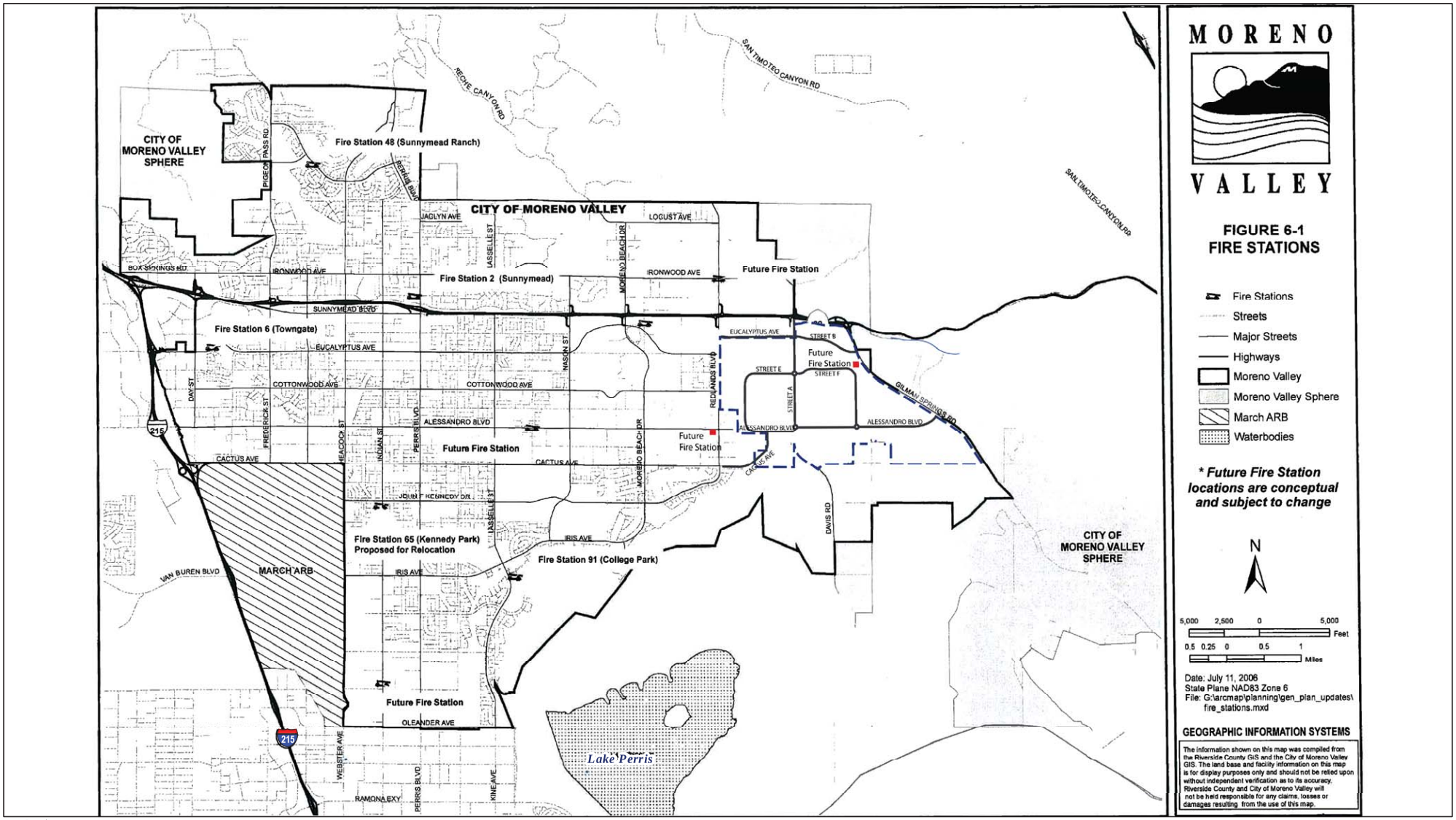

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FIGURE 3.20c

World Logistics Center Specific Plan Project
Environmental Impact Report

General Plan Amendment

SOURCE: Moreno Valley, September, 2014.

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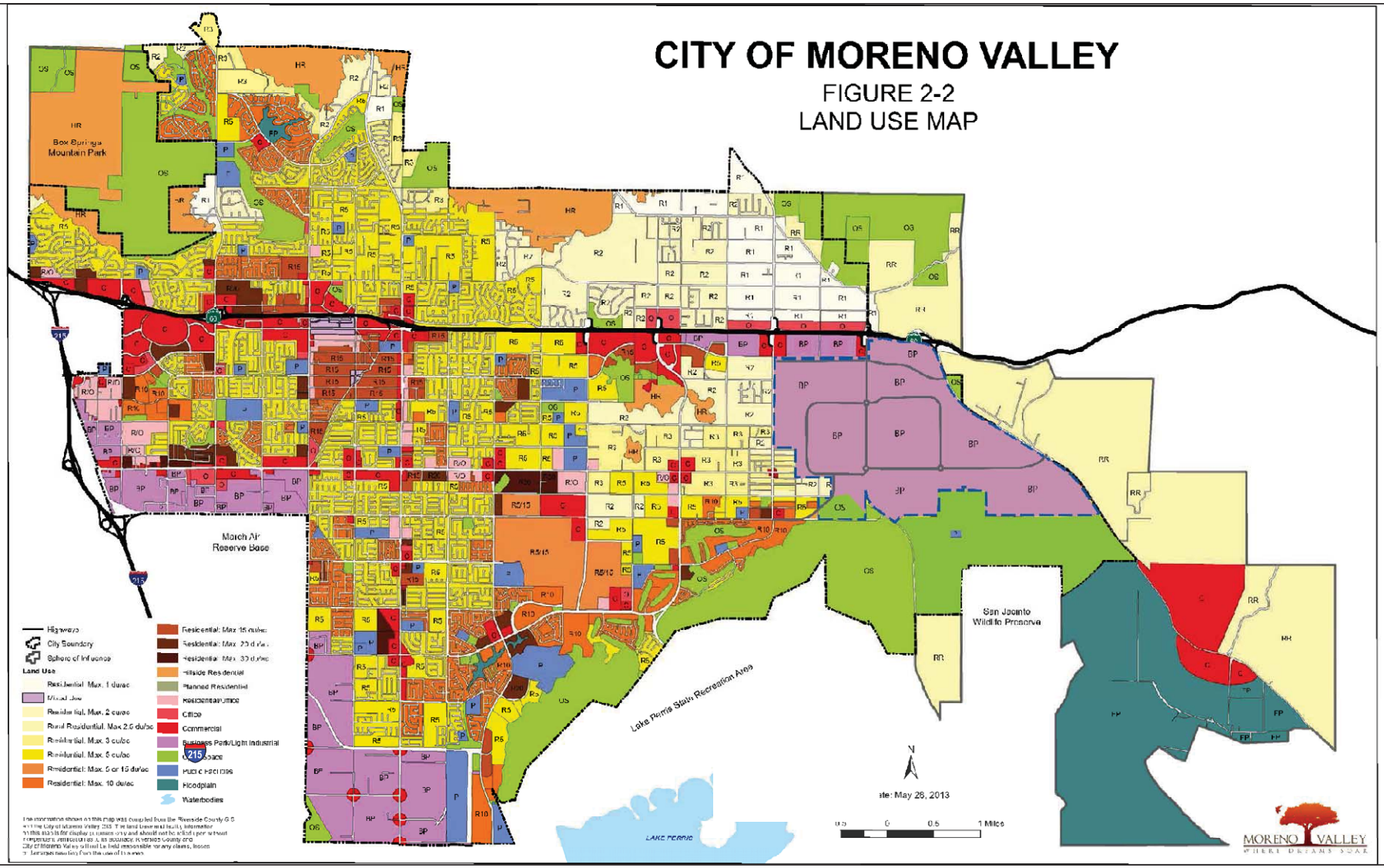

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FIGURE 3.20D

World Logistics Center Specific Plan Project
Environmental Impact Report

General Plan Amendment

SOURCE: Moreno Valley, September, 2014.

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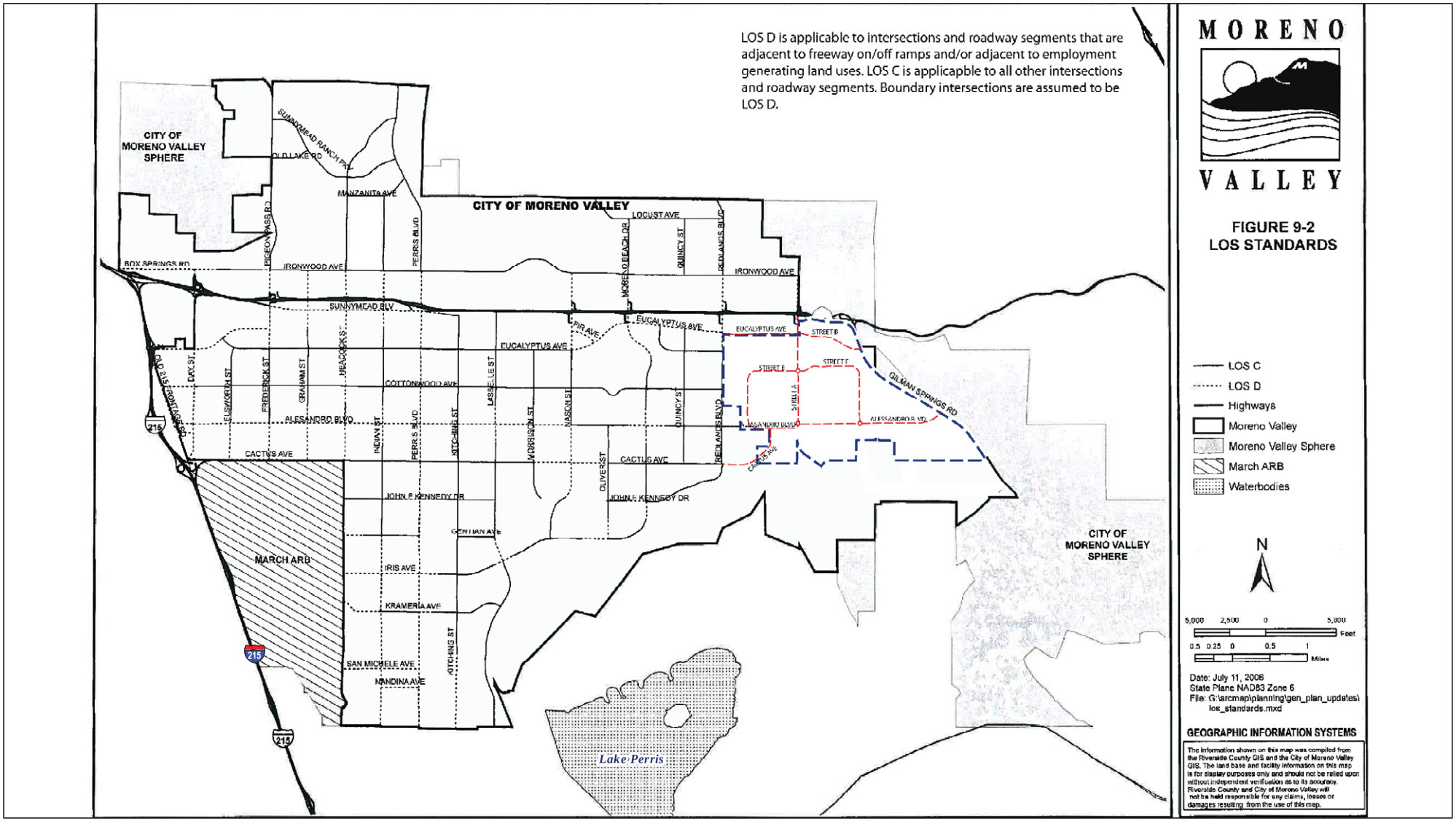

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FIGURE 3.20E

World Logistics Center Specific Plan Project
Environmental Impact Report
General Plan Amendment

SOURCE: Moreno Valley, September, 2014.

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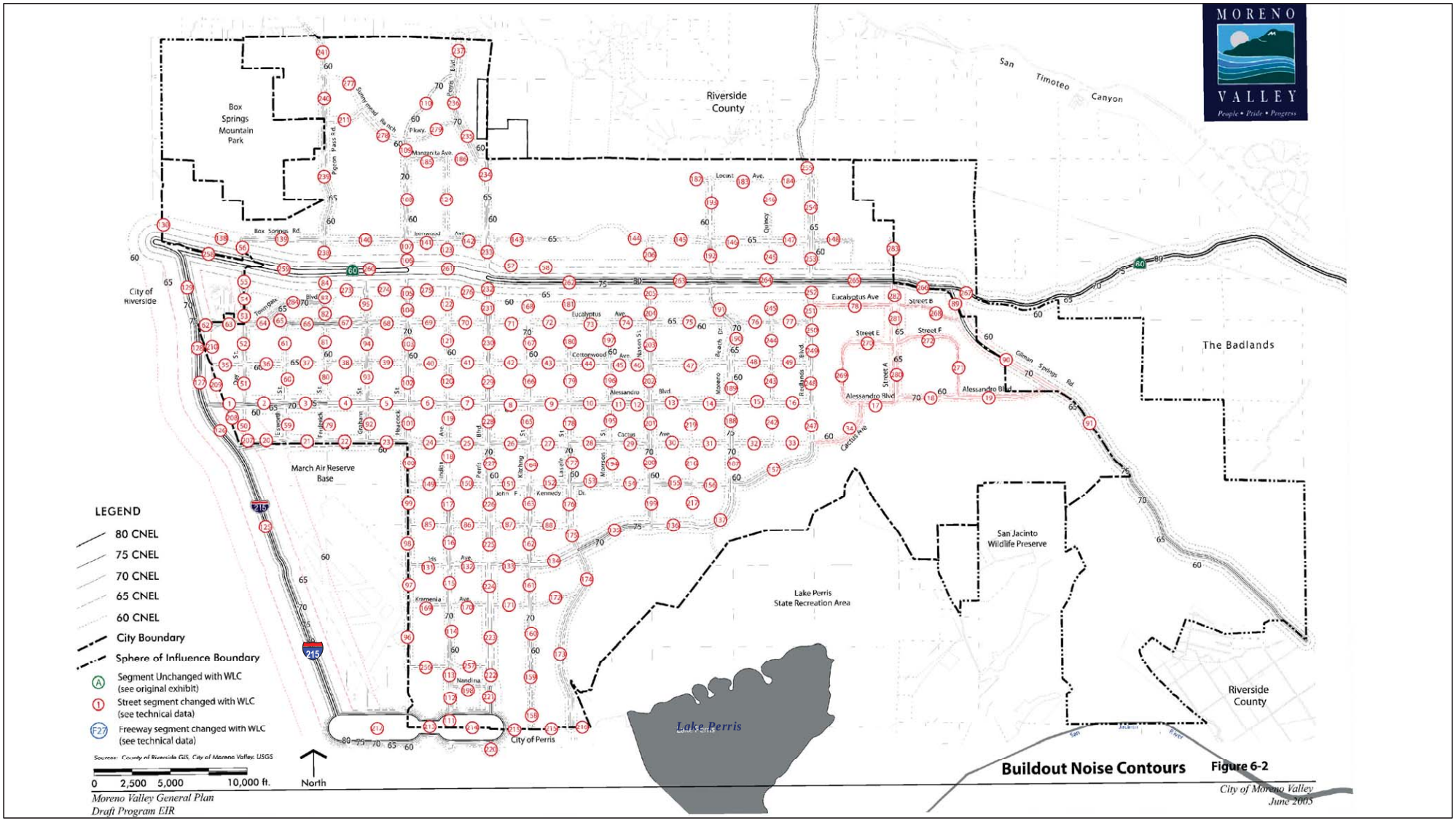

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FIGURE 3.20F

World Logistics Center Specific Plan Project
Environmental Impact Report
General Plan Amendment

SOURCE: Moreno Valley, June 2005

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Technical Data for Noise Contour Map

Note: Blanks represent segments where noise does not reach that dB level

				Distance from Centerline		
				60dB	65dB	70dB
1	Alessandro Blvd	I-215	Day St	681	361	184
2		Day St	Elsworth	304	141	65
3		Elsworth	Frederick	297	137	64
4		Frederick	Graham	290	134	62
5		Graham	Heacock	306	142	66
6		Heacock	Indian	288	134	62
7		Indian	Perris	292	135	63
8		Perris	Kitching	269	125	58
9		Kitching	Lasselle	258	120	55
10		Lasselle	Morrison	89	41	19
11		Morrison	Civic Center	92	42	19
12		Civic Center	Nason	92	42	19
13		Nason	Oliver	156	72	33
14		Oliver	Moreno Beach	145	67	31
15		Moreno Beach	Quincy	307	149	
16		Quincy	Redlands	91	42	19
17		Cactus	Theodore	191	88	41
18		Theodore	Street F	257	119	55
19		Street F	Gilman Springs	260	120	56
20	Cactus Avenue	I-215	Elsworth	757.5	404.5	207.5
21		Elsworth	Frederick	276	128	59
22		Frederick	Graham	309	143	66
23		Graham	Heacock	266	123	57
24		Heacock	Indian	207	96	44
25		Indian	Perris	185	86	39
26		Perris	Kitching	190	88	41
27		Kitching	Lasselle	165	76	35
28		Lasselle	Morrison	168	78	36
29		Morrison	Nason	200	92	43
30		Nason	Oliver	150	69	32
31		Oliver	Moreno Beach	67	31	14
32		Moreno Beach	Quincy	129	60	27
33		Quincy	Redlands	129	60	27
34		Redlands	Street E	253	117	54
35	Cottonwood Avenue	Frontage Rd	Day St	218	101	
36		Day St	Elsworth	280	135	
37		Elsworth	Frederick	180	87	
38		Frederick	Graham	195	94	
39		Graham	Heacock	210	100	
40		Heacock	Indian	225	108	
41		Indian	Perris	303	145	
42		Perris	Kitching	233	108	

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43		Kitching	Lasselle	253	118	
44		Lasselle	Morrison	273	128	
45		Morrison	Civic Center	203	93	
46		Civic Center	Nason	218	101	
47		Nason	Moreno Beach	296	138	
48		Moreno Beach	Quincy	296	138	
49		Quincy	Redlands	273	128	
50	Day Street	Frontage Rd	Alessandro	108	50	
51		Alessandro	Cottonwood	110	51	23
52		Cottonwood	Eucalyptus	369	184	91
53		Eucalyptus	Gateway	469	241	124
54		Gateway	Campus	501	256	131
55		Campus	SR-60	601	319	161
56		SR-60	Ironwood	420	210	100
57	Elder Avenue	Perris	Kitching	125		
58		E/O	Kitching	75		
59	Elsworth Street	Cactus	Alessandro	163	75	35
60		Alessandro	Cottonwood	77	36	16
61		Cottonwood	Eucalyptus	225	108	
62	Eucalyptus Avenue	I-215	Frontage	721	381	196
63		Frontage	Day St	409	211	110
64		Day St	Towngate	409	211	110
65		Towngate	Elsworth	302	144	
66		Elsworth	Frederick	325	155	74
67		Frederick	Graham	338	161	74
68		Graham	Heacock	358	173	80
69		Heacock	Indian	273	128	
70		Indian	Perris	100	46	
71		Perris	Kitching	94	44	
72		Kitching	Lasselle	259	124	
73		Lasselle	Morrison	279	134	
74		Morrison	Nason	259	124	
75		Nason	Moreno Beach	279	134	
76		Moreno Beach	Quincy	162	75	
77		Quincy	Redlands	194	93	
78		Redlands	Theodore	225	104	
79	Frederick Street	Cactus	Alessandro	120	56	26
80		Alessandro	Cottonwood	192	89	41
81		Cottonwood	Eucalyptus	259	124	
82		Eucalyptus	Towngate	392	194	93
83		Towngate	Sunnymead	601	319	161
84		Sunnymead	SR-60	601	319	161
85	Gentian Avenue	Heacock	Indian	173	80	
86		Indian	Perris	233	108	
87		Perris	Kitching	233	108	
88		Kitching	Lasselle	273	128	
89	Gilman Springs Road	SR-60	Street B	518	240	111

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90		Street B	Alessandro	468	217	100
91		Alessandro	S/O	432	200	93
92	Graham Street	Cactus	Alessandro	186	86	40
93		Alessandro	Cottonwood	137	63	29
94		Cottonwood	Eucalyptus	325	355	75
95		Eucalyptus	Sunnymead	345	168	81
96	Heacock Street	San Michele	Krameria	302	144	
97		Krameria	Iris	344	167	80
98		Iris	Gentian	419	219	99
99		Gentian	John F. Kennedy	419	219	99
100		John F. Kennedy	Cactus	75	34	16
101		Cactus	Alessandro	55	25	11
102		Alessandro	Cottonwood	188	87	40
103		Cottonwood	Eucalyptus	364	179	86
104		Eucalyptus	Sunnymead	364	179	86
105		Sunnymead	SR-60	484	239	114
106		SR-60	Hemlock	238	110	51
107		Hemlock	Ironwood	209	97	45
108		Ironwood	Manzanita	201	93	43
109		Manzanita	Sunnymead Ranch	129	104	78
110		Sunnymead Ranch	Perris	119	98	24
111	Indian Street	S/O	Oleander	318	148	68
112		Oleander	Nandina	446	218	101
113		Nandina	San Michele	453	225	108
114		San Michele	Krameria	338	161	74
115		Krameria	Iris	386	188	87
116		Iris	Gentian	365	180	87
117		Gentian	John F. Kennedy	325	155	75
118		John F. Kennedy	Cactus	58	26	12
119		Cactus	Alessandro	63	29	13
120		Alessandro	Cottonwood	165	76	35
121		Cottonwood	Eucalyptus	218	200	
122		Eucalyptus	Sunnymead	273	128	
123		Sunnymead	Ironwood	218	201	
124		Ironwood	Manzanita	218	201	
125	Interstate 215	Oleander	Van Buren	1268	778	413
126		Van Buren	Cactus	2182	1013	470
127		Cactus	Alessandro	2241	1040	482
128		Alessandro	Eucalyptus	2152	999	463
129		Eucalyptus	SR-60	2156	1000	464
130		Box Springs	Central	1780	1155	695
131	Iris Avenue	Heacock	Indian	179	86	
132		Indian	Perris	181	84	39
133		Perris	Kitching	91	42	19
134		Kitching	Lasselle	131	61	28
135		Lasselle	Nason	145	67	31
136		Nason	Oliver	277	128	59

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137		Oliver	Moreno Beach	68	31	14
138	Ironwood Avenue	W/O	Day St	345	168	81
139		Day St	Pigeon Pass	365	180	87
140		Pigeon Pass	Heacock	165	76	35
141		Heacock	Indian	154	71	33
142		Indian	Perris	210	100	
143		E/O	Perris	155	75	
144		W/O	Nason	138	18	
145		Nason	Moreno Beach	102	47	22
146		Moreno Beach	Quincy	41	19	8
147		Quincy	Redlands	41	19	8
148		Redlands	Sinclair	84	39	18
149	John F. Kennedy Drive	Heacock	Indian	279	134	
150		Indian	Perris	116	54	25
151		Perris	Kitching	122	56	26
152		Kitching	Lasselle	235	100	
153		Lasselle	Morrison	364	179	86
154		Morrison	Nason	302	144	
155		Nason	Oliver	344	167	80
156		Oliver	Moreno Beach	18	8	3
157		Moreno Beach	Redlands	204	95	44
158	Kitching Street	N/O	Oleander	224	107	
159		N/O	Nandina	344	167	80
160		S/O	Krameria	124	57	26
161		Krameria	Iris	97	45	20
162		Iris	Gentian	103	47	22
163		Gentian	John F. Kennedy	358	173	80
164		John F. Kennedy	Cactus	30	14	6
165		Cactus	Alessandro	46	21	10
166		Alessandro	Cottonwood	140	65	30
167		Cottonwood	Eucalyptus	296	138	
168		Eucalyptus	Sunnymead	253	118	
169	Krameria Avenue	Heacock	Indian	182	84	39
170		Indian	Perris	182	84	39
171		Perris	Kitching	43	20	9
172		Kitching	Lasselle	69	32	15
173	Lasselle Street	S/O	Krameria	75	34	16
174		Krameria	Iris	98	45	21
175		Iris	Gentian	190	88	41
176		Gentian	John F. Kennedy	392	239	114
177		John F. Kennedy	Cactus	199	92	43
178		Cactus	Alessandro	135	62	29
179		Alessandro	Cottonwood	102	47	22
180		Cottonwood	Eucalyptus	279	107	
181		N/O	Eucalyptus	218	18	
182	Locust Avenue	W/O	Moreno Beach	194	93	
183		Moreno Beach	Quincy	78	36	16

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184		Quincy	Redlands	78	36	16
185	Manzanita Avenue	Heacock	Indian	198	81	
186		Indian	Perris	115		
187	Moreno Beach Drive	John F. Kennedy	Cactus	65	30	14
188		Cactus	Alessandro	206	95	44
189		Alessandro	Cottonwood	208	96	44
190		Cottonwood	Eucalyptus	208	96	44
191		Eucalyptus	SR-60	208	96	44
192		SR-60	Ironwood	242	112	52
193		Ironwood	Locust	108	50	23
194	Morrison Street	John F. Kennedy	Cactus	273	128	
195		Cactus	Alessandro	273	128	
196		Alessandro	Cottonwood	98	45	21
197		Cottonwood	Eucalyptus	210	100	
198	Nandina Avenue	Indian	Perris	155	75	
199	Nason Street	Iris	John F. Kennedy	175	81	37
200		John F. Kennedy	Cactus	175	81	37
201		Cactus	Alessandro	257	119	55
202		Alessandro	Cottonwood	228	105	49
203		Cottonwood	Eucalyptus	419	209	99
204		Eucalyptus	SR-60 Ramps	424	214	104
205		SR-60 Ramps	SR-60	329	159	79
206		SR-60	Ironwood	203	93	
207	Old 215 Frontage Rd	Cactus	Day St	239.5	114.5	
208		Day St	Alessandro	80.5		
209		Alessandro	Cottonwood	179.5	86.5	
210		Cottonwood	Eucalyptus	239.5	114.5	
211	Old Lake Drive	Pigeon Pass	Sunnymead Ranch	240	115	
212	Oleander Avenue	I-215	Heacock	872	962	1062
213		Heacock	Indian	452	512	572
214		Indian	Perris	872	962	1062
215		Perris	Lasselle	76	35	16
216		Lasselle	Lake Perris	38	17	8
217	Oliver Street	Iris	John F. Kennedy	72	33	15
218		John F. Kennedy	Cactus	81	38	17
219		Cactus	Alessandro	20	9	4
220	Perris Boulevard	S/O	Oleander	626.5	326.5	156.5
221		Oleander	Nandina	139	63	29
222		Nandina	San Michele	139	63	29
223		San Michele	Krameria	139	63	29
224		Krameria	Iris	145	67	31
225		Iris	Gentian	278	129	60
226		Gentian	John F. Kennedy	278	129	60
227		John F. Kennedy	Cactus	109	50	23
228		Cactus	Alessandro	111	51	24
229		Alessandro	Cottonwood	366.5	181.5	88.5
230		Cottonwood	Eucalyptus	326.5	156.5	76.5

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231		Eucalyptus	Sunnymead	275	127	59
232		Sunnymead	Elder	516.5	261.5	126.5
233		Elder	Ironwood	486.5	241.5	116.5
234		Ironwood	Manzanita	326.5	156.5	76.5
235		Manzanita	Sunnymead Ranch	421.5	211.5	101.5
236		Sunnymead Ranch	Heacock	376.5	169.5	82.5
237		N/O	Heacock	519	264	129
238	Pigeon Pass Road	SR-60	Ironwood	396.5	181.5	88.5
239		Ironwood	Old Lake	392.5	194.5	93.5
240		Old Lake	Sunnymead Ranch	168	81	
241		N/O	Sunnymead Ranch	203	93	
242	Quincy Street	Cactus	Alessandro	122		
243		Alessandro	Cottonwood	167	74	
244		Cottonwood	Eucalyptus	167	74	
245		Eucalyptus	Ironwood	138		
246		Ironwood	Locust	68		
247	Redlands Boulevard	Cactus	Alessandro	61	28	13
248		Alessandro	Cottonwood	72	33	15
249		Cottonwood	Dracaea	72	33	15
250		Dracaea	Eucalyptus	113	52	24
251		Eucalyptus	Fir	265	123	57
252		Fir	SR-60	265	123	57
253		SR-60	Ironwood	325	151	70
254		Ironwood	Locust	372	172	80
255		N/O	Locust	372	172	80
256	San Michele Road	Heacock	Indian	209	99	
257		Indian	Perris	179	86	
258	SR-60	I-215	Day St	1963	911	422
259		Day St	Pigeon Pass	1998	927	430
260		Pigeon Pass	Heacock	1835	851	395
261		Heacock	Perris	1734	805	373
262		Perris	Nason	1617	750	348
263		Nason	Moreno Beach	1565	726	337
264		Moreno Beach	Redlands	1363	633	293
265		Redlands	Theodore	1344	624	289
266		Theodore	Gilman Springs	1409	654	303
267		E/O	Gilman Springs	1253	581	270
268	Street B	Theodore	Gilman Springs	135	62	29
269	Street E	Alessandro	Street E	119	55	25
270		Street E	Theodore	360	167	77
271	Street F	Alessandro	Street F	113	52	24
272		Street F	Theodore	202	93	43
273	Sunnymead Boulevard	Frederick	Graham	302	144	
274		Graham	Heacock	259	124	
275		Heacock	Indian	194	93	
276		Indian	Perris	179	86	
277	Sunnymead Ranch Parkway	Pigeon Pass	Old Lake	124		

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278		Old Lake	Heacock	302	144	
279		Heacock	Perris	167	80	
280	Theodore Street	Street C	Street F	361	167	77
281		Street F	Eucalyptus	712	330	153
282		Eucalyptus	SR-60	670	311	144
283		SR-60	Ironwood	145	67	31
284	Towngate Boulevard	Eucalyptus	Frederick	341	171	91

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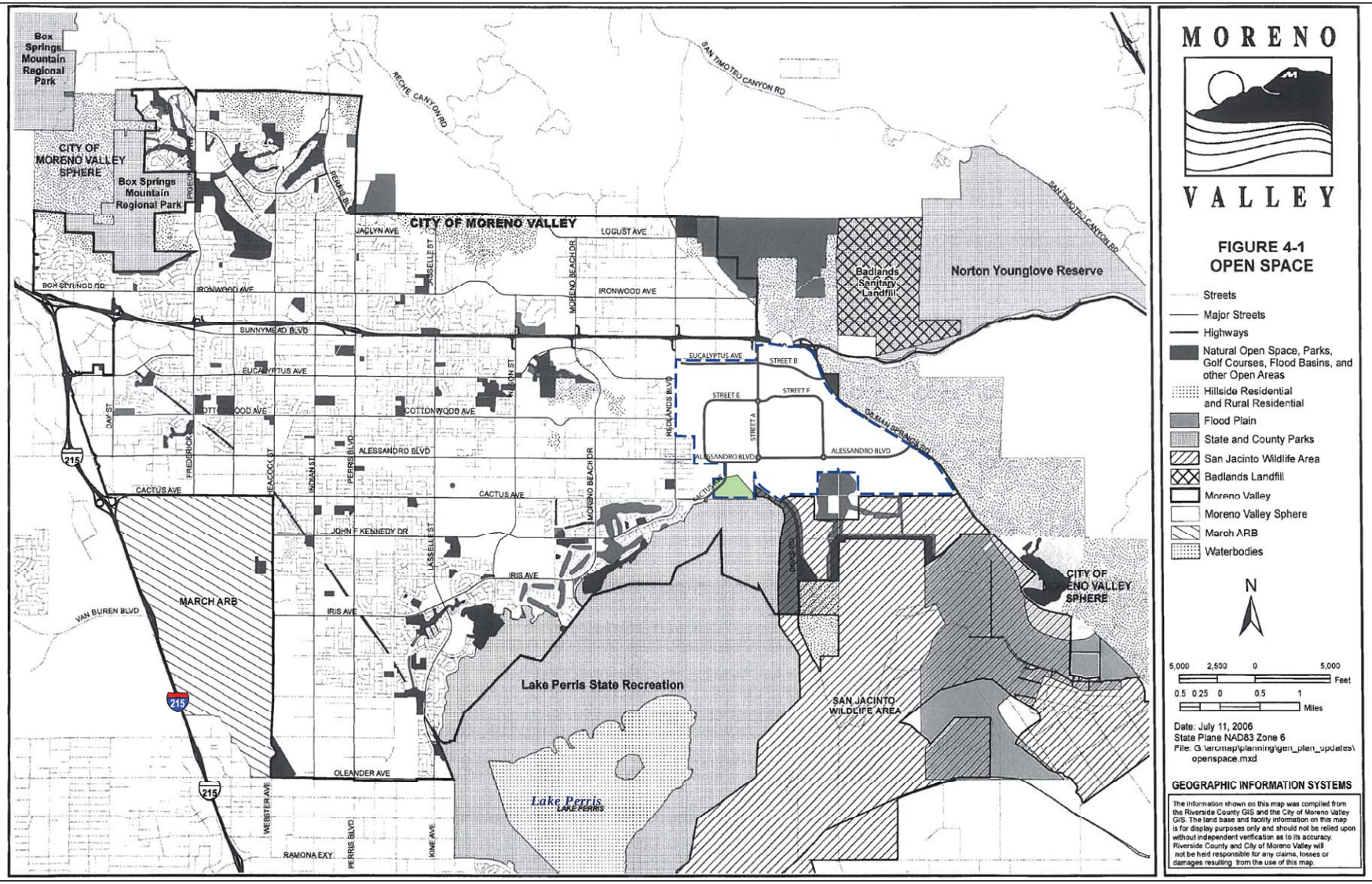

LSA

FIGURE 3.20G

World Logistics Center Specific Plan Project
Environmental Impact Report
General Plan Amendment

SOURCE: Moreno Valley, September, 2014.

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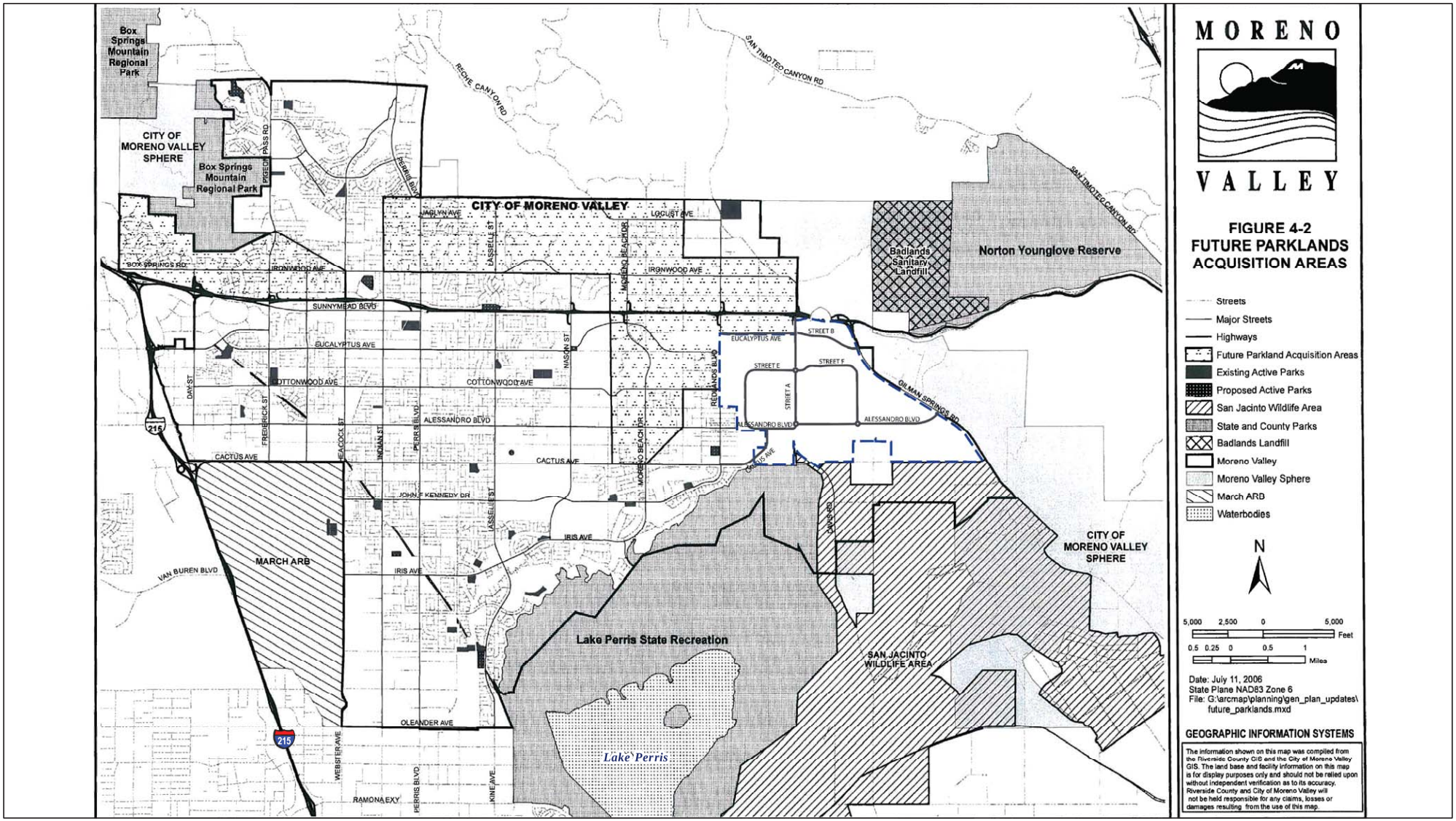

LSA

FIGURE 3.20H

World Logistics Center Specific Plan Project
Environmental Impact Report
General Plan Amendment

SOURCE: Moreno Valley, September, 2014.

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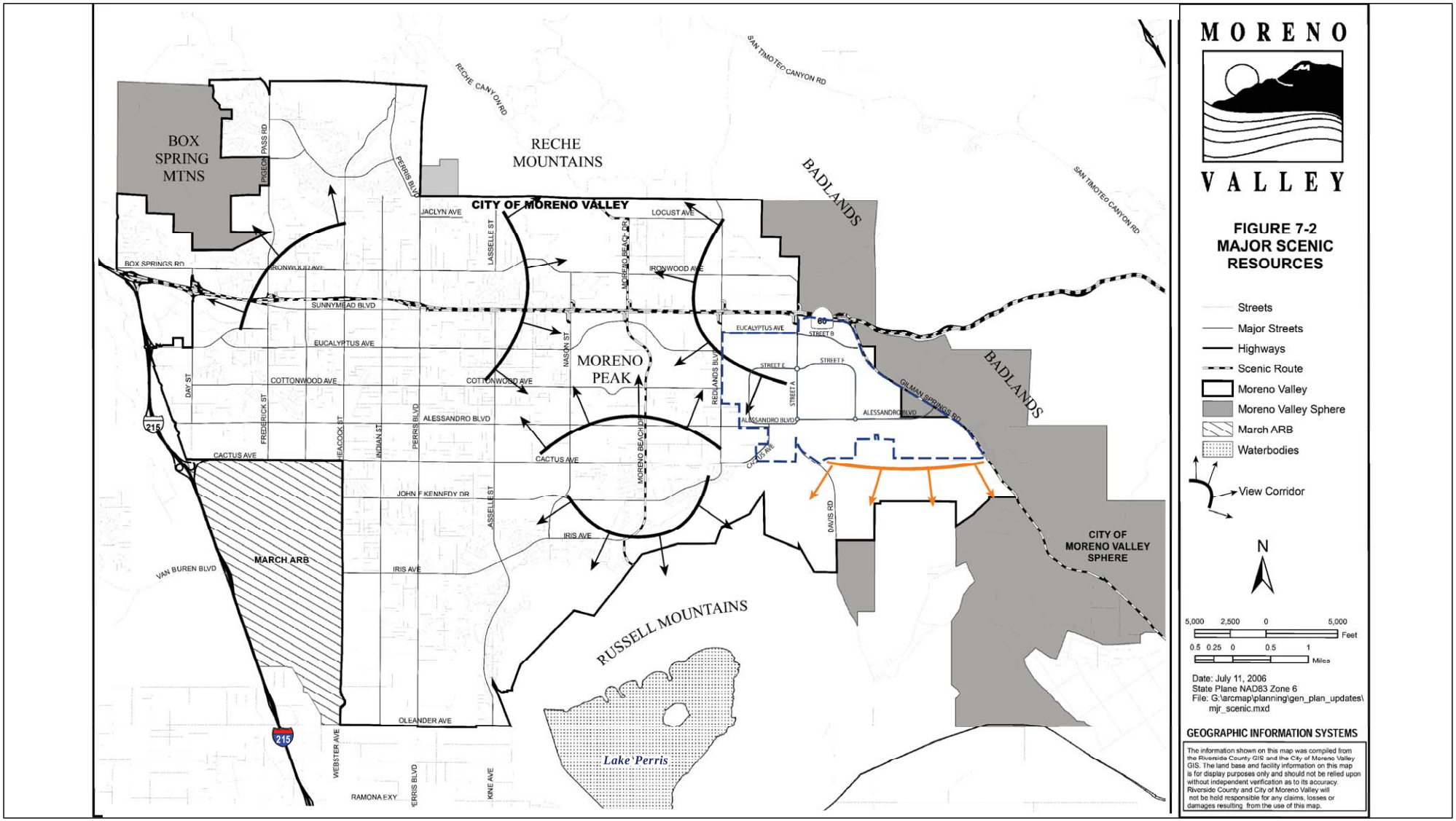

LSA

FIGURE 3.20i

World Logistics Center Specific Plan Project
Environmental Impact Report
General Plan Amendment

SOURCE: Moreno Valley, September, 2014.

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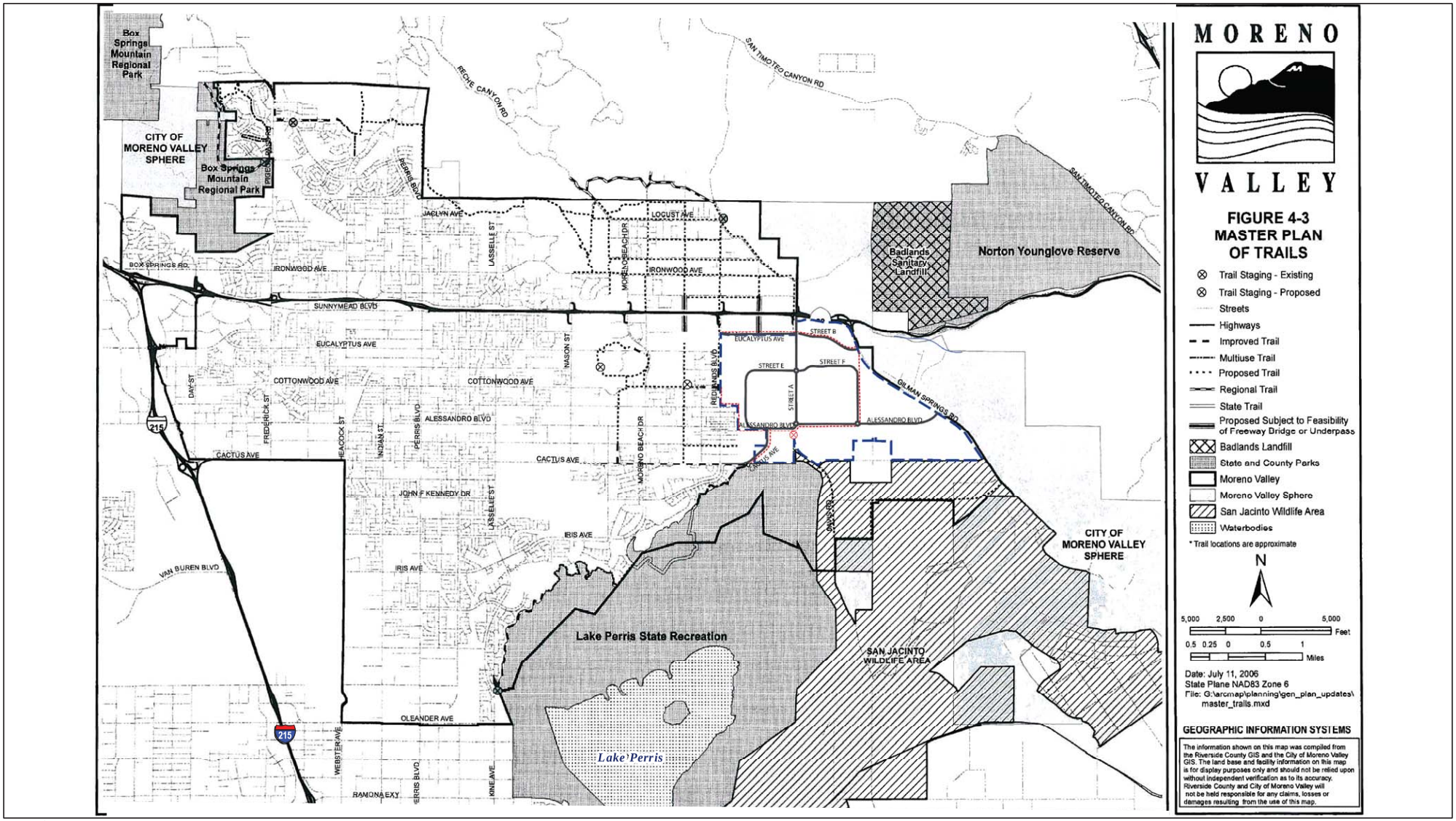

LSA

FIGURE 3.20J

World Logistics Center Specific Plan Project
Environmental Impact Report
General Plan Amendment

SOURCE: Moreno Valley, September, 2014.

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4. **Safety Element (revise the following to incorporate WLCSP)**
   a. Revise Fire Stations map (Figure 6-1) (page 6-8) consistent with WLCSP.
   b. Revise Build-Out Noise Contours map (Figure 6-2) to match WLCSP contours.
5. **Conservation Element**
   a. Revise Major Scenic Resources map (Figure 7-2)(page 7-13) to incorporate WLCSP.
6. **Goals and Objectives**
   a. Revise Circulation Plan (Figure 9-1) (page 9-26) to incorporate WLCSP circulation plan.
   b. Revise LOS Standards map (Figure 9-2) (page 9-28) consistent with WLCSP.
   c. Revise Bikeway Plan map (Figure 9-4) (page 9-29) consistent with WLCSP bikeway plan.

3.6 PROJECT OBJECTIVES

The purpose of the proposed project is to provide a new master-planned facility specializing in logistics warehouse distribution services. Section 1.3.1, *Development Goals*, of the WLC Specific Plan outlines the following overall objectives for the proposed WLC Specific Plan:

NOTE: *The indicated minor wording change was made so the objectives would more accurate regarding service to the port which will only represent a small fraction of project trips (see Section 4.15, Transportation).*

- Create substantial employment opportunities for the citizens of Moreno Valley and surrounding communities.
- Provide the land use designation and infrastructure plan necessary to meet current market demands and to support the City's Economic Development Action Plan.
- Create a major logistics center with good regional and freeway access.
- Establish design standards and development guidelines to ensure a consistent and attractive appearance throughout the entire project.
- Establish a master plan for the entire project area to ensure that the project is efficient and business-friendly, accommodating the next-generation of logistics buildings.
- Provide a major logistics center to accommodate a portion of the ever-expanding trade volumes at the Ports of Los Angeles and Long Beach.
- Create a project that will provide a balanced approach to the City's responsibilities of fiscal viability, economic expansion, and environmental integrity.
- Provide the infrastructure improvements required to meet project needs in an efficient and cost-effective manner.
- Encourage new development consistent with regional and municipal service capabilities.
- Significantly improve the City's jobs/housing balance and help reduce unemployment within the City.
- Provide thousands of construction job opportunities during the project's build-out phase.
- Provide appropriate transitions or setbacks between on-site and off-site uses.

3.6.1 City's Economic Development Action Plan Objectives

In 2011, the City adopted an Economic Development Action Plan (EDAP) that outlined the following general objectives:

Objectives for Economic Development

- Create jobs locally and address City's high unemployment rate
- Address the Community's jobs to housing imbalance
- Strengthen and broaden the local economic foundation by attracting quality businesses
- Enhance City revenue generation from sources such as sales tax, property tax, transient occupancy tax, and utility tax – all aimed at improving quality of life in Moreno Valley

Eastern Moreno Valley–Rancho Belago

- Prime area of Community with large undeveloped areas.
- Skechers USA opening has generated interest by other prospective corporate users.
- Nearly 20-year old Moreno Highlands Specific Plan to expire in 2012
- Highest and Best land uses should be evaluated to address City's jobs to housing imbalance

Survey of Inland Region Industrial/Business Park Zoning

- Ontario 25.3%
- Perris 21.7%
- San Bernardino 18.0%
- Chino 17.1%
- Fontana 17.0%
- Rancho Cucamonga 15.3%
- Riverside 15.2%
- Corona 11.4%
- Moreno Valley 9.0%

In 2013, the EDAP was replaced and included the following specific objectives related to the World Logistics Center:

World Logistics Center at Rancho Belago

- Collaborate with Highland Fairview in the development of the World Logistics Center—a 41.6 million S.F. master planned corporate park proposed to be developed on 2,700 acres in the Rancho Belago area of eastern Moreno Valley.
- Process an Environmental Impact Report and preliminary development plans for the World Logistics Center in eastern Moreno Valley—south of SR 60 and east of Redlands Boulevard to Gilman Springs Road.
- Assist in the drafting of a Specific Plan that will guide the orderly development for of World Logistics Center.
- Cooperate with Highland Fairview in the formulation of a Development Agreement to create a public-private partnership to help facilitate the development of new public infrastructure in eastern

Moreno Valley associated with the World Logistics Center including roads, trails, utilities, storm water protection and fire protection facilities.

- Work with Highland Fairview in branding the World Logistics Center as one of the largest e-commerce focused development projects in the U.S.

3.7 REQUIRED DISCRETIONARY ACTIONS AND PERMITS

3.7.1 City of Moreno Valley – Current Approvals

This Program EIR is intended to inform the City of Moreno Valley decision-makers and the general public of the environmental consequences of the proposed project. Entitlements being analyzed in this EIR include a General Plan Amendment, adoption of a Specific Plan, a Zone Change, a Development Agreement, a Tentative Parcel Map, and annexation of an 85-acre parcel along Gilman Springs Road. The City of Moreno Valley is the Lead Agency for the proposed project, but discretionary actions may also be required by other agencies (see Section 3.6.3).

The following discretionary actions are anticipated to be taken by the City of Moreno Valley as part of the proposed project:

3.7.1.1 Environmental Impact Report

Before taking action on the project, the City must certify that the EIR prepared for the project is adequate and represents the independent judgment of the City as the Lead Agency under CEQA.

3.7.1.2 General Plan Amendment

The General Plan Amendment proposes a revision to the City General Plan land use designations for 3,714 acres to Business Park/Light Industrial (BP). The General Plan Amendment also includes amendments to several other elements, including the Community Development Element, the Parks, Recreation and Open Space Element, the Circulation Element, the Environmental Safety Element, and the Conservation Element to make them consistent with the proposed project (see previous Section 3.5, *General Plan Amendment*).

3.7.1.3 WLC Specific Plan

The proposed project includes a Specific Plan to implement the amended General Plan and to set forth comprehensive land use regulations governing the development of the proposed project. The World Logistics Center Specific Plan is a master plan for a 2,610-acre site for the development of up to 40.6 million square feet of modern high-cube logistics and related warehouse distribution facilities defined as Logistics Development and Light Logistics. The Specific Plan establishes the master plan of development for the project area, including development standards and use regulations, a master plan for circulation, infrastructure, architectural, landscape and design guidelines and sustainability goals, all of which will be applicable to all development within the area covered by the Specific Plan.

3.7.1.4 Change of Zone

The Change of Zone will establish the World Logistics Center Specific Plan, which will replace most of the Moreno Highlands Specific Plan and rezone several other contiguous properties. The new Specific Plan will become the regulatory land use document for the entire 2,610-acre Specific Plan area. The 910-acre CDFW property and the 174-acre SDG&E property will not be included in the

Specific Plan but will be rezoned to Open Space to reflect the long-range plans for the properties. The 20 acres of land owned by SDG&E and SCGC that are used for natural gas facilities will be zoned for Public Utility use. The WLC property would then have two land use zones, Logistics Development (LD) and Light Logistics (LL).

3.7.1.5 Development Agreement

The project includes a Development Agreement between the project applicant, Highland Fairview, and the City of Moreno Valley in order to provide certainty for the future development of the project for those parcels owned by Highland Fairview (see Final EIR Appendix H for updated text).

3.7.1.6 Tentative Parcel Map

A Tentative Parcel Map (for financing purposes only) proposes the subdivision of a portion of the project site into large parcels. This map is for financing purposes only and does not create any development rights for the subdivided properties. Subsequent subdivision applications will be required prior to the development of any buildings on the site.

3.7.1.7 Annexation

The project includes the completion of the annexation process for an 85-acre parcel located on the north side of Alessandro Boulevard at Gilman Springs Road. The County has already taken the first step to make this parcel part of the City by including it in the City's Sphere of Influence in 1985. The proposed project includes pre-annexation General Plan land use designations and zoning for this parcel. This EIR will be the environmental documentation used by the Local Agency Formation Commission to complete the annexation process. This project proposes to incorporate this property into the World Logistics Center Specific Plan.

3.7.2 City of Moreno Valley – Future Approvals

While building sizes, configurations and designs will vary, it is anticipated that between 15 and 30 logistics buildings will be developed within the WLC project. Each building may enclose from one to two million square feet and have multiple tenants. Each building will be subject to a discretionary Plot Plan process described in Section 11 of this Specific Plan."

Upon submittal of any site-specific development proposal within or related to the Specific Plan project, the City must determine whether the environmental effects of the proposal are within the levels of environmental effects analyzed in this programmatic EIR. In order to make this determination, the City may require the completion of an initial study (*CEQA Guidelines*, Appendix G Checklist). For each development proposal, the City will make one of the following determinations, as set forth under CEQA:

3.7.2.1 Categorical Exemptions (CE)

The City would adopt a categorical exemption under the following circumstances.

1) An assessment of the proposed action relative to the certified Program EIR determined there was no possibility of a significant environmental impact and the proposed action (utility improvements within rights-of-way, etc.) had already been evaluated in the EIR.

3.7.2.2 Negative Declaration (ND)

The City would adopt a negative declaration under the following circumstances.

2) If the initial study leads to the conclusion that the proposed project would have no significant environmental effects; or
3) If the initial study leads to the conclusion that the project may have potentially significant environmental effects, but all such effects are within levels that were fully reviewed, disclosed, and/or mitigated within this programmatic EIR.

Upon making a negative declaration, no further environmental analysis would be required.

3.7.2.3 Mitigated Negative Declaration (MND)

The City would adopt a mitigated negative declaration if the initial study leads to all of the following conclusions:

1) The proposed project could have a significant environmental effect; and
2) This potentially significant environmental effect may exceed levels that were fully reviewed, disclosed and/or mitigated within this programmatic EIR; and
3) The City, through a review of any associated studies that may accompany the completion of the initial study, concludes that these potentially significant effects can be fully mitigated with mitigation measures in addition to those identified in this programmatic EIR.

Upon making a mitigated negative declaration, no further environmental analysis would be required.

3.7.2.4 Supplemental EIR

A Supplemental EIR would be needed if the City concluded that the proposed project could have significant environmental effects exceeding the levels that were fully reviewed, disclosed, and/or mitigated within this program EIR and that further study is needed to determine if any feasible mitigation measures may be reasonable or prudent to address these environmental effects. Any Supplemental EIR(s) would only cover the environmental topic areas in which potentially significant impacts were identified in the initial study.

The initial study process outlined above will also help the City in determining if any proposed project within the project area qualifies for a partial or full exemption from any further environmental analysis. Specifically, some proposed projects may qualify for a statutory or categorical exemption, as outlined in Articles 18 and 19 of the *CEQA Guidelines*. Other provisions of California law limit the extent of further environmental review required in the case where a city has adopted a specific plan and certified an associated EIR, as would be the case for this project. Notwithstanding, the law also provides that in the event of changed circumstances in the project area or the identification of impacts not previously considered or analyzed, subsequent environmental review (such as a mitigated negative declaration or supplemental EIR) may be required.

3.7.2.5 Subsequent EIR

CEQA Section 15162 requires a Subsequent EIR “If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration or EIR, the Lead Agency shall prepare a subsequent EIR if required under subsection (a). Otherwise, the Lead Agency shall determine whether to prepare a subsequent negative declaration, an addendum, or no further

documentation." Any changes to the Specific Plan will be subject to the criteria listed below. As required by Section 15162(a), a proposed change in a project will require preparation of a subsequent EIR if:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR or a negative declaration due to an involvement of new significant environmental effects, or a substantial increase in the severity of previously identified significant effects; or
2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects, or a substantial increase in the severity of the previously identified significant effects; or
3. New information of substantial importance, which was not known and could have not been known with the exercise of reasonable diligence at the time the previous EIR was certified, shows:
    a. The project will have one or more significant effects not discussed in the previous EIR;
    b. The significant effects previously examined will be substantially more severe than identified in the previous EIR;
    c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponent declines to adopt the mitigation measures or alternatives; or
    d. Mitigation measures or alternatives that are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponent declines to adopt the mitigation measures or alternatives.

If none of the above conditions is met, the preparation of a subsequent EIR is not required.

3.7.2.6 Addendum to WLC EIR

An Addendum to a previously approved EIR may be required if there are minor changes or additions to the previously analyzed project. An Addendum is used:

- To evaluate whether or not there are any new or more severe significant environmental effects associated with the proposed project;
- To review whether there is new information or circumstances that would require preparation of additional environmental documentation in the form of a subsequent or supplemental EIR, or if an Addendum is appropriate; and
- To evaluate the proposed project's potential environmental impacts in the context of the questions posed in CEQA Section 15162(a).

3.7.3 Actions by Others

Although the City of Moreno Valley is the Lead Agency for the proposed project, a number of other Federal, State, or special purpose agencies may consult this EIR for their own decision-making and actions now or in the future. The following is a list of anticipated discretionary or non-discretionary actions by other agencies; however, it is not exhaustive and may include other agencies and processes in the future as appropriate:

- ***County of Riverside***
    - Local Agency Formation Commission (LAFCO): Annexation of 85-acre parcel.

- Flood Control and Water Conservation District: Amend Storm Drain Master Plan.

- ***Other Affected Agencies***
  - Western Riverside Council of Governments: TUMF Contributions.
  - Eastern Municipal Water District: Water Service Agreements.
  - Developer will make "fair share" contributions to established development impact fee programs in the cities of Riverside, Perris, and Redlands for local road and intersection improvements identified in the programmatic Traffic Impact Assessment (TIA) included with the EIR (Final EIR Volume 2 Appendix L-1). This item is subject to review and approval by the City Transportation Division.

- ***State of California***
  - Regional Water Quality Control Board: Water Quality Permitting.
  - Department of Transportation (Caltrans): Encroachment Permits for SR-60 and adopt fair share contribution programs for future development within the WLCSP to contribute funds for local road and intersection improvements identified in the programmatic Traffic Impact Assessment (TIA) included with the EIR (Final EIR Volume 2 Appendix L-1).
  - California Department of Fish and Wildlife: Streambed Alteration Agreements.

- ***Federal Agencies***
  - U.S. Army Corps of Engineers: Clean Water Act Permitting.

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NOTE TO READERS: *This section contains no major revisions based on changes to the WLC Project, revised technical studies, or in response to comments on the Programmatic Draft EIR.*

4.0 ENVIRONMENTAL IMPACT EVALUATION

As stated previously, there are 16 environmental issue areas that are analyzed in this EIR with respect to the proposed project. These issues are:

4.1 Aesthetics
4.2 Agriculture and Forestry Resources
4.3 Air Quality
4.4 Biological Resources
4.5 Cultural Resources
4.6 Geology and Soils
4.7 Greenhouse Gas Emissions, Energy Conservation, and Global Climate Change
4.8 Hazards and Hazardous Materials
4.9 Hydrology and Water Quality
4.10 Land Use and Planning
4.11 Mineral Resources
4.12 Noise
4.13 Population, Housing, and Employment
4.14 Public Services
4.15 Transportation and Traffic
4.16 Utilities and Service Systems

Within each subsection described in Section 4.0, the following information is presented relative to each environmental issue described:

- Description of the existing setting as it relates to the specific environmental issue;
- A summary of policies and regulations relevant to the specific environmental issue;
- Identification of the thresholds of significance;
- Evaluation of project-specific impacts and a determination of significance based on identified threshold levels;
- Description of design features of the Specific Plan that will help reduce potential impacts;
- Identification of mitigation measures;
- A determination of the level of significance after mitigation measures are implemented; and
- Cumulative impacts.

The environmental analysis provided in Sections 4.1 through 4.16 focuses on changes in the existing physical environment and identifies direct and indirect significant impacts associated with the proposed project. The cumulative impacts for each of the proposed project components are analyzed within the discussion of each component for each threshold.

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4.1 AESTHETICS: TABLE OF CONTENTS

FIGURES

TABLES

NOTE TO READERS. *This section has been revised based on changes to the WLC Specific Plan and in response to comments on the Programmatic DEIR regarding views.*

4.1 AESTHETICS

This section describes the existing aesthetic condition of the project area and analyzes potential impacts of the proposed WLC project relative to views, and light and glare based on the development characteristics outlined in the WLC Specific Plan (September 2014). Although there are no specific building locations or designs proposed at this time, the Specific Plan contains sufficient detail as to the general appearance and locations of buildings to evaluate the potential aesthetic impacts of development.

As a program-level CEQA document, this analysis will be based on the characteristics of buildings that can be built under the WLCSP. This analysis will look at the height, glare and lighting, visual impact, and viewshed impacts of the type of buildings authorized by the design standards and criteria set forth in Section 5.0 of the WLCSP. This section of the WLCSP creates comprehensive design and aesthetic guidelines. Section 4.2.4 of the Specific Plan presents various line-of-sight cross-sections and photographic renderings showing views of various locations around the project site, which are illustrative of the massing and types of buildings authorized by the WLCSP.

Note: The following changes have been made due to revisions to the Specific Plan project area.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 29 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.

The environmental impacts of all of these entitlements on the entire project area are addressed in this EIR and the accompanying technical reports and analyses.

Information on visual characteristics, both on the site and in the vicinity of the project site, is presented in this section. Potential impacts to aesthetic visual resources and viewshed impacts resulting from the development of the proposed WLC project are based on analyses of site photographs, site reconnaissance, project data from the WLC Specific Plan, line-of-sight cross sections, and photographic renderings. The determinations in this section of the EIR are based, in part, on the City of Moreno Valley General Plan polices related to views and open space.

For the purposes of the following analyses, two general aesthetic terms are defined: scenic vistas and viewsheds.

- **Scenic Vistas.** A scenic vista can be categorized as either containing a panoramic view[1] or a focal view. Panoramic views are typically associated with publicly-accessible vantage points that provide a sweeping geographic orientation not commonly available (e.g., skylines, valleys, mountain ranges, or large bodies of water). Focal views are typically associated with views of natural landforms, public art/signs, and visually important structures, such as historic buildings. Aesthetic components of a scenic vista include three components: scenic quality, sensitivity level, and view access.
- **Viewsheds.** A viewshed is typically defined as the natural environment that is visible from one or more viewing points. CEQA documents most often define viewshed as what portions of the project viewers can see from surrounding areas. A viewshed can be divided into three distinct components: the foreground, midground, and background.

4.1.1 Existing Setting

NOTE: The following changes have been made due to revisions to the Specific Plan.

The approximately 3,714-acre project site is located in Rancho Belago, the eastern portion of the City, and is situated on a gently sloping valley floor directly south of State Route 60 (SR-60) with the Badlands area to the east and northeast, the Mount Russell Range to the southwest, and Mystic Lake and the San Jacinto Wildlife Area to the southeast.

4.1.1.1 On-Site Conditions

Situated within northeastern Moreno Valley, the project site gently slopes to the south and elevations on-site range from 1,760 feet above mean sea level (amsl) near the northeast corner down to 1,480 feet amsl at the southeast corner. The site is largely vacant and supports mainly dry farm agriculture with little ornamental landscaping, lighting, or signage located within the project limits. At present, there are seven rural residences and associated farm structures in three areas on site: one on the east side of Redlands Boulevard in the west-central portion of the site and the others on either side of Theodore Street in the north-central portion of the site. The project site itself contains no scenic resources, although the large areas of agricultural fields do represent a kind of visual “open space” as vacant land and allow existing residences in the area to have unobstructed panoramic views. The site has significant views and scenic vistas of Mount Russell to the south, the Badlands to the north and east, Mount San Jacinto to the east, and the San Jacinto Wildlife Area to the south.

4.1.1.2 Adjacent Land Uses

Land uses adjacent to the project site include the Skechers logistics building to the northwest, and several suburban residential neighborhoods along Redlands Boulevard south of Cottonwood Avenue,

[1] A panoramic view consists of visual access to a large geographic area, for which the field of view can be wide and extend into the distance.

and the "Old Moreno" commercial area at the intersection of Redlands Boulevard and Alessandro Boulevard. The closest residences are within 40 feet of the project property along Bay Street and Merwin Street. An additional residential neighborhood is located several hundred feet west of Redlands Boulevard, south of Eucalyptus Avenue. North of SR-60, there are several rural residences located between Redlands Boulevard and Theodore Street (refer to previously referenced Figure 3.3, *Existing Land Uses*). Much of the surrounding land is vacant and supports agriculture or open space (e.g., Badlands and Mount Russell). It should be noted that the General Plan makes reference to the "rural northeast portion of the City," which refers to the land north of SR-60, not south of the freeway (J. Terrell, personal communication, November 2012).

4.1.1.3 Existing Viewsheds and Scenic Vistas

As illustrated in Figure 4.1.1, the proposed project site represents a large undeveloped area situated between the Badlands (northeast and east), the San Jacinto Wildlife Area (south), and the Lake Perris Recreational Area (southwest). Views across the site from SR-60 and from Gilman Springs Road are of vacant agricultural land forming the foreground, midground, and background. In the far background from these two roadways are Mystic Lake and the uplands surrounding Lake Perris. The major scenic resources for the project area, as documented in Figure 7-2 of the General Plan Conservation Element, are the Russell Mountains to the southwest, the Badlands to the east and northeast, Moreno Peak to the west, and the Reche Mountains to the far northwest. The existing agricultural fields provide a pleasant low relief foreground over which to view the three surrounding upland areas described above. The Conservation Element does not include the existing agricultural fields as a major scenic resource, although it does acknowledge that "Expanses of open land are found throughout the eastern portion of the study area. These tracts of land allow for uninterrupted scenic vistas from State Route 60, Gilman Springs Road, and other roadways and provide views of the San Jacinto Valley and the ephemeral Mystic Lake" (General Plan page 7-12).

Section 5.11, *Aesthetics*, in the City's General Plan EIR, indicates the major scenic resources within the Moreno Valley study area are visible from SR-60, a City-designated local scenic road. As SR-60 travels through the eastern part of Moreno Valley, it approaches and eventually passes through the Badlands area. Characterized by steep and eroded hillsides, the Badlands provide a range of hills that act as a visual backdrop to the valley. Similarly, views afforded while traveling west through Rancho Belago, the eastern part of the City, include views of the Badlands to the north and south, and Mystic Lake and the Mount Russell Range to the far south. These resources are highlighted in General Plan EIR Figure 5.11-1, *Major Scenic Resources*. Table 4.1.A provides a summary of the existing viewsheds to and from the project site. Because of these resources, travelers on SR-60 and Gilman Springs Road are considered scenic routes since these visual resources are readily visible from these roadways.

The Conservation Element of the General Plan also states that, "The City of Moreno Valley has the opportunity to designate scenic routes as the basis for preserving outstanding scenic views. Special attention to the location and design of buildings, landscaping, and other features should be made to protect and enhance views from scenic roadways" (General Plan page 7-14). These statements indicate the City acknowledges the eventual conversion of the extensive agricultural fields and their replacement by buildings, but it emphasizes the importance of locating and designing the buildings to maintain existing scenic views (i.e., the surrounding uplands).

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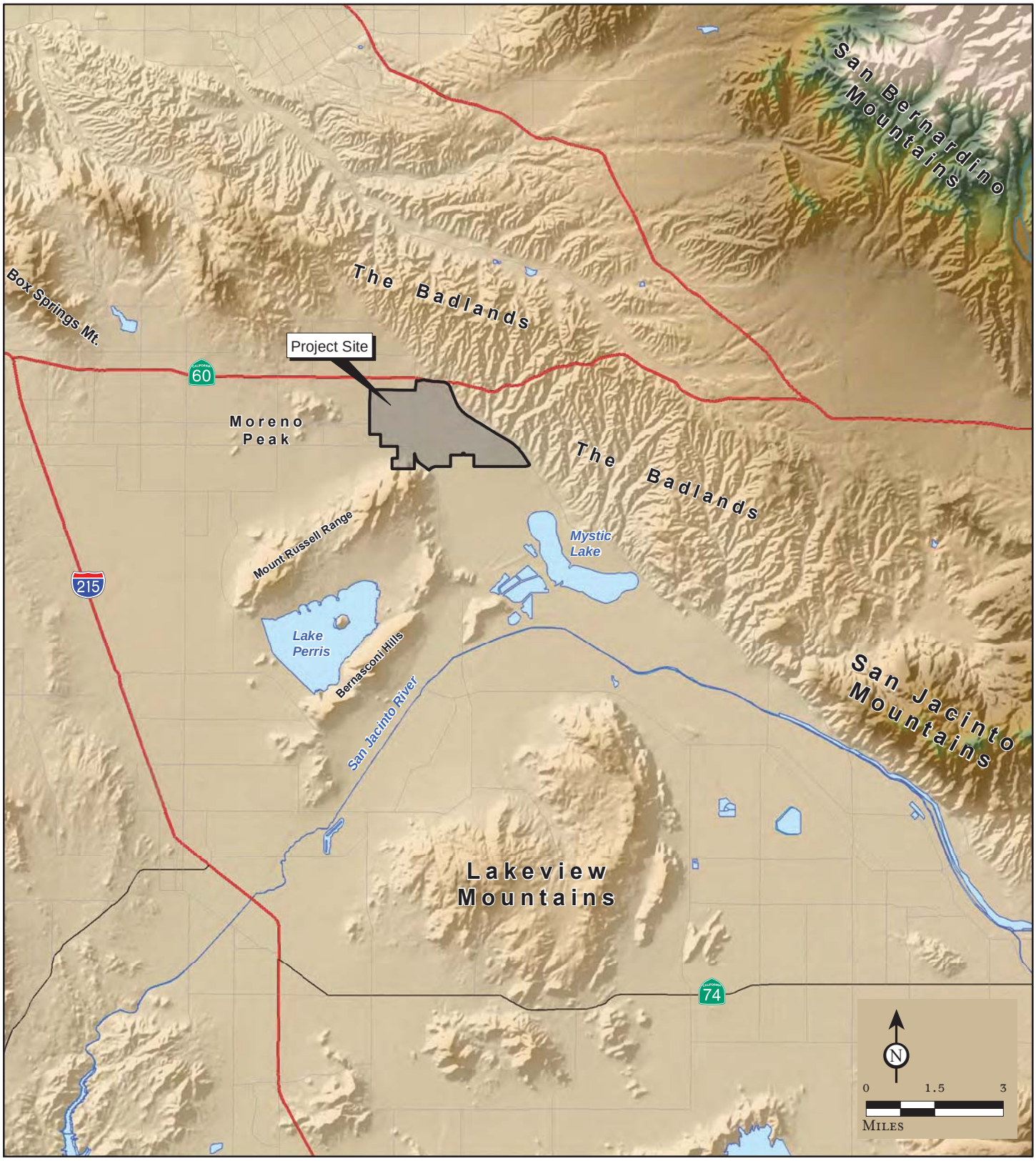

LSA

FIGURE 4.1.1

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0 7,500 15,000

Feet

World Logistics Center Specific Plan Project
Environmental Impact Report

Natural Landforms

SOURCE: ESRI, USGS DEM.

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Table 4.1.A: Existing Viewsheds

Vantage Point	Characteristics of Views		
	Foreground	Midground	Background
Looking north from the SJWA* land toward the project site	Agricultural fields that are part of SJWA property	Agricultural fields on project site and SDG&E** facility	SR-60 with Badlands rising above
Looking east from existing residential uses along Redlands Boulevard toward the project site	Agricultural fields of the project site and windrow of olive trees along east side of Redlands Boulevard	Agricultural fields of the project site and Gilman Springs Road	Gilman Springs Road with Badlands rising above, and portions of Mount San Gorgonio visible above the Badlands (on a clear day)
Looking south from SR-60 toward the project site	Agricultural fields and related equipment on the project site	Agricultural fields of the project site and the northern SJWA property	Mystic Lake, SJWA, and Mount Russell Range surrounding the Lake Perris State Recreational Area
Looking west from Gilman Springs Road and the Badlands toward the project site	Agricultural fields and related equipment on the project site	Agricultural fields of the project site	Skechers building, scattered rural residential on the project site, and suburban residential at southwest portion of project site

* San Jacinto Wildlife Area.
** San Diego Gas & Electric Natural Gas Compressor Plant.
Source: LSA Associates, Inc. Site Survey, March 2012.

Views from the Project Site. Views to the north from the project site include the new Skechers logistics building and SR-60, while to the northeast, east and southeast, the rugged topography of the Badlands dominates the view. To the south, the view is of the San Jacinto Wildlife Area with partial views of Mystic Lake. To the southwest, views of Mount Russell and the Mount Russell Range predominate, with suburban residential uses visible to the far southwest and west. These views are experienced by travelers on Redlands Boulevard, Theodore Street, and Alessandro Boulevard, and residents of the rural residences on the project site. These represent significant visual resources; SR-60 and Gilman Springs Road are scenic routes because they have unobstructed views of these resources.

Views toward and across the Project Site. Views of the project site from the area north of SR-60 are limited by the SR-60 roadway and existing development. The skyline is dominated by views of the Badlands and of the Mount Russell Range. Views across the site from the northwest are from existing and/or planned non-residential uses. Current views of the site from these areas are of vacant agricultural land and the few scattered residences, and also the Skechers building near the northwest corner of the project site.

Foreground and midground views for the residences along the west and southwest boundaries of the project site are presently of vacant agricultural land, a windrow of olive trees along Redlands Boulevard, scattered palm trees, and scattered rural residences on site. Background views from these areas are of the Badlands, sweeping from the northeast to southeast. The Mount Russell Range dominates the southeasterly view from this area. Mystic Lake and the surrounding SJWA lands are not visible. These areas are also not visible from houses farther north along Redlands Boulevard as they are not elevated enough to see all the way to Mystic Lake, although there may be some limited views in that direction from second-story windows facing east that are not blocked by other residences.

Users of the SJWA south of the site have views of the existing agricultural lands on the project site. Finally, residents in the few homes on the east side of Gilman Springs Road have views of the agricultural lands on the project site.

Mount Russell, the Badlands, the SJWA, and Mystic Lake represent significant visual resources, and SR-60 and Gilman Springs Road are considered scenic routes because they have relatively unobstructed views of these resources.

This EIR analyzes the viewshed impacts of the project on (i) the residences along the west and southwest portions of the project site; (ii) the motoring public on SR-60 and Gilman Springs Road (designated scenic routes), Redlands Boulevard, Theodore Street, and Alessandro Boulevard; (iii) residences north of SR-60; and (iv) existing residences within the project area.

Figures 4.1.2 and 4.1.3A and B present a photographic key map and representative views of the project site.

4.1.1.4 Lighting and Visibility

The majority of the project area is currently very dark, with little or no ambient nighttime lighting other than from scattered rural residences and the SDG&E compressor facility. There is street lighting and general lighting along the western boundary of the site (i.e., along Redlands Boulevard) and from the Skechers warehouse building. The only other lighting comes from SR-60 along the northern boundary of the site. At present, Gilman Springs Road has no streetlights. Assuming “worst-case” conditions, current ambient light levels in the central and southern portions of the project site are assumed to be at or near zero foot-candles per square foot; this is the same unit of measurement used by professionals when referring to sky glow and nighttime light levels.

4.1.1.5 NOP/Scoping Comments

Many residents commented during the public scoping process that they were concerned about what the project would look like and about night lighting since the area is presently undeveloped and has no significant source of night lighting. Several commenters raised issues with future “night sky” impacts on the area.

4.1.2 Existing Policies and Regulations

4.1.2.1 City of Moreno Valley General Plan Policies

The following policies and goals pertain to aesthetics and are applicable to the proposed project:

Community Development

Objective 2.5 Promote a mix of industrial uses which provide a sound and diversified economic base and ample employment opportunities for the citizens of Moreno Valley with the establishment of industrial activities that have good access to the regional transportation system, accommodate the personal needs of workers and business visitors, and which meets the service needs of local businesses.

Policy 2.5.1 The primary purpose of areas designated Business Park/Industrial is to provide for manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities. The zoning regulations shall identify the particular uses permitted on each parcel of land. Development intensity should not exceed a Floor Area Ratio (FAR) of 1.00 and the average FAR should be significantly less.

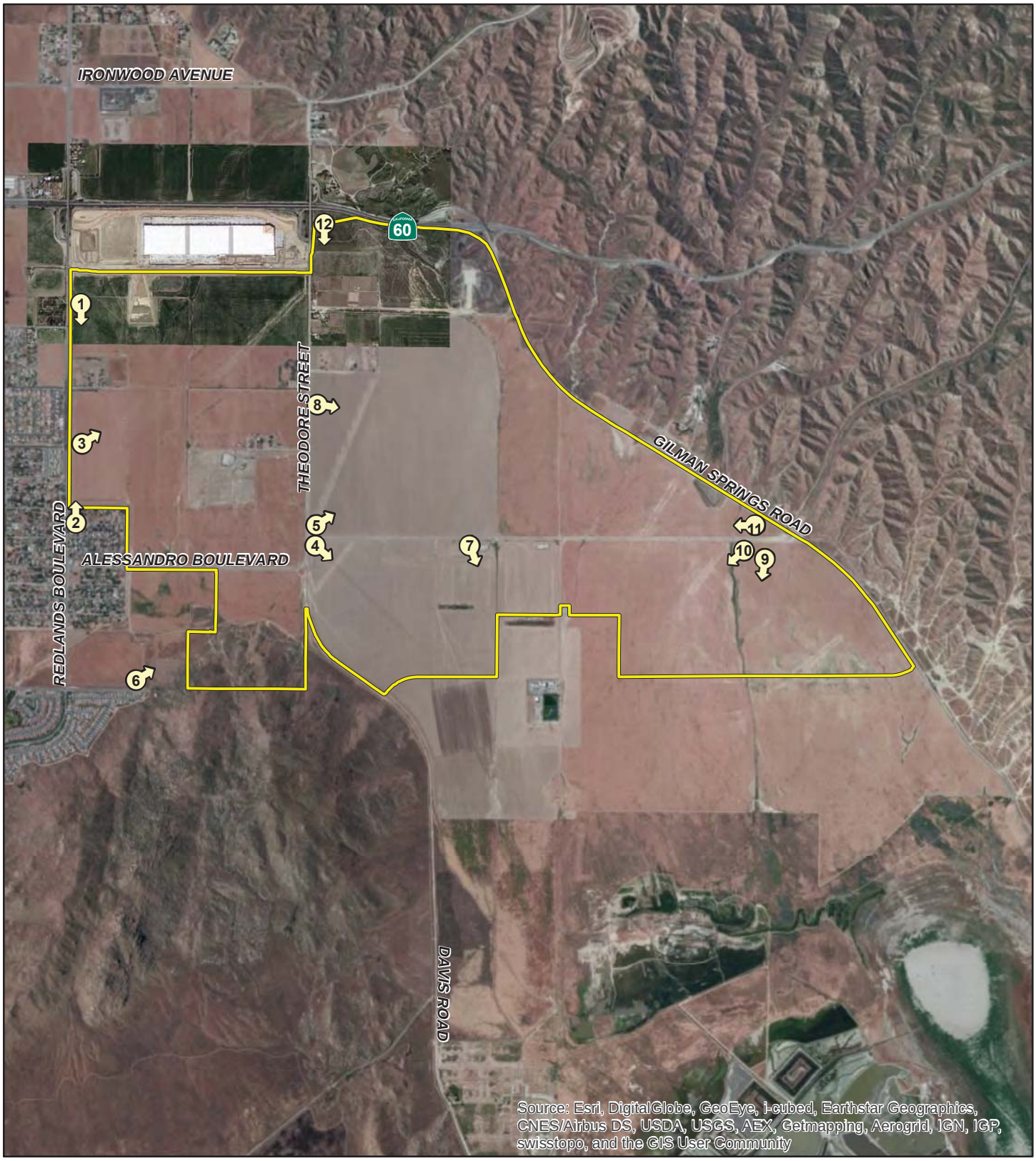

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FIGURE 4.1.2

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FEET

Project Boundary

1 Photograph Location and Direction Taken

World Logistics Center Specific Plan Project
Environmental Impact Report

Site Photograph Locations

SOURCE: ESRI World Imagery & Bing Aerial, 2010; Google Earth, 2011.

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PHOTOGRAPH 1: *View looking south along Redlands Boulevard from Eucalyptus Avenue.*

PHOTOGRAPH 2: *View looking north along Redlands Boulevard from Alessandro Boulevard.*

PHOTOGRAPH 3: *View looking northeast across western portion of site near Redlands Boulevard and Cottonwood Avenue.*

PHOTOGRAPH 4: *View looking southeast from Theodore Street and Alessandro Boulevard.*

PHOTOGRAPH 5: *View looking northeast from Theodore Street and Alessandro Boulevard.*

PHOTOGRAPH 6: *View looking northeast from southwest corner of site.*

LSA

FIGURE 4.1.3A

World Logistics Center Specific Plan Project
Environmental Impact Report

Site Photographs

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PHOTOGRAPH 7: *View of SDG & E Natural Gas Compressor facility (central portion of site).*

PHOTOGRAPH 8: *View of agricultural fields (typical) in central and eastern portions of site.*

PHOTOGRAPH 9: *View looking southwest toward Mystic Lake from near Gilman Springs Road.*

PHOTOGRAPH 10: *View looking southwest toward Lake Perris area from near Gilman Springs Road (SDG & E facility at right).*

PHOTOGRAPH 11: *View looking west along Alessandro Boulevard from near Gilman Springs Road.*

PHOTOGRAPH 12: *View looking south along Theodore Street from the SR-60 Freeway bridge.*

LSA

FIGURE 4.1.3B

World Logistics Center Specific Plan Project
Environmental Impact Report

Site Photographs

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Policy 2.5.2 Locate manufacturing and industrial uses to avoid adverse impacts on surrounding land uses.

Policy 2.5.3 Screen manufacturing and industrial uses where necessary to reduce glare, noise, dust, vibrations, and unsightly views.

Policy 2.5.4 Design industrial developments to discourage access through residential areas.

Objective 2.10 Ensure that all development within the City of Moreno Valley is of high quality, yields a pleasant living and working environment for existing and future residents, and attracts business as the result of consistent exemplary design.

Policy 2.10.1 Encourage a design theme for each new development that is compatible with surrounding existing and planned developments.

Policy 2.10.2 Screen trash storage and loading areas, ground and roof mounted mechanical equipment, and outdoor storage areas from public view as appropriate.

Policy 2.10.3 Require exterior elevations of buildings to have architectural treatments that enhance their appearance.

(a) A design theme, with compatible materials and styles, should be evident within a development project.

(b) Secondary accent materials, colors, and lighting should be used to highlight building features.

(c) Variations in roofline and setbacks (projections and recesses) should be used to break up the building mass.

(d) Industrial buildings shall include architectural treatments on visible façades that are aesthetically pleasing.

Policy 2.10.4 Landscaping and open spaces should be provided as an integral part of project design to enhance building design, public views, and interior spaces, provide buffers and transitions as needed, and facilitate energy and resource conservation.

Policy 2.10.5 Development projects adjacent to freeways shall provide landscaped buffer strips along the ultimate freeway right-of-way.

Policy 2.10.6 Buildings should be designed with a plan for adequate signage. Signs should be highly compatible with the building and site design relative to size, color, material, and placement.

Policy 2.10.7 On-site lighting should not cause nuisance levels or glare on adjacent properties.

Policy 2.10.8 Lighting should improve the visual identification of structures.

Policy 2.10.9 Fences and walls should incorporate landscape elements and changes in materials or textures to deter graffiti and add visual interest.

Policy 2.10.10 Minimize the use and visibility of reverse frontage walls along streets and freeways by treatments such as landscaping, berming, and “side-on” cul-de-sacs.

Policy 2.10.11 Screen and buffer non-residential projects from adjacent residential property and other sensitive land uses when necessary to minimize noise, glare, and other adverse effects on adjacent uses.

Policy 2.10.12 Screen parking areas from streets to the extent consistent with surveillance needs (e.g., mounding, landscaping, low profile walls, and/or grade separations).

Policy 2.10.13 Provide landscaping in automobile parking areas to reduce solar heat and glare.

Conservation Element

Objective 7.7 Where practicable, preserve significant visual features, significant views, and vistas.

Policy 7.7.3 Implement reasonable controls on the size, number, and design of signs to minimize degradation of visual quality.

Policy 7.7.4 Gilman Springs Road, Moreno Beach Drive, and State Route 60 shall be designated as local scenic roads.

Policy 7.7.5 Require development along scenic roadways to be visually attractive and to allow for scenic views of the surrounding mountains and Mystic Lake.

4.1.2.2 City of Moreno Valley Municipal Code

On September 11, 2012, the City Council adopted Ordinance 851, which amended various sections of the City Municipal Code, including Section 9.08.100 *Lighting* to address citywide night lighting standards. Among other things, it requires non-residential lighting to be fully shielded and directed away from surrounding residential uses. It also restricts non-residential lighting to not exceed 0.25 foot-candle of light measured from within five feet of any property line.

4.1.3 Methodology

Any evaluation of visual impacts is necessarily subjective; however, community aesthetic values can be used to evaluate changes in views within a particular community. These values are found in General Plan policies, zoning ordinances, and, where specific policies are absent, general design theory and visual analysis methods can be incorporated to evaluate aesthetic impacts. For the purposes of CEQA compliance, this analysis of visual impacts will focus on changes in the visual character of the project site that would result from the development of the proposed on-site uses, including the visual compatibility of on-site and adjacent uses, changes in vistas and viewsheds where visual changes would be evident, and the introduction of sources of light and glare. Impacts to the existing environment of the project site are to be determined by the contrast between the site's visual setting before and after the proposed development. In this analysis, emphasis has been placed on the transformation of the existing undeveloped conditions into urbanized uses. Although few standards exist to singularly define perceptions of aesthetic value, the degree of visual change can be measured and described in terms of visibility and visual contrast, dominance, and magnitude. Visual elevations and line-of-sight cross-sections from various vantage points around the project site are provided in Figures 4.1.4A-I, while computerized photographic renderings showing views of the site from different vantage points around the site are provided in Figures 4.1.5A-K.

NOTE: In Responses to Comments F-8-54 through -56 and G-51-40, the captions on several renderings were found to be incorrect and have since been corrected. In addition, several more renderings have been added to more fully illustrate potential views from areas surrounding the WLC site. These illustrations include one view toward Mt. Russell from SR-60 (traveling westbound on SR-60) and one additional view toward the Badlands and Mt. San Jacinto (traveling eastbound on SR-60).

Current residences southwest of the project site, as well as travelers along SR-60 and Gilman Springs Road are considered sensitive to the visual and aesthetic alteration of the project site. Where possible, the potential aesthetic impacts of the proposed project will be evaluated to determine if or the degree to which the project is consistent with applicable General Plan objectives and policies.

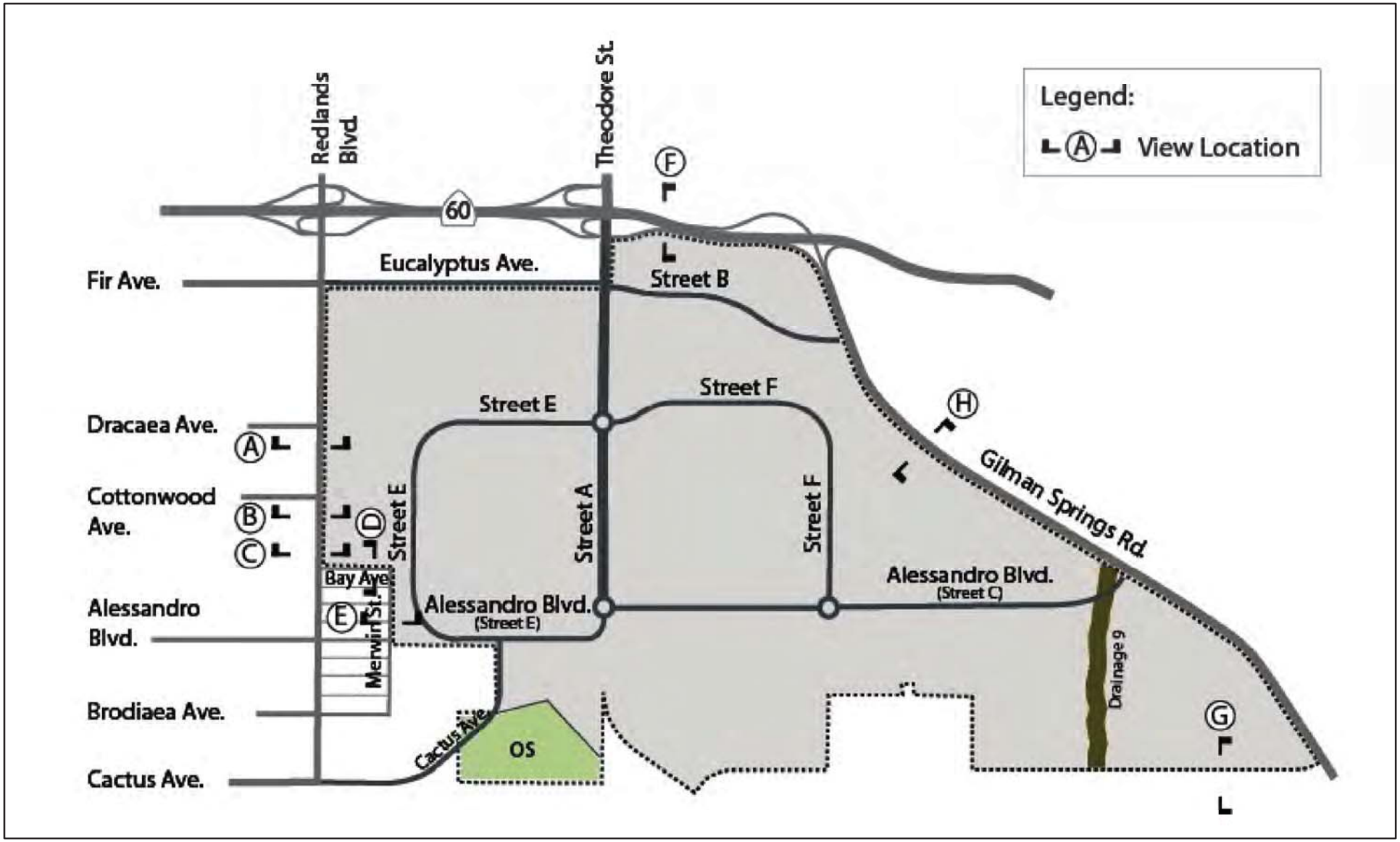

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FIGURE 4.1.4

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World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Section and Line of Sight Key Map

SOURCE: World Logistics Center Specific Plan, HF, September, 2014.

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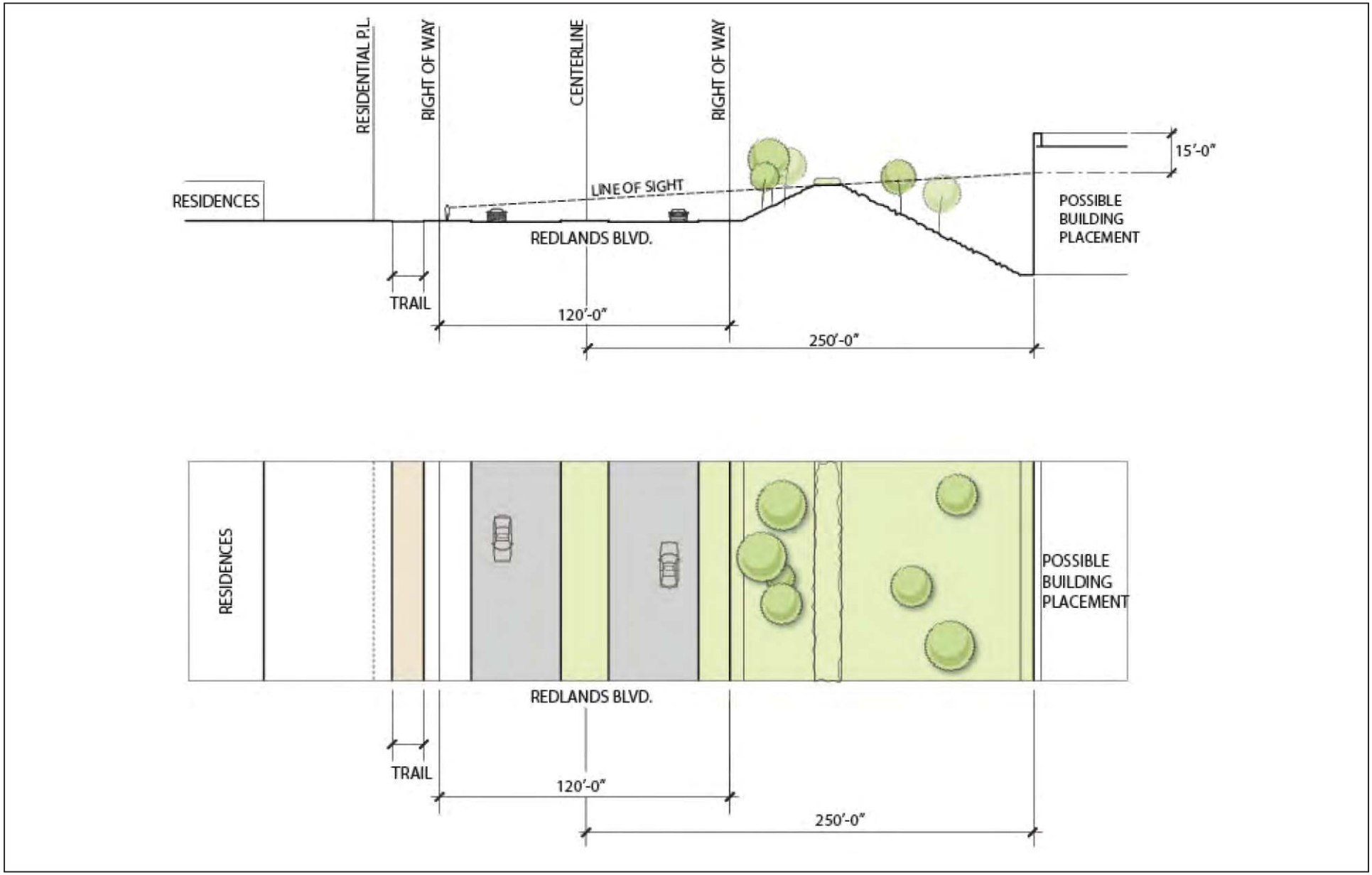

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FIGURE 4.1.4A

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Sections and Line-of-Sight Diagrams
Redlands Boulevard, Section A

SOURCE: World Logistics Center Specific Plan, HF, June, 2014.

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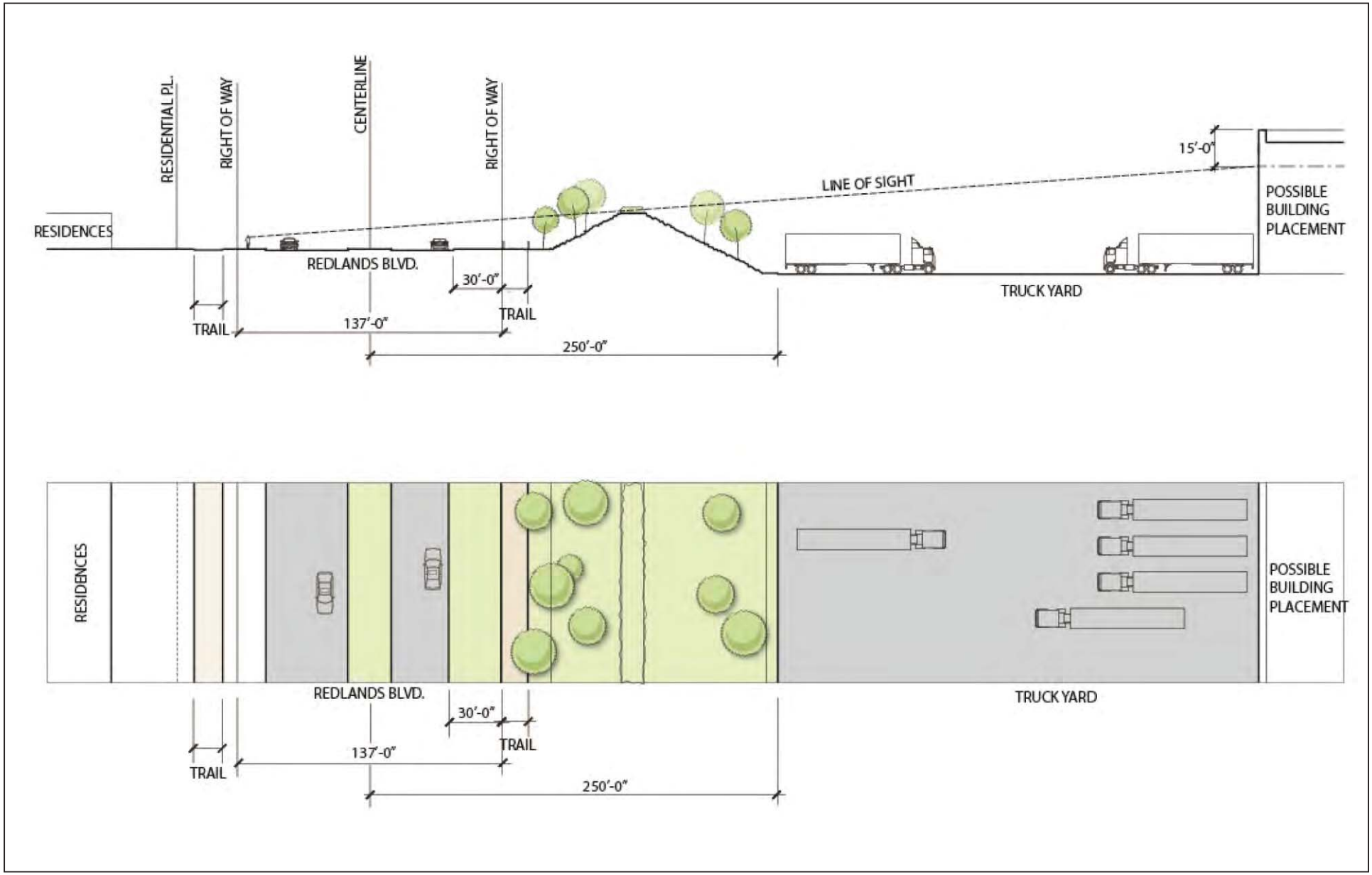

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FIGURE 4.1.4B

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Sections and Line-of-Sight Diagrams
Redlands Boulevard, Section B

SOURCE: World Logistics Center Specific Plan, HF, June, 2014.

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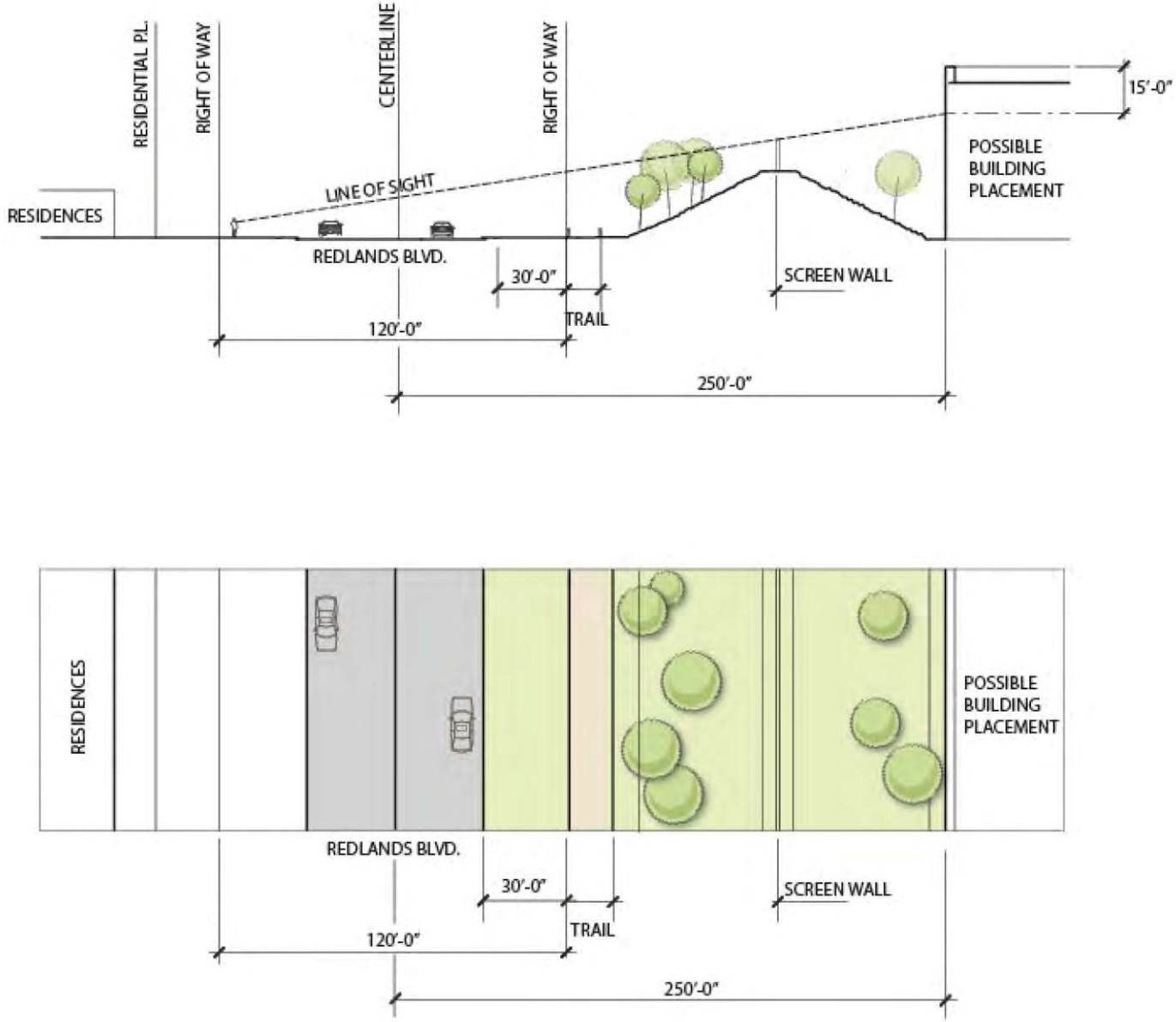

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FIGURE 4.1.4C

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Sections and Line-of-Sight Diagrams
Redlands Boulevard, Section C

SOURCE: World Logistics Center Specific Plan, HF, June, 2014.

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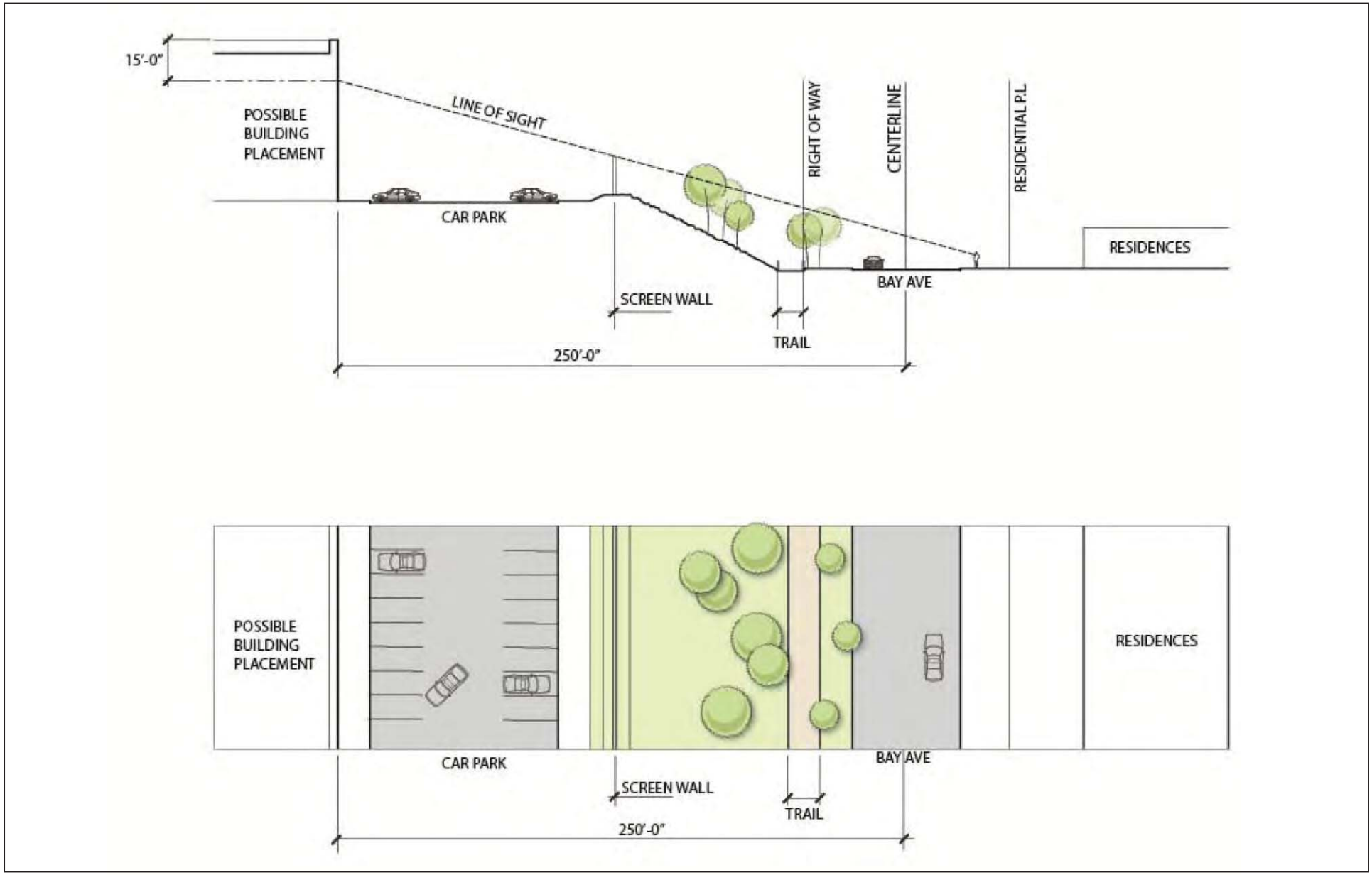

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FIGURE 4.1.4D

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Sections and Line-of-Sight Diagrams
Bay Street, Section D

SOURCE: World Logistics Center Specific Plan, HF, June, 2014.

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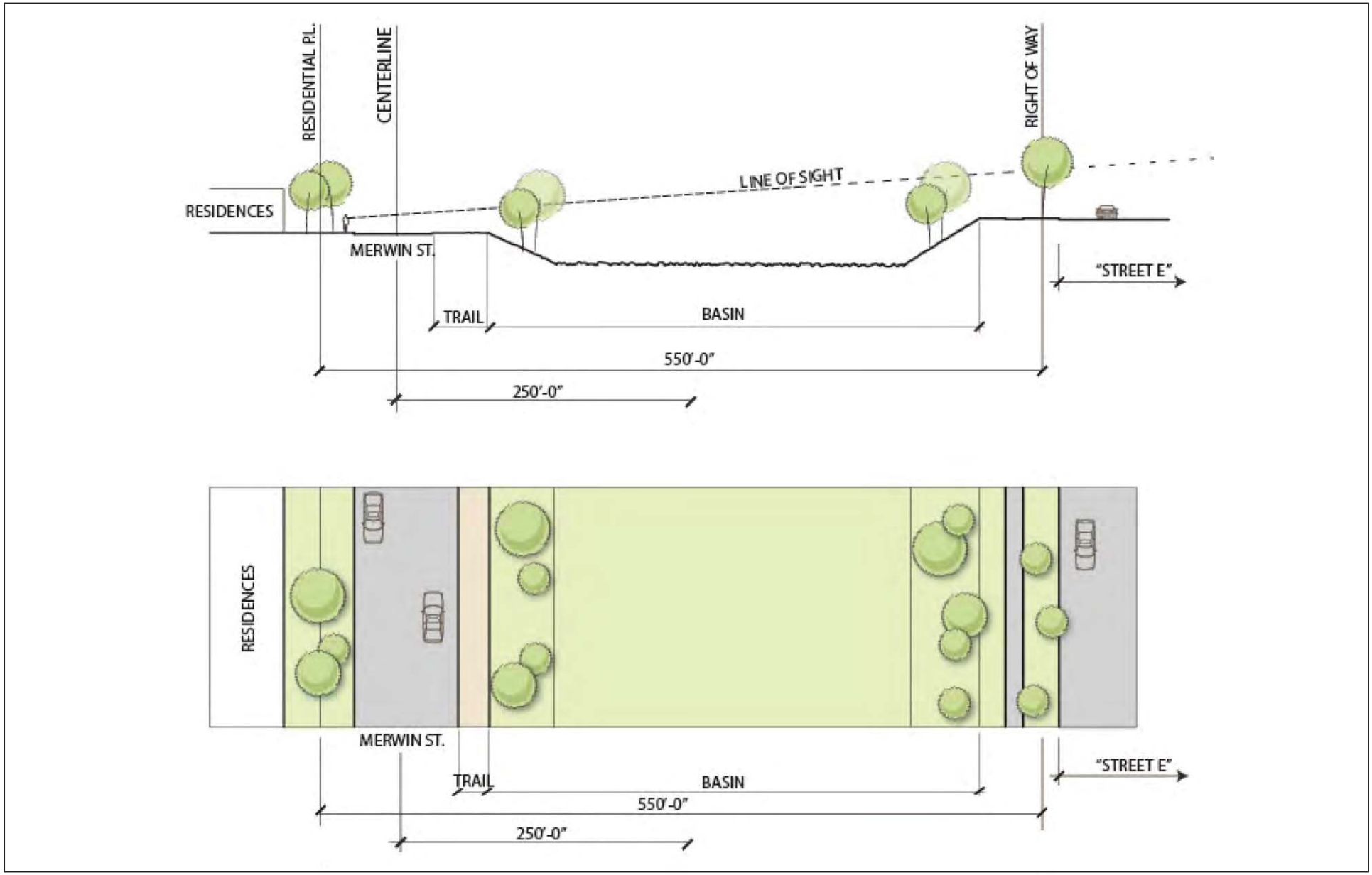

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FIGURE 4.1.4E

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Sections and Line-of-Sight Diagrams
Merwin Street, Section E

SOURCE: World Logistics Center Specific Plan, HF, June, 2014.

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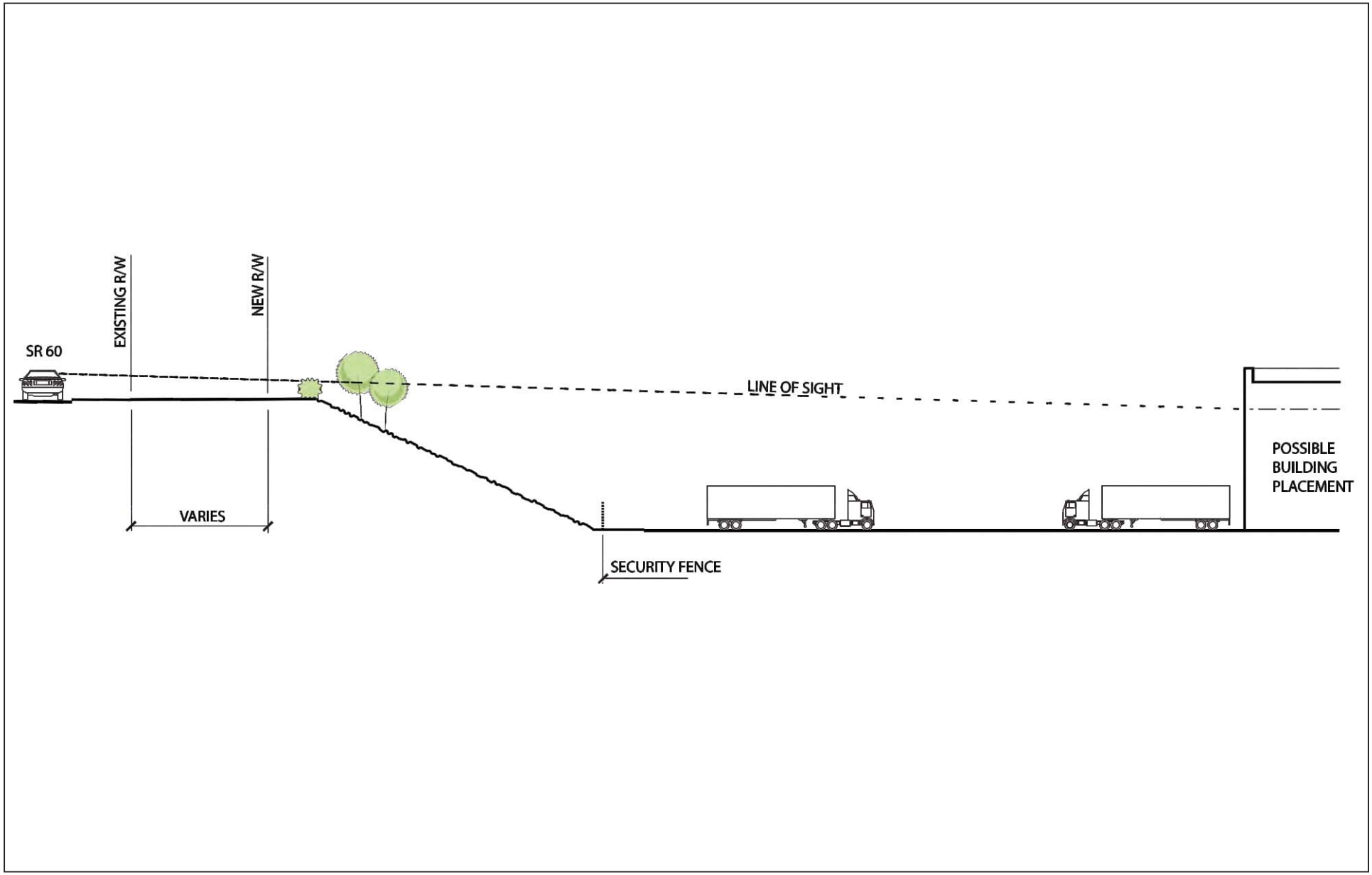

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FIGURE 4.1.4F

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Sections and Line-of-Sight Diagrams
SR-60 Between Theodore and Gilman Springs Road, Section F

SOURCE: World Logistics Center Specific Plan, HF, June, 2014.

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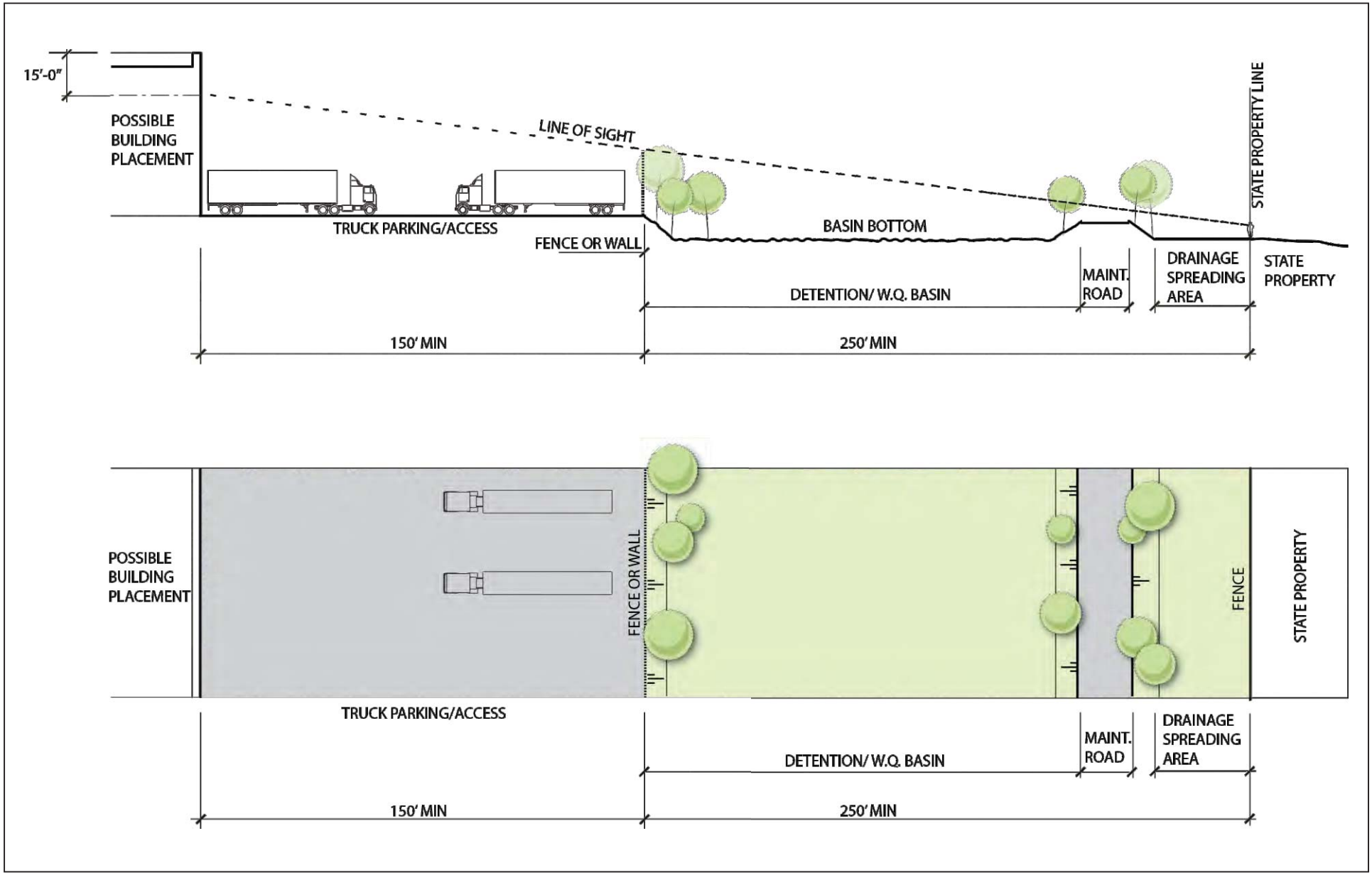

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FIGURE 4.1.4G

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Sections and Line-of-Sight Diagrams
Southern Boundary, Section G

SOURCE: World Logistics Center Specific Plan, HF, June, 2014.

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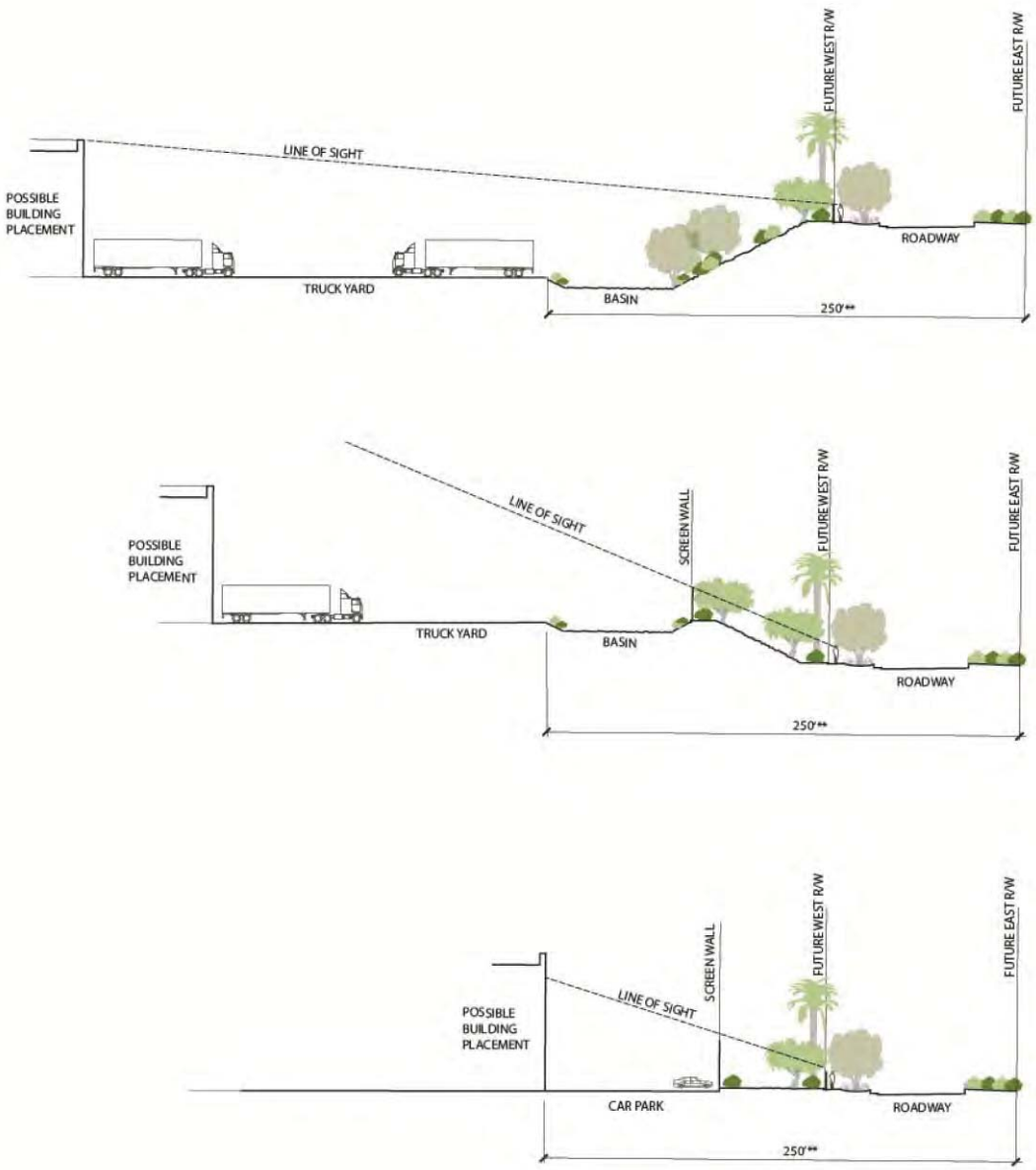

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FIGURE 4.1.4H

***Required setback to truck activity areas. A shorter setback is permitted subject to air quality and noise analyses.*

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Sections and Line-of-Sight Diagrams
Gilman Springs Road

SOURCE: World Logistics Center Specific Plan, HF, June, 2014.

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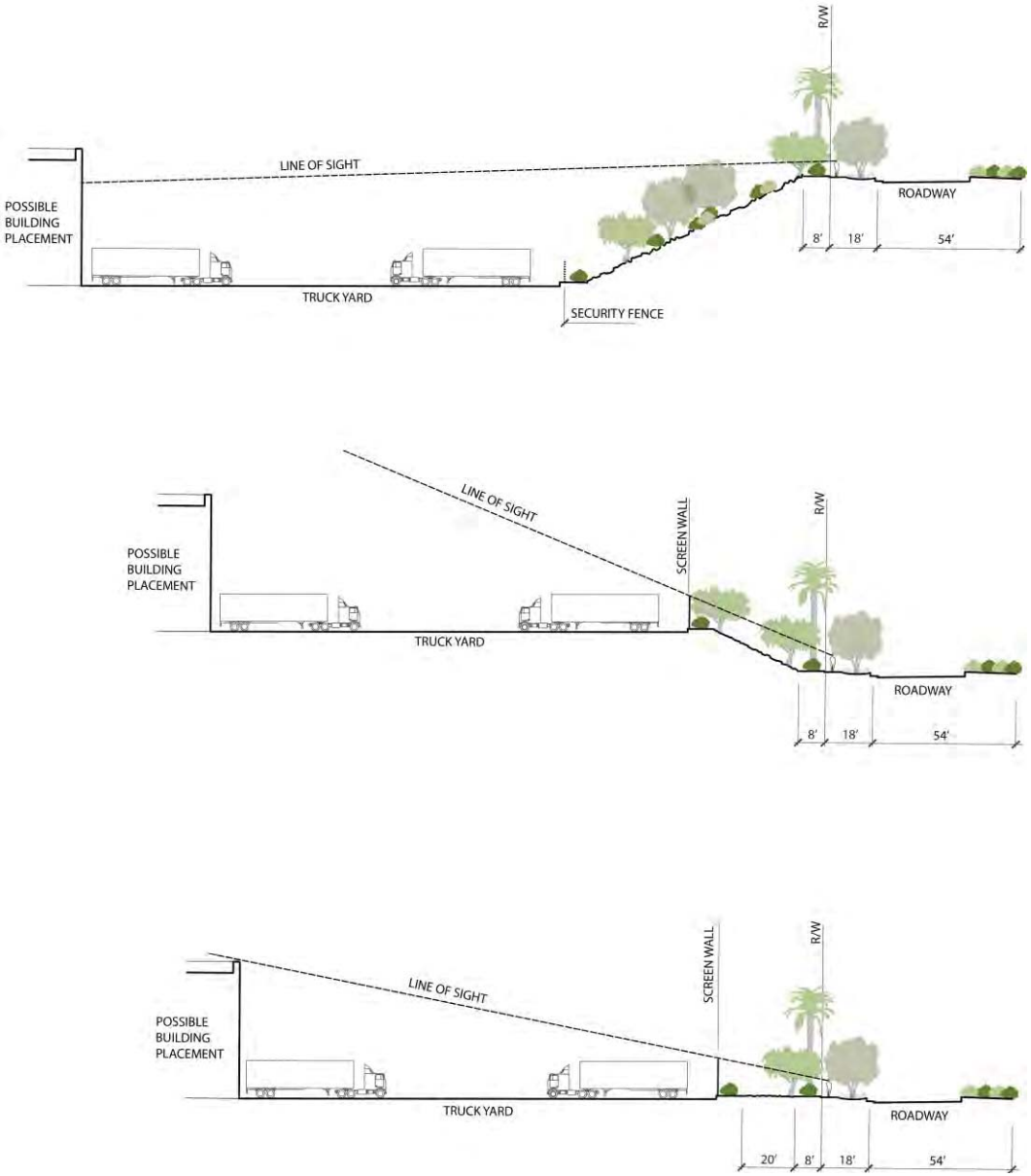

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FIGURE 4.1.4I

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Sections and Line-of-Sight Diagrams
All Interior Roadways

SOURCE: World Logistics Center Specific Plan, HF, June, 2014.

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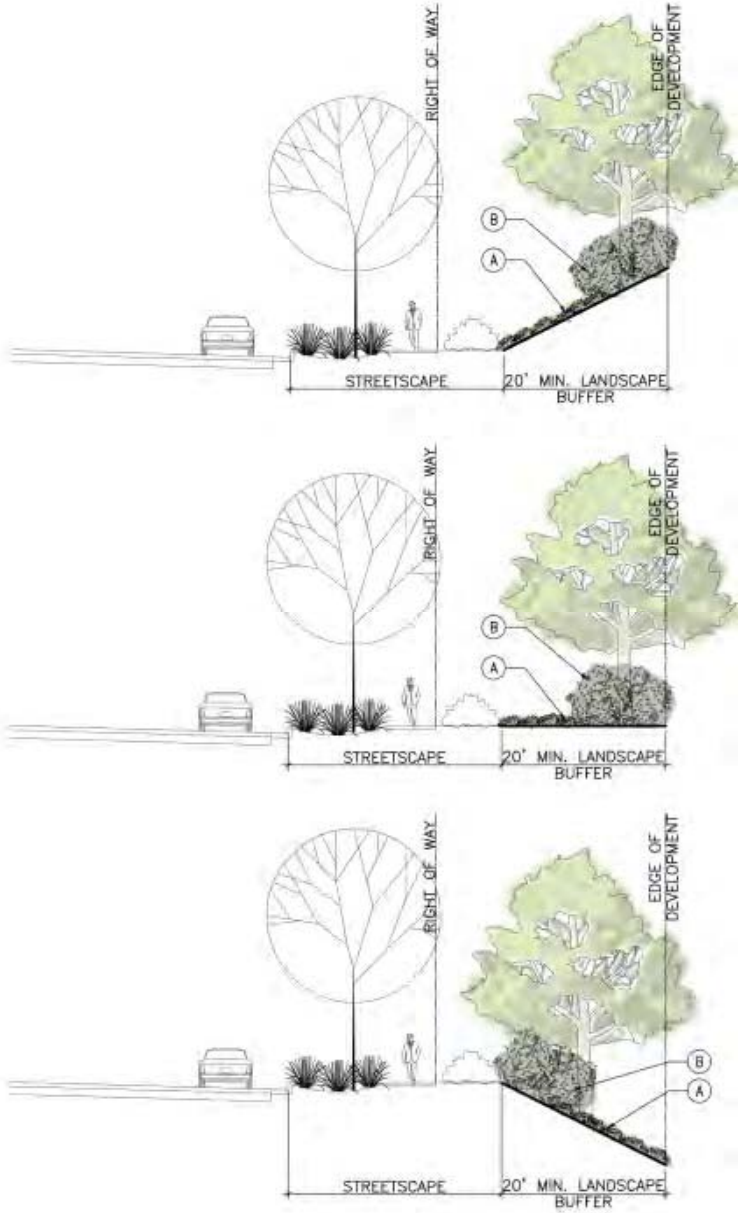

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FIGURE 4.1.4J

World Logistics Center Specific Plan Project
Environmental Impact Report

Cross Sections and Line-of-Sight Diagrams
Slope Planting Guideline

SOURCE: World Logistics Center Specific Plan, HF, June, 2014.

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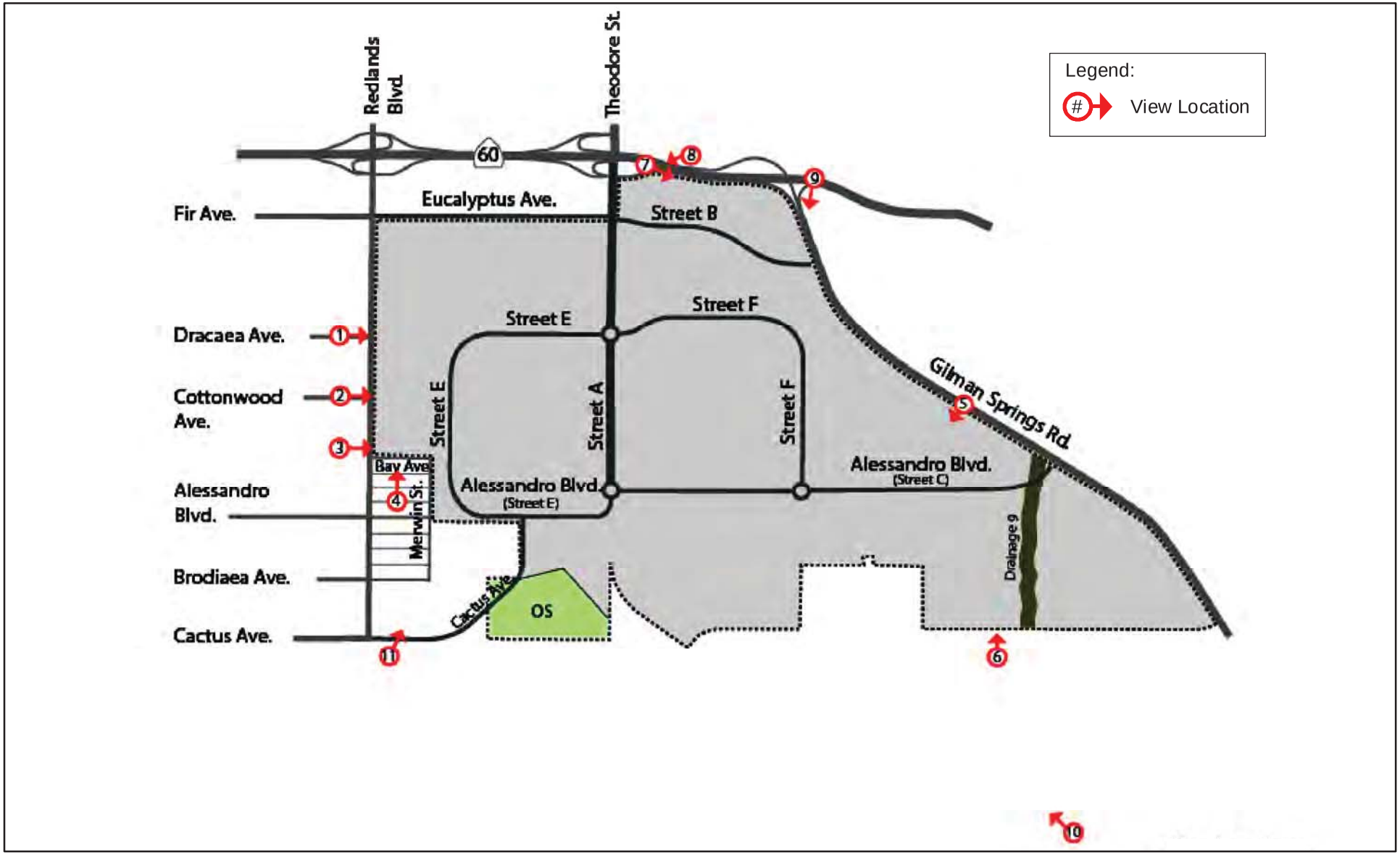

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FIGURE 4.1.5A

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World Logistics Center Specific Plan Project
Environmental Impact Report

Visual Simulation Key Map

SOURCE: World Logistics Center Specific Plan, HF, September, 2014.

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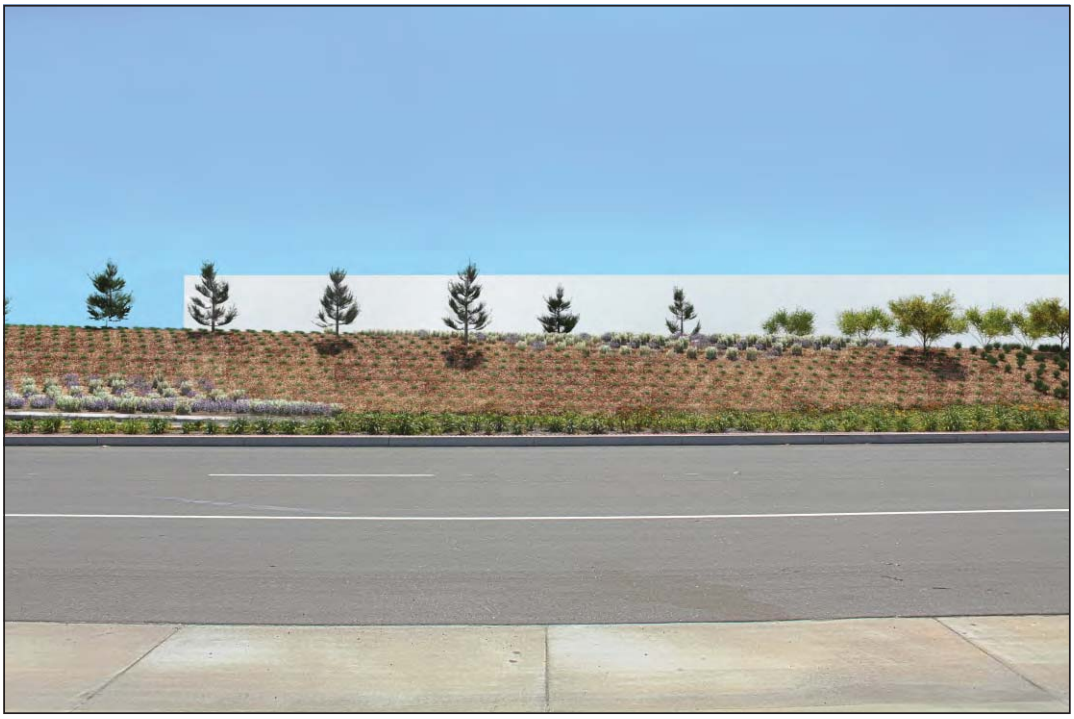

View 1: *Looking east across Redlands Boulevard at Dracaea Avenue vegetation at installation.*

View 1: *Looking east across Redlands Boulevard at Dracaea Avenue vegetation at maturity.*

LSA

FIGURE 4.1.5B

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

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View 2: *Looking east across Redlands Boulevard at Cottonwood Avenue vegetation at installation.*

View 2: *Looking east across Redlands Boulevard at Cottonwood Avenue vegetation at maturity.*

LSA

FIGURE 4.1.5C

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

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View 3: *Looking east across Redlands Boulevard at Bay Avenue vegetation at installation.*

View 3: *Looking east across Redlands Boulevard at Bay Avenue vegetation at maturity.*

LSA

FIGURE 4.1.5D

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

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View 4: *Looking north across Bay Avenue from east of Redlands Boulevard vegetation at installation.*

View 4: *Looking north across Bay Avenue from east of Redlands Boulevard vegetation at maturity.*

LSA

FIGURE 4.1.5E

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

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View 5: *Looking east across Gilman Springs Road at vegetation at installation.*

View 5: *Looking east across Gilman Springs Road at vegetation at maturity.*

LSA

FIGURE 4.1.5F

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

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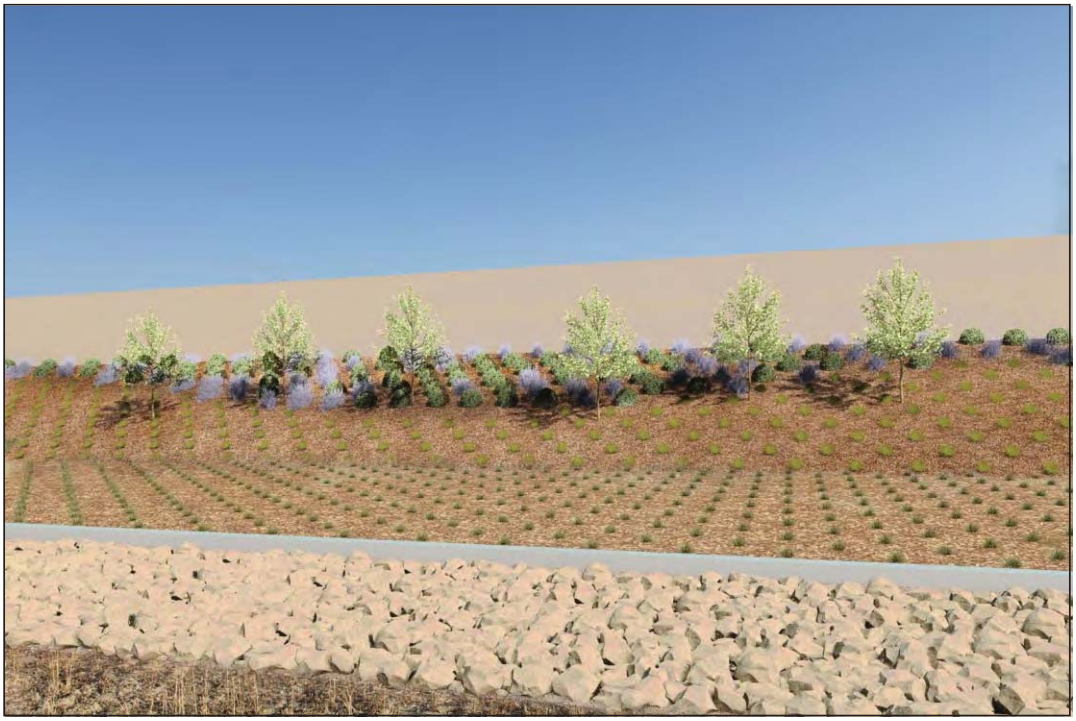

View 6: *Looking north from vegetation at installation.*

View 6: *Looking north toward southern Project Boundary vegetation at maturity*

LSA

FIGURE 4.1.5G

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

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View 7: *Looking southeast heading eastbound from SR-60 vegetation at installation.*

View 7: *Looking southeast heading eastbound from SR-60 vegetation at maturity.*

LSA

FIGURE 4.1.5H

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

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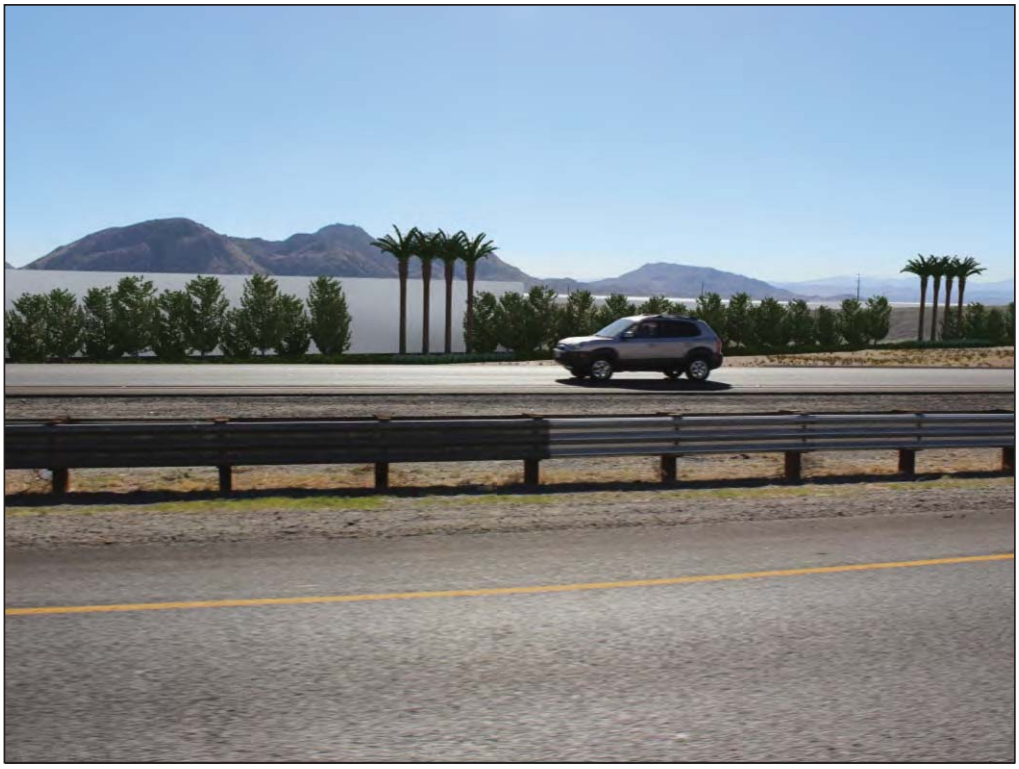
View 8: *Looking southwest heading westbound from SR-60 vegetation at installation.*



View 8: *Looking southwest heading westbound from SR-60 vegetation at maturity.*

LSA

FIGURE 4.1.5I

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

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View 9: *Looking south across Gilman Springs Road at vegetation at maturity.*

View 10: *Looking northwest from within San Jacinto Wildlife Area.*

LSA

FIGURE 4.1.5J

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

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View 11: *Looking northeast from the corner of Cactus Avenue and Madrid Avenue.*

LSA

FIGURE 4.1.5K

World Logistics Center Specific Plan Project
Environmental Impact Report

Computerized Photographic Renderings

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4.1.4 Thresholds of Significance

Appendix G of the *CEQA Guidelines* recognizes the following significance thresholds related to aesthetics. Based on these significance thresholds, a project would have a significant impact on aesthetic resources if it would result in:

- A substantial adverse effect on a scenic vista;
- Substantial damage to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway;
- Substantial degradation of the existing visual character or quality of the site and its surroundings; and/or
- A new source of substantial light or glare that would adversely affect daytime or nighttime views in the area.

4.1.5 Less than Significant Impacts

Due to the size and location of the project, and due to the fundamental and permanent alteration of the aesthetic characteristics of the site, all aesthetic impacts were determined to be potentially significant.

4.1.6 Significant Impacts

4.1.6.1 Scenic Vistas

Impact 4.1.6.1: *The proposed project would have a substantial significant effect on a scenic vista.*

Threshold	Would the proposed project have a substantial adverse effect on a scenic vista?

The proposed project could have a substantial adverse effect on one or more scenic vistas, notably views of the Badlands, Mount Russell and the Mount Russell Range, and Mystic Lake/San Jacinto Wildlife Area. For the proposed project, the nearest sensitive permanent visual receptors would be the existing single-family residences to the west and southwest along Redlands Boulevard. In addition, the views of the motoring public along SR-60, Gilman Springs Road, Redlands Boulevard, Theodore Street, and Alessandro Boulevard would be significantly affected as well. At present, the Skechers building blocks views of the site for travelers on SR-60 who are immediately north of the Skechers building.

One of the development goals of the Specific Plan is to have the heights of the buildings along the north, west and south perimeter of the site, including SR-60, be approximately the same height as the existing Skechers building (i.e., approximately 55 feet above a ground elevation of 1,740 feet amsl). This means, as the site elevation decreases to the south, taller buildings theoretically could be built as long as they do not exceed 1,795 feet elevation (i.e., height above sea level, not building height above ground). This would result in seeing only the buildings adjacent to the freeway for eastbound travelers on SR-60, but it would adversely affect views from other locations around the WLC Specific Plan site regardless of the height comparison to the Skechers building. The motoring public heading westbound on SR-60 would experience impacts to their views of Mount Russell.

Along Gilman Springs Road and away from the perimeter of the site, the Specific Plan allows warehouse buildings that may reach a height of 80 feet. These buildings would have a maximum altitude of 1,795 feet. The potential heights of project buildings, and possible viewshed impacts of future development under the Specific Plan, are shown in previously referenced Figure 4.1.5, which provides computerized photographic renderings of the proposed project building and landscaping.

As stated previously, the project will allow a maximum of 60-foot tall warehouse buildings along the west, north, and south perimeters of the site, and 80-foot buildings on the "interior" portions of the site and along the eastern perimeter (i.e., Gilman Springs Road). Ground elevations range from 10 to 30 feet lower than Gilman Springs Road, which will help reduce visual impacts of warehouse buildings in the eastern portion of the site. The existing Skechers building at the northwest corner of the site can be seen from almost anywhere on the project site at present, and from surrounding off-site areas. Other warehouse buildings within the project will be at least that prominent when they are built.

Section 5.0 of the WLCSP contains architectural and design guidelines that will encourage the construction of attractive warehouse buildings and surrounding grounds. This is supported by the examples of building designs, materials, colors, and landscaping illustrations in the Specific Plan. The general development, setback, architectural design, and landscaping guidelines of the WLCSP require future development to provide attractive warehouse buildings with native plants and trees to help screen views of the lower portions of the buildings.

The Skechers building is mainly white, and the WLCSP indicates that future warehouse buildings on site will also be white or light colored to minimize energy consumption, provide architectural compatibility, and reflect heat to minimize the urban "heat island" effect (see also Section 5.3.13 Sustainability). Based on current views of the Skechers building, these new buildings will also be visible from various off-site locations (e.g., north of SR-60 and east of Gilman Springs Road). However, white or light-colored buildings, like Skechers, may be more visible at longer distances compared to darker or earth-toned buildings.

General View Impacts from Existing Residences. The Specific Plan establishes a minimum setback of 250 feet along the west boundary of the project site between sensitive receptors (i.e., houses) and buildings or parking/circulation areas within the WLCSP. The Specific Plan also includes specific landscaping and other design criteria for this buffer (see WLCSP Section 4.2, *Offsite Landscaping*). It should be noted that the width of the adjacent street outside of the WLC project boundaries (e.g., Redlands Boulevard, Bay Avenue, and Merwin Street) is included in the 250-foot buffer distance.

The line-of-sight exhibits and the photographic renderings help predict how the WLCSP project will appear as buildings are constructed. Figures 4.1.4A-E include typical cross-sections that show the 250-foot setback as measured from the center line of Redlands Boulevard and Merwin Street, and the center line of Bay Avenue. Not counting the existing street widths, the new landscaping setback/berm areas along the west side of the WLCSP will be approximately 150 feet wide (e.g., from the east side of Redlands Boulevard to the nearest truck activity area). These setbacks, and the proposed landscaping within the setback areas, are shown in previously referenced Figures 4.1.4A-E and 4.1.5A-F (Views 1-5). Section 4.2 of the Specific Plan describes and illustrates how the landscaping will appear both upon installation and at maturity (photographic renderings of these conditions are also shown in Section 4.2, *Offsite Landscaping*).

As development of the proposed project occurs, buildings, associated parking lots, and landscaping will be built on the project site. This will change existing views from virtually every point in and around the project site. Foreground and midground views would consist of trees, ornamental landscaping, and new warehouse buildings. Most background views will be affected as well with limited distant views of the Badlands, Mount San Jacinto, and Mount Russell remaining from some adjacent properties and roadways. Although the warehouse buildings and the single-family residences would be separated by some distance, the proposed project will result in the reduction or elimination of existing background views.

Views from SR-60. The existing Skechers building can be used as a visual reference relative to future views involving the WLCSP. The average floor elevation of the Skechers facility is 1,740 feet amsl. Assuming an average building height of 55 feet, the Skechers building is at an elevation of 1,795 feet amsl compared to the elevation of SR-60 at 1,760 feet amsl adjacent to the Skechers building. This means a person driving on SR-60 cannot see much of the WLCSP property, or Mystic Lake while adjacent to the Skechers building, although the top of Mount Russell is visible from most locations.

Travelers in both directions on SR-60 will have views of the project site until the northernmost portion of the site is developed. As the site develops, the buildings would replace existing flat agricultural fields with industrial buildings, which may block foreground and midground views of travelers in both directions, depending on their locations. There are no site plans at present to show exact building locations or heights, so the determination of impacts must be based on the characteristics of buildings allowed under the Specific Plan. Buildings adjacent to the freeway would be approximately 60 feet in height, while buildings away from the northern perimeter (i.e., the south side of SR-60) could be up to 80 feet tall. If all of the future buildings along the south side of SR-60 block views to the same degree as the Skechers building, this would be a significant visual impact as it would reduce views of Mount Russell, and the Badlands south of SR-60 along Gilman Springs Road.

The height and location of buildings along this portion of the project will have to be designed to allow background views between and over them (i.e., so the mountains and Mystic Lake are not fully or largely obscured by buildings in the future). The conceptual landscape plans for the proposed project show trees will be planted along the south side of SR-60 to soften views of future buildings, but these will not fully obscure views of the buildings or parking areas, as the buildings may be taller than the trees will grow, and the buildings will extend farther into the midground and background views for many travelers. Even with the landscaping proposed by the WLC Specific Plan, development of this area will eventually replace the existing flat agricultural fields with tall industrial warehouse buildings that may completely or partially block views of the lower slopes of Mount Russell and the Badlands. If future buildings were to block views of these major scenic resources substantially (per GP Figure 7-2), the WLC project would result in significant visual impacts along SR-60. The simulated view from SR-60 is shown in Figure 4.1.5J and K (Views 8 and 9).

Views from Gilman Springs Road. Travelers in both directions on Gilman Springs Road will have extensive views across the project site until the easternmost portion of the site is developed. As the site develops, the buildings would replace existing flat agricultural fields with industrial buildings. Buildings constructed in the eastern portion of the site may block foreground and midground views for travelers in both directions, depending on the location of the building and the traveler. There are no site plans at present to show exact building locations or individual building size/mass or heights, so the determination of impacts must be based on the characteristics of buildings allowed under the Specific Plan. Buildings adjacent to the roadway would be approximately 80 feet in height, while buildings away from the eastern perimeter (i.e., the west side of Gilman Springs Road) could be up to 80 feet tall. If all of the future buildings along the west side of Gilman Springs Road block views to the same degree as the Skechers building, this would be a significant visual impact as it would - reduce views of Mount Russell to the west and views of Mystic Lake to the south. The height and location of buildings along this portion of the project will have to be designed to allow background views between and over them (i.e., so the mountains and Mystic Lake are not fully or largely obscured by buildings in the future). The conceptual landscape plans for the proposed project show trees will be planted along the west side of Gilman Springs Road to soften views of future buildings, but these will not fully obscure views of the buildings or parking areas, as the buildings may be taller than the trees will grow, and the buildings will extend farther into the midground and background views for many travelers. Even with the landscaping proposed by the WLC Specific Plan, development of this area will eventually replace the existing flat agricultural fields with tall industrial warehouse buildings, which may completely or partially block views of the lower slopes of Mount Russell and Mystic Lake. If

future buildings block views of these major scenic resources substantially (per GP Figure 7-2), the WLC project would result in significant visual impacts along Gilman Springs Road. The simulated view from this vantage point is shown in Figure 4.1.5G (View 6).

On-site Views. As the WLC project is developed, views from the various rural residences on site will become increasingly blocked, depending on the relative locations and heights of buildings. Over time, these views will be blocked by new logistics warehouse buildings.

In addition to the cross-sections in the WLCSP, LPA Architects created photographic renderings at nine locations to illustrate existing and future views from various vantage points around the WLC site. The following analysis of views is organized by the corresponding rendering(s). These renderings used actual photographs of the sites and superimposed a rendering of potential future buildings within the WLCSP, consistent with Specific Plan development guidelines. These renderings represent possible architectural treatments under the WLCSP design guidelines.

Views from Residences Southwest of the Site. As the project develops, views of the project site from existing residences southwest of the site will fundamentally change from vacant agricultural land to an urbanized logistics campus with major warehouse buildings, roadways, landscaping, and signage. The change in views would be softened somewhat by landscaping, which will be subject to the architectural and landscaping design guidelines outlined in the Specific Plan. All building proposals will be subject to a discretionary plan review process by the City with the opportunity for the public input and comment.

The WLCSP restricts building heights to 60 feet along the perimeter of the project, with the exception of along Gilman Springs Road, and 80 feet for non-perimeter buildings. The WLCSP also allows for the building office entrances and corners to be slightly higher than the main portions of buildings. By comparison, single-family residences southwest of the proposed project have an approximate maximum height of 18 feet for single-story homes and 30 feet for two-story homes. It should be noted that there is an existing windrow of olive trees along the east side of Redlands Boulevard between Cottonwood Avenue north to 700 feet north of Dracaea Avenue (almost 1,800 feet or a third of a mile in total). This windrow would help soften views of the WLCSP site from the homes west of the windrow for as long as the windrow remains in place.

The WLCSP requires that a landscaped berm be installed along the Redlands Boulevard right-of-way to soften project views from residential areas to the west. The Specific Plan requires that all truck accessways and loading areas be at least 250 feet from residential properties along Redlands Boulevard, Bay Avenue, and Merwin Street. The Specific Plan includes renderings of potential future buildings, which illustrate that future buildings will be largely screened by the landscaped berm and other landscaping. While the Specific Plan requires the use of native, drought-tolerant species throughout the project site, the areas adjacent to residential uses along Redlands Boulevard, Bay Avenue, and Merwin Street will receive a more extensive landscape treatment (WLCSP Section 4.2.4 refers these as special edge treatment area). However, landscaping will take a number of years to mature to a height that would soften views from residential areas. Even with the setbacks, berms, walls, and landscaping required by the WLC Specific Plan, the proposed development will fundamentally change views generally available to the public in this area (i.e., area residents driving or walking along Redlands Boulevard, Bay Avenue, and Merwin Street). This is a significant impact and requires mitigation. The photographic renderings for the project show proposed landscaping upon installation and at maturity (assumed to be approximately 15 years) for each rendered location (refer to Figures 4.1.5B-F, Views 1-5).

Views from the South. The existing view from the San Jacinto Wildlife Area north toward the Badlands will eventually be blocked by future buildings, resulting in visual impacts from this area. Buildings in this area will be setback from the SJWA boundary a minimum of 400 feet and limited in height to 60 feet, Figure 4.1.6A shows the location of three special edge treatment areas. Cross section and line of site diagrams are shown for the edge treatments in Figures 4.1.4A through 4.1.4I. Additional information on the Southern Boundary is shown in Figure 4.1.6B.

Views from the East. Permanent views from existing residences east of Gilman Springs Road will fundamentally change. The views they now have of the agricultural fields on the project site will eventually be replaced by a view of an urbanized area consisting of warehouse buildings, parking areas, streets, and ornamental landscaping. The proposed buildings will not block views of the Mount Russell Range to the southwest but may block or partially block views of the Mystic Lake area.

Transient/Motorist Views along Gilman Springs Road. Transient views for travelers on Gilman Springs Road will fundamentally change over time, as future buildings within the WLCSP will be visible to travelers in both directions, replacing existing views of agricultural fields. Eventually buildings within the Specific Plan may block or partially block views of the lower slopes of the Mount Russell Range, as well as distant views of Mystic Lake for southbound drivers. This is a potentially significant impact requiring mitigation.

Transient/Motorist Views along SR-60. Transient views for travelers on SR-60 will fundamentally change over time, as future logistics buildings will be visible to travelers in both directions as development occurs in the project area, replacing existing views of agricultural fields. Eventually buildings within the Specific Plan may block or partially block views of the lower slopes of the Badlands and the lower slopes of the Mount Russell Range, as well as views of Mystic Lake southbound depending on the driver's location and viewing angle. Mystic Lake is not visible for travelers along SR-60; therefore buildings will not block views of the lake for those traveling along SR-60.

Views from the North. Permanent views for residences north of SR-60 will change, and the upper portions of some of the future logistics buildings closest to SR-60 may be visible above the freeway. For residences that are elevated, views across the freeway may be more extensive and residents may see more of the WLC project as it develops. The proposed buildings are not expected to block views of the Mount Russell Range to the south or the Badlands to the southeast, but may eventually completely or partially block distant views of the vacant agricultural land and of Mystic Lake.

Views related to Off-site Improvements. Most project-related infrastructure improvements will not change existing views except for the future Theodore Street/SR-60 interchange improvements. When this interchange is rebuilt, views from some homes northwest of the intersection (i.e., looking southeast) may be incrementally affected by a larger, possibly higher bridge structure, depending on the ultimate design.

Construction of three off-site reservoir tanks will affect views of neighbors living near the new tanks. A new 1860 Zone tank southeast of SR-60/Gilman Springs Road and a new Zone 1967 tank just east of Theodore Street/Ironwood Avenue may be visible to some residents living northwest of Theodore Street/SR-60. In addition, a new 1764 Zone tank off of Cottonwood Avenue west of Redlands Boulevard may be visible to some residents living off of or driving along Cottonwood Avenue (see previously referenced Figure 3.13, *Water System*). However, views of a water tank are incremental and generally consistent with suburban areas, so these changes in views would not be considered significant.

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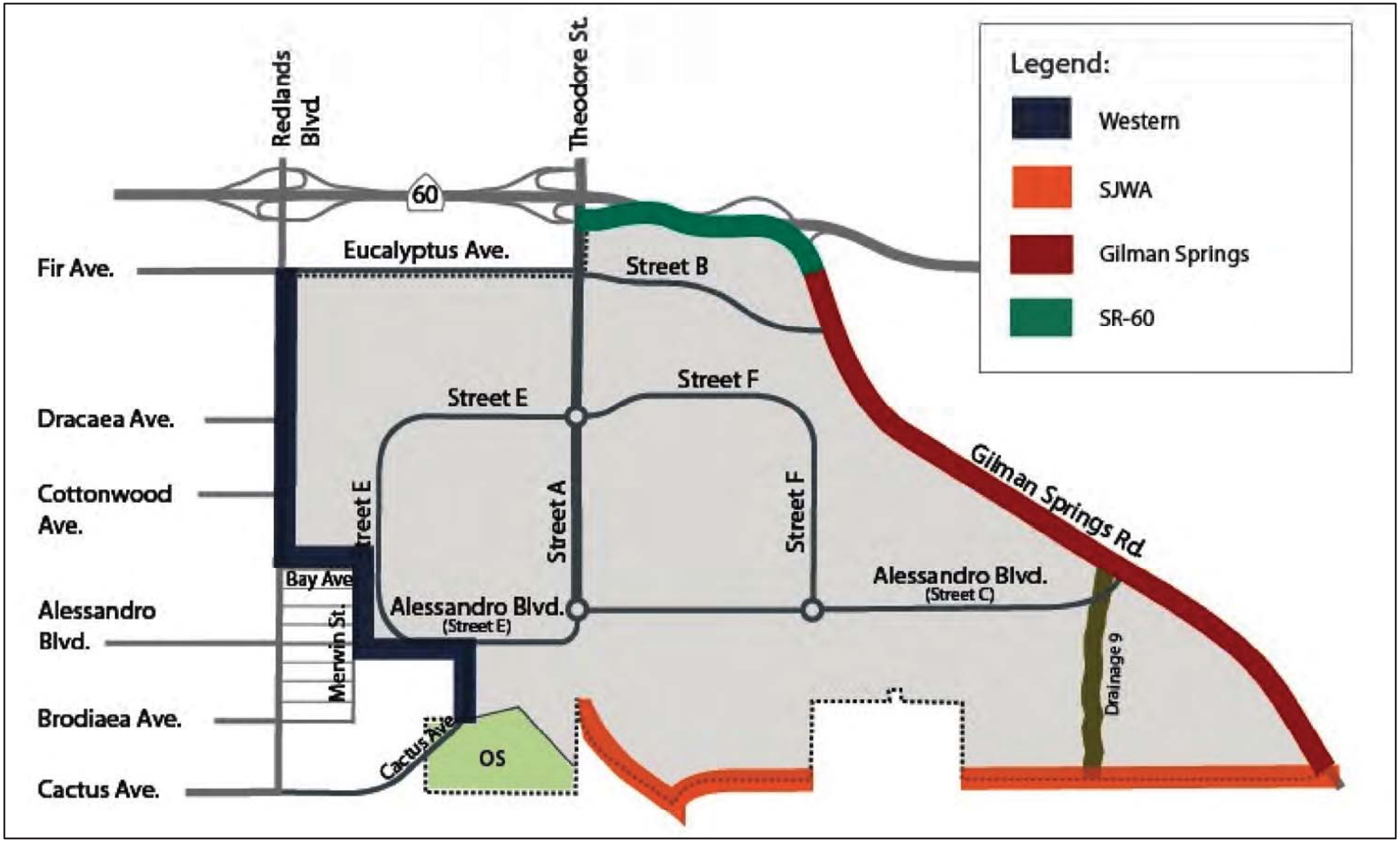

LSA

FIGURE 4.1.6A

N

No Scale

World Logistics Center Specific Plan Project
Environmental Impact Report

Special Edge Treatment Area

SOURCE: HF, September, 2014.

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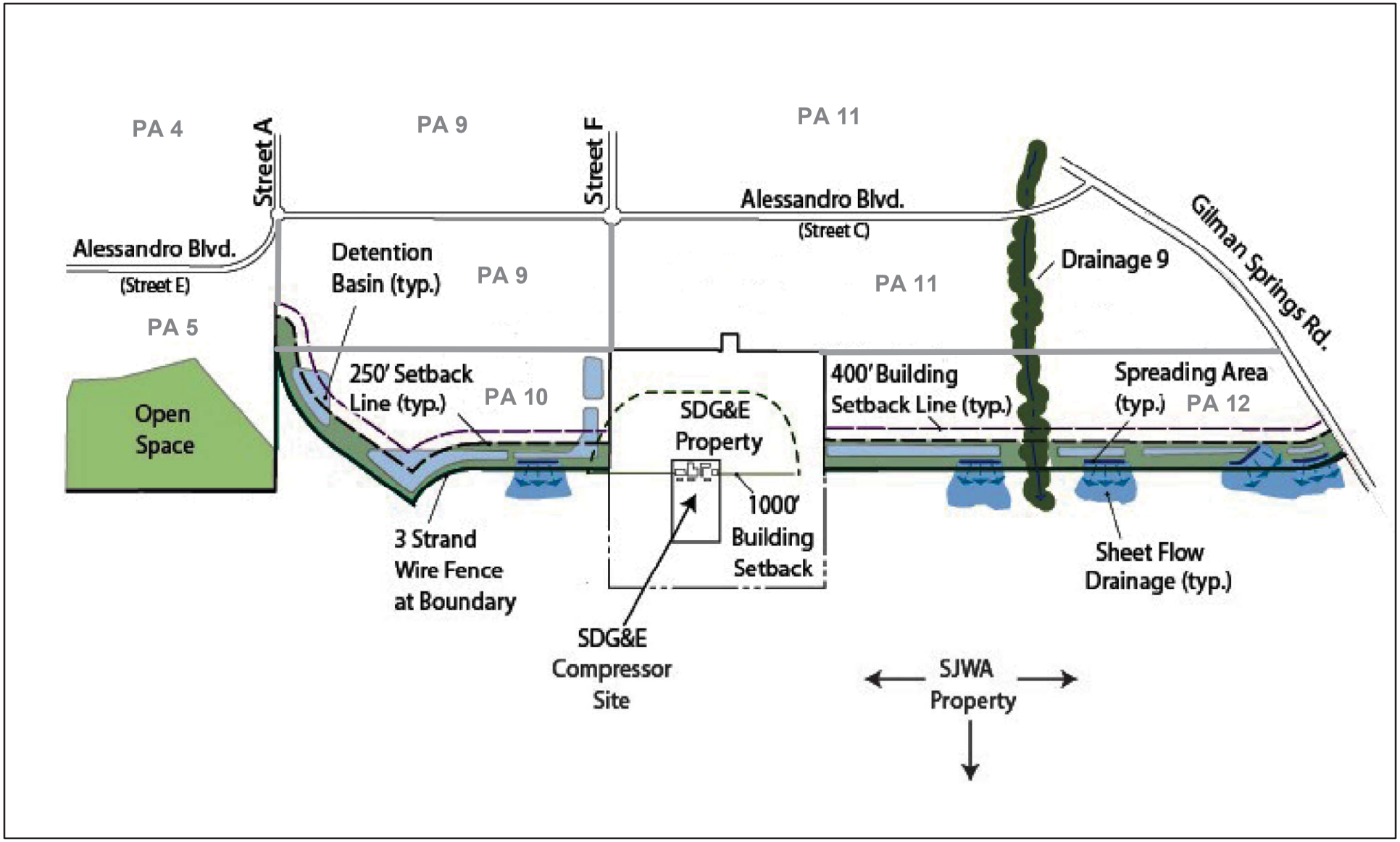

LSA

FIGURE 4.1.6B

PA # Planning Area

No Scale

World Logistics Center Specific Plan Project
Environmental Impact Report

Southern Edge Treatment

SOURCE: HF, September, 2014.

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General Plan Policies. These anticipated visual changes, while substantial, are generally consistent with General Plan Objective 7.7 in the Conservation Element regarding visual resources, which states, "Where practicable, preserve significant visual features, significant views, and vistas." Based on the analysis in the preceding section, the WLCSP can preserve significant visual features, significant views, and vistas if the size and location of buildings developed under the WLCSP can be controlled so as to not substantially block views of Mount Russell, the Badlands, and Mystic Lake. The views from all areas surrounding the WLC site will fundamentally change as development occurs, but views of major scenic resources (i.e., Mount Russell, the Badlands, and Mystic Lake) may be largely preserved through careful limitations on the height and location of future buildings. The WLCSP outlines how future development will be made visually attractive and, through careful limitations on the height and location of future buildings, views of the surrounding mountains and Mystic Lake can be preserved through mitigation of individual buildings.

Impact Summary: Scenic Vistas. The implementation of the proposed project will obstruct and/or substantially affect scenic views for residents living within, or in the vicinity of, the project, and for travelers on SR-60, Gilman Springs Road, Redlands Boulevard, Theodore Street, and Alessandro Boulevard. Many of the views of the motoring public while on local roadways will fundamentally change instead of views of open agricultural land, these residents and motorists will view new logistics buildings and the associated parking areas, roadways, infrastructure, and landscaping. Therefore, the project will have a significant visual impact. The degree to which these buildings may block views of major scenic resources (i.e., Mount Russell, the Badlands, and Mystic Lake) will depend on the location and heights of buildings. This impact requires mitigation; however, this change in views, while substantial, is anticipated in the City's General Plan, which allows development within the project area. At present, the General Plan allows development of a mixed-use residential community (i.e., Moreno Highlands Specific Plan), which would mainly be one-story and two-story buildings (approximate maximum height 35 feet). The WLCSP proposes to instead develop the site with logistics warehouse buildings (maximum height 60–80 feet), so this change in itself would represent a significant visual impact. In addition, the eventual change in views from existing (baseline) conditions is substantial and is considered a significant visual impact on scenic vistas.

Project or Specific Plan Design Features. The WLC Specific Plan contains design guidelines for architecture and landscaping within the site, which will guide the design of all project buildings toward attractive and visually appealing treatments. Section 2.0 of the Specific Plan indicates that warehouse uses will occur throughout the site, except for in the 74.3 acres at the southwest corner of the site designated for Open Space (OS). Section 5.0 of the Specific Plan outlines the design standards to be applied to development within the project site, including Site Plan Guidelines (5.2), Architecture (5.3), Landscaping (5.4), and Lighting (5.5).

Specific Plan Section 5.1 indicates the project will utilize "Sustainable Design" to reduce pollution and conserve natural resources by considering renewable energy systems, minimizing the use of potable water, use atriums, skylights and internal courtyards to provide daylighting, orienting buildings to screen loading and service areas, collecting rainwater to irrigate drought-tolerant landscaping, providing landscaped outdoor plazas or entries, screening all truck yards from public view, etc.

Specific Plan Section 5.2 indicates building designs should "employ clean, simple, geometric forms and coordinated massing that produce overall unity, scale, and interest." They should have appropriate façades, fenestration, glazing materials, roofs, colors, etc. Appropriate building design includes visible vertical support, visible structural base, functional and straightforward elements, columns integrated into the façade, and proper structural scale. The visual examples of what are appropriate and what are not also helps the reader to understand how the future buildings will appear.

NOTE: The following mitigation measures relative to views have been revised largely in Responses to Comments F-13-6 and F-13-21in Letter F-13 from Johnson & Sedlack on behalf of the Sierra Club, Moreno Valley Group & Residents for a Livable Moreno Valley, Responses to Comments G-57-13, G-95-6, G-95-9, G-95-20, G-95-21, G-95-41, and related comments by others.

Mitigation Measures. The sizes, heights, and general locations of buildings on the site are limited by the standards and guidelines contained in the Specific Plan. The following mitigation measures are recommended to reduce project impacts related to the potential loss of public viewsheds:

4.1.6.1A Each Plot Plan application for development along the western, southwestern, and eastern boundaries of the project (i.e., adjacent to existing or planned residential zoned uses) shall include a minimum 250-foot setback measured from the City/County zoning boundary line and any building or truck parking/access area within the project. The setback area shall include landscaping, berms, and walls to provide visual screening between the new development and existing residential areas upon maturity of the landscaping materials. The existing olive trees along Redlands Blvd. shall remain in place as long as practical to help screen views of the project site. This measure shall be implemented to the satisfaction of the Planning Official.

4.1.6.1B Each Plot Plan application for development adjacent to Redlands Boulevard, Bay Avenue, or Merwin Street, shall include a plot plan, landscaping plan, and visual rendering(s) illustrating the appearance of the proposed development. The renderings shall demonstrate that views of proposed buildings and trucks can be reasonably screened from view from existing residents upon maturity of planned landscaping and to ensure consistency with the General Plan Objective 7.7. “Effective” screening shall mean that no more than the upper quarter (25%) of a building is visible from existing residences, which shall be achieved through a combination of landscaping, berms, fencing, etc. The location and number of view presentations shall be at the discretion of the Planning Division.

4.1.6.1C Prior to the issuance of a certificate of occupancy for buildings adjacent to the western, southwestern, and eastern boundaries of the project (i.e., adjacent to existing residences at the time of application) the screening required in Mitigation Measure 4.1.6.1A shall be installed in substantial conformance with the approved plans to the satisfaction of the Planning Official.

4.1.6.1D Prior to the issuance of permits for any development activity adjacent to Planning Area 30 (74.3 acres in the southwest portion of the Specific Plan), the entirety of Planning Area 30 shall be offered to the State of California for open space purposes. In the event that the State does not accept the dedication, the property shall be offered to Western Riverside County Regional Conservation Authority or an established non-profit land conservancy for open space purposes. In the event that none of these organizations accepts the dedication, the property may be dedicated to a property owners association or may remain in private ownership and may be fenced and access prohibited.

Level of Significance after Mitigation. After implementation of the proposed mitigation measure(s), adverse effects on scenic vistas would remain significant and unavoidable due to the fundamental change in public views for residents within and surrounding the project site, for travelers on SR-60, Gilman Springs Road, Theodore Street, and Redlands Boulevard,

4.1.6.2 Scenic Resources and Scenic Highways

Impact 4.1.6.2: *The proposed project would have a significant impact on the views of scenic resources for motorists traveling on SR-60 and Gilman Springs Road.*

Threshold	Would the proposed project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway and/or local scenic road?

The California Department of Transportation (Caltrans) Scenic Highway Program does not identify any State-designated scenic highways[1] near the project site[2]. However, the City of Moreno Valley identifies SR-60 and Gilman Springs Road as local scenic roads.[3] According to the City's General Plan EIR, major scenic resources within the Moreno Valley study area are visible from SR-60 and Gilman Springs Road, both of which are City-designated local scenic roadways. It should be noted that Moreno Beach Drive, the other City-designated scenic route (per GP policy 7.7.4), is approximately one mile west of the project site. The proposed project would not be visible from Moreno Beach Drive, so it will not be analyzed further in this document. According to the City's General Plan, the built environment is equally important as natural landforms in terms of scenic values (e.g., buildings, landscaping, and signs).

Section 4.1.6.1 of this EIR determined that the proposed project could have a substantial adverse impact on one or more scenic vistas, including views of the Mount Russell Range and the Badlands for both residents and travelers on SR-60 and Gilman Springs Road.

The project is not required to provide a formal Visual Impact Assessment (VIA) to Caltrans since SR-60 is not a state-designated scenic highway; however, a cursory application of typical VIA requirements is useful in evaluating potential visual impacts of the project relative to travelers on SR-60 just north of the site. According to the Caltrans Handbook, a VIA is typically considered for projects that have the potential to change the "visual" environment. The level of assessment for the VIA can range from "no formal analysis" to a "complex analysis" and is determined by many factors such as numbers of viewer groups affected; existence of scenic resources; degree and totality of the proposed changes in the visual environment; local concerns or project controversy; and cumulative impacts along the transportation corridor.

In order to establish the need and level of study for a VIA, a preliminary evaluation is performed to determine if the project will cause any physical changes to the environment. This preliminary evaluation includes activities such as conducting a site visit to inventory the scenic resources of the project site, estimating potential changes to that character, and identifying viewer groups and public concerns or opposition to the proposal.

The following analysis of visual impacts of the project was conducted with the VIA criteria in mind. Even though a Caltrans VIA was not prepared, the following evaluation of potential impacts to visual resources is based on guidance from the following resource documents:

- Federal Highway Administration (FHWA) Technical Advisory T6640.8;
- FHWA Guidance HI-88-054: Visual Impact Assessment for Highway Projects;
- Title 23 U.S.C. 109 (h); and

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1 A State Scenic Highway is defined as any freeway, highway, road, or other public right-of-way, that traverses an area of exceptional scenic quality.

2 *Eligible and Officially Designated Routes,* California Department of Transportation Scenic Highway Program, http://www.dot.ca.gov/hq/LandArch/scenic_highways/scenic_hwy.htm, website accessed April 4, 2012.

3 *Conservation Element, Figure 7-2 Major Scenic Resources,* City of Moreno Valley General Plan, adopted July 11, 2006.

- FHWA DOT-FH-11-9694: Visual Impact Assessment for Highway Projects, as published by the American Society of Landscape Architects.

Table 4.1.B provides the thresholds for a qualitative analysis as to what would be considered a minor, moderate, or major visual intrusion along scenic highways.

Table 4.1.B: Visual Intrusion Criteria

Type of Intrusion	Characteristics
Minor	Widely dispersed buildings; natural landscape dominates; wide setbacks and buildings screened from roadway; exterior colors and materials are compatible with environment; or buildings have cultural or historical significance.
Moderate	Increased number of buildings, but complementary to the landscape; smaller setbacks and lack of roadway screening; buildings do not degrade or obstruct scenic view.
Major	Dense and continuous development; highly reflective surfaces; buildings poorly maintained; visible blight; development along ridgelines; or buildings degrade or obstruct scenic view.

Source: *Scenic Highway Guidelines,* California Department of Transportation, March 1996; http://www.dot.ca.gov/hq/LandArch/scenic/guidelines/scenic_hwy_guidelines.pdf, site accessed April 27, 2012. Page 23.

The following analysis is generally based on the visual intrusion criteria from the Caltrans Guidelines for the Official Designation of Scenic Highways. These criteria, as identified in Table 4.1.B, provide for a qualitative analysis as to what would be considered a minor, moderate, or major visual intrusion along scenic highways. Existing views for motorists traveling eastbound and westbound on SR-60 consist of agricultural fields in the foreground and midground, and the Mount Russell Range and Badlands in the background. As previously identified in Figures 4.1.4 and 4.1.5, development of the proposed project would significantly alter the existing view by introducing large industrial buildings adjacent to the freeway. Existing eastbound and westbound views on SR-60 and Gilman Springs Road would be fundamentally altered with the future development of the proposed project. Views of the project buildings would occur for up to 112 seconds or almost two minutes when motorists are traveling at normal freeway speeds (approximately 9,000 feet or 1.7 miles @ 55 mph, Redlands Boulevard to Gilman Springs Road). Views would be even longer during rush hour or times of congestion when freeway speeds are below 55 mph and shorter higher freeway speeds.

According to Figure 5-3 in the WLCSP (Building Height Plan, and Figure 3.9 in the Project Description of this EIR), the north, west, and south perimeter portions of the site will have buildings with heights up to 60 feet, and some of the buildings along the eastern perimeter and south of Street C (southeastern portion of the site but not adjacent to the San Jacinto Wildlife Area), would have heights of up to 80 feet. Since the Skechers building (roof height approximately 1,790 feet amsl) is already visible throughout the project site and from off-site areas to the east, south, and southwest, it is likely that most new buildings will be visible from these areas or possibly even farther away, depending on building heights and locations. The use of light colors and reflective surfaces such as glass and polished metal near office entrances and building corners, such as required in the WLC Specific Plan design guidelines, will enhance the visibility of these buildings.

The proposed sound walls and ornamental landscaping would soften the visual impacts of future buildings, but the proposed project would likely result in at least a partial obstruction of a portion of the Mount Russell Range for motorists traveling on SR-60, so the proposed buildings may obstruct the view of a major scenic feature from a City-designated scenic route. The proposed project meets criteria in both the moderate and major visual intrusion categories. Therefore, it is anticipated that the WLC Specific Plan design guidelines may create a major visual intrusion (i.e., significant impact) for motorists traveling on SR-60 and Gilman Springs Road.

General Plan Policies. These anticipated visual changes, while substantial, are generally consistent with the General Plan policies in the Conservation Element regarding visual resources and scenic routes, as outlined in Section 4.1.2.2 and excerpted below:

Objective 7.7 Where practicable, preserve significant visual features, significant views, and vistas.

Policy 7.7.4 Gilman Springs Road, Moreno Beach Drive, and State Route 60 shall be designated as local scenic roads.

Policy 7.7.5 Require development along scenic roadways to be visually attractive and to allow for scenic views of the surrounding mountains and Mystic Lake.

Based on the analysis in the preceding section, the WLCSP can preserve significant visual features, significant views, and vistas if the size and location of buildings developed under the WLCSP can be controlled so as to not substantially block views of Mount Russell, the Badlands, and Mystic Lake. The views from SR-60 and Gilman Springs Road will fundamentally change, but their views of major scenic resources (i.e., Mount Russell, the Badlands, and Mystic Lake) may be preserved through careful limitations on the height and location of future buildings. The WLCSP outlines how future development along SR-60 and Gilman Springs Road will be made visually attractive and can maintain some view corridors of the surrounding mountains and Mystic Lake through careful limitations on the height and location of future buildings. These are considered significant visual impacts on local scenic roads that will require mitigation.

Project or Specific Plan Design Features. As outlined in the previous section, the WLCSP contains architectural and design guidelines that require the construction of attractive warehouse buildings and surrounding grounds. The WLCSP provides examples of building designs, materials, colors, and landscaping that would be allowed (or not allowed) within the Specific Plan. Section 5.0 of the Specific Plan outlines the design standards to be applied to development within the project site, including Site Plan Guidelines (5.2), Architecture (5.3), Landscaping (5.4), and Lighting (5.5).

Specific Plan Section 5.2.3 indicates the project will utilize “Sustainable Design” to reduce pollution and conserve natural resources by considering renewable energy systems, minimizing the use of potable water, use atriums, skylights and internal courtyards to provide daylighting, orienting buildings to screen loading and service areas, collecting rainwater to irrigate drought-tolerant landscaping, providing landscaped outdoor plazas or entries, screening all truck yards from public view, etc.

Specific Plan Section 5.3.4 indicates building designs should employ clean, simple, geometric forms and coordinated massing that produce overall unity, scale, and interest. They should have appropriate façades, fenestration, glazing materials, roofs, colors, etc. Appropriate building design includes visible vertical support, visible structural base, functional and straightforward elements, columns integrated into the façade, and proper structural scale. The visual examples of what are appropriate and what are not also help the reader understand how the future buildings will appear.

However, even with the extensive design features of the Specific Plan, the resulting change in views from SR-60 and Gilman Springs Road will be significant, and mitigation is required.

Mitigation Measures. Construction of future logistics warehousing according to the development standards and design guidelines of the WLC Specific Plan will help soften building façades, and the installation of ornamental landscaping will help buffer the visual appearance of the buildings from SR-60, but the obstruction of local views will still be significant. Implementation of **Mitigation Measures 4.1.6.1A** through **4.1.6.1D** will help reduce these impacts, but not to less than significant levels.

Level of Significance after Mitigation. Even with implementation of **Mitigation Measures 4.1.6.1A** through **4.1.6.1D**, the loss of views from SR-60 will remain a significant and unavoidable visual impact, but one that is nonetheless consistent with the City's applicable General Plan policies.

4.1.6.3 Existing Visual Character and Surroundings

Impact 4.1.6.3: *The proposed project will significantly degrade the existing visual character of the project site from open space to an urbanized setting by introducing large high cube logistics warehouse buildings.*

Threshold	Would the proposed project substantially degrade the existing visual character or quality of the site and its surroundings?

NOTE: The following changes have been made due to revisions made to the Specific Plan project size.

Visual impacts associated with changes to the general character of the project site (e.g., loss of open space), the components of the visual settings (e.g., landscaping and architectural elements), and the visual compatibility between proposed site uses and adjacent land uses would occur. The significance of visual impacts is inherently subjective as individuals respond differently to changes in the visual characteristics of an area. The project site is currently undeveloped with existing agricultural fields throughout the site. Development of the proposed industrial uses on the project site would include approximately 40.6 million square feet of warehouse distribution uses with associated parking areas, ornamental landscaping, and roadway and infrastructure on approximately 2,635 acres. Maximum building heights will range from 60 to 80 feet depending on location within the project and will substantially change the views of both nearby residents and motorists on adjacent roadways.

The proposed project would also change views for travelers on the adjacent portion of SR-60 and Gilman Springs Road by introducing large industrial buildings in place of agricultural vacant land. The proposed buildings closest to the freeway would most likely have an average height of approximately 55 to 60 feet, although the maximum height may be increased by up to 10 percent for portions of some buildings if necessary to accommodate interior facilities (i.e., elevator shafts) and architectural design elements, which would exceed the existing height of the adjacent freeway by approximately 30 feet. Such changes may be approved through the administrative variance process which provides for consideration of alternative standards, such as greater building heights, up to a maximum modification of 10%. The Administrative Variance process is provided in Section 11.3.3.1 of the Specific Plan. Development of the proposed project would substantially and fundamentally change the existing character of the project site from open space to an urbanized setting with many large logistics buildings. The change in the character of the site would constitute a significant alteration of the existing visual character of the WLC project site, regardless of the architectural treatment and landscaping of the site. These impacts would be especially significant for residents of the existing residences on the project site, depending on the timing, location, and size of development in the future.

The proposed WLCSP includes a variety of architectural elements including façade accents such as corner treatments and roof trim. The project also provides variation in wall planes that serve to avoid an institutional appearance and break up the bulk of the buildings. This variation would create shadow lines at various times of the day.

The proposed warehouse buildings and ornamental landscaping would replace the widespread agricultural fields and scattered landscaping plants on the site. Landscaping would be provided in accordance with the Specific Plan Landscaping Guidelines.

The City recently approved an amendment to the Municipal Code requiring a 250-foot setback between industrial uses (i.e., the closest building and/or parking areas) and residential uses (i.e., Municipal Code Section 9.06). The Specific Plan design guidelines require specific setback distances. These required setbacks are shown in Section 4.2, *Offsite Landscaping*, of the Specific Plan. This section also includes a number of line-of-sight cross-sections and landscaping plans for the setbacks along the west side of the project. These setbacks provide a minimum 250 feet from existing residences to new proposed buildings or truck activity areas, consistent with the intent of Municipal Code Section 9.06.

In summary, the proposed setbacks, landscaping, berms, and walls outlined in the Specific Plan appear sufficient to provide adequate visual screening between proposed warehouse buildings and the existing residential uses. However, mitigation is required to ensure the actual design and appearance of setback areas will effectively screen new development from existing residences and neighboring roadways.

Consistency with General Plan Policies. Sections 4.1.6.1 and 4.1.6.2 evaluated the WLC project relative to the General Plan objectives and policies in the Conservation Element. Table 4.1.C compares the WLCSP project to the General Plan objectives and policies in the Community Development Element:

Table 4.1.C: WLCSP Consistency with Community Development Element

General Plan Objective or Policy	Evaluation of WLCSP Consistency
Objective 2.5: Promote a mix of industrial uses which provide a sound and diversified economic base and ample employment opportunities for the citizens of Moreno Valley with the establishment of industrial activities that have good access to the regional transportation system, accommodate the personal needs of workers and business visitors, and which meets the service needs of local businesses.	**Consistent.** The WLCSP provides high cube logistics industrial uses near SR-60.
Policy 2.5.1: The primary purpose of areas designated Business Park/Industrial is to provide for manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities. The zoning regulations shall identify the particular uses permitted on each parcel of land. Development intensity should not exceed a Floor Area Ratio (FAR) of 1.00 and the average FAR should be significantly less.	**Consistent.** The WLCSP provides warehousing that is at FAR 0.5, which is much less than the maximum allowed.
Policy 2.5.2: Locate manufacturing and industrial uses to avoid adverse impacts on surrounding land uses.	**Consistent.** The WLCSP provides setbacks and visual screening from neighboring residential and open space uses, and precludes project traffic through these areas as well.
Policy 2.5.3: Screen manufacturing and industrial uses where necessary to reduce glare, noise, dust, vibrations, and unsightly views.	**Consistent.** The WLCSP shows that the proposed warehouse buildings will be set back and screened from existing off-site residential uses.
Policy 2.5.4: Design industrial developments to discourage access through residential areas.	**Consistent.** WLCSP precludes project truck traffic through residential areas to the west and southwest, as outlined in the WLCSP circulation plan (see DEIR Figure 3.10).
Objective 2.10: Ensure that all development within the City of Moreno Valley is of high quality, yields a pleasant living and working environment for existing and future residents, and attracts business as the result of consistent	**Consistent.** The WLCSP provides high quality architectural and landscaping themes for the proposed buildings and grounds within the project.

Table 4.1.C: WLCSP Consistency with Community Development Element

General Plan Objective or Policy	Evaluation of WLCSP Consistency
exemplary design.	
Policy 2.10.1: Encourage a design theme for each new development that is compatible with surrounding existing and planned developments.	*Note: The following changes have been made due to the revisions of the Specific Plan project size.* **Consistent.** The WLCSP encompasses 2,610 acres in the last remaining large vacant land in the City. It will create a new logistics center with unique design themes. This development will be set back and visually screened to make it compatible with other development within the project and screened from adjacent residential uses.
Policy 2.10.2: Screen trash storage and loading areas, ground and roof-mounted mechanical equipment, and outdoor storage areas from public view as appropriate.	**Consistent.** The WLCSP provides design and development guidelines that achieve these requirements.
Policy 2.10.3: Require exterior elevations of buildings to have architectural treatments that enhance their appearance. (a) A design theme, with compatible materials and styles should be evident within a development project. (b) Secondary accent materials, colors, and lighting should be used to highlight building features. (c) Variations in roofline and setbacks (projections and recesses) should be used to break up the building mass. (d) Industrial buildings shall include architectural treatments on visible façades that are aesthetically pleasing.	**Consistent.** The WLCSP contains detailed development and architectural design guidelines intended to provide high quality logistics warehousing development on the project site. The WLCSP design guidelines include secondary accents, roofline variations, setbacks, and façade treatments, consistent with this policy.
Policy 2.10.4: Landscaping and open spaces should be provided as an integral part of project design to enhance building design, public views, and interior spaces, provide buffers and transitions as needed, and facilitate energy and resource conservation.	**Consistent.** The WLCSP emphasizes landscaping and energy conservation or sustainability concepts as an integral part of project design. The entire southern boundary and the southwest corner of the project will be permanent open space.
Policy 2.10.5: Development projects adjacent to freeways shall provide landscaped buffer strips along the ultimate freeway right-of-way.	**Consistent.** The WLCSP provides extensive landscaping along the south side of SR-60.
Policy 2.10.6: Buildings should be designed with a plan for adequate signage. Signs should be highly compatible with the building and site design relative to size, color, material, and placement.	**Consistent.** The WLCSP includes a section on signage to provide a comprehensive plan for signage throughout the project area.
Policy 2.10.7: On-site lighting should not cause nuisance levels or glare on adjacent properties.	**Consistent with Mitigation.** The WLCSP contains lighting guidelines for future development, but ambient light level impacts will need to be calculated and, if necessary, mitigated through the City's site plan review process for each specific building proposed.
Policy 2.10.8: Lighting should improve the visual identification of structures.	**Consistent.** The WLCSP includes a section on signage with lighting for a comprehensive plan throughout the project area.
Policy 2.10.9: Fences and walls should incorporate landscape elements and changes in materials or textures to deter graffiti and add visual interest.	**Consistent.** The WLCSP design guidelines require that fences and walls incorporate landscaping and materials designed to reduce graffiti.
Policy 2.10.10: Minimize the use and visibility of reverse frontage walls along streets and freeways by treatments such as landscaping, berming, and "side-on" cul-de-sacs.	**Consistent.** The WLCSP design guidelines do not allow reverse frontage walls. The SR-60 freeway frontage along the north side of the project will be fully landscaped.

Table 4.1.C: WLCSP Consistency with Community Development Element

General Plan Objective or Policy	Evaluation of WLCSP Consistency
Policy 2.10.11: Screen and buffer non-residential projects from adjacent residential property and other sensitive land uses when necessary to minimize noise, glare, and other adverse effects on adjacent uses.	**Consistent.** The WLCSP provides a physical and visual setback to screen new warehouse buildings from existing residential buildings.
Policy 2.10.12: Screen parking areas from streets to the extent consistent with surveillance needs (e.g., mounding, landscaping, low profile walls, and/or grade separations).	**Consistent.** The WLCSP requires parking areas to be screened consistent with surveillance needs.
Policy 2.10.13: Provide landscaping in automobile parking areas to reduce solar heat and glare.	**Consistent.** The WLCSP landscaping plan provides for planting vegetation in parking areas that will help provide shade and reduce glare.

Due to the size and nature of the project, development of the WLCSP will eventually degrade the existing visual character of the area to a significant degree.

Project or Specific Plan Design Features. As outlined in previous sections, the WLCSP contains architectural and design guidelines that will encourage the construction of attractive warehouse buildings and surrounding grounds. The WLCSP provides examples of building designs, materials, colors, and landscaping that would be allowed (or not allowed) within the Specific Plan.

NOTE: The following mitigation measure regarding views has been changed in Response to Comment F-8-3 in Letter F-8 from Shute Mihaly & Weinberger LLP, Comment G-33-6 in Letter G-33 from Tom Behrens, Responses to Comments G-95-21, G-96-4, and related comments from others.

Mitigation Measures. Incorporation of the proposed design guidelines, landscaping guidelines, and **Mitigation Measure 4.1.6.1A** will help soften the visual appearance of the buildings from SR-60, Gilman Springs Road, and nearby residences. However, the fundamental change in visual character of the area will still be significant. Even with compliance with the City's General Plan and Municipal Code development guidelines for industrial development, including the 250-foot setback between industrial and residential land uses, the anticipated fundamental change in views expected in this area will be significant. Due to the heights and mass of buildings needed to accommodate the proposed land uses, no feasible mitigation is available that would reduce these potential impacts to less than significant levels. However, the following measure will help reduce the project's visual impacts on adjacent residential development:

4.1.6.3A Each Plot Plan application for development shall include plans and visual rendering(s) illustrating any changes in views of Mount Russell and/or the Badlands, for travelers along SR-60, as determined necessary by the Planning Official. The plans and renderings shall illustrate typical views based on proposed project plans, with the location and number of view presentations to be determined by the Planning Official. These views shall be simulated from a height of six feet from the edge of the roadway travel lane closest to the visual resource. The renderings must demonstrate that the development will preserve at least the upper two thirds (67%) of the vertical view of Mt. Russell from SR-60.

Level of Significance after Mitigation. Even with implementation of **Mitigation Measures 4.1.6.1A** through **4.1.6.1D** and **4.1.6.3A** the substantial change in visual character of the project site and surrounding area from development of the proposed project will cause aesthetic impacts to remain significant and unavoidable.

4.1.6.4 Light and Glare

Impact 4.1.6.4: *The proposed project will introduce a significant new source of light and glare into the project area.*

Threshold	Would the proposed project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

Currently, there are few sources of light or glare on the project site and there is little or no impact on adjacent properties. Existing sources of light and glare in the surrounding area include the new Skechers building to the northwest of the project site, SR-60 traffic, streetlights, exterior lighting from the nearby residences, and vehicle headlights from motorists on Gilman Springs Road, Redlands Boulevard, Theodore Street, and Alessandro Boulevard.

Development of the project site would introduce numerous new sources of light and glare into the area in the form of street lighting, parking lots, and security lighting for the buildings and nighttime traffic.

The WLCSP requires that all site lighting be oriented downward so as to not project direct light rays upward into the sky or onto adjacent properties. The development of the project will cause a significant increase in light and glare in the area. This new lighting will incrementally affect nighttime conditions in the area.

The WLC Specific Plan requires energy-efficient lighting in most cases, but does allow mercury or incandescent lighting under some conditions (i.e., limited walkway or entryway applications). In addition, the lighting guidelines of the Specific Plan require high-pressure sodium or light-emitting diodes (LEDs) that produce a very “white” color of light, which allows for accurate color rendition (e.g., compared to low-pressure sodium, which produces an orange-tinged light that skews color rendition).

Exterior surfaces of the concrete tilt-up structure would be finished with a combination of architectural coatings, trim, and/or other building materials such as concrete and brushed metal. The proposed project will incrementally increase the amount of daytime glare in the project area by introducing windows and metal fixtures into the area. All development in the City, which includes light generated from warehouse buildings and parking lots, is required to adhere to lighting requirements contained in the City’s Municipal Code (Section 9.08.100 *Lighting*), which states that any outdoor lighting associated with nonresidential uses shall be shielded and directed away from the surrounding residential uses. Such lighting shall not exceed one-quarter (0.25) foot-candle at property lines and shall not blink, flash, oscillate, or be of unusually high intensity or brightness. Lighting in parking areas and drive aisles must be at least 1.0 foot candle and cannot exceed a maximum of 8.0 foot candles.

Adherence to the City’s Zoning Code would help reduce potential building or parking lighting impacts, but the location of industrial uses adjacent to residential uses would not reduce potential lighting impacts on adjacent residential uses to less than significant levels.

The WLC Specific Plan also allows for the installation of roof-mounted solar panels on future warehouse buildings and these panels may produce unintended glare to the southeast, south, and southwest of the site, depending on the angle of the sun, the number and location of panels, and the degree to which the building parapet blocks views of the panels from surrounding land uses. Without additional information, this impact is determined to be potentially significant and requires mitigation.

Consistency with General Plan Policies. The only General Plan policy that specifically addresses lighting is Policy 2.10.7, which states, **“**On-site lighting should not cause nuisance levels or glare on adjacent properties.” Due to the amount of new development proposed, the project’s impact relative

to nuisance lighting and glare is potentially significant, even with implementation of the development and lighting design guidelines in the WLCSP. Therefore, mitigation is required.

Consistency with Municipal Code Requirements. The recent changes to the Municipal Code from Ordinance 851 will help control lighting impacts of the proposed project relative to adjacent residential properties. All development within the Specific Plan adjacent to residences along Redlands Boulevard, Bay Avenue, and Merwin Street will be required to demonstrate compliance with the off-site light spillage requirements of Section 9.08.100 of the Municipal Code.

Project or Specific Plan Design Features. The WLCSP contains lighting standards and design guidelines that will require the minimal use of lighting for building visibility and safety at night. The WLCSP provides examples of lighting that would be allowed (or not allowed) within the Specific Plan. However, Section 5.5.1 of the Specific Plan states that, "… lighting in the vicinity of the San Jacinto Wildlife Area shall be designed to confine all direct light rays to the project site and preclude the visibility of direct light rays from the wildlife area" (WLCSP page 5-47).

In addition, Section 5.5 of the Specific Plan includes the following guidelines regarding lighting:

5.5.2.2 All exterior on-site lighting must be shielded and confined within site boundaries. No direct rays or glare are permitted to shine onto public streets or adjacent lots.

5.5.2.3 Lighting fixtures are to be of clean, contemporary design.

5.5.2.4 Lighting must meet all requirements of the City of Moreno Valley.

5.5.2.5 Tilted wall fixtures (i.e., light fixtures which are not 90 degrees from vertical) are not permitted. Lights mounted to the roof parapet are not permitted. Wall-mounted light fixtures used to illuminate vehicular parking lots are not permitted.

5.5.2.6 Wall-mounted utility lights that cause off-site glare are not permitted. "Shoebox" lights are preferred.

NOTE: The following changes to mitigation for lighting impacts from solar panels have been made in Response to Comment G-95-42 in Letter G-95 from Thomas Thornsley.

Mitigation Measures. Even with compliance with the City's General Plan, Municipal Code, and the Specific Plan's development guidelines for lighting and building materials, the anticipated lighting and glare changes in this area will be potentially significant, especially adjacent to the San Jacinto Wildlife Area. Implementation of **Mitigation Measures 4.1.6.1A** through **4.1.6.1B** will help reduce related visual impacts, while **Mitigation Measures 4.1.6.4A** and **4.1.6.4B,** below, will help reduce light and glare associated with the new buildings near the SJWA. The project will also have to comply with the lighting requirements of City Municipal Code.

In addition, the following measures are recommended to help ensure that potential lighting impacts of the project will remain at less than significant levels:

4.1.6.4A Each Plot Plan application for development adjacent to residential development shall include a photometric plot of all proposed exterior lighting demonstrating that the project is consistent with the requirements of Section 9.08.100 of the City Municipal Code. The lighting study shall indicate the expected increase in light levels at the property lines of

adjacent residential uses. The study shall demonstrate that the proposed lighting fixtures and/or visual screening meet or exceed City standards regarding light impacts.

4.1.6.4B Each Plot Plan application for development shall include an analysis of all proposed solar panels demonstrating that glare from panels will not negatively affect adjacent residential uses or negatively affect motorists along perimeter roadways. Design details to meet these requirements shall be implemented to the satisfaction of the Planning Official.

Level of Significance after Mitigation. Light and glare impacts of the proposed project can be reduced to less than significant levels by compliance with the lighting requirements of the City Municipal Code and implementation of **Mitigation Measures 4.1.6.4A** and **4.1.6.4B.**

4.1.7 Cumulative Impacts

Significant Cumulative Impact: The proposed project, in combination with other projects in the eastern portion of the City and along SR-60 and Gilman Springs Road, would have a cumulatively significant and unavoidable impact related to views, scenic resources, night lighting, and glare in this portion of the City.

The development of the proposed project would partially obstruct views of surrounding mountain vistas from various vantage points in and around the project area. Partial view opportunities would continue to be available over future buildings, along roadways, between development areas, etc. Development of lands within the City, particularly along SR-60, would result in the cumulative conversion from open space to urbanized land uses. The proposed project would continue the development of logistics uses along the south side of SR-60 east of the City's Auto Center. The proposed project, in conjunction with other cumulative projects, would be developed in a manner consistent with existing development trends in the City. Since other projects in the area will include similar distribution uses, it can be anticipated that such uses would have a similar design and massing as the proposed project. Since the proposed project would affect views of the surrounding mountains, it is reasonable to conclude that similar warehouse distribution uses would also obstruct views of the surrounding mountains. However, the analysis in Section 4.1.6.1 determined visual impacts, though substantial, were consistent with applicable General Plan policies (Policy 7.7.4 in the Conservation Element). Based on this analysis, the proposed project, in combination with other cumulative projects in the surrounding area, will have a cumulatively significant and unavoidable impact related to aesthetics (i.e., views, scenic resources, and lighting) in this portion of the City.

The proposed, existing, and future development within the planning area will increase the amount of light and glare in the area. The cumulative lighting-related impacts of this new development would be reduced through the adherence to applicable City Municipal Code lighting standards. However, this project, in combination with the Auto Center and other approved high cube logistics developments in this portion of the City, will result in cumulatively considerable light and glare impacts, and the proposed project will make a significant contribution to that cumulative impact.

4.2 AGRICULTURAL AND FORESTRY RESOURCES: TABLE OF CONTENTS

FIGURES

TABLES

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NOTE TO READERS. *This section has been revised based on responses to comments on the Programmatic DEIR regarding calculation of and mitigation for loss of agricultural land, changes to the WLC Specific Plan, and changes to related technical studies.*

4.2 AGRICULTURAL AND FORESTRY RESOURCES

This section discusses possible agricultural and forestry resource impacts attributable to the proposed project. It describes existing agricultural resources and State farmland classifications for the project site. This section focuses on applicable State, regional, and local policies regarding agricultural resources and the conversion of farmland to non-agricultural uses.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 29 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.

The analysis contained in this section is based on the following reference documents:

- *Agricultural Mitigation Bank Memorandum*, County of Riverside Transportation and Land Management Agency, October 2, 2003.
- *Agricultural Resources Assessment for the World Logistics Center Specific Plan Draft Environmental Impact Report*, Parsons Brinckerhoff, original dated February 12, 2012, revised December 2013.
- *California LESA Model*, Agribusiness, Natural Resources & Energy Practice Group of Cushman & Wakefield Western, Inc. (C&WW). December 20, 2013.

- *A Guide to the Farmland Mapping and Monitoring Program*, California Department of Conservation, Division of Land Resources Protection, 2004 Edition.
- *California Land Evaluation and Site Assessment Model, Instruction Manual*, California Department of Conservation, Office of Land Conservation, 1997.
- *Conservation Element, City of Moreno Valley General Plan*, adopted July 11, 2006.
- Google Maps Street View, imagery dated 2007.
- *Moreno Valley General Plan Environmental Impact Report*, SCH#200091075, certified July 2006.
- *Moreno Valley Municipal Code*, Chapter 9.06, current through February 2012.
- Riverside County Integrated Project website, http://www.rcip.org/, accessed April 5, 2012.
- *Riverside County Land Use Conversions, 1998–2000, 2000–2002, 2002–2004, 2004–2006,* California Department of Conservation, Division of Land Resources Protection.
- *Riverside County 2010 Agricultural Production Report*, Riverside County Farm Bureau, 2010.
- *Soil Survey Western Riverside County Area California*, United States Department of Agriculture, November 1971.
- *An Agriculture Industry Analysis of the Inland Empire*, Andrew Chang & Company, LLC. March 12, 2012 (DEIR Appendix C).

The California Land Evaluation and Site Assessment (LESA) Model worksheets prepared for the project are included in Appendix C to this EIR (*Agricultural Resources Assessment for the World Logistics Center Specific Plan Draft Environmental Impact Report*, Parsons Brinckerhoff, original dated February 2012, revised September 2014).

4.2.1 Existing Setting

Most of the land within the project area has been utilized for agricultural purposes since the late 1880s. The area has a history of citrus production and dryland farming incorporating various agricultural activities such as frequent disking, infrequent pesticide application, and very limited irrigation. Due to a variety of local and regional economic factors, agricultural production is no longer a principal characteristic of the Moreno Valley economy.[1]

NOTE: The following changes have been made due to revision to the Specific Plan project size.

Based on the project biology study (MBA 2014) and the review of recent aerial photographs, currently approximately 2,452 acres or 94 percent of the 2,610-acre Specific Plan area is currently dry farmed, mainly with winter wheat. The remaining acreage of the Specific Plan area contains rural residences and related building/uses, and disturbed native vegetation in the northeast and southwest portions of the site.

Approximately 897 acres or 81 percent of the 1,104-acre open space properties that are owned by the State and public utility companies and located south of the Specific Plan site are in active agriculture; they are also being dry farmed primarily with winter wheat. The remaining land in this area includes disturbed native vegetation associated with Mystic Lake and public facilities, such as the two natural gas facilities.

[1] Conservation Element, City of Moreno Valley General Plan.

Adjacent to the project area, suburban residential uses are located to the west, open space and scattered rural residential uses are located to the east, and State-owned open space properties, such as the Lake Perris Recreation Area and the San Jacinto Wildlife Area, are located to the southwest and south, respectively.

4.2.1.1 State Designated Farmland

The California Government Code (Section 65570) requires the collection and reporting of agricultural land use acreage and conversion by June 30 of each even-numbered year. Utilizing data from the U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) soil survey and current land use information, the California Department of Conservation (DOC), the Farmland Mapping and Monitoring Program (FMMP)[1] compiles important farmland maps for each county within the State. Maps and statistics are produced biannually using a process that integrates aerial photo interpretation, field mapping, a computerized mapping system, and public review. These maps delineate land use in eight mapping categories (and one overlay category) and represent an inventory of agricultural soil resources within Riverside County (see Figure 4.2.1). The categories of land shown on these maps are listed below.

- **Prime Farmland:** Land that has the best combination of physical and chemical characteristics for the production of crops. It has the soil quality, growing season, and moisture to produce sustained high yields of crops when treated and managed, including water management, according to current farming methods.
- **Farmland of Statewide Importance:** Land that is similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store moisture.
- **Unique Farmland:** Land of lesser-quality soils used to produce specific high economic value crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to produce sustained high quality or high yields of a specific crop when treated and managed according to current farming methods. It is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Examples of Unique Farmland crops include oranges, olives, avocados, rice, grapes, and cut flowers.
- **Farmland of Local Importance:** Land of importance to the local agricultural economy, as determined by each county's board of supervisors and local advisory committees, i.e., dairies, dry land farming, aquaculture, and uncultivated areas with soils qualifying for Prime Farmland and Farmland of Statewide Importance.

  Farmland of Local Importance in Riverside County, including the City of Moreno Valley, is defined as:

  - Lands with soils that would be classified as Prime and Statewide Farmland but lack available irrigation water.
  - Lands planted with dry land crops of barley, oats, and wheat.
  - Lands producing major crops for Riverside County but that are not listed as Unique crops. These crops are identified as returning one million or more dollars on the 1980 Riverside County Agriculture Crop Report. Crops identified are permanent pasture (irrigated), summer squash, okra, eggplant, radishes, and watermelons.
  - Dairylands, including corrals, pasture, milking facilities, hay and manure storage areas if accompanied with permanent pasture, or hayland of 10 acres or more.

[1] A Guide to the Farmland Mapping and Monitoring Program, California Department of Conservation, Division of Land Resources Protection, 2004 Edition.

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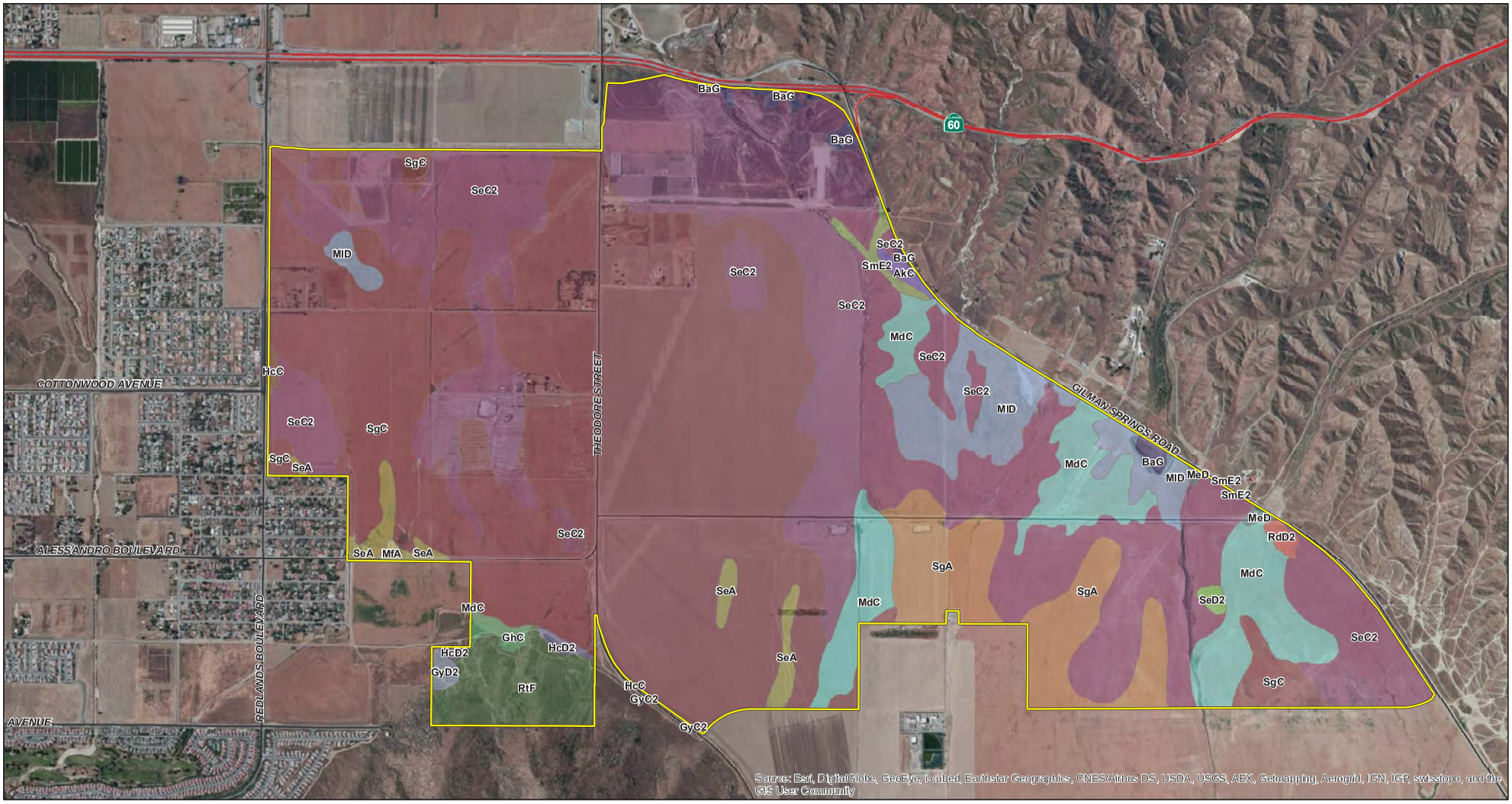

LSA

Project Boundary

Soil Classification

- AkC:Arbuckle loam, 2 - 8 % slopes
- BaG:Badland
- GhC:Gorgonio loamy sand, 0 - 8 % slopes
- GyC2:Greenfield sandy loam, 2 - 8 % slopes, eroded
- GyD2:Greenfield sandy loam, 8 - 15 % slopes, eroded
- HcC:Hanford coarse sandy loam, 2 - 8 % slopes
- HcD2:Hanford coarse sandy loam, 8 - 15 % slopes, erod ed
- MdC:Metz loamy sand, 2 - 8 % slopes
- MeD:Metz loamy sand, channeled, 0 - 15 % slopes
- MfA:Metz loamy fine sand, 0 - 2 % slopes
- MlD:Metz gravelly sandy loam, 2 - 15 % slopes
- RdD2:Ramona sandy loam, moderately deep, 8 - 15 % slopes, eroded
- RtF:Rockland
- SeA:San Emigdio fine sandy loam, 0 - 2 % slopes
- SeC2:San Emigdio fine sandy loam, 2 - 8 % slopes, eroded
- SeD2:San Emigdio fine sandy loam, 8 - 15 % slopes, eroded
- SgA:San Emigdio loam, 0 - 2 % slopes
- SgC:San Emigdio loam, 2 - 8 % slopes
- SmE2:San Timoteo loam, 8 - 25 % slopes, eroded

0 750 1,500
Feet

FIGURE 4.2.1

World Logistics Center
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Soils Map

SOURCE: ESRI, World Imagery, 2010; Soild Data Mart, 2003.

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  - Lands identified by city or county ordinance as Agricultural Zones or Contracts, which includes Riverside City "Proposition R" lands.
  - Lands planted with jojoba, which are under cultivation and are of producing age.

- **Grazing Land:** Land on which the existing vegetation, whether grown naturally or through management, is suitable for grazing or browsing of livestock.
- **Urban and Built-up Land:** Land used for residential, industrial, commercial, construction, institutional, and public administrative purposes such as railroad yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment plants, water control structures, and other development purposes. Highways, railroads, and other transportation facilities also are included in this category.
- **Other Land:** Land not included in any of the other mapping categories. Common examples include low-density rural developments, brush, timber, wetland, and riparian areas not suitable for livestock grazing, confined livestock, poultry or aquaculture facilities, strip mines, borrow pits, and water bodies smaller than 40 acres.
- **Water:** Water areas with an extent of at least 40 acres.
- **Land Committed to Nonagricultural Use:** This optional designation is an overlay to the standard farmland categories and represents existing farmland and grazing land and vacant areas that have a permanent commitment for development. Examples of Land Committed to Nonagricultural Use would include an area undergoing permanent infrastructure installation or for which bonds or assessments have been issued for public utilities. Such lands represent planning areas where there are commitments for future nonagricultural developments that are not reversible by a simple majority vote by a city council or board of supervisors.

Figure 4.2.2 details farmland designations on the project area. Approximately 2,201 acres, or 59 percent of the 3,714-acre project area, are designated as Farmland of Local Importance. Approximately 25 acres at the southeast corner of Theodore and Eucalyptus Streets are designated Unique Farmland. Imagery dated 2007 shows fallow fields with ruderal vegetation in this area, although some plowing appears to have occurred and several greenhouses stood on the site at that time.[1] Approximately 400 acres located in several areas of the project area are designated X (Other Land) with the largest acreages in the northeast corner, southwest, and south central portions of the project area. Although there are seven scattered rural residences on the project site, a "worst-case" assumption is that 2,200 acres of the WLC project site are considered Farmland of Local Importance with 25 acres classified as Unique Farmland by the State.

4.2.1.2 California Land Conservation Act (Williamson Act)

The California Land Conservation Act of 1965, also referred to as the Williamson Act, is a non-mandated State program administered by counties and cities for the preservation of agricultural land. This program enables local governments to enter into contracts with private landowners to restrict specific parcels of land to agricultural or related open space use. In return, landowners receive much lower property tax assessments than normal because the assessments are based upon farming and open space uses rather than full market value.

Participation in the program is voluntary on the part of both landowners and local governments, and it is implemented through the establishment of Agricultural Preserves and the execution of Williamson Act contracts. Individual property owners enter into a contract that restricts or prohibits development

[1] Google Maps Street View, dated 2007, viewed April 3, 2012.

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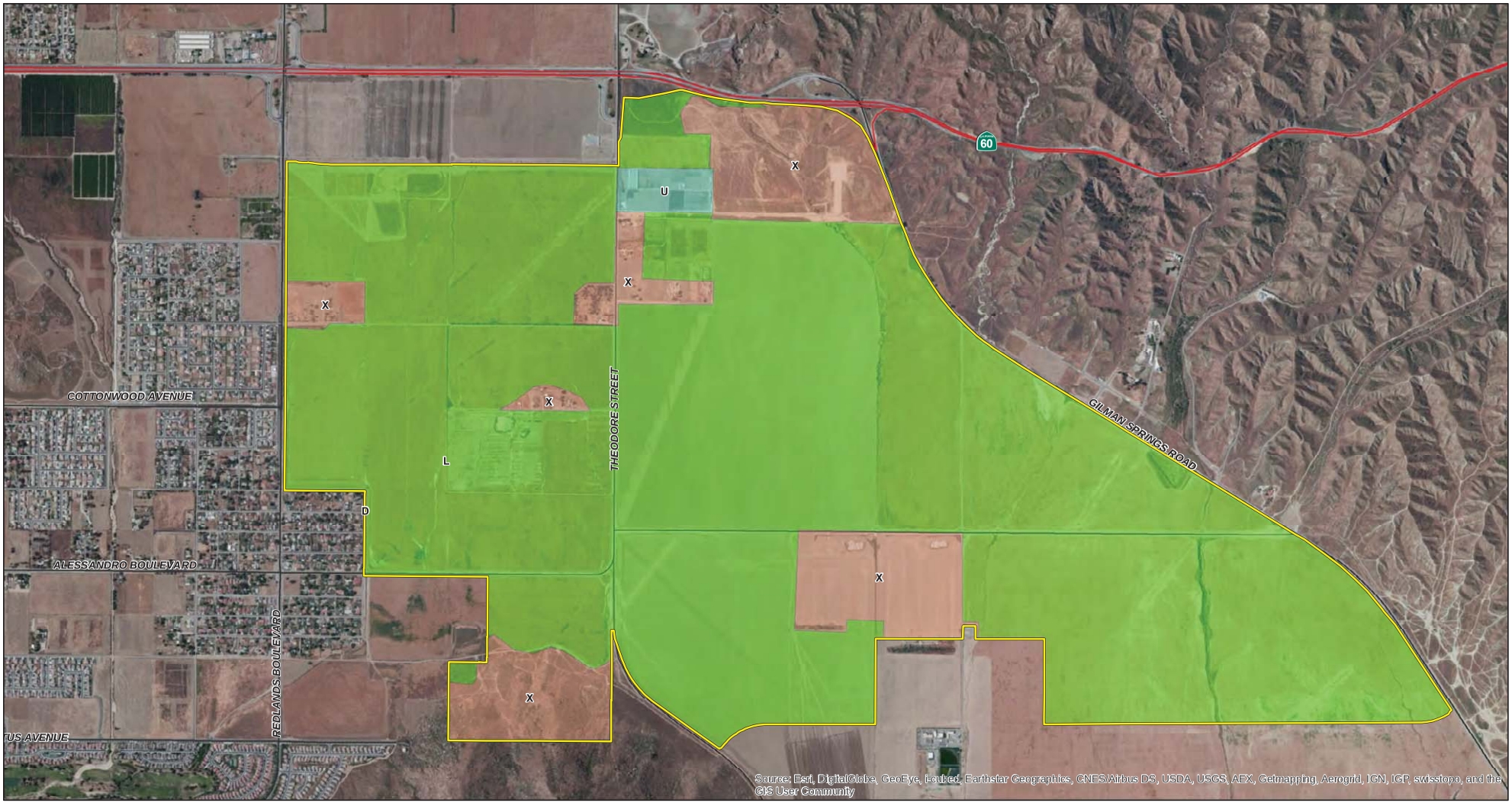

LSA

FIGURE 4.2.2

Project Boundary

Farmland

- D - Urban and Built-Up Land
- L - Farmland of Local Importance
- U - Unique Farmland
- X - Other Land

0 750 1,500
Feet

SOURCE: ESRI, World Imagery, 2010; Department of Conservation, Farmland Mapping & Monitioring Program (FMMP), 2010.

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Designated Farmland

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of their property to non-agricultural uses during the term of the contract in return for lower property taxes. Initially signed for a minimum ten-year period, the contracts are automatically renewed each year for a successive minimum ten-year period unless a notice of non-renewal is filed, or a contract cancellation is approved by the local government.

The nearest parcel that is under Williamson Act contract is approximately 1.5 miles to the southeast of the project site just west of Gilman Springs Road (see Figure 4.2.3). This property is outside of Moreno Valley city limits but within the city's sphere of influence. There are no Williamson Act Conservation contracts[1] within the project area.

4.2.1.3 General Plan, Specific Plan, and Zoning Designations

General Plan. The City's 2006 General Plan Land Use Element has no "agricultural" land use designation.[2] The EIR accompanying the City's 2006 General Plan determined that the conversion of agricultural land to nonagricultural uses throughout the City represented a significant cumulative impact. As the transition from agricultural to urban and suburban uses continues, the extent to which agriculture and supporting economic activities contribute to the economic base of the City is reduced. In its adoption of the 2006 General Plan, the City recognized that these losses were offset by the economic activities and social benefits that typically accompany urban development. In connection with the City's conclusion that a significant cumulative impact would result from implementation of the General Plan, the City adopted findings and facts and a Statement of Overriding Considerations indicating that social and economic factors outweighed the significant cumulative impacts associated with conversion of agricultural land to non-agricultural use.

Most of the project area is within the current Moreno Highlands Specific Plan and is designated for a mix of Business Park, Open Space, Residential, Commercial, Mixed Use, and Public Facilities land uses (see Section 4.10, *Land Use and Planning*). The land uses proposed in the WLCSP are Logistics Development (LD), Light Logistics (LL), and Open Space (OS).

4.2.1.4 NOP/Scoping Comments

During the NOP/scoping process, some local residents expressed concern over the loss of agricultural land on the project site.

4.2.2 Existing Policies and Regulations

4.2.2.1 City of Moreno Valley General Plan Policies

The City of Moreno Valley's General Plan does not designate any land for agricultural production or preservation, but growing crops is permitted in all of the City's zoning categories. Where practical, the City encourages incorporation of crops, such as existing tree groves, into the design of proposed development projects allowing continuation of the agricultural character of the area as well as providing a buffer between different types of land uses.

The following City General Plan goals and policies pertain to and are applicable to the proposed project.

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1 Department of Conservation, FMMP, 2008.
2 City of Moreno Valley General Plan, adopted July 2006.

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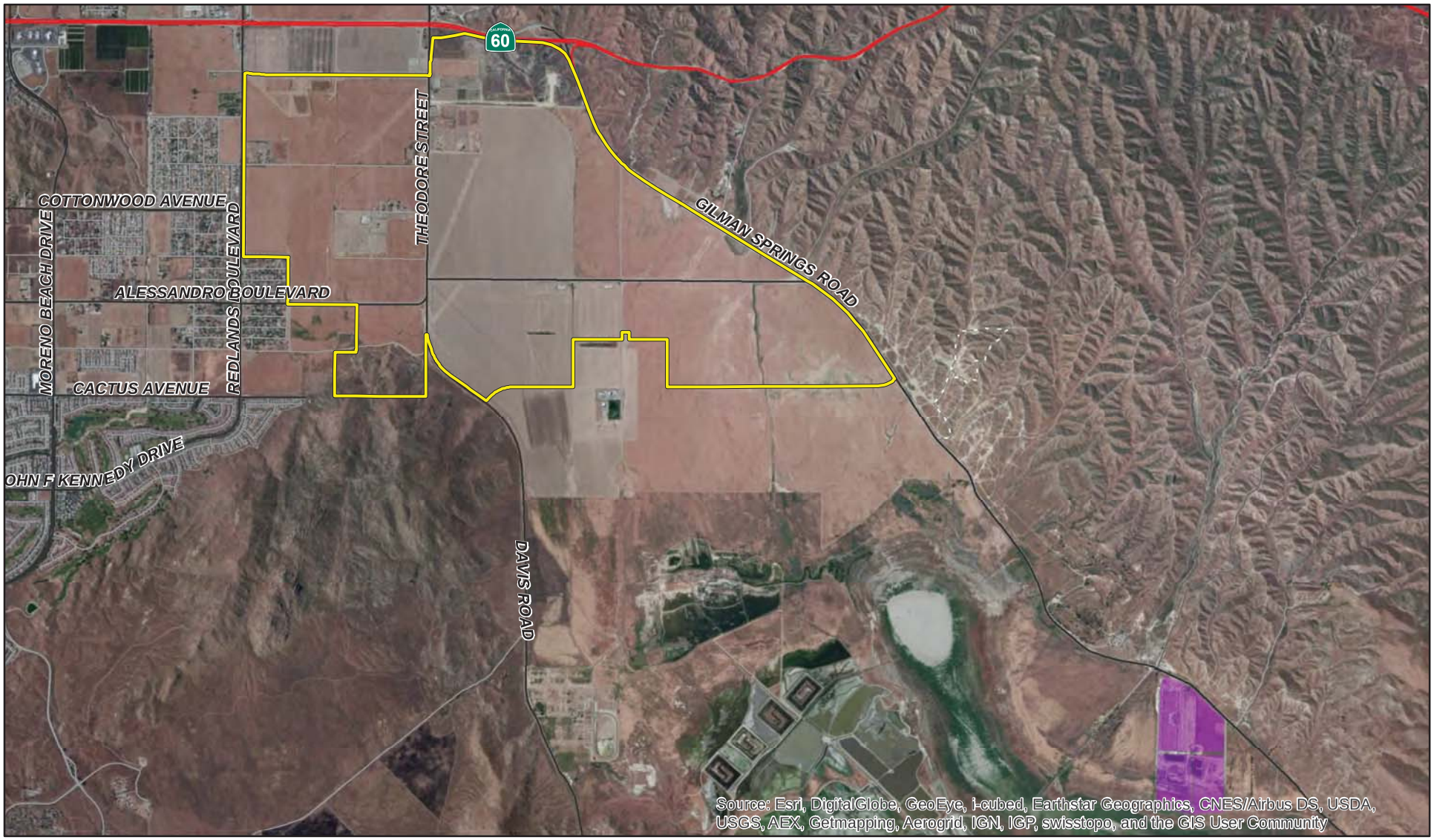

LSA

FIGURE 4.2.3

Project Boundary

Williamson Act Land

N

0 2,000 4,000

FEET

SOURCE: ESRI, World Imagery, 2010; Riverside County, 2008.

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World Logistics Center Specific Plan Project
Environmental Impact Report

Offsite Williamson Act Land

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9.1 Ultimate Goals

VIII. Recognize the need to conserve natural resources while accommodating growth and development.

9.4.2 Parks, Recreation, and Open Space Element Objectives and Policies

Objective 4.1 Retain agricultural open space as long as agricultural activities can be economically conducted, and are desired by agricultural interests, and provide for an orderly transition of agricultural lands to other urban and rural uses.

4.2.3 Thresholds of Significance

Appendix G of the *CEQA Guidelines* recognizes the following significance thresholds related to agricultural resources. Based on these significance thresholds, potential impacts to agricultural resources could be considered significant if the proposed project would:

- Conflict with existing zoning for agricultural use, or a Williamson Act contract;
- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g]);
- Result in the loss of forest land or conversion of forest land to non-forest use;
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use; and/or
- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program (FMMP) of the California Resources Agency, to non-agricultural use.

4.2.4 Methodology

The methodological analysis underlying this section of the EIR consists of the following:

- First, analyze the FMMP data to determine if portions of the 3,714-acre project area are designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.
- Second, evaluate the current General Plan land use designations, Specific Plan proposal, and zoning applicable to the site to determine the existence of any conflicts between the project and any potential existing agricultural General Plan and zoning designations applicable to the site.
- Finally, use the California Land Evaluation and Site Assessment (LESA) model, developed by the State Department of Conservation, as a guide to quantify any potential impacts the proposed project may have on agricultural resources. Utilization of the LESA model is currently considered to be the most reliable method by which to determine a project's potential impacts on agricultural resources.

In the late 1980s and the early 1990s, the DOC and the State Legislature began exploring ways by which local agencies could analyze the specific impacts of local projects related to the conversion of farmland in a manner that was consistent throughout the State. At that time, reference to the FMMP maps was the only widely utilized methodological approach to analyzing conversion impacts. Oftentimes, the FMMP maps were outdated and/or did not contain specific data on local conditions that could better assess whether local land contains viable farmland. Federal and State agencies were and are cognizant of the fact that determining the true significance of agricultural conversions is

a function of understanding the specific characteristics affecting a particular site proposed for conversion. In order to create a more site-specific methodological approach to assessing agricultural impacts, following the preparation of several State and Federal studies, the DOC developed the LESA model as an optional method by which local agencies could assess the impacts of land conversion on agricultural resources. (See, e.g., Stats. 1993, Ch. 812; Pub. Res. Code § 21095; California Agricultural Land Evaluation and Site Assessment Model, Instruction Manual, 1987.) Because of its use of localized input factors, the LESA model is generally recognized as the preferred methodological tool to assess the significance of a proposed project's impacts on agricultural resources.

4.2.5 Less than Significant Impacts

The following potential impacts were determined to be less than significant. In each of the following issues, either no impact would occur or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level. In either instance, no mitigation would be required.

4.2.5.1 Forest Land Zoning

Threshold	Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

According to the California Department of Forestry and Fire Protection, there are no areas designated as forest land or timberland on the project site. Therefore, no significant impacts would occur from the implementation of the project.

4.2.5.2 Loss or Conversion of Forest Land

Threshold	Would the project result in the loss of forest land or conversion of forest land to non-forest use?

There are no areas of forest lands on the project site. Therefore, no significant impacts would occur from the implementation of the project.

4.2.5.3 Existing Zoning and Williamson Act

Threshold	Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?

NOTE: The following changes have been made due to revision to the Specific Plan project size.

While some portions of the 3,714-acre project site are currently used for agriculture, there are no Williamson Act contracts (see previously referenced Figure 4.2.3) on either the project site or any adjacent properties. Because the project would not conflict with any Williamson Act contracts, the impacts related to this issue would be less than significant and no mitigation is required.

The following changes have been made due to revision to the Specific Plan project size. There are no agricultural zones identified on the 3,714-acre project site or on any of the surrounding properties.[1] However, agriculture is allowed in most areas of the City as an interim land use until it is replaced by development. The project site is not zoned for agricultural uses, so implementation of the proposed project would not conflict with existing zoning for agricultural uses. Agriculture is a permitted use in all areas of the proposed Specific Plan. In the absence of a significant impact, no mitigation is required.

It should be noted that the CDFW Conservation Buffer Area within the SJWA, which is immediately south of the Specific Plan site, is currently being used for agriculture. For additional analysis of the CDFW Conservation Buffer Area, see Section 4.4, *Biological Resources*, and 4.9, *Water Resources*.

General Plan Consistency. The following evaluates the proposed project in relation to the City's General Plan goals and objectives relative to agriculture:

9.1 Ultimate Goals

Goal VIII. Recognize the need to conserve natural resources while accommodating growth and development.

Consistency: With mitigation outlined in Section 4.1, *Aesthetics*, the Specific Plan will allow for preservation of the most prominent existing visual resources in this portion of the City, but will result in the removal of agricultural fields to support the proposed development of logistics warehousing. Therefore, the project is consistent with this goal and no mitigation is needed.

9.4.2 Parks, Recreation, and Open Space Element Objectives and Policies

Objective 4.1 Retain agricultural open space as long as agricultural activities can be economically conducted, and are desired by agricultural interests, and provide for an orderly transition of agricultural lands to other urban and rural uses.

Consistency: The project will eventually result in the loss of agricultural land within the Specific Plan area but will allow for the permanent designation of open space within the "other project areas" south of the Specific Plan area, which are currently dry farmed. Therefore, the proposed project is consistent with this objective and no mitigation is needed.

4.2.6 Significant Impacts

Impacts of the project on agricultural resources have been determined to be significant based on two significance thresholds.

4.2.6.1 Farmland Conversion

Impact 4.2.6.1: *Construction of the proposed project would convert 25 acres of Unique Farmland as identified by the State of California to non-agricultural uses.*

Threshold	Would the project result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural land use?

[1] *Land Use Map, Land Use Designations,* City of Moreno Valley General Plan, July 2006.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

Approximately 25 acres of the project site are designated Unique Farmland. Under the proposed Specific Plan, this land will eventually be converted to non-agricultural use, which would result in a significant and unavoidable impact relative to "designated" farmland conversion. In addition, the project would result in the conversion of 2,585 acres of land designated as Farmland of Local Significance within the Specific Plan area (total 2,610 acres total minus 25 acres of Unique Farmland and 384.0 acres designated as Other). The 1,104 acres of open space and utility lands south of the Specific Plan site are not proposed for development and it is expected they will remain in their existing condition (i.e., dry farming).

Project or Specific Plan Design Features. Section 12.5 of the Specific Plan contains a "right to farm" provision that will allow farming to continue on vacant land within the WLCSP until such time as it converts to developed uses. This provision will help protect onsite farming from "nuisance" claims by new landowners or tenants (e.g., dust and noise).

Mitigation Measures. Consideration was given to the contribution to an agricultural mitigation bank as potential project-related mitigation. The County of Riverside considered the establishment of an Agricultural Mitigation Bank to mitigate the loss of farmland during the adoption process of the Riverside County General Plan in 2003; however, purchase of credits in such a bank to mitigate the loss of agricultural lands as part of the Draft EIR for the County General Plan (refer to Mitigation Measures 4.2.2A, B, and C in the Draft EIR of the Riverside County Integrated Project) were specifically removed from the General Plan during the public hearings on the General Plan.[1] Since potential mitigation for regional loss of agriculture has already been considered and rejected by the County, such mitigation would be even more infeasible on a citywide basis.

The DEIR originally contained the following text. In 2009, a regional agricultural conversion report was prepared by CBRE Consultants[2] for an unrelated development project in the City of Perris and a similar study was prepared in 2011 for this project by Andrew Chang and Company (ACC 2012). The ACC[3] and CBRE reports both concluded that the agriculture industry will continue to decline in the Inland Empire and identified three main reasons for the decline: 1) the more affordable housing market in the region compared to Los Angeles and Orange Counties, 2) the competition for cheaper farm labor from areas like the South Central Valley, and 3) lower water allocations to agriculture because of the growing urban population that receives priority for the water. The reports also noted that the agriculture industry within the Inland Empire is very small, making up only 4.1 percent of California's total agricultural industry and only 1 percent of the regional economy in 2010. There is a clear pattern of agricultural decline from 2006 to 2010. Over these four years, 24,000 acres of farmland were removed in the Inland Empire to make way for urban land uses. Agricultural production levels were 28 percent lower in 2010 than they were in 2004. The combination of the small size of the Inland Empire's agricultural industry and the three key economic constraints caused these studies to conclude that the agriculture industry in the Inland Empire is in decline. The ACC report concluded that the agriculture industry within the Inland Empire will become less competitive and continue to decline regardless of whether or not this project is developed. Under these circumstances, no mitigation that would artificially preserve or prolong agricultural activities (i.e., other than current market forces) in the project area and/or on the project site would be feasible or necessary.

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1 Riverside County Integrated Project website, http://www.rcip.org/, accessed April 5, 2012.
2 Economic Viability of Agriculture in the East Inland Empire. CBRE Consulting. 2009.
3 Agriculture Industry Analysis of the Inland Empire, Andrew Chang and Company, 2012.

The DEIR originally concluded there were no feasible mitigation measures to preserve agriculture over the long term on the project site in a regional context; however, the following Mitigation Measure 4.2.6.1A was recommended to preserve a part of the local heritage of farming for the Moreno Valley community for future generations:

Subsequent to circulation of the DEIR, it was determined that the new mitigation measure outlined below would sufficiently mitigate the loss of Unique Farmland, and so Mitigation Measure 4.2.6.1A for a "heritage farm" was no longer required.

The following mitigation measure has been added to the EIR in Response to Comment F-3-27 in Letter F-3 from California Clean Energy Committee, Comments F-7A-9, F-7A-39, and F-7A-63, in Letter F-7A from Lozeau Drury LLP, Response to Comment F-9A-43 in Letter F-9A from the Sierra Club, Response to Comment F-11-34 in Letter F-11 from the Sierra Club, Response to Comment F-13-06 in Letter F-13 from the Sierra Club et al, and related comments from others. The Response to Comment F-7A-39 outlines the changes made to the agricultural resources assessment for the project (FEIR Volume 2 Appendix C-2). In addition, a new MM 4.2.6.1A has been added to the FEIR Volume 2 requiring the acquisition of a conservation easement be recorded over land of comparable productive value to preserve offsite farmland or equal or more agricultural productivity compared to the unique farmland (refer to Response to Comment F-7A-39). It should be noted that the revised agricultural assessments determined the loss of farmland of local importance was in fact not significant under CEQA based on the results of the revised LESA model (see FEIR Volume 2 Appendices C-1 and C-4 for more information).

4.2.6.1A Prior to the issuance of any grading permit affecting land designated as "Unique Farmland" (Figure 4.2.2 in the World Logistics Center Environmental Impact Report), an Agricultural Conservation Easement shall be recorded over land of equivalent or better agricultural economic productivity of the offsite easement property compared to the World Logistics Center property. The analysis will include a comparison of the project's "Unique Farmland" considering its relative economic potential as the best measure of productivity (i.e., net profitability per acre or potential net rental income per acre). It will include a consideration of various important physical factors including location and accessibility, soils and topography, micro and macro climatic conditions, water availability and quality, as well as local practices, good farm management and cultural (growing) costs. The form and content of this easement, as well as the estimates of agricultural productivity, shall be reviewed and approved in advance by the Planning Official.

Level of Significance after Mitigation. The eventual conversion of 25 acres of Unique Farmland is a significant impact of the project resulting from the basic project objectives. However, implementation of the additional Mitigation Measure 4.2.6.1A will reduce this impact to a less than significant level.

4.2.6.2 Conversion of Farmland to Non-Agricultural Uses

Impact 4.2.6.2: *The project would convert approximately 2,226 acres of land currently being farmed, which includes 2,201 acres of land designated as Farmland of Local Importance, to non-agricultural uses.*

Threshold	Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use, or conversion of forest land to non-forest use?

In addition to the FMMP designations, Riverside County has established a program through which it classifies various land within the County as Locally Important Farmland. While the County has

established criteria by which Locally Important Farmland is categorized, a small portion of that land has been so designated due simply to the historical use of the land.

The factors used by Riverside County to define Locally Important Farmland are as follows:

- Lands with soils that would be classified as Prime and Statewide Farmland but lack available irrigation water.
- Lands planted with dry land crops of barley, oats, and wheat.
- Lands producing major crops for Riverside County but that are not listed as Unique crops. These crops are identified as returning one million or more dollars on the 1980 Riverside County Agriculture Crop Report. Crops identified are permanent pasture (irrigated), summer squash, okra, eggplant, radishes, and watermelons.
- Dairylands, including corrals, pasture, milking facilities, and hay and manure storage areas if accompanied with permanent pasture or hayland of 10 acres or more.
- Lands identified by city or county ordinance as Agricultural Zones or Contracts, which includes Riverside City "Proposition R" lands.
- Lands planted with jojoba which are under cultivation and are of producing age.

The majority of the proposed project site is currently designated Farmland of Local Importance by the County. None of the above factors supports maintaining the property as farmland; it is likely that the property was designated as Locally Important Farmland based simply on the agricultural uses that at one time existed on the property. The County's maps do not reflect the City's General Plan Land Use Map, which shows no agricultural designations in the City.

NOTE: The following changes have been made in response to Comment G-95-54 in Letter G-95 from Thomas Thornsley.

Implementation of the project would result in the permanent conversion of approximately 2,226 acres currently used for dry farming to non-agricultural uses. While this could have an effect on accelerating the loss of other existing agricultural land, the state conservation lands to the south could be continued for agricultural production. Likewise, there is no other agricultural use in the Zone of Influence (term used in the State LESA Model) and a majority of the land in that zone is vacant (i.e., in the Badlands to the east and portions of the San Jacinto Wildlife Area and the Lake Perris State Recreation Area to the south). The conversion of agricultural lands to urban uses is supported by the City's General Plan policies, as discussed above. The entire project site and adjacent lands have been designated for urban uses for nearly 20 years by the City. Nevertheless, much of the Specific Plan area is designated Farmland of Local Importance and will be permanently converted to non-agricultural urban uses. Therefore, the project will cause significant, unavoidable impacts related to conversion of locally important farmland (see previously referenced Figure 4.2.2).

The farming that is currently conducted on the CDFW property south of the Specific Plan area is expected to continue for the foreseeable future. The existing vacant land adjacent to the SDG&E compressor plant property is not currently being farmed, but is expected to remain vacant for the foreseeable future.

The following information was added to the LESA Model analysis in Response to Comment F-7A-39 and related comments by others, and also due to changes in the two technical studies on agricultural resources (FEIR Volume 2 Appendices C-1 and C-4).

The LESA Model. The conversion of agricultural land to non-agricultural uses is a result of various economic and demographic factors. Increased costs for water and a continuing demand for housing and commercial development in the City and region have provided the primary impetus for this agricultural land conversion. Although the project results in a significant impact related to the conversion of farmland to non-agricultural use, this EIR also refers to the State LESA model as an analytical tool by which the project's impacts on agricultural conversion can be assessed, and to further gauge the level of significance of that farmland conversion. Appendix G of the *CEQA Guidelines* states as follows: "In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation (DOC) as an optional model to use in assessing impacts on agriculture and farmland." [1] Further, the LESA model was specifically created by the DOC in order to provide "specific guidance concerning how agencies should address farmland conversion impacts." Because of its use of localized inputs as part of the model, the LESA model is generally considered the preferred methodological tool by which to assess the significance of a proposed project's impacts related to agricultural resources.

The LESA model is intended to provide lead agencies with a methodology to identify potentially significant impacts that may result from agricultural land conversions. The model is a method of rating the relative quality of land resources and potential impacts to agricultural resources.

The LESA Model uses six different factors (two based on soil resource quality and four based on on-site and adjacent land characteristics) to develop a weighted score that identifies the significance of potential impacts to agricultural resources. The Land Evaluation (LE) scoring utilizes two soil factors. The Land Capability Classification (LCC) indicates the suitability of soils for most kinds of crops and the risk of damage when they are used in agriculture, while the Storie Index provides a numeric rating (0–100) of the relative degree of suitability or value of a given soil for intensive agriculture. The Site Assessment (SA) scoring considers the size of the site to be converted, water supply restrictions in drought and non-drought years, and the presence (or absence) of adjacent agricultural, habitat, or parkland uses.

By assessing and weighing a variety of soil, water, and land use characteristics, it is possible that the conversion of a large parcel containing poor soils and with limited access to water would not result in a significant impact, while the conversion of a much smaller well-watered parcel with quality soils could be considered significant. To ensure potential impacts to adjacent agricultural activities are appropriately considered, the LESA model requires an examination of land use on all parcels within a Zone of Influence (ZOI) that extends a minimum 0.25 mile from the boundary of the site. For any site evaluated using the LESA model, the factors are rated, weighed, and combined, resulting in a single numeric score that becomes the basis for determining a project's potential significance.[2]

WLC Project Assessment

DEIR Assessment. To assess potential agricultural resource impacts that may result from development of the proposed site, the LESA model was run as part of the original DEIR for the entire 3,818-acre project area.[3] The total LESA score for the project is 63.51, which is considered significant unless the LE and SA sub-scores fall below 20 (see Table 4.2.A). The LE sub-score is 43 and the SA sub-score is 20.5, indicating a significant impact. The worksheets detailing the variables considered

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1 *California Land Evaluation and Site Assessment Model*, Instruction Manual, State of California Department of Conservation, Office of Land Conservation, 1997.

2 *California Land Evaluation and Site Assessment Model*, Instruction Manual, State of California Department of Conservation, Office of Land Conservation, 1997.

3 *Agricultural Resources Assessment for the World Logistics Center Specific Plan Draft Environmental Impact Report*, Parsons Brinckerhoff, February 2012.

during the evaluation of each site are included in the *Agricultural Resources Assessment for the World Logistics Center Specific Plan* (DEIR Appendix C). This was the conclusion of the DEIR that was circulated for public review.

Table 4.2.A: LESA Model Significance Determination

Total LESA Score	Scoring Decision
0–39 Points	Not considered significant
40–59 Points	Considered significant *only* if LE and SA sub-scores are each *greater* than or equal to 20 points
60–79 Points	Considered significant *unless* either LE or SA sub-score is *less* than 20 points
80–100 Points	Considered significant

Source: California Land Evaluation and Site Assessment Model, Instruction Manual, State of California Department of Conservation, Office of Land Conservation, 1997.

Revised WLCSP Assessment. In response to comments regarding agricultural impacts, the LESA Model assessment prepared by Parsons Brinckerhoff (PB)(DEIR Appendix C-1) was revised to account for the smaller WLCSP project site (2,610 acres instead of 2,710 acres) and delete the CDFW Conservation Buffer Area, and to address Response to Comment F-7A-39 and related comments by others. In addition, an independent analysis was conducted on the subject by the Agribusiness, Natural Resources & Energy Practice Group of Cushman & Wakefield Western, Inc. (C&WW). Part of their analysis included the preparation of a LESA Model report to validate assumptions made in the DEIR. The revised PB analysis (FEIR Volume 2 Appendix C-1) and the new C&WW analysis (FEIR Volume 2 Appendix C-4) both determined the WLC project impact on agricultural resources is not considered significant because both the LE and SA sub-scores were less than 20 points (the revised PB report indicated an SA score of 19.5 while the new C&WW report indicated an SA score of 18.5), so mitigation is not required for this impact (i.e., **"**Conversion of Farmland to Non-Agricultural Uses"). In addition, Mitigation Measure 4.2.6.1A has been added to address the WLC project's contribution to loss of agricultural resources in western Riverside County.

Project or Specific Plan Design Features. There are no features included in the Specific Plan that address the loss of agriculture on the project site.

Mitigation Measures. As stated above, consideration was given to the contribution to an agricultural mitigation bank as potential project-related mitigation. However, the County, through the adoption of its General Plan, determined that contribution to an agricultural mitigation bank is not feasible and the City of Moreno Valley followed suit in the adoption of its General Plan. **Mitigation Measure 4.2.6.1A** will help reduce impacts to agricultural resources, but development of the Specific Plan site will eventually remove 2,226 acres of locally important farmland from production, and this is considered a significant long-term impact.

Level of Significance after Mitigation. The DEIR concluded that there was no feasible mitigation to reduce the significant impacts resulting from the loss of agricultural land to a less than significant level. However, implementation of, **Mitigation Measure 4.2.6.1A,** to establish an off-site agricultural conservation easement, would mitigate the conversion of agricultural land, to non-agricultural uses. With implementation of these measures, project impacts to agricultural resources are reduced to less than significant levels.

4.2.7 Cumulative Impacts

Significant Cumulative Impact: *Riverside County has experienced a net loss of Unique Farmland over the most recent 2-year reporting period. The project contributes to the cumulative impacts of this net loss by removing an additional 25 acres of Unique Farmland from potential agricultural production in this portion of the County. In addition, it will eventually remove 2,201 acres of land that is designated as Farmland of Local Importance (including all of the land currently being dry farmed, in the project area, from potential agricultural production in this portion of the County.*[1]

The DOC Office of Land Conservation publishes a Farmland Conversion Report every two years as part of its FMMP. These reports document land use conversion by acreage for each California county. The most recent data are for the 2008–2010 period,[2] during which Riverside County experienced a net loss of 3,300 acres of Prime Farmland, 567 acres of Farmland of Statewide Importance, and 1,742 acres of Unique Farmland. The amount of Important Farmland inventoried in Riverside County during the last countywide survey of farmland totaled 428,989 acres.

The cumulative area for agricultural resource impacts is Riverside County. As detailed in Table 4.2.B, the agricultural acreage inventoried in Riverside County by the FMMP has declined in each of the five past reporting cycles. The total planted acreage in Riverside County has fluctuated during the past five years (Table 4.2.C).

Table 4.2.B: Agricultural Acreage Inventoried

	Reporting Period				
	2010	2008	2006	2002	2000
Riverside County	428,989	433,877	444,455	479,278	609,535

Note: Though designated agricultural land, acreage may not necessarily be planted or otherwise used for agricultural uses.
Source: Table A-25 Riverside County 2008-2010 Land Use Conversion, California Department of Conservation, 2012.

Table 4.2.C: Planted Acreage

	Reporting Period				
	2010	2009	2008	2007	2006
Riverside County	209,913	202,066	246,012	214,050	216,219

Source: Riverside County 2010 Agricultural Production Report, 2010.

While agricultural land is a finite resource, the City, through its designation of the site for non-agricultural urban uses in its General Plan, has previously considered that continuing development pressures in the City and region would result in the conversion of agricultural land to non-agricultural uses. The utilization of the property sites for agricultural activity would impede the City from achieving the goals and objectives set forth in its General Plan.

As explained previously, the CBRE and the ACC reports concluded that the agriculture industry within the Inland Empire will become less competitive and continue to decline whether or not the proposed project is developed. Under these circumstances, no mitigation that would artificially preserve or prolong agricultural activities (i.e., other than current market forces) in the project area would be feasible or effective over the long term.

1 Revision made in response to Comment G-95-57 in Letter G-95 from Thomas Thornsley.

2 Table A-25 Riverside County 2008–2010 Land Use Conversion, Farmland Mapping and Monitoring Program, California Department of Conservation Division of Land Resource Protection, http://redirect.conservation.ca.gov/dlrp/fmmp/county_info_results.asp; website accessed April 4, 2012.

The continuation of agricultural operations on site over the long term is likely not economically viable. The County continues to experience a net loss of Unique Farmland and Farmland of Local Importance, and the development of the project would contribute to the countywide net loss of designated farmland. However, with implementation of Mitigation Measure 4.2.6.1A, the WLC project will not make a significant contribution to cumulative agricultural impacts in western Riverside County.

4.3 AIR QUALITY: TABLE OF CONTENTS

FIGURES

TABLES

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NOTE TO READERS. *This section has been revised to reflect changes from the original DEIR as a result of the following:*

- *Reduction of the project size by 100 acres and 1 million square feet of building space from the Specific Plan (in the southwest corner);*
- *Commensurate changes to the Traffic Impact Assessment (TIA, see Section 4.15);*
- *Updated trip lengths based on the revised TIA;*
- *Updated CalEEMod computer program with updated emission factors;*
- *Revised mitigation in response to comments;*
- *Change in project construction phasing (from 10 to 15 years);*
- *Updated EMFAC2014 emission factor model;*
- *Updated OEHHA health risk methodology; and*
- *Use of the latest Health Effects Institute (HEI) research that demonstrates that new technology diesel exhaust does not cause cancer.*

In January 2015, the results of a 5½-year study, led by the Health Effects Institute, were published regarding the health effects of new technology diesel exhaust and particularly the risk of cancer from exposure to diesel exhaust. The study found that new technology diesel exhaust does not cause cancer.

The HEI study distinguishes between older Traditional Diesel Engines (TDE) (exhaust from engines that are older than model year 2007) and new technology diesel exhaust (NTDE) (exhaust from engines model year 2007 or newer), which is 90-99% cleaner than TDE. The revised mitigation measures contained in this section require that all diesel trucks accessing the project during operation be model year 2010 or newer and that all off-road equipment meet Tier 4 engine standards. The results of the HEI Study indicate that the project mitigation requiring the application of Model Year 2010 engines as well as the use of Tier 4-compliant off-road construction equipment are not expected to result in emissions that would be associated with the formation of cancer in exposed individuals.

The DEIR contained an air quality analysis prepared before the release of the HEI study. As a result, the DEIR analysis assumed that any diesel exhaust, including NTDE, could cause cancer. For comparison to the DEIR, the following discussion analyzes the health risks which would occur if NTDE could cause cancer, which, as noted above, it does not. This is only for informational purposes and does not reflect the health risks associated with the World Logistics Center project.

HEI is an independent, non-profit research institute funded by the U.S. Environmental Protection Agency (EPA) and industry, and supported by the California Air Resources Board (CARB), the U.S. Federal Highway Administration, the US Department of Energy, Engine Manufacturers Association, American Petroleum Institute and the Coordinating Research Council to provide credible, high quality science on air pollution and health for air quality decisions.

These changes also resulted in updates to the traffic and air quality technical studies and proposed mitigation measures In addition, this section has been revised in response to public comments received on the Programmatic DEIR.

4.3 AIR QUALITY

This section analyzes the proposed project's potential air quality impacts and provides a discussion of the proposed project, the physical setting of the project area, and the air quality regulatory framework. The air quality analyses evaluate potential air quality impacts by examining the short-term construction as well as long-term operational impacts associated with the project and by evaluating the effectiveness of the identified mitigation measures. Modeled air quality levels are based upon vehicle data and project trip generation included in the project's *Traffic Impact Analysis* and peak turn volumes generated for the proposed project combined with emission factors from the CARB. The evaluation was prepared in accordance with appropriate standards, utilizing procedures and methodologies as recommended by the South Coast Air Quality Management District (SCAQMD), the California Office of Environmental Health Hazards Assessment (OEHHA), and CARB. Air quality data posted by the SCAQMD, CARB, and the EPA web sites are included to document the local air quality environment and are incorporated herein by reference.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 29 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.

The analysis contained in this section is based on the following technical studies prepared for the proposed project:

- *Air Quality, Greenhouse Gas, and Health Risk Assessment Report* (Michael Brandman Associates – First Carbon Solutions [MBA-FCS], original dated January 29, 2013 and revised April 2015) contained in Appendix D of this EIR; and
- *Traffic Impact Analysis Report, The World Logistics Center,* (Parsons Brinkerhoff, Inc., original dated January 28, 2013 and revised September 2014) contained in Appendix L of this EIR.

In addition to these project-specific technical studies, the analysis contained in this section is also based on the following reference documents:

- *CEQA Air Quality Handbook,* South Coast Air Quality Management District, 1993;
- *Final EIR City of Moreno Valley General Plan*, July 2006;
- *Conservation Element*, City of Moreno Valley General Plan, adopted July 11, 2005;
- *Final 2012 Air Quality Management Plan,* South Coast Air Quality Management District ;
- Health Effects Institute, 2015: HEI Research Report 184, Advanced Collaborative Emissions Study (ACES); Lifetime Cancer and Non-Cancer Assessment in Rats Exposed to New-Technology Diesel Exhaust, January, 2015; and
- Other reference material, as cited herein and in the *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*.

4.3.1 Existing Setting

The project site is located in the South Coast Air Basin (Basin), a geographic area that encompasses the coastal plain and connecting broad inland valleys and low hills. The Pacific Ocean forms the southwestern border of the Basin, with mountain ranges forming the remainder of the border. The Basin includes Orange County and the non-desert portions of Los Angeles County, Riverside County, and San Bernardino County. The Basin is under the jurisdiction of the SCAQMD.

Note: The following text has been added to help the reader better understand the complex topic of air quality.

The air quality in the air basin has been steadily improving over the last couple of decades as measured in air pollutant concentrations by the SCAQMD. A concentration of a pollutant is a measure of the amount of a pollutant in the air. Some pollutants are measured in parts per million (ppm) and some are measured in micrograms per cubic meter ($\mu g/m^3$).

When sensitive people, such as children, pregnant women, and the elderly, breathe in air pollutants, they can experience health effects. These health effects differ based on the type of pollutant, the length of time someone is exposed, pre-existing health conditions, and the concentration of the pollutant. In general, health effects can include coughing, sore throat, chest pain, difficulty breathing, eye irritation, reduced lung function, asthma aggravation, chronic lung diseases, cancer, and lung damage.

Federal, state, and local agencies enact rules and regulations to reduce air pollutant emissions to protect the health of sensitive individuals. The EPA sets federal ambient air quality standards and the CARB sets state ambient air quality standards. When concentrations of pollutants exceed the standards, sensitive individuals may experience health effects.

Ozone is a pollutant formed in the air when emissions of volatile organic compounds (VOC) and nitrogen oxides (NOx) combine in the presence of sunlight. Ozone is a pollutant of concern in the air basin because ozone levels exceed the ozone standards.

As shown in Figure 4.3.1, ozone concentrations in the basin have generally decreased over the past twenty years for 1-hour and 8-hour averaging time periods as defined by the State and/or federal ambient air quality standards. The 1-hour and 8-hour concentration refers to the average of the concentration over a 1-hour and 8-hour time period, respectively.

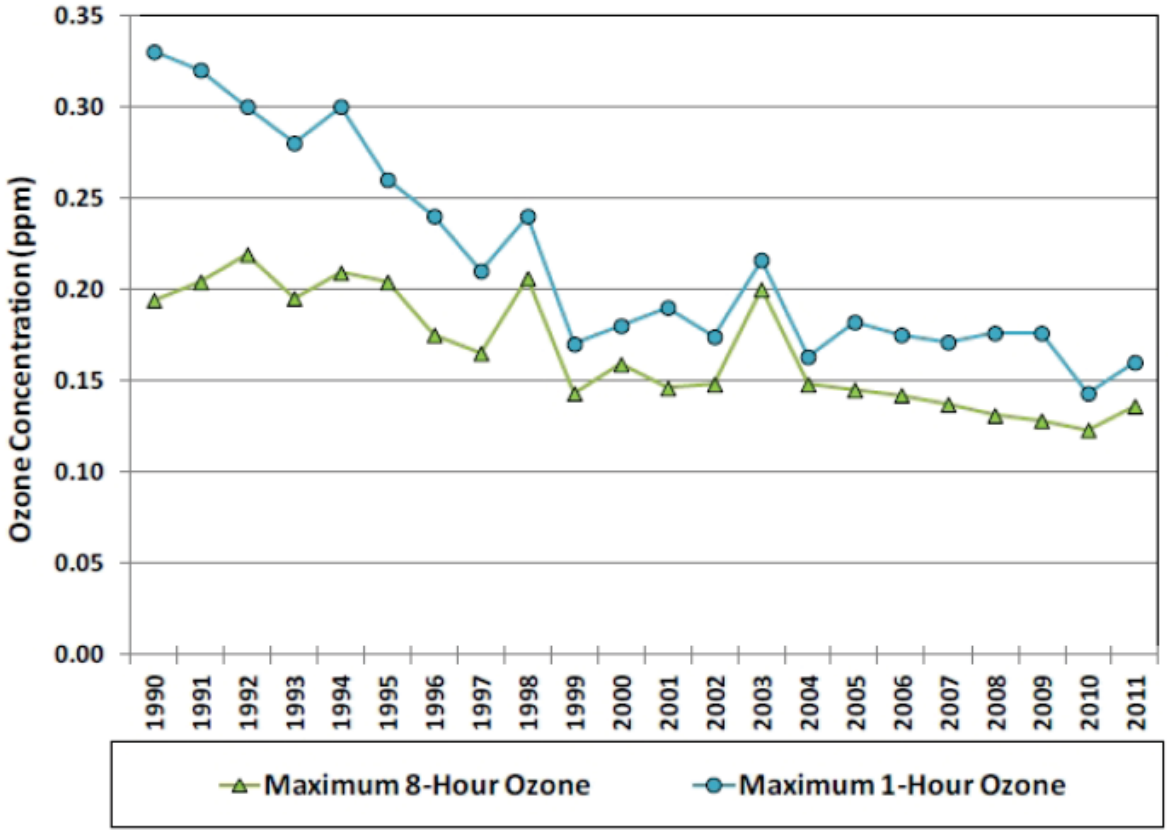

Figure 4.3.1: Ozone Concentration Trends in the South Coast Air Basin

As shown in Figure 4.3.2, the main source of NOx and VOC emissions in the basin are from on-road motor vehicles, not from the operation of buildings. Although vehicle miles traveled in the basin continue to increase, ozone concentrations are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with cleaner and lower-emitting vehicles. VOC and NOx are ozone precursors; therefore, if those emissions decrease, it follows that ozone concentrations would also decrease.

Emissions of NOx in the air basin are expected to decrease in the future despite future growth in population, and vehicle miles traveled, as shown in Figure 4.3.3.

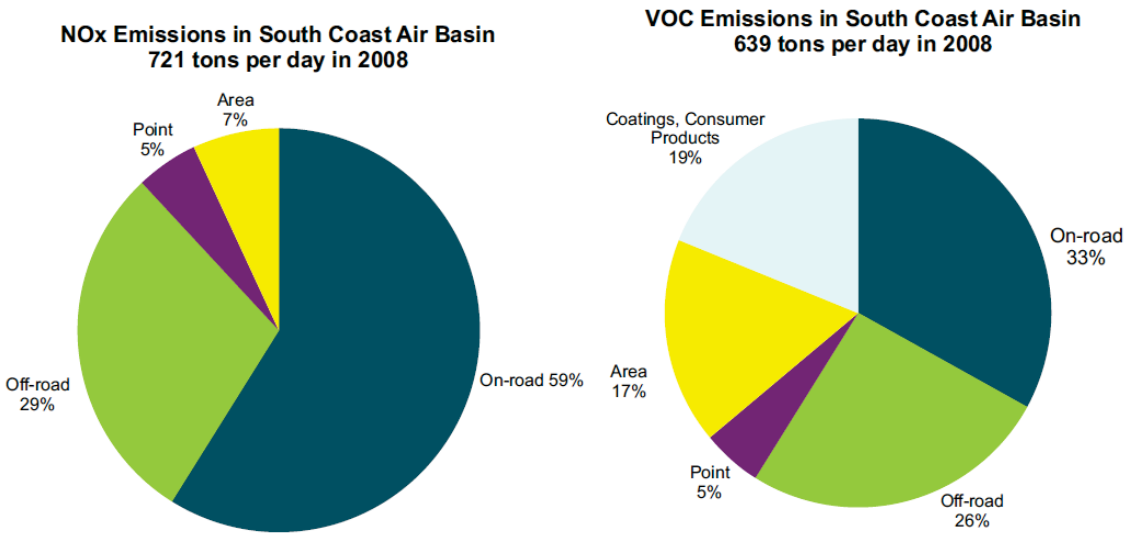

Figure 4.3.2: Ozone Precursor Emissions (VOC and NOx) in the South Coast Air Basin

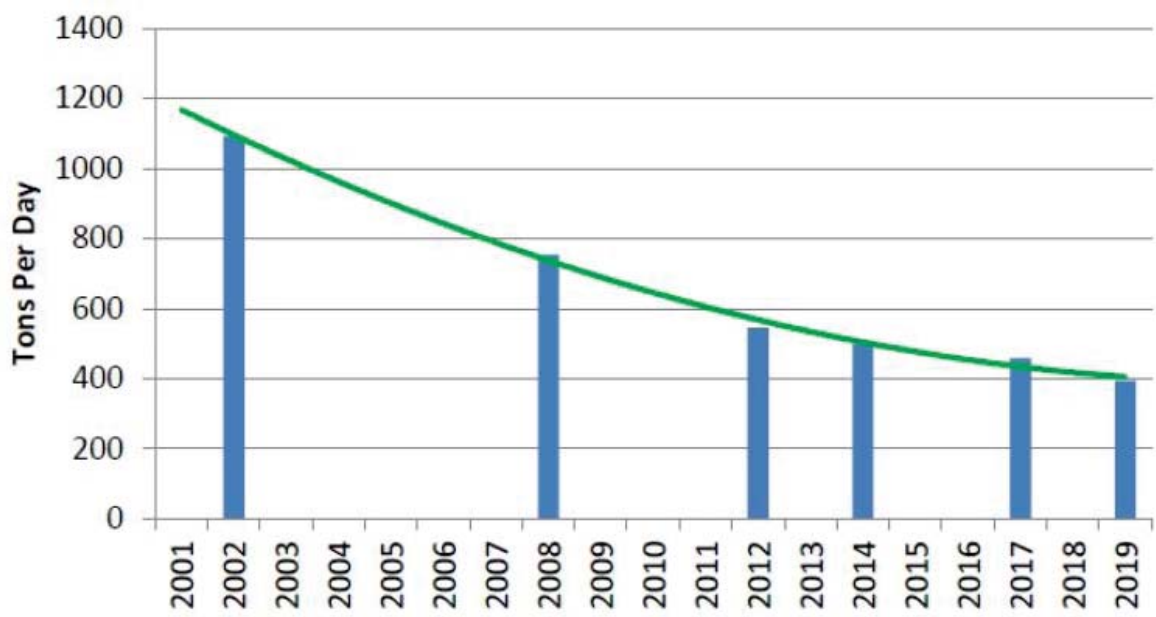

Figure 4.3.3: NOx Emissions Forecast in the South Coast Air Basin

Another pollutant of concern is particulate matter (PM). PM is a mixture of small particles and liquid droplets suspended in the air. It is made up of components such as chemicals, metals, soil, or dust particles. The size of these particulates is linked to their potential for causing health problems. Ultrafine particles are less than 0.1 in micron in diameter, fine particles are less than 2.5 microns in diameter ($PM_{2.5}$), and coarse particles are larger than 2.5 microns and smaller than 10 microns in diameter (PM_{10}). The CARB and EPA have established standards for $PM_{2.5}$ and PM_{10} but not for ultrafine particles. $PM_{2.5}$ and PM_{10} are a concern in the air basin because sometimes the concentrations exceed the standards. $PM_{2.5}$ is often used as a marker for toxic air pollutants such as diesel PM.

As shown in Figure 4.3.4, $PM_{2.5}$ emissions are expected to decrease in the Basin and then level out after the year 2014.

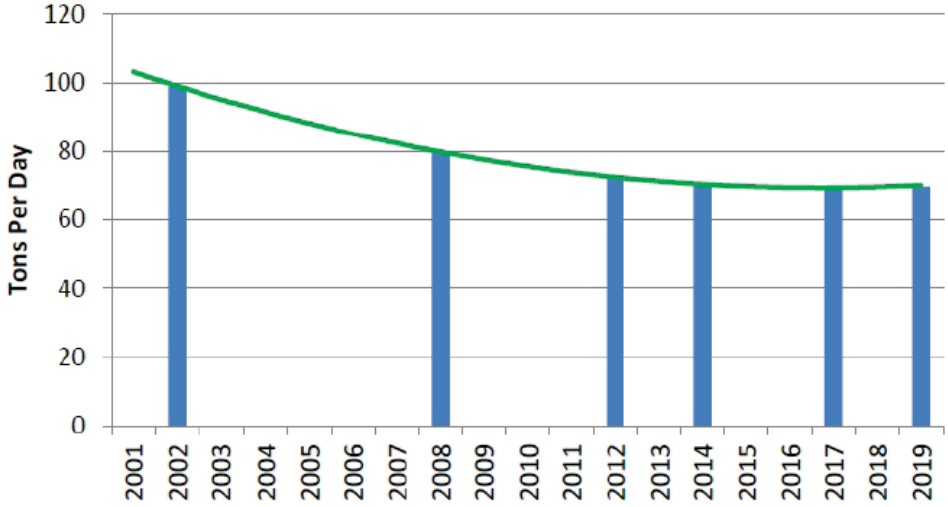

Figure 4.3.4: $PM_{2.5}$ Emissions Forecast in the South Coast Air Basin

As shown in Figure 4.3.5, PM_{10} and $PM_{2.5}$ annual concentrations have continued to decrease since 1990 within the air basin as a whole.

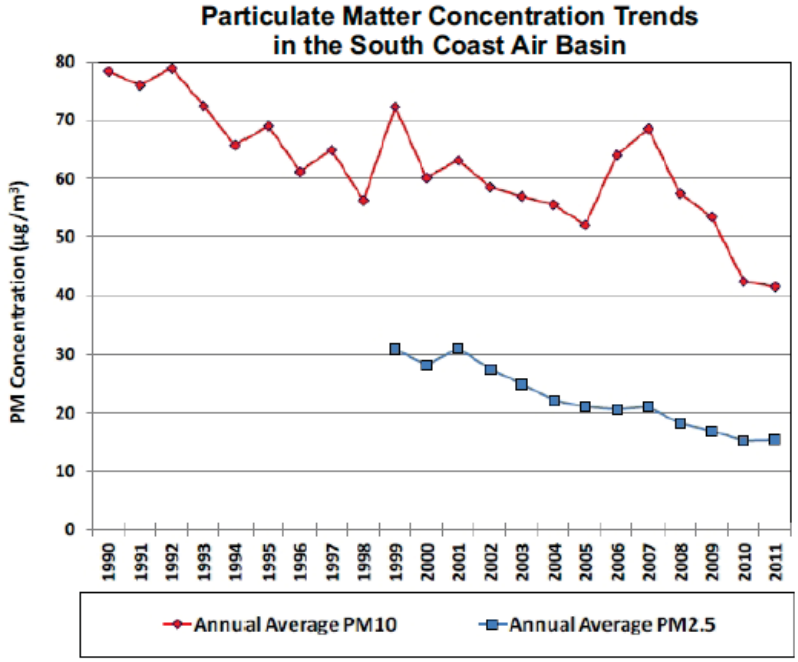

Figure 4.3.5: Particulate Matter Concentration Trends in the South Coast Air Basin

Figure 4.3.6 provides an additional view of $PM_{2.5}$ trends specifically in the Inland Empire. As shown, there is a marked decreasing trend in $PM_{2.5}$ concentrations in Riverside-Rubidoux, Fontana, and San Bernardino from 2001 to 2012 and at Mira Loma from 2006 to 2012. The relevance of these trends is

that $PM_{2.5}$ levels have displayed a decreasing trend in the Inland Empire despite increases in urban development including the development of large warehouse complexes since 2001.

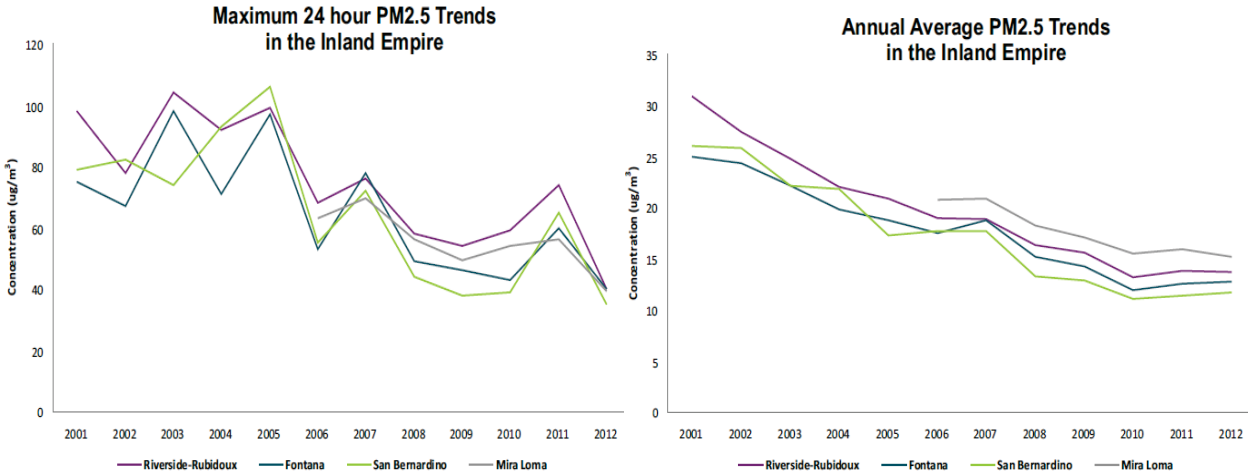

Figure 4.3.6: $PM_{2.5}$ Concentration Trends in the Inland Empire

Part of the success in the decreasing NOx and PM emissions are standards placed on motor vehicles. Figure 4.3.7 demonstrates the changes in U.S. heavy duty diesel emission standards for NOx and PM. The project would incorporate mitigation that would require that all heavy duty diesel trucks accessing the project incorporate 2010 emissions standards. As shown below, the 2010 standards are only a fraction of the older standards, at 0.2 grams per horsepower hour (g/HP-hr) of NOx and 0.01 g/HP-hr of PM. The text in blue represents the off-road construction standards; 2011 is Tier 4 Interim and 2014 is Tier 4 Final.

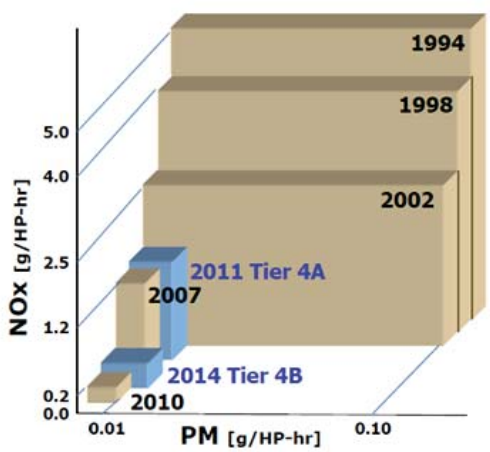

Figure 4.3.7: Changes in U.S. Heavy-Duty Diesel NOx and PM Emission Standards

4.3.1.1 Climate and Meteorology

Air quality in the project area is not only affected by various emission sources (mobile, industry, etc.), but also by atmospheric conditions such as wind speed, wind direction, temperature, rainfall, and amount of sunshine. The combination of topography, low atmospheric mixing height, abundant sunshine, and emissions from the second largest urban area in the United States combine to give the Basin one of the worst air pollution problems in the nation.

Winds in the Basin are predominantly of relatively low velocities, averaging about 4.0 miles per hour (mph). These low average wind speeds, together with a persistent temperature inversion, limit the vertical dispersion of air pollutants throughout the Basin. Strong, dry, north or northeasterly winds, known as Santa Ana winds, occur during the fall and winter months, dispersing air contaminants. These conditions tend to last for several days at a time.

During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas of Los Angeles County are transported predominantly inland into Riverside and San Bernardino Counties. In the winter, the greatest pollution problems are carbon monoxide (CO) and oxides of nitrogen (NO_X), because of extremely low inversions and air stagnation during the night and early morning hours that trap emissions principally from mobile sources. In the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons and NO_X to form photochemical smog.

4.3.1.2 Regional Air Quality

Both the State of California and the Federal government have established health-based ambient air quality standards (AAQS) for six air pollutants. These pollutants are known as "criteria pollutants."

- Carbon monoxide (CO)
- Lead (Pb)
- Nitrogen dioxide (NO_2)
- Ozone (O_3)
- Particulate matter with a diameter of 10 microns or less (PM_{10})
- Sulfur dioxide (SO_2)

Federal standards for 8-hour ozone and for fine particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) have also been adopted. In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety and are listed in Table 4.3.A. Table 4.3.B lists the health effects of these criteria pollutants and their potential sources.

Note: Episode criteria and smog alerts are no longer used by the CARB or the SCAQMD; the EPA's Air Quality Index is now used. Therefore, the following text has been deleted and information regarding the Air Quality Index has been added.

The **Air Quality Index** is an index developed and reported by the United States EPA for reporting daily air quality. It indicates how clean or polluted the air is and what associated health effects might be a concern. The Air Quality Index focuses on health effects that may be experienced within a few hours or days after breathing polluted air. Descriptions for the various levels in the Air Quality Index are shown in Table 4.3.C.

The federal 8-hour ambient air quality standard for ozone is 75 ppb and the California standard is 70 ppb. The California 1-hour standard for ozone is 90 ppb (there is no federal 1-hour standard). As shown in the table, to achieve the federal ambient air quality standard for ozone, the Air Quality Index would need to be below 101. To achieve the state 8-hour ambient air quality standard for ozone, the Air Quality Index would need to be below 84.

In the Moreno Valley area in 2010 and 2011, the air quality index was greater than 150 for one day for each year. That means the air was unhealthy for one day in 2010 and one day in 2011. If the future years follow that trend, then one day during each of the construction years would cease construction activities.

Indirect sources of pollution are generated when minor sources collectively emit a substantial amount of pollution. Examples of this would be the motor vehicles at intersections, malls, and on highways. The California Clean Air Act (CCAA) provides the SCAQMD with the authority to manage transportation

activities at indirect sources. The SCAQMD also regulates stationary sources of pollution throughout its jurisdictional area. Direct emissions from motor vehicles are regulated by the CARB.

The narrative below describes the pollutant characteristics, mechanisms of pollutant origination, and health effects for the criteria pollutants (i.e., pollutants specifically regulated under the Federal Clean Air Act [CAA] and/or the California Clean Air Act [CCAA]) and other pollutants of concern. Because the concentration levels of the AAQS were set with an adequate margin to protect public health and safety, these health effects will not occur unless the standards are exceeded by a large margin or for a prolonged period of time. State AAQS are more stringent than Federal AAQS. An additional discussion of health effects is contained in the *Air Quality, Greenhouse Gas, and Health Risk Assessment* (2015).

- *Carbon Monoxide*
  - Description and Properties: CO is colorless, odorless toxic gas produce by incomplete combustion of carbon-containing fuels (e.g., gasoline, diesel fuel, and biomass). CO is a primary pollutant, meaning it is emitted directly into the air (unlike secondary pollutants such as ozone that are formed by the reactions of other pollutants). CO levels tend to be highest during the winter months when the meteorological conditions support the accumulation of the pollutants. This occurs when relatively low inversion levels trap pollutants near the ground and concentrated the CO (EPA 2006c). Because CO is somewhat soluble in water, normal winter conditions of rainfall and fog can suppress CO conditions.
  - Health Effects: CO is essentially inert to plants and materials but can have significant effects on human health. CO gas enters the body through the lungs, dissolves in the blood, and replaces oxygen as an attached hemoglobin. This binding reduces available oxygen in the blood and; therefore, reduces oxygen delivery to the body's organs and tissues. Effects on humans range from slight headaches to nausea to death. Elevated levels of CO can also cause visual impairments, reduced manual dexterity, poor learning ability, reduced work capacity, and trouble performing complex tasks.
  - Sources: The major sources of CO are on-road vehicles, aircraft, and off-road equipment, or any source that burns fuel including residential heaters and stoves. Since most of the CO sources are the indirect result of urban development, most emissions and unhealthy CO levels occur in major urban areas.
- *Ozone*
  - Description and Physical Properties: O_3 is known as a photochemical pollutant. Ozone is not emitted directly into the atmosphere, but is formed by a complex series of chemical reactions between reactive organic gases (ROG) or volatile organic compounds (VOC), NO_X, and sunlight. ROG and NO_X are emitted from automobiles, solvents and fuel combustion, the sources of which are widespread throughout the SCAQMD. Significant ozone formation generally requires an adequate amount of precursors in the atmosphere and several hours in a stable atmosphere with strong sunlight. The conditions conducive to the formation of ozone include extended periods of daylight (solar radiation) and hot temperatures. These conditions are prevalent during the summer when thermal inversions are most likely to occur. As a result, summertime conditions of long periods of daylight and hot temperatures form ozone in the greatest qualities. During the summer, thermal inversions trap ozone from dispersing vertically, high concentrations of this pollutant are prevalent.

Note: Table 4.3.C in the original DEIR was entitled "Attainment Status of Criteria Pollutants in the South Coast Air Basin" and has been moved to later in this section and renumbered Table 4.3.D.

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Table 4.3.A: Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		Federal Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone (O_3)	1-Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.070 ppm (137 µg/m^3)		0.075 ppm (147 µg/m^3)		
Respirable Particulate Matter (PM_{10})	24-Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		—		
Fine Particulate Matter ($PM_{2.5}$)	24-Hour	No Separate State Standard		35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12.0 µg/m^3		
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m^3)	None	Non-Dispersive Infrared Photometry (NDIR)
	1-Hour	20 ppm (23 mg/m^3)		35 ppm(40 mg/m^3)		
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	—
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	Gas Phase Chemiluminescence	53 ppb (100 µg/m^3) (see footnote 8)	Same as Primary Standard	Gas Phase Chemiluminescence
	1-Hour	0.18 ppm (339 µg/m^3)		100 ppb (188 µg/m^3) (see footnote 8)	None	
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	—	Ultraviolet Fluorescence	0.030 ppm (for certain areas) (see footnote 9)	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	24-Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)	—	
	3-Hour	—		—	0.5 ppm (1300 µg/m^3)	
	1-Hour	0.25 ppm (655 µg/m^3)		75 ppb (196 µg/m^3) (see footnote 9)	—	
Lead[10]	30 Day Average	1.5 µg/m^3	Atomic Absorption	—	—	High-Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m^3	Same as Primary Standard	
	Rolling 3-Month Average[11]	—		0.15 µg/m^3		
Visibility-Reducing Particles	8-Hour	Extinction coefficient of 0.23 per kilometer - visibility of ten miles or more (0.07-30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.	Beta Attenuation and Transmittance through Filter Tape	**No Federal Standards**		
Sulfates	24-Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[10]	24-Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

Source: California Air Resources Board, 2013.

Footnotes

1 California standards for ozone; carbon monoxide (except Lake Tahoe); sulfur dioxide (1- and 24-hour); nitrogen dioxide; suspended particulate matter (PM_{10} and $PM_{2.5}$) and visibility-reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2 National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth-highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current federal policies.

3 Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4 Any equivalent procedure which can be shown to the satisfaction of the CARB to give equivalent results at or near the level of the air quality standard may be used.

5 National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6 National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7 Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.

8 To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 22, 2010). Note that the EPA standards are in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national standards to the California standards the units can be converted from ppb to ppm. In this case, the national standards of 53 ppb and 100 ppb are identical to 0.053 ppm and 0.100 ppm, respectively.

9 On June 2, 2010, the U.S. EPA established a new 1-hour SO_2 standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. EPA also proposed a new automated Federal Reference Method (FRM) using the ultraviolet technology, but will retain the older pararosaniline methods until the new FRM have adequately permeated State monitoring networks. The EPA also revoked both the existing 24-hour SO_2 standard of 0.14 ppm and the annual primary SO_2 standard of 0.030 ppm, effective August 23, 2010. The secondary SO_2 standard was not revised at that time; however, the secondary standard is undergoing a separate review by EPA. Note that the new standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the new primary national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

10 The CARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

11 National lead standard, rolling 3-month average: final rule signed October 15, 2008.

°C = degrees Celsius
EPA = United States Environmental Protection Agency
µg/m^3 = micrograms per cubic meter mg/m^3 = milligrams per cubic meter
ppm = parts per million

Table 4.3.B: Summary of Health Effects of the Major Criteria Air Pollutants

Pollutants	Sources	Primary Effects
Ozone (O_3)	▪ Atmospheric reaction of organic gases (ROG or VOC) with nitrogen oxides in the presence of sunlight.	▪ Breathing difficulty. ▪ Lung tissue damage. ▪ Damage to rubber and some plastics.
Nitrogen Dioxide (NO_2)	▪ Motor vehicle exhaust. ▪ Heavy construction equipment exhaust. ▪ Farming equipment exhaust. ▪ Residential heating.	▪ Lung irritation and damage. ▪ Formation of acid rain.
Carbon Monoxide (CO)	▪ Motor vehicle exhaust. ▪ Heavy construction equipment exhaust. ▪ Farming equipment exhaust. ▪ Residential heating.	▪ Reduced tolerance for exercise. ▪ Impairment of mental function. ▪ Impairment of fetal development. ▪ Death at high levels of exposure. ▪ Aggravation of some heart diseases (angina).
Suspended Particulate Matter ($PM_{2.5}$ and PM_{10})	▪ Motor vehicle exhaust ($PM_{2.5}$). ▪ Equipment and industrial sources ($PM_{2.5}$). ▪ Residential and agricultural burning ($PM_{2.5}$ and PM_{10}). ▪ Atmospheric chemical reactions ($PM_{2.5}$ and PM_{10}). ▪ Road dust (PM_{10}). ▪ Windblown dust (Agriculture [PM_{10}]) ▪ Construction (Fireplaces [PM_{10}])	▪ Reduced lung function. ▪ Aggravation of the effects of gaseous pollutants. ▪ Aggravation of respiratory and cardiorespiratory diseases. ▪ Increased cough and chest discomfort. ▪ Soiling. ▪ Reduced visibility.
Sulfur Dioxide (SO_2)	▪ Coal/oil- burning power plants. ▪ Industries, refineries, and diesel engines.	▪ Increased lung disease. ▪ Breathing problems for asthmatics. ▪ Formation of acid rain.
Lead (Pb)	▪ Metal smelters. ▪ Resource recovery. ▪ Leaded gasoline. ▪ Deterioration of lead paint.	▪ Learning disabilities. ▪ Brain and kidney damage.

Source: California Air Resources Board 2009 (http://www.arb.ca.gov/research/health/fs/fs2/fs2.htm).

Table 4.3.C: Air Quality Index Descriptions (new table)

Air Quality Index Levels of Health Concern	Air Quality Index Numerical Range	Ozone Concentration for Air Quality Index (ppb)		Meaning
		8-Hour	1-Hour	
Good	Low: 0 High: 50	—	—	Air quality is considered satisfactory, and air pollution poses little or no risk.
Moderate	Low: 51 Std: 84* High: 100	Low: 59 Std: 70*	Low: 85	Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.
Unhealthy for Sensitive Groups	Low: 101 High: 150	Low: 75 (also the federal standard)	Low: 125	Members of sensitive groups may experience health effects. The general public is not likely to be affected. People with heart or lung disease, children, and older adults are considered sensitive and are at greater risk. For ozone, people who are active outdoors are also considered sensitive.
Unhealthy	Low: 151 High: 200	Low: 95	Low: 165	Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.
Very Unhealthy	Low: 201 High: 300	Low: 115	Low: 205	Health alert: everyone may experience more serious health effects
Hazardous	Low: 301 High: 500	Low: 374	Low: 405	Health warnings of emergency conditions. The entire population is more likely to be affected.

ppb = parts per billion (a measure of concentration) * Std = 8-hour California ozone ambient air quality standard Source: MBA-FCS 2015

- Health Effects: Health effects of ozone can include respiratory system irritation, reduction of lung capacity, asthma aggravation, inflammation and damage to lung cells, aggravated cardiovascular disease, and permanent lung damage. The greatest health risk is to those who are more active outdoors during smoggy periods, such as children, athletes, and outdoor workers. Ozone also damages natural ecosystems such as forests, foothill communities, and damages agricultural crops and some man-made materials such as rubber, paint, and plastics.
- Sources: Ozone is a secondary pollutant, thus is not emitted directly in the lower level of the atmosphere. The sources of ozone precursors (ROG and NO_X) are discussed above in the description of ozone.

- *Oxides of Nitrogen*
  - Description and Physical Properties: During combustion of fossil fuels, oxygen reacts with nitrogen to produce NO_X (NO, NO_2, NO_3, N_2O, N_2O_3, N_2O_4, and N_2O_5). Atmospheric deposition of NO_X occurs when atmospheric or airborne nitrogen is transferred to water, vegetation, soil, or other materials. Acid deposition involves the deposition of nitrogen and/or sulfur acidic compounds that can harm natural resources and materials. NO_X is also an ozone precursor. When NO_X and ROG are released in the atmosphere, they can also be a precursor to PM_{10} and $PM_{2.5}$.
  - Health Effects: The EPA has concluded that the only form of NO_X that exists at a level high enough to cause public health concerns is nitrogen dioxide (NO_2) (EPA 1997). Nitrogen dioxide is a brown gas with a strong odor. NO_X can react with moisture, ammonia, and other compounds to form nitric acid and related particles. The main human health concerns of nitrogen dioxide include lung damage, increased incidence of chronic bronchitis, eye and mucus membrane damage, negative effects on the respiratory system, pulmonary dysfunction, and premature death. Small particles can penetrate deeply into the sensitive tissue of the lungs and can cause or worsen respiratory disease such as emphysema, asthma, and bronchitis, and can also aggravate existing heart disease (EPA 2005b). Because NO_X is an ozone precursor, the health effects associated with ozone are also indirect health effects associated with unhealthful levels of NO_X emissions.
  - Sources: A major source of NO_X includes stationary source fuel combustion (i.e. manufacturing and industrial, food and agricultural processing, and service commercial uses). Additionally, NO_X emission sources include motor vehicles internal combustion engines and electric utility and industrial boilers powered by fossil fuel combustion. Natural sources of NO_X include lightning, soils, wildfires, stratospheric intrusion, and the oceans. Natural sources accounted for approximately seven percent of 1990 emissions of NO_X for the United States. On-road vehicles also contribute to NO_X emissions.

- *Sulfur Dioxide*
  - Description and Physical Properties: Sulfur dioxide (SO_2) is a colorless, pungent gas. At levels greater than 0.5 ppm, the gas has a strong odor, similar to rotten eggs. Sulfuric acid is formed from sulfur dioxide, which is an aerosol particle component that affects acid deposition. Sulfur oxides (SO_X) include sulfur dioxide and sulfur trioxide (SO_3). The gas can also be produced in the air by dimethylsulfide and hydrogen sulfide. Sulfur dioxide is removed from the air by dissolution in water, chemical reactions, and transfer to soils and ice caps. Historically, sulfur dioxide was a pollutant of concern. However, with the successful application of regulations at the State and local level, the levels of sulfur dioxide have been reduced dramatically in the past several decades. The CARB, the State regulatory agency charged with regulating air pollution in the State, demonstrates that sulfur dioxide levels in the State are well below the maximum standards (CARB 2006b, Page 107, 408, and 409). Although sulfur dioxide concentrations have been reduced to levels well below State and Federal standards, further reductions are desirable because sulfur dioxide is a precursor to

sulfate and PM_{10}. Sulfates are a particulate formed through the photochemical oxidation of sulfur dioxide.

- Health Effects: Sulfur dioxide is a soluble gas; therefore, it can be absorbed in the mucous membranes of the respiratory tract and nose. Long-term exposure of high levels of sulfur dioxide can cause irritation of existing cardiovascular disease, respiratory illness, and changes in the defenses in the lungs. When people with asthma are exposed to high levels of sulfur dioxide for short periods of time during moderate activity, effects may include wheezing, chest tightness, or shortness of breath (EPA 2000).
- Sources: Anthropogenic, or human caused, sources include fossil-fuel combustion, mineral ore processing, and chemical manufacturing. Volcanic emissions are a natural source of sulfur dioxide.

- *Lead*
  - Description and Physical Properties: Lead (Pb) is a solid heavy metal that can exist in air pollution as an aerosol particle component. An aerosol is a collection of solid, liquid, or mixed-phase particles suspended in the air. Lead was first regulated as an air pollutant in 1976. Leaded gasoline was first marketed in 1923 and was used in motor vehicles until around 1970. The exclusion of lead from gasoline helped to decrease emissions of lead in the United States from 219,000 to 4,000 short tons per year between 1970 and 1997. Even though leaded gasoline has been phased out in most countries, some still use leaded gasoline. The mechanisms by which lead can be removed from the atmosphere (sinks) include deposition to soils, ice caps, and oceans, and inhalation.
  - Health Effects: Lead accumulates in bones, soft tissue, and blood and can affect the kidneys, liver, and nervous system. The more serious effects of lead poisoning include behavior disorders, mental retardation, and neurological impairment. Low levels of lead in fetuses and young children can result in nervous system damage, which can cause learning deficiencies and low IQs. Lead may also contribute to high blood pressure and heart disease.
  - Sources: Lead-ore crushing, lead-ore smelting, and battery manufacturing are currently the largest sources of lead in the atmosphere in the United States. Other sources include dust from soils contaminated with lead-based paint, soil waste disposal, and crustal physical weathering.

- *Particulate Matter (PM_{10} and $PM_{2.5}$)*
  - Description and Physical Properties: Particulate matter is a generic term that defines a broad group of chemically and physically different particles (either liquid droplets or solids) that can exist over a wide range of sizes. Examples of atmosphere particles include those produced from combustion (diesel soot or fly ash), light produced (urban haze), sea spray produced (salt particles), and soil-like particles from re-suspended dust. In discussions of air pollution, particulate matter is typically divided up into two size categories: PM_{10} and $PM_{2.5}$ because of the adverse health effects associated the smaller-sized particles. PM_{10} refers to particulate matter that is 10 microns or less in diameter (1 micron is one-millionth of a meter, also known as a micrometer [µm]). $PM_{2.5}$ refers to particulate matter that is 2.5 microns or less in a diameter. Soil dust consists of the minerals and organic material found in soil being lifted up into the air by winds (e.g., fugitive dust).
  - Health Effects: Particulate matter can be inhaled directly into the lungs where it can be absorbed into the bloodstream. It is a respiratory irritant and can cause direct pulmonary effects such as coughing, bronchitis, lung disease, respiratory illnesses, increased airway reactivity, and exacerbation of asthma. Relatively recent mortality studies have shown a statistically significant direct association between mortality and daily concentrations of particulate matter in the air. Non-health effect includes reduced visibility and soiling of property.

- Sources: Particulate matter originates from a variety of stationary and mobile sources. Stationary sources include fuel combustion for electrical utilities, residential space heating, and industrial processes; construction and demolition; metals, minerals, and petrochemicals; wood products processing; mills and elevators used in agriculture; erosion from tilled lands; waste disposal and recycling. Mobile or transportation-related sources include particulate matter from highway vehicles and non-road vehicles and fugitive dust from paved and unpaved roads. Secondary particulate matter is formed in the atmosphere through chemical reactions that can involve ROG, SO_X, NO_X, and ammonia.

- *Diesel Particulate Matter*
  - Description and Physical Properties: Diesel particulate matter (DPM) is a source of $PM_{2.5}$ because the size of diesel particles are typically 2.5 microns and smaller. In 1998, DPM made up about 6 percent of the total $PM_{2.5}$ inventory nationwide (EPA 2002). Diesel exhaust is a complex mixture of thousands of particles and gases that is produced when an engine burns diesel fuel. DPM includes the particles-phase constituents in diesel exhaust. Organic compounds account for 80 percent of the total particulate matter mass, which is composed of compounds such as hydrocarbons and their derivatives, and polycyclic aromatic hydrocarbons (PAHs) and their derivatives. Fifteen PAHs are confirmed for carcinogenicity, a number of which are found in diesel exhaust (NTP 2005b). The chemical composition and particle sizes of diesel PM vary between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), expected load, engine emission controls, fuel formulations (high/low sulfur fuel), and the year of the engine (EPA 2002).
  - Cancer Health Effects: Human studies on the carcinogenicity of diesel particulate matter demonstrate an increased risk of lung cancer, although the increased risk cannot be clearly attributed to diesel exhaust exposure (NTP 2005b). Several occupational and ambient studies have documented the health effects due to exposure to diesel PM. The California Office of Environmental Health Hazards Assessment (OEHHA), in its role in assessing risk from environmental factors reviews such studies and makes recommendations on the way environmental risk should be evaluated through programs like the AB2588 Hot Spot Program. In its comprehensive assessment of diesel exhaust, OEHHA analyzed more than 30 studies of people who worked around diesel equipment, including truck drivers, 1950's era railroad workers, and equipment operators. The studies showed these workers were more likely to develop lung cancer than workers who were not exposed to diesel emissions. These studies provided strong evidence that long-term occupational exposure to diesel exhaust increases the risk of lung cancer. However, all of these studies were based on exposure to exhaust from traditional diesel engines and prior to the advent of highly efficient emissions controls like the diesel particulate filter. Based on these studies, CARB identified diesel exhaust a toxic air contaminant in 1998.
  - More recently, in January 2015, a major new study evaluated the health impacts of "new technology diesel exhaust" (NTDE). Beginning in 2001, USEPA and CARB begin issuing a series of regulations that require new diesel-powered vehicles and equipment to use the latest emissions control technology. This technology relies on two components. The first is a diesel particulate filter, which is capable of reducing particulate matter emissions by over 90% (required for new engines beginning in 2007). The second technology is selective catalytic reduction, which reduces emissions of nitrogen oxides by over 90% (required for new engines beginning in 2010). Diesel emissions from engines equipped with this technology are referred to as NTDE. As a result of the advances in emission control technology, USEPA, CARB, and other government and industry stakeholders commissioned a series of studies called the Advanced Collaborative Emissions Study (ACES). ACES has been guided by an ACES Steering Committee consisting of representatives of HEI and the Coordinating Research Council (CRC: a nonprofit organization that directs engineering and environmental studies on the interaction between automotive or other mobility equipment and petroleum products), along with the U.S. Department of Energy, U.S. EPA, engine manufacturers, the

petroleum industry, CARB, emission control manufacturers, the National Resources Defense Council, and others. The Health Effects Institute (HEI), funded in part by USEPA, was selected to oversee Phase 3 of ACES.

- Phase 3 of ACES evaluated whether emissions from new technology diesel engines cause cancer or other health effects. Specifically, it evaluated the health impacts of an 2007-compliant engine equipped with a diesel particulate filter. HEI found:
  - "Lifetime inhalation exposure of rats exposed to one of three levels of NTDE from a 2007-compliant engine, for 16 hours per day, 5 days a week, with use of a strenuous operating cycle that more accurately reflected the real-world operation of a modern engine than cycles used in previous studies, did not induce tumors or pre-cancerous changes in the lung and did not increase tumors that were considered to be related to NTDE in any other tissue. A few mild changes were seen in the lungs, consistent with long-term exposure to NO_2, a major component of NTDE, which is being further substantially reduced in 2010-compliant engines". (Page 1)
  - "Using appropriate statistical approaches to analyze the data from more than 100 endpoints in the broad areas of histology, serum chemistry, systemic and lung inflammation, and respiratory function, the investigators confirmed the a priori hypothesis, namely, that NTDE would not cause an increase in tumor formation or substantial toxic health effects in rats, although some biologic effects might occur". (Page 3)
  - "The overall conclusion was that chronic exposure of rats to NTDE did not produce tumors in the lung, in marked contrast to the effects of chronic exposure to TDE observed in multiple previous rat studies, in which lung tumors, as well as inflammation and the deposition of soot in the lung, were observed. Rather, the effects of NTDE in the lung more closely resembled changes noted after long-term exposures to gaseous oxidant pollutants, in particular NO_2, and to TDE from which particles have been filtered out. It is possible that components of NTDE other than NO_2 may have contributed to the effects reported, but the low levels of other components suggest that they would not be primarily responsible" (Page 3)
  - “Some mild histologic changes were found in the lung; however, these were not pre-cancerous lesions, previously described in long-term exposure studies of rats to TDE. Rather, the histologic changes — periacinar epithelial hyperplasia, bronchiolization, accumulation of macrophages, and periacinar interstitial fibrosis — were confined to a small region, the centriacinus, which is involved in gas exchange.” (Page 3)
  - “The histologic changes in the lungs were consistent with previous findings in rats after long-term exposure to NO_2 — a major component of the exposure atmosphere, which is being substantially further reduced in 2010-compliant engines.” (Page 4)
  - "The present findings strongly support the premise that advances in engine, fuel, and combustion technologies have substantially reduced the potential health impacts of DE and that estimates of hazard and risk based on laboratory or epidemiologic studies of the health impacts of TDE exposures most likely do not reflect either the hazards or the risks from NTDE". (Page 40)
  - "As shown, the ACES Phase I study (Khalek et al. 2009) found that emissions from 2007-compliant engines were reduced more than 90% compared with those from a 2004 engine; emissions of hydrocarbons and other air toxics by 2007-compliant engines were also lower by more than 80% than those of older engines" (Page 154)
- The HEI study clearly demonstrates that the application of new emissions control technology to diesel engines have virtually eliminated the health impacts of diesel exhaust.

  - Non-Cancer Health Effects: Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and can cause coughs, headaches, light-headedness, and nausea. Diesel exhaust is a major source of ambient particulate matter pollution as well, and numerous studies have linked elevated particle levels in the air to increase hospital admission, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems (OEHHA 2002). The HEI study discussed above also evaluated non-cancer health effects. The study found NTDE would not cause an increase in substantial toxic health effects in rats, although some biologic effects might occur.
  - Sources: Diesel exhaust.

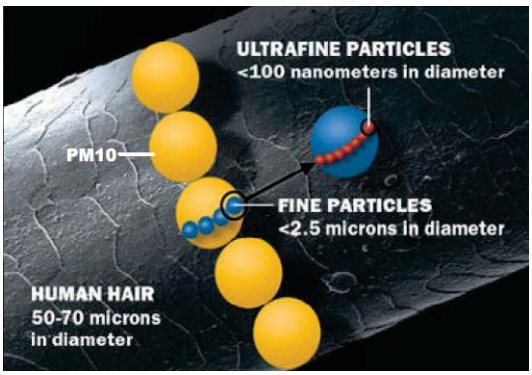
- *Visibility-Reducing Particles*
  - Description and Physical Properties: Visibility-reducing particles (VRP) are suspended particulate matter that reduces visibility. Visibility is the distance through the air that can be seen without the use of instrumental assistance. The distance that can be seen is limited by the amount of gases and aerosol particles in the way. The EPA implemented a Regional Haze Rule in 1999 to attempt to protect visibility in 156 national parks and wilderness areas in the Unites States. The regulation requires states to establish goals for improving their areas and to work together with other states as the pollution is often transported over long distances (EPA 1999).
  - Health Effects: The human health effects of VRP are those of pollution (particulate matter, oxides of nitrogen, and sulfur dioxide) discussed above.
  - Sources: The sources are other pollutants (particulate matter, oxides of nitrogen, and sulfur dioxide) as discussed above.
- *Vinyl Chloride*
  - Description and Physical Properties: Vinyl chloride, or chloroethene, is a chlorinated hydrocarbon and colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products, including pipes, wire and cable coatings, and packaging materials. Vinyl chloride is formed when other substances such as trichloroethylene and tetrachloroethylene are broken down. This can occur when plastics containing these substances are left to decompose in solid waste landfills. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites due to microbial breakdown of chlorinated solvents. In 1978, the CARB established a State ambient air quality standard for vinyl chloride. The standard was set at 0.01 ppm for a 24-hour duration because that was the lowest level that could be detected at that time. In 1990, the CARB identified vinyl chloride as a toxic air contaminant and estimated a cancer unit risk factor.
  - Health Effects: Short-term exposure to high levels of vinyl chloride in air causes central nervous system effects, such as dizziness, drowsiness, and headaches (CARB 2005). Epidemiological studies of occupationally exposed workers have linked vinyl chloride exposure to development of a rare cancer, liver angiosarcoma, and have suggested a relationship between exposure and lung and brain cancers.
  - Sources: Manufacturing of PVC plastic and vinyl products.
- *Hydrogen Sulfide*
  - Description and Physical Properties: Hydrogen sulfide (H_2S) is a flammable, colorless, poisonous gas that smells like rotten eggs.
  - Health Effects: High levels of hydrogen sulfide can cause immediate respiratory arrest. It can irritate the eyes and respiratory tract and cause symptoms like headache, nausea, vomiting, and cough. Long exposure to hydrogen sulfide can cause pulmonary edema.
  - Sources: Hydrogen sulfide and other reduced sulfur compounds form by the anaerobic decomposition of manure some types of bacteria found in animal and human by-products

produce hydrogen sulfide during reduction of sulfur-containing compounds, such as proteins. Manure, storage tanks, ponds, anaerobic lagoons, and land application sites are the primary sources of hydrogen sulfide emissions. Anthropogenic sources include the combustion of sulfur containing fuels (oil and coal) and organic matter that undergoes putrefaction. It is used in the production of heavy water for nuclear reactors, the manufacture of chemicals, in metallurgy, and as an analytical reagent.

- *Reactive Organic Gases and Volatile Organic Compounds*
  - Description and Physical Properties: Reactive organic gases (ROG), or volatile organic compounds (VOC), are defined as any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. ROG consist of nonmethane hydrocarbons and oxygenated hydrocarbons. Hydrocarbons are organic compounds that contain only hydrogen and carbon atoms. Nonmethane hydrocarbons are hydrocarbons that do not contain the unreactive hydrocarbon, methane. Oxygenated hydrocarbons are hydrocarbons with oxygenated functional groups attached.
  - It should be noted that there are no State or Federal ambient air quality standard for ROG because they are not classified as criteria pollutants. They are regulated, however, because a reduction in ROG emissions reduces certain chemicals reactions that contribute to the formulation of ozone. ROG are also transformed into organic aerosols in the atmosphere, which contribute to higher PM_{10} and lower visibility.
  - Health Effects: Although health-based standards have not been established for ROG, health effects can occur from exposures to high concentrations because of interference with oxygen uptake. In general, concentrations of ROG are suspected to cause eye, nose, and throat irritation; headaches, loss of coordination, nausea, damage to liver, kidney, and the central nervous system (EPA 2005). There are many ROG that have been classified as toxic air contaminates. A particular ROG of concern is benzene, which is described in more detail below. The EPA maintains a list of all air substances that have been classified as hazardous to humans and/or animals, and includes ROG, pesticides, herbicides, and radionuclides (EPA 2006d).
  - Sources: The major sources of ROG are on-road motor vehicles and solvent evaporation.
- *Benzene*
  - Description and Physical Properties: Benzene is an ROG. It is a clear or colorless light-yellow, volatile, highly flammable liquid with a gasoline-like odor. The EPA has classified benzene as a “Group A” (human) carcinogen.
  - Health Effects: Short-term (acute) exposure of high doses from inhalation of benzene may cause dizziness, drowsiness, headaches, eye irritation, skin irritation, and respiratory tract irritation, and at higher levels, unconsciousness can occur. Long-term (chronic) occupational exposure of high dose by inhalation has caused blood disorders, including aplastic anemia and lower levels or red blood cells (EPA 1992). Occupational exposure to benzene has been shown to cause leukemia (mainly acute myelogenous leukemia) (NTP 2005). Studies have also found that benzene exposure increased the risks of lymphatic and hematopoietic cancer (cancers of lymphatic system and of organs and tissues involved in the production of blood), total leukemia, and specific histologic types of leukemia (NTP 2005).
  - Sources: Benzene is emitted into the air from gasoline services station (fuel evaporation), motor vehicle exhaust, tobacco smoke, and from burning oil and coal. Benzene is also used as a solvent for paints, inks, oils, waxes, plastic, and rubber. It is used in the extraction of oils from seeds and nuts. It is also manufactured for detergents, explosives, dyestuffs, and pharmaceuticals.

Ultrafine Particles. Ultrafine particles are particulate matter (PM) that exists in the ambient air and are less than 0.1 micrometer (µm or microns) in diameter. Ultrafine particles (UFP or $PM_{0.1}$) are included in the group called $PM_{2.5}$, particulate matter less than 2.5 micrometers in diameter.

The picture to the right displays the relative size of the particles compared with a human hair, with PM_{10} (particulate matter less than 10 micrometers in diameter) indicated as yellow circles, $PM_{2.5}$ shown as blue circles, and ultrafine particles shown as red circles.



The CARB or the EPA have not set an ambient air quality standard for ultrafine particles because health effect evidence and measurements are currently limited. In its recent revisions to the national ambient air quality standards for particulate matter, the EPA states, "In considering both the currently available health effects evidence and the air quality data, the Policy Assessment concluded that this information was still too limited to provide support for consideration of a distinct PM standard for ultrafine particles" (EPA 2013,[1] page 3122).

The EPA indicates that evidence and research regarding health effects from short-term and long-term exposure to ultrafine particles are still too limited to establish a standard for ultrafine particles. In addition, the EPA reports that the studies that do exist have reported inconsistent and mixed results. The following is an excerpt from the Federal Register illustrating this point:

> *"New evidence, primarily from controlled human exposure and toxicological studies, expands our understanding of cardiovascular and respiratory effects related to short-term ultrafine particle exposures. However, the Policy Assessment concluded that this evidence was still very limited and largely focused on exposure to diesel exhaust, for which the Integrated Science Assessment concluded it was unclear whether the effects observed are due to ultrafine particles, larger particles within the $PM_{2.5}$ mixture, or the gaseous components of diesel exhaust. In addition, the Integrated Science Assessment noted uncertainties associated with the controlled human exposure studies using concentrated ambient particle systems, which have been shown to modify the composition of ultrafine particles.*
>
> *The Policy Assessment recognized that there are relatively few epidemiological studies that have examined potential cardiovascular and respiratory effects associated with short-term exposures to ultrafine particles. These studies have reported inconsistent and mixed results.*
>
> *Collectively, in considering the body of scientific evidence available in this review, the Integrated Science Assessment concluded that the currently available evidence was suggestive of a causal relationship between short-term exposures to ultrafine particles and cardiovascular and respiratory effects. Furthermore, the Integrated Science Assessment concluded that evidence was inadequate to infer a causal relationship between short-term exposure to ultrafine particles and mortality as well as long-term exposure to ultrafine particles and all outcomes evaluated" (EPA 2013, page 3121).*

The Integrated Science Assessment for Particulate Matter concluded that evidence is inadequate to determine a causal relationship between short-term exposures of ultrafine particles to mortality or

[1] U.S. Environmental Protection Agency. 2013. Federal Register. National Ambient Air Quality Standards for Particulate Matter. Website: http://www.gpo.gov/fdsys/pkg/FR-2013-01-15/pdf/2012-30946.pdf. Accessed December 17, 2013.

central nervous system effects, but that the evidence is suggestive of short-term (24-hour) exposures causing cardiovascular and respiratory effects. The assessment also concluded that there is inadequate evidence linking long-term exposure (typically measured in terms of an annual concentration) of ultrafine particles to health effects, including respiratory, developmental, cancer, and mortality. Overall, epidemiological studies of atmospheric PM suggest that cardiovascular effects are associated with smaller particles, but there are few reports that make a clear link between ultrafine particle exposures and increased mortality. In January 2015, a new study[1] on the relationship of mortality to long-term exposure to fine and ultra-fine particles was released. The study found there was a relationship between morality and both fine and ultra-fine particles exposure.

In its Quantitative Health Risk Assessment for Particulate Matter, the EPA did not assess ultrafine particles, stating " that there was insufficient data to support a quantitative risk assessment for other size fractions (e.g., ultrafine particles)."[2]

The availability of measurements of ultrafine particles to support health studies is also limited:

> *With respect to our understanding of ambient ultrafine particle concentrations, at present, there is no national network of ultrafine particle samplers; thus, only episodic and/or site-specific data sets exist. Therefore, the Policy Assessment recognized a national characterization of concentrations, temporal and spatial patterns, and trends was not possible at this time, and the availability of ambient ultrafine measurements to support health studies was extremely limited. In general, measurements of ultrafine particles are highly dependent on monitor location and, therefore, more subject to exposure error than accumulation mode particles. Furthermore, the number of ultrafine particles generally decreases sharply downwind from sources, as ultrafine particles may grow into the accumulation mode by coagulation or condensation. Limited studies of ambient ultrafine particle measurements have suggested that these particles exhibit a high degree of spatial and temporal heterogeneity driven primarily by differences in nearby source characteristics. Internal combustion engines and, therefore, roadways are a notable source of ultrafine particles, so concentrations of these particles near roadways are generally expected to be elevated. Concentrations of ultrafine particles have been reported to drop off much more quickly with distance from roadways than fine particles (EPA 2013, page 3121).*

In addition, it was hypothesized that chemical composition of PM may be a better predictor of health effects than particle size:

> *In addressing the issue of particle composition, the Integrated Science Assessment concluded that, '[f]rom a mechanistic perspective, it is highly plausible that the chemical composition of PM would be a better predictor of health effects than particle size.' Heterogeneity of ambient concentrations of $PM_{2.5}$ constituents (e.g., elemental carbon, organic carbon, sulfates, nitrates) observed in different geographical regions as well as regional heterogeneity in $PM_{2.5}$-related health effects reported in a number of epidemiological studies are consistent with this hypothesis (EPA 2013, page 3122).*

The SCAQMD's Multiple Air Toxics Exposure Study (MATES-IV) states, "the health impact caused by exposure to UFPs [ultrafine particles] is still not well-understood." MATES-IV presents measurements of black carbon and ultrafine particles at 10 fixed sites within the Basin. The results indicate that the highest black carbon levels were at more urban sites located near major roadways. Black carbon was not measured in the previous MATES-III; however, elemental carbon levels decreased about 35

[1] Environmental Health Perspectives, January 2015. Associations of Mortality with Long-Term Exposures to Fine and Ultrafine Particles, Species and Sources: Results from the California Teachers Study Cohort.

[2] U.S. Environmental Protection Agency. 2010. Quantitative Health Risk Assessment for Particulate Matter. EPA-452/R-10-005. Website: http://www.epa.gov/nscep/index.html. (Search for the document.) Accessed December 20, 2013.

percent during from 2005 to 2012. Black carbon is a term used for elemental and graphitic components of soot.

The SCAQMD's 2012 Air Quality Management Plan (AQMP) contains a detailed chapter on near roadway exposure and ultrafine particles. The AQMP summarizes current health effect research on ultrafine particles. The potential health effects from ultrafine particle exposure are similar to those of $PM_{2.5}$ and PM_{10}: such as adverse cardio-respiratory responses including elevated blood pressure, and mild inflammatory and prothrombotic (obstruction of circulation) responses. The AQMP indicated that future research and assessment is needed in the following areas:

- *Chemical Composition*. Chemical composition of ultrafine particles depends on many factors, including vehicle technology, fuel, and atmospheric chemical reactions after being emitted. Particle composition may be a factor determining particle toxicity; therefore, knowledge regarding the chemistry is important.
- *Formation.* More research is needed regarding the processes leading to ultrafine particle formation.
- *Standardized Measurement Methods and Procedures.* Currently, there is no standard method for conducting size-classified or particle-number measurements. Characteristics measured in ambient and emission-testing studies are highly dependent on the measurement instrument/protocol used and its setting.
- *Measurements at Hot Spot Locations.* More measurements should be taken at "hot spots" where large numbers of vehicles are operated.
- *Emissions Inventories.* Vehicle emission factors for different particle size ranges and for particle numbers are highly uncertain, and there are no emission inventories for ultrafine particles from motor vehicles. New estimations of ultrafine particle levels should not be derived solely from vehicle emission factors (i.e., EMFAC), but have to include predictions for formation near the tailpipe and in the atmosphere.
- *Air Quality Modeling.* Modeling tools will need to be developed to simulate the formation and transport over a wide range of atmospheric conditions and emissions scenarios. The dispersion near the first few hundred meters of the roadway needs to be better understood.
- *Health Effects.* New toxicological and epidemiological studies targeting exposure to controlled and uncontrolled emissions from gasoline and diesel vehicles are needed to better characterize the exposure-response relationships to ultrafine particles and to help develop health guidelines and potential regulations. The health effects of inorganic ultrafine particle emissions from vehicles are only now starting to receive significant attention.
- *Other Sources.* More work is needed to better understand size, composition, and health impact of particles near stationary sources and other processes (rather than just motor vehicles).

Children and Air Pollution. Numerous studies have shown strong links between air pollution exposures and a range of health outcomes. One particular study was carried out over a 10-year experimental time period by the University of Southern California, the Children's Health Study (Gaulderman, 2000)[1]. The Children's Health Study, which began in 1992, is a large, long-term, study of the effects of chronic air pollution exposures on the health of children living in Southern California. Children may be more strongly affected by air pollution because their lungs and their bodies are still developing. Children are also exposed to more air pollution than adults since they breathe faster and spend more time outdoors in strenuous activities. About 5,500 children in twelve communities were

[1] Gauderman, W, et. al. Peters: Association between Air Pollution and Lung Function Growth in Southern California Children. American Journal of Respiratory and Critical Medicine. Vol 162. Page 1383. 2000. Accessed October 22, 2013.

enrolled in the study; two-thirds of them were enrolled as fourth-graders. Data on the children's health, their exposures to air pollution, and many factors that affected their responses to air pollution were gathered annually until they graduated from high school. The major conclusions reached in the University of Southern California's Children's Health Study are shown below. Note however, that the conclusions provided below were developed based on measurements made in the 1990's when levels of air pollution in the Basin were substantially higher than current levels as shown earlier in Figures 4.3.1 to 4.3.6 and as noted further in Section 4.3.1.4 below and new technology diesel vehicles had not yet been introduced.

- Children exposed to higher levels of particulate matter, nitrogen dioxide, acid vapor and elemental carbon, had significantly lower lung function at age 18, an age when the lungs are nearly mature and lung function deficits are unlikely to be reversed.
- Children who were exposed to current levels of air pollution had significantly reduced lung growth and development when exposed to higher levels of acid vapor, ozone, nitrogen dioxide, and particulate matter, which is made up of very small particles that can be breathed deeply into the lungs.
- Children living in communities with higher concentrations of nitrogen dioxide, particulate matter, and acid vapor had lungs that both developed and grew more slowly and were less able to move air through them. This decreased lung development may have permanent adverse effects in adulthood.
- Children who moved away from study communities had increased lung development if the new communities had lower particulate matter levels, and had decreased lung development if the new communities had higher particulate matter levels.
- Days with higher ozone levels resulted in significantly higher school absences due to respiratory illness. Children with asthma who were exposed to higher concentrations of particulate matter were much more likely to develop bronchitis.

- In the most recent update to the Children's Health Study , researchers discovered that improvements in regional air quality contributed to improved children's lung function. Specifically, combined exposure to two harmful pollutants, nitrogen dioxide (NO2) and fine particulate matter, fell approximately 40 percent for children in the third study group (2007-2011) compared to the first study group (1994-98). The study followed children from Long Beach, Mira Loma, Riverside, San Dimas and Upland.
- Children's lungs grew faster as air quality improved. Lung growth from age 11 to 15 was more than 10 percent greater for children breathing the lower levels of NO2 from 2007 to 2011 compared to those breathing higher levels from 1994 to 1998.
- The percentage of children in the study with abnormally low lung function at age 15 dropped from nearly 8 percent for the 1994-98 group, to 6.3 percent in 1997-2001, to just 3.6 percent for children followed between 2007 and 2011.

4.3.1.3 Air Pollution Constituents and Attainment Status

The CARB has many responsibilities with respect to air quality, including the following:

- Coordination and oversight of State and Federal air pollution control programs in California;
- Oversight activities of local air quality management agencies (e.g., the SCAQMD);
- Responsibility for incorporating air quality management plans for local air basins into a State Implementation Plan (SIP) for EPA approval; and

- Maintaining air quality monitoring stations throughout the State in conjunction with local air districts.

The CARB has divided the State into 15 air basins based on meteorological and topographical factors that affect air pollution. An air basin generally has similar meteorological and geographic conditions throughout. The CARB and EPA use the data collected at monitoring stations to classify air basins as attainment, nonattainment, nonattainment transitional, or unclassified, based on air quality data for the most recent three calendar years compared with the AAQS. Nonattainment areas are imposed with additional restrictions, as required by the EPA to attain and maintain air quality standards. The air quality data are also used to monitor progress in attaining and maintaining air quality standards.

Significant authority for air quality control within the various air basins has been given to local air districts that regulate stationary source emissions and develop local nonattainment plans. Table 4.3.D identifies the attainment status[1] for the criteria pollutants in the Basin. The State AAQS are more stringent than the Federal AAQS.

Table 4.3.D: Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
O_3 1-hour	Nonattainment	N/A
O_3 8-hour	Nonattainment	Extreme Nonattainment
PM_{10}	Nonattainment	Maintenance – serious (San Bernardino County is in nonattainment)
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Attainment/Maintenance
NO_2	Attainment	Attainment/Maintenance
SO_2	Attainment	Attainment
Pb	Attainment	Attainment
All others	Attainment/Unclassified	Attainment/Unclassified

Unclassified designation: a pollutant that is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.
Attainment designation: a pollutant is designated attainment if the State standard for that pollutant was not violated at any site in the area during a 3-year period.
Nonattainment: a pollutant is designated nonattainment if there was at least one violation at any site in the area during a 3-year period.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment*, 2015

4.3.1.4 Regional Air Quality Improvements

The SCAQMD website (aqmd.gov) includes historical air quality data dating back to 1994; the year after air pollution emissions thresholds were established. As described on the SCAQMD website,[2] in 1994 pollutant concentrations in the Basin exceeded three of the six Federal ambient air quality standards. The state sulfate standard was exceeded in some Basin areas. The state lead standard was exceeded in one localized area immediately adjacent to a source of lead emissions. No areas of the Basin exceeded standards for nitrogen dioxide or sulfur dioxide. The Los Angeles and Riverside County areas of the Southeast Desert Air Basin (SEDAB) served by the District exceeded standards

[1] Unclassified designation: a pollutant that is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment; Attainment designation: a pollutant is designated attainment if the State standard for that pollutant was not violated at any site in the area during a 3-year period. Nonattainment: a pollutant is designated nonattainment if there was at least one violation at any site in the area during a 3-year period.

[2] Historical Air Quality, Summary of 1994 Air Quality, http://aqmd.gov/smog/AirQualityStandardsComplianceReport/AirQualitySummary94.html, website accessed December 17, 2012.

for ozone and PM_{10}. No other standards were exceeded in the District SEDAB areas. The Federal standards were exceeded at one or more locations in the Basin during 142 days in 1994.

Although both Federal and State standards were exceeded for three criteria pollutants during 1994, current air quality represents substantial improvement over historical air quality. Between 1982–1984 and 1992–1994, the number of days on which the Federal ozone standard was exceeded dropped by one third, from 33 percent to 22 percent of days, in the East San Gabriel Valley area, which is exceeded most frequently. Exceedances of the Federal carbon monoxide standard decreased from 11 percent of days in 1982–1984 to 7 percent of days in 1992–1994. A comparison for the same periods cannot be made for PM_{10} since the first full year of monitoring was 1985. However, between 1985–1987 and 1992–1994, the percent of days exceeding the Federal 24-hour standard decreased from 13 percent to 3 percent.[1]

Exceedances of the State nitrogen dioxide standard decreased from 1 percent of days in 1982–1984 to 0.1 percent of days in 1992–1994. The Federal nitrogen dioxide standard has not been exceeded in any area since 1991. There have been no exceedances of lead standards at regular air monitoring stations in the Basin since 1982. The State and Federal sulfur dioxide standards were not exceeded in any of the Basin monitoring areas during either period. Exceedances of the State sulfate standard decreased from 2 percent to 0 percent at the long-term site used in this analysis, though a few sites were exceeded in 1994. The areas of the Basin recording the highest pollutant concentrations have shown a significant decrease in exceedances of the Federal standards over the past decade.

As described in the SCAQMD *December 2000 Air Quality Standards Report*, in a continuing trend of significant long-term improvement in air quality, the Basin did not experience a Stage 1 Episode for the second year in a row in the year 2000. Also, the year 2000 was the second year in the history of ambient air monitoring that the Basin was not the location recording the highest ozone concentration in the nation. Nonetheless, maximum pollutant concentrations in the region still exceed the Federal standards for ozone, carbon monoxide and particulate matter (PM_{10} and $PM_{2.5}$) by a wide margin.

Maximum 1-hour average and 8-hour average ozone concentrations in 2000 (0.184 ppm and 0.159 ppm) were 147 percent and 187 percent of the Federal 1-hour and 8-hour standards, respectively. The highest 8-hour average carbon monoxide concentration of 2000 (10.0 ppm) was 105 percent of the Federal standard. Maximum 24-hour average and annual average PM_{10} concentrations (139 $\mu g/m^3$ and 60.1 $\mu g/m^3$) were 92 percent and 119 percent of the Federal 24-hour and annual standards, respectively. Maximum 24-hour average and annual average $PM_{2.5}$ concentrations (119.6 $\mu g/m^3$ and 28.2 $\mu g/m^3$) were, respectively, 183 percent and 182 percent of the Federal 24-hour and annual standards.

In 2000, the Federal nitrogen dioxide standard was not exceeded, with a maximum concentration (0.0435 ppm), which was 81 percent of the Federal standard. The maximum 1-hour average nitrogen dioxide concentration (0.21 ppm) was 81 percent of the State standard. State standard for sulfate was exceeded on one day at one location. The maximum 24-hour concentration (26.7 $\mu g/m^3$) was 107 percent of the State standard. (There is no Federal sulfate standard.) Sulfur dioxide and lead concentrations continued to remain well below the Federal and State standards in 2000.[2]

As identified in the SCAQMD *December 2000 Air Quality Standards Report*, the number of exceedances recorded in 2000 shows that air quality trends through 2000 are consistent with a continuation of the downtrends reported in previous years. Figure 4.3.8 shows the trend in the percentage exceeding the Federal standards in the Basin. In 2000, there were 43 days on which one or more Federal standards were exceeded somewhere in the Basin, most of which (40 days) were for

[1] Air Quality Trends Through 1994, http://aqmd.gov/smog/trends_8494.html, website accessed May 9, 2012.
[2] *December 2000 Air Quality Standards Compliance Report,* SCAQMD, http://aqmd.gov/smog/AQSCR2000/aq00web.pdf, website accessed December 17, 2012.

ozone alone. Between 1976–1978 and 1998–2000, the three-year average number of days exceeding any of the Federal standards for 1-hour ozone, 8-hour carbon monoxide or 24-hour PM_{10} in the Basin was reduced by 80 percent. ("All Standards" does not include PM_{10} until 1985.) The three-year average number of days exceeding the carbon monoxide Federal standard was reduced by 94 percent for the same period. The number of sampling days exceeding the Federal 24-hour PM_{10} standard decreased 93 percent between 1985–1987 and 1998–2000. (Three-year averages were used to minimize the effect of year-to-year variations due to changes in meteorological conditions.)

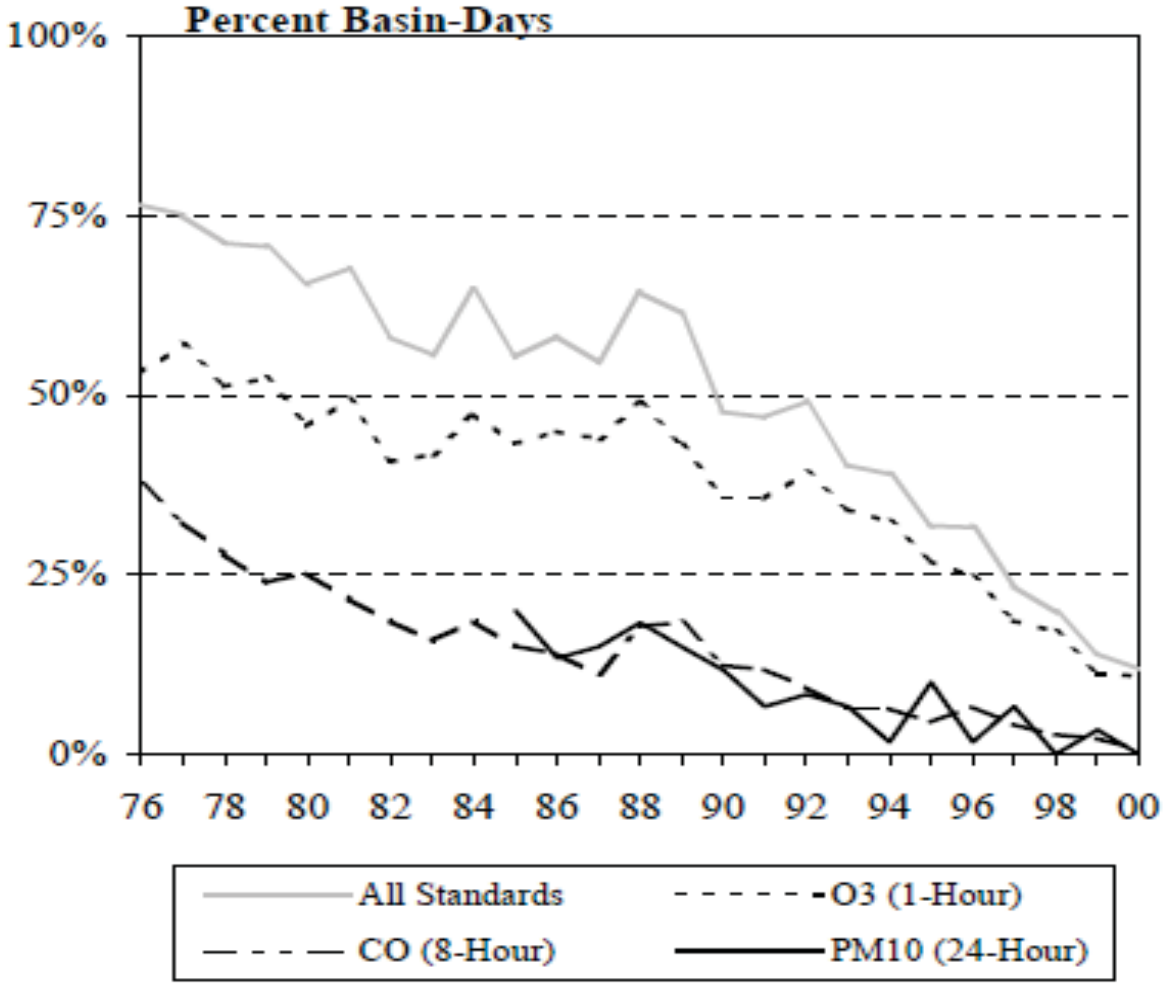


Figure 4.3.8: Percent of Days Basin Exceeds Federal AAQS

Between the periods 1976–1978 and 1998–2000, Stage 1 Episodes decreased 96 percent and health advisories decreased 86 percent. Exceedances of 1-hour and 8-hour Federal standards decreased 76 percent and 47 percent, and State standard exceedances decreased 49 percent as shown in Figure 4.3.9.

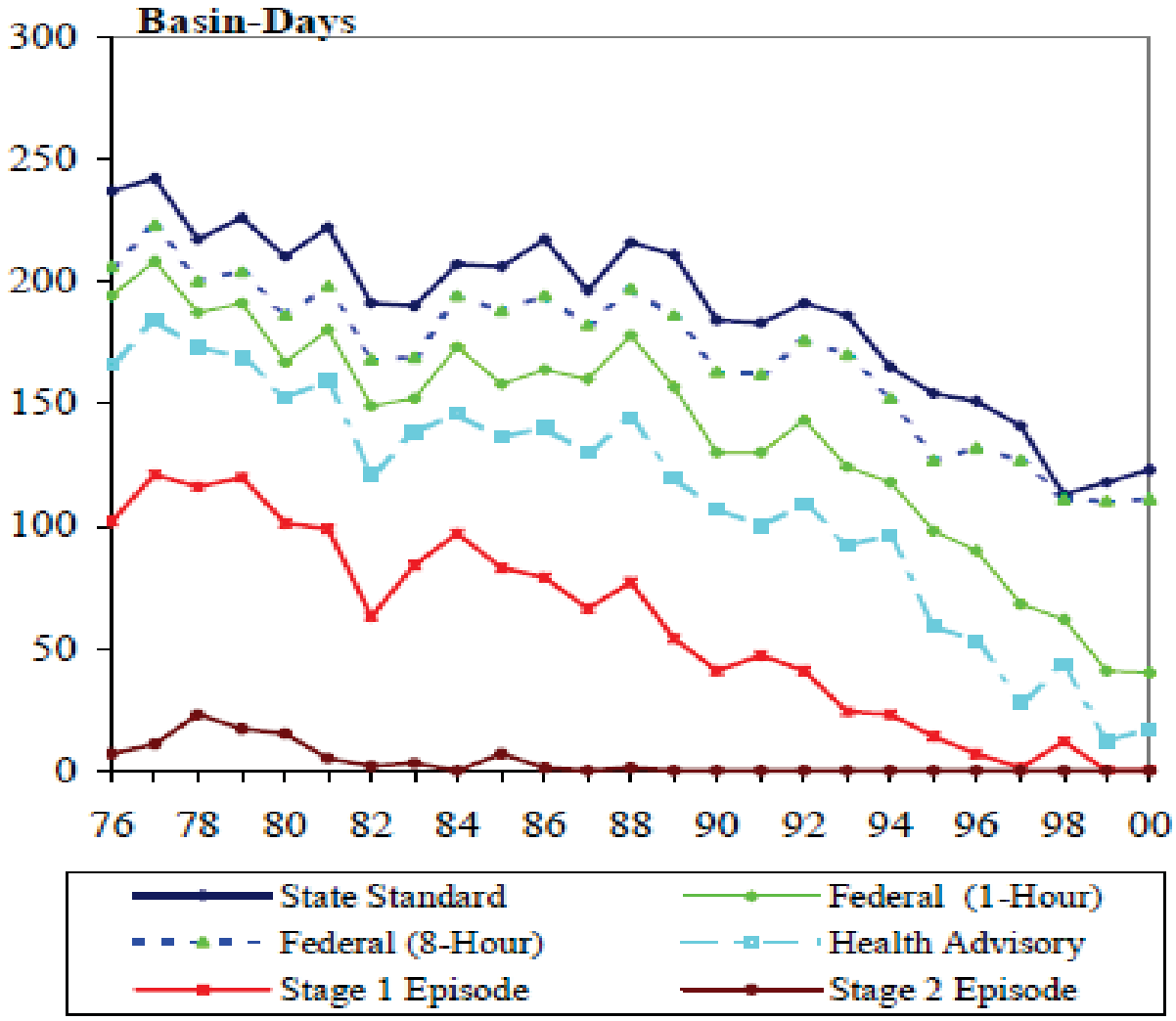


Figure 4.3.9: Exceedances of 1-Hour and 8-Hour Federal Standards

Figure 4.3.10 shows the number of days per month exceeding the Federal ozone standard for the period of 1976–2000. Up until the early 1990s, it was common to have days exceeding the Federal ozone standard as early as February and as late as November and December. Since the mid-1990s there have been no Federal standard exceedances recorded in the months of January–March and November–December. Also, the frequency of exceedances in fall (September and October) has been reduced significantly in recent years.

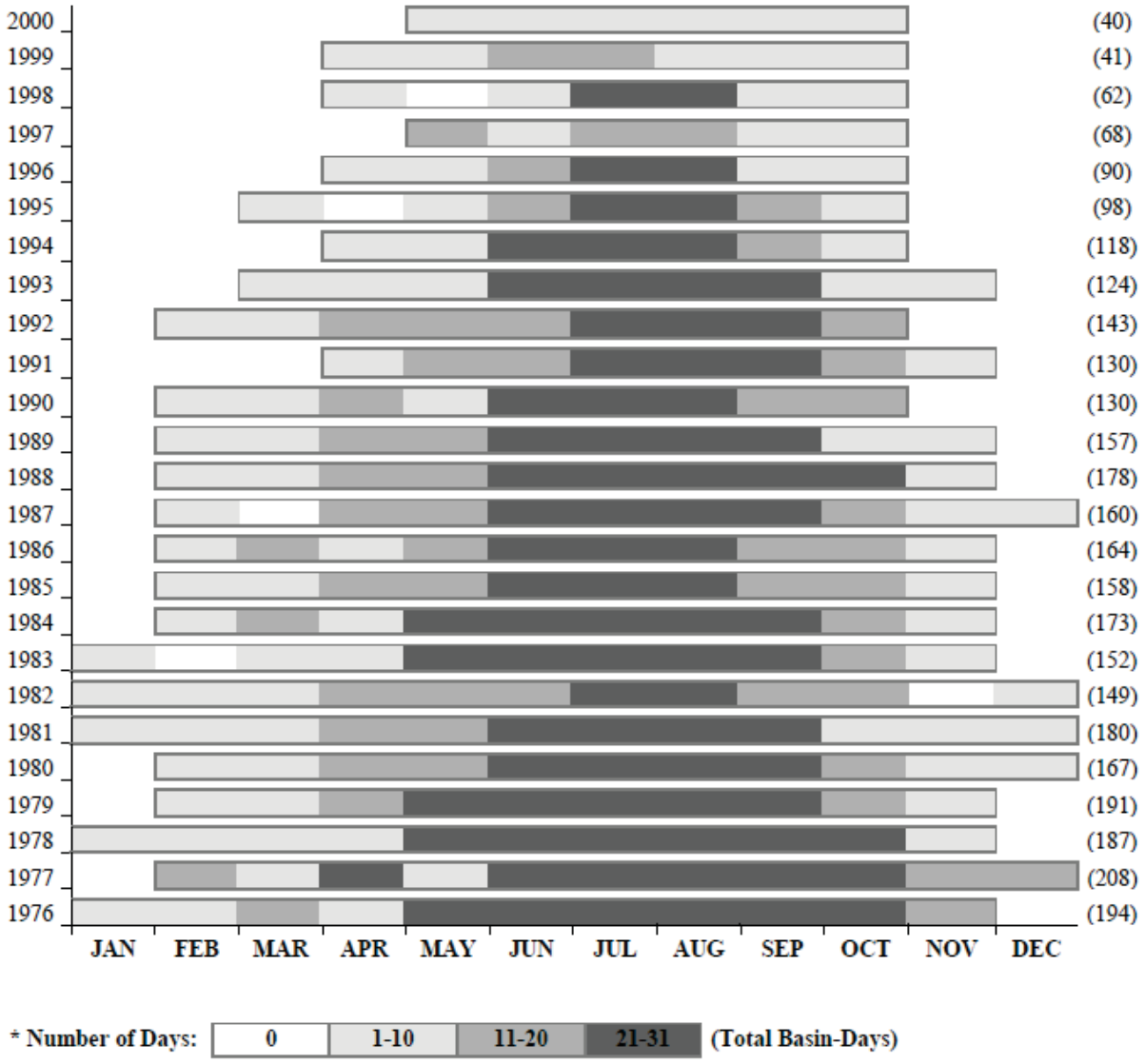


Figure 4.3.10: Number of Days per Month Federal Ozone Standard Exceeded, 1976–2000

The monthly distribution of the Federal ozone standard exceedances shows the trend toward shorter duration of the period of the year that high ozone concentrations occur (smog season). Although weather conditions contributed to the lower ozone concentrations, weather-adjusted trend studies have indicated that the significant downtrend in ozone concentration and shorter smog season in the Basin are mainly attributed to emission reduction and reduced reactivity of emitted organic compounds in the region.

As described in the SCAQMD *November/December 2006 Air Quality Standards Report*, the maximum 8-hour and 1-hour average ozone concentrations in the Basin (0.142 ppm and 0.175 ppm, recorded in the Central San Bernardino Mountains and East San Gabriel Valley areas) were 167 percent and 140 percent of the 8-hour and former 1-hour Federal standards, respectively. Maximum 24-hour average and annual average PM_{10} concentrations in the Basin (142 µg/m^3 and 64.0 µg/m^3, recorded in the Central San Bernardino Valley and Metropolitan Riverside County areas) were 94 percent of the Federal 24-hour standard and 125 percent of the former annual PM_{10} standards. Maximum 24-hour average $PM_{2.5}$ concentration (72.2 µg/m^3 recorded in the South San Gabriel Valley

area) was 203 percent of the new Federal 24-hour standard (35 µg/m^3) and 110 percent of the former standard (65 µg/m^3). Maximum annual average $PM_{2.5}$ concentration (20.6 µg/m^3 recorded in the Metropolitan Riverside County area) was 136 percent of the Federal annual $PM_{2.5}$ standard.

Nitrogen dioxide maximum annual average concentration (0.031 ppm recorded in the Northwest San Bernardino Valley area) was 58 percent of the Federal standard. (The annual average concentration was 103% of the proposed new annual State standard for NO_2.) Carbon monoxide concentrations have not exceeded the standards in the Basin since 2002. The highest 8-hour average carbon monoxide concentration in 2006 (6.4 ppm, recorded in the South Central Los Angeles County area) was 70 percent of the Federal standard. Sulfur dioxide, sulfate and lead concentrations remained well below the State and Federal standards in 2006.[1]

The American Lung Association website (lung.org) includes data collected from State air quality monitors that are used to compile an annual *State of the Air* report. These reports have been published over the last 13 years. The latest *State of the Air Report* compiled for the Basin was in 2010.[2] As noted in this report, air quality in the Basin has significantly improved in terms of both pollution levels and high pollution days over the past three decades. The area's average number of high ozone days dropped from 189.5 day per year in the initial 2000 State of the Air report (1996–1998) to 141.8 in the 2006–2008 report. The region has seen dramatic reduction in particle pollution since the initial State of the Air report (2000). While the 2010 *State of the Air Report* shows a slight uptick in the number of days of unhealthy air for ozone and annual particle pollution since the 2009 report, it is important to note that pollution levels measured in this latter report were affected by fluctuations in weather conditions in 2010 and the addition of several new particulate monitoring stations in areas in San Bernardino known to be particularly problematic for particulate matter given local conditions.

The 2012 Air Quality Management Plan states, "The remarkable historical improvement in air quality since the 1970s is the direct result of Southern California's comprehensive, multiyear strategy of reducing air pollution from all sources as outlined in its AQMPs" (South Coast Air Quality Management District 2012). As shown in Figure 4.3.11, ozone, NO_X, VOC, and CO have been decreasing in the Basin since 1975 and are projected to continue to decrease through 2020 (CARB 2009). These decreases result primarily from motor vehicle controls and reductions in evaporative emissions. Although vehicle miles traveled in the Basin continue to increase, NO_X and VOC levels are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with lower-emitting vehicles. NO_X emissions from electric utilities have also decreased due to use of cleaner fuels and renewable energy.

Figure 4.3.11 also displays ozone contour maps, which show that the number of days exceeding the national 8-hour standard has decreased between 1997 and 2007. In the 2007 period, there was an overall decrease in exceedance days compared with the 1997 period.

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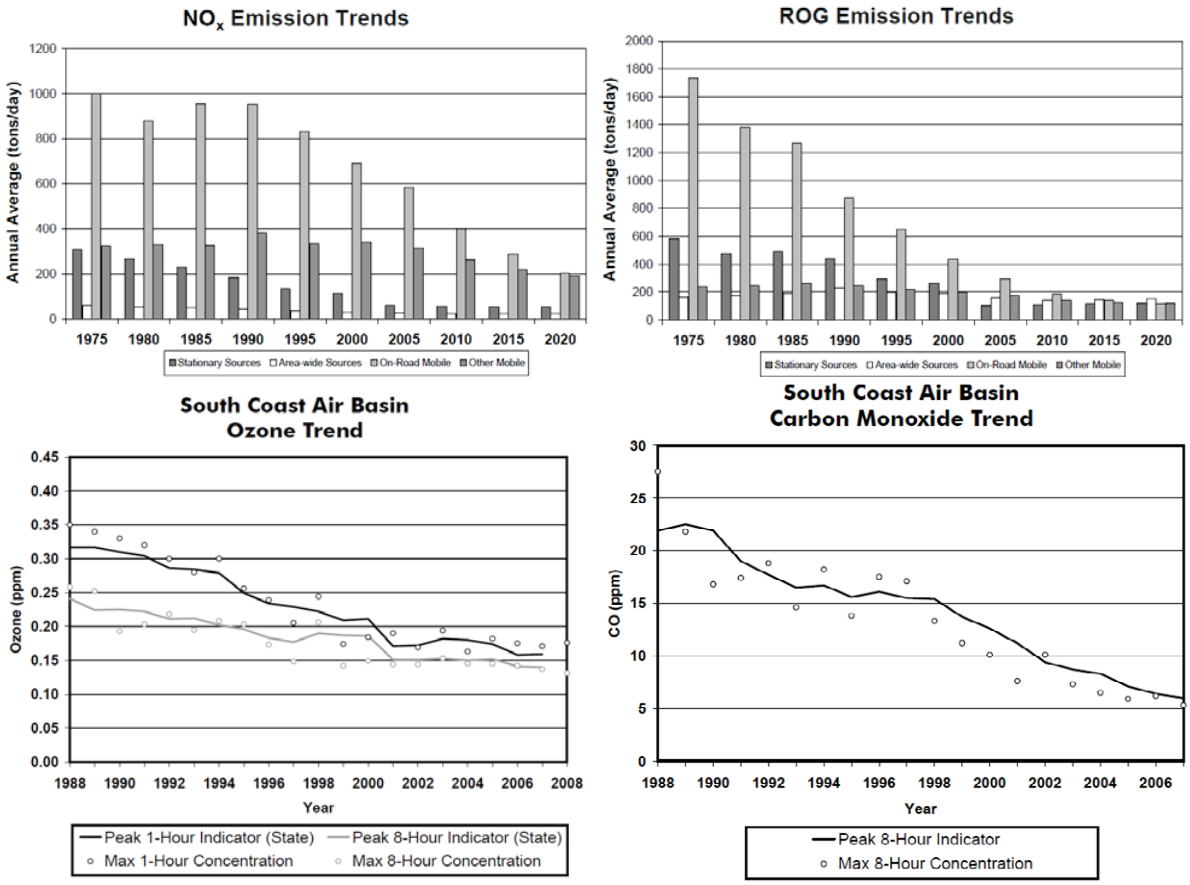
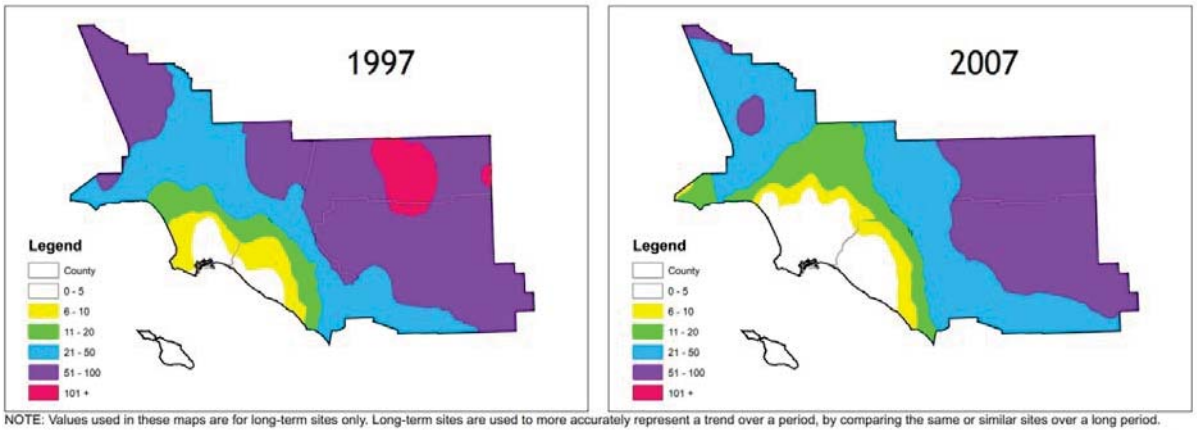
1 *November/December 2006 Air Quality Compliance Report*, SCAQMD, http://aqmd.gov/smog/AQSCR2006/2006_AirQuality.pdf, website accessed December 17, 2012.

2 *State of the Air 2010 South Coast Air Basin,* American Lung Association, *http://www.lung.org/associations/states/california/assets/pdfs/sota/south-coast-fact-sheet.pdf,* website accessed December 17, 2012.



Ozone Contour Maps – 3 year Average of National 8-hour Exceedance Days

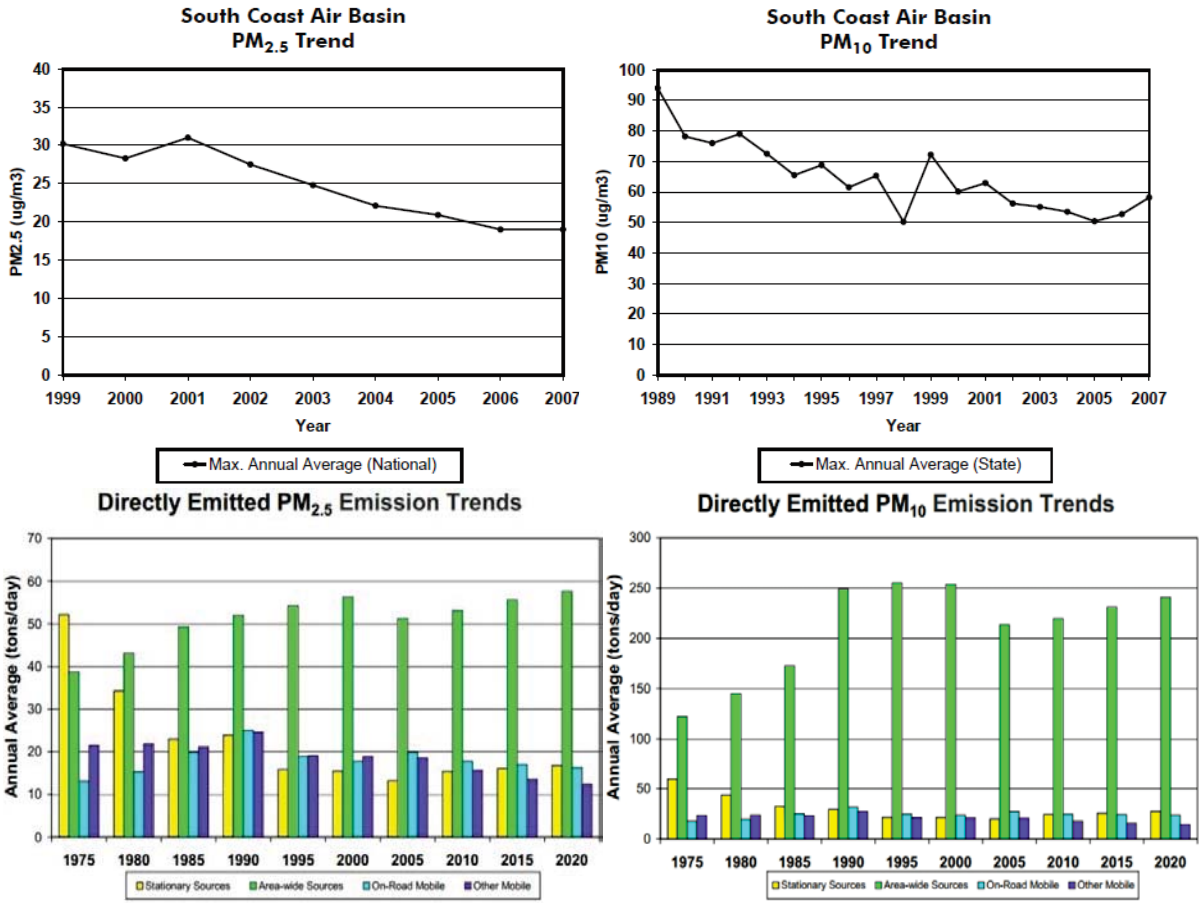


NOTE: Values used in these maps are for long-term sites only. Long-term sites are used to more accurately represent a trend over a period, by comparing the same or similar sites over a long period.

Note: ROG (reactive organic gases) and VOC (volatile organic compounds) are used interchangeably in this analysis.
Source: CARB, California Almanac of Emissions and Air Quality, 2009 Edition.

Figure 4.3.11: NOx, VOC, CO, and Ozone Trends in the South Coast Air Basin

As shown in the top portion of Figure 4.3.12, the overall trends of PM_{10} and $PM_{2.5}$ in the air (not emissions) show an overall improvement since 1975. As shown in the bottom portion of Figure 4.3.12, direct emissions of PM_{10} have remained somewhat constant in the Basin and direct emissions of $PM_{2.5}$ have decreased slightly since 1975. Area-wide sources (fugitive dust from roads, dust from construction and demolition, and other sources) contribute the greatest amount of direct particulate matter emissions.



Source: CARB, California Almanac of Emissions and Air Quality, 2009 Edition.
Figure 4.3.12: Particulate Matter Trends in the South Coast Air Basin

The reduction in air pollution levels experienced in the Basin is attributable to multiple factors. First, Federal and State regulatory strategies requiring the use of cleaner fuels and use of emissions control technology in the transportation and energy production industries have proven to greatly reduce the amount of tailpipe emission (vehicles) and point source (power plants) pollutants (e.g., NO_X and ROG). Second, the SCAQMD's rules and regulatory programs have proven to be instrumental in improving the air quality in the Basin. As an example, the SCAQMD has adopted multiple rules regarding fugitive dust (PM_{10} and $PM_{2.5}$) and construction emissions that have resulted in reduced emission levels. Third, the SCAQMD's creation of the 1993 CEQA review handbook has resulted in lead agencies throughout the air basin employing uniform CEQA analyses and methodologies. The use of uniform CEQA review has allowed the SCAQMD and lead agencies that rely on the 1993 SCAQMD Air Quality Handbook to perform CEQA analysis to better track progress and to employ uniform mitigation and design feature strategies. Fourth, the use of the SCAQMD thresholds of significance to determine a project's direct and cumulative impact has allowed the SCAQMD to make tremendous progress toward achieving air quality attainment. The discussion above (pertaining to the air quality improvements achieved over the past 20 years) demonstrates that

the SCAQMD's rules and procedures, including the uniform utilization of the thresholds of significance recommended in the SCAQMD *CEQA Air Quality Handbook* are contributing toward the achievement of improved air quality in the Basin.

It is for this reason that this EIR and the City have chosen to rely on the thresholds of significance established by the SCAQMD in its 1993 CEQA Handbook and subsequent additions to the Handbook. These thresholds of significance (which serve as both direct and cumulative thresholds) have been uniformly utilized by lead agencies throughout the Basin for the past 20 years and the improvement of air quality within the Basin throughout this time period has demonstrated the efficacy of these thresholds, along with the other regional and statewide regional programs discussed above, in improving air quality throughout the Basin.

4.3.1.5 Local Air Quality

The SCAQMD, together with the CARB, maintains ambient air quality monitoring stations in the Basin. The air quality monitoring station most representative of the project site are the Riverside-Magnolia and Riverside-Rubidoux stations. These stations monitor CO, SO_2, NO_2, O_3, PM_{10}, and $PM_{2.5}$. . Some monitoring data for SO_2 has been omitted as attainment is regularly met for this pollutant within the Basin. These stations characterize the air quality representative of the ambient air quality in the project area. The ambient air quality data in Table 4.3.E identify that CO and NO_2 levels are consistently below the relevant State and Federal standards in the project vicinity. O_3, PM_{10}, and $PM_{2.5}$ levels all exceed State and/or Federal standards regularly. Figure 4.3.13 identifies the locations of the monitoring stations relative to the proposed project site.

4.3.1.6 Sensitive Land Uses in the Project Vicinity

Sensitive receptors include residences, schools, medical offices, convalescent facilities, and similar uses where people sensitive to air pollutants may be located (i.e., the ill, elderly, pregnant women, and children). There are currently seven occupied single-family homes and associated ranch/farm buildings in various locations on the proposed project site. These residences are existing on-site sensitive receptors. The nearest off-site existing sensitive receptors in the vicinity of the proposed project site are the residences located along Bay Avenue, Merwin Street, west of Redlands Boulevard, and scattered residences along Gilman Springs Road north of Alessandro Boulevard. Nearby sensitive land uses are depicted in Figure 4.3.14.

4.3.1.7 Existing Project Area Emissions

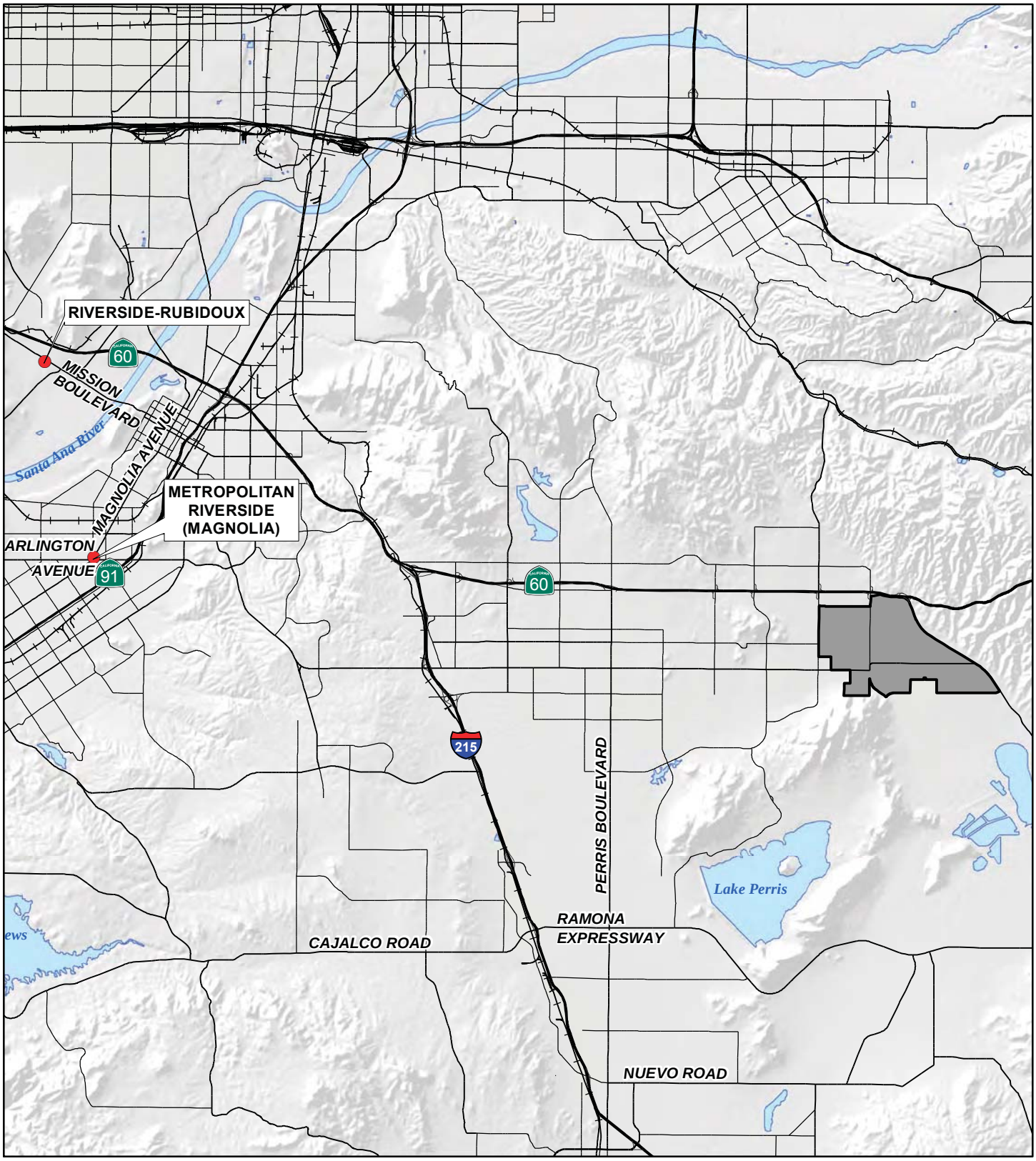
The project area is largely vacant undeveloped marginal agricultural land, with seven occupied single-family homes and associated ranch/farm buildings in various locations on the property. Much of the site is currently used for dry farming. San Diego Gas & Electric (SDG&E) operates a natural gas compressor plant, known as the Moreno Compressor Station, on 19 acres in the south-central portion of the site. The Southern California Gas Company (SCGC) also operates a metering and pipe cleaning station on two separate parcels (totaling 1.5 acres) in the south-central portion of the site south of Alessandro Boulevard along existing Virginia Street. Existing air quality conditions at the proposed project site reflect ambient[1] monitored conditions as presented in Table 4.3.E.

[1] Ambient: of or related to the immediate surroundings of something; in this context it means "in the air"

Table 4.3.E: Ambient Air Quality Monitored in the Project Vicinity

Pollutant	Standard	2009	2010	2011	2012
Carbon Monoxide (CO)					
Maximum 1-hr concentration (ppm)		2.64	2.63	ND	ND
Number of days exceeded:	State: > 20 ppm	0	0	ND	0
	Federal: > 35 ppm	0	0	ND	0
Maximum 8-hr concentration (ppm)		1.85	1.84	1.35	1.59
Number of days exceeded:	State: ≥ 9.0 ppm	0	0	0	0
	Federal: ≥ 9 ppm	0	0	0	0
Ozone (O_3)					
Maximum 1-hr concentration (ppm)		0.116	0.128	0.128	0.126
Number of days exceeded:	State: > 0.09 ppm	25	31	52	27
Maximum 8-hr concentration (ppm)		0.101	0.099	0.115	0.102
Number of days exceeded:	State: > 0.070 ppm	57	74	92	70
	Federal: > 0.075 ppm	36	47	67	47
Coarse Particulates (PM_{10})					
Maximum 24-hr concentration (μg/m^3)		86.8	75.0	82.7	82.6
Number of days exceeded:	State: > 50 μg/m^3	120	43	30	52
	Federal: > 150 μg/m^3	0	0	0	0
Annual arithmetic mean concentration (μg/m^3)		41.9	33.8	32.5	33.4
Exceeded for the year	State: > 20 μg/m^3	Yes	Yes	Yes	Yes
Fine Particulates ($PM_{2.5}$)					
Maximum 24-hr concentration (μg/m^3)		62.0	58.5	73.7	39.9
Number of days exceeded:	Federal: > 35 μg/m^3	15	4	5	7
Annual arithmetic mean (μg/m^3)		17.1	13.9	13.8	13.6
Exceeded for the year	State: > 12 μg/m^3	Yes	Yes	Yes	Yes
	Federal: > 12.0 μg/m^3	Yes	Yes	Yes	Yes
Nitrogen Dioxide (NO_2)					
Maximum 1-hr concentration (ppm)		0.078	0.065	0.063	0.062
Number of days exceeded:	State: > 0.18 ppm	0	0	0	0
Annual arithmetic mean concentration (ppm)		0.017	0.017	0.017	0.016
Exceeded for the year	State: > 0.030 ppm	No	No	ID	ID
	Federal: > 0.053 ppm	No	No		
Sulfur Dioxide (SO_2)					
Maximum 24-hr concentration (ppm)		0.003	0.005	0.001	ID
Number of days exceeded:	State: > 0.04 ppm	0	0	ND	ND
Annual arithmetic average concentration (ppm)		0.001	0.001	<0.001	ID
Exceeded for the year:	Federal: > 0.030 ppm	No	No	ND	ND

μg/m^3 = micrograms per cubic meter
ID = Insufficient data
ppm = parts per million
EPA = United States Environmental Protection Agency
ND = No data
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment*, 2015



LSA

FIGURE 4.3.13

N

Air Monitoring Location

NAME

0 7,000 14,000

FEET

World Logistics Center Specific Plan Project
Environmental Impact Report

Air Quality Monitoring Stations

SOURCE: USGS DEM; Thomas Bros, 2007; Air Resources Board, 2005

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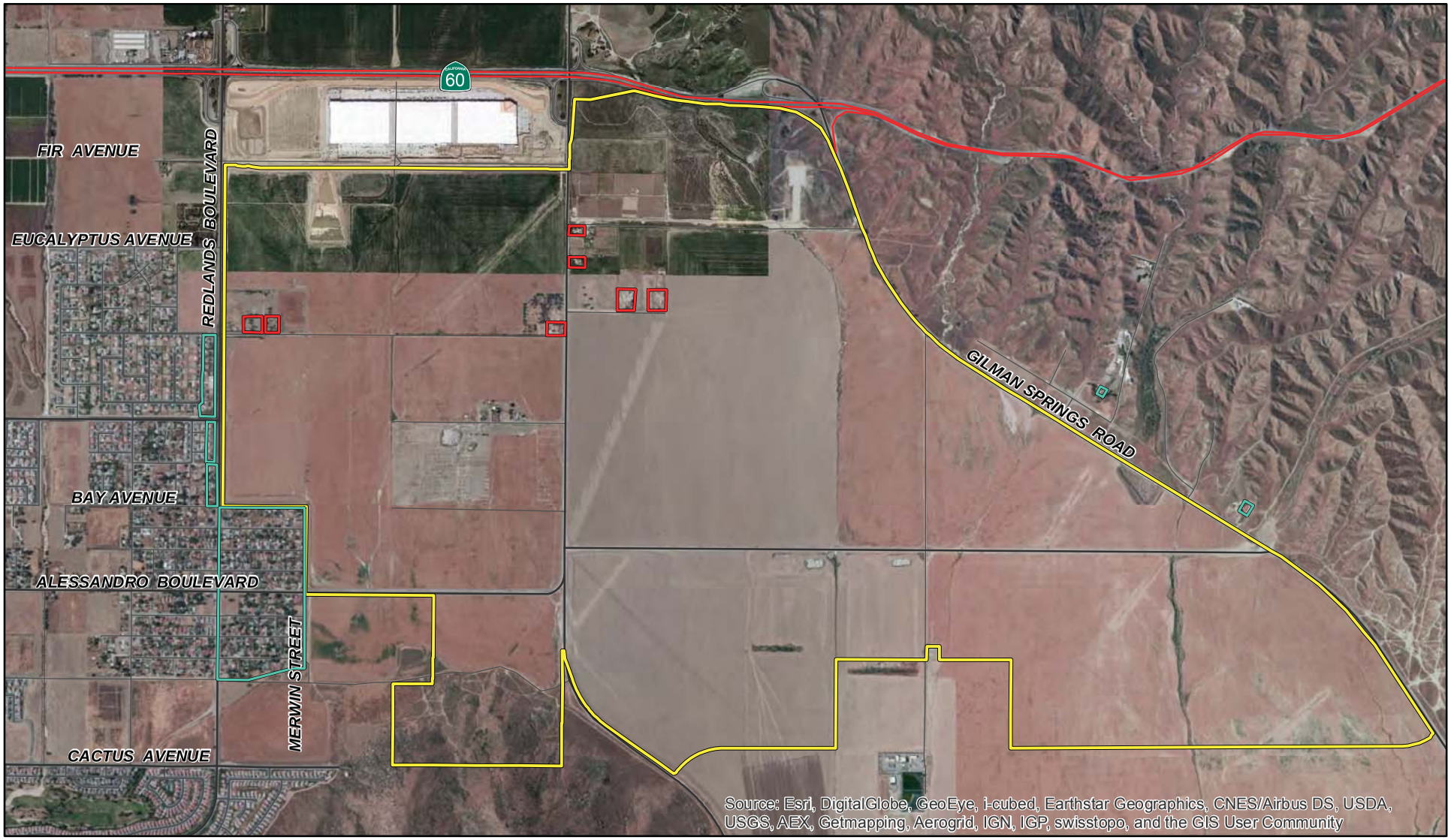

LSA

FIGURE 4.3.14

Specific Plan Boundary

Off-site Sensitive Receptor

On-site Sensitive Receptor

N

0 1,100 2,200

FEET

World Logistics Center Specific Plan Project

Existing Sensitive Receptors

SOURCE: ESRI, World Imagery 2010; Google Earth, 2011; Albert A Webb, Assoc., 2014.

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4.3.2 Policies and Regulations

4.3.2.1 Federal Regulations

Clean Air Act. Pursuant to the Federal Clean Air Act (CAA) of 1970, the EPA established national ambient air quality standards (NAAQS). The NAAQS were established for six major pollutants, termed "criteria" pollutants. Criteria pollutants are defined as those pollutants for which the Federal and State governments have established ambient air quality standards, or criteria, for outdoor concentrations in order to protect public health.

The EPA established national air quality standards for ground-level O_3 and $PM_{2.5}$ in 1997. On May 14, 1999, the Court of Appeals for the District of Columbia Circuit issued a decision ruling that the CAA, as applied in setting the new public health standards for O_3 and particulate matter, was unconstitutional as an improper delegation of legislative authority to the EPA. On February 27, 2001, the U.S. Supreme Court upheld the way that the government sets air quality standards under the CAA. The Court unanimously rejected industry arguments that the EPA must consider financial cost as well as health benefits in writing standards. The Justices also rejected arguments that the EPA took too much lawmaking power from Congress when it set tougher standards for O_3 and soot in 1997. Nevertheless, the Court threw out the EPA's policy for implementing new O_3 rules, stating that the EPA ignored a section of the law that restricts its authority to enforce such rules.

In April 2003, the EPA was cleared by the White House Office of Management and Budget (OMB) to implement the eight-hour ground-level O_3 standard. The EPA issued the proposed rule implementing the eight-hour O_3 standard in April 2003. The EPA completed final eight-hour nonattainment status on April 15, 2004. The EPA issued the final $PM_{2.5}$ implementation rule in fall 2004. The EPA issued final designations on December 14, 2004.

Effective January 22, 2010, the EPA strengthened the standard for NO_2 by setting a new 1-hour standard at the level of 100 parts per billion (ppb). This standard defines the maximum allowable concentration anywhere in an area and will protect against adverse health effects associated with short-term exposure to NO_2. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 100 ppb. On January 25, 2010, the EPA issued the final rule setting the one-hour maximum standard for NO_2 at 100 parts per billion (ppb). The agency retained the annual standard of 53 ppb.

Additionally, effective June 2, 2010, the EPA revised the primary standard for SO_2 by establishing a new 1-hour standard at a level of 75 ppb. The EPA revoked the two existing primary standards of 140 ppb evaluated over 24 hours and 30 ppb evaluated over an entire year as they would not provide additional public health protection given a 1-hour standard at 75 ppb. To attain this standard, the 3-year average of the 99th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 75 ppb.

4.3.2.2 State Regulations

Mulford-Carrell Act. The State began to set California Ambient Air Quality Standards (CAAQS) in 1969 under the mandate of the Mulford-Carrell Act. The CAAQS are generally more stringent than the NAAQS. In addition to the six criteria pollutants covered by the NAAQS, there are CAAQS for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles.

Originally, there were no attainment deadlines for CAAQS; however, the CCAA of 1988 provided a time frame and a planning structure to promote their attainment. The CCAA required nonattainment areas in the State to prepare attainment plans and proposed to classify each such area on the basis of the submitted plan, as follows: moderate, if CAAQS attainment could not occur before December 31, 1994; serious, if CAAQS attainment could not occur before December 31, 1997; and severe, if

CAAQS attainment could not be conclusively demonstrated at all. The attainment plans are required to achieve a minimum 5 percent annual reduction in the emissions of nonattainment pollutants unless all feasible measures have been implemented. The EPA has designated the Southern California Association of Governments (SCAG) as the Metropolitan Planning Organization (MPO) responsible for ensuring compliance with the requirements of the CAA for the Basin.

California Clean Air Act (CCAA). The CCAA was passed into law in 1988. The CCAA provides the basis for air quality planning and regulation independent of federal regulations. A major element of the CCAA is the requirement that local air districts in violation of the CAAQS must prepare attainment plans that identify air quality problems, causes, trends and actions to be taken to attain and maintain California's air quality standards by the earliest practicable date. The CCAA provides air districts with the authority to manage transportation activities at indirect sources that individually are minor but collectively emit a substantial amount of pollution such as motor vehicles at intersections, malls, and on highways. The SCAQMD also regulates stationary sources of pollution throughout its jurisdictional area. Direct emissions from motor vehicles are regulated by the CARB.

CARB Airborne Toxic Control Measure/Asbestos. Asbestos is listed as a toxic air contaminant by CARB and as a Hazardous Air Pollutant by the EPA. Asbestos occurs naturally in surface deposits of several types of rock formations. Asbestos most commonly occurs in ultramafic rock that has undergone partial or complete alteration to serpentine rock (serpentinite) and often contains chrysotile asbestos. In addition, another form of asbestos, tremolite, can be found associated with ultramafic rock, particularly near faults. Crushing or breaking these rocks, through construction or other means, can release asbestoform fibers into the air. Asbestos emissions can result from the sale or use of asbestos-containing materials, road surfacing with such materials, grading activities, and surface mining. The risk of disease is dependent upon the intensity and duration of exposure. When inhaled, asbestos fibers may remain in the lungs and with time may be linked to such diseases as asbestosis, lung cancer, and mesothelioma. In July 2001, the CARB approved an Air Toxic Control Measure for construction, grading, quarrying and surface mining operations to minimize emissions of naturally occurring asbestos. The regulation requires application of best management practices (BMPs) to control fugitive dust in areas known to have naturally occurring asbestos and requires notification to the local air district prior to commencement of ground-disturbing activities. The measure establishes specific testing, notification and engineering controls prior to grading, quarrying or surface mining in construction zones where naturally occurring asbestos is located on projects of any size. There are additional notification and engineering controls at work sites larger than one acre in size. These projects require the submittal of a "Dust Mitigation Plan" and approval by the air district prior to the start of a project. There is no asbestos in the project area (U.S. Geological Survey 2011).

4.3.2.3 Regional Regulations

Lewis Air Quality Management Act. The 1976 Lewis Air Quality Management Act established the SCAQMD and other air districts throughout the State. The Federal CAA Amendments of 1977 required that each state adopt an implementation plan outlining pollution control measures to attain the Federal standards in nonattainment areas of the State.

The CARB is responsible for incorporating air quality management plans for local air basins into an SIP for EPA approval. Significant authority for air quality control within them has been given to local air districts that regulate stationary source emissions and develop local nonattainment plans.

Carl Moyer Memorial Air Quality Standards Attainment Program. Since 1998, the Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program) has provided funding to encourage the voluntary purchase of cleaner engines, equipment, and emission reduction technologies. The Carl Moyer Program plays a complementary role to California's regulatory program by funding emission reductions that are surplus, i.e., early and/or in excess of what is required by

regulation. The Carl Moyer Program accelerates the turnover of old highly-polluting engines, speeds the commercialization of advanced emission controls, and reduces air pollution impacts on environmental justice communities. Emission reductions achieved through the Carl Moyer Program are an important component of the California State Implementation Plan.

Regional Air Quality Management Plan (AQMP). The SCAQMD and the SCAG are responsible for formulating and implementing the AQMP, which has a 20-year horizon for the Basin. An AQMP is a plan prepared and implemented by an air pollution district for a county or region designated as nonattainment of the Federal and/or California ambient air quality standards. The SCAQMD and SCAG must update the AQMP every three years. The current regional air quality plan is the Final 2012 Air Quality Management Plan (AQMP) adopted by the SCAQMD on December 7, 2012.

2003 AQMP. One of the purposes of the 2003 AQMP is to lead the Basin and portions of the Salton Sea Air Basin under SCAQMD jurisdiction into compliance with the 1-hour ozone and PM_{10} Federal standards (SCAQMD 2003).

The 2003 AQMP also replaced the 1997 attainment demonstration for the Federal CO standard, provided a basis for a maintenance plan for CO for the future, and updated the maintenance plan for the Federal nitrogen dioxide standard that the Basin has met since 1992 (2003 AQMP, page 1-1).

The 2003 AQMP also incorporated new scientific data in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. The 2003 AQMP utilized complex modeling to show that with the control measures, the Basin would be in compliance with the Federal and State standards for all pollutants by 2010, except for the State ozone and PM_{10} standards and the State ozone and PM_{10} standards after 2010 or by the earliest practicable date, as mandated by the California Health and Safety Code Section 40462. The CARB approved the 2003 AQMP on August 1, 2003. The EPA's adequacy finding on the emissions budgets for conformity determination in the Basin was published in the Federal Register (69 FR 15325-15326).

2007 AQMP. One of the purposes of the 2007 AQMP is to lead the Basin into compliance with the Federal 8-hour ozone and $PM_{2.5}$ standards. The 2007 AQMP was adopted by the SCAQMD on June 1, 2007 (SCAQMD 2007b). On July 13, 2007, the SCAQMD Board adopted the 2007 Final AQMP Transportation Conformity Budgets and directed the Executive Officer to forward them to the CARB for approval and subsequent submittal to the EPA. On September 27, 2007, the CARB adopted the State Strategy for the 2007 State Implementation Plan and the 2007 AQMP as part of the State Implementation Plan. On January 15, 2009, the EPA's regional administrator signed a final rule to approve in part and disapprove in part the SCAQMD 2003 1-hour ozone plan and the nitrogen dioxide maintenance plan. The parts of the plan that were approved strengthen the State Implementation Plan. The Clean Air Act does not require the disapproved portions of the plan, and the disapprovals do not start sanctions clocks.

The 2007 AQMP outlines a detailed strategy for meeting the Federal health-based standards for $PM_{2.5}$ by 2015 and 8-hour ozone by 2024 while accounting for and accommodating future expected growth. The 2007 AQMP incorporates significant new emissions inventories, ambient measurements, scientific data, control strategies, and air quality modeling. Most of the reductions will be from mobile sources, which are currently responsible for about 75 percent of all smog and particulate-forming emissions. The 2007 AQMP includes 37 control measures proposed for adoption by the SCAQMD, including measures to reduce emissions from new commercial and residential developments, more reductions from industrial facilities, and reductions from wood-burning fireplaces and restaurant char broilers.

2012 AQMP. The 2012 AQMP was adopted December 7, 2012 (SCAQMD 2012b). The purpose of the 2012 AQMP for the Basin is to set forth a program that will lead the Basin into compliance with

the Federal 24-hour $PM_{2.5}$ air quality standard, and to provide an update of the Basin's projections in meeting the Federal 8-hour ozone standards. The AQMP was adopted by the SCAQMD Board; therefore, it was submitted to the EPA as the State Implementation Plan (SIP) . Specifically, the AQMP will serve as the official SIP submittal for the Federal 2006 24-hour $PM_{2.5}$ standard . In addition, the AQMP will update specific elements of the previously approved 8-hour ozone SIP: 1) an updated emissions inventory, and 2) new control measures and commitments for emissions reductions to help fulfill the Section 182(e)(5) portion of the 8-hour ozone SIP.

The 2012 AQMP states, "The remarkable historical improvement in air quality since the 1970's is the direct result of Southern California's comprehensive, multiyear strategy of reducing air pollution from all sources as outlined in its AQMPs."

The 2012 AQMP proposes Basin-wide $PM_{2.5}$ measures that will be implemented by the 2014 attainment date, episodic control measures to achieve air quality improvements (would only apply during high $PM_{2.5}$ days), Section 182(e)(5) implementation measures (to maintain progress toward meeting the 2023 8-hour ozone national standard), and transportation control measures. Most of the control measures focus on incentives, outreach, and education.

Proposed $PM_{2.5}$ reduction measures in the 2012 AQMP include the following:

- Further NO_X reductions from the SCAQMD's Regional Clean Air Incentives Market (RECLAIM) program. The RECLAIM program was adopted by the SCAQMD in October 1993 and set an emissions cap and declining balance for many of the largest facilities emitting NOx and SOx in the South Coast Air Basin. RECLAIM includes over 350 participants in its NOx market and about 40 participants in its SOx market. RECLAIM has the longest history and practical experience of any locally designed and implemented air emissions cap and trade program. RECLAIM allows participating facilities to trade air pollution while meeting clean air goals.
- Further reductions from residential wood-burning devices.
- Further reductions from open burning.
- Emission reductions from under-fired char broilers.
- Further ammonia reductions from livestock waste.
- Backstop measures for indirect sources of emissions from ports and port-related sources.
- Further criteria pollutant reductions from education, outreach, and incentives.

There are multiple VOC and NO_X reductions in the 2012 AQMP to attempt to reduce ozone formation, including further VOC reductions from architectural coatings, miscellaneous coatings, adhesives, solvents, lubricants, and mold release products.

The 2012 AQMP also contains proposed mobile source implementation measures for the deployment of zero and near-zero emission on-road heavy-duty vehicles, locomotives, and cargo handling equipment. There are measures for the deployment of cleaner commercial harbor craft, cleaner ocean-going marine vessels, cleaner off-road equipment, and cleaner aircraft engines.

The 2012 AQMP proposes the following mobile source implementation measures:

- On-road mobile sources:
    - Accelerated penetration of partial zero-emission and zero-emission vehicles. This measure proposes to continue incentives for the purchase of zero-emission vehicles and hybrid vehicles with a portion of their operation in an all-electric range mode. The state Clean Vehicle Rebate Pilot program is proposed to continue from 2015 to 2023 with a proposed

funding for up to $5,000 per vehicle. The measure seeks to provide funding assistance for up to 1,000 zero-emission or partial-zero emission vehicles per year.

- Accelerated penetration of partial zero-emission and zero-emission light-heavy and medium-heavy duty vehicles through funding assistance for purchasing the vehicles. The objective of the proposed action is to accelerate the introduction of advanced hybrid and zero-emission technologies for Class 4 through 6 heavy-duty vehicles. The state is currently implementing a Hybrid Vehicle Incentives Project program to promote zero-emission and hybrid heavy-duty vehicles. The proposed measure seeks to continue the program from 2015 to 2023 to deploy up to 1,000 zero- and partial-zero emission vehicles per year with up to $25,000 funding assistance per vehicle. Zero-emission vehicles and hybrid vehicles with a portion of their operation in an all-electric range mode would be given the highest priority.
- Accelerated retirement of older light-, medium-, and heavy-duty vehicles through funding incentives.
- Further emission reductions from heavy-duty vehicles serving near-dock rail yards This proposed control measure calls for a requirement that any cargo container moved between the ports of Los Angeles and Long Beach to the nearby rail yards be with zero-emission technologies. The measure would be fully implemented by 2020 through the deployment of zero-emission trucks or any alternative zero-emission container movement system such as a fixed guideway system. The measure calls for the CARB to either adopt a new regulation or amend an existing regulation to require such deployment by 2020.

- Off-road mobile sources:
  - Extension of the Surplus Off-Road Opt-In for NOx (SOON) provision for construction/industrial equipment, which provides funding to repower or replace older Tier 0 and Tier 1 equipment.
  - Further emission reductions from freight and passenger locomotives calls for an accelerated use of Tier 4 locomotives in the Basin.
  - Further emission reductions from ocean-going marine vessels while at berth.
  - Emission reductions from ocean-going marine vessels.

The 2012 AQMP also relies upon the SCAG regional transportation strategy, which is in its adopted 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and 2011 Federal Transportation Improvement Program, which contains the following sections:

1. Linking regional transportation planning to air quality planning and making sure that the regional transportation plan supports the goals and objectives of the AQMP/SIP.
2. Regional transportation strategy and transportation control measures: The RTP/SCS contains improvements to the regional multimodal transportation system including the following: active transportation (non-motorized transportation, e.g., biking and walking); transportation demand management; transportation system management; transit; passenger and high-speed rail; goods movement; aviation and airport ground access; highways; arterials; and operations and maintenance.
3. Reasonably available control measure analysis.

Diesel Regulations. The Ports of Long Beach and Los Angeles and the CARB have adopted regulations aimed at reducing the amount of diesel particulate. These programs are the Ports of Los

Angeles and Long Beach "Clean Truck Program,[1] the CARB Drayage Truck Regulation,[2] and the CARB statewide On-road Truck and Bus Regulation.[3] Each of these regulatory programs will require an accelerated introduction of "clean trucks" into the statewide truck fleet that will result in substantially lower diesel emissions during the 2008 to 2020 timeframe.

- *Airborne Toxic Control Measure for Diesel Particulate Matter from Portable Engines Rated at 50 horsepower and Greater.* Effective February 19, 2011, each fleet shall comply with weighted reduced particulate matter emission fleet averages by compliance dates listed in the regulation.
- *CARB Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling* adopts new Section 2485 within Chapter 10, Article 1, Division 3, Title 13 in the California Code of Regulations. The measure limits the idling of diesel vehicles (i.e., commercial trucks over 10,000 pounds) to reduce emissions of toxics and criteria pollutants. The driver of any vehicle subject to this section: (1) shall not idle the vehicle's primary diesel engine for greater than five minutes at any location; and (2) shall not idle a diesel-fueled auxiliary power system for more than five minutes to power a heater, air conditioner, or any ancillary equipment on the vehicle if it has a sleeper berth and the truck is located within 100 feet of a restricted area (homes and schools).
- *CARB Final Regulation Order, Requirements to Reduce Idling Emissions from New and In-Use Trucks,* requires that new 2008 and subsequent model-year heavy-duty diesel engines be equipped with an engine shutdown system that automatically shuts down the engine after 300 seconds of continuous idling operation once the vehicle is stopped, the transmission is set to 'neutral' or 'park,' and the parking brake is engaged. If the parking brake is not engaged, then the engine shutdown system shall shut down the engine after 900 seconds of continuous idling operation once the vehicle is stopped and the transmission is set to neutral or park." There are a few conditions where the engine shutdown system can be overridden to prevent engine damage. Any project trucks manufactured after 2008 would be consistent with this rule, which would ultimately reduce air emissions.
- *CARB Regulation for In-Use Off-Road Diesel Vehicles.* On July 26, 2007, the CARB adopted a regulation to reduce diesel particulate matter and NO_X emissions from in-use (existing) off-road heavy-duty diesel vehicles in California. All self-propelled off-road diesel vehicles over 25 horsepower (hp) used in California and most two-engine vehicles (except on-road two-engine sweepers) are subject to this regulation. This includes vehicles that are rented or leased (rental or leased fleets). Such vehicles are used in construction, mining, and industrial operations. The regulation:
    - imposes limits on idling to no more than five consecutive minutes,
    - restricts adding of older equipment (such as Tier 0 and Tier 1) into fleets,
    - requires reporting and labeling, and
    - requires disclosure of the regulation upon vehicle sale.

  The CARB is enforcing that with fines up to $10,000 per day for each vehicle in violation. Performance requirements of the rule are based on a fleet's average NO_X emissions, which can be met by replacing older vehicles with newer, cleaner vehicles or by applying exhaust retrofits. The regulation was amended in 2010 to delay the original timeline of the performance requirements making the first compliance deadline January 1, 2014 for large fleets (over 5,000 horsepower), 2017 for medium fleets (2,501-5,000 horsepower), and 2019 for small fleets (2,500 horsepower or less).

[1] http://www.portoflosangeles.org/ctp/idx_ctp.asp.
[2] http://www.arb.ca.gov/msprog/onroad/porttruck/porttruck.htm.
[3] http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm.

Toxic Air Contaminants. A toxic air contaminant (TAC) is defined as an air pollutant that may cause or contribute to an increase in mortality (death) or serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. Hazardous Air Pollutants (HAPs) and TACs are used interchangeably in this discussion. HAPs are regulated by the EPA under the Federal Clean Air Act. TAC is the term used under the California Clean Air Act to regulate the same hazardous pollutants. These contaminants tend to be localized and are found in relatively low concentrations in ambient air. However, they can result in adverse chronic health effects if exposure to low concentrations occurs for periods of several years. Many of these contaminants originate from human activities, such as fuel combustion and solvent use.

In general, for those TACs that may cause cancer, there is no concentration that does not present some risk. In other words, there is no threshold level below which adverse health impacts are not expected to occur. This contrasts with the criteria pollutants carbon dioxide, nitrogen dioxide, particulate matter, and ozone for which acceptable levels of exposure can be determined and for which the State and federal governments have set ambient air quality standards. For this reason, thresholds for TAC impacts for regulatory purposes and for CEQA thresholds have been set based on the increase in risk of cancer of a specific amount at sensitive receptors located near the source of TAC emissions.

The California Almanac of Emissions and Air Quality presents the relevant concentration and cancer risk data for the ten TACs that pose the most substantial health risk in California based on available data. These TACs are as follows: acetaldehyde, benzene, 1.3-butadiene, carbon tetrachloride, hexavalent chromium, paradichlorobenzene, formaldehyde, methylene chloride, perchloroethylene, and diesel particulate matter (diesel PM).

TAC measurements, available at the SCAQMD Riverside Rubidoux monitoring station (14 miles northwest of the project site) can be used to characterize the “background” health risks from regional TAC emission sources. Table 4.3.F provides this summary of TAC levels in the project area and health risk information. This table lists the air concentration levels and associated health cancer risks for eight of the nine TACs reported by the CARB in its Almanac as measured at the Riverside-Rubidoux air monitoring station. Note that since diesel PM cannot be measured directly, the table does not provide estimates of either measured diesel PM or the cancer risk associated with diesel PM.

Past studies have indicated that diesel PM poses the greatest health risk among the TACs listed in Table 4.3.F. The principal concern regarding exposures to diesel PM lies in its small size and thus its ability to penetrate deep into lung tissues when inhaled. Diesel exhaust has been found to cause health effects from short-term or acute exposures and from long-term chronic exposures, such as repeated occupational exposures. The type and severity of health effects depends upon several factors including the amount of chemical you are exposed to and the length of time you are exposed. Individuals also react differently to different levels of exposure. There is limited information on exposure to just diesel PM but there is enough evidence to indicate that inhalation exposure to diesel exhaust causes acute and chronic health effects.

Long-term (chronic) exposure to diesel exhaust is likely to occur when a person works in a field where diesel is used regularly or experiences repeated exposure to diesel fumes over a long period of time. Human health studies demonstrate a correlation between exposure to diesel exhaust and increased lung cancer rates in occupational settings. Experimental animal inhalation studies of chronic exposure to diesel exhaust have shown that a range of doses causes varying levels of inflammation and cellular changes in the lungs. Human and laboratory studies have also provided considerable evidence that diesel exhaust is a likely carcinogen.

Several occupational and ambient studies have documented the health effects due to exposure to diesel PM. The California Office of Environmental Health Hazards Assessment (OEHHA), in its role in

assessing risk from environmental factors reviews such studies and makes recommendations on the way environmental risk should be evaluated through programs like the AB2588 Hot Spot Program. In its comprehensive assessment of diesel exhaust, OEHHA analyzed more than 30 studies of people who worked around diesel equipment, including truck drivers, 1950's era railroad workers, and equipment operators. The studies showed these workers were more likely to develop lung cancer than workers who were not exposed to diesel emissions. These studies provide strong evidence that long-term occupational exposure to diesel exhaust increases the risk of lung cancer. However, all of these studies were based on exposure to exhaust from traditional diesel engines and prior to the advent of highly efficient emissions controls like the diesel particulate filter. Based on these studies, CARB identified diesel exhaust a toxic air contaminant in 1998.

In 2008, the SCAQMD released the third iteration of the Multiple Air Toxics Exposure Study (MATES-III). The MATES-III report includes monitoring of various air toxic compounds in the Basin, establishes and updates existing baseline toxic air contaminants, and simulates cancer risk in the Basin. The study focuses on the carcinogenic risk from exposure to air toxics. It does not estimate mortality or other health effects from particulate exposures. The SCAQMD MATES-III report indicates that overall in the Basin, diesel PM contributes 83.6 percent of the risk.

In 2014, the SCAQMD released the fourth iteration of the Multiple Air Toxics Exposure Study (MATES-IV). The MATES-IV is a follow up to the previous MATES studies and included an updated toxics air emission inventory, new air toxics air dispersion modeling, and enhanced air toxics monitoring. A key conclusion reached in the MATES-IV study was that the population weighted cancer risk in the Basin decreased by 57 percent from the MATES-III period in 2005 to the MATES-IV period in 2012 indicating that overall, cancer risks are declining in the Basin as a result of the implementation of emission controls principally on large diesel trucks. The MATES-IV study also concluded that diesel PM contributed 68 percent to the total cancer risk in the Basin with benzene and 1.3 Butadiene also making important contributions to cancer risk. Figure 4.2.15 summarizes the basin-wide cancer risks as derived from the MATES-IV study.

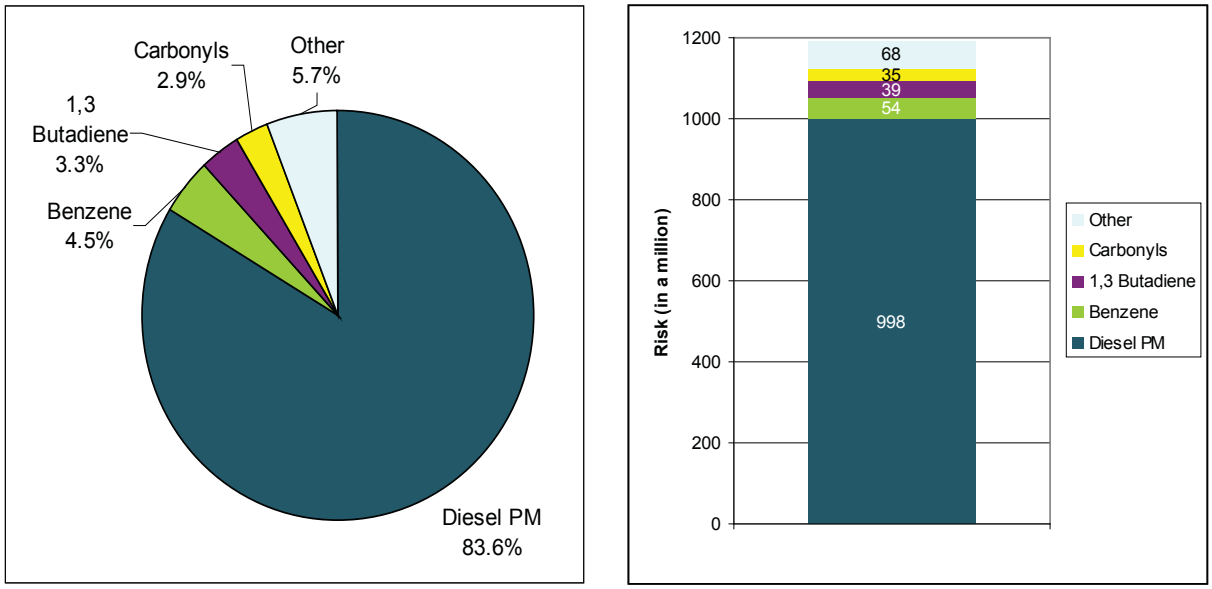

Figure 4.3.15: Summary of MATES IV Cancer Risks

Table 4.3.F: Toxic Air Contaminant Concentration Levels and Associated Health Effects (Riverside, California) (new table)

TAC	Concentration[A] / Health Risk[B]	2007	2008	2009	Health Effects
Acetaldehyde	Mean	1.08	0.99	1.22	Acetaldehyde is a carcinogen that also causes chronic non-cancer toxicity in the respiratory system. Symptoms of chronic intoxication of acetaldehyde in humans resemble those of alcoholism. The primary acute effect of inhalation exposure to acetaldehyde is irritation of the eyes, skin, and respiratory tract in humans. At higher exposure levels, erythema, coughing, pulmonary edema, and necrosis may also occur. Acute inhalation of acetaldehyde resulted in a depressed respiratory rate and elevated blood pressure in experimental animals.
	Health Risk	5	5	5	
Benzene	Mean	0.40	0.33	ID	Benzene is highly carcinogenic and occurs throughout California. Benzene also has non-cancer health effects. Brief inhalation exposure to high concentrations can cause central nervous system depression. Acute effects include central nervous system symptoms of nausea, tremors, drowsiness, dizziness, headache, intoxication, and unconsciousness. Neurological symptoms of inhalation exposure to benzene include drowsiness, dizziness, headaches, and unconsciousness in humans. Ingestion of large amounts of benzene may result in vomiting, dizziness, and convulsions in humans. Exposure to liquid and vapor may irritate the skin, eyes, and upper respiratory tract in humans. Redness and blisters may result from dermal exposure to benzene. Chronic inhalation of certain levels of benzene causes disorders in the blood in humans. Benzene specifically affects bone marrow (the tissues that produce blood cells). Aplastic anemia, excessive bleeding, and damage to the immune system (by changes in blood levels of antibodies and loss of white blood cells) may develop. Increased incidence of leukemia (cancer of the tissues that form white blood cells) has been observed in humans occupationally exposed to benzene.
	Health Risk	37	30	ID	
Chromium Hex	Mean	0.35	ID	ID	In California, hexavalent chromium has been identified as a carcinogen. There is epidemiological evidence that exposure to inhaled hexavalent chromium may result in lung cancer. The principal acute effects are renal toxicity, gastrointestinal hemorrhage, and intravascular hemolysis. The respiratory tract is the major target organ for chromium (VI) following inhalation exposure in humans. Other effects noted from acute inhalation exposure to very high concentrations of chromium (VI) include gastrointestinal and neurological effects, while dermal exposure causes skin burns in humans. Chronic inhalation exposure to chromium (VI) in humans results in effects on the respiratory tract, with perforations and ulcerations of the septum, bronchitis, decreased pulmonary function, pneumonia, asthma, and nasal itching and soreness reported. Chronic human exposure to high levels of chromium (VI) by inhalation or oral exposure may produce effects on the liver, kidneys, gastrointestinal and immune systems, and possibly the blood.
	Health Risk	52	ID	ID	

Table 4.3.F: Toxic Air Contaminant Concentration Levels and Associated Health Effects (Riverside, California) (new table)

TAC	Concentration[A] / Health Risk[B]	2007	2008	2009	Health Effects
Para-Dichlorobenzene	Mean	ID	ID	ID	In California, para-dichlorobenzene has been identified as a carcinogen. Acute exposure to 1,4-dichlorobenzene via inhalation results in irritation to the eyes, skin, and throat in humans. In addition, long-term inhalation exposure may affect the liver, skin, and central nervous system in humans (e.g., cerebellar ataxia, dysarthria, weakness in limbs, and hyporeflexia).
	Health Risk	ID	ID	ID	
Formaldehyde	Mean	2.88	2.88	3.12	The major toxic effects caused by acute formaldehyde exposure via inhalation are eye, nose, and throat irritation and effects on the nasal cavity. Other effects seen from exposure to high levels of formaldehyde in humans are coughing, wheezing, chest pains, and bronchitis. Chronic exposure to formaldehyde by inhalation in humans has been associated with respiratory symptoms and eye, nose, and throat irritation. Animal studies have reported effects on the nasal respiratory epithelium and lesions in the respiratory system from chronic inhalation exposure to formaldehyde. Occupational studies have noted statistically significant associations between exposure to formaldehyde and increased incidence of lung and nasopharyngeal cancer. This evidence is considered “limited” rather than “sufficient” due to possible exposure to other agents that may have contributed to the excess cancers. EPA considers formaldehyde to be a probable human carcinogen (cancer-causing agent) and has ranked it in EPA’s Group B1. In California, formaldehyde has been identified as a carcinogen.
	Health Risk	21	21	23	
Methylene Chloride	Mean	0.19	0.2	ID	Case studies of methylene chloride poisoning during paint-stripping operations have demonstrated that inhalation exposure to extremely high levels can be fatal to humans. Acute inhalation exposure to high levels of methylene chloride in humans has resulted in effects on the central nervous system, including decreased visual, auditory, and psychomotor functions, but these effects are reversible once exposure ceases. Methylene chloride also irritates the nose and throat at high concentrations. The major effects from chronic inhalation exposure to methylene chloride in humans are effects on the central nervous system, such as headaches, dizziness, nausea, and memory loss. In addition, chronic exposure can lead to bone marrow, hepatic, and renal toxicity. EPA considers methylene chloride to be a probable human carcinogen and has ranked it in EPA’s Group B2. California considers methylene chloride to be carcinogenic.
	Health Risk	0.7	0.7	ID	
Perchloroethylene	Mean	0.035	0.024	ID	In California, perchloroethylene has been identified as a carcinogen. Perchloroethylene vapors are irritating to the eyes and respiratory tract. Following chronic exposure, workers have shown signs of liver toxicity, as well as kidney dysfunction and neurological disorders.
	Health Risk	1	1	ID	
Diesel PM	Mean	No Monitoring Data Available			In its comprehensive assessment of diesel exhaust, OEHHA analyzed more than 30 studies of people who worked around diesel equipment, including truck drivers, railroad workers, and equipment operators. The studies showed these workers were more likely to develop lung cancer than workers who were not exposed to diesel emissions. These studies provided strong evidence that long-term occupational exposure to diesel exhaust increases
	Health Risk				

Table 4.3.F: Toxic Air Contaminant Concentration Levels and Associated Health Effects (Riverside, California) (new table)

TAC	Concentration[A] / Health Risk[B]	2007	2008	2009	Health Effects
					the risk of lung cancer. Exposure to diesel exhaust can have immediate health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. In studies with human volunteers, diesel exhaust particles made people with allergies more susceptible to the materials to which they are allergic, such as dust and pollen. Exposure to diesel exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks. This research was based on studies prio to the advent of modern diesel engines with high efficiency emissions controls. Note: Since then the Health Effects Institute study clearly demonstrates that the application of new emissions control technology to diesel engines have virtually eliminated the health impacts of diesel exhaust.

ID = Insufficient data
A = Concentrations for Hexavalent Chromium are expressed as $\mu g/m^3$, and concentrations for Diesel PM are expressed as $\mu g/m^3$. Concentrations for all other TACs are expressed as ppb.
B = Health Risk represents the number of excess cancer cases per million people based on a lifetime (70-year) exposure to the annual average concentration. Total Health Risk represents only those compounds listed in this table and only those with data for the year. There may be other significant compounds for which monitoring and/or health risk information are not available
Source: CARB 2011 for the SCAQMD Riverside-Rubidoux air monitoring station.

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The risk basin-wide population weighted cancer risk is 367 per million based on average at fixed monitoring sites estimated during the MATES-IV study. This level of risk means that on average an estimated 367 individuals in the basin could contract cancer out of a population of one million individuals exposed to all sources of toxic air contaminants over a lifetime of 70 years. A comprehensive air dispersion model and a detailed air toxics emission inventory were then used to estimate cancer risks at other locations where no monitoring sites were deployed. A 10-year research program (CARB 1998) demonstrated that diesel PM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to diesel PM poses a chronic health risk.

In addition to increasing the risk of lung cancer, exposure to diesel exhaust can have other health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. Diesel exhaust has been major source of fine particulate pollution as well, and studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems.

Diesel PM differs from other TACs in that it is not a single substance but a complex mixture of hundreds of substances. Although diesel PM is emitted by diesel-fueled, internal combustion engines, the composition of the emissions varies, depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present. Unlike the other TACs, however, no ambient monitoring data are available for diesel PM because no routine measurement method currently exists. The CARB has made preliminary concentration estimates based on a diesel PM exposure method. This method uses the CARB emissions inventory's PM_{10} database, ambient PM_{10} monitoring data, and the results from several studies to estimate concentrations of diesel PM. Within the Basin, in addition to diesel PM, there are emissions of benzene, formaldehyde, acetaldehyde, naphthalene, ethylbenzene, acrolein, toluene, hexane, propylene, and xylene from a variety of sources located within the Basin that contribute to health risks.

The average cancer risk in the project area is estimated to be 213 in a million based on the MATES-IV and ranges from 198 in a million at the southeast corner of the project to 239 in a million in the northern portion of the project as shown in Figure 4.3.16.

As shown in Figure 4.3.17, nearly all areas of the Basin experienced decreases in cancer risk during the time period from MATES–III time period of 2005 to the MATES-IV time period of 2012. The project area also experienced a decrease in cancer risk of between 100 and 400 in one million from the years 2005 to 2012.

Figure 4.3.17 depicts the cancer risk estimates as a "snapshot in time." That is, the cancer risks are derived from air dispersion models and are based on the emissions of various TACs during the years 2005 and 2012. The basic tenet used to estimate cancer risk assumes that the public will be exposed to these TAC emissions during an entire 70-year lifetime of continuous exposure. However, the SCAQMD, CARB, and the EPA have adopted numerous regulations that have resulted in significant reductions in pollutant emissions with the attendant reductions in prevailing air quality levels since 2012 as noted earlier. The benefits of substantial additional emission reductions derived from the adoption and application of SCAQMD, CARB, and EPA regulations are not reflected in the estimate of 70-year lifetime cancer risks referred to in Figure 4.3.17.

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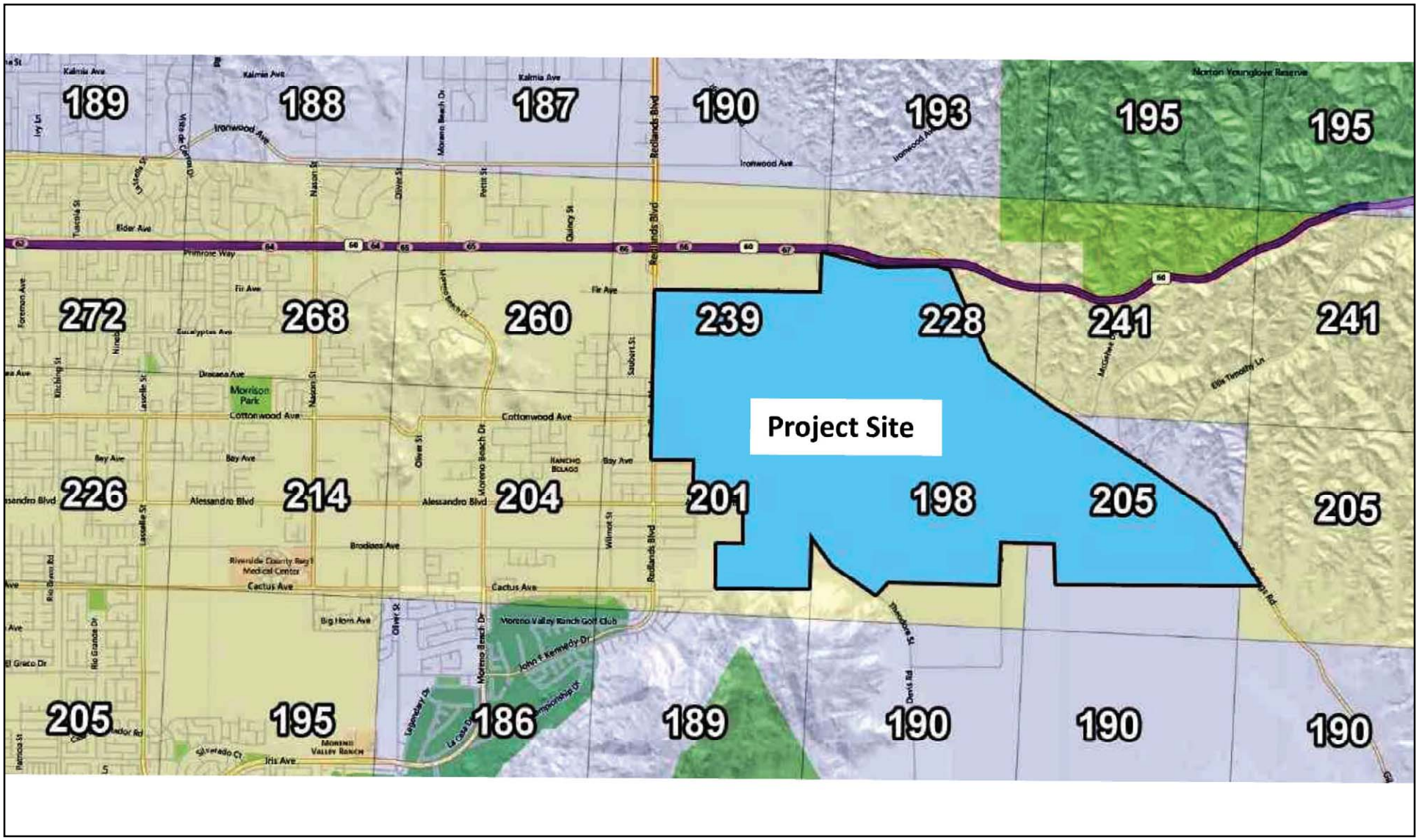

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N

0 2,200 4,400

Feet

Project Site

239 Numbers represent lifetime cancer risks in risk per million.

Source: SCAQMD 2014; MATES-IV Report.

FIGURE 4.3.16

World Logistics Center Project
Environmental Impact Report

MATES-IV Cancer Risks in the Project Site Area

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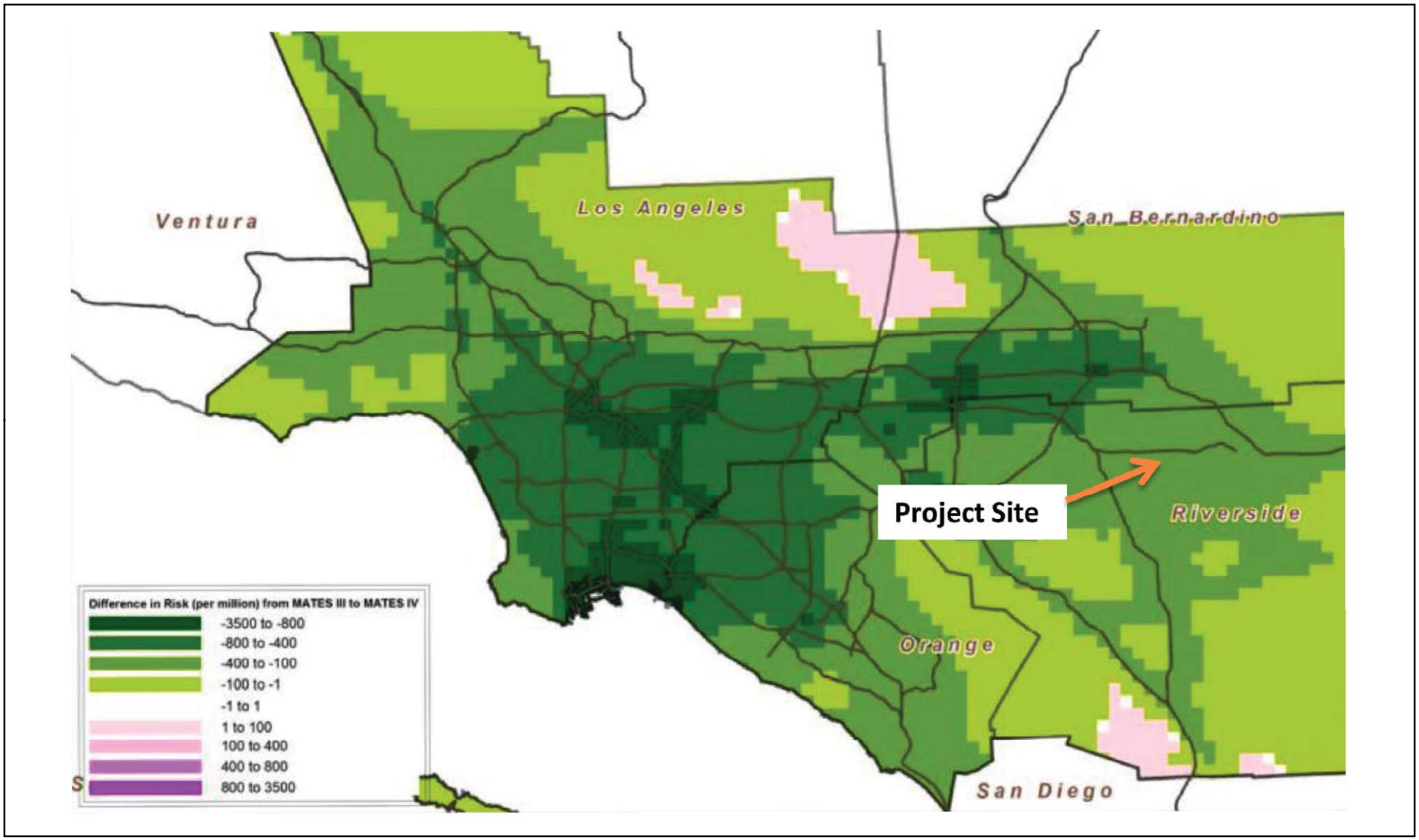

LSA

FIGURE 4.3.17

Note: Numbers represent lifetime cancer risks in risk per million.

N

0 7.5 15

Miles

World Logistics Center Project
Environmental Impact Report

Source: SCAQMD 2014; MATES-IV Report.

Change in MATES-IV Cancer Risks Between 2005 and 2012

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Additionally, in January 2015, a major new study[1] evaluated the health impacts of "new technology diesel exhaust" (NTDE). Beginning in 2001, USEPA and CARB begin issuing a series of regulations that require new diesel-powered vehicles and equipment to use the latest emissions control technology. This technology relies on two components. The first is a diesel particulate filter, which is capable of reducing particulate matter emissions by over 90% (required for new engines beginning in 2007). The second technology is selective catalytic reduction, which reduces emissions of nitrogen oxides by over 90% (required for new engines beginning in 2010). Diesel emissions from engines equipped with this technology is referred to as NTDE. As a result of the advances in emission control technology, USEPA, CARB, and other government and industry stakeholders commissioned a series of studies called the Advanced Collaborative Emissions Study (ACES). ACES has been guided by an ACES Steering Committee consisting of representatives of HEI and the Coordinating Research Council (CRC: a nonprofit organization that directs engineering and environmental studies on the interaction between automotive or other mobility equipment and petroleum products), along with the U.S. Department of Energy, U.S. EPA, engine manufacturers, the petroleum industry, CARB, emission control manufacturers, the National Resources Defense Council, and others. The Health Effects Institute (HEI), funded in part by USEPA, was selected to oversee Phase 3 of ACES.

Phase 3 of ACES evaluated whether emissions from new technology diesel engines cause cancer or other health effects. Specifically, it evaluated the health impacts of a 2007-compliant engine equipped with a diesel particulate filter. HEI found chronic exposure to NTDE did not induce tumors or pre-cancerous changes in the lung and did not increase tumors that were considered to be related to NTDE in any other tissue in laboratory rats. The study also confirmed that the concentrations of particulate matter and toxic air pollutants emitted from NTDE are more than 90% lower than emissions from traditional older diesel engine. Rats are the most sensitive laboratory animal species for evaluation of older technology diesel engines (pre-model year 2007), because of their sensitivity to high concentrations of particles (present in older technology diesel engines), compared with other species (including humans).

The HEI study clearly demonstrates that the application of new emissions control technology to diesel engines have virtually eliminated the health impacts of diesel exhaust.

Conservative Nature of Health Risk Assessments. Moreover, the current methodological protocols required by the SCAQMD and CARB when studying the health risk posed by diesel PM assume the following (from the California Air Pollution Control Officers Association 2009): (1) 24-hour constant exposure; (2) 350 days a year; (3) for a continuous period lasting 70 years. These are overly conservative assumptions that are not replicated in reality. Most people are indoors for 18–20 hours a day (at their place of employment or home) and most people do not live in the same location for a 70-year period. In fact, less than 10 percent of the population has a continuous residency at the same location of greater than 30 years (American Community Survey 2011). Thus, the health risk assessments prepared pursuant to the current protocols overestimate the risk of cancer associated with diesel PM exposure.

Alternate Views on Diesel PM Risk. Some researchers, such as Dr. James E. Enstrom (2008), believe that the risk from diesel PM is exaggerated. Enstrom calls into question some of the basic research on the declaration of diesel exhaust as a toxic air contaminant. In particular, the article states the following:

> *There is substantial new epidemiologic evidence relevant to the health effects of diesel exhaust that was not considered when the 1998 toxic air contaminant declaration was made. For instance,*

[1] Health Effects Institute, 2015: HEI Research Report 184, Advanced Collaborative Emissions Study (ACES): Lifetime Cancer and Non-Cancer Assessment in Rats Exposed to New-Technology Diesel Exhaust, published in January. Website: http://pubs.healtheffects.org/getfile.php?u=1067

> *the 2007 paper by Francine Laden et al. measured death rates during 1985–2000 among 54,000 members of the unionized U.S. trucking industry. … This cohort, which included 36,000 diesel truck drivers, had death rates from all causes and all cancer that were substantially below the rates among US males. Furthermore, unlike earlier evidence that was used in the TAC declaration, this cohort did not have a substantially elevated lung cancer death rate.*

Dr. Enstrom also indicates that the premature mortality calculation in the report, "Quantification of the Health Impacts and Economic Valuation of Air Pollution from Ports and Goods Movement in California," is exaggerated. Dr. Enstrom's analysis "found no relationship between $PM_{2.5}$ and mortality in elderly Californians during 1983–2002."

4.3.2.4 Local Policies

City of Moreno Valley General Plan Policies. Chapter 9 of the City's General Plan defines goals and policies related to air quality within the City of Moreno Valley. The specific policies of the General Plan that are relevant to the proposed project are as follows:

Objective 6.7 Reduce mobile and stationary source air pollutant emissions.

Policy 6.7.1 Cooperate with regional efforts to establish and implement regional air quality strategies and tactics.

Policy 6.7.2 Encourage the financing and construction of park and ride facilities.

Policy 6.7.4 Locate heavy industrial and extraction facilities away from residential areas and sensitive receptors.

Policy 6.7.5 Require grading activities to comply with South Coast Air Quality Management District's Rule 403 regarding the control of fugitive dust.

Policy 6.7.6 Require building construction to comply with the energy conservation requirements of Title 24 of the California Administrative Code.

4.3.3 Methodology

The *Air Quality, Greenhouse Gas, and Health Risk Assessment Report* for the DEIR (Michael Brandman Associates, January 2013)[1] evaluated the air quality impacts associated with the development of the proposed project including the following:

- Determine the short-term construction air quality impacts on both on-site and off-site sensitive receptors based on SCAQMD assessment methodologies and significance thresholds;
- Determine the long-term air quality impacts, including vehicular traffic, on both on-site and off-site sensitive uses based on SCAQMD assessment methodologies and significance thresholds; and
- Determine the required mitigation measures to reduce short-term and long-term on-site air quality impacts from all sources.

A revised Air Quality, Greenhouse Gas, and Health Risk Assessment Report (revised analysis) was prepared by Michael Brandman Associates – FirstCarbon Solutions (MBA-FCS) in 2015, which estimated the impacts from the reduced size of the project and also refined and updated the methodology used in the analysis, as discussed below.

[1] *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, Michael Brandman Associates, January 2013.

4.3.3.1 Construction

Construction-related emissions are expected from various activities associated with the construction of the project such as rough grading, infrastructure construction, asphalt paving, building construction, architectural coatings, and construction workers commuting. Construction emissions for construction worker vehicles traveling to and from the project site, in addition to vendor trips (construction materials delivered to the project site) and haul trips (dump trucks and concrete trucks) were also accounted for in the analysis. Localized air quality in the project area would be affected by both heavy-duty construction equipment usage on site as well as local traffic due to the equipment delivery and construction worker commuting. The anticipated construction equipment and construction schedule are identified in Section 3.0, *Project Description*, in Table 3.C. The SCAQMD CEQA methodology[1] was used to analyze the criteria pollutant emissions from these activities.

Note: In response to comments received on the DEIR, the following revisions have been made to the construction emissions analysis:

- *New Version of CalEEMod*. The construction emissions in the DEIR were estimated with the approved model at the time, CalEEMod version 2011.1.1, which uses emission factors from the outdated OFFROAD2007 and EMFAC2007 emission models. Since publication of the DEIR, a new version of CalEEMod has been released, version 2013.2, uses construction emission factors from OFFROAD2011 and mobile source emissions from EMFAC2011. The new version of CalEEMod has lower construction equipment load factors, which are also used in this revised analysis.
- *Extended Construction Period.* In the DEIR, construction was assumed to occur over 10 years; in response to comments to reduce emissions, the revised analysis construction schedule is assumed to occur over 15 years.
- *Refined Building Phasing.* The DEIR had all building construction activities lumped together. For better understanding and clarification, building construction activity was subdivided in this revised analysis into the following sub-phases: building-concrete; building-wet utilities; building-electrical; and building-landscaping to more accurately describe construction activities.
- *Mass Grading Duration.* In the DEIR, grading covered 12 months (for the unmitigated version) and 24 months (for the mitigated version). For the revised analysis, each planning area is graded separately over a total of approximately 58 months to reflect a more realistic grading plan.
- *On-Site On-road Vehicle Emissions.* On-site travel and idling emissions from concrete trucks, haul trucks, service/support trucks, and delivery trucks were not included in the DEIR but are included for the revised analysis.
- *Equipment for Grading.* The construction equipment and haul truck deliveries for the mass excavation and fine grading phases now vary per planning area (since there are varying sizes of each planning area), whereas in the DEIR, one equipment fleet was assumed for the mass grading and finish grading phases. In addition, because the grading duration has been extended and due to variations in the grading fleet based on the size of the planning area, less equipment is required. The overall construction equipment horsepower-hours per day has decreased in the revised analysis.
- *Onsite Equipment Fleet for Non-Grading Phases.* The duration for construction has been extended; therefore, the peak number of equipment has decreased. In addition, the types and daily horsepower hours for the equipment has changed.
- *Onsite Equipment Hours per Day.* The revised analysis assumes that the onsite equipment are in the on position for 10 hours per day as a project design feature. The analysis in the DEIR

[1] *CEQA Air Quality Handbook*, April 1993 and subsequent additions to the Handbook.

assumed 15 hours per day for the unmitigated version and 10 hours per day for the mitigated version. Because construction has been spread out over more time, there is no need for the equipment to operate 15 hours per day; therefore, the equipment hours per day has been added as a project design feature that sets the maximum hours per day is 10 hours per day for the onsite equipment. This means that each piece of construction equipment is assumed to be on for 10 hours per day. This would also apply to the onsite equipment used during concrete pouring, which would most likely occur during the night. This is a conservative scenario as the CalEEMod default assumes construction equipment would be on for 6 to 8 hours per day. This is used to calculate maximum daily emissions which are required for the regional analysis, because project emissions can occur on any day of the week. However, in order to calculate annual average emissions, it is necessary to base emissions upon a realistic work schedule. The revised analysis assumes a more realistic annual average use of construction equipment by assuming that the maximum equipment would occur for five days per week (instead of six days per week as in the DEIR). In this way, an annual average and daily emission inventories were estimated.

- *Tier 4 Equipment.* The analysis in the DEIR assumed the CalEEMod default construction equipment tier levels for the unmitigated version and for the mitigated version, assumed Tier 3 engines for years prior to 2017 and Tier 3 with diesel particulate matter filters for years after 2017. The revised analysis assumes that for the mitigated emissions, all equipment over 50 horsepower Tier 4 as required by a revised mitigation measure.
- *VOC Emissions from Striping Pavement.* The DEIR did not include these emissions because these emissions have been recently integrated within CalEEMod.

4.3.3.2 Operation

Air quality in the project area would be affected by long-term air emissions from stationary sources and mobile sources related to the proposed project once it commences operations. The stationary source emissions would come from consumption of natural gas and emergency generators while mobile source emissions would come from vehicular emissions from automobiles and trucks traveling to, from, and within the project site and from on-site forklifts and yard trucks.

A key piece of information required to estimate the project's operational emissions deals with an estimate of the number of trips and types of vehicles (i.e., cars and trucks) generated by the project during a peak hour and on a daily basis. To determine mobile source emissions associated with the project, the trip generation rates were derived from the *Traffic Impact Analysis Report* for the project prepared by Parsons Brinckerhoff .

Appendix E of the CalEEMod Manual states the following regarding trip rates for large warehouses and distribution centers, and demonstrates that the trip rate applied for this project is appropriate, since the project is a Specific Plan containing more than 10 warehouse buildings:

> *In the case that air quality is evaluated for multiple warehouses (>10), such as in an analysis for a general plan, the average rate of 1.44 trips per TSF [thousand square feet] from the ITE [Institute of Transportation Engineers] 8th Edition Trip Generation manual is acceptable. This lower value may be more appropriate as on average, a small portion of warehouses can be expected to operate at varying levels of service, including some warehouses experiencing temporary partial or complete vacancy.* (SCAQMD 2013, CalEEMod manual,[1] pages 14-15)

[1] South Coast Air Quality Management District. 2013. CalEEMod, Appendix E, Technical Source Documentation. Website: http://www.aqmd.gov/docs/default-source/caleemod/caleemod-appendixe.pdf?sfvrsn=2http

Additionally, the SCAQMD is currently working with the Institute of Transportation Engineers to provide enhanced information and guidance regarding vehicle trips associated with warehouse operations. SCAQMD staff is recommending truck trip rates from the Institute of Transportation Engineers for high cube warehouse projects located in SCAQMD. Consistent with CEQA Guidelines, the SCAQMD states that an EIR may use a non-default trip rate if there is substantial evidence indicating another rate is more appropriate for the air quality analysis. The trip generation rate applied in this assessment for high cube warehouses (1.68 trips per thousand square feet) is greater than the average rate of 1.44 trips per thousand square feet recommended in CalEEMod thereby providing a more conservative estimate of vehicle trips (i.e., larger number of trips) and hence higher estimate of air quality impacts than the SCAQMD-recommended trip rate.

The EPA AERMOD air dispersion model, the Caltrans CALINE4 model, the CalEEMod, and the CARB EMFAC 2014 mobile source emission factor model were used to assess the project's impact on air pollutant emissions and concentrations.

Emission factors for the year 2012 are used for the "worst-case" scenario. Phase 1 of the project used emission factors from the year 2022, and Phase 2 of the project used emission factors for the year 2035. For the mitigated version, the emission factors were modified to reflect the mitigation measure that requires the use of model year 2010 or newer trucks for all diesel trucks associated with the project.

Note: In response to comments received on the DEIR, the following revisions have been made to the regional operational emissions analysis:

- *Trip Lengths for Motor Vehicle Emissions*. Forecasted traffic volumes contained in the revised Traffic Impact Analysis were used to estimate the project's motor vehicle emissions instead of an arbitrary 50 miles per truck trip length and the CalEEMod default trip lengths for local trips used in the DEIR. The traffic model provided estimates of project traffic volumes for nearly 500 individual freeway and surface street roadway segments segregated by vehicle class as passenger cars, light heavy duty trucks, medium heavy duty trucks, and heavy-heavy duty trucks. This revised methodology provides a much more accurate estimate of the project's operational mobile source vehicle miles traveled and resulting emissions.
- *Updated Emission Factors for Motor Vehicles.* In the DEIR, regional motor vehicle emissions were estimated by CalEEMod using the EMFAC2007 mobile source emission model and EMFAC2011 emission model for the localized and health risk analysis. On December 30, 2014, the CARB released an updated version of its emission factor model, EMFAC2014. The CARB indicates that the EMFAC2014 mobile source emission model will be used henceforth to estimate on-road mobile source emissions in California. The EMFAC2014 model is an updated version of the EMFAC2014 model that was used in the DEIR. The EMFAC2011 mobile source emission model was applied to all vehicle classes in the revised analysis.
- *Decrease in Operational Square Footage.* The number of vehicle trips was revised to reflect a reduction of the project size from 41.6 million square feet to 40.6 million square feet and the redistribution of land use building square footage between the high cube logistics warehouse and light logistics land uses. In addition, a fire station land use was also added.
- *Additional On-site Emissions Sources.* Additional sources of operational emissions were also accounted for in this revised analysis including standby diesel generators, fork lifts, and yard trucks.
- *On-site Existing Emissions Estimated.* The existing agricultural emissions were estimated in the revised analysis; they were not estimated in the DEIR.

4.3.3.3 Localized Construction/Operation

SCAQMD has developed the Localized Significance Threshold (LST) methodology that can be used to determine whether or not a project may generate significant adverse localized air quality impacts that substantially affect sensitive receptors. LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable Federal or State AAQS and are developed based on the ambient concentrations of that pollutant for each source receptor area identified by the SCAQMD. SCAQMD's current guidelines, *Final Localized Significance Threshold Methodology* (June 2003) and subsequent additions, were adhered to in the assessment of local air quality impacts from the proposed project. The local emissions of concern from construction and operational activities as defined by the SCAQMD are NO_X, CO, PM_{10}, and $PM_{2.5}$ combustion emissions from construction equipment and fugitive PM_{10} dust from construction site preparation activities.

Note: In response to comments received on the DEIR, the following revisions have been made to the localized significance threshold analysis:

- *Revisions to the Traffic Volumes.* The operational assessment of localized impacts reflects the changes in traffic volumes associated with the reduction in the project size and realignment of roadway segments that are within and border the project's boundaries.
- *Changes in Construction Schedule.* The analysis in the DEIR assumed a construction schedule of 10 years, whereas the revised assessment is based on a 15-year construction schedule. The changes in construction schedule both by year and location within the project were accounted for under the revised, extended project development schedule for estimating the emissions subject to the LST assessment.
- *Emission Source Configuration.* The analysis in the DEIR of the off-road construction equipment exhaust was represented in the air dispersion model as a large area source that covered the construction area. The revised analysis represents the off-road construction exhaust emission source as a series of contiguous volume sources, which is consistent with the SCAQMD methodology for LST assessments.
- *Operational Truck Idling.* The analysis in the DEIR assumed that each heavy-duty truck that accessed the site during operation idled for a total of 15 minutes per day. In the revised analysis, each truck was assumed to idle for 5 minutes per day consistent with the California Air Resources Board's Air Toxic Control Measure that limits such idling to 5 minutes and requirements specified in the World Logistics Center Specific Plan. For the mitigated assessment, each truck was assumed to idle for 3 minutes per day.

The localized significance threshold analysis evaluated three conditions:

- Project Phase 1 (2012): this condition assumes that Phase 1 of the project is fully built out in 2012, the year that the Notice of Preparation for the project was published.
- Project Phase 1 and Phase 2 Full Build Out (2012): this condition assumes that Phase 1 and Phase 2 of the project are fully built out in 2012, the year that the Notice of Preparation for the project was published.
- Proposed Development Schedule: this condition examines the proposed development schedule of the two-phased project three analysis years were examined under this condition for potential localized air quality impacts:
    - 2021, the year when the projected construction schedule would result in construction activities in the western portion of the project adjacent to and across from the existing residential areas along Redlands Boulevard and when a substantial portion of Phase I operations would occur (approximately 56 percent of entire project floor space);

- 2027, the year when the project emissions from both project construction and operation are at their highest combined levels for several pollutants; and when construction activities would occur adjacent to the existing residences along Gilman Springs Road and
- 2035[1] when the Phase 1 and Phase 2 of the project are fully operational.

Project Phase 1 (2012) represents an interim step during which Phase 1 of the project (approximately 56 percent of the total size of the project) is completely built out in 2012. This analysis simply looks at the situation of what would happen if Phase 1 of the project were built in its entirety with no reductions in motor vehicle emissions that would occur in the future as a result of emission control programs that have already been adopted. This assessment also provides consistency with the project traffic impact analysis and noise reports which examine the Project Phase 1 (2012) condition. The project impact results are compared to the existing air quality levels in 2012 and only consider the project's operational emissions and not construction emissions.

Project Phase 1 and 2 Full Build Out 2012 represents a worst-case scenario since the project could not be physically built out in its entirety in a single year and does not reflect the fact that the project would be developed over a time period of 15 years depending on market demands for warehouse space. This assumption also does not account for the fact that emissions from mobile sources, prior to mitigation, particularly from heavy duty diesel trucks are expected to decline significantly over the next 10 to 15 years as a result of emission controls already mandated by the CARB specifically for these vehicles. This assessment also provides consistency with the project traffic impact analysis and noise reports which examine the full Project Phase 1 and Phase 2 (2012) Build Out (2012) condition. The project impact results are compared to the existing air quality levels in 2012 and only consider the project's operational emissions and not construction emissions.

The Proposed Project Development condition represents the proposed project development including the localized impacts during construction and operation over the time period of 2015 to 2035. These results are compared to the existing air quality levels in 2012.

4.3.3.4 Health Risk Assessment

A Health Risk Assessment (HRA) is a guide that helps to determine whether current or future exposures to a chemical or substance in the environment could affect the health of a population. In general, risk depends on the following factors:

- How much of a chemical is present in an environmental medium (e.g., air);
- How much contact (exposure) a person has with the contaminated environmental medium; and
- The inherent toxicity of the chemical.

The assessment of health impacts is a continuing evolution of science and regulation. Since December 2014, three major scientific and regulatory activities have come forward that will affect how such assessments are performed and what such impacts mean to society as described below.

- On December 30, 2014, the ARB released its update to the Emissions Factor Model, EMFAC2014, which is used to estimated emissions from motor vehicles in California. The

[1] In some circumstances, references are made to the year 2035. The year 2031 is the proposed first year the project is fully built out. However, detailed traffic volumes were provided by the project traffic consultant for the long-term planning year 2035. For purposes of this assessment, project traffic volumes in 2031 were assumed to be the same as the forecast volumes in 2035.

EFAC2014 model represents the ARB's current understanding of motor vehicle technologies and regulatory implementation of rules aimed at reducing air emissions from motor vehicles. Of significance in this regard are the new projections of air emissions from heavy duty diesel engines. Based on the results of the EMFAC2014 model, emissions of diesel particulate matter range from 50 to 80 percent lower than previously estimated using the previous version of the EMFAC model, EMFAC2011. Since heavy duty trucks constitute nearly all of the project's diesel PM emissions, the incorporation of the emission information from the EMFAC2014 model is important in estimating the amount of diesel PM and in assessing the project's health risk impacts resulting from these emissions

- On January 27, 2015, the Health Effects Institute (HEI), a joint private-government partnership, released a major peer-reviewed scientific report entitled *Effects of Lifetime Exposure to Inhaled New-Technology Diesel Exhaust in Rats.* This is the first study to conduct a comprehensive evaluation of lifetime inhalation exposure to emissions from heavy-duty 2007-compliant engines (referred to as "new technology diesel exhaust," or NTDE). The study evaluated the long-term effects of multiple concentrations of inhaled NTDE, which has greatly reduced particle emissions compared with "traditional-technology diesel exhaust" (TDE) in male and female rats on more than 100 different biologic endpoints, including tumor development, and compared the results with biologic effects seen in earlier studies in rats after exposure to TDE. Lifetime inhalation exposure of rats exposed to one of three levels of NTDE from a 2007-compliant engine, for 16 hours per day, 5 days a week, with use of a strenuous operating cycle that more accurately reflected the real-world operation of a modern engine than cycles used in previous studies, did not induce tumors or pre-cancerous changes in the lung and did not increase tumors that were considered to be related to NTDE. The importance of this study is that diesel PM emissions from new technology diesel engines does not cause any increase in the risk of lung cancer or other significant adverse health effects in study animals that, in fact are more sensitive to toxics exposures than humans. While this study focused on heavy duty truck emissions, the new clean diesel technology has the potential for impacting all sectors, including passenger cars, agriculture, construction, maritime and transportation. Previous studies directed at studying the effects of diesel PM on health were based on exposure studies that date 15 to 20 years ago when diesel emissions were significantly higher than the NTDE. It is also important to highlight that the U.S. Environmental Protection Agency (EPA), the California Air Resources Board, the U.S. Department of Energy (DOE) and the U.S. Federal Highway Administration are sponsors and/or reviewers of this study in conjunction with the manufacturers of emissions control equipment.

- On March 6, 2015, the California Office of Environmental Health Hazards Assessment (OEHHA) adopted a new guidance for estimating health risks from toxic air contaminants that incorporated the importance of early-in-life sensitivities of young children to exposures to toxics air contaminants and recommends a lifetime exposure duration of 30-years. Within the context of this assessment, this new assessment guidance is referred to as the "Current OEHHA Guidance". The new guidance updates earlier guidance recommended by OEHHA and SCAQMD referred to in this assessment as the "Former OEHHA Guidance", which was used in the DEIR. The "Former OEHHA Guidance" is based on a lifetime exposure of 70 years and does not incorporate early-in-life age sensitivity factors. The importance of the "Current OEHHA Guidance" is that the guidance produces much more conservative estimates of cancer risks from toxic air contaminant exposures than the "Former OEHHA Guidance".

- The HRA is being provided to allow decision makers to see the cancer-related impacts of the proposed project in the assumption that new technology diesel exhaust cause cancer, contrary to what was found by the HEI study.

The following information is from the Health Risk Assessment contained in the revised *Air Quality, Greenhouse Gas, and Health Risk Assessment* (2015) contained in Appendix D. The text in this section is supported by references and discussion that can be found in the report in Appendix D.

Note: In response to comments received on the DEIR, the following revisions have been made to the health risk assessment:

- *Revisions to the Construction Emissions.* This revised analysis reflected the numerous changes in construction equipment, load factors, schedule, and sequencing of construction by location within the project as discussed above.
- *Revisions to Traffic Volumes.* The revised analysis made use of the revised traffic volume forecasts along nearly 500 individual roadway segments.
- *Expanded Model Extent.* The geographic extent of the air dispersion model domain was expanded to include freeway segments to the ports of Los Angeles and Long Beach.
- *Organic Gas Emissions Included.* The assessment of acute non-cancer hazards was expanded to examine the impacts of the toxic components of the project's total organic gas emissions from gasoline and diesel vehicles. The analysis in the DEIR focused on diesel PM to derive health impacts from the project.
- *Calculated Cancer Population Burden.* The health risk assessment was extended to include the computation of cancer population burden attributed to the project's diesel PM emissions.
- *Maximum Exposure Duration for Sensitive/Residential Receptors*. The analysis contained in the DEIR assumed a cancer risk exposure time period of 70 years for sensitive/residential receptors as representative of the "Former OEHHA Guidance" in estimating cancer risks. In this revised assessment, the cancer risk are presented using the "Current OEHHA Guidance." The "Current OEHHA Guidance" incorporates early-in-life exposure sensitivities and recommends an exposure duration of 30-year; the "Current OEHHA Guidance" reflects early age sensitivities[1] (i.e., weighting the effects of exposure more heavily for infants and teenagers than for adults) to toxic compounds and the US Census data showing that 90 percent of individuals live in their residence for 30 years or less; overall the "Current OEHHA Guidance" results in a more conservative analysis of cancer risks than "Former OEHHA Guidance" on performing health risk assessments.
- *Maximum Exposure Duration for Worker Receptors.* The analysis contained in the DEIR assumed a cancer risk exposure time period of 40 years for workers as recommended in the "Former OEHHA Guidance." In this revised assessment, the cancer risk impacts are presented for the "Current OEHHA Guidance" which assumes an exposure duration of 25 years for worker receptors, which is based on labor statistics showing 95 percent of workers stay in the same job for 25 years or less.
- *Include School Receptors.* The assessment of cancer risks at local school receptors was included in the revised analysis based on the "Current OEHHA Guidance", including the new proposed high school site #5 located north of SR-60.The analysis for the high school #5 is included in the Revised Air Quality Report (Appendix D).
- *Buffer Analysis.* The mitigated analysis includes assessment of cancer risks with a buffer of 250 feet (the project design) and 1,000 feet between the project's operational emissions and the centerlines of Redlands Boulevard, Gilman Springs Road, Bay Avenue, and Merwin Street. This assessment is included as a response to comments on the DEIR. The analysis found that a 1,000 foot buffer would result in no substantial reduction in the cancer risk impacts.

[1] Office of Environmental Health Hazard Assessment, Air Toxics Hot Spots Program, Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments, February 2015, Section 8.2. http://www.oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf

The HRA examines the regional nature of the project's potential health risk impacts over a multi-year time period. The HRA methodology applies a risk characterization model to the results from an air dispersion model to estimate potential health risks at each sensitive receptor location. Because of the pervasive nature of diesel particulate matter (diesel PM) in contributing to estimated health risks in California, the focus of this assessment is on estimating the health risks from diesel PM. While the project activities may result in the emission of other TACs (e.g., Total Organic Gases (TOG) from diesel and gasoline-powered vehicles), diesel PM from the project was found to contribute approximately 98 percent of the total cancer risk from project operations (see the revised *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, Appendix D of this EIR). TOG emissions from diesel and gasoline vehicles were, however, included in the assessment of acute non-cancer hazards.

The HRA process involves four main steps: hazard identification, dose-response assessment, exposure assessment, and risk characterization.

- **Hazard Identification**: Hazard identification is the process by which contaminants of concern are selected for investigation in the risk assessment, and includes a review of the chemicals that are potentially released to the atmosphere from the equipment of concern. This assessment is responsive to the emissions of various toxic air contaminants from the construction and operation of the project. The main toxic air contaminants associated with the project include diesel PM from diesel-fueled equipment and total organic gases (TOG) from both gasoline and diesel vehicles.
- **Dose-Response Assessment**: The dose-response assessment develops relationships between exposures to a given chemical and the corresponding potential health effects associated with exposure to that chemical. In general, data are limited regarding adverse effects associated with direct exposure to humans to a particular chemical. Therefore, animal experiments have often been performed to assess a chemical's toxicity. These experiments are conducted to determine the organs that are adversely affected by a toxic chemical and the amount of the chemical needed to produce an adverse effect on the organ. Two types of adverse health effects are generally considered in health risk assessments: carcinogenic and non-carcinogenic. Carcinogenic compounds are not considered to have threshold levels (i.e., dose levels below which there are no risks). Any exposure, therefore, will have some associated risk. Chemicals that potentially produce carcinogenic effects have been shown or are suspected to produce tumors in animals or humans. Non-carcinogenic effects, such as liver or kidney damage, may be either reversible or permanent. In these situations, it is assumed that there is a level of exposure at which these chemicals produce no adverse effects in the human body. In other words, exposure to these chemicals in amounts less than a threshold level will result in no adverse health effects. The toxicity assessment characterizes the relationship between the magnitude of exposure and the nature and magnitude of adverse health effects that may result from such exposure
- **Exposure Assessment** identifies potential exposure pathways, estimates chemical concentrations at potential exposure points, and calculates expected doses of emitted substances. An exposure pathway is defined as the means by which an individual or a population is exposed to contaminants that originate from a source. Each pathway represents a different mechanism for exposure. An exposure pathway is defined as the means by which an individual or a population is exposed to contaminants that originate from a source. For this purpose, an air dispersion model (the USEPA AERMOD regulatory model), is used to estimate the toxic air concentrations at locations within and surrounding the project.

- **Risk Characterization** is the process of combining dose-response information with the estimates of human exposure in order to derive a quantitative estimate of the likelihood that humans will experience any adverse health effects for the given exposure assumptions. Two general types of health effects are generally considered: potential carcinogenic risks after chronic (long-term)

exposure and potential non-carcinogenic health impacts following chronic (long-term) and acute (short-term) exposure. Each of these health effects was evaluated in this report.

Estimation of Cancer Risks. Excess cancer risks[1] are estimated as the upper-bound incremental probability that an individual will develop cancer over a lifetime as a direct result of exposure to potential carcinogens over a specified exposure duration. The estimated risk is expressed as a unit-less probability. The cancer risk attributed to a chemical is calculated by multiplying the chemical intake or dose at the human exchange boundaries (e.g., lungs) by the chemical-specific cancer potency factor (CPF). A risk level of 1 in a million implies a likelihood that up to one person, out of one million equally exposed people would contract cancer if exposed continuously (24 hours per day) to the levels of toxic air contaminants over a specified duration of time.

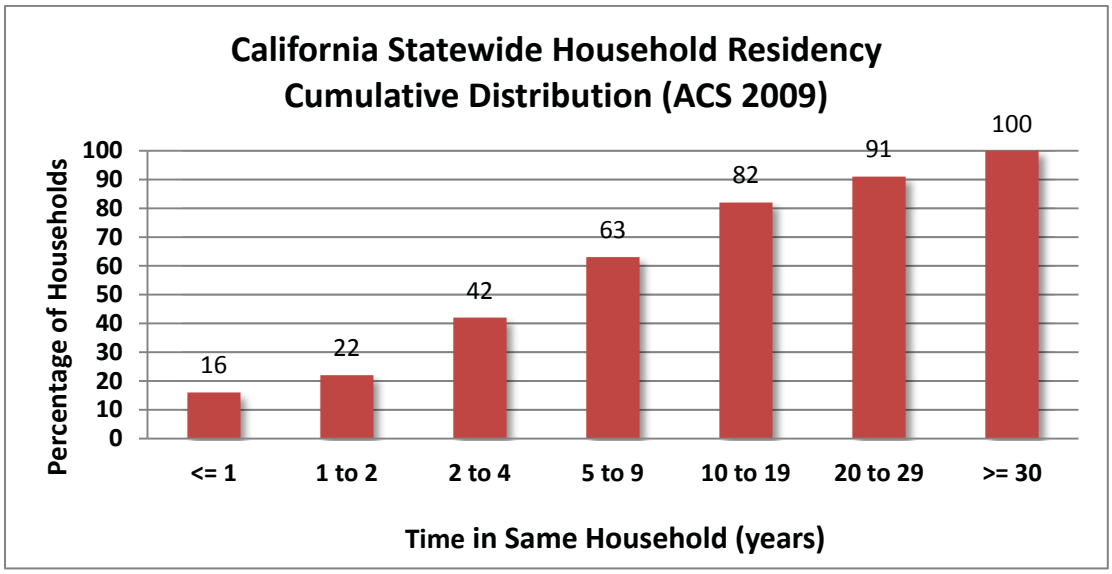
The health risk assessment methodology that was included in the DEIR for estimating cancer risks is described below. This methodology, taken from the AB2588 Hot Spot program, estimates cancer risks over a 70-year lifetime of exposure and includes assumptions concerning individual rates of the inhalation of air. This methodology is referred to as the "Former OEHHA Guidance" since it is has been updated by OEHHA since the circulation of the DEIR. The "Former OEHHA Guidance" also provides for an estimate of off-site worker exposures over a 40-year duration.

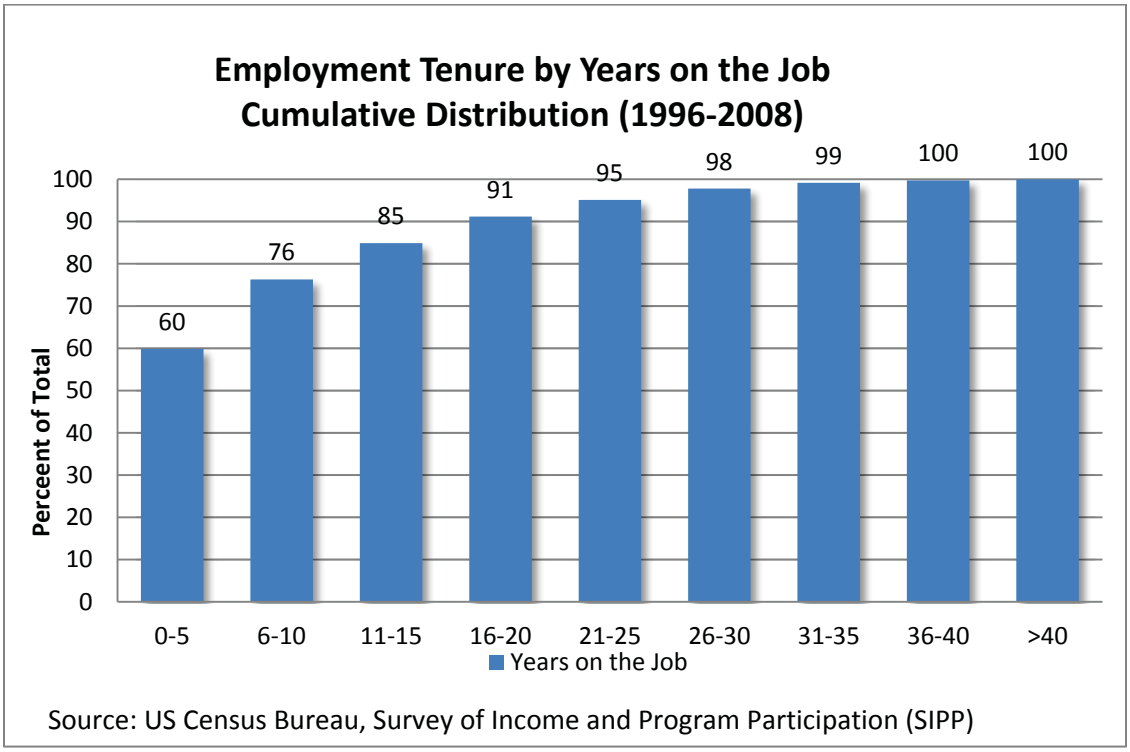
On March 6, 2015, the OEHHA released its final version of the document. *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments.*" This Guidance Manual has been developed by OEHHA, in conjunction with CARB, for use in implementing the Air Toxics Hot Spots Program (Health and Safety Code Section 44360). OEHHA is required to develop guidelines for conducting health risk assessments under the Air Toxics Hot Spots Program (Health and Safety Code Section 44360 (b) (2)). OEHHA earlier developed three Technical Support Documents (TSDs) in response to this statutory requirement, which provided the scientific basis for values used in assessing risk from exposure to facility emissions. The three TSDs describe non-cancer risk assessment (derivation of acute, 8-hour and chronic reference exposure levels), derivation of cancer potency factors, and exposure assessment methodology including stochastic risk assessment. The Guidance incorporates the awareness of the sensitivity of early-in-life exposures to toxic air contaminants for sensitive receptors. The methodology is referred to in this document as the "Current OEHHA Guidance."

The "Current OEHHA Guidance" provides for a 30-year lifetime exposure for sensitive receptors along with assumptions on age-specific sensitivity factors, daily breathing inhalation rates, and time at home estimates. The "Current OEHHA Guidance" also provides for a 25-year exposure duration for off-site worker receptors. To date, the technical support documents relative to the "Current OEHHA Guidance" have been finalized by the OEHHA relative to the AB2588 Hot Spots program, has been adopted by the CARB, and SCAQMD has initiated the process to adopt the guidance for AB2588 assessments and application to CEQA air quality impact assessments. This revised assessment estimates the project's health risk impacts under the "Current OEHHA Guidance". The changes in the "Current OEHHA Guidance" result in a more conservative estimate of cancer risks resulting from the incorporation of early-in-life exposures compared to the "Former OEHHA Guidance". The HRA is being provided to allow decision makers to see the cancer-related impacts of the proposed project in the assumption that new technology diesel exhaust cause cancer, contrary to what was found by the HEI study. The estimation of cancer risk involves the specification of several parameters including the concentration level of the toxic air contaminant (for purposes of this assessment diesel PM10 exhaust), the rate of inhalation of the toxic, the exposure frequency (number of days per year), the exposure duration in years, the time period over which the exposure takes place, what is termed a slope factor that represents an upper bound on the increased cancer risk from a lifetime exposure to

[1] Excess cancer risk is the risk from exposure to a source of air toxics that is over and above any cancer risk borne by a person not exposed to these air toxics.

a toxic by ingestion or inhalation and early-in-life age sensitivity factors. The values of these parameters depend on the type of receptor, i.e., sensitive/residential, worker, and student as discussed below.





Cancer Risk Exposure Assumptions. The principal focus of this HRA is on the potential health impacts to sensitive/residential receptors located within and surrounding the project site, based on the assumption that diesel exhaust can cause cancer. Sensitive receptors include hospitals, schools, daycare facilities, elderly housing and convalescent facilities. Residences are also considered sensitive receptors. An important parameter necessary to estimate cancer risk requires the

specification of the duration of exposure of an individual to toxic air contaminants. An assessment of population mobility can assist in determining the length of time a residential receptor is exposed in a particular location. For example, the duration of exposure to a source of toxic air contaminants will be directly related to the period of time residents live near the source of the emissions.

Table 4.3.G summarizes the primary exposure assumptions used to calculate individual cancer risk by receptor type for the "Current OEHHA Guidance."

Table 4.3.G: Exposure Assumptions for Cancer Risk for "Current OEHHA Guidance" (new table)

Type of Guidance	Receptor Type	Exposure Frequency		Exposure Duration (years)	Age Sensitivity Factors	Time at Home Factor (%)	Daily Breathing Rate (L/kg-day)
		Hours/ day	Days/ year				
Current OEHHA Guidance	Sensitive/Residential:						
	3rd Trimester	24	350	0.25	10	.85	361
	0-2 years	24	350	2	10	85	1090
	3-16 years	24	350	14	3	72	745
	Older than 16 years	24	350	14	1	73	290
	Student	8	180	9	3	72	745
	Worker	8	250	25	1	NA	230

(L/kg-day) = liters per kilogram body weight per day
The daily breathing rates shown are the 95th percentile rate as recommended by the OEHHA.
Source: OEHHA 2014

The underlying factors used in the analysis exemplify the conservative nature of utilizing the exposure scenarios and the underlying assumptions:

- The residential cancer risk calculation assumes that each resident will be exposed to diesel particulate matter (diesel PM) and organic gases for 24 hours a day for 350 days a year at the location of his or her home throughout the entire 30 year residential exposure period.
- The worker cancer risk calculation assumes that workers are exposed to diesel PM for 8 hours a day for 250 days a year, next to, but outside of the buildings in which they work.
- The atmospheric dispersion model and traffic model that are used to estimate risks generally provide impact estimates that are over-estimates based on the use of conservative model assumptions.

Other Factors that Influence Health Risk Estimates: Conservative Trip Estimates. It should also be noted that the traffic analysis used a conservative estimate of the number of truck trips after the project begins operation. This is important because diesel PM emissions are directly related to both the number of trucks and the vehicle miles traveled.

The traffic analysis in the EIR used the traffic generation rate for high-cube warehouses suggested by the Institute of Traffic Engineers ("ITE") which is based on traffic counts from a number of large warehouses located in California and elsewhere in the United States. This rate was also compared to the trip generation rate actually resulting from the Skechers warehouse immediately adjacent to the project. The Skechers warehouse is representative of the warehouses planned for the project. The ITE trip generation rate is three times greater than the Skechers warehouse traffic counts (see Table 4.15.K in the revised EIR). Because the project analysis used a higher trip generation rate, the vehicle miles traveled are also higher. The combination of the conservative forecasts of traffic and of the miles traveled means that the calculation of the cancer risk in the EIR overstates the extent of that risk regardless of the exposure period used.

Cancer Burden. Whereas cancer risk represents the probability of an individual to develop cancer, cancer burden multiplies the cancer risk by the exposed population to estimate the number of individuals that would be expected to contract cancer from the project. The exposed population is defined as the number of persons within a facility's zone of impact, which is typically the area exposed to an incremental cancer risk of one in a million from the project. Consistent with this definition, cancer burden was calculated by first identifying all population census tracts[1] located within the project's zone of impact, multiplying the estimated incremental project cancer risk impact in the census tract by the population of the census tract and then summing all of products of population times estimated cancer risk in the zone of impact. Note that each census tract contributes to the cancer burden in proportion to its population and risk. For example, if a census tract has a relatively high estimated cancer risk, but no people living there, it will not contribute to the estimation of the cancer burden. As provided in the "Current OEHHA Guidance", the cancer burden is calculated assuming a 70-year exposure duration along with the appropriate exposure frequency, daily breathing rates, age sensitivity factors, and time at home factors appropriate to each age group[2].

Non-cancer Hazards. Separate from cancer risk impacts, exposures to TACs such as diesel PM can also cause chronic (long-term) and acute (short-term) related non-cancer illnesses such as reproductive effects, respiratory effects, eye sensitivity, immune effects, kidney effects, blood effects, central nervous system, birth defects, or other adverse environmental effects. Risk characterization for non-cancer health risks from TACs is expressed as a hazard index (HI). The HI is a ratio of the predicted concentration of a project's emissions to a concentration considered acceptable to public health professionals, termed the Reference Exposure Level (REL). This is a separate and distinct analysis from the analysis conducted for cancer risk. A significant risk is defined by the SCAQMD as an HI of 1 or greater. The California OEHHA has assigned a chronic non-cancer REL of 5 $\mu g/m^3$ for diesel PM (OEHHA 2011). Diesel PM has effects on the respiratory system, which accounts for essentially all of its potential chronic non-cancer hazards. Therefore, the only HI calculated was for the respiratory system.

Exposures to toxics air contaminants can also have short-term or acute non-cancer effects, typically dealing with exposures over an hour or so. The California OEHHA has not defined a reference exposure level for diesel PM appropriate for estimating acute non-cancer hazards from diesel PM. Therefore, to estimate the potential acute non-cancer impacts from the project, it was necessary to examine the various individual chemical components (or chemical species) that comprise the emissions from both diesel vehicles and gasoline vehicles. For this purpose, use was made of emission source profiles that provide estimates of the various chemical components that comprise the exhaust from diesel and gasoline vehicles. From this information, an estimate can be made of the maximum one-hour average concentration levels of the project's various chemical species from which an acute non-cancer hazard index can be determined.

Morbidity and Mortality. Respirable particulate matter is a public health concern as it is known to impact both the respiratory and cardiovascular systems. Respirable particulate matter deposition in the lungs and penetration into the bloodstream (for the smallest particles) triggers a range of inflammation responses and exacerbates health problems such as asthma and chronic bronchitis. Individuals susceptible to higher health risks from exposure to airborne particulate matter (PM_{10} and $PM_{2.5}$) include children, the elderly, smokers, and people of all ages with low

[1] A census tract is a geographic region defined for the purpose of taking a census. Usually these regions coincide with the limits of cities, towns, or other administrative areas. Each tract has a unique numeric code and averages about 4,000 inhabitants. The census tract centroid is the geographic center of the tract based on a weighted distribution of the population within the tract using the census blocks that comprise the tract. A census block is the smallest geographic unit used to tabulate population and each tract can be comprised of several blocks.

[2] Office of Environmental Health Hazard Assessment, Air Toxics Hot Spots Program, Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments, February 2015, Section 8.1. http://www.oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf

pulmonary/cardiovascular function. The CARB reviewed and summarized the toxic health effects (i.e., mortality and morbidity) of PM exposure and presented a health effect model attempting to quantify these impacts based on concentration-response functions (C-R functions). This CARB model has been used, for example, to estimate the number of cases of disease and premature deaths linked to PM and ozone exposure from ports and goods movement in California.

The CARB model has also been used to quantitatively assess project-specific incremental levels of public mortality and morbidity, however, such calculations are subject to significant uncertainty. Sources of uncertainty include emission estimates, population exposure estimates, concentration-response functions, baseline rates of mortality and morbidity that are entered into C-R functions, and occurrence of additional not-quantified adverse health effects. It should be noted that the nature of PM as a complex mixture of various pollutants, as well as the confounding health effects of pollutants such as sulfur dioxide, NO_2, CO, and O_3 that tend to co-occur with PM in ambient air, greatly increase the complexity of deriving accurate PM concentration-response functions. Health risk estimates derived in the presence of significant uncertainty tend to rely on very conservative assumptions that may greatly overestimate the potential adverse health effects. Risk assessment has various uncertainties in the methodology and is therefore deliberately designed so that risks are not under predicted.

Despite a number of uncertainties in the analysis methodology, the expected increase in mortality and morbidity was calculated for the project's toxic air emissions.

Geographic Scope of the Health Risk Assessment. The HRA is characterized by two important differences from the localized significance threshold assessment for criteria pollutants. According to the SCAQMD localized significance threshold assessment methodology, the assessment of localized impacts addresses only those emissions that are generated "onsite", that is for the purposes of this project, emissions generated from within or along the boundaries of the Specific Plan. However, for the HRA, both the universe of the project's emission sources and air dispersion model receptors were greatly expanded to assess the regional impact of the project's emissions of toxics. For this purpose, the project's toxics emission sources included over 500 individual arterial road and freeway mainline segments in the region that extended from North Palm Springs to Long Beach in the east-west direction and from Rancho Cucamonga to Hemet/San Jacinto in the north-south direction, roughly an area of 3,500 square miles. The study area for the arterial roads covered all intersections in the City of Moreno Valley of a collector or higher classification street with another collector street or higher classification street at which the project would add 50 or more peak hour trips. The study area included the main arterial routes between the project and neighboring communities of Riverside, Perris, Beaumont, San Jacinto, Hemet, and Redlands.

The study area for freeways was selected to cover the freeway routes radiating from the project site to the north, south, east, and west. The analysis covered major portions of the following freeways from North Palm Springs to the ports of Los Angeles and Long Beach: Interstate 10, State Route 60, State Route 91, Interstate 215, and Interstate 710.

The generation of emissions from traffic traveling along the various arterial and freeway mainline roadway segments requires information on traffic volumes, length of segment, and emission factors. The emission factors, in turn, depend on vehicle type, speed, calendar year, and fuel type. Estimates of daily and peak hour vehicle volumes and types (passenger cars, light heavy duty trucks, medium heavy duty trucks, and heavy-heavy duty trucks) were provided by the traffic consultant for each roadway segment analyzed. The physical length and width of each roadway segment were estimated using the segment location as provided by the traffic consultant and aerial photographs available from Google Earth. Vehicle speeds for each roadway segment and vehicle type were estimated based on posted speed limits and peak morning and afternoon average speeds taken from the 2012 Regional Transportation Plan for the years 2008 and 2035 (Southern California Association of Governments 2012). Segment speeds were adjusted to account for stop signs and traffic lights and other stoppages

by reducing the prevailing vehicle speeds by 5 to 10 mph. The various roadway parameters are provided in Appendix D.

The expanded geographic scope of the assessment also necessitated an expansion in the locations of the receptors where the project's impacts were calculated. This expanded network included locations of individual schools within the Moreno Valley School District and over 2,300 census tract centroid locations.

Finally, it is recognized that because of the large geographical extent of the region covered in this HRA, meteorological conditions differ for different portions of the study region. The most frequent wind direction patterns in the Riverside and Moreno Valley areas are from the northwest direction at as represented by the SCAQMD Riverside air monitoring station. In contrast, the most frequent wind directions along the SR-60 and SR-91 west of SR-71 in the La Habra and Anaheim areas are generally from the southwest. Because of these wind differences, it was necessary to separate the air dispersion modeling into two separate pieces as follows. Those emission sources located east of SR-71 were assumed to be influenced by the meteorological conditions represented by the Riverside meteorological data. Those emission sources located west of SR-71 were assumed to be influenced by the meteorological conditions represented by the Anaheim meteorological data. The air dispersion modeling was done separately for the region east of SR-71 and for the region west of SR-71. The air pollutant concentrations at each receptor location were then comprised as the sum of the emission impacts from those sources located east of SR-71 and west of SR-71 as influenced by their respective meteorological conditions.

The health risk analysis examined the following condition:

- Proposed Project Development condition which examines the effect of project-related construction and operational traffic diesel PM emissions as if the project were built out in accordance with its proposed phased construction and operational buildout schedule commencing with the construction of Phase 1 in 2015, build out of Phase 1 in 2022, and the final full build out in 2035. This condition forms the basis for quantifying the incremental impacts from the project.

Annual average diesel PM emissions and impacts were calculated for each year starting from 2015 based on the assumption that diesel exhaust can cause cancer. Specifically, annual average diesel PM concentrations were estimated from the diesel PM construction emissions for each year of construction from 2015 to 2030 according to the construction schedule and equipment usage projected for each year of construction. Proposed Project Development examines project impacts resulting from the proposed construction and operation of the project from the commencement of construction in 2015 for a 30-year duration for sensitive/residential receptors, 25-year for worker receptors, and 9-year exposure time periods for school-site student receptors. Annual average diesel PM emissions and impacts during operation were estimated for the years 2022 and 2035, years for which detailed traffic information was available from the traffic impact report. The annual average operational diesel PM impacts were then interpolated among three calculation years: 2015 (operational emissions were assumed to be zero in this year), 2022 and 2035 based on the amount of square-footage of buildings brought online during each year. Annual average diesel PM concentrations for the years beyond 2035 were set to the year 2035 levels.

During years when both construction and operations occur simultaneously (2016 to 2030), the annual diesel PM concentrations at the sensitive receptors from construction were added to the annual diesel PM concentrations from operations to provide a total impact assessment of all diesel PM emissions from the project during each year. The resulting total annual average diesel PM concentrations calculated each year for the exposure time period (individual annual averages) multiplied by the requisite daily breathing rates, age sensitivity factors, and time-at-home factors for each year of exposure assuming the a child of age zero (within the mother's womb) commences its lifetime

exposure in year 2015. The HRA is being provided to allow decision makers to see the cancer-related impacts of the proposed project in the assumption that new technology diesel exhaust cause cancer, contrary to what was found by the HEI study. The revised mitigation conditions require that all diesel trucks accessing the project during operation be model year 2010 or newer and that all on-site equipment be Tier 4. The results of the HEI Study indicate that the project mitigation requiring the application of Model Year 2010 engines as well as the use of Tier 4-compliant off-road construction equipment are not expected to result in emissions that would be associated with the formation of cancer in exposed individuals.

4.3.4 Thresholds of Significance

Based on Appendix G of the *CEQA Guidelines*, air quality impacts would occur if the proposed project would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations; and/or
- Create objectionable odors affecting a substantial number of people.

In addition to the Federal and State AAQS, there are daily emissions thresholds for construction and operation of a proposed project in the Basin. The Basin is administered by the SCAQMD, and guidelines and emissions thresholds established by the SCAQMD in its *CEQA Air Quality Handbook*[1] and subsequent additions to the Handbook were used in this analysis. It should be noted that the emissions thresholds were established based on the attainment status of the air basin with regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety, these emissions thresholds are regarded as conservative and would overstate an individual project's contribution related to air quality and health risks.

4.3.4.1 Thresholds for Construction Emissions

The following CEQA significance thresholds for construction emissions have been established by the SCAQMD for the Basin:

- 75 pounds per day of VOC, also known as reactive organic compounds (ROC).
- 100 pounds per day of NO_X.
- 550 pounds per day of CO.
- 150 pounds per day of PM_{10}.
- 150 pounds per day of SO_X.
- 55 pounds per day of $PM_{2.5}$.

[1] *CEQA Air Quality Handbook*, April 1993.

Projects in the Basin with construction-related emissions that exceed any of the emission thresholds are considered to be significant under CEQA.

4.3.4.2 Thresholds for Operational Emissions

Projects with operation-related emissions that exceed any of the emission thresholds listed below are considered significant under the SCAQMD guidelines.

- 55 pounds per day of VOC, also known as ROC.
- 55 pounds per day of NO_X.
- 550 pounds per day of CO.
- 150 pounds per day of PM_{10}.
- 150 pounds per day of SO_X.
- 55 pounds per day of $PM_{2.5}$.

4.3.4.3 Air Pollutant Standards for CO with Localized Effects

The significance of localized project impacts under CEQA depends on whether ambient CO levels in the vicinity of the project are above or below State and Federal CO standards (previously referenced Table 4.2.A). If ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or Federal standard, project emissions are considered significant if they increase one-hour CO concentrations by 1.0 ppm or more or eight-hour CO concentrations by 0.45 ppm or more. The Basin meets State and Federal attainment standards for CO; therefore, the proposed project would have a significant CO impact if project emissions result in an exceedance of State or Federal one-hour or eight-hour standard. The following emission concentration standards for CO, based on the SCAQMD *CEQA Air Quality Handbook* (1993), apply to the proposed project:

- California State one-hour CO standard of 20.0 ppm.
- California State eight-hour CO standard of 9.0 ppm.

4.3.4.4 Localized Significance Thresholds

The SCAQMD published its *Final Localized Significance Threshold Methodology* in June 2003, revised July 2008) and *Final Methodology to Calculate Particulate Matter (PM) 2.5 and $PM_{2.5}$ Significance Thresholds* (October 2006), recommending that all air quality analyses include a localized assessment of both construction and operational impacts on the air quality of nearby sensitive receptors. LSTs represent the maximum emissions from a project site that are not expected to result in an exceedance of Federal or State AAQS. LSTs are based on the ambient concentrations of that pollutant within the Source Receptor Area (SRA) where a project is located and the distance to the nearest sensitive receptor. The project site is located in the northern portions of SRAs 24 (Moreno Valley) and 28 (San Jacinto).

In the case of CO and NO_2, if ambient levels are below the air standards for these pollutants, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or Federal standard, then project emissions are considered significant if they increase ambient concentrations by a measurable amount. This would apply to PM_{10} and $PM_{2.5}$, both of which are nonattainment pollutants in the Basin. For these latter two pollutants, the significance criteria are the pollutant concentration thresholds

presented in SCAQMD Rules 403 and 1301. The Rule 403 threshold of 10.4 µg/m^3 applies to construction emissions (and may apply to operational emissions at aggregate handling facilities). The Rule 1301 threshold of 2.5 µg/m^3 applies to non-aggregate handling operational activities.

Sensitive receptors include residences, schools, hospitals, and similar uses that are sensitive to adverse air quality. There are currently seven occupied single-family homes and associated ranch/ farm buildings in various locations on the proposed project site. These residences are existing on-site sensitive receptors. The nearest off-site existing sensitive receptors in the vicinity of the proposed project site are the residences located along Bay Avenue, Merwin Street, and west of Redlands Boulevard, and scattered residences along Gilman Springs Road.

Following the SCAQMD LST methodology, for sites larger than 5 acres, air dispersion modeling needs to be conducted. Because the project site greatly exceeds 5 acres, the localized significance for project air pollutant emissions was determined by performing dispersion modeling to determine if the pollutant concentrations would exceed relevant significance thresholds established by the SCAQMD.

The following LSTs were applied to the construction and operation of the project:

- 0.18 ppm (State 1-hour); 0.100 ppm (Federal 1-hour); and 0.03 ppm (Annual) of NO_2 for construction or operations.
- 20 ppm (1-hour) and 9.0 ppm (8-hour) of CO for construction or operation.
- 10.4 µg/m^3 (24-hour) and 1 µg/m^3 of PM_{10} (Annual) for construction.
- 2.5 µg/m^3 (24-hour) and 1.0 ppm (Annual) of PM_{10} for operations.
- 10.4 µg/m^3 (24-hour) of $PM_{2.5}$ for construction.
- 2.5 µg/m^3 (24-hour) of $PM_{2.5}$ for operation.
- Note that when construction and operational activities occur at the same time, the SCAQMD recommends application of the significance thresholds for operation apply in determining emission significance

4.3.4.5 Health Risk Significance Thresholds

For pollutants without defined significance standards or air contaminants not covered by the standard criteria cited above, the definition of substantial pollutant concentrations varies. For toxic air contaminants (TAC), “substantial” is taken to mean that the individual cancer risk exceeds a threshold considered to be a prudent risk management level.
The SCAQMD has defined several health risk significance thresholds that it recommends to Lead Agencies in assessing a project’s health risk impacts. The City of Moreno Valley has not adopted its own set of thresholds. Therefore, the following SCAQMD thresholds were adopted for the project.

- **Maximum Individual Cancer Risk and Cancer Burden (MICR).** MICR is the estimated probability of a potential maximally exposed individual contracting cancer as a result of exposure to TACs over the applicable exposure period.

  A significant impact would occur for:

  (A) An increased MICR greater than 10 in 1 million at any receptor location; or

  (B) A cancer burden greater than 0.5
- **Chronic Hazard Index.** This is the ratio of the estimated long-term level of exposure to a TAC for a potential maximally exposed individual to its chronic reference exposure level. A reference

exposure level is the exposure level below which an adverse health effect will not occur as determined by health professionals The Chronic Hazard Index calculations include multi-pathway consideration, when applicable.

A significant impact would occur if the increase in total chronic hazard index for any target organ system due to exposures to total TAC emissions from the project exceeds 1.0 at any receptor location.

- **Acute Hazard Index.** This is the ratio of the estimated maximum one-hour concentration of a TAC for a potential maximally exposed individual to its acute reference exposure level, the exposure level below which an adverse health effect will not occur as determined by health professionals.

  A significant impact would occur if the increase in total acute Hazard Index for any target organ system due to exposure to total TAC emissions from the project exceeds 1.0 at any receptor location.

4.3.5 Less than Significant Impacts

The following impacts were determined to be less than significant. For each of the following issues, either no impact would occur (therefore, no mitigation would be required) or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level.

4.3.5.1 Odors

Threshold	Would the proposed project create objectionable odors affecting a substantial number of people?

The SCAQMD recommends that odor impacts be addressed in a qualitative manner. Such an analysis shall determine whether the project would result in excessive nuisance odors, as defined under the California Code of Regulations and Section 41700 of the California Health and Safety Code, and thus would constitute a public nuisance related to air quality.

Land uses typically considered associated with odors include wastewater treatment facilities, waste-disposal facilities, or agricultural operations. The project does not contain land uses typically associated with emitting objectionable odors.

SCAQMD Rule 402 dictates that air pollutants discharged from any source shall not cause injury, nuisance, or annoyance to the health, safety, or comfort of the public. With the exception of short-term construction-related odors (e.g., equipment exhaust, paint, and asphalt odors), the proposed uses that would be developed on the proposed site do not include uses that are generally considered to generate offensive odors (e.g., agricultural uses, wastewater treatment plants, or landfills). While the application of architectural coatings and installation of asphalt may generate odors, these odors are temporary and not likely to be noticeable beyond the project boundaries. SCAQMD Rules 1108 and 1113 identify standards regarding the application of asphalt and architectural coatings, respectively.

SCAQMD Rule 1108 sets limitations on ROG (reactive organic gases), which are similar to and for the purposes of this EIR equivalent to and therefore interchangeable with volatile organic compounds (VOC) content in asphalt. This rule is applicable to any person who supplies, sells, offers for sale, or manufactures any asphalt materials for use in the Basin. Rule 1113 of the SCAQMD deals with the selling and application of architectural coatings. Rule 1113 is applicable to any person who supplies, sells, offers for sale, or manufactures any architectural coating for use in the Basin that is intended to be applied to buildings, pavements, or curbs. This rule is also applicable to any person who applies or

solicits the application of any architectural coating within the Basin. Rule 1113 sets limits on the amount of VOC emissions allowed for all types of architectural coatings, along with a time table for tightening the emissions standards in the future. Compliance with Rule 1113 means that architectural coatings used during construction would have VOC emissions that comply with these limits. In addition, pursuant to Mitigation Measure 4.3.6.2C, the project would be required to use low VOC paints.

The SCAQMD indicates that the number of overall complaints has been declining. Between 2003 and 2007, odor complaints made up 50 to 55 percent of the total nuisance complaints. Over the past decade, odor complaints from paint and coating operations have decreased from 27 to 7 percent and odor complaints from refuse collection stations have increased from 9 to 34 percent.

Diesel exhaust and VOCs would be emitted during construction of the project, which are objectionable to some; however, emissions would disperse rapidly from the project site and therefore should not reach an objectionable level at the nearest sensitive receptors. Diesel exhaust would also be emitted during operation of the project from the long-haul trucks that would visit the project site. However, the concentrations would not be at a level to result in a negative odor response at nearby sensitive or worker receptors. In addition, modern emission control systems on diesel vehicles since 2007 virtually eliminate diesel's characteristic odor.

During blow-down maintenance activities, natural gas odors will be present around the SDG&E Compressor Plant located on the project site. When this portion of the WLC Specific Plan is developed, these odors will occasionally be detectable from the industrial warehouse properties adjacent to the SDG&E facility. These odors will be infrequent and odorized natural gas will not be present in high concentrations. Therefore, potential odor impacts from on-site natural gas operations are considered to be less than significant and do not require mitigation.

Adherence to applicable provisions of these rules is standard for all development within the Basin. In addition, conditions for the design of waste storage areas on the proposed site would be established through the permit process to ensure enclosures are appropriately designed and maintained to prevent the proliferation of odors. Solid waste generated by the proposed on-site uses will be collected by a contracted waste hauler, ensuring that any odors resulting from on-site uses would be adequately managed. Therefore, impacts associated with this issue would be less than significant and no mitigation is required.

4.3.5.2 Long-Term Microscale (CO Hot Spot) Emissions

Threshold	Would the proposed project violate any air quality standard or contribute substantially to an existing or projected air quality violation? For CO, the applicable thresholds are: - California State one-hour CO standard of 20.0 ppm; and - California State eight-hour CO standard of 9.0 ppm.

Vehicular trips associated with the development of the proposed project could contribute to congestion at intersections and along roadway segments in the project vicinity resulting in potential local CO "hot spot" impacts. The primary mobile source pollutant of local concern is CO, which is a direct function of vehicle travel speeds and idling time and, thus, traffic flow conditions. CO transport is extremely limited; it disperses rapidly with distance from the source under normal meteorological conditions. However, under certain extreme meteorological conditions, CO concentrations proximate to a congested roadway or intersection may reach unhealthful levels affecting local sensitive receptors (residents, schoolchildren, etc.). High CO concentrations are typically associated with

roadways or intersections operating at unacceptable levels of service or with very high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project's effect on local CO levels.

Carbon monoxide (CO) "hot spot" thresholds ensure that emissions of CO associated with traffic impacts from a project in combination with CO emissions from existing and forecast regional traffic do not exceed State or Federal standards for CO at any traffic intersection affected by the project. Project concentrations may be considered significant if a CO hot spot intersection analysis determines that project-generated CO concentrations cause a localized violation of the State CO 1-hour standard of 20 ppm, State CO 8-hour standard of 9 ppm, Federal CO 1-hour standard of 35 ppm, or Federal CO 8-hour standard of 9 ppm.

A CO hot spot is a localized concentration of CO that is above the State or Federal 1-hour or 8-hour CO ambient air standards. Localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles. To provide a worst-case scenario, CO concentrations are estimated at project-impacted intersections where the concentrations would be the greatest.

This analysis follows guidelines recommended by the CO Protocol (University of California, Davis 1997) and the SCAQMD. According to the CO Protocol, intersections with Level of Service (LOS) E or F require detailed analysis. In addition, intersections that operate under LOS D conditions in areas that experience meteorological conditions favorable to CO accumulation require a detailed analysis. The LOS for intersections is determined in the project Traffic Impact Analysis (refer to Section 4.15 of this EIR, Traffic and Circulation). The SCAQMD recommends that a local CO hot spot analysis be conducted if the intersection meets one of the following criteria: (1) the intersection is at LOS D or worse and where the project increases the volume to capacity ratio by 2 percent, or (2) the project decreases LOS at an intersection from C to D. A decrease in LOS, i.e., from C to D, means that there is more traffic and more delay at the intersection.

For this project analysis, the intersections with the highest traffic volumes and the LOS E or F before mitigation were identified for 2022 using information from the table in the traffic study "Intersection LOS under 2022 Plus Phase 1 Conditions." The intersections with the greatest LOS before mitigation were also identified for 2035 using information from the table in the traffic study "Intersection LOS under 2035 Plus Build-out Conditions."

The CO concentrations were estimated using the CALINE4 model using 2012 emission factors. The emission factors are for "all" vehicle classes and are not adjusted for a project-specific fleet to provide a worst-case scenario. In addition, the emission factors do not take into account the project mitigation reductions from requiring that all diesel trucks are model year 2010 or newer.

Table 4.3.H shows estimated CO concentrations at year 2022 plus project traffic conditions. The estimated CO concentrations at year 2035 are shown in Table 4.3.I. As shown in the tables, the estimated 1-hour and 8-hour average CO concentrations from project-generated and cumulative traffic plus the background concentrations are below the State and Federal standards. No CO hot spots are anticipated because of traffic-generated emissions by the project in combination with other anticipated development in the area. Therefore, the mobile emissions of CO from the project are not anticipated to contribute substantially to an existing or projected air quality violation of CO. Therefore, according to this criterion, air pollutant emissions during operation would result in a less than significant impact. No mitigation is required.

Note: The following tables were edited because the revised Traffic Impact Analysis revised traffic volumes and LOS. CO hotspot analyses are dependent of traffic volumes through specific intersections; changes in a traffic analysis may result in changes to the intersections that require analysis in order to determine the location of greatest impact. That occurred in this analysis with changing transportation analysis requiring a modified CO hotspot analysis.

Table 4.3.H: Carbon Monoxide Concentrations at Intersections, 2022

Intersection	Peak Hour	CO Concentration (ppm)		Significant Impact?
		1 Hour	8 Hour	
Cactus Avenue at Graham Street	PM	5.2	3.4	No
Cactus Avenue at Elsworth Street	PM	4.9	3.2	No
Alessandro Blvd at Sycamore Canyon Road	PM	4.8	3.1	No
Alessandro Blvd at Chicago Avenue	AM	5.2	3.4	No
Alessandro Blvd at Chicago Avenue	PM	5.4	3.5	No

- ppm = parts per million
- A significant impact would occur if the estimated CO concentration is over the 1-hour State standard of 20 ppm or the 8-hour State/Federal standard of 9 ppm.

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

Table 4.3.I: Carbon Monoxide Concentrations at Intersections, 2035

Intersection	Peak Hour	CO Concentration (ppm)		Significant Impact?
		1 Hour	8 Hour	
Alessandro Blvd at Mission Grove Pkwy	PM	5.1	3.3	No
Alessandro Blvd at Chicago Avenue	AM	5.3	3.5	No
Alessandro Blvd at Chicago Avenue	PM	5.4	3.5	No
Alessandro Blvd at Canyon Crest Drive	AM	5.4	3.5	No
Alessandro Blvd at Canyon Crest Drive	PM	5.6	3.7	No

- ppm = parts per million
- A significant impact would occur if the estimated CO concentration is over the 1-hour State standard of 20 ppm or the 8-hour State/Federal standard of 9 ppm.

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

4.3.6 Significant Impacts

The following impacts were determined to be potentially significant. In each of the following issues, mitigation measures have been recommended to reduce the significance of the identified impacts.

4.3.6.1 Air Quality Plan Management Plan Consistency

Impact 4.3.6.1: *Implementation of the proposed project has the potential to conflict with implementation of the SCAQMD 2012 AQMP.*

Threshold	Would the proposed project conflict with or obstruct implementation of the applicable air quality plan?

According to the 1993 SCAQMD Handbook, there are two key indicators of consistency with the Air Quality Management Plan (AQMP):

1. Indicator: Whether the project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
2. Indicator: A project would conflict with the AQMP if it would exceed the assumptions in the AQMP in 2010 or increments based on the year of project buildout and phase. The Handbook indicates that key assumptions to use in this analysis are population number and location and a regional housing needs assessment. The parcel-based land use and growth assumptions and inputs used

in the Regional Transportation Model run by the Southern California Association of Governments that generated the mobile inventory used by the SCAQMD for AQMP are not available and assumed not to include the proposed project; therefore, the SCAQMD's significance thresholds are used to determine if the project exceeds the assumptions in the AQMP.

Considering the recommended criteria in the SCAQMD's 1993 Handbook, this analysis utilizes the following criteria to address this potential impact:

- Project's contribution to air quality violations (SCAQMD's first indicator, 1 as listed above);
- Assumptions in AQMP (SCAQMD's second indicator, 2, as listed above); and
- Compliance with applicable emission control measures in the AQMPs.

Project's Contribution to Air Quality Violations and Assumptions in AQMP. According to the SCAQMD, the project is consistent with the AQMP if the project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP (SCAQMD 1993, page 12-3). As shown in analyses in Impact 4.3.6.3, the project could violate an air quality standard and therefore could contribute substantially to an existing or projected air quality violation.

If a project's emissions exceed the SCAQMD regional thresholds for NO_X, VOC, PM_{10}, or $PM_{2.5}$, it follows that the emissions could cumulatively contribute to an exceedance of a pollutant for which the Basin is in nonattainment (ozone, PM_{10}, and $PM_{2.5}$) at a monitoring station in the Basin.

The thresholds are criteria for determining environmental significance and are discussed in the SCAQMD's 1993 Handbook for Air Quality Analysis and are updated in the SCAQMD's most recent thresholds published online in 2012.[1] An exceedance of a nonattainment pollutant at a monitoring station would not be consistent with the goals of the AQMP to achieve attainment of pollutants.

As discussed in the analyses below (Impact 4.3.6.2, Construction Emissions, and Impact 4.3.6.4, Long-Term Operational Emissions), the project would exceed the regional emission significance thresholds for VOC, NO_X, CO, PM_{10}, and/or $PM_{2.5}$ prior to the application of mitigation. (Refer specifically to Table 4.3.J for construction emissions and Table 4.3.Y for operational emissions.) This means that project emissions of VOC and NO_X could combine with other sources and could result in an ozone, PM_{10}, or $PM_{2.5}$ exceedance at a nearby monitoring station. The Basin in which the project is located is in nonattainment for these pollutants; therefore, according to this criterion, the project would not be consistent with the AQMP. The regional emissions assume a zero baseline for existing emissions on the project site and therefore assumes that the AQMP had no emissions for the project site. The regional significance thresholds can be interpreted to mean that if project emissions exceed the thresholds, then the project would also not be consistent with the assumptions in the AQMP. The project does not meet this criterion.

Note: The project comparison with the Moreno Highlands Specific Plan was removed because it is assumed that there would be a zero baseline for the existing emissions, instead of assuming that the existing conditions are emissions from the Moreno Highlands Specific Plan. Please see the paragraphs above for a discussion. Note that a comparison to the Moreno Highlands Specific Plan is still part of the No Project analysis of the EIR and can be found in the Alternatives Section 6.0.

[1] The most recent SCAQMD significance thresholds are located at the following website.http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2

Compliance with Emission Control Measures. The second indicator of whether the project could conflict with or obstruct implementation of the AQMP is by assessing the project's compliance with the control measures in the AQMPs and the State Implementation Plan (SIP).

2003 AQMP. The 2003 AQMP contains a number of land use and transportation control measures including the following: the SCAQMD's Stationary and Mobile Source Control Measures; State Control Measures proposed by the CARB; and SCAG Transportation Control Measures (TCMs). The CARB's strategy for reducing mobile source emissions includes the following approaches: new engine standards; reduction of emissions from in-use fleet; requiring clean fuels; supporting alternative fuels and reduction of petroleum dependency; working with the EPA to reduce emissions from Federal and State sources; and pursuit of long-term advanced technology measures (AQMP 2003, page 4-25). SCAG TCMs include those contained in the Regional Transportation Plans (RTPs), the most current version of which is the 2008 RTP, which has control measures to reduce emissions from on-road sources by incorporating strategies such as high occupancy vehicle interventions, transit, and information-based technology interventions (AQMP 2003, page 4-19). The project would comply with the control measures and regulation set by the CARB and SCAG.

2007 AQMP. The focus of the 2007 AQMP is to demonstrate attainment of the Federal $PM_{2.5}$ ambient air quality standard by 2015 and the Federal 8-hour ozone standard by 2024, while making expeditious progress toward attainment of State standards. This is to be accomplished by building upon improvements from the previous plans and incorporating all feasible control measures while balancing costs and socioeconomic impacts. The 2007 AQMP indicates that $PM_{2.5}$ is formed mainly by secondary reactions of precursor gases. Therefore, instead of reducing fugitive dust (a primary source), the strategy for reducing $PM_{2.5}$ focuses on reducing precursor emissions of SO_X, directly emitted $PM_{2.5}$, NO_X, and VOC.

The 2007 AQMP control measures consist of four components: The first component is SCAQMD's Stationary and Mobile Source Control Measures. The Final 2007 AQMP includes 30 short-term and mid-term stationary and seven mobile source control measures for SCAQMD implementation. A complete listing of the measures is in the 2007 AQMP and includes measures such as VOC reductions from gasoline transfer and dispensing facilities, further NO_X reductions from space heaters, localized control program for PM emission hot spots, urban heat island, energy efficiency and conservation, etc. Some of the measures will become new rules and some will be amendments to existing rules. When the rules pass, the owner-operator will follow the applicable rules.

The second component is the CARB's Proposed State Strategy, which includes short- and mid-term control measures aimed at reducing emissions from sources that are primarily under State jurisdiction, including on-road and off-road mobile sources, and consumer products. These measures are required in order to achieve the remaining emission reductions necessary for $PM_{2.5}$ attainment. The CARB's strategy includes measures such as improvements to California's Smog Check Program, expanded passenger vehicle retirement, cleaner in-use heavy-duty trucks, reductions from port-related sources, cleaner off-road equipment, evaporative and exhaust strategies, pesticide strategies, etc. When these measures are implemented by the CARB, the project would be required to follow them.

The third component is the SCAQMD Staff's Proposed Policy Options to Supplement CARB's Control Strategy. SCAQMD staff believes that a combination of regulatory actions and public funding is the most effective means of achieving emission reductions. As such, the 2007 Final AQMP proposes three policy options for the lead agency to consider in achieving additional reductions. The first option is to incorporate the SCAQMD-proposed additional control measures as a menu of selections further reducing emissions from sources primarily under State and Federal jurisdiction. The second option is to have the State fulfill its NO_X emission reduction obligations under the 2003 AQMP by 2010 for its short-term defined control measures plus additional reductions needed to meet the NO_X emission target between 2010 and 2014. The third option is based on the same rate of progress under Policy Option 1 (the first option discussed above), but it relies heavily on public funding assistance to

achieve the needed NO_X reductions via accelerated fleet turnover to post-2010 on-road emission standards or the cleanest off-road engine standards in effect today (or after 2010). This third component, the CARB's Control Strategy does not directly apply to the project. However, Mitigation Measure 4.3.6.3B requires that all diesel trucks accessing the project during operation be model year 2010 or newer, which is consistent with the third option under CARB's Strategy.

The fourth component consists of Regional Transportation Strategy and Control Measures provided by SCAG. Transportation plans within the Basin are statutorily required to conform to air quality plans in the region, as established by the 1990 Federal Clean Air Act and reinforced by other Acts. The region must demonstrate that its transportation plans and programs conform to the mandate to meet the Federal ambient air quality standards in a timely manner. The SCAG RTP is developed every 4 years with a 20-year planning horizon to meet the long-term transportation planning requirements for emission reductions from on-road mobile sources within the Basin. The Regional Transportation Improvement Program (RTIP) requires that SCAG meet the short-term implementation requirements of the Transportation Conformity Rule. The first 2 years of the program are fiscally constrained and demonstrate timely implementation of a special category of transportation projects called Transportation Control Measures (TCMs). In general, TCMs are those projects that provide emission reductions from on-road mobile sources, based on changes in the patterns and modes by which the regional transportation system is used. Strategies are grouped into three categories: high occupancy vehicle strategy, transit and systems management, and information-based technology (traveling during a less congested time of day). SCAG approved the transportation measures in the RTP, which have been included in the region's air quality plans. The TCMs will be implemented by the appropriate agencies and will subsequently reduce emissions in the Basin.

2012 AQMP. The 2012 AQMP was adopted in December 2012. The purpose of the 2012 AQMP for the Basin is to set forth a comprehensive and integrated program that will lead the Basin into compliance with the federal 24-hour $PM_{2.5}$ air quality standard, and to provide an update of the Basin's projections in meeting the Federal 8-hour ozone standards. The 2012 AQMP states, "The remarkable historical improvement in air quality since the 1970's is the direct result of Southern California's comprehensive, multiyear strategy of reducing air pollution from all sources as outlined in its AQMPs."

Similar to the prior AQMPs, the project would comply with all applicable rules and regulations enacted as part of the AQMP. In addition, the AQMP relies upon the SCAG regional transportation strategy, which is in its adopted 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and 2011 Federal Transportation Improvement Program. Included in the RTP/SCS are transportation control measures including active transportation (non-motorized transportation, e.g., biking and walking); transportation demand management; transportation system management; transit; passenger and high-speed rail; goods movement; aviation and airport ground access; highways; arterials; and operations and maintenance.

The project would be involved in goods movement. The heavy-duty trucks would access local highways and arterials.

State Implementation Plans. Geographical areas in the State that exceed the Federal air quality standards are called nonattainment areas. The project area is in nonattainment for ozone, PM_{10}, and $PM_{2.5}$. SIPs show how each area will attain the Federal standards. To do this, the SIPs identify the amount of pollutant emissions that must be reduced in each area to meet the standard and the emission controls needed to reduce the necessary emissions. On September 27, 2007, the CARB adopted its State Strategy for the 2007 SIP. In 2009, the SIP was revised to account for emissions reductions from regulations adopted in 2007 and 2008 and clarifies CARB's legal commitment. Additional recent revisions to the SIP are as follows:

- In 2008, the EPA revised the lead[1] national ambient air quality standard by reducing it to 0.15 μg/m^3. On December 31, 2010, the Los Angeles County portion of the Basin was designated as nonattainment for the 2008 lead national standard as a result of exceedances measured near a large lead-acid battery recycling facility. The 2012 Lead SIP for Los Angeles County was prepared by the SCAQMD and addresses the recent revision to the lead national standard, and outlines the strategy and pollution control activities that demonstrate attainment of the lead national standard before December 31, 2015. The 2012 Lead SIP was approved May 4, 2012.
- A SIP revision for the federal nitrogen dioxide standard was prepared in 2012, to address the new 1-hour federal ambient air quality standard for nitrogen dioxide.
- The proposed California Infrastructure SIP revision was considered by the CARB on January 23, 2014. The proposed Infrastructure SIP revision is administrative in nature and covers the National Ambient Air Quality Standards (federal standards) for ozone (1997 and 2008), fine particulate matter (PM2.5; 1997, 2006, and 2012), lead (2008), nitrogen dioxide (2010), and sulfur dioxide (2010). The proposed revision describes the infrastructure (authorities, resources, and programs) California has in place to implement, maintain, and enforce these federal standards. It does not contain any proposals for emission control measures.

The SIP takes into account CARB rules and regulations. The project will comply with applicable rules and regulations as identified in the AQMPs and SIPs. Because the project would comply with all applicable rules and regulations, the project complies with this criterion.

Summary. Although the project would be consistent with the policies, rules, and regulations in the AQMPs and SIPs, the project must meet all the criteria listed above to be consistent with the AQMPs. The project could impede AQMP attainment because its construction and operation emissions exceed the SCAQMD regional significance thresholds, so the project is considered to be inconsistent with the AQMP.

Mitigation Measures. To facilitate monitoring and compliance, applicable SCAQMD regulatory requirements are restated in the mitigation identified below in Section 4.3.6.2 and 4.3.6.3. These measures shall be incorporated in all project plans, specifications, and contract documents. Typical mitigation measures identified to reduce the level of emissions of criteria pollutants include those identified below in Section 4.3.6.2 and 4.3.6.3. **Mitigation Measures 4.3.6.2A, 4.3.6.2B, 4.3.6.2C, 4.3.6.2D, 4.3.6.3A, 4.3.6.3B, 4.3.6.3C, 4.3.6.3D,** and **4.3.6.4A** are required.

Level of Significance After Mitigation. As noted above, implementation of the proposed project would exceed applicable thresholds for all criteria pollutants, with the exception of SO_X. Despite the implementation of mitigation measures, emissions associated with the proposed project cannot be reduced below the applicable thresholds. In the absence of feasible mitigation to reduce the proposed project's emission of criteria pollutants to below SCAQMD thresholds, potential air quality impacts resulting from exhaust from construction equipment will remain significant and unavoidable.

4.3.6.2 Construction Emissions

Impact 4.3.6.2: *Construction of the proposed project has the potential to exceed applicable daily thresholds that may affect sensitive receptors.*

Threshold	Would the proposed project violate any AAQS or contribute to an existing or projected air quality violation; or expose sensitive receptors to pollutants? For construction operations, the applicable daily thresholds are:

[1] Lead referred to here is a chemical element; a heavy metal.

- 75 pounds per day of ROC/VOC;
- 100 pounds per day of NO_X;
- 550 pounds per day of CO;
- 150 pounds per day of PM_{10};
- 150 pounds per day of SO_X; and
- 55 pounds per day of $PM_{2.5}$.

Grading and other construction activities produce combustion emissions from various sources such as site grading, utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, asphalt paving, and motor vehicles transporting the construction crew. Exhaust emissions during these construction activities will vary daily as construction activity levels change. The use of construction equipment on site would result in localized exhaust emissions. Activity during peak grading days typically generates a greater amount of air pollutants than other project construction activities.

While the actual details of the future construction schedule are not known, it is expected that project construction would occur in two phases with seven discrete activities in Phase 1 and eight discrete activities in Phase 2. For Phase 1, the following activities are assumed to occur over the course of seven years in the analysis: 1) rough grading, which includes mass site grading; 2) finish grading; 3) building construction; 4) infrastructure construction which includes utility installation; 5) curb, gutter, sidewalk, subgrade preparation, drop rock, and paving activities; 6) asphalt paving; and 7) landscaping. For Phase 2, the same activities are assumed to occur over the course of nine years in the analysis, Phase 1 includes interchange construction as the eighth activity. Within the "building construction" phase, it is assumed that there would also be subphases of concrete pouring, installation of wet utilities, electrical installation, and landscaping. Appendix D of this EIR includes details of the emission factors and other assumptions.

Table 4.3.J identifies projected emissions resulting from grading and construction activities for the proposed project and shows the estimated maximum daily construction emissions over the course of project construction prior to the application of mitigation.

The construction emissions estimates summarized in Table 4.3.J are based on the assumed construction scenario described in Section 3.0, *Project Description*, of this EIR. Using emission factors from the CalEEMod model, Table 4.3.J indicates that construction emissions of criteria pollutants would exceed the SCAQMD daily emission thresholds for all criteria pollutants (VOC, NOx, CO, PM_{10}, and $PM_{2.5}$), with the exception of SO_X.[1] This is a significant impact requiring mitigation.

Fugitive dust emissions are generally associated with land clearing and exposure of soils to the air and wind, and cut-and-fill grading operations. Dust generated during construction varies substantially by project, depending on the level of activity, the specific operations and equipment, local soils, and weather conditions at the time of construction. The proposed project will be required to comply with SCAQMD Rules 402 and 403 to control fugitive dust. There are a number of feasible control measures that can be reasonably implemented to significantly reduce PM_{10} emissions from construction.

As identified in Table 4.3.J, fugitive dust and exhaust emissions during the anticipated peak construction day for the proposed project would exceed SCAQMD daily construction thresholds. The percentage of dust and exhaust varies by year but for PM_{10} is an average of 70 percent dust and 30 percent exhaust. $PM_{2.5}$ has an average of 29 percent dust and 71 percent exhaust.

[1] The project would emit SO_X from construction equipment exhaust; however, the maximum emissions (6.8 pounds per day) are less than significant as they are far below the threshold of 150 pounds per day.

Table 4.3.J: Short-Term Regional Construction Emissions–Without Mitigation (Table Revised)

Year	Maximum Daily Pollutant Emissions (lbs/day)								
	VOC	NO_X	CO	PM_{10} dust	PM_{10} exhaust	PM_{10} Total	$PM_{2.5}$ dust	$PM_{2.5}$ exhaust	$PM_{2.5}$
2015	128	1,463	871	124	69	193	20	64	84
2016	267	841	530	82	44	126	9	41	50
2017	314	1,432	849	125	68	193	20	62	82
2018	267	841	530	82	44	126	9	41	50
2019	371	2,116	1,226	173	93	266	38	86	124
2020	277	961	596	86	50	137	11	46	57
2021	303	1,259	774	122	62	184	19	57	76
2022	286	1,057	668	116	53	169	17	49	66
2023	317	1,389	885	141	66	207	26	61	87
2024	298	1,174	754	125	57	183	20	53	73
2025	311	1,289	854	141	62	203	26	57	83
2026	267	841	530	82	44	126	9	41	50
2027	263	729	750	140	28	168	26	26	52
2028	252	607	667	126	23	149	20	21	41
2029	223	318	456	82	12	94	9	11	20
2030	245	420	571	124	16	140	20	15	35
SCAQMD Threshold	**75**	**100**	**550**	**NA**	**NA**	**150**	**NA**	**NA**	**55**
Exceeds Threshold?	**Yes**	**Yes**	**Yes**	**NA**	**NA**	**Yes**	**NA**	**NA**	**Yes**

- Sulfur oxide (SOx) emissions are contained in the CalEEMod output; the maximum emissions would be 2.5 pounds per day, substantially under the threshold of 150 pounds per day.
- The emissions assume all construction activities (mass grading, fine grading, building, utilities, curbing, landscaping, painting, paving, and/or interchange) occur on the same day, depending on the year in which the activity occurs.
- Emissions assume compliance with SCAQMD Rule 403.

VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter
NA = not applicable as there is no separate threshold for dust/exhaust
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

The proposed project is required to comply with regional rules that assist in reducing short-term air pollutant emissions. SCAQMD Rule 402 requires implementation of dust-suppression techniques to prevent fugitive dust from creating a nuisance off site. SCAQMD Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Applicable dust suppression techniques from Rule 403 are summarized below. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus the PM_{10} component). Compliance with these rules would reduce impacts on nearby sensitive receptors. The applicable Rule 403 measures are as follows:

- All clearing, grading, earthmoving, or excavation activities shall cease when winds exceed 25 miles per hour per SCAQMD guidelines in order to limit fugitive dust emissions.
- The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the project are watered at least three times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day.

- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 0.6 meter (2 feet) of freeboard (vertical space between the top of the load and top of the trailer) in accordance with the requirements of California Vehicular Code Section 23114.
- The contractor shall ensure that traffic speeds on unpaved roads and project site areas are 15 miles per hour or less to reduce fugitive dust haul road emissions.

As previously discussed, SCAQMD Rule 1113 regulates the sale and application of architectural coatings. Rule 1113 is applicable to any person who applies or solicits the application of any architectural coating within the Basin. Rule 1113 sets limits on the amount of ROG or VOC emissions allowed for all types of architectural coatings. Compliance with Rule 1113 means that architectural coatings used during construction would have ROG or VOC emissions that comply with these limits.

Mitigation Measures. The following measures are recommended to reduce the level of emissions of criteria pollutants:

4.3.6.2A Construction equipment maintenance records (including the emission control tier of the equipment) shall be kept on site during construction and shall be available for inspection by the City of Moreno Valley.

a) Off-road diesel-powered construction equipment greater than 50 horsepower shall meet United States Environmental Protection Agency Tier 4 off-road emissions standards. A copy of each unit's certified tier specification shall be available for inspection by the City at the time of mobilization of each applicable unit of equipment.

b) During all construction activities, off-road diesel-powered equipment may be in the "on" position not more than 10 hours per day. c) Construction equipment shall be properly maintained according to manufacturer specifications.

d) All diesel powered construction equipment, delivery vehicles, and delivery trucks shall be turned off when not in use. On-site idling shall be limited to three minutes in any one hour.

e) Electrical hook ups to the power grid shall be provided for electric construction tools including saws, drills and compressors, where feasible, to reduce the need for diesel-powered electric generators. Where feasible and available, electric tools shall be used

f) The project shall demonstrate compliance with South Coast Air Quality Management District Rule 403 concerning fugitive dust and provide appropriate documentation to the City of Moreno Valley.

g) All construction contractors shall be provided information on the South Coast Air Quality Management District Surplus Off-road Opt-In "SOON" funds which provides funds to accelerate cleanup of off-road diesel vehicles.

h) Construction on-road haul trucks shall be model year 2007 or newer.

i) Information on ridesharing programs shall be made available to construction employees.

j) During construction, lunch options shall be provided onsite.

k) A publicly visible sign shall be posted with the telephone number and person to contact regarding dust complaints per AQMD Standards. l) Only non-diesel material handling equipment may be used in any logistics building in the WLC.

m) Off-site construction shall be limited to the hours between 6 a.m. to 8 p.m. on weekdays only. Construction during City holidays shall not be permitted.

4.3.6.2B Prior to issuance of any grading permits, a traffic control plan shall be submitted to and approved by the City of Moreno Valley that describes in detail the location of equipment staging areas, stockpiling/storage areas, construction parking areas, safe detours around the project construction site, as well as provide temporary traffic control (e.g., flag person) during construction-related truck hauling activities. Construction trucks shall be rerouted away from sensitive receptor areas. Trucks shall use State Route 60 using Theodore Street, Redlands Boulevard (north of Eucalyptus Avenue), and Gilman Springs Road. In addition to its traffic safety purpose, the traffic control plan can minimize traffic congestion and delays that increase idling emissions. A copy of the approved Traffic Control Plan shall be retained on site in the construction trailer.

4.3.6.2C The following measures shall be applied during construction of the project to reduce volatile organic compounds (VOC):

a) Non-VOC containing paints, sealants, adhesives, solvents, asphalt primer, and architectural coatings (where used), or pre-fabricated architectural panels shall be used in the construction of the project to the maximum extent practicable. If such products are not commercially available, products with a VOC content of 100 grams per Liter or lower for both interior and exterior surfaces shall be used.

b) Leftover paint shall be taken to a designated hazardous waste center.

c) Paint containers shall be closed when not in use

d) Low VOC cleaning solvents shall be used to clean paint application equipment.

e) Paint and solvent-laden rags shall be kept in sealed containers.

4.3.6.2D No grading shall occur on days with an Air Quality Index forecast greater than 150 for particulates or ozone as forecasted for the project area (Source Receptor Area 24).

As shown in Table 4.3.K, construction emissions are still significant after mitigation, with the exception of $PM_{2.5}$. The reduction in $PM_{2.5}$ emissions is by a reduction in exhaust from the application of Tier 4 off-road equipment. PM_{10} emissions are still significant because emissions in 2019 exceed the threshold; however, emissions of PM_{10} during all other years of construction are less than significant. Although mitigation reduces emissions of all pollutants during construction, potential air quality impacts resulting from exhaust from construction equipment and fugitive dust will remain significant and unavoidable.

Table 4.3.K: Mitigated Short-Term Regional Construction Emissions (revised)

Year	Maximum Daily Pollutant Emissions (lbs/day)				
	VOC	NO_X	CO*	PM_{10}	$PM_{2.5}$
2015	31	523	871	130	26
2016	134	371	530	86	14
2017	143	529	849	130	26
2018	134	371	530	86	14
2019	158	764	1226	181	45
2020	135	401	596	91	16
2021	142	515	774	128	25
2022	140	460	668	122	22

Table 4.3.K: Mitigated Short-Term Regional Construction Emissions (revised)

Year	Maximum Daily Pollutant Emissions (lbs/day)				
	VOC	NO_X	CO*	PM_{10}	$PM_{2.5}$
2023	148	605	885	147	32
2024	143	522	754	131	26
2025	148	605	854	148	32
2026	134	371	530	86	14
2027	145	571	750	146	31
2028	142	519	667	131	25
2029	132	368	456	86	13
2030	139	470	571	129	25
Average Emissions from revised analysis (for informational purposes)	134	498	719	122	24
Average Emissions from Draft EIR (for informational purposes)	233	1,100	1217	87	49
SCAQMD Threshold	**75**	**100**	**550**	**150**	**55**
Exceeds Threshold?	**Yes**	**Yes**	**Yes**	**Yes**	**No**

* There is an error in the way CalEEMod estimates the effect of a higher tier (such as Tier 3 or 4) on mitigated CO; therefore, the unmitigated values are reported for CO. This was confirmed by the SCAQMD by a personal communication. The SCAQMD is currently preparing a work around for this; however, it was not available as of the date of this analysis.

- Sulfur oxide (SOx) emissions are contained in the CalEEMod output in Appendix A of the Air Quality, Greenhouse Gas, and Health Risk Assessment Report; the maximum emissions would be approximately 2 pounds per day after mitigation, substantially under the threshold of 150 pounds/day.
- Mitigation Measure 4.3.6.2A(a) was estimated by CalEEMod using its mitigation module by assuming Tier 4 off-road equipment.
- Mitigation Measure 4.3.6.2A(b) restricts equipment from operating more than 10 hours per day in the on position, which is estimated in CalEEMod in both the unmitigated and mitigated estimates.
- Mitigation Measures 4.3.6.2A(c) through (e), 4.3.6.2A(g) through (m), 4.3.6.2B, and 4.3.6.2D are not quantified.
- Mitigation Measure 4.3.6.2A(f) is assumed in the unmitigated and mitigated estimates (Rule 403).
- Mitigation Measure 4.3.6.2A(i) requires that construction haul trucks be 2007 model year or greater. CalEEMod does not have a mitigation measure embedded in the model to quantify the reduction from this measure. Therefore, this reduction quantification was not provided.
- Mitigation Measure 4.3.6.2C reduces VOC emissions during painting and is calculated as demonstrated in the spreadsheets in Appendix A of the Air Quality, Greenhouse Gas, and Health Risk Assessment Report.

VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

Comparing the emissions to those as estimated in the DEIR, average daily emissions of VOC, NOx, CO and $PM_{2.5}$ have decreased by approximately 100, 600, 500 and 25 pounds per day, respectively. This is primarily because 1) the construction period for the project increased from 10 years to 15 years, resulting in decreased construction activity levels (if market conditions further slow project development, impacts would be no greater than those described in this analysis); 2) Tier 4 equipment is applied as mitigation; and 3) a newer version of CalEEMod was used to estimate construction emissions. The average PM_{10} emissions increased slightly by approximately 35 pounds per day, primarily because of the inclusion of unpaved road dust.

The results of this regional construction analysis indicate that during construction, the South Coast Air Basin may experience the following cumulative health effects from ozone exposure:[1]

[1] Although carbon monoxide emissions are over the threshold, it is primarily a localized pollutant. The localized analyses demonstrated that concentrations would not exceed the ambient air quality standards for carbon monoxide; therefore, less than significant health effects are anticipated.

Ozone can cause the following health effects: Irritate respiratory system; reduce lung function; breathing pattern changes; reduction of breathing capacity; inflame and damage cells that line the lungs; make lungs more susceptible to infection; aggravate asthma; aggravate other chronic lung diseases; cause permanent lung damage; some immunological changes; and/or increased mortality risk.

4.3.6.3 Localized Construction and Operational Air Quality Impacts

Impact 4.3.6.3: *Construction and operation of the proposed project has the potential to exceed localized daily thresholds that may affect sensitive receptors.*

Threshold	Would the proposed project violate any AAQS or contribute to an existing or projected air quality violation; or expose sensitive receptors to pollutants? The applicable localized thresholds are: - 20 ppm (1 hour) and 9 ppm (8 hours) of CO during construction or operation; - 0.18 ppm (State 1 hour), 0.100 ppm (National 1 hour), and 0.030 ppm (Annual) of NO_X during construction or operation; - 10.4 µg/m^3 (24 hours) 1.0 µg/m^3 (Annual) of PM_{10} during construction - 2.5 µg/m^3 (24 hours) and 1.0 µg/m^3 (Annual) of PM_{10}; during operation and - 2.5 µg/m^3 (24 hours) of $PM_{2.5}$ during operation - During time periods when construction and operational activities occur at the same time, the SCAQMD recommends application of the significance thresholds for operations to assess the significance of the activities

Note: Section 4.3.6.3 in the original DEIR was replaced in its entirety in this revised DEIR section. The reader is referred to the original DEIR section 4.3.6.3 for the text of that section.

The localized analysis focused on three analysis conditions:

1. Project Phase 1 (2012), which evaluates what air quality impacts the project-related emissions would have if Phase 1 of the project (approximately 56 percent of the square footage) was built out in full in 2012[1] and no other changes occurred to land uses or the roadway system;
2. Project Phase 1 and Phase 2 Full Build Out (2012), which evaluates what air quality impacts the project-related emissions would have if the entire project, both Phase 1 and Phase 2, were build out in full in 2012 and no other changes occurred to land uses or the roadway system; and
3. Proposed Project Development Schedule, which evaluates the air quality impacts from the construction and operation of the project as a 2-phase development with the construction commencing in 2015, build out of Phase 1 in 2022 and the final Phase 1 and Phase 2 build out in 2035.

The Project Phase 1 (2012) and Project Phase 1 and Phase 2 Full Build Out (2012) conditions represents worst-case conditions in that the project physically could not be built-out in 2012 or, in fact, in any single year due to the size of the project. These conditions have been included in this assessment to correspond to the analysis scenarios examined in the project traffic impact report. These conditions also do not account for the fact that vehicle emissions are expected to decline significantly over the next ten years in response to mandated motor vehicle emission controls adopted by the CARB and EPA as

[1] 2012 is the CEQA Baseline year for this project.

the project develops in the future. Thus, consideration of these conditions will significantly overestimate the project's potential air quality impacts. The Proposed Project Development condition represents the logical and realistic development of the project over a period of 15 years as represented by the project applicant. The LST analysis is presented for each condition below.

Pursuant to the SCAQMD's LST methodology, only emissions generated from emission sources located within and along the project boundaries are included in the LST assessment. These emission sources include vehicle travel on the roadway network within and along the borders of the project and emissions from support equipment including forklifts, yard/hostler trucks, and emergency standby electric generators.

The project's emissions then served as input into the AERMOD air dispersion model to derive estimate of the project's localized air quality impacts for each condition.

Project Phase 1 (2012) LST Assessment

The project's on-site emissions were estimated from the traffic-generated by the various project vehicles as provided by the traffic impact report. Vehicle emissions were assumed to be representative of the calendar year 2012 vehicle fleet. Also included were emissions from various support equipment including forklifts, yard trucks, and standby emergency generators. The localized assessment results for the Project Phase 1 (2012) condition are provided in Table 4.3.L for receptors located within the project boundaries and in Table 4.3.M for receptors located outside the project's boundaries along with a comparison to the SCAQMD's localized significance thresholds. The significance thresholds for CO and nitrogen dioxide are derived from the measured ambient air quality data from the SCAQMD Riverside air monitoring station and serve as the measure of existing air quality.[1]

Table 4.3.L: Localized Assessment of Project Phase 1 (2012) Emissions Maximum Impacts Within the Project Boundaries (without mitigation) (revised)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold
			Project Local Impact	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.64	0.14	2.78	20	No
	8 hour, ppm	1.84	0.04	1.88	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.078	0.068	0.146	0.18	No
	National 1 hour, ppm	0.060	0.012	0.113	0.100	Yes
	Annual, ppm	0.017	0.012	0.029	0.030	Yes
PM_{10}	24 hour, $\mu g/m^3$	NA	5.4	5.4	2.5	Yes
	Annual, $\mu g/m^3$	NA	3.4	3.4	1.0	Yes
$PM_{2.5}$	24 hour, $\mu g/m^3$	NA	2.2	2.2	2.5	No

[1] In keeping with the SCAQMD recommendations, the highest air quality measurement for the years 2009, 2010, 2011, and 2012 served as a measure of the existing background air quality data for NO_2 and CO.

Table 4.3.L: Localized Assessment of Project Phase 1 (2012) Emissions Maximum Impacts Within the Project Boundaries (without mitigation) (revised)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold
			Project Local Impact	Total (Background + Project)		

µg/m^3 = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for CO and nitrogen dioxide derived as the highest air quality measured data during the 4-year time period of 2009 to 2012
[2] Highest impacts generally occur at the existing residences within the project boundaries.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

Table 4.3.M: Localized Assessment of Project Phase 1 (2012) Emissions Maximum Impacts Outside of the Project Boundaries (without mitigation) (revised)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold
			Project Local Impact	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.64	0.07	2.71	20	No
	8 hour, ppm	1.84	0.02	1.86	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.078	0.038	0.116	0.18	No
	National 1 hour, ppm	0.058	0.031	0.089	0.100	No
	Annual, ppm	0.017	0.004	0.021	0.030	No
PM_{10}	24 hour, µg/m^3	NA	2.1	2.1	2.5	No
	Annual, µg/m^3	NA	1.1	1.1	1.0	Yes
$PM_{2.5}$	24 hour, µg/m^3	NA	0.8	0.8	2.5	No

µg/m^3 = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for 2012 for CO and nitrogen dioxide derived as the highest air quality measured data during the 4-year time period of 2009 to 2012
[2] Highest impacts generally occur at the existing residences along Redlands Boulevard to the west of the project.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

As noted from Table 4.3.L, the project would exceed the SCAQMD's localized significance thresholds for nitrogen dioxide and PM_{10} at receptors located within the project boundaries, realizing again however, that this scenario reflects an impossible situation that assumes that Phase 1 of the project is built out in its entirety in 2012 and that the existing receptors located within the project boundaries remain in place. As shown in Table 4.3.M, the significance thresholds would not be exceeded at any sensitive receptor located outside of the project boundaries except for the annual PM_{10} project impact.

The Project Phase 1 and Phase 2 Full Build Out (2012) LST Assessment

The localized assessment results for the Project Phase 1 and Phase 2 Full Build Out (2012) condition are provided in Table 4.3.N for receptors located within the project boundaries and in Table 4.3.O for receptors located outside the project's boundaries along with a comparison to the SCAQMD's localized significance thresholds. The significance thresholds for CO and nitrogen dioxide are derived

from the measured ambient air quality data from the SCAQMD Riverside air monitoring station and serve as the measure of existing air quality.

Table 4.3.N: Localized Assessment of Project Phase 1 and Phase 2 Full Build Out (2012) Emissions Maximum Impacts Within the Project Boundaries (without mitigation) (revised)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold
			Project Local Impact	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.64	0.18	2.82	20	No
	8 hour, ppm	1.84	0.05	1.89	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.078	0.093	0.171	0.18	No
	National 1 hour, ppm	0.058	0.075	0.133	0.100	Yes
	Annual, ppm	0.017	1.012	0.029	0.030	No
PM_{10}	24 hour, $\mu g/m^3$	NA	7.2	7.2	2.5	Yes
	Annual, $\mu g/m^3$	NA	4.8	4.8	1.0	Yes
$PM_{2.5}$	24 hour, $\mu g/m^3$	NA	2.9	2.9	2.5	Yes

$\mu g/m^3$ = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for 2012 for CO and nitrogen dioxide derived as the highest air quality measured data during the 4-year time period of 2009 to 2012
[2] Highest impacts generally occur at the existing residences within the project boundaries.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

Table 4.3.O: Localized Assessment of Project Phase 1 and Phase 2 Full Build Out (2012) Emissions Maximum Impacts Outside the Project Boundaries (without mitigation) (revised)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold
			Project Local Impact	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.64	0.09	2.73	20	No
	8 hour, ppm	1.84	0.02	1.86	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.078	0.054	0.132	0.18	No
	National 1 hour, ppm	0.058	0.045	0.103	0.100	Yes
	Annual, ppm	0.017	0.004	0.021	0.030	No
PM_{10}	24 hour, $\mu g/m^3$	NA	2.3	2.3	2.5	No
	Annual, $\mu g/m^3$	NA	1.2	1.2	1.0	Yes
$PM_{2.5}$	24 hour, $\mu g/m^3$	NA	0.9	0.9	2.5	No

$\mu g/m^3$ = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for 2012 for CO and nitrogen dioxide derived as the highest air quality measured data during the 4-year time period of 2009 to 2012
[2] Highest impacts generally occur at the existing residences along Redlands Boulevard to the west of the project.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

As noted from the above tables, the project would exceed the SCAQMD's significance thresholds for NO_2, PM_{10}, and $PM_{2.5}$ for receptors located within the project's boundaries and NO_2 and PM_{10} at receptors located outside of the project's boundaries.

It is important to note the Project Phase 1 (2012) and Project Phase 1 and Phase 2 Full Build Out (2012) conditions assume that the project's emissions are at the levels that would occur in 2012. The majority of the project's operational emissions are from on-road mobile sources, more particularly, heavy-duty trucks that contribute a disproportionate amount of emissions compared to passenger vehicles. Emissions from on-road mobile sources are regulated at the State and Federal levels and, therefore, are outside of the control of local agencies such as the City and the SCAQMD. For example, the CARB is working closely with the EPA, engine and vehicle manufacturers, and other interested parties to identify programs that will reduce emissions from heavy-duty diesel vehicles in California. In its "Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles," the CARB presented a blueprint for achieving a 75 percent reduction in diesel particulates by 2010 and an 85 percent reduction by 2020 from the 2000 baseline. The emission reductions would arise from a combination of measures including the use of ultra-low sulfur diesel fuel, new emission standards for large diesel engines, restrictions on diesel engine idling, addition of post-combustion filter and catalyst equipment, and retrofits for business and government diesel truck fleets. The implementation of these emission reductions will also result in reductions of other pollutants such as NO_X, VOC, and CO. As these emission reduction programs are implemented and there is a turnover in the use of older vehicles with newer and cleaner vehicles, the project's operational emissions are expected to decline significantly in the future.

Emission controls on mobile source vehicles already adopted by the CARB particularly dealing with NO_X and PM_{10} controls on heavy duty trucks will reduce truck emissions significantly over the next 10 years. As an example, in the South Coast Air Basin, the per-mile running exhaust rate of NO_X emissions from the largest category of heavy duty diesel trucks is estimated to decline from an average of 11.4 grams/mile in 2012 to 3.9 grams/mile by 2022, a decline of 66 percent from 2012 levels and to 1.8 grams/mile in 2035, a decrease of 84 percent from 2012 levels. Similarly, the per-mile running exhaust rate of PM_{10} emissions from the largest category of heavy duty diesel trucks is estimated to decline from an average of 0.34 gram/mile in 2012 to 0.02 gram/mile in 2022, a decline of 94 percent from 2012 levels and decline to 0.006 grams/mile in 2035, a decline of 98 percent from 2012 levels. Thus, two Project (2012) conditions represent highly conservative estimates, in terms of overestimating of the project's operational impacts.

Proposed Project Development Schedule LST Assessment

The final localized threshold assessment condition examined potential local project impacts considering the proposed construction and build out schedule of the project over a time period of 15 years from the commencement of construction in 2015 to the final build out in 2035. This condition examined three specific time periods:

- The year 2021: the year 2021 was selected to determine the potential localized impacts from the project's construction and operational emissions to the existing residences located to the west of the project across Redlands Boulevard. These residences are the closest sensitive receptors outside of the project's boundaries. According to the conceptual construction schedule provided by the applicant, extensive building construction is expected to take place within the project site along and to the east of Redlands Boulevard in 2021. The year 2021 also corresponds to the completion of approximated 88 percent of the Phase 1 operation (50 percent of the entire project) and the attendant operational emissions. The project's onsite maximum daily and annual construction emissions were estimated using the CalEEMod land use emission model and the construction equipment inventory and activities provided by the applicant (see discussion in Appendix D). The project's onsite operational emissions, principally from the project's mobile sources, were derived from detailed traffic volume data provided by the project's traffic impact

analysis. The traffic impact analysis applied a comprehensive regional transportation model to develop daily and peak hour traffic volumes for 2022 and 2035 from the project's mobile sources. Peak hour and daily project traffic volumes were developed for each year from 2015 to 2035 for roadway segments within and along the boundaries of the project using the following assumptions:

- Project operational traffic volumes were assumed to be zero in 2015, the year that project construction would commence.
- Traffic volumes for the years 2016 to 2022 (the completion year for Phase 1 operations) were interpolated from 2015 to 2022 by applying the annual project occupancy schedule to the 2022 traffic volumes.
- Traffic volumes for the years 2023 to 2035 were interpolated from the provided traffic volumes in 2022 and 2035 by applying the annual project occupancy schedule.

- The year 2027, when the project's total daily on-site construction and operational emissions would be the highest for several air pollutants and construction and operations would occur along the eastern portion of the project potentially impacting the existing residences across from the project along Gilman Springs Road; and
- The year 2035, which is the long term planning year analyzed in the project traffic impact report and representative of the complete build out of both Phases 1 and 2.

Localized Impact Analysis, 2021. The localized impacts for the short-term construction and operational activities were analyzed using an air dispersion model (EPA AERMOD Model) to simulate the transport and dispersion of project-related emissions through the air. These impacts were then compared to the applicable SCAQMD localized concentration thresholds.

The estimated maximum localized air quality impacts from the construction and operation of the project in 2021 are summarized in Table 4.3.P for locations within the project's boundaries. These maximum impacts were found at the locations of the existing residences within the project boundaries. Table 4.3.Q summarizes the highest air quality impacts for sensitive receptors located outside of the project boundaries. As noted from these two tables, project impacts would exceed the significance thresholds for nitrogen dioxide, PM_{10} and $PM_{2.5}$ for locations within the project boundaries and nitrogen dioxide and PM_{10} at receptors located outside the project boundaries, and thus represents a significant impact without mitigation.

Table 4.3.P: Localized Assessment – Construction and Operation, Year 2021 Maximum Impacts Within the Project Boundaries (without Mitigation) (revised)

Pollutant	Averaging Time, Units	Existing Background [1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Impact	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.64	0.34	2.98	20	No
	8 hour, ppm	1.84	0.08	1.93	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.078	0.086	0.164	0.18	No
	Annual, ppm	0.017	0.016	0.033	0.030	Yes
PM_{10}	24 hour, $\mu g/m^3$	NA	18.9	8.9	2.5[3]	Yes
	Annual, $\mu g/m^3$	NA	2.7	2.7	1.0	Yes
$PM_{2.5}$	24 hour, $\mu g/m^3$	NA	3.7	3.7	2.5[3]	Yes

Table 4.3.P: Localized Assessment – Construction and Operation, Year 2021 Maximum Impacts Within the Project Boundaries (without Mitigation) (revised)

Pollutant	Averaging Time, Units	Existing Background [1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Impact	Total (Background + Project)		

μg/m^3 = micrograms per cubic meter (a concentration unit), ppm = parts per million (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for 2012 for CO and nitrogen dioxide derived as the highest air quality measured data during the 4-year time period of 2009 to 2012
[2] Highest impacts generally occur at the existing residences within the project boundaries
[3] During periods when both construction and operation overlap the SCAQMD recommends the operational significance thresholds for PM_{10} and $PM_{2.5}$ as opposed to the construction thresholds which are 10.4 ug/m^3 for PM_{10} and $PM_{2.5}$. This provides a very conservative threshold for determining the significance of project impacts.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015.

Table 4.3.Q: Localized Assessment – Construction and Operation, Year 2021 Maximum Impacts Outside the Project Boundaries (without Mitigation) (revised)

Pollutant	Averaging Time, Units	Existing Background [1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Impact	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.64	0.32	2.96	20	No
	8 hour, ppm	1.84	0.08	1.93	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.078	0.083	0.161	0.18	No
	Annual, ppm	0.017	0.015	0.032	0.030	Yes
PM_{10}	24 hour, μg/m^3	NA	3.5	3.5	2.5[3]	Yes
	Annual, μg/m^3	NA	0.9	0.9	1.0	No
$PM_{2.5}$	24 hour, μg/m^3	NA	2.4	2.4	2.5[3]	No

μg/m^3 = micrograms per cubic meter (a concentration unit), ppm = parts per million (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for 2012 for CO and nitrogen dioxide derived as the highest air quality measured data during the 4-year time period of 2009 to 2012.
[2] Highest impacts at any receptor located outside of the boundaries of the project generally occur in the residential areas to the west of the project across Redlands Boulevard.
[3] During periods when both construction and operation overlap the SCAQMD recommends the operational significance thresholds for PM_{10} and $PM_{2.5}$ as opposed to the construction thresholds which are 10.4 ug/m^3 for PM_{10} and $PM_{2.5}$. This provides a very conservative threshold for determining the significance of project impacts.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

Localized Air Quality Impact Analysis, 2027. The year 2027 was selected for the LST Analysis for two principal reasons: 1) the year 2027 corresponds to the year with the highest combined total onsite construction and operational emissions of NO_x and CO and the third or fourth highest onsite emissions of PM_{10} and $PM_{2.5}$ during the time period of 2015 to 2035; and 2) the location of the building construction in 2027 places the construction emissions adjacent to the existing residences located on the eastern side of the project across Gilman Springs Road.

The project's maximum combined impacts from construction and operations during 2027 are shown in Table 4.3.R for the existing sensitive receptors located within the project boundaries along with the SCAQMD-recommended significance thresholds. Table 4.3.S shows the maximum combined impacts for sensitive receptors located outside of the project boundaries. These latter impacts were found within the residential areas located to the east of the project across Gilman Springs Road. As shown

in these tables, the project would exceed the SCAQMD's significance thresholds for PM_{10} at locations within the project boundary and no thresholds outside of the project boundary.

Table 4.3.R: Localized Assessment – Construction and Operation, Year 2027 Maximum Impacts Within the Project Boundaries (without Mitigation) (revised)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Impact	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.64	0.21	2.85	20	No
	8 hour, ppm	1.84	0.05	1.89	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.078	0.072	0.150	0.18	No
	Annual, ppm	0.017	0.008	0.025	0.030	No
PM_{10}	24 hour, µg/m^3	NA	5.5	5.57	2.5[3]	Yes
	Annual, µg/m^3	NA	3.3	3.3	1.0	Yes
$PM_{2.5}$	24 hour, µg/m^3	NA	1.6	1.6	2.5[3]	No

µg/m^3 = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for 2012 for CO and nitrogen dioxide derived as the highest air quality measured data during the 4-year time period of 2009 to 2012
[2] Highest impacts at any receptor located outside of the boundaries of the project generally occur in the residential areas to the east of the project across Gilman Springs Road
[3] During periods when both construction and operation overlap the SCAQMD recommends the operational significance thresholds for PM_{10} and $PM_{2.5}$ as opposed to the construction thresholds which are 10.4 ug/m^3 for PM_{10} and $PM_{2.5}$. This provides a very conservative threshold for determining the significance of project impacts.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

Table 4.3.S: Localized Assessment – Construction and Operation, Year 2027 Maximum Impacts Outside the Project Boundaries (without Mitigation) (revised)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration[2]		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Impact	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.64	0.18	2.82	20	No
	8 hour, ppm	1.84	0.05	1.89	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.078	0.071	0.149	0.18	No
	Annual, ppm	0.017	0.003	0.020	0.030	No
PM_{10}	24 hour, µg/m^3	NA	2.2	2.2	2.5[3]	No
	Annual, µg/m^3	NA	0.8	0.8	1.0	No
$PM_{2.5}$	24 hour, µg/m^3	NA	1.1	1.1	2.5[3]	No

µg/m^3 = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for 2012 for CO and nitrogen dioxide derived as the highest air quality measured data during the 4-year time period of 2009 to 2012
[2] Highest impacts at any receptor located outside of the boundaries of the project generally occur in the residential areas to the east of the project across Gilman Springs Road
[3] During periods when both construction and operation overlap the SCAQMD recommends the operational significance thresholds for PM_{10} and $PM_{2.5}$ as opposed to the construction thresholds which are 10.4 ug/m^3 for PM_{10} and $PM_{2.5}$. This provides a very conservative threshold for determining the significance of project impacts.
Source: Air Quality, Greenhouse Gas, and Health Risk Assessment Report, 2015.

Localized Air Quality Impact Analysis, 2035. The year 2035 represents a long-term planning year when both phases of the project would be fully in operation. Operational emissions during 2035 were estimated based on the project's trip generation and project-related travel along the local roadway network within and along the project boundaries. Table 4.3.T shows the maximum localized air quality impacts for 2035 relative to the background air quality levels at the existing sensitive receptors located within the project boundaries. Table 4.3.U identifies the highest localized impacts for sensitive receptors located outside of the project boundaries. These latter impacts were found within the residential areas located to the west of the project across Redlands Boulevard. As shown in Table 4.3.T, the concentrations of PM_{10} exceed the SCAQMD's significance thresholds due principally to the inclusion of entrained road dust in the impact assessment and would, therefore, represent a significant impact without mitigation. Table 4.3.U indicates that no receptor located outside of the project boundary would exceed any significance threshold.

Table 4.3.T: Localized Assessment – Project Operation Full Build Out, Year 2035 Maximum Impacts Within the Project Boundaries (without Mitigation) (revised)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Impact	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.64	0.06	2.70	20	No
	8 hour, ppm	1.84	0.02	1.87	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.078	0.036	0.114	0.18	No
	National 1 hour, ppm	0.060	0.031	0.089	0.100	No
	Annual, ppm	0.017	0.006	0.023	0.030	No
PM_{10}	24 hour, $\mu g/m^3$	NA	5.5	5.5	2.5	Yes
	Annual, $\mu g/m^3$	NA	3.7	3.7	1.0	Yes
$PM_{2.5}$	24 hour, $\mu g/m^3$	NA	1.5	1.5	2.5	No

$\mu g/m^3$ = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for 2012 for CO and nitrogen dioxide derived as the highest air quality measured data during the 4-year time period of 2009 to 2012
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

Table 4.3.U: Localized Assessment – Project Operation, Year 2035 Maximum Impacts Outside of the Project Boundaries (without Mitigation) (revised)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Impact	Total (Background + Project)		
Carbon Monoxide	1 hour, ppm	2.64	0.04	2.68	20	No
	8 hour, ppm	1.84	0.01	1.85	9.0	No
Nitrogen Dioxide	State 1 hour, ppm	0.078	0.027	0.105	0.18	No
	National 1 hour, ppm	0.058	0.022	0.080	0.100	No
	Annual, ppm	0.017	0.002	0.019	0.030	No
PM_{10}	24 hour, $\mu g/m^3$	NA	2.0	2.0	2.5	No

Table 4.3.U: Localized Assessment – Project Operation, Year 2035 Maximum Impacts Outside of the Project Boundaries (without Mitigation) (revised)

Pollutant	Averaging Time, Units	Existing Background[1]	Air Concentration		Standard/ Threshold	Total Impact Exceeds Threshold?
			Project Local Impact	Total (Background + Project)		
	Annual, μg/m^3	NA	0.9	0.9	1.0	No
$PM_{2.5}$	24 hour, μg/m^3	NA	0.7	0.7	2.5	No

μg/m^3 = micrograms per cubic meter (a concentration unit)
NA = Not Applicable, the SCAQMD threshold methodology does not require a background for PM_{10} or $PM_{2.5}$
[1] Background data for 2012 for CO and nitrogen dioxide derived as the highest air quality measured data during the 4-year time period of 2009 to 2012
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

Summary. The localized significance analysis demonstrates that without mitigation, the project would exceed the localized significance thresholds for NO_2, PM_{10}, or $PM_{2.5}$ for one or more of the LST assessment years (2021, 2027, or 2035) analyzed under this revised LST assessment. Therefore, according to this criterion, the air pollutant emissions would result in a significant impact and could exceed or contribute to an exceedance of the ambient air quality standards for NO_2, PM_{10}, and $PM_{2.5}$.

Mitigation Measures. Mitigation measures identified previously under Impact 4.3.6.2 (**Mitigation Measures 4.3.6.2A**, **4.3.6.2B**, and **4.3.6.2D**) to reduce construction emissions of criteria pollutants are required. The project will also be required to comply with SCAQMD Rules 402 and 403. Additionally, the following mitigation measures are required to reduce emissions of criteria pollutants during project operations.

4.3.6.3A Prior to issuance of occupancy permits for each warehouse building within the WLCSP, the developer shall demonstrate to the City that vehicles can access the building using paved roads and parking lots.

4.3.6.3B The following shall be implemented as indicated:

Prior to Issuance of a Certificate of Occupancy

a) Signs shall be prominently displayed informing truck drivers about the California Air Resources Board diesel idling regulations, and the prohibition of parking in residential areas.

b) Signs shall be prominently displayed in all dock and delivery areas advising of the following: engines shall be turned off when not in use; trucks shall not idle for more than three consecutive minutes; telephone numbers of the building facilities manager and the California Air Resources Board to report air quality violations.

c) Signs shall be installed at each exit driveway providing directional information to the City's truck route. Text on the sign shall read "To Truck Route" with a directional arrow. Truck routes shall be clearly marked per the City Municipal Code.

On an Ongoing Basis

d) Tenants shall maintain records on fleet equipment and vehicle engine maintenance to ensure that equipment and vehicles are maintained pursuant to manufacturer's specifications. The records shall be maintained on site and be made available for inspection by the City.

e) Tenant's staff in charge of keeping vehicle records shall be trained/certified in diesel technologies, by attending California Air Resources Board approved courses (such as the free, one-day Course #512). Documentation of said training shall be maintained on-site and be available for inspection by the City.

f) Tenants shall be encouraged to become a SmartWay Partner.

g) Tenants shall be encouraged to utilize SmartWay 1.0 or greater carriers.

h) Tenants' fleets shall be in compliance with all current air quality regulations for on-road trucks including but not limited to California Air Resources Board's Heavy-Duty Greenhouse Gas Regulation and Truck and Bus Regulation.

i) Information shall be posted in a prominent location available to truck drivers regarding alternative fueling technologies and the availability of such fuels in the immediate area of the World Logistics Center.

j) Tenants shall be encouraged to apply for incentive funding (such as the Voucher Incentive Program [VIP], Carl Moyer, etc.) to upgrade their fleet.

k) All yard trucks (yard dogs/yard goats/yard jockeys/yard hostlers) shall be powered by electricity, natural gas, propane, or an equivalent non-diesel fuel. Any off-road engines in the yard trucks shall have emissions standards equal to Tier 4 Interim or greater. Any on-road engines in the yard trucks shall have emissions standards that meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025.

l) All diesel trucks entering logistics sites shall meet or exceed 2010 engine emission standards specified in California Code of Regulations Title 13, Article 4.5, Chapter 1, Section 2025 or be powered by natural gas, electricity, or other diesel alternative. Facility operators shall maintain a log of all trucks entering the facility to document that the truck usage meets these emission standards. This log shall be available for inspection by City staff at any time.

m) All standby emergency generators shall be fueled by natural gas, propane, or any non-diesel fuel.

n) Truck and vehicle idling shall be limited to three (3) minutes.

4.3.6.3C Prior to the issuance of building permits for more than 25 million square feet of logistics warehousing within the Specific Plan area, a publically-accessible fueling station shall be operational within the Specific Plan area offering alternative fuels (natural gas, electricity, etc.) for purchase by the motoring public. Any fueling station shall be placed a minimum of 1000 feet from any off-site sensitive receptors or off-site zoned sensitive uses. This facility may be established in connection with the convenience store required in Mitigation Measure 4.3.6.3D.

4.3.6.3D Prior to the issuance of building permits for more than 25 million square feet of logistics warehousing within the Specific Plan area a site shall be operational within the Specific Plan area offering food and convenience items for purchase by the motoring public. This facility may be established in connection with the fueling station required in Mitigation Measure 4.3.6.3C.

4.3.6.3E Refrigerated warehouse space is prohibited unless it can be demonstrated that the environmental impacts resulting from the inclusion of refrigerated space and its associated facilities, including, but not limited to, refrigeration units in vehicles serving the logistics warehouse, do not exceed any environmental impact for the entire World Logistics Center identified in the program Environmental Impact Report. Such

environmental analysis shall be provided with any warehouse plot plan proposing refrigerated space. Any such proposal shall include electrical hookups at dock doors to provide power for vehicles equipped with Transportation Refrigeration Units (TRUs).

Level of Significance After Mitigation. Significant and unavoidable. Table 4.3.V compares the project impacts before and after mitigation for those assessment conditions and pollutants that indicated a significant impact before mitigation. After application of mitigation, the project would continue to exceed the localized significance thresholds at one or more of the existing residences located within the project boundaries for PM_{10} (24-hour and annual) all assessment conditions. Mitigation does reduce impacts from NO_2 emissions. The project's localized impacts would not exceed any significance thresholds for receptors located outside of the project boundaries.

In summary, those residents inside the project boundaries could be exposed to significant short-term and long-term PM_{10} concentrations on an ongoing basis. The health effects from particulate matter were discussed earlier and could include the following:

- Particulate matter can cause the following health effects from short-term (24-hour) exposure: irritation of the eyes, nose, throat; coughing; phlegm; chest tightness; shortness of breath; aggravate existing lung disease, causing asthma attacks and acute bronchitis; and/or those with heart disease can suffer heart attacks and arrhythmias.
- Particulate matter can cause the following health effects from long-term exposure (annual): reduced lung function; chronic bronchitis; changes in lung morphology; and/or death.

Table 4.3.V: Comparison of Local Project Air Quality Impacts Before and After Mitigation

Assessment Condition	Location	Pollutant, Averaging Time, Units	Total Impact Before Mitigation(1)	Total Impact After Mitigation	Significance Threshold	Exceeds Threshold After Mitigation?
Project Phase 1 (2012)	Inside Project Boundaries	National NO_2 1-hour, ppm	0.113	0.089	0.100	No
		PM_{10} 24 hour, µg/m^3	5.4	4.4	2.5	Yes
		PM_{10}, Annual, µg/m^3	3.4	2.8	1.0	Yes
	Outside	PM_{10}, Annual, µg/m^3	1.1	0.9	1.0	No
Project Phase 1 and Phase 2 Full Build Out (2012)	Inside Project Boundaries	National NO_2 1-hour, ppm	0.133	0.094	0.100	No
		PM_{10} 24-hour, µg/m^3	7.2	6.9	2.5	Yes
		PM_{10}, Annual, µg/m^3	4.8	4.6	1.0	Yes
		$PM_{2.5}$ 24 hour, µg/m^3	2.9	1.6	2.5	No
	Outside	National NO_2 1-hour, ppm	0.103	0.076	0.100	No
		PM_{10}, Annual, µg/m^3	1.2	0.8	1.0	No
Project Development Schedule Year 2021	Inside Project Boundaries	NO_2, Annual, ppm	0.033	0.027	0.030	No
		PM_{10} 24-hour, µg/m^3	8.9	7.6	2.5	Yes
		PM_{10}, Annual, µg/m^3	2.7	2.5	1.0	Yes
		$PM_{2.5}$ 24 hour, µg/m^3	3.7	1.4	2.5	No
	Outside Project Boundaries	NO_2, Annual, ppm	0.032	0.026	0.030	No
		PM_{10} 24-hour, µg/m^3	3.5	2.3	2.5	No

Table 4.3.V: Comparison of Local Project Air Quality Impacts Before and After Mitigation

Assessment Condition	Location	Pollutant, Averaging Time, Units	Total Impact Before Mitigation(1)	Total Impact After Mitigation	Significance Threshold	Exceeds Threshold After Mitigation?
Project Development Schedule Year 2027	Inside Project Boundaries	PM_{10} 24-hour, μg/m^3	5.5	5.4	2.5	Yes
		PM_{10} Annual, μg/m^3	3.3	1.9	1.0	Yes
Project Development Schedule Year 2035 Build Out	Inside Project Boundaries	PM_{10} 24 hour, μg/m^3	5.5	5.5	2.5	Yes
		PM_{10} Annual, μg/m^3	3.7	3.7	1.0	Yes

Notes: μg/m^3 = micrograms per cubic meter (a unit of concentration); ppm = parts per million (a unit of concentration)
(1) Total Impacts include the incremental impacts from the project plus the pollutant background; see Tables 4.3.M to 4.3.U for the total impacts for the various assessment conditions prior to the application of mitigation.
Source: Air Quality, Greenhouse Gas, and Health Risk Assessment Report, 2015.

Table 4.3.W: Operational Regional Air Pollutant Emissions (Worst-Case Scenario)

Scenario	Source	Emissions (pounds per day)				
		VOC	NO_X	CO	PM_{10}	$PM_{2.5}$
Phase 1 2012 emission factors	Mobile	377	5,141	3,144	746	311
	Architectural Coatings	146	0	0	0	0
	Consumer Products	117	0	0	0	0
	Natural Gas	<1	2	2	<1	<1
	Onsite equipment	5	138	51	1	1
	Total	**645**	**5,281**	**3,197**	**747**	**312**
Buildout 2012 emission factors	Mobile	666	9,057	5,531	1,308	547
	Architectural Coatings	258	0	0	0	0
	Consumer Products	207	0	0	0	0
	Natural Gas	<1	4	3	0	<1
	Onsite equipment	9	245	90	2	2
	Total	**1,140**	**9,306**	**5,624**	**1,310**	**549**
Significance Threshold		55	55	550	150	55
Significant Impact?		Yes	Yes	Yes	Yes	Yes

Notes: VOC = volatile organic compounds; NOx = nitrogen oxides; CO = carbon monoxide
PM10 and PM2.5 = particulate matter <1 = less than one
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

4.3.6.4 Long-Term Operational Emissions

Impact 4.3.6.4: *Implementation of the proposed project may have the potential to exceed applicable daily thresholds for operational activities.*

Threshold	Would the proposed project violate any AAQS or contribute to an existing or projected air quality violation; or expose sensitive receptors to pollutants? For long-term operations, the applicable daily thresholds are: - 55 pounds of VOC;

- 55 pounds of NO_X;
- 550 pounds of CO;
- 150 pounds of PM_{10};
- 55 pounds of $PM_{2.5}$; and
- 150 pounds of SO_X.

Long-term air pollutant emission impacts that would result from the proposed project are those associated with stationary sources and mobile sources involving any project-related change (e.g., emissions from the use of motor vehicles by project-generated traffic). This analysis assesses the mobile source emissions generated by vehicles driving to and from the proposed land uses, as well as area source emissions generated by project maintenance operations.

Worst-Case Scenario. Projected emissions resulting from operational activities of the proposed project under the worst-case scenario are identified in Table 4.3.W.

Emissions from the existing on-site residences and fugitive dust are not included in the worst-case analysis. In addition, there may be minor emissions of VOC from the fueling station, depending on what type of fuel is used. However, details regarding the fueling station are currently unknown so the emission source is not estimated. This is a worst-case analysis because it assumes that the entire project would be built-out in 2012. The motor vehicle and truck emission factors are from 2012, which assumes a “dirtier” fleet than would be the case in later years. In addition, no reductions are taken for mitigation measures.

As identified in Table 4.3.W, operational emissions for the proposed project would exceed SCAQMD daily operational thresholds for all criteria pollutants with the exception of SO_X for the “worst-case” 2012 scenario.

Operational Regional Emissions. Table 4.3.X shows the detailed operational emission sources generated both on site and off site for Phase 1 (2022) and buildout. The table shows particulate matter (PM_{10} and $PM_{2.5}$) divided into dust and exhaust sources. As shown in the table, emissions of VOC, NOx, CO, PM_{10}, and $PM_{2.5}$ are significant after completion of Phase 1 and after full buildout.

Table 4.3.Y shows the operational emissions year by year using future year emission factors: year 2022 for Phase 1 (2016 to 2022) and year 2035 for Phase 2 (2023 to buildout). The VOC, NOx, CO, PM10, and PM2.5 emissions would be over the SCAQMD’s significance thresholds. The emissions demonstrate that although the number of vehicles and trucks would increase year by year, the emissions do not increase dramatically because the per-vehicle emission factors decrease over time as cleaner vehicles enter the fleet over time.

Combined Construction and Operation. There would be overlapping of construction and operational emissions with project implementation. The maximum daily operational emissions as shown in Table 4.3.Y were added to the maximum daily construction emissions (from Table 4.3.K) and are shown in Table 4.3.Z, which shows all pollutants for all years exceed the SCAQMD thresholds, with the exception of SO_X emissions. SO_X are not shown in the table as they are far below the significance threshold of 150 pounds per day.

As identified in the preceding tables, project-related air quality impacts for all criteria pollutants, with the exception of SO_X, would be significant and mitigation measures are required.

Mitigation Measures. The mitigation measures previously identified under Impact 4.3.6.3 (**Mitigation Measures 4.3.6.3A** through **4.3.6.3E**) would reduce operational emissions of criteria pollutants associated with the project. Additionally, the following mitigation measure is required:

Table 4.3.X: Operational Regional Air Pollutant Emissions (Detail, Unmitigated)

Phase	Source	Emissions (pounds/day)								
		VOC	NO_X	CO	PM_{10} Dust	PM_{10} Exh.	PM_{10} Total	$PM_{2.5}$ Dust	$PM_{2.5}$ Exh.	$PM_{2.5}$ Total
Existing	Tractor, dust	<1	5	3	352	<1	**352**	77	<1	**77**
Phase 1	Mobile	106	1,591	1,068	612	9	620	164	8	172
	Architectural Coatings	146	0	0	0	0	0	0	0	0
	Consumer Products	117	0	0	0	0	0	0	0	0
	Natural Gas	<1	2	2	0	<1	<1	0	<1	0
	On-site Equipment	5	138	51	0	1	1	0	1	1
	Total	**374**	**1,731**	**1,121**	**612**	**10**	**621**	**164**	**9**	**173**
Buildout	Mobile	120	1,031	1,286	1,114	6	1,120	298	6	303
	Architectural Coatings	258	0	0	0	0	0	0	0	0
	Consumer Products	207	0	0	0	0	0	0	0	0
	Natural Gas	<1	4	3	0	<1	<1	0	<1	<1
	On-site Equipment	9	245	90	0	2	2	0	2	2
	Total	**594**	**1,280**	**1,379**	**1,114**	**8**	**1,122**	**298**	**8**	**305**
	Net increase	**594**	**1,275**	**1,376**	**762**	**8**	**770**	**221**	**8**	**228**
Significance Threshold		55	55	550	None	None	150	None	None	55
Significant Impact?		Yes	Yes	Yes	--	--	Yes	--	--	Yes

Notes: VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter Exh. = exhaust <1 = less than 1 Net increase = total buildout minus existing
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

Table 4.3.Y: Operational Regional Air Pollutant Emissions (Year by Year, pounds per day, unmitigated)

Year	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
2016	34	159	103	*	57	16
2017	69	317	205	*	114	32
2018	114	528	342	*	190	53
2019	160	740	479	*	266	74
2020	245	1,132	733	*	407	114
2021	330	1,525	987	*	547	153
2022	374	1,732	1,121	*	622	174
2023	395	1,690	1,145	*	669	186
2024	415	1,647	1,169	*	715	199
2025	445	1,587	1,203	*	782	216
2026	478	1,519	1,242	*	858	236
2027	511	1,450	1,281	*	934	256
2028	544	1,382	1,321	*	1,010	276
2029	566	1,337	1,346	*	1,059	289
2030	588	1,292	1,372	*	1,109	302
Buildout	594	1,280	1,379	*	1,123	306
SCAQMD Threshold	55	55	550	150	150	55
Significant?	Yes	Yes	Yes	No	Yes	Yes

- Emissions are from local vehicles, trucks, natural gas, emergency generators, forklifts, yard trucks, painting, and consumer products. There is no reduction from existing onsite emissions.
- Emissions for Phase 1 are years 2016-2022. Emissions for Phase 2 are year 2023-buildout operational emissions are assumed to be zero in 2015 when project construction commences.
- PM_{10} and $PM_{2.5}$ emissions include exhaust and road dust.
- Landscaping emissions are negligible.

* Sulfur dioxide emissions as estimated in the Draft EIR were substantially less than the threshold of 150 pounds per day. Thus, emissions reflecting decreased vehicle miles traveled would also be less than significant.

VOC = volatile organic compounds; NO_X = nitrogen oxides; SO_2 = sulfur dioxide; CO = carbon monoxide; PM_{10} and $PM_{2.5}$ = particulate matter
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

Table 4.3.Z: Combined Construction and Operational Regional Air Pollutant Emissions (Year by Year, pounds per day, unmitigated)

Year	VOC	NO_X	CO	PM_{10}	$PM_{2.5}$
2015 (construction)	128	1,463	871	193	84
2016	301	1,000	633	183	66
2017	382	1,749	1,054	306	114
2018	381	1,369	872	316	103
2019	531	2,855	1,705	532	198
2020	522	2,093	1,329	543	171
2021	633	2,784	1,761	731	229
2022	661	2,789	1,789	791	240
2023	712	3,079	2,030	876	273
2024	713	2,822	1,923	898	272
2025	756	2,876	2,057	986	299
2026	744	2,360	1,772	984	286
2027	774	2,179	2,031	1,102	308
2028	796	1,989	1,987	1,159	318
2029	789	1,655	1,803	1,153	309
2030	833	1,712	1,942	1,249	337
Buildout (operation only)	594	1,280	1,379	1,123	306
SCAQMD Threshold	55	55	550	150	55
Significant?	Yes	Yes	Yes	Yes	Yes

- Year 2015 contains construction emissions only; buildout contains operational emissions only
- Sulfur oxide (SOx) emissions are substantially under the threshold of 150 pounds per day
- Reduction from existing onsite emissions are not included.

VOC = volatile organic compounds; NO_X = nitrogen oxides; CO = carbon monoxide; PM_{10} and $PM_{2.5}$ = particulate matter
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

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4.3.6.4A The following measures shall be incorporated as conditions to any Plot Plan approval within the Specific Plan:

a) All tenants shall be required to participate in Riverside County's Rideshare Program.

b) Storage lockers shall be provided in each building for a minimum of three percent of the full-time equivalent employees based on a ratio of 0.50 employees per 1,000 square feet of building area. Lockers shall be located in proximity to required bicycle storage facilities.

c) Class II bike lanes shall be incorporated into the design for all project streets.

d) The project shall incorporate pedestrian pathways between on-site uses.

e) Site design and building placement shall provide pedestrian connections between internal and external facilities.

f) The project shall provide pedestrian connections to residential uses within 0.25 mile from the project site.

g) A minimum of two electric vehicle-charging stations for automobiles or light-duty trucks shall be provided at each building. In addition, parking facilities with 100 parking spaces or more shall be designed and constructed so that at least three percent of the total parking spaces are capable of supporting future electric vehicle supply equipment (EVSE) charging locations. Only sufficient sizing of conduit and service capacity to install Level 2 Electric Vehicle Supply Equipment (EVSE) or greater are required to be installed at the time of construction.

h) Each building shall provide indoor and/or outdoor - bicycle storage space consistent with the City Municipal Code and the California Green Building Standards Code.- Each building shall provide a minimum of two shower and changing facilities for employees.

i) Each building shall provide preferred and designated parking for any combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles equivalent to the number identified in California Green Building Standards Code Section 5.106.5.2 or the Moreno Valley Municipal Code whichever requires the higher number of carpool/vanpool stalls.

j) The following information shall be provided to tenants: onsite electric vehicle charging locations and instructions, bicycle parking, shower facilities, transit availability and the schedules, telecommunicating benefits, alternative work schedule benefits, and energy efficiency.

It is important to note that, in addition to the operational activity mitigation measures identified previously, future development would need to incorporate physical attributes and operational programs that will act to generally reduce operational-source pollutant emissions including GHG emissions. These project characteristics are identified in Section 4.7, *Climate Change and Greenhouse Gas Emissions*, of this EIR.

Level of Significance after Mitigation. Mitigated operational emissions for full buildout are shown in Table 4.3.AA. Also shown in the table are existing emissions from the onsite agricultural activities. When those emissions are subtracted from the project emissions, emissions are still over the significance thresholds. Note that the emissions are based on conservative assumptions such as truck trips and miles traveled. Even with mitigation, emissions are still significant. Despite implementation of mitigation measures, emissions of criteria pollutants would still exceed SCAQMD significance thresholds resulting in a significant and unavoidable operational air quality impact. Therefore,

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Table 4.3.AA: Operational Regional Air Pollutant Emissions (Mitigated) (Revised)

Scenario	Source	Emissions (pounds per day)				
		VOC	NO_X	CO	PM_{10}	$PM_{2.5}$
Buildout	Vehicles: Local and trucks	119		1,286	1,120	303
	Architectural Coatings	258	0	0	0	0
	Consumer Products	207	0	0	0	0
	Natural Gas	<1	4	3	<1	<1
	Onsite Equipment	8	91	107	<1	<1
	Subtotal – Project Emissions	**592**	**1,096**	**1,396**	**1,120**	**303**
	Existing	*<1*	*5*	*3*	*352*	*77*
	Net Increase	**592**	**1,091**	**1,393**	**768**	**226**
	Significance Threshold	55	55	550	150	55
	Significant Impact?	Yes	Yes	Yes	Yes	Yes

- PM_{10} and $PM_{2.5}$ emissions include exhaust and road dust.
- Landscaping emissions are negligible.
- Sulfur oxides emissions are under the 150 pounds per day significance threshold and at buildout would be less than 23 pounds per day.

VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

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there could be cumulative health effects from ozone, PM_{10}, and $PM_{2.5}$ as described earlier in this section and summarized as follows:

- Ozone can cause the following health effects: irritate respiratory system; reduce lung function; breathing pattern changes; reduce breathing capacity; inflame and damage cells that line the lungs; make lungs more susceptible to infection; aggravate asthma; aggravate other chronic lung diseases; cause permanent lung damage; some immunological changes; and/or increase mortality risk.
- Particulate matter (PM_{10} and $PM_{2.5}$) can cause the following health effects from short-term (hours/days) exposure: irritation of the eyes, nose, throat; coughing; phlegm; chest tightness; shortness of breath; aggravate existing lung disease, causing asthma attacks and acute bronchitis; and/or those with heart disease can suffer heart attacks and arrhythmias.
- Particulate matter can cause the following health effects from long-term exposure: reduced lung function; chronic bronchitis; changes in lung morphology; and/or death.

Operational emissions (not including construction emissions) at buildout in this revised analysis as compared with the estimates in the DEIR are as follows:

- Emissions of VOC have decreased slightly by 140 pounds/day, in accordance with a reduction in square feet for the project and a revision of emission factors.
- For the unmitigated emissions, NOx, CO, and PM_{10} in the revised analysis are about 1,800, 2,200, and 600 pounds per day lower than in the DEIR, respectively. For the mitigated emissions, NOx, CO, and PM_{10} in the revised analysis are about 2,000, 2,000, and 600 lower than in the DEIR, respectively. The revised emissions are lower because the emission factors for the mobile trucks and vehicles have been revised and because the vehicle miles traveled (VMT) has decreased. In the DEIR, the VMT at buildout for heavy duty trucks was 730,100 miles per day and in the revised analysis, the diesel vehicles is 420,400 miles per day; therefore, the VMT for diesel vehicles decreased by approximately 309,700 miles per day. The VMT decreased because the analysis in the DEIR assumed a conservative, but arbitrary 50 miles per trip for all heavy duty trucks and in the revised analysis the VMT is based on actual model results for all trips as estimated in the Traffic Impact Analysis for nearly 500 freeway and roadway segments. The VMT for light duty vehicles increased by approximately 64,600 miles: in the DEIR, the VMT for light duty vehicles was 549,700 miles per day and in the revised analysis, the VMT for gasoline vehicles is 614,300 miles per day.
- Emissions of $PM_{2.5}$ in the revised analysis have increased by approximately 150 pounds per day because of the use of updated emission factors.

During overlap of construction and operation, VOC, NO_X, CO, PM_{10}, and $PM_{2.5}$ would continue to exceed SCAQMD significance thresholds after mitigation, as shown in Table 4.3.AB. Therefore, impacts are significant and unavoidable. The emissions do not take into account the existing onsite agricultural emissions.

Table 4.3.AB: Combined Construction and Operational Regional Air Pollutant Emissions (Year by Year, pounds per day) – Mitigated (revised)

Year	VOC	NO_X	CO	PM_{10}	$PM_{2.5}$
2015	31	523	871	130	26
2016	167	465	631	143	29
2017	209	716	1,052	243	57
2018	243	683	868	275	65
2019	311	1,200	1,699	444	117
2020	371	1,069	1,319	495	127
2021	459	1,414	1,748	671	174

Table 4.3.AB: Combined Construction and Operational Regional Air Pollutant Emissions (Year by Year, pounds per day) – Mitigated (revised)

Year	VOC	NO_X	CO	PM_{10}	$PM_{2.5}$
2022	500	1,482	1,774	739	192
2023	530	1,633	2,018	812	214
2024	547	1,558	1,914	843	220
2025	583	1,651	2,53	926	245
2026	603	1,428	1,773	941	247
2027	650	1,639	2,036	1,077	285
2028	682	1,599	1,997	1,138	299
2029	695	1,455	1,815	1,431	300
2030	725	1,562	1,958	1,236	325
Buildout	593	1,097	1,396	1,121	304
SCAQMD Threshold	55	55	550	150	55
Significant?	Yes	Yes	Yes	Yes	Yes

- Year 2015 contains construction emissions only; buildout contains operational emissions only
- Sulfur oxide (SOx) emissions for construction are contained in the CalEEMod output in Appendix A; the emissions are substantially under the threshold of 150 pounds per day.
- Emissions do not include existing onsite emissions.

VOC = volatile organic compounds NO_X = nitrogen oxides CO = carbon monoxide PM_{10} and $PM_{2.5}$ = particulate matter
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015

4.3.6.5 Impacts to Sensitive Receptors

Impact 4.3.6.5: *Implementation of the proposed project may have the potential to result in impacts to sensitive receptors.*

Threshold

Would the proposed project expose sensitive receptors to substantial pollutant concentrations?

For localized air quality impacts, the applicable thresholds are:

- 20 ppm (1 hour) and 9 ppm (8 hours) of CO during construction and operation;
- 0.18 ppm (State 1 hour), 0.100 ppm National 1 hour), and 0.030 ppm (Annual) of NO_X during construction and operation;
- 10.4 µg/m^3 (24-hours) and 1 µg/m^3 (Annual) of PM_{10} during construction
- 2.5 µg/m^3 (24 hours) and 1.0 µg/m^3 (Annual) of PM_{10} during operations; and
- 2.5 µg/m^3 (24 hours) of $PM_{2.5}$ during operations.
- During time periods when construction and operational activities occur at the same time, the SCAQMD recommends application of the significance threshold for operations.

For health risk impacts, the applicable thresholds are:

- Maximum Individual Cancer Risk: An increased cancer risk greater than 10 in 1 million at any receptor location;
- Cancer burden: An increase in cancer burden of 0.5 or
- Non-cancer chronic hazard indices (HI): A cumulative increase for any target organ system exceeding 1.0 at any receptor location.

Localized Air Quality Impacts. The construction and operation of the project would result in the emissions of carbon monoxide, oxides of nitrogen, and particulate matter. As noted in the discussion of Impact 4.3.6.3, construction and operation of the proposed project have the potential to exceed localized air quality significance thresholds for oxides of nitrogen (NO_x) and particulate matter (PM_{10} and $PM_{2.5}$) that may expose sensitive receptors to substantial pollutant concentrations. These impacts are shown in Impact 4.3.6.3.

Acute and Chronic Health Risk Impacts. Acute and chronic health risk impact analysis examines the increased risk associated with air pollution for non-cancer health outcomes. Since these are non-cancer health impacts, as described below, the impacts are analyzed separately from increased cancer risk associated with air pollution.

Past studies have indicated that exposures to diesel PM can have both short-term and long term non-cancer health effects. The construction and operation of the project would not emit any toxic chemicals in any significant quantity other than vehicle exhaust. While there may be other toxic substances in use on site, compliance with State and Federal handling regulations will bring these emissions to below a level of significance.

Exposure to diesel exhaust can have immediate (acute) health effects, such as irritation of the eyes, nose, throat, and lungs, and can cause coughs, headaches, light headedness, and nausea. In studies with human volunteers, diesel exhaust particles made people with allergies more susceptible to the materials to which they are allergic, such as dust and pollen. Exposure to diesel exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks. However, according to the rulemaking on *Identifying Particulate Emissions from Diesel-Fueled Engines as a Toxic Air Contaminant* (CARB 1998), the available data from studies of humans exposed to diesel exhaust are not sufficient for deriving an acute non-cancer health risk guidance value.

The revised analysis, however, does derive an estimate of acute non-cancer risks by examining the acute health effects of the various toxic components that comprise diesel and gasoline emissions. There is specific guidance for estimating the acute non-cancer hazards from these toxic components based on chemical profiles established by the CARB which was used in the revised analysis to determine the project's acute non-cancer hazards.

To determine the project's *chronic* non-cancer hazard impact, the highest annual diesel PM concentration was determined covering the years 2015 (the commencement of project construction) to 2035 (the full build out of the project). In this regard, the highest annual average diesel PM concentration prior to mitigation determined through air dispersion modeling was 1.02 ug/m^3, at an existing residence located within the project boundaries. This diesel PM concentration was due to the impacts of diesel PM emissions from the off-road construction equipment and operation equipment. This level of diesel PM impact results in a chronic non-hazard index of 0.20. This hazard index is less than the SCAQMD's significance level of 1.0, and is, therefore, less than significant.

The estimation of the *acute* non-cancer hazard index requires the estimation of the maximum 1-hour impacts of total organic gases (TOG). Estimates of the project's maximum 1-hour TOG emissions were derived from the project's peak hour traffic data along the nearly 500 roadway segments contained within the assessment and then speciated or broken down into the various toxic air contaminant components by fuel type, gasoline and diesel. The acute non-cancer hazard index was determined for a worst-case condition that assumed the project would be completely built out in 2012 with the project's attendant traffic and emission estimates as they would exist in 2012. This condition is the same as the Project Phase 1 and Phase 2 Full Build Out (2012) condition assumed in the Localized Significance Threshold assessment provided earlier. Based on this information, the maximum acute non-cancer hazard index found at any receptor within the model domain was 0.07, which is less than the SCAQMD's non-cancer hazard index of 1.0, and, therefore, is less than significant.

Therefore, the potential for short-term acute and chronic exposure from diesel exhaust are considered to be less than significant and no mitigation is required.

Cancer Risks. As noted in Section 4.3.3, *Methodology*, the project health risk assessment examined the following condition for impacts to both sensitive/residential and worker receptors:

> *Proposed Project Development condition which evaluates the impacts of project-related construction and operational traffic diesel PM emissions as if the project were built out in accordance with its proposed phased construction and operational buildout schedule commencing with the construction of Phase 1 in 2015, build out of Phase 1 in 2022, and the full build out in 2035.*

This HRA is being provided to allow decision makers to see the cancer-related impacts of the proposed project in the assumption that new technology diesel exhaust cause cancer, contrary to what was found by the HEI study. The revised mitigation conditions require that all diesel trucks accessing the project during operation be model year 2010 or newer and that all on-site equipment be Tier 4. The results of the HEI Study indicate that the project mitigation requiring the application of Model Year 2010 engines as well as the use of Tier 4-compliant off-road construction equipment are not expected to result in emissions that would be associated with the formation of cancer in exposed individuals.

Cancer Risk for Sensitive/Residential Receptors. To provide context with the methodology shown in the DEIR, Table 4.3.AC presents the results of the health risk assessment as presented in the DEIR. The cancer risk estimated applied the "Former OEHHA Guidance" and the now out-of-date EMFAC2011 mobile source emission model at several receptor locations inside and outside of the project boundary. For reference, a risk level of 1 in a million implies a likelihood that up to one person, out of one million equally exposed people would contract cancer if exposed continuously (24 hours per day) to the specific concentration of diesel PM over the duration of the exposure. This risk would be an excess cancer risk that is in addition to any cancer risk borne by a person not exposed to these air toxics.[1]

Table 4.3.AD presents the estimated cancer risks applying the "Current OEHHA Guidance" and the use of the EMFAC2014 mobile source emission model. The results are provided separately for project construction diesel PM emissions, operational diesel PM emissions, and the total project diesel PM emissions prior to the application of emission mitigation. As noted therein, the estimated cancer risks are far greater than the corresponding risks estimated using the "Former OEHHA Guidance". This is because of the use of the age-specific factors (e.g., age-sensitivity factors and daily breathing rates) used in the "Current OEHHA Guidance" during the first 16 years, and in particular the first 2 years, of the 30-year exposure duration that greatly influence the risks over the entire 30-year exposure duration. The "Former OEHHA Guidance" used a 70-year exposure but did not make use of any age-specific factors. Because of the use of the age-specific early-in-life factors under the "Current OEHHA Guidance", the estimated cancer risks would result in an exceedance of the 10 in a million cancer risk significance threshold in the first year of the project construction in 2015 alone. As can be seen from Table 4.3.AD the construction impacts contribute the greatest proportion of the total impact particularly under the "Current OEHHA Guidance".

On the basis of the results shown in Table 4.3.AD based on the application of the "Current OEHHA Guidance", the project would exceed the SCAQMD's cancer risk significance threshold of 10 in a

[1] Definition of a 1 in a million cancer risk from the US EPA, Technology Transfer Network Air Toxics, Glossary of Key Terms, Website: www.epa.gov/ttn/atw/natamain/gloss1.html.

Table 4.3.AC: Estimated Cancer Risks, 70-Year Exposure Duration for Sensitive/Residential Receptors as Shown in the Draft EIR

Receptor Location	Unmitigated			Mitigated		
	Total Incremental Cancer Risk[1] (risk/million)	SCAQMD Cancer Risk Significance Threshold (risk/million)	Exceeds Threshold?	Total Incremental Cancer Risk[1] (risk/million)	SCAQMD Cancer Risk Significance Threshold (risk/million)	Exceeds Threshold?
Maximum risk anywhere in the modeling domain[2]	100.7	10	Yes	76.8	10	Yes
Maximum risk at existing residences within the project boundaries	100.7	10	Yes	76.8	10	Yes
Maximum risk at any existing residential area outside of the project boundaries[3]	22.2	10	Yes	20.9	10	Yes

Notes:
(1) 70-year average exposures from 2015 to 2084 (includes diesel PM emissions from construction and operation); cancer risk estimates derived from the EMFAC2011 emission model and "Former OEHHA Guidance" for estimating cancer risks as presented in the Draft EIR
(2) Location is at the existing residences within the boundaries of the project
(3) Location is at the southwest corner of the project
(4) Location is at an undeveloped property zoned for residential at the southwest corner of the project
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

Table 4.3.AD: Estimated Cancer Risks, 30-Year Exposure Duration for Sensitive/Residential Receptors, Based on the "Current OEHHA Guidance," Without Mitigation

Receptor Location	Incremental Cancer Risk During Project Construction (risk/million)	Incremental Cancer Risk During Project Operation (risk/million)	Total Incremental Cancer Risk[1] (risk/million)	SCAQMD Cancer Risk Significance Threshold (risk/million)	Exceeds Threshold?
Maximum risk anywhere in the modeling domain[2]	180.8	6.7	187.5	10	Yes
Maximum risk at existing residences within the project boundaries[3]	180.8	6.7	187.5	10	Yes
Maximum risk at any existing residential area outside of the project boundaries[4]	47.2	2.5	49.7	10	Yes
Maximum risk at any undeveloped residentially zoned property outside of the project boundaries[5]	40.5	2.7	43.2	10	Yes

Notes:
[1] 30-year average exposures from 2015 to 2044 (includes diesel PM emissions from construction and operation); cancer risk estimates derived from the EMFAC2014 emission model and "Current OEHHA Guidance" for estimating cancer risks
[2] Location is at the existing residences within the boundaries of the project
[3] Location is at the existing residences within the boundaries of the project
[4] Location is at the southwest corner of the project
[5] Location is at an undeveloped property zoned for residential at the southwest corner of the project
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

million prior to the application of mitigation and would represent a significant impact. However, this analysis is based on the assumption that new technology diesel exhaust cause cancer, contrary to what was found by the HEI study and discussed in more detail below.

Figures 4.3.18a and 4.3.18b show the incremental cancer risks for the project location as calculated based on the EMFAC2014 emission model and the application of the "Current OEHHA Guidance" cancer risk estimation methodology and based on the assumption that diesel exhaust from old technology engine diesel emissions can cause cancer. The figures show the results prior to the application of mitigation.

Estimates of Cancer Risk for School Site Receptors. Cancer risk at school sites in the area with the application of the "Current OEHHA Guidance" is provided in Appendix D. Prior to the application of the mitigation, the maximum cancer risk is 3.2 in a million at Ridgecrest Elementary School. The cancer risk at the proposed high school at Ironwood Avenue and Quincy Street is 3.4 in a million. Impacts at schools are less than the 10 in one million significance threshold prior to mitigation and are less than significant.

Estimates of Cancer Risk for Worker Receptors. Estimates of worker exposures were prepared based on the assumption of a 25-year exposure duration for 250 days per year and 8 hours per day as described in the methodology section above and in the revised Air Quality, Greenhouse Gas, and Health Risk Assessment Report (Appendix D). Note that the OEHHA early-in-life age factors do not apply to worker receptors. The highest worker cancer risk estimates prior to the application of mitigation are greater than the SCAQMD cancer risk threshold of 10 in a million at 10.1 in a million inside the project boundaries and 4.1 in a million outside the project boundaries.

However, this analysis is based on the assumption that new technology diesel exhaust cause cancer, contrary to what was found by the HEI study and discussed in more detail below.

Estimates of Cancer Burden. In response to comments received on the DEIR, an estimate of cancer burden was developed in this revised analysis. The cancer burden calculation provides an estimate of the increased number of cancer cases as a result of exposures to TAC emissions. The total cancer burden is the product of the number of persons in a population area (such as a census tract) and the estimated individual risk from TACs in that population area and then summed over all population areas. The SCAQMD indicates that the burden calculation include those population units having an incremental cancer risk of 1 in a million or greater.

Cancer risks were estimated at the geographical center (centroid) of 2,360 census tracts that spanned the Basin from Palm Springs to the City of Los Angeles. For the 70-year exposure duration with the inclusion of the "Current OEHHA Guidance", the cancer burden is estimated to be 1.6 out of a population of about 880,000 individuals that were estimated to have a cancer risk of 1 in a million or more. The SCAQMD has established a threshold for cancer burden of 0.5. Therefore, the project would exceed the SCAQMD's cancer burden significance threshold prior to the application of mitigation.

*Informational Purposes: Morbidity and Mortality***.** There is no established threshold or approved methodology for calculating morbidity and mortality. For purposes of this assessment, morbidity is a term for describing how an external effect such as air pollution would exacerbate an existing illness and other health effect. Mortality is another term for death. The following represents the result of the calculations for long-term mortality and various morbidity health endpoints due to diesel PM for the project prior to the application of mitigation. The locations for the morbidity/mortality estimations were at the location with the highest combined annual diesel PM concentration and census tract population such that the change in diesel PM would affect the greatest number of people. A cumulative total of each mortality/morbidity health endpoint was also calculated that totals the number of added cases of an identified health endpoint at each census tract location within the entire region potentially impacted by the project emissions.

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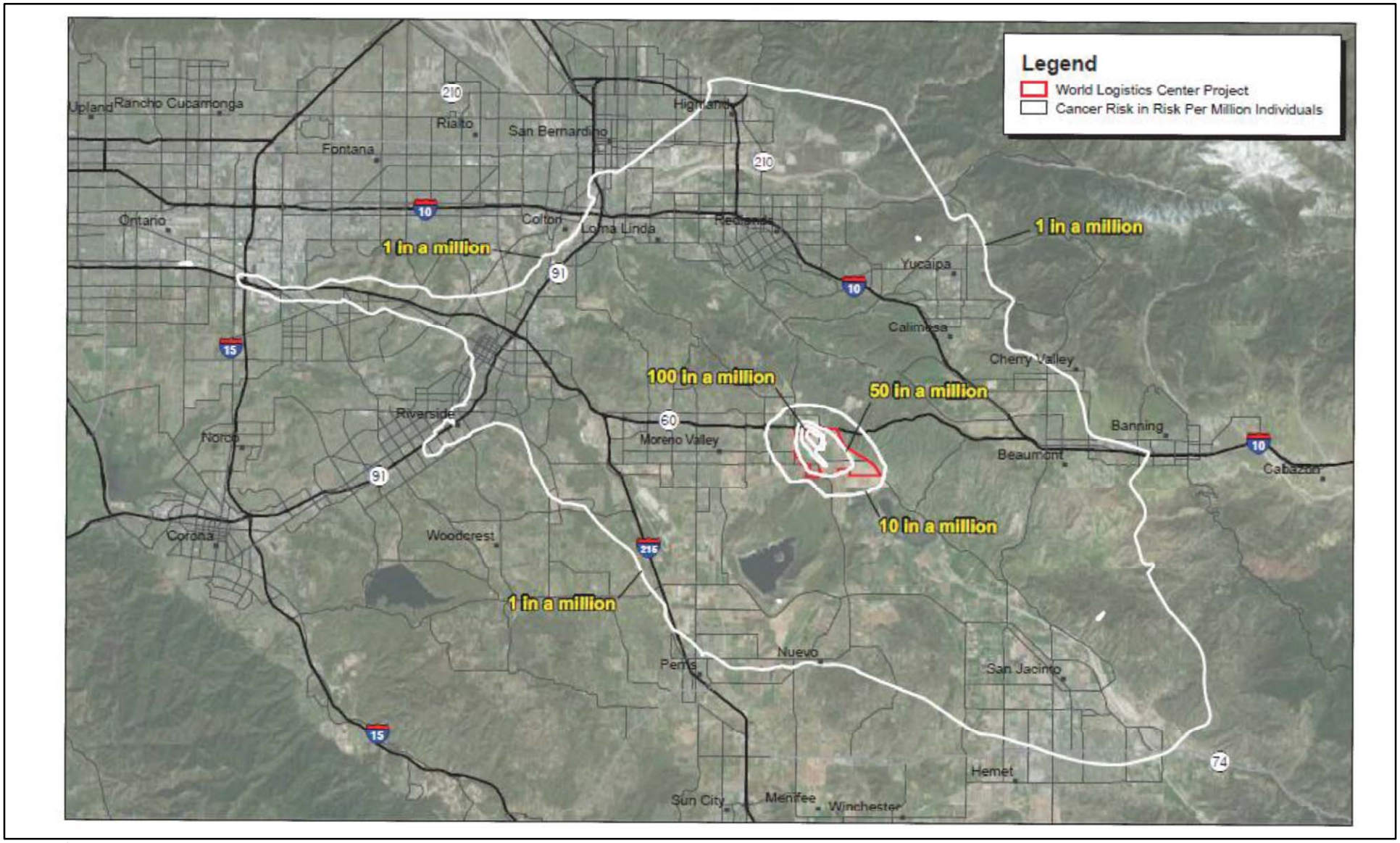

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SOURCE: First Carbon Solutions, 2015.

FIGURE 4.3.18A

World Logistics Center Specific Plan Project
Environmental Impact Report

Incremental Project Cancer Risk
"Current OEHHA 30-year Guidance" - No Mitigation

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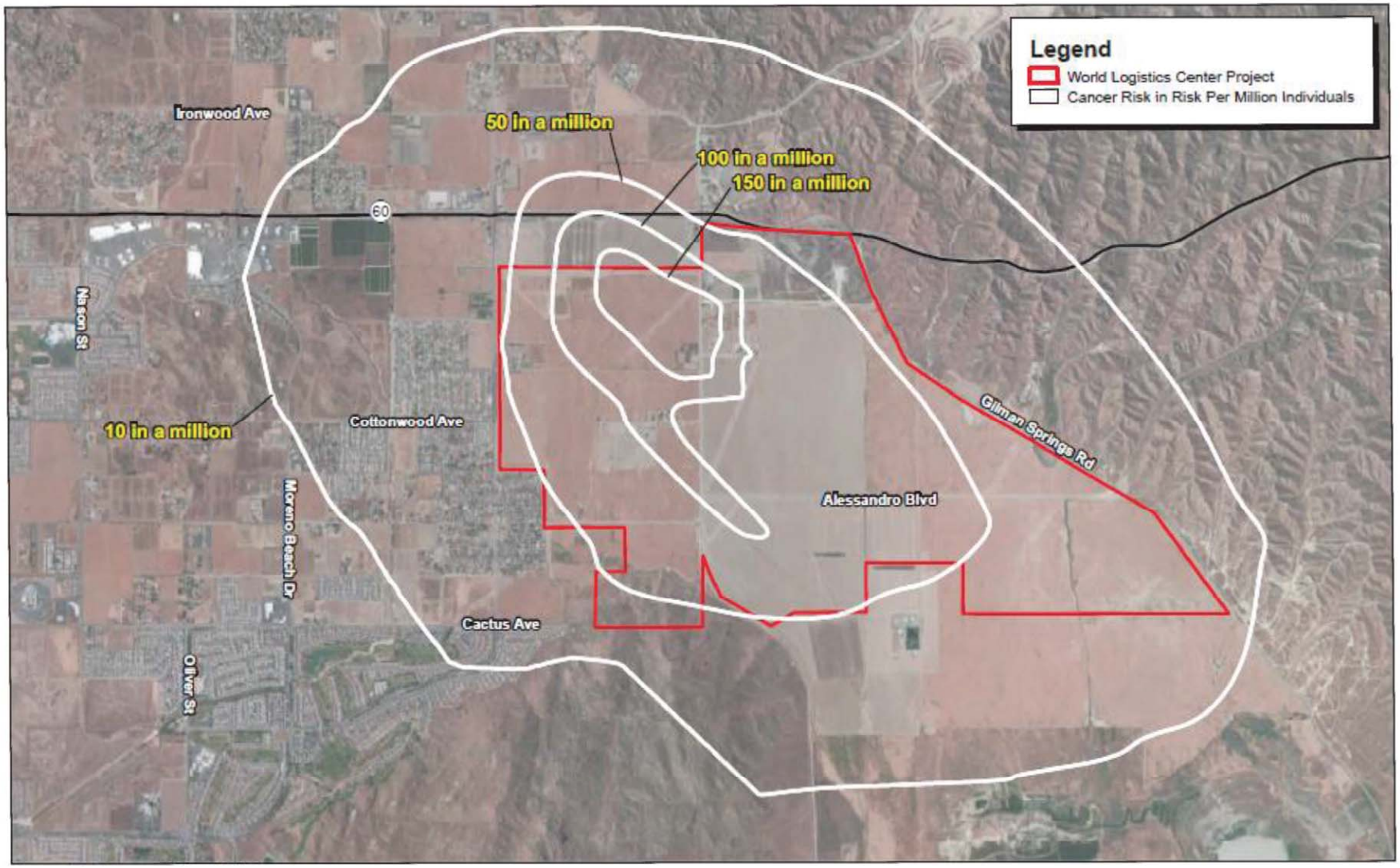

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SOURCE: First Carbon Solutions, 2015.

FIGURE 4.3.18B

World Logistics Center Specific Plan Project
Environmental Impact Report

Incremental Project Cancer Risk
"Current OEHHA 30-year Guidance" - No Mitigation Close-In View

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The estimates of mortality and morbidity impacts are based on the application of concentration-response functions (C-R functions) that relate the change in the number of adverse health effect incidences in a population to a change in air pollutant concentration experienced by that population. However, such estimations are subject to great uncertainty. Sources of uncertainty include emission estimates, population exposure estimates, form of C-R functions, baseline rates of mortality and morbidity that are entered into the C-R functions, and occurrence of additional not-quantified adverse health effects. It should be noted that the nature of PM as a complex mixture of various pollutants, as well as the confounding health effects of pollutants such as sulfur dioxide, NO_2, CO, and ozone that tend to co-occur with PM in ambient air, greatly increase the complexity of deriving accurate PM concentration-response functions.

Exposure to the Project's diesel PM emissions prior to mitigation would result in an increase in mortality of approximately 0.002 additional cases per year at the location where the project has its maximum impact from diesel PM emissions or 0.2 additional cases over all of the census tracts contained In the modeling domain.

Table 4.3.AE summarizes the estimates of the various morbidity health endpoints due to the emissions from the project. As shown in this table, the project would not result in a single new added case of a quantified health endpoint either at either the location where the impact would be greatest or cumulatively over the entire air dispersion modeling domain examined in this assessment (approximately 3,500 square miles, potentially impacted by the project).

Table 4.3.AE: Estimates of Various Morbidity Health Endpoints from Project Emissions Without Mitigation (new table)

Health Endpoint	Maximum Added Occurrences (cases/year)	Cumulative Occurrences over the Entire Modeling Region (cases/year)
Long-term Mortality (Ages 30+)	0.0022	0.22
Chronic Illness: Chronic Bronchitis (Age 27+)	0.010	0.99
Hospitalization: Chronic Obstructive Pulmonary Disease Age 65+)	0.00002	0.002
Hospitalization: Pneumonia (Age 65+)	0.00003	0.003
Hospitalization: Cardiovascular (Age 65+)	0.00005	0.005
Hospitalization: Asthma (Age 0-64)	0.00001	0.001
Hospitalization: Asthma-related Emergency Visits (Ages 0-64)	0.00003	0.004

Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

City of Moreno Valley General Plan. The project is consistent with the following City of Moreno Valley General Plan (2006) policies to help reduce air quality impacts to sensitive receptors:

- Policy 6.7.4 Locate heavy industrial and extraction facilities away from residential areas and sensitive receptors. Project consistency: The project would not contain heavy industrial and extraction facilities (such as a gravel mine). The project would contain warehousing, distribution, and light logistics. Therefore, the project is consistent with this policy. Nonetheless, the proposed plan places this development at the eastern end of the City, reducing the potential residential/development interface.
- Policy 6.7.5 Require grading activities to comply with South Coast Air Quality Management District's Rule 403 regarding the control of fugitive dust. Project consistency: The project would

comply with all applicable rules and regulations. Mitigation Measure 4.3.6.2A requires that the project demonstrate compliance with Rule 403.

Mitigation Measures. The mitigation measures previously identified under other impact sections are required (**Mitigation Measures 4.1.6.1A, 4.3.6.2A**, **4.3.6.2B**, **4.3.6.2D, 4.3.6.3A, 4.3.6.3B, 4.3.6.3C, 4.3.6.3D,** and **4.3.6.3E**) to reduce construction and operational emissions of criteria pollutants would reduce the estimated cancer risks associated with the project.

Level of Significance after Mitigation for Worker and School Children Cancer Risk. Less than Significant. The cancer risk impacts are less than the threshold of 10 in a million for workers 1.3 in one million onsite; 0.5 in one million offsite) and school children (0.7 in one million). More importantly, HRA is being provided to allow decision makers to see the cancer-related impacts of the proposed project in the assumption that new technology diesel exhaust cause cancer, contrary to what was found by the HEI study.

Level of Significance after Mitigation for Localized Particulate Matter Impacts. Significant and unavoidable. In summary, those residents inside the project boundaries could be exposed to significant short-term and long-term PM10 concentrations on an ongoing basis. The health effects from particulate matter were discussed earlier and could include the following:

- Particulate matter can cause the following health effects from short-term (24-hour) exposure: irritation of the eyes, nose, throat; coughing; phlegm; chest tightness; shortness of breath; aggravate existing lung disease, causing asthma attacks and acute bronchitis; and/or those with heart disease can suffer heart attacks and arrhythmias.

- Particulate matter (PM_{10}) can cause the following health effects from long-term exposure (annual): reduced lung function; chronic bronchitis; changes in lung morphology; and/or death.

Level of Significance after Mitigation for Sensitive Receptor Cancer Risk. Less than significant.

Mitigation Measure 4.3.6.3B would require that all diesel trucks that access the project site be model year 2010 or later and limits truck and vehicle idling to 3 minutes. **Mitigation Measure 4.3.6.2A** would require that Tier 4 construction equipment be used on the project site. These mitigation measures would reduce the cancer risk from the project.

Mitigation Measure 4.3.6.3C may encourage alternative fueled vehicles and trucks on the project site; however, no reduction is taken. **Mitigation Measure 4.3.6.3D** may reduce vehicle miles traveled to food establishments; however, no direct reduction is taken. **Mitigation Measure 4.3.6.3E** requires that if transportation refrigeration units are to be used, electrical hookups would be required. In addition, refrigerated space is prohibited unless the impacts do not exceed any environmental impacts identified in the EIR. Therefore, it is assumed in the unmitigated and mitigated estimates that there would be no transportation refrigeration units.

Table 4.3.AF shows the cancer risks estimated with the “Current OEHHA Guidance” after application of mitigation. As noted, the cancer risks are substantially less after mitigation. However, the SCAQMD cancer risk significance threshold would continue to be exceeded at locations within the project boundaries but not at any residential areas outside of the project boundary. The large reduction in cancer risk after mitigation is attributable principally to the reduced diesel PM attributed to mitigation such as the commitment to Tier 4 construction equipment. The impact of this mitigation is largely felt during the first 3 to 5 years of construction when the “Current OEHHA Guidance” assigns large age sensitivity factors to the first few years of the 30-year exposure duration. Figure 4.3.19a and Figure 4.3.19b provided a regional and close-in view of the risks, respectively after the application of mitigation. Even so, this HRA is being provided to allow decision makers to see the cancer-related

Table 4.3.AF: Estimated Cancer Risks, 30-Year Exposure Duration for Sensitive/Residential Receptors, Based on the "Current OEHHA Guidance," With Mitigation

Receptor Location	Incremental Cancer Risk During Project Construction (risk/million)	Incremental Cancer Risk During Project Operation (risk/million)	Total Incremental Cancer Risk[1] (risk/million)	SCAQMD Cancer Risk Significance Threshold (risk/million)	Exceeds Threshold?
Maximum risk anywhere in the modeling domain[2]	11.4	5.6	17.0	10	Yes
Existing residences within the project boundaries					
13100 Theodore St	11.2	4.5	15.7	10	Yes
13200 Theodore St	11.1	4.5	15.6	10	Yes
13241 Theodore St	11.4	5.6	17.0	10	Yes
30220 Dracaea Ave	5.0	3.6	8.6	10	No
30240 Dracaea Ave	5.0	3.6	8.6	10	No
29080 Dracaea Ave	3.0	1.5	4.5	10	No
29140 Dracaea Ave	4.8	1.7	6.5	10	No
Maximum risk at any existing residential area outside of the project boundaries[3]	2.7	1.6	4.3	10	No
Maximum risk at any undeveloped residentially zoned property outside of the project boundaries[4]	2.1	1.9	4.0	10	No

Notes:
(1) 30-year average exposures from 2015 to 2044 (includes diesel PM emissions from construction and operation); cancer risk estimates derived from the EMFAC2014 emission model and "Current OEHHA Guidance" for estimating cancer risks
(2) Location is at the existing residences within the boundaries of the project
(3) Location is at the southwest corner of the project
(4) Location is at an undeveloped property zoned for residential at the southwest corner of the project
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

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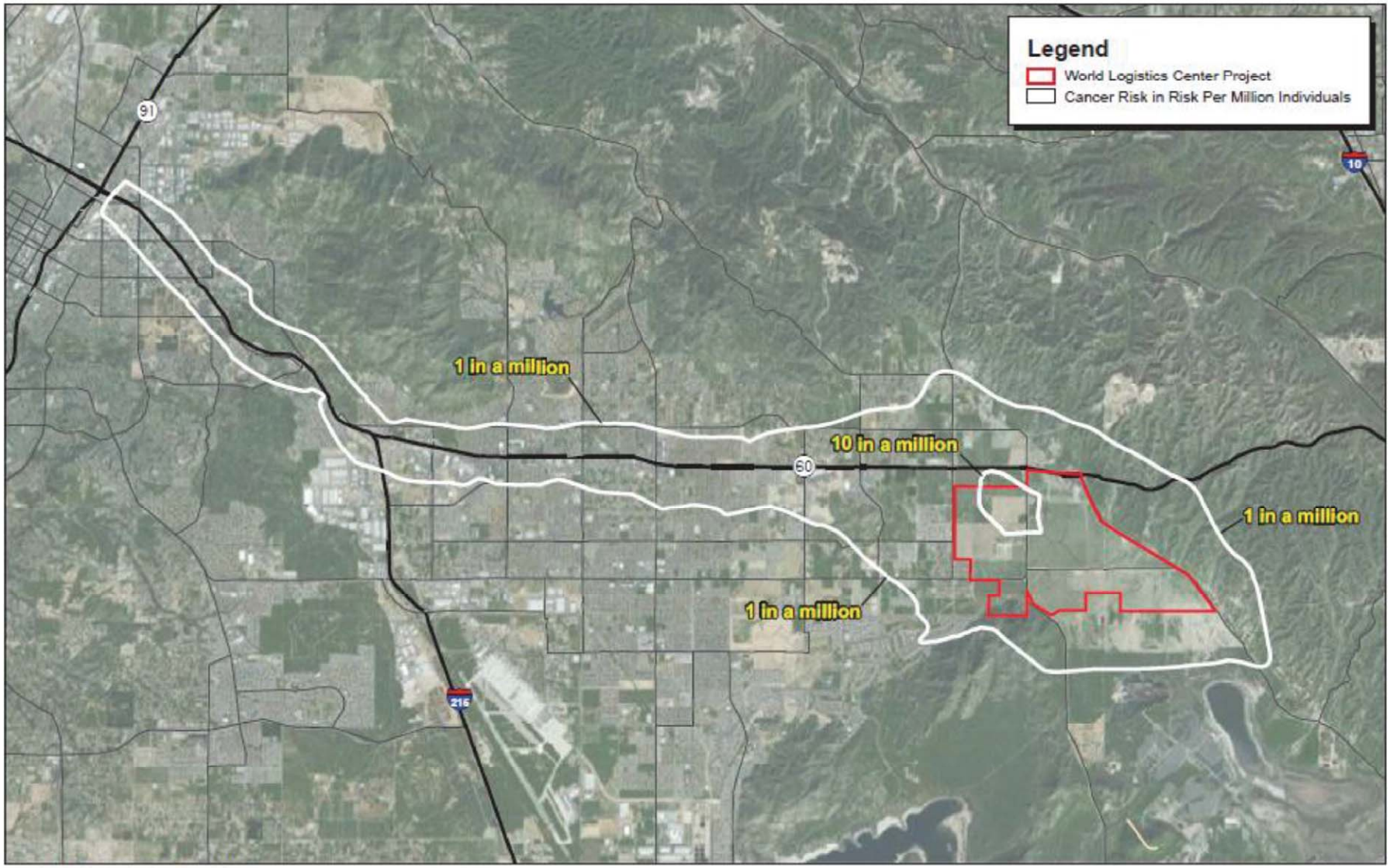

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SOURCE: First Carbon Solutions, 2015.

FIGURE 4.3.19A

World Logistics Center Specific Plan Project
Environmental Impact Report

Incremental Project Cancer Risk
"Current OEHHA 30-year Guidance" - With Mitigation

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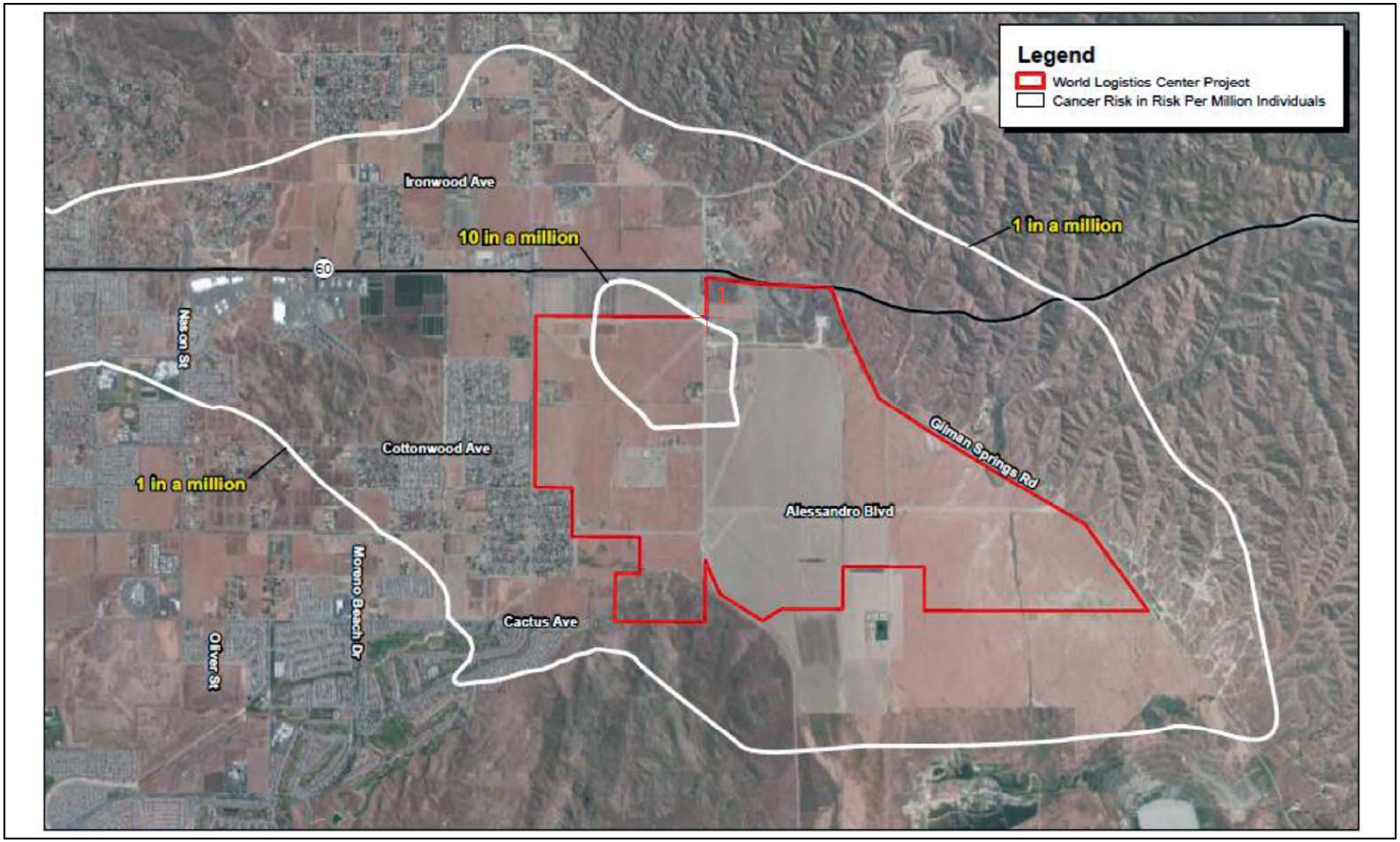

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SOURCE: First Carbon Solutions, 2015.

FIGURE 4.3.19B

World Logistics Center Specific Plan Project
Environmental Impact Report

Incremental Project Cancer Risk
"Current OEHHA 30-year Guidance" - With Mitigation Close-In View

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impacts of the proposed project in the assumption that new technology diesel exhaust cause cancer, contrary to what was found by the HEI study, as discussed in more detail below. Through mitigation, new technology diesel engines are required for the WLC project. The revised mitigation conditions require that all diesel trucks accessing the project during operation be model year 2010 or newer and that all on-site equipment be Tier 4. The results of the HEI Study indicate that the project mitigation requiring the application of Model Year 2010 engines as well as the use of Tier 4-compliant off-road construction equipment are not expected to result in emissions that would be associated with the formation of cancer in exposed individuals.

The HEI study clearly demonstrates that the application of new emissions control technology to diesel engines have virtually eliminated the health impacts of diesel exhaust.

Mitigation measures 4.3.6.2A and 4.3.6.3B require 2010-compliant trucks for operation and Tier 4 equipment for construction, both of which rely on diesel particulate filters similar to those tested in the HEI study. These vehicles reduce emissions by 90% when compared to 2006 vehicles and by 99% when compared to uncontrolled diesel engines. Recent emissions testing by CARB revealed that these diesel engines are cleaner than originally estimated. These findings, which are reflected in the latest CARB emissions factor model EMFAC2014, are 70% cleaner than previously estimated.

Beginning in 2001, USEPA and CARB began issuing a series of regulations that require new diesel-powered vehicles and equipment to use the latest emissions control technology. This technology relies on two components. The first is a diesel particulate filter, which is capable of reducing particulate matter emissions by over 90% (required for new engines beginning in 2007). The second technology is selective catalytic reduction, which reduces emissions of nitrogen oxides by over 90% (required for new engines beginning in 2010). Diesel emissions from equipment equipped with this technology is referred to as NTDE. As a result of the advances in emission control technology, USEPA, CARB, and other government and industry stakeholders commissioned a series of studies called the Advanced Collaborative Emissions Study (ACES). ACES has been guided by an ACES Steering Committee consisting of representatives of HEI and the Coordinating Research Council (CRC: a nonprofit organization that directs engineering and environmental studies on the interaction between automotive or other mobility equipment and petroleum products), along with the U.S. Department of Energy, U.S. EPA, engine manufacturers, the petroleum industry, CARB, emission control manufacturers, the National Resources Defense Council, and others. The Health Effects Institute (HEI), funded in part by USEPA, was selected to oversee Phase 3 of ACES.

Phase 3 of ACES evaluated whether emissions from new technology diesel engines cause cancer or other health effects. Specifically, it evaluated the health impacts of a 2007-compliant engine equipped with a diesel particulate filter. HEI found that lifetime exposure to new technology diesel exhaust (NTDE) did not cause carcinogenic lung tumors. The study also confirmed that the concentrations of particulate matter and toxic air pollutants emitted from NTDE are more than 90% lower than emissions from traditional older diesel engine.

As a result of the very low emissions from new technology diesel engines and the research conducted by HEI, it is projected that the project would not result in any new cancer risks from the project's diesel emissions. Therefore, the project would have a less than significant health risk impact.

As discussed above, there are no significant health risk impacts associated with the project. However, under a very conservative application of the "Current OEHHA Guidance" to the proposed project (which was provided for informational purposes), three homes within the Specific Plan area could be identified as having a health risk in excess of the SCAQMD threshold. Although air quality significance thresholds have been established for outdoor environments, a significant portion of human exposure to air pollutants occurs indoors where people spend more than 90 percent of their time (USEPA 2011). One approach to reduce exposure is the installation of high efficiency panel filters inside the HVAC system. Air filters and other air-cleaning devices are designed to remove

pollutants from indoor air. Some are installed in the ductwork of a home's central heating, ventilating, and air-conditioning (HVAC) system to clean the air in the entire house. In studies of the effectiveness of air filtration systems in classrooms (SCAQMD 2009) and by the EPA in residences (USEPA 2009b), the combination of an HVAC system with a high performance panel filter reduced indoor levels of fine particulate matter, PM2.5 and smaller particles by 70 to 90 percent.

The use of a filtration system consisting of the application of filters with a rating of ASHRSE Standard 52.2 MERV-13 is sufficient to capture a significant portion of the diesel particulate matter. However, the filtration system would not remove the smallest of particles (less than approximately 0.01 to 0.2 micron in diameter). MERV-13 filters would, however, reduce particles in the range of 0.3 to 1 micron by up to 75 percent and particles larger than 1 micron by 90 percent (see Table 1 of the Addendum to CARB 2012). Based on measurement studies of the size distribution of the collected DPM, approximately 0.1 to 10 percent of the total DPM mass includes particles between 0.01 and 0.2 micrometer in diameter, particles between 0.3 and 1 micrometer in diameter comprise 70 percent of the total DPM mass, and particles above 1 micrometer comprise 5 to 20 percent of the total DPM mass (DieselNet.com 2002).

Since the cancer risk from DPM is calculated from the mass of DPM emitted, the quantity of DPM reduced by the action of air filters would thus equate to a reduction in cancer risk. The application of MERV-13 air filter filtration system would result in a reduction of DPM exposures by approximately 70 percent.

DPM Size: 0.01 to 0.2 micrometers 0.3 to 1 micrometers Greater than 1 micrometer

(10% total mass × 0% reduction + 70% total mass × 75% reduction + 20% total mass × 90% reduction)

Attributing an adjustment for time that windows might be open, residents would be outside, or for different compounds that result in the cancer risk would reduce the efficacy of the filters by about 20 percent, bringing the total cancer risk reduction from the filters to 50 percent.

Absent the results of the HEI study, installation of air filters meeting the requirements discussed above on the three identified homes within the WLCSP area would reduce the OEHHA-calculated risk to below 10 in one million. The use of the filters would bring the OEHHA-calculated risk below the SCAQMD threshold eliminating any possible risk from the project on those three homes within the Specific Plan area. However, based upon the results of the HEI study, health risk impacts are less than significant and no further mitigation is required.

In summary, the implementation of all the recommended mitigation measures, including the requirement to use 2010 diesel engine emissions standards and Tier 4 construction equipment, will reduce the OEHHA-calculated cancer risk to below 10 in one million on all but three existing residences within the WLCSP boundary. However, the HEI study indicates the use of 2010 diesel engines and TIER 4 equipment will eliminate the project cancer risk, therefore, there will be no impacts to the three homes and no mitigation is required.

Finally, note further that after application of mitigation, the cancer risk burden is estimated at 0.10 based on the "Current OEHHA Guidance" which is less than the SCAQMD cancer burden significance threshold of 0.5, based on the assumption that diesel exhaust can cause cancer. Therefore, the project would not exceed the SCAQMD's cancer burden significance threshold.

As requested in comments received during the DEIR comment period, an analysis was conducted to compare cancer risks for a design buffer area of 250 feet from the project boundaries (this is the current project design) to a buffer area of 1,000 feet from the property boundary based on the "Current OEHHA Guidance." As shown in Table 4.3.AG, the results for the maximum incremental

cancer risk are nearly identical for the 250-foot buffer and the 1,000-foot buffer. The 1,000-foot buffer would not appreciably reduce air quality impacts. More importantly, as result of revised mitigation measures such as 4.3.6.2.A that commits to cleaner construction equipment, there is no significant health impact outside the project boundaries for residents, workers, or other sensitive receptors that would be affected by an increased buffer area. That analysis assumes that traditional diesel equipment would be used as opposed to new technology diesel (which does not contribute to cancer

Table 4.3.AG: Estimated Cancer Risks, 70-year Exposure Duration for Sensitive/Residential Receptors, With Mitigation

Receptor Location	Incremental Cancer Risk[1] (risk/million)		SCAQMD Cancer Risk Significance Threshold (risk/million)	Exceeds Threshold?
	250-Foot Buffer	1000-Foot Buffer		
Maximum risk anywhere in the modeling domain[2]	17.0	16.5	10	Yes
Maximum risk at existing residences within the project boundaries	17.0	16.5	10	Yes
Maximum risk at any existing residential area outside of the project boundaries[3]	4.3	3.9	10	No
Maximum risk at any undeveloped residentially zoned property outside of the project boundaries[4]	4.0	3.7	10	No

Notes:
(1) 30-year average exposures from 2015 to 2044 (includes diesel PM emissions from construction and operation)
(2) Location is at the existing residences within the boundaries of the project
(3) Location is at the southwest corner of the project along Bay Avenue
(4) Location is at an undeveloped property zoned for residential at the southwest corner of the project
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report*, 2015.

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risk), as required by project mitigation measures. As shown in Figure 4.3.20, the locations of the 10 in one million cancer risk contour line for the project design and the 1,000 foot buffer under the "Current OEHHA Guidance" exposure duration are coincident and overlap each other.

Risk in Perspective. To better understand cancer risk, even though new technology diesel exhaust does not cause cancer according to the HEI study, it helps to understand risk in other contexts. For instance, SCAQMD estimates that the risk of developing cancer from all sources of air pollution in Southern California is approximately 367 in one million. According to the National Cancer Institute, Americans face an overall risk of developing cancer from all causes of 408,000 in one million. Figure 4.3.21 presents the project risk in perspective with other lifetime risks in the United States based on mortality statistics. As shown in the figure, the project cancer risk (the risk of developing cancer, not dying of cancer) has a slightly higher risk than dying from a lightning strike and lower risk than accidental drowning.

4.3.7 Cumulative Impacts

4.3.7.1 Short-Term Air Quality Impacts

The cumulative area for air quality impacts is the Basin. It is generally accepted that if a project exceeds the regional threshold for a nonattainment pollutant, then it would result in a cumulatively considerable net increase of that pollutant and result in a significant cumulative impact. The Basin is currently in nonattainment for ozone, PM_{10} and $PM_{2.5}$. The implementation of the project would contribute criteria pollutants to the area during project construction. A number of individual projects in the area may be under construction simultaneously with the proposed project. Depending on construction schedules and actual implementation of projects in the area, generation of fugitive dust and pollutant emissions during construction would result in substantial short-term increases in air pollutants. Each project would be required to comply with the SCAQMD's standard construction measures; however, despite adherence to SCAQMD's standard construction measures and **Mitigation Measures 4.3.6.2A** through **4.3.6.2D** identified previously, project-related emissions would still exceed applicable SCAQMD regional thresholds for VOC, NOx, and CO. Therefore, cumulative impacts associated with short-term air quality impacts would be significant and unavoidable.

4.3.7.2 CO Hot Spot Impacts

As identified in Section 4.3.5.2, no significant CO hot spot impacts would occur. It is anticipated that CO emissions in the future will decrease with advances in technology. As previously identified, background concentrations in future years are anticipated to continue to decrease as the concerted effort to improve regional air quality progresses. Therefore, CO concentrations in the future years would generally be lower than existing conditions. Based on the analysis, because no CO hot spot impacts would occur, it is reasonable to assume that a less than significant cumulative CO impact would occur.

4.3.7.3 Long-Term Regional Air Quality Impacts

As previously identified in Tables , 4.3.AA and 4.3.AB, the long-term operation and the combined construction and operational emissions of the project would contribute to long-term regional air pollutants despite implementation of mitigation measures. The Basin is in nonattainment for ozone, PM_{10} and $PM_{2.5}$ at the present time; therefore, the operation of the proposed project would exacerbate nonattainment of air quality standards within the Basin and contribute to adverse cumulative air quality impacts. Implementation of the proposed project would unavoidably contribute to significant long-term cumulative air quality impacts.

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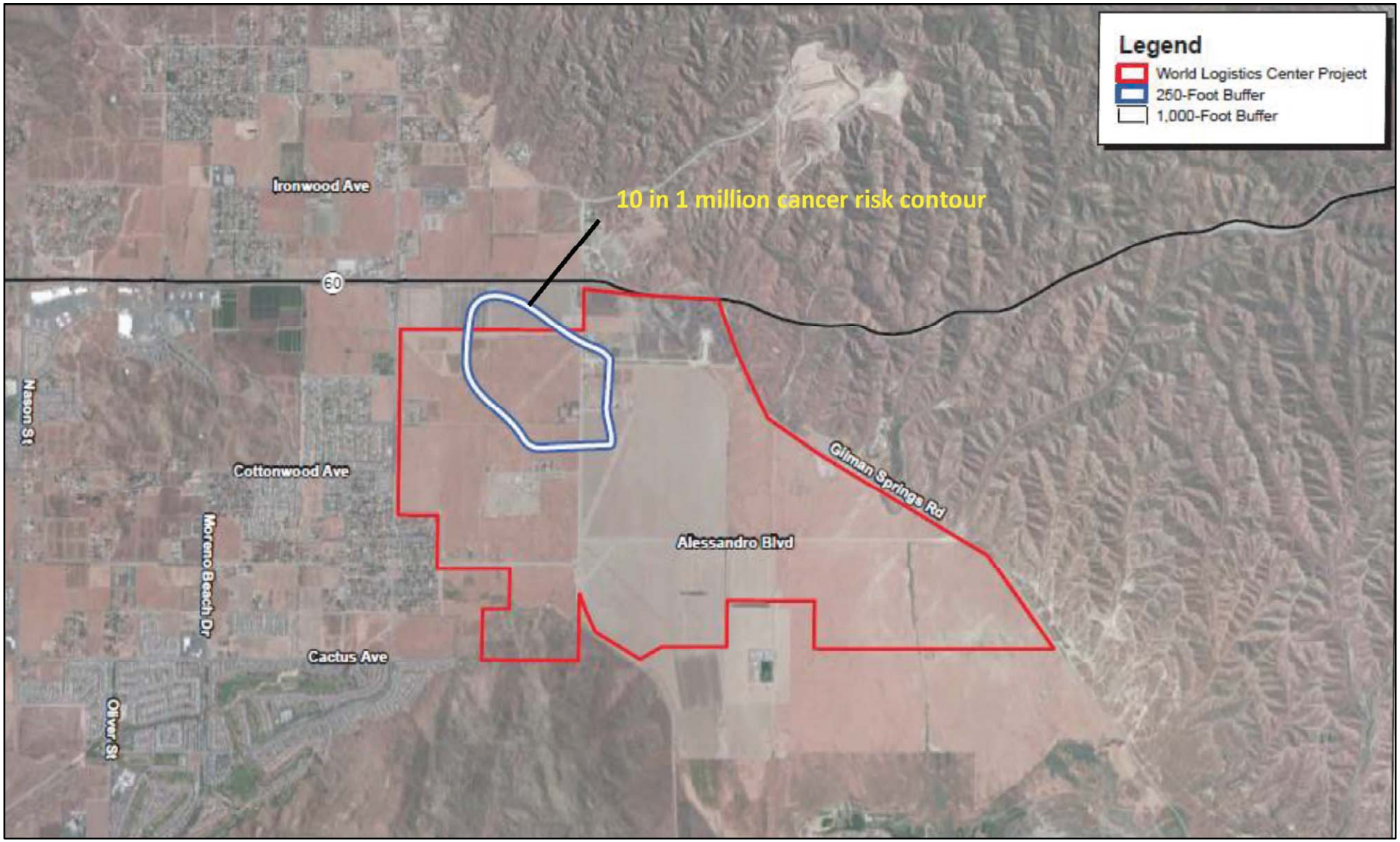

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FIGURE 4.3.20

World Logistics Center Specific Plan Project
Environmental Impact Report

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250-foot vs 1,000-ft Buffer Analysis "Current OEHHA 30-Year Guidance"
With Mitigation Close-In View

SOURCE: FirstCarbon Solutions, 2015.

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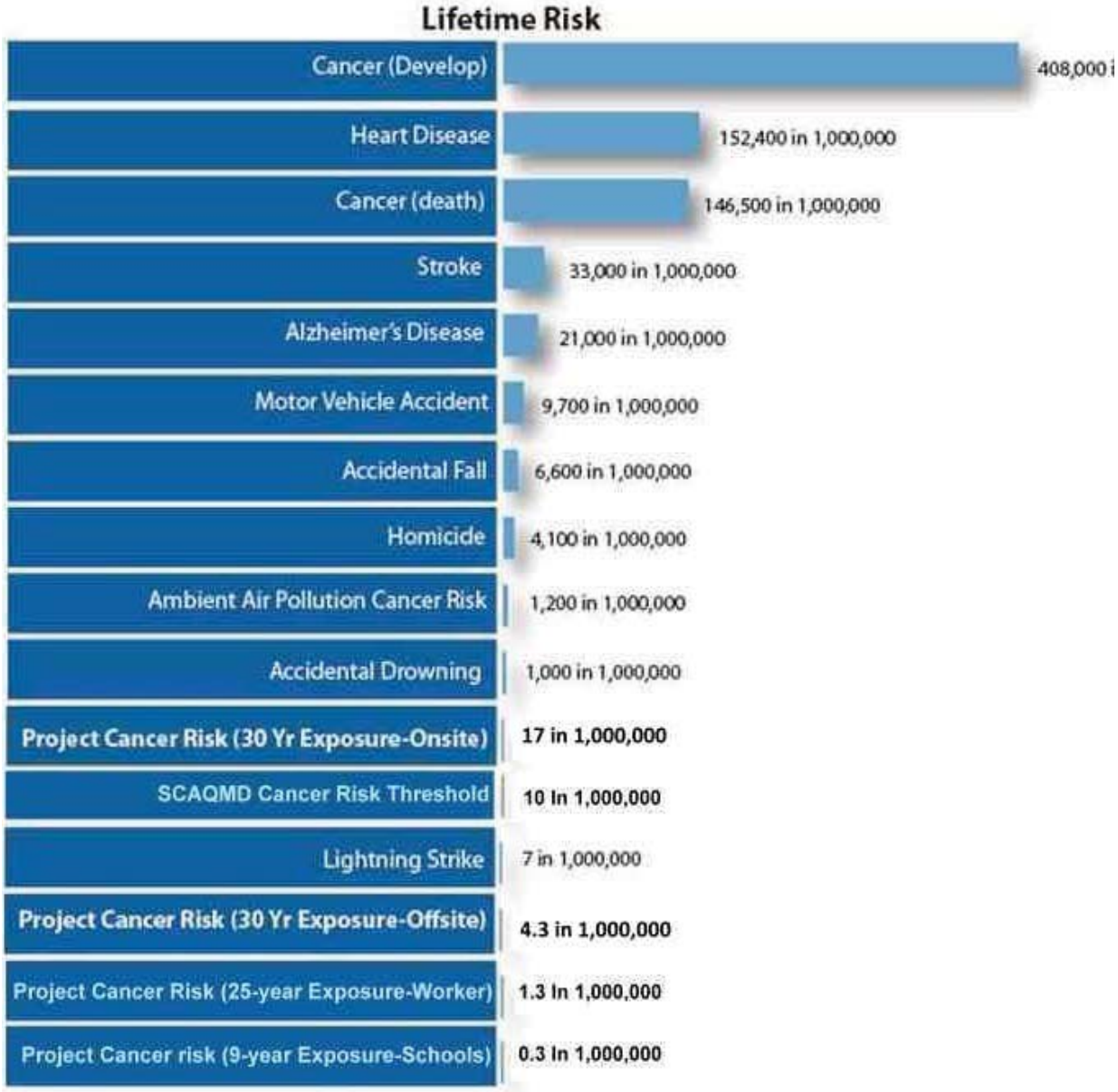

Figure 4.3.21: Lifetime Risk Comparison

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4.3.7.4 Cumulative Health Risk Impacts

Cancer Risks to Sensitive Receptors and Cancer Burden. SCAQMD recommends that any given project's potential contribution to cumulative cancer risk impacts should be assessed using the same significance criteria as for project-specific impacts. Therefore, a project that has the potential to exceed any significance threshold on its own would also result in a cumulatively considerable significant impact. As noted from the results shown in previously discussed in Impact 4.3.6.5 in the subsection *Cancer Risks*, since the project would implement mitigation measures resulting in the cleanest on-road and off-road diesel equipment and such equipment has been shown though extensive health effects studies to not result in cancer. Therefore, the project would not result in a cumulatively considerable impact.

Non-Cancer Acute and Chronic Hazards Impacts. As previously identified, the maximum non-cancer chronic hazard index and acute non-cancer hazard index from the operation of the project are estimated to be less than 0.13 and 0.06, respectively. These values are less than the SCAQMD's significance threshold of 1.0. Therefore, the project would also have a less than significant cumulative non-cancer hazard impact.

Summary of Project-Related Air Quality Impacts

Based on the preceding analyses in Sections 4.3.5.1 through 4.3.6.5, the WLC project will have the following direct and cumulative air quality impacts:

Table 4.3.AH: Summary of Project-Related Air Quality Impacts (new table)

Impact	Air Quality Topic/Issue	Impact Conclusion
Project Impacts		
4.3.5.1	Odors	Less than Significant No Mitigation Required
4.3.5.2	Long-Term Micro-Scale CO Hotspot Emissions	Less than Significant No Mitigation Required
4.3.6.1	Air Quality Management Plan Consistency	Significant (inconsistent) and Unavoidable with Mitigation
4.3.6.2	Regional Construction Emissions	Significant and Unavoidable with Mitigation (VOC, NOx, CO, and PM_{10}; regional health effects from ozone)
4.3.6.3	Localized Construction and Operation (LSTs)	Significant and Unavoidable with Mitigation (onsite) Less than Significant with Mitigation (offsite)
4.3.6.4	Regional Long-Term Operational Emissions	Significant and Unavoidable with Mitigation (VOC, NOx, CO, PM_{10}, and $PM_{2.5}$; regional health effects from ozone, PM_{10}, and $PM_{2.5}$)
4.3.6.5	Sensitive Receptors (a) Localized PM_{10}	Significant and Unavoidable for PM_{10} with Mitigation (onsite) Less than Significant with Mitigation (offsite)
	(b) Non-Cancer Acute and Chronic Health Risks	Less than Significant
	(c) Cancer Risks– Sensitive Receptors	Less than Significant with Mitigation
	(d) Cancer Burden	Less than Significant with Mitigation
	(e) Cancer Risks –Workers	Less than Significant with Mitigation
	(f) Cancer Risks – School Sites	Less than Significant
Cumulative Impacts		
4.3.7.1	Cumulative Short-Term Air Quality Impacts	Significant and Unavoidable

Table 4.3.AH: Summary of Project-Related Air Quality Impacts (new table)

Impact	Air Quality Topic/Issue	Impact Conclusion
4.3.7.2	Cumulative CO Hot Spots	Less than Significant
4.3.7.3	Cumulative Long-Term Regional Impacts	Significant and Unavoidable
4.3.7.4	Cumulative Health Risk Impacts (a) Cancer Risks and Cancer Burden to Sensitive Receptors (b) Cancer Risks – Worker Exposure (c) Non-Cancer Acute and Chronic Impacts	 Less than Significant with Mitigation Less than Significant with Mitigation Less than Significant

4.4 BIOLOGICAL RESOURCES: TABLE OF CONTENTS

FIGURES

TABLES

NOTE TO READERS. *The following revisions have been made due to changes in the proposed WLC project, responses to comments on the Programmatic DEIR and revisions and updates to the project biological resources assessment.*

4.4 BIOLOGICAL RESOURCES

Changes from December 2012 Biological Resource Analysis

- *At the request of Metropolitan Water District of Southern California (Letter C-2) information about the Inland Feeder was added to the Section 4.4.1.*
- *Additional details about existing setting Section 4.4.1 were added in response to the revised survey area and comments made on the DEIR. The format of this section was revised to follow the format and organization that was used in the revised MSHCP report. However, the information is conceptually the same.*
- *Table 4.4.A: Summary of Vegetation was updated based on the revised MSHCP report and moved to Section 4.4.1.4.*
- *Table 4.4.B was divided into two separate tables based on the updated biological resources report in addition to comments regarding the presence of sensitive plants and wildlife in the area.*
- *Additional discussion of burrowing owl was added to Sections 4.4.1.13 and 4.4.1.14 due to a burrowing owl being identified within the project site during the 2013 focus survey.*
- *Table 4.4.D Special Interest Species was incorporated into Tables 4.4.B Sensitive Plant Species in the WLC Project Area and 4.4.C Sensitive Wildlife Species in the WLC Project Area.*
- *The discussion of riparian habitat and potential wildlife species was expanded in section 4.4.1.14 due to the updated MSHCP report.*
- *Detailed information about on-site drainages has been excerpted from the Jurisdictional Delineation Report and added to Section 4.4.1.19. A discussion of on-site drainages was also added to Section 4.4.6.3.*
- *The updated MSHCP report determined that Section 4.4.5.1 Jurisdictional Waters/Wetlands required mitigation to be less than significant. This section was added to 4.4.6.3 Jurisdictional Delineation, Riparian Habitat or Other Sensitive natural Communities. The existing mitigation was revised to mitigate potential jurisdictional impacts to less than significant levels.*
- *All mitigation measures in Section 4.4.6 were updated based on the revised the MSHCP report.*
- *In response to a comment made on the DEIR a nitrogen deposition section of added to section 4.4.6.2.*
- *Mitigation Measures 4.4.6.1A through 4.4.6.1C were revised based on comments from the U.S. Fish and Wildlife Service.*
- *Additional discussion of burrowing owl impacts was added to Section 4.4.6.4 due to the burrowing owl being identified within the project site during the 2013 focus survey. Burrowing Owl mitigation was also expanded.*

This section discusses the potential impacts of development of the proposed project on biological resources. In 2012, Michael Brandman Associates (MBA) conducted a Habitat Assessment, Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis, Habitat Acquisition and Negotiation Strategy (HANS) Report, and California Environmental Quality Act (CEQA) Biological

Resources Assessment to comply with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) requirements. The 2012 MBA report summarized the results of several focused surveys conducted since 2004 on the WLC property. In 2014, the various WLC project studies were updated to reflect the most current information about the project area. Information to evaluate and analyze the proposed project's impacts to biological resources is derived from the following references and studies included in Appendix E:

- *Habitat Assessment, MSHCP Consistency, and HANS Report*, MBA, original dated December 20, 2012, revised September 2014. (This includes the focused surveys included as separate documents in the previous version.)
- *Jurisdictional Delineation of the World Logistics Center,* MBA, original dated October 29, 2012, revised dated December 19, 2013.
- *Determination of Biologically Equivalent or Superior Preservation (DBESP),* MBA, December 5, 2013, revised September 2014.

In addition, the analysis contained in this section is based on the following reference documents:

- *Conservation Element*, City of Moreno Valley General Plan, adopted in July 2006.
- Western Riverside County MSHCP, adopted October 2003.
- MSHCP Final EIR, certified October 2003.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 29 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (this project September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.

The MBA report included an assessment of the WLC Specific Plan (WLCSP) site (2,610 acres), the 910-acre CDFW Conservation Buffer Area within the San Jacinto Wildlife Area (SJWA), the SDG&E Moreno Compressor Plant (194 acres), an "indirect impact zone" surrounding portions of the WLCSP property (502 acres), potential offsite infrastructure facilities (304 acres) and modified survey areas to match the reduced project area of the specific plan. In this section, the combined areas described in this paragraph total 5,972 acres and are hereafter referred to in this section as the survey area.

The information presented in this section is based on surveys of various portions of the project site conducted by MBA from 2005 to 2013 as referenced above. Development is only proposed on the Specific Plan property; the CDFW and public facilities property are not proposed for development and are expected to remain in their present condition. The habitat assessment information summarized in this section was collected during several site visits to the project area, the CDFW buffer area, the public facilities property, and the off-site improvement area at various times from 2005 to 2013.

The entire project area is regulated by the MSHCP, which is a regional conservation plan adopted by Riverside County in 2003. The MSHCP establishes core areas identifying important land that supports listed or sensitive species. The MSHCP also establishes criteria cells for land with important resources that need to be protected as part of the overall plan. The MSHCP identifies these critical lands for preservation or for relatively passive open space and utility uses. The MSHCP serves as a regional habitat conservation plan. The MSHCP was created, studied, and adopted by the County, the U.S. Fish and Wildlife Service (USFWS), CDFW, and fourteen cities in Riverside County along with the County. A more complete discussion of the MSHCP is provided in Section 4.4.1.6.

4.4.1 Existing Setting

The project area is located on the fringe of the urbanized development area of the City of Moreno Valley. The majority of the project area has been used for agricultural purposes for decades. Various portions of the area contain structures associated with previous agricultural activities, including residential structures, farm buildings, concrete pads, and fences. There are two small portions of relatively undisturbed vegetation on site, one in the northeastern portion of the site on land owned by Metropolitan Water District, and the second in the southwestern portion of the site in the rocky hills south of Alessandro Road and west of Theodore Street. Many of the off-site facilities such as water and sewer lines and access to potential water reservoirs are proposed along existing rights-of-way in the City of Moreno Valley. Debris basins are proposed along the eastern side of Gilman Springs Road to prevent debris and sediment from the Badlands from disrupting traffic on Gilman Springs Road after significant storm events. The CDFW Conservation Buffer Area south of the Specific Plan area is similar in history and conditions to the project site. The 1,104-acre area has been plowed for decades and portions of it are being actively farmed. The southwestern portion of the Conservation Buffer contains areas of non-native grasslands, although aerial photographs show that the area has been intermittently tilled over last 80 years.

Note: The following information was added at the request of the Metropolitan Water District of Southern California (Letter C-2) regarding the Inland Feeder. A figure showing the location of the Inland Feeder can be found at the end of comment Letter C-2 from the Metropolitan Water District of Southern California.

> "Metropolitan owns property and owns and operates facilities on and adjacent to the site of the proposed project. As shown on the attached map, Metropolitan's irregularly shaped fee-owned property (APN 422-040-009 and 422-040-015), Inland Feeder Tunnel, and appurtenant tunnel access structure are located within the proposed specific plan area. In addition, Metropolitan's 145-inch-inside-diameter Inland Feeder pipeline and appurtenant structures extend through the specific plan area in the street rights-of-way for Eucalyptus Avenue, Theodore Street, and Davis Road. Metropolitan also has a 110-foot-wide easement along Davis Road."

4.4.1.1 Topography and Soils

The project area is located in Rancho Belago, in the eastern portion of the City of Moreno Valley, in western Riverside County. The site is generally located south of SR-60, east of Redlands Boulevard, west of Gilman Springs Road, and north of the San Jacinto Wildlife Area (SJWA). The project site gently slopes down from north to south, and contains 15 identifiable drainages, as outlined in the jurisdictional delineation.[1]

The soils in the project area have been mapped by the *Soil Survey of Western Riverside Area, California* (1971)[2] and include San Emigdio loam (SgA and SgC) and San Emigdio fine sandy loam (SeC2), with smaller inclusions of Arbuckle loam (AkC), Badland (BaG), Gorgonio loamy sand (GhC), Greenfield sandy loam (GyA, GyC2, GyD2), Hanford coarse sandy loam (HcC and HcD2), Metz loamy sand (MdC and MeD), Metz loamy fine sand (MfA), Metz gravelly sandy loam (MID), Ramona sandy loam (RdD2), Rockland (RtF), San Emigdio fine sandy loam (SeA and SeD2), and San Timoteo loam (SmE2).

The observed surface soils in the area contain evidence of heavy repeated disturbance from agriculture-related activities. None of the soils present in the project area is considered sensitive pursuant to the MSHCP, which includes all of Moreno Valley (i.e., the City is a signatory to the MSHCP).

4.4.1.2 Land Uses

Agricultural fields including dry-land grain farming dominate the project area. Some rural residences are located in the central portion of the area along Theodore Street, and areas of open space are located throughout the southern and northeastern portions of the site. General land uses around the project area include suburban residential development to the west, vacant land and scattered rural residences to the north and east (across SR-60 and Gilman Springs Road, respectively), the SJWA and natural gas distribution facilities to the south, and the Lake Perris State Recreation Area (LPSRA) to the southwest.

4.4.1.3 Vegetation, General

The following data on vegetation in the study area are from the City's *General Plan Final Program EIR*[3] and the *MSHCP Consistency Analysis Report*[4] for the project area. The following describes the vegetation within various WLC project areas, including the Specific Plan, Offsite Improvement Area, CDFW Conservation Buffer, Indirect Impact Zone, and Additional Survey Areas. Table 4.4.A provides a numerical summary of the various types of vegetation within the WLC planning area.

Note: Table 4.4.A: Summary of Vegetation with the WLC Study Area has been removed in its entirety. To see original table please refer to FEIR Volume IV Section 4.4.1.3, Table 4.4.A.

Note: The following changes are the result of modifications to the WLCSP project area and updates to the various biological technical studies, and in response to a number of comments recommending the biological site surveys be updated. In addition, some paragraphs in this section were moved and only new information is shown in double underline.

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1 *Jurisdictional Delineation of the World Logistics Center,* Michael Brandman Associates, December 19, 2013.
2 *Soil Survey of Western Riverside Area, California,* United States Department of Agriculture, November 1971.
3 City of Moreno Valley Final Program EIR Conservation Element, City of Moreno Valley, October 2006.
4 *Habitat Assessment, MSHCP Consistency Analysis, and HANS report*, Michael Brandman Associates, September 2014.

4.4.1.4 Vegetation (MBA Project Survey Area)

There are eleven (11) plant communities/vegetation types that occur within the MBA project survey area: extensive agriculture (e.g., dry-land farming), non-native grassland, urban/developed, disturbed, Riversidean sage scrub, mule fat scrub, non-vegetated channel, open water, ornamental, southern willow scrub, and northern mixed chaparral (see Figure 4.4.1). Figure 4.4.2 depicts the location of drainage features and Riparian/Riverine areas. The following acreages are for approximately 5,972 acres including the WLCSP (2,610 acres) plus off-site improvements and the existing Highland Fairview Corporate Park (Skechers) property, which was included in some of the historical vegetation surveys for this area. The vegetation of the CDFW/public facilities lands and the Off-site Analysis Zone are addressed following the information on the Project Area (i.e., areas of proposed or existing development).

Almost all (5,815 acres or 97.4 percent) of the MBA survey area (5,972 acres) is disturbed by human activity,[1] mainly dryland farming, with only 157 acres or 2.6 percent consisting of native plant communities. The nature and extent of the existing plant communities are discussed below in the order of their presence on the property.

a. Extensive Agriculture

This disturbed plant association covers 3,434.0 acres or 57.5 percent of the MBA survey area, and includes areas where vegetative cover comprises less than 10 percent of the surface area and where there is evidence of intense soil surface disturbance associated with agricultural uses. This community is generally dominated by winter wheat (*Triticum aestivum*), but also has small inclusions of non-native vegetation along the margins of the fields. Non-native vegetation within disturbed land will have a high predominance of invasive or weedy species that are indicators of heavy, soil disturbance, such as horse nettle (*Solanum elaeagnifolium*), bindweed (*Convolvulus arvensis*), and short-pod mustard (*Hirschfeldia incana*).

The extensive agriculture community in the project area also contains various interstitial ditches that are excluded from regular heavy-agricultural equipment disturbances, such as disking. These areas are less frequently disturbed and contain larger, more established, ruderal vegetation, such as tree tobacco (*Nicotiana glauca*) and tree of heaven (*Ailanthus altissima*), in addition to the fast-growing Russian thistle (*Salsola tragus*), telegraph weed (*Heterotheca grandiflora*), lamb's quarters (*Chenopodium album*), sow thistle (*Sonchus oleraceus*), and short-pod mustard. The interstitial ditch areas do not occupy enough area nor are continuous enough to constitute a separate plant community and are therefore considered part of the extensive agricultural plant community. The majority of the project area is occupied by extensive agriculture and recently disked or heavily grazed, such as in the pasturelands in the northwestern portion of the project area. Most of these areas are disked at least once each year and planted with winter wheat.

b. Non-Native Grassland

Non-native grassland is characterized by a dense to sparse cover of non-native annual grasses often associated with numerous weedy species and native annual forbs (wildflowers), especially in years with plentiful rain. Seed germination occurs with the onset of winter rains. Some plant growth occurs in winter, but most growth and flowering occurs in the spring. Plants then die in the summer, and persist as seeds in the uppermost layers of soil until the next rainy season. Dominant plants include brome (*Bromus* spp.), wild oat (*Avena* spp.), Jimson weed (*Datura stramonium*), and common sunflower. Non-native grassland occupies 1,729.0 acres or 29.0 percent of the MBA survey area, mainly in the Badlands area east of Gilman Springs Road and the southern portion as part of the CDFW Conservation Buffer land.

[1] Includes agriculture, non-native grassland, urban/developed, disturbed, and ornamental categories.

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Table 4.4.A: Summary of Vegetation within the WLC Study Area

Vegetation Community	WLCSP	Off-site Improvements	CDFW Conservation Buffer	SDG&E Moreno Compressor Station	Indirect Impact Zone	Additional Survey Areas	Totals
Extensive Agriculture	2,193	71	732	166	105	167	3,434
Non-Native Grassland	219	110	151	0	349	900	1,729
Urban/Developed	92	100	1	14	5	280	492
Disturbed	48	17	9	11	19	46	150
Riversidean Sage Scrub	48	0	11	0	21	17	97
Mule Fat Scrub	5	4	0	0	2	30	41
Southern Willow Scrub	1	0	6	0	0	7	14
Non-Vegetated Channel	0	2	0	0	1	4	7
Ornamental	3	0	0	3	0	0	6
Open Water	0	0	0	0	0	1	1
Northern Mixed Chaparral	1	0	0	0	0	0	1
Totals	**2,610.0***	**304.0***	**910.0***	**194.0***	**502.0***	**1,452.0***	**5972.0***

Note:
* Rounded to the nearest whole number.
Source: Habitat Assessment, MSHCP Consistency Analysis, and HANS report, Michael Brandman Associates, September 2014.

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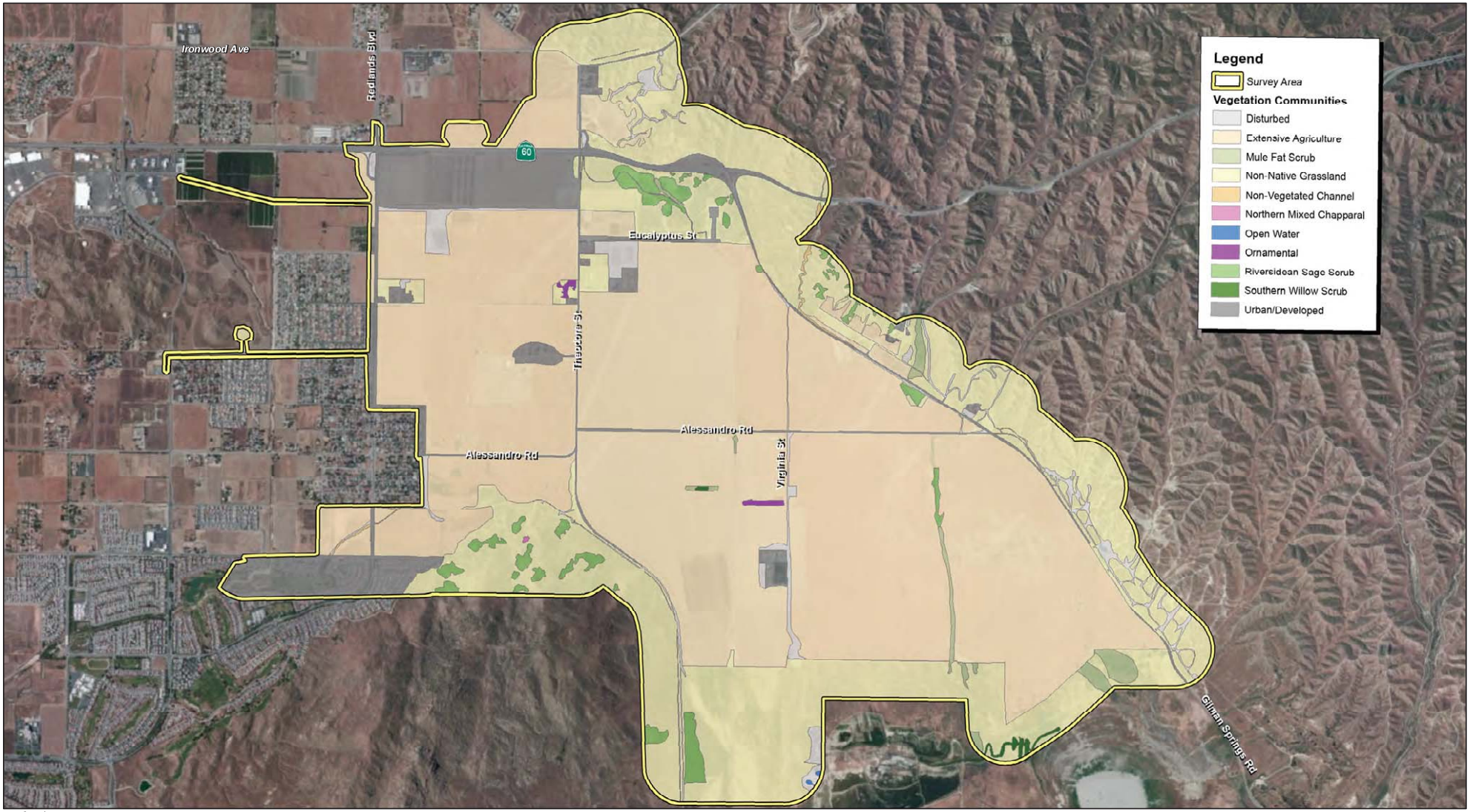

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SOURCE: Michael Brandman Associates, 11/2013

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FIGURE 4.4.1

World Logistics Center Specific Plan Project
Environmental Impact Report

Onsite Vegetation Communities

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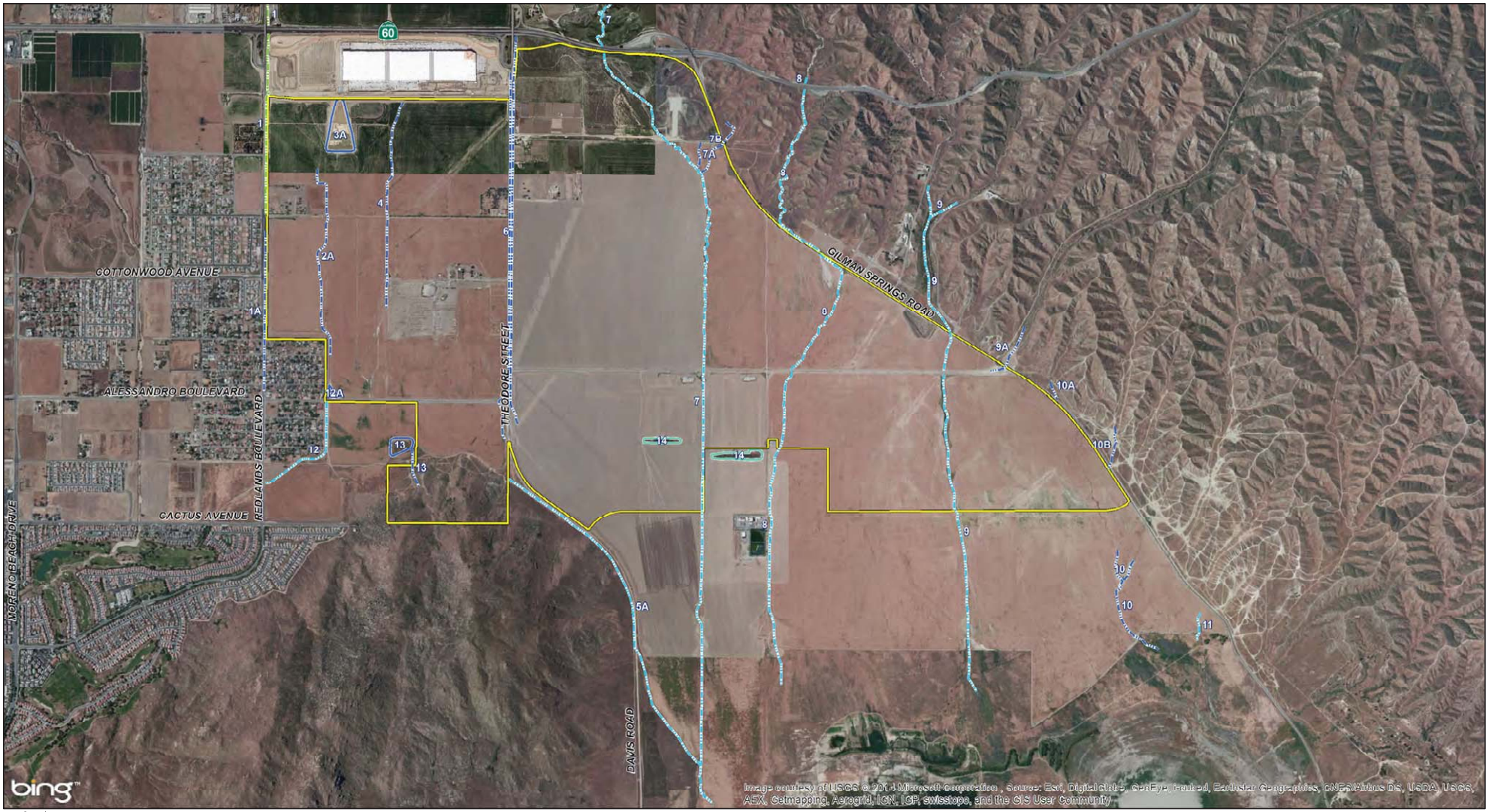

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Project Boundary

CDFW/USACE Non-Jurisdictional Detention Basin, RWQCB Jurisdictional Detention Basin

CDFW/USACE Non-Jurisdictional Detention Basin,

CDFW Jurisdictional Streambed, USACE/RWQCB Jurisdictional Waters of the U.S.

CDFW/USACE Non-Jurisdictional Waters

CDFW Non-Jurisdictional Waters, USACE/RWQCB Jurisdictional Waters of the U.S.

FIGURE 4.4.2

World Logistics Center Specific Plan Project Environmental Impact Report

Onsite Drainage Features

SOURCE: County of Riverside, 2011; ESRI World Imagery & Bing Imagery, 2010; Delineation of Jurisdictional Waters and Wetlands, 2012.

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c. Urban/Developed

The urban/developed area includes any form of human disturbance associated with the development of rural residences that has resulted in permanent impacts to natural communities. This land use type comprises approximately492.0 acres or8.2 percent of the MBA survey area. By definition, urban/developed areas include roads, buildings and structures, pavement, concrete, landscape vegetation, and windrow vegetation. The isolated occurrences of the urban/developed community occur throughout the study area. The urban/developed area is not associated with any native vegetation and provides only limited habitat value, primarily as cover, nesting, and perching opportunities for birds and common terrestrial wildlife that have adapted to urban, agricultural, or other disturbed areas associated with human activity. The largest area of Urban/Developed land occurs in the northwestern corner of the survey area and is associated with the existing Skechers building.

d. Disturbed Areas

These areas support sparse ruderal vegetation and an occasional scattering of native plant species. This type of “habitat” is not a plant community and is considered to be of little or no value to wildlife. Disturbed areas include an area in the northern portion of the project site associated with the adjacent rural residences. These areas have been cleared of vegetation. The remaining disturbed areas are associated with dirt access roads and the area surrounding the existing natural gas compressor station. This category occupies 150 acres or 25 percent of the WLC site.

e. Riversidean Sage Scrub

Stands of Riversidean sage scrub (RSS) range from fairly open to dense with dominant species including brittlebush (*Encelia farinosa*), California buckwheat (*Eriogonum fasciculatum*), black sage (*Salvia mellifera*), California sagebrush (*Artemisia californica*), and coastal goldenbush (*Isocoma menziesii*). Other species observed include four-winged saltbush (*Atriplex canescens*), scalebroom (*Lepidospartum squamatum*), and California aster (*Lessingia filaginifolia*), in addition to non-native grasses such as ripgut brome (*Bromus diandrus*), slender oat (*Avena barbata*), red brome (*Bromus madritensis*), and non-native weedy species such as short-pod mustard. There are97.0 acres (1.6%) of RSS located within the main drainage feature on the eastern side of the WLC project site (Drainage Feature 9, see Figure 4.4.2). The quality of the habitat on site can generally be considered moderate based on vegetation characteristics such as plant density, diversity of species, and level of disturbance. The stand within Drainage Feature 9 is of low quality due to high levels of disturbance, low density of native species, and sparse coverage. There are small patches of RSS in the northeastern and southwestern corners of the MBA survey area.

f. Mule Fat Scrub

Mule fat scrub is a widespread natural community throughout California and usually occurs below 2,000 feet. Mule fat scrub occupies approximately 41.0 acres or 07 percent of the MBA survey area within a portion of Drainage Feature 9 in the southeastern portion of the the WLC Specific Plan area and the CDFW Conservation Buffer lands. The mule fat scrub in the project area is generally characterized by dense stands of mule fat (*Baccharis salicifolia*) with various shrubs, weeds, and non-native grasses sparsely intermixed.

All areas of mule fat scrub within the drainage feature on the site are relatively undisturbed and contain little trash dumping, agricultural activities, or the presence of domesticated animals. The mule fat scrub plant community provides moderate quality habitat for a number of species. The dominant species observed within the mule fat scrub community were mule fat and tree tobacco. Other species observed include cheeseweed (*Malva parviflora*), wild radish (*Raphanus raphanistrum*), Russian thistle, common sunflower (*Helianthus annuus*), and short-pod mustard, in addition to non-native grasses such as ripgut brome, slender oat, and red brome. Drainage Feature 9 also contains scattered occurrences of scalebroom and four-winged saltbush.

g. Southern Willow Scrub

The southern willow scrub community is characterized by dense, broad-leafed, winter deciduous riparian thickets of vegetation, and is dominated by several species of willow tree. Scattered emergent Freemont cottonwood (*Populus fremontii*) and California sycamore (*Platanus racemosa*) are most closely associated with this community. Most stands are too dense for understory development. This plant community is typically found on loose, sandy, or fine gravelly alluvium soils near stream channels during flood flows. It requires repeated flooding to prevent it from converting to a more mature Southern Cottonwood-Sycamore Riparian Forest community. The CDFW lists it as a sensitive plant community. Plant species identified within the community include sandbar willow (*Salix exigua*), black willow (*Salix goodingii*), mule fat, Freemont's cottonwood, Mexican fan palm (*Washingtonia robusta*), olive (*Olea europea*), phacelia (*Phacelia sp.*), and common sunflower.

There is a single patch of southern willow scrub hat comprises approximately 0.9 acre within the central portion of the WLCSP. This community is composed of a single isolated stand within a human-made, catch basin that occurs south of Alessandro Boulevard and west of Virginia Street (see Figure 4.4.2). This stand was a direct result of nuisance flow and agricultural runoff from concrete cattle containment areas adjacent to the catch basin. This area no longer receives runoff from the previous cattle facility and habitat quality is progressively getting worse due to a lack of available moisture. Therefore, this patch of habitat is considered of low-habitat value. The remainder of the southern willow scrub habitat is either within additional survey area or within the CDFW Conservation Buffer.

h. Non-Vegetated Channel

The non-vegetated channel community occurs within the northeastern portion of the site (east of Gilman Springs Road) and the southwestern corner of the survey area, west of Theodore Street and south of Alessandro Road and accounts for 7 acres (0.1%) of habitat within the survey area. This habitat contains mainly cobbles and boulders along the channel bottom and banks. The substrate contains sparse sandy deposits with limited vegetative cover and therefore provides low quality habitat for sensitive plant and wildlife species.

i. Ornamental

This plant community occupies 6.0 acres or 0.1 percent of the MBA survey area. There are two distinct areas within the survey area that contain ornamental vegetation. The first area is located within rural residential development just west of Theodore Street and south of Eucalyptus Avenue. This portion of the survey area contains a stand of olive trees. The second area occurs within a human-made catch basin in the center of the WLCSP and is likely naturally occurring and likely began growing several decades ago. The area with this vegetation previously contained southern willow scrub, but has naturally converted to a dense stand of salt cedar. Wildlife that uses this area has adapted to urban, agricultural, or other disturbed areas associated with human activity. The other catch basin is discussed relative to the southern willow scrub community above. The ornamental area is not associated with any native vegetation and provides only limited habitat value, primarily as cover, nesting, and perching opportunities for birds.

An ornamental plant community is typically described as a large stand of non-native ornamental trees or shrubs. These areas are often artificially created, but can be naturally occurring. Plant species vary from project site to project site, but are generally non-native and are often associated with landscape plants.

There are two distinct areas within the survey area that contain ornamental vegetation. The first area is located within rural residential development just west of Theodore Street and south of Eucalyptus Avenue. This portion of the survey area contains a stand of olive trees. The second area occurs within

a human-made catch basin in the center of the WLCSP and is likely naturally occurring and likely began growing several decades ago.

The ornamental areas are not associated with any native vegetation and provides only limited habitat value, primarily as cover, nesting, and perching opportunities for birds and common terrestrial wildlife that have adapted to urban, agricultural, or other disturbed areas associated with development. This land use type comprises approximately six acres of the survey area.

j. Open Water

Open water is characterized by ponded or flowing water with little to no vegetative cover. These areas are specifically associated with freshwater drainage features and typically provide habitat for aquatic plant and wildlife species. There is a 1.0-acre area or less than 0.1 percent of open water located in the northern portion of the SJWA. The open water areas within the survey area are artificially created ponded areas.

k. Northern Mixed Chaparral

The northern mixed chaparral community is characterized by broad-leaved shrubs forming dense, often nearly impenetrable vegetation dominated by scrub oak (*Quercus dumosa*), chamise (*Adenostoma fasciculatum*), and any one of several species of manzanitas (*Arctostaphylos)* and lilacs (*Ceanothus*). Plants are typically deep-rooted and little or no understory vegetation is present. This vegetation community is adapted to repeated fires, to which many species respond by stump sprouting. A dense cover of annual herbs may appear during the first growing season after a fire, followed in subsequent years by perennial herbs, short-lived shrubs, and reestablishment of dominance by the original shrub species. There is 1.0 acre or less than 0.1 percent of northern mixed chaparral located on a north-facing slope of the hills at the southwestern corner of the project area.

4.4.1.5 Vegetation in the CDFW Conservation Buffer Area

Six plant communities/land use types occur within the 1,104-acre CDFW Conservation Buffer Area: extensive agriculture (e.g., dryland farming), non-native grassland, Riversidean sage scrub, disturbed, southern willow scrub, and urban/developed. The CDFW Conservation Buffer consists of the 910 acres of land that was placed into conservation in 2001 and the 194-acre SDG&E facility. The CDFW Conservation Buffer Area has been used for agricultural pursuits over many years, but there are a few isolated areas that have been left fallow and these have begun to return to non-native grassland and Riversidean sage scrub. See Table 4.4.A for a listing of plant associations in the CDFW Conservation Buffer Area.

4.4.1.6 Vegetation in the Indirect Impact Zone

Seven plant communities/land use types occur within the 1,636.6-acre off-site analysis zone. This area was evaluated as an additional 1,000-foot zone beyond the boundaries of the project area to consider potential off-site indirect impacts associated with noise, light, water quality, and air quality concerns beyond the boundary of the actual project area. Plan communities associated with the Indirect Impact Zone include non-native grassland, extensive agriculture, RSS, disturbed, urban/developed, mule fat scrub, and non-vegetated channel (see Figure 4.4.1). This area contains land that has been previously disturbed as a result of development and off-road vehicle trails east of Gilman Springs Road and general open space areas in the southwestern portion of the survey area.

4.4.1.7 Wildlife in the Specific Plan Area

Despite the disturbed nature of the WLC planning area (i.e., 97% non-native vegetation), common wildlife species that have adapted to human-modified landscapes are present and were observed on site, including the red-tailed hawk (*Buteo jamaicensis*), house finch (*Carpodacus mexicanus*), mourning dove (*Zenaidia macroura*), common raven (*Corvus corax*), coyote (*Canis latrans*), desert cottontail (*Sylvilagus audubonii*), and California ground squirrel (*Otospermophilus beecheyi*). A complete list of species observed on site is included in Appendix B of the *MSHCP Consistency Analysis* contained in Appendix E to this EIR. Utilization of agricultural areas by wildlife varies greatly depending upon the type of crop and the time of the year. Due to the amount of agricultural activities over the past decades, there is a limited number of species that are present although many species discussed above occur along the margins of the agricultural fields and along the limited drainage areas. In addition to the more common species discussed above, the San Diego gopher snake (*Pituophis cantenifer annectens*), white-tailed kite (*Elanus leucurus*), barn owl (*Tyto alba*), loggerhead shrike (*Lanius ludovicianus*), and Botta's pocket gopher (*Thomomys bottae*) were recorded to occur within the WLCSP and the off-site facility areas. There is a robust passerine bird population at the site during the growing season with a severely limited number of mammals following the harvest, largely due to the extensive disking activities.

4.4.1.8 Wildlife in the CDFW Conservation Buffer Area

The adjacent San Jacinto Wildlife Area (SJWA) has a very high diversity and abundance of bird species, and is recognized nationally and internationally for its bird population. The amount and diversity of birds in the SJWA contributes to a large degree to the number of different kinds of birds observed in the agricultural areas on the project site and within the CDFW Conservation Buffer Area. Numerous bird and mammal species occur within these agricultural areas and fallow fields may provide foraging opportunities for raptors. The number of passerine birds is high and includes both year-round species and transitory birds associated with the SJWA. The number of mammals is limited probably due to the extensive agricultural pursuits of the past.

4.4.1.9 Wildlife in the Off-site Analysis Indirect Impact Zone

MBA evaluated this area using direct observations, literature reviews, and information from studies performed on adjacent areas. The area adjacent to Gilman Springs Road on the south end of the planning area was examined by MBA biologists in 2007 (unpublished Burrowing Owl Survey Report, MBA). The distribution of wildlife species at this adjacent area was similar to the WLCSP and the CDFW Conservation Buffer Area, with a very limited distribution of mammals (primarily burrowing mammals) and a high incidence of passerine birds.

4.4.1.10 Wildlife in the SJWA and Mystic Lake

The SJWA is 20,000 acres of man-made wetlands and open water ponds and is the first state wildlife area to utilize reclaimed water to enhance its wetlands. It is located south of the project area and the CDFW Conservation Buffer Area. The SJWA contains several habitat areas, including wetlands, restored riparian habitat, grasslands, sage scrub, and marshes and provides habitat for the several threatened and endangered wildlife species including Stephens' kangaroo rat, Swainson's hawk, and bald eagle. The SJWA contains an important inland wetland, which provides habitat for many wetland plant species and wildlife species including aquatic birds, amphibians, and fish. According to the CDFW:

> *"The San Jacinto Wildlife Area public lands currently total about 20,000 acres. The Wildlife Area shares a common boundary with the 8,800-acre Lake Perris State Recreation Area. The majority of the Wildlife Area is located in unincorporated Riverside County. The northern*

portion of the Wildlife Area is included within the city limits of Incorporated City of Moreno Valley. Davis Road, an unimproved dirt road, bisects the Wildlife Area in a north-south direction. This roadway is maintained by DFG on the north and the County of Riverside on the south. Surrounding land users are primarily involved in agriculture principally dry land wheat farming and dairy operations. The private lands immediately north of the Wildlife Area are currently farmed and are included within the City of Moreno Valley jurisdiction. The 150 acre Double Bar "S" Horse Ranch represents the only substantial in-holding within the current Wildlife Area boundary. To the east lies Mystic Lake bed, the most northern portion of which has recently been Incorporated into the Wildlife Area. The south eastern parts of the lake bed remain in private ownership and are used for agriculture when not inundated with flood waters from the San Jacinto River. Numerous privately owned hunt clubs (waterfowl and game bird hunting clubs) are also located on the current eastern boundary of the Wildlife Area. The unincorporated rural communities of Lakeview and Nuevo are located to the south. Much of the land on the immediate southern boundary of the Wildlife Area is currently farmed by the Amway Corporation Nutrilite Division."

The SJWA is a significant resource for avian species and other wildlife. In 1981–82, the State Wildlife Conservation Board initially purchased 15,000 acres of the Mystic Lake area as mitigation for habitat impacts associated with the construction of the State Water Project (SWP). This area was designated as the SJWA. In 1995, the Board acquired an additional 921 acres of upland farmland within the southern portion of the Moreno Highlands Specific Plan property to incorporate into the SJWA. In 2001, the Board acquired an additional 274 acres in this same area. This land was purchased to provide a buffer between the land surrounding Mystic Lake and the planned urban development within Moreno Valley. The Board action on this purchase indicated the land was to "facilitate restoration of historic water flows back into the lakebed and allow for reversion back to wetlands during wet years, and areas of low vegetation cover during dry years, all providing significant habitat for species using the SJWA, including a number of state and federally listed species."[1]

CDFW Conservation Buffer Area. The entirety of the State-owned land south of the project area is referred to as the SJWA. However, the land purchased out of the Moreno Highlands Specific Plan is referred to in this EIR as the CDFW Conservation Buffer Area to denote the reason for its original purchase. The 1,195 acres acquired by the Wildlife Board during the past twenty years was intended to serve as an effective buffer between the SJWA and the development expected to occur north of the SJWA area (the present mixed-use Moreno Highlands Specific Plan). Currently, this acreage provides not only a buffer area, but also provides open space for raptor and bird foraging habitat, and is actively farmed under CDFW contract. Approximately 909 acres of the land within the project area are identified as Conservation Area (total 1,085 acres) and are owned by the CDFW and support vegetation identified as "Extensive Agriculture" in Section 4.4.1.3, *Vegetation*. The proposed project will permanently designate this CDFW Conservation Buffer Area as Open Space under the City General Plan. It is anticipated the State would maintain its function as a buffer and also as foraging habitat for raptors as long as it is regularly tilled. There are no plans to alter the current agricultural activities on this property.

Mystic Lake. This is a large crescent-shaped, intermittent water body within the SJWA, which serves as a significant wetland habitat for numerous birds including migratory waterfowl such as ducks, grebes, and occasional geese. Seasonal upland game hunting is allowed within the SJWA and Lake Perris State Recreation Area. Other uses of the SJWA include wildlife observation, nature study, fishing, hiking, photography, field trials, hunting dog training classes, and conservation of wildlife and wildlife habitat. Bird species commonly found at various times of the year in the SJWA include a wide

[1] Wildlife Conservation Board minutes from May 18, 2001.

variety of ducks, shore birds and gulls, upland game species, and a variety of passerine birds including those found in the project area and the CDFW Conservation Buffer area.

4.4.1.11 Sensitive Biological Resources

Special status species are plant and animal species or subspecies for which there is concern for population sustainability or that are otherwise considered worthy of consideration for protection by the CDFW, USFWS, local agencies, or special interest groups, such as the California Native Plant Society (CNPS). In addition to species federally or State listed as endangered or threatened, these include species that are Candidates or Proposed for listing as endangered or threatened, plant species that are State listed as Rare, animal species designated as Fully Protected or Species of Special Concern by the State of California, and plant species designated as California Rare Plant Rank (RPR) 1A, 1B, or 2. California Rare Plant Ranks are assigned by a committee of government agency and non-governmental botanical experts, including experts from CNPS, and are not official State designations of rarity status. Legal protection for sensitive species varies widely, from the comprehensive protection extended to federally listed threatened and/or endangered species to species without legal protection at the current time.

4.4.1.12 Western Riverside County Multiple Species Habitat Conservation Plan

The MSHCP for western Riverside County is an element of the Riverside County Integrated Project (RCIP), which is an integration of land use, transportation, and conservation planning and implementation to develop a consensus for the future development of Riverside County. The MSHCP is designed to protect over 150 species and conserve over 500,000 acres of land in western Riverside County. The MSHCP was conceived, developed, and is being implemented specifically to address the direct, indirect, cumulative, and growth-related effects on covered species resulting from build out of planned land use and infrastructure, including the proposed project.

The MSHCP involves efforts by the County, State, and Federal governments, the fourteen cities in western Riverside County, and private and public entities engaged in construction activities that potentially affect the species covered under the MSHCP. The plan specifies an obligation of local projects, both public and private, to mitigate their impacts on species. The MSHCP includes incentives for conservation or the purchase of properties from willing sellers and will eventually result in a Conservation Area in excess of 500,000 acres, focusing on conservation of 146 species. The MSHCP Conservation Area includes approximately 347,000 acres of existing Public/Quasi-Public Lands and approximately 153,000 acres of Additional Reserve Land.

The MSHCP Conservation Area[1] is made up of existing and proposed “Core” areas, or large assemblages of public land that contain important habitat and listed or sensitive species populations. The core areas are connected by a series of “linkages” or “corridors” identified across public and private lands to allow wildlife movement and genetic connectivity and diversity among the core areas. The MSHCP identifies conservation areas through a series of “criteria cells” within which certain biological resources (i.e., vegetation and/or physical features) should be preserved over the long term. The MSHCP also establishes various processes to evaluate land development proposals in light of its goals and requirements. The MSHCP also identifies when studies need to be performed within certain criteria cells to determine the presence or absence of listed or otherwise sensitive species of plants or animals.

The project site is located within the Reche Canyon/Badlands Area Plan of the MSHCP. Portions of the project area occur in 14 criteria cells of the MSHCP. Therefore, the project applicant, the City, and

[1] Not to be confused with the Conservation Area within the WLC planning area

the County[1] are required to use the Habitat Acquisition Negotiation Strategy (HANS) process established in the MSHCP to identify and acquire habitat as part of the development review process. The HANS process involves negotiations between a landowner and the Western Riverside County Regional Conservation Authority (RCA) so the County can acquire land with important habitat or other biological resources while providing fair compensation and/or reasonable development opportunities on the remaining land for the landowner.

The southern portion of the project area (910 acres owned by the CDFW) is the northern portion of the SJWA, which is classified as "Public Conserved Land" under the MSHCP. MSHCP Proposed Core 3 is located to the north and east of the project area, and Existing Core H is located to the south. Small portions of the project area fall within both Core Areas (see Figure 4.4.3). No existing or proposed linkage or constrained linkage areas are within or adjacent to the project area.

The 2013 MBA report focused on sensitive resources that could potentially occur in the overall planning area, including nine Criteria Area plant species, burrowing owl (*Athene cunicularia*), and Los Angeles pocket mouse (*Perognathus longimembris brevinasus*).

4.4.1.13 Endangered, Threatened, and Special Status Species

It is typical to base the presence or likelihood of presence of sensitive species within a specific area on the following criteria:

- Direct observation of the species or its sign in the project area or immediate vicinity during site-specific surveys or reported in previous biological studies;
- Sighting by other qualified observers;
- Record reported by the Natural Diversity Data Base (NDDB) published by the CDFW; and/or
- Presence or location of specific species lists provided by private groups (e.g., CNPS).

Threatened and Endangered Species. The USFWS and the CDFW list species as threatened or endangered under the Federal and California Endangered Species Acts (FESA and CESA, respectively). An endangered species is one that is in danger of extinction throughout all or a significant portion of its range. A threatened species is one that is likely to become endangered in the foreseeable future.

The USFWS may designate "critical habitat" that identifies specific areas, both occupied and unoccupied, that are often necessary to the conservation of a listed species. To make a determination of Critical Habitat, biologists consider physical and biological habitat features needed for life and successful reproduction of the species which include:

- Space for individual and population growth and for normal behavior;
- Cover or shelter;
- Food, water, air, light, minerals, or other nutritional or physiological requirements;
- Sites for breeding and rearing offspring; and
- Habitats that are protected from disturbances or are representative of the historic geographical and ecological distributions of a species.

[1] Western Riverside County Regional Conservation Authority (RCA)

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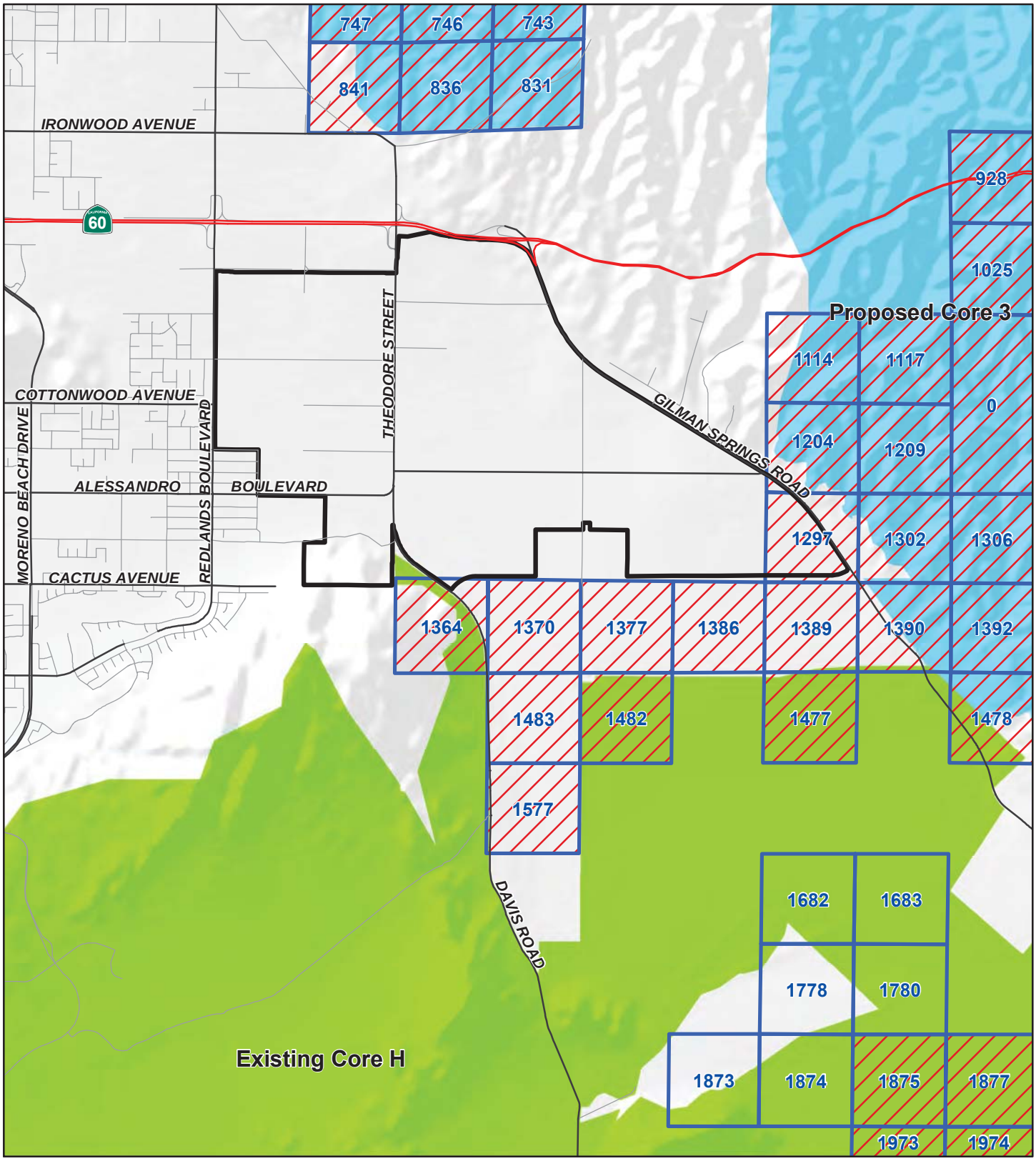

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FIGURE 4.4.3

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Project Boundary

CriteriaCells

Reche Canyon/Badlands Area Plan

Existing Core

Proposed Core

World Logistics Center Specific Plan Project
Environmental Impact Report

MSHCP Areas

SOURCE: Riverside County, 2011.

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Critical Habitat areas may require special management considerations or protections.

The project site is not located within any USFWS designated Critical Habitat area, and no threatened or endangered species were observed within the project site during the field surveys.

Table 4.4.B identifies special status plant species identified in the City's *General Plan Final EIR,* and in searches of the CDFW's *California Natural Diversity Data Base* (CNDDB) and the CNPS's *Electronic Inventory of Rare and Endangered Vascular Plants of California* that may potentially occur in the project survey area.

Note: Table 4.4.B was divided into two separate tables based on the updated biological resources report and various comments regarding the presence of sensitive plants and wildlife in the area. For the original Table 4.4.B please refer to Final EIR Volume IV, Section 4.4, Table 4.4.B.

Note: The following sections were reorganized from the original DEIR to be more consistent with the updated biological resource reports, but the data has not substantially changed.

Federally Endangered Plant Species. As shown in Table 4.4.B, two federally endangered plant species, San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*) and slender-horned spineflower (*Dodecahema leptoceras*), were analyzed for their potential to occur in the project area and the off-site facilities. No evidence of these plant species was found during reconnaissance-level surveys. In addition, no suitable habitat for this species occurs on site due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native, low-quality vegetation. No additional federally endangered plant species were analyzed for potential to occur in the project area and off-site facilities because no additional federally endangered plant species are known to occur on, or in the vicinity of, the site. No suitable habitat was found in the project area or off-site facilities to support other federally endangered plant species. Therefore, federally endangered plant species are not likely to occur in the project area or off-site facilities.

Federally Threatened Plant Species. As shown in Table 4.4.B, one federally threatened plant species, thread-leaved brodiaea (*Brodiaea filifolia*), was analyzed for its potential to occur in the project area. No evidence of this federally threatened plant species was found and no suitable habitat for this federally threatened plant species occurs on site due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native low-quality vegetation. No additional federally threatened plant species were analyzed for their potential to occur in the project area because no additional federally threatened plant species are known to occur on, or in the vicinity of, the site. No suitable habitat was found during the site surveys to support other federally threatened plant species. Therefore, federally threatened plant species are not likely to occur in the project area.

Federally Proposed Endangered, Proposed Threatened, Federal Candidate, and Federal Plant Species of Concern. The USFWS has developed several categories for sensitive species not yet determined to have reached endangered or threatened status. Generally, federally proposed endangered or threatened species are species considered unofficially endangered or threatened (i.e., final regulatory action formally listing such species has not yet occurred). Federal candidate species are species who are candidates for becoming listed as endangered or threatened, and Federal species of concern are species whose numbers are considered low enough to have approached Federal candidate status.

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Table 4.4.B: Sensitive Plant Species in the WLC Project Area

Species		Status			Preferred Habitat	Life Form	Bloom Period	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Scientific Name	Common Name	USFWS		CNPS					
Atriplex coronata var. *notatior*	San Jacinto valley crownscale	FE	—	1B.1	Occurs in playas, chenopod scrub, grasslands, and vernal pools. Specifically found in dry alkali flats in the San Jacinto River Valley. Elevation limits: 1,200 to 1,500 feet.	Annual herb	Apr to Aug	Covered	**Not Likely to Occur.** No alkali flats occur in the WLCSP. Recorded approximately 2.5 miles southeast of the WLCSP (CNDDB 2012) and 1.5 miles south of the study area boundary (RCA 2013).
Brodiaea filifolia	Thread-leaved brodiaea	FT	SE	1B.1	Occurs in coastal scrub, cismontane woodland, grasslands, and vernal pools. Usually associated with annual grassland and vernal pools in clay soils. Elevation limits: 75 to 2,500 feet.	Perennial herb bulbiferous	Mar to Jun	Covered	**Not Likely to Occur.** No clay soils or vernal pools occur in the WLCSP. Recorded approximately 5 miles south of the WLCSP (CNDDB 2012) and 4 miles south according to the BMP (RCA 2013).
Calochortus plummerae	Plummer's mariposa lily	—	—	4.2	Occurs in coastal scrub, chaparral, grasslands, cismontane woodlands, and lower montane coniferous forests. Found in rocky and sandy soils, usually of granitic or alluvial material. Very common after fire. Elevation limits: 300 to 4,500 feet.	Bulbiferous herb	May to Jul	Not Covered	**Moderate Potential to Occur.** The portion of the WLCSP that contains sandy soils and chaparral/RSS along the western border of the project in an area slated as open space. Recorded approximately 2 miles east of the WLCSP. (CNDDB 2012)
Centromadia pungens ssp. *laevis*	Smooth tarplant	—	—	1B.1	Occurs in grasslands, chenopod scrub, meadows, playas, and riparian woodland. Prefers alkali meadow and alkali scrub. Elevation limits: 0 to 1,500 feet.	Annual herb	Apr to Sep	Covered	**Not Likely to Occur.** No alkali soils occur in the WLCSP. Recorded approximately 3 miles west of the WLCSP (CNDDB 2012) and 2.5 miles south by the BMP (RCA 2013).

Table 4.4.B: Sensitive Plant Species in the WLC Project Area

Species		Status			Preferred Habitat	Life Form	Bloom Period	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Scientific Name	Common Name	USFWS		CNPS					
Chorizanthe parryi var. *parryi*	Parry's spineflower	—	—	1B.1	Occurs in coastal scrub and chaparral. Found on dry slopes and flats, sometimes at interface of two vegetation types, on dry, sandy soils. Elevation limits: 150 to 5,000 feet.	Annual herb	Apr to Jun	Covered	**Moderate Potential to Occur.** The portion of the WLCSP that contains sandy soils and chaparral/RSS along the western border of the project in an area slated as open space. Recorded approximately 4.5 miles northwest of WLCSP. (CNDDB 2012)
Dodecahema leptoceras	Slender-horned spineflower	FE	SE	1B.1	Occurs in chaparral and alluvial fan sage scrub. Prefers flood deposited terraces and washes. Elevation limits: 600 to 2,300 feet.	Annual herb	Apr to Jun	Covered	**Low Potential to Occur.** The WLCSP contains several natural drainages; one contains a mixture of RSS and mule fat scrub. The remaining drainages are generally devoid of vegetation. Recorded approximately 7 miles northwest of the WLCSP. (CNDDB 2012)
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	—	—	1B.1	Occurs in coastal salt marshes, playas, grasslands, and vernal pools. Usually found on alkali soils in playas, sinks, and grasslands. Elevation limits: 1 to 4,500 feet.	Annual herb	Feb to Jun	Covered	**Not Likely to Occur.** No alkali soils, marshes, or vernal pools occur in the WLCSP. Observed approximately 2 miles south of WLCSP (CNDDB 2012) and as close as 0.75 mile to the south of the WLCSP study area according to the BMP (RCA 2013).

Table 4.4.B: Sensitive Plant Species in the WLC Project Area

Species		Status			Preferred Habitat	Life Form	Bloom Period	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Scientific Name	Common Name	USFWS		CNPS					
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	—	—	4.3	Occurs in chaparral and coastal scrub on dry soils. Elevation limits: 1 to 3,000 feet.	Annual herb	Jan to Jul	Not Covered	**Low Potential to Occur.** The portion of the WLCSP that contains sandy soils and chaparral/RSS along the western border of the project in an area slated as open space. Recorded approximately 7 miles northwest of WLCSP. (CNDDB 2012)
Nama stenocarpum	Mud nama	—	—	2B.2	Occurs in marshes, swamps, lakeshores, riverbanks, and intermittently wet areas. Elevation limits: 15 to 1,500 feet.	Annual/ perennial herb	Jan to Jul	Covered	**Not Likely to Occur.** No lakes, marshes or riverine areas occur in the WLCSP. The drainage features onsite do not remain wet long enough to be considered suitable habitat. Recorded approximately 2.5 miles southeast of WLCSP. (CNDDB 2012)
Symphyotrichum defoliatum	San Bernardino aster	—	—	1B.2	Occurs in meadows, seeps, marshes, swamps, coastal scrub, cismontane woodland, lower montane coniferous forest, and grasslands. Found in vernally mesic areas near ditches, streams, and springs. Elevation limits: 6 to 6,000 feet.	Rhizoma-tous herb	Jul to Nov	Not Covered	**Not Likely to Occur.** The ditches and erosion features in the WLCSP are heavily disturbed. Recorded 2.5 miles northeast of the WLCSP. (CNDDB 2012)

Table 4.4.B: Sensitive Plant Species in the WLC Project Area

Species		Status			Preferred Habitat	Life Form	Bloom Period	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Scientific Name	Common Name	USFWS		CNPS					
Trichocoronis wrightii var. *wrightii*	Wright's trichocoronis	—	—	2B.1	Occurs in marshes and swamps, riparian forest, meadows, seeps, and vernal pools. Found in mud flats of vernal lakes, drying riverbeds, and alkali meadows. Elevation limits: 10 to 1,300 feet.	Annual herb	May to Sep	Covered	**Not Likely to Occur.** No marshes, riverine or vernal pool areas occur in the WLCSP. Recorded approximately 4 miles south of the WLCSP. (CNDDB 2012)

U.S. Fish and Wildlife Service
FE Federal Endangered
FT Federal Threatened
PE Proposed Endangered
PT Proposed Threatened
FC Federal Candidate
FSC Species of Concern*
*No longer recognized as a Federal designation.

California Department of Fish and Game
CE California Endangered
CT California Threatened
CR California Rare

California Native Plant Society
1A Plants presumed extinct in California.
1B Plants rare, threatened, or endangered in California and elsewhere.
2 Plants rare, threatened, or endangered in California, but more common elsewhere.
3 Plants about which we need more information.
4 Plants of limited distribution.

Not Likely to Occur - There are no present or historical records of the species occurring on or in the immediate vicinity (within 3 miles) of the WLCSP and the diagnostic habitats strongly associated with the species do not occur on or in the immediate vicinity of the site.
Low Potential to Occur - There is a historical record of the species in the vicinity of the WLCSP and potentially suitable habitat onsite, but existing conditions (e.g., density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, isolation) substantially reduce the possibility that the species may occur. The site is above or below the recognized elevation limits for this species.
Moderate Potential to Occur - The diagnostic habitats associated with the species occur on or in the immediate vicinity of the WLCSP, but there is not a recorded occurrence of the species within the immediate vicinity (within three miles). Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity.
High Potential to Occur - There is both suitable habitat associated with the species and a historical record of the species on or in the immediate vicinity of the WLCSP (within 3 miles).
Species Present - The species was observed in the WLCSP at the time of the survey or during a previous biological survey.
Source: Habitat Assessment, MSHCP Consistency Analysis, and HANS report, Michael Brandman Associates, September 2014.

Federally Protected Plant Species. As shown in Table 4.4.B, no Federal plant species of concern were analyzed for their potential to occur in the WLCSP and off-site facilities because no evidence of any Federal plant species of concern was found in the project area, nor was any suitable habitat found due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native low-quality vegetation.

Federally Endangered Wildlife Species. As shown in Table 4.4.C, four federally endangered wildlife species were analyzed for potential to occur in the project area or off-site facilities: Riverside fairy shrimp (*Streptocephalus woottoni*), southwestern willow flycatcher (*Empidonax traillii extimus*), least Bell's vireo (*Vireo bellii pusillus*), and Stephens' kangaroo rat (*Dipodomys stephensi*). No evidence of any federally endangered wildlife species was found in the project area or off-site facilities. Stephens' kangaroo rat is the only federally listed wildlife species potentially occurring on site. Although no sign of Stephens' kangaroo rat was identified during the site surveys, it was determined that this species may range through the general area. This species is commonly found in ruderal and minimally disturbed areas. Low quality habitat was observed along existing roadsides.

Since the project area is within the known range of this species and low quality habitat was identified on site, there is a moderate potential for Stephens' kangaroo rat to occupy some portion of the WLC project area or off-site facilities.

No suitable habitat for Riverside fairy shrimp, southwestern willow flycatcher, and least Bell's vireo, occurs on site due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native low-quality vegetation. No additional federally endangered wildlife species were analyzed in Table 4.4C for their potential to occur in the project area because no additional federally endangered wildlife species are known to occur on, or in the vicinity of, the site.

Federally Threatened Wildlife Species. As shown in Table 4.4.C, Coastal California gnatcatcher (*Polioptila californica californica*) is known to occur within moderate to high quality coastal sage scrub in the general area and some suitable habitat occurs on site for coastal California gnatcatcher. There is marginal Riversidean sage scrub in the north near SR-60 and Gilman Springs Road and in the proposed Open Space Area adjacent to the Lake Perris State Recreation Area (LPSRA) south of Brodiaea Avenue, west of Theodore Street and east of Redlands Boulevard. No additional federally threatened wildlife species were analyzed for their potential to occur in the WLC project area.

Federally Proposed Endangered, Proposed Threatened, Federal Candidate, and Federal Species of Concern. The USFWS has developed several categories for sensitive species not yet determined to have reached endangered or threatened status. Generally, federally proposed endangered or threatened species are species considered unofficially endangered or threatened (i.e., final regulatory action formally listing such species has not yet occurred). Federal candidate species are species who are candidates for becoming listed as endangered or threatened, and Federal species of concern are species whose numbers are considered low enough to have approached Federal candidate status. The western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) is the only Federal Candidate Species with a potential to occur in this area, but this species is not likely to occur in the WLCSP and off-site facilities. In addition, it is a covered species under the MSHCP.

Federally Protected Wildlife Species. There was only one Federal wildlife species of concern analyzed for its potential to occur in the WLCSP and off-site facilities (see the western yellow-billed cuckoo discussed above). No evidence of any other Federal wildlife species of concern was found in the project area nor does any suitable habitat occur due to historic agricultural activities, regular

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Table 4.4.C: Sensitive Wildlife Species in the WLC Project Area

Species		Status			Required Habitat	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Scientific Name	Common Name	Federal	State	Other			
Branchiopods							
Streptocephalus woottoni	Riverside fairy shrimp	FE	—	CDFW: CSC	Occurs in tectonic swales and earth slump basins in grassland and coastal sage scrub. Inhabits seasonally astatic pools filled by winter/spring rains. Hatches in warm water later in the season.	Covered	**Not Likely to Occur.** No vernal pools occur in the WLCSP. Observed farther than 5 miles south of the WLCSP.
Reptiles and Amphibians							
Aspidoscelis hyperythra	Orange-throated whiptail	—	—	CDFW: CSC	Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats. Prefers washes and other sandy areas with patches of brush and rocks. Also near perennial plants where termites, its major food, can be found.	Covered	**Low Potential to Occur.** Limited coastal scrub is present in the WLCSP. Woody vegetation onsite is very sparse and is not considered sufficient to support the species. The nearest occurrence of the species was recorded approximately 0.3 mile north of the WLCSP; however, in the eighteen years since the observation, the previous site conditions have changed to become unsuitable habitat (CNDDB 2012).
Crotalus ruber ruber	Northern red-diamond rattlesnake	—	—	CDFW: CSC	Inhabits chaparral, woodland, grassland, and desert habitats. Occurs in rocky areas and dense vegetation. Needs rodent burrows, cracks in rocks, or surface cover objects.	Covered	**Not Likely to Occur.** No rocky areas and dense native plant communities occur in the WLCSP and the site is regularly disturbed. Recorded approximately 1 mile south of the WLCSP; however, the observation occurred over 80 years ago (CNDDB 2012). The BMP has recently found the species in the same area as the CNDDB sighting (RCA 2013)
Phrynosoma coronatum blainvillei	Coast horned lizard	—	—	CDFW: CSC	Inhabits coastal sage scrub and chaparral in arid and semi-arid climates. Prefers friable, rocky, or shallow sandy soils.	Covered	**Low Potential to Occur.** The portion of the WLCSP that contains sandy soils or rocky soils and chaparral/RSS along the western border of the project in an area slated as open space. Recorded approximately 4 miles northwest of the WLCSP (CNDDB 2012)

Table 4.4.C: Sensitive Wildlife Species in the WLC Project Area

Species		Status			Required Habitat	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Scientific Name	Common Name	Federal	State	Other			
Spea hammondii	Western spadefoot	—	—	CDFW: CSC	Occurs primarily in grassland habitats, but also found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	Covered	**Not Likely to Occur.** No vernal pools or native woodlands occur in the WLCSP. Recorded approximately 2 miles south and west of the WLCSP (CNDDB 2012). The BMP studies have occurrences approximately 0.7 mile south of the study area boundary (RCA 2013)
Birds							
Agelaius tricolor	Tricolored blackbird	—	—	CDFW: CSC	Highly colonial species. Requires open water, protected nesting substrate, and foraging areas with insect prey within a few miles of the colony.	Covered	**Low Potential to Occur.** No open water or protected nesting habitat is located in the WLCSP. Numerous nesting pairs were recorded within the wheat fields on the southeastern portion of the WLCSP in 1995. The wheat has since been removed and no suitable nesting vegetation remains (CNDDB 2012).
Aimophila ruficeps canescens	Southern California rufous-crowned sparrow	—	—	CDFW: CSC	Resident in coastal sage scrub and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches.	Covered	**Low Potential to Occur.** While sparse RSS and chaparral are present within the WLCSP, no steep slopes are present in the WLCSP. Recorded approximately 4 miles west of the WLCSP (CNDDB 2012). The BMP database has the species less than 1.0 mile from the WLCSP study area boundary (RCA 2013).
Amphispiza belli belli	Bell's sage sparrow	—	—	CDFW: CSC	Nests in chaparral dominated by fairly dense stands of chamise. Found in coastal sage scrub in southern portion of range. Nests typically located on the ground beneath shrub or in shrub 6 to 18 inches above ground.	Covered	**Not Likely to Occur.** No dense stands chaparral or coastal sage scrub vegetation occurs in the WLCSP. Recorded approximately 4 miles northwest of the WLCSP (CNDDB 2012) and according to the BMP 4 miles south of the WLCSP study area (RCA 2013).

Table 4.4.C: Sensitive Wildlife Species in the WLC Project Area

Species		Status			Required Habitat	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Scientific Name	Common Name	Federal	State	Other			
Athene cunicularia	Burrowing owl	—	—	CDFW: CSC	Occupies burrows in open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably the California ground squirrel.	Covered	**Present.** Despite the heavy disturbance the WLCSP contains flat topography with sparse, low-lying vegetation and various California ground squirrel burrows. Observed within the WLCSP in 2005; however, focused surveys conducted in 2010 and 2012 found the WLCSP and surroundings to be unoccupied. The 2013 survey of the WLCSP again found a pair of owls (MBA 2013b)
Aquila chrysaetos	Golden eagle	—	—	CDFW: FP	Open mountains, foothills, plains.	Covered	**Low Potential to Occur.** The WLCSP contains open flat area that is considered marginally suitable foraging habitat, but not suitable nesting habitat. Recorded approximately 1 mile south of the WLCSP (RCA 2013)
Buteo swainsonii	Swainson's hawk	—	ST	—	Grasslands and riparian areas	Covered	**Low Potential to Occur.** The WLCSP contains open flat area that is considered marginally suitable foraging habitat, but not suitable nesting habitat. Recorded approximately 1 mile south of the WLCSP (RCA 2013)
Buteo regalis	Ferruginous hawk	—	—	CDFW: CSC	Winters in open grasslands, sagebrush flats, desert scrub, low foothills, and fringes of pinyon-juniper habitats.	Covered	**Low Potential to Occur.** The WLCSP contains open flat area that is considered marginally suitable foraging habitat, but not suitable nesting habitat. Recorded approximately 1 mile northeast of the WLCSP (CNDDB 2012) and 2 miles south of the WLCSP according to BMP records (RCA 2013).

Table 4.4.C: Sensitive Wildlife Species in the WLC Project Area

Species		Status			Required Habitat	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Scientific Name	Common Name	Federal	State	Other			
Coccyzus americanus occidentalis	Western yellow-billed cuckoo	FC	SE	—	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Specifically nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Covered	**Not Likely to Occur.** No riparian plant communities occur in the WLCSP. Recorded approximately 5.5 miles northwest of the WLCSP (CNDDB 2012).
Elanus leucurus	White-tailed kite	—	—	CDFW: FP	Nests in rolling foothills/valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodlands. Prefers open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Covered	**Present.** The WLCSP contains suitable foraging habitat, but few dense-topped trees occur in the vicinity of the site. Known to occur in the San Jacinto Valley but not recorded within 7 miles of the site (CNDDB 2012). The BMP indicates that the species is found 1.0 mile from the WLCSP study area boundary (2013). Species was observed foraging within the southern portion of the survey area adjacent to the SJWA.
Empidonax traillii extimus	Southwestern willow flycatcher	FE	SE	—	Nests in riparian woodlands in southern California.	Covered	**Not Likely to Occur.** No riparian plant communities occur in the WLCSP. Recorded approximately 6.5 miles east of the WLCSP (CNDDB 2012).
Eremophila alpestris actia	California horned lark	—	—	CDFW: CSC	Inhabits short-grass prairie, bald hills, mountain meadows, open coastal plains, fallow grain fields, and alkali flats.	Covered	**Present.** The WLCSP contains flat, fallow grain fields that constitute suitable nesting habitat. Observed in the WLCSP during the reconnaissance-level surveys (MBA 2012).
Falco columbarius	Merlin	—	—	CDFW: CSC	Winters in seacoast, tidal estuaries, open woodlands, savannahs, edges of grasslands and deserts, farms and ranches. Clumps of trees or windbreaks are required for roosting in open country.	Covered	**Low Potential to Occur.** Portions of the WLCSP contain windbreak trees and open farmland. Known to occur in the San Jacinto Valley but not recorded within 7 miles of the site (CNDDB 2012). The BMP database has the species less than a mile south of the WLCSP study area (RCA 2013).

Table 4.4.C: Sensitive Wildlife Species in the WLC Project Area

Species		Status					
Scientific Name	Common Name	Federal	State	Other	Required Habitat	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Falco mexicanus	Prairie falcon	—	—	CDFW: CSC	Inhabits dry, open terrain, either flat or hilly. Breeding sites located on cliffs.	Covered	**Low Potential to Occur.** The WLCSP contains marginally suitable foraging habitat but no suitable nesting habitat. Known to occur in the San Jacinto Valley but not recorded within 7 miles of the site (CNDDB 2012).
Falco peregrinus anatum	Peregrine falcon	FD	SE	CDFW: FP	Nests near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds, and human-made structures. Nest consists of a scrape on a depression or ledge in an open site.	Covered	**Low Potential to Occur.** The WLCSP contains marginal nesting habitat. Known to occur in the San Jacinto Valley but not recorded within 7 miles of the site (CNDDB 2012). The BMP indicates the species is within 1.0 mile of the southern boundary of the study area (RCA 2013).
Icteria virens	Yellow-breasted chat	—	—	CDFW: CSC	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Specifically nests in low, dense riparian vegetation, consisting of willow, blackberry, wild grape. Forages and nests within 10 feet of ground.	Covered	**Not Likely to Occur.** No riparian plant communities occur in the WLCSP. Recorded approximately 5.5 miles northwest of the WLCSP (CNDDB 2012).
Lanius ludovicianus	Loggerhead shrike	—	—	CDFW: CSC	Inhabits broken woodlands, savannah, pinyon-juniper, Joshua tree and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	Covered	**Present.** The WLCSP contains flat, open area that is suitable foraging habitat but not suitable nesting habitat. Observed by MBA during previous surveys, approximately within the WLCSP (MBA 2012).
Plegadis chihi	White-faced ibis	—	—	CDFW: CSC	Rookery sites include shallow freshwater marshes. Nests in dense tule thickets interspersed with areas of shallow water for foraging.	Covered	**Not Likely to Occur.** No marshes or bodies of water occur in the WLCSP. Recorded approximately 3 miles southeast of the WLCSP (CNDDB 2012).

Table 4.4.C: Sensitive Wildlife Species in the WLC Project Area

Species		Status					
Scientific Name	Common Name	Federal	State	Other	Required Habitat	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Polioptila californica californica	Coastal California gnatcatcher	FT	—	CDFW: CSC	Obligate, permanent resident of coastal sage scrub below 2,500 feet in southern California. Prefers low coastal sage scrub in arid washes and on mesas and slopes.	Covered	**Low Potential to Occur.** There is limited and sparse coastal sage scrub vegetation occurs in the WLCSP. Recorded approximately 4 miles northwest of the WLCSP (CNDDB 2012) and less that 0.5 mile of the WLCSP study area according to BMP (RCA 2013).
Vireo bellii pusillus	Least Bell's vireo	FE	SE	—	Summer resident in low riparian vegetation in the vicinity of water or in dry river bottoms; below 2,000 feet. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, baccharis, and mesquite.	Covered	**Not Likely to Occur.** No riparian plant communities or significant riparian vegetation occur in the WLCSP. Recorded approximately 3 miles northeast of the WLCSP (CNDDB 2012) and was recorded by the BMP at 2 miles from the closest WLCSP border (RCA 2013).
Mammals							
Chaetodipus fallax fallax	Northwestern San Diego pocket mouse	—	—	CDFW: CSC	Inhabits coastal scrub, chaparral, and grasslands. Prefers sandy, herbaceous areas, usually in association with rocks or coarse gravel.	Covered	**Present.** Sandy to loamy soils occur in the WLCSP. There are limited areas of RSS and chaparral and herbaceous areas are severely limited due to agricultural activities. Species was caught within Drainage 9 (MBA 2013).
Dipodomys stephensi	Stephens' kangaroo rat	FE	ST	—	Primarily found in annual and perennial grasslands, but also occurs in coastal scrub and sagebrush with sparse canopy cover. Prefers buckwheat, chamise, brome grass, and filaree. Will burrow into firm soil.	Covered under SKRHCP	**Moderate Potential to Occur.** The WLCSP contains areas similar to grasslands with very sparse canopy, but is heavily disturbed. Recorded approximately adjacent to the general WLCSP on the west and south (CNDDB 2012).
Lasiurus xanthinus	Western yellow bat	—	—	CDFW: CSC	Occurs in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats below 1,800 feet. Roosts in trees.	Not Covered	**Not Likely to Occur.** No riparian or native plant communities occur in the WLCSP. Recorded approximately 3.5 miles southwest of the WLCSP (CNDDB 2012).

Table 4.4.C: Sensitive Wildlife Species in the WLC Project Area

Species		Status			Required Habitat	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat
Scientific Name	Common Name	Federal	State	Other			
Lepus californicus bennettii	San Diego black-tailed jackrabbit	—	—	CDFW: CSC	Inhabits coastal sage scrub habitats. Specifically, intermediate canopy stages of shrub, open shrub, herbaceous and tree, and herbaceous edge habitats.	Covered	**Present** Recorded within the MWD lands in the northern portion of the WLCSP during burrowing owl surveys (MBA 2013).
Onychomys torridus ramona	Southern grasshopper mouse	—	—	CDFW: CSC	Inhabits desert areas, especially scrub habitats with friable soils. Prefers low to moderate shrub cover. Feeds almost exclusively on arthropods, especially scorpions and orthopteran insects.	Not Covered	**Not Likely to Occur.** No shrub or scrub habitat occurs in the WLCSP. Additionally, the site is regularly disturbed by disking. Recorded approximately 4 miles southeast of the WLCSP (CNDDB 2012).
Perognathus longimembris brevinasus	Los Angeles pocket mouse	—	—	CDFW: CSC	Inhabits lower elevation grasslands and coastal sage communities. Prefers open ground with fine sandy soils.	Covered	**Low Potential to Occur.** The sandy soils that occur in the WLCSP are limited to existing drainages with the proper coastal sage communities. Three years of trapping did not produce any Los Angeles pocket mice. Recorded approximately 3 miles south of the WLCSP (CNDDB 2012). It was observed in BMP trapping within 2 miles of the study area (RCA 2013).
Taxidea taxus	American badger	—	—	CDFW: CSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats. Needs sufficient food, friable soils, and open, uncultivated ground. Preys on burrowing rodents.	Not covered	**Low potential to occur.** The WLCSP contains limited amounts of vegetation and the ground is cultivated. Recorded approximately 8.5 miles northwest of the WLCSP (CNDDB 2012). RCA data lists the closest recorded occurrence, just outside the 1,000-foot buffer area. Most likely limited to the badlands area north and east of the project site.

Table 4.4.C: Sensitive Wildlife Species in the WLC Project Area

Species		Status					
Scientific Name	Common Name	Federal	State	Other	Required Habitat	MSHCP Coverage	Potential to Occur/Known Occurrence/Suitable Habitat

Federal
FE Federal Endangered
FT Federal Threatened
FSC Federal Species of Concern
PFT Proposed Federal Threatened
FC Candidate for Federal Listing
FD Delisted

State
SE State Endangered
ST State Threatened

Other
CDFW: CSC California Species of Concern
CDFW: FP Fully Protected Species
CDFW: P Protected Species

Not Likely to Occur - There are no present or historical records of the species occurring on or in the immediate vicinity (within 3 miles) of the WLCSP and the diagnostic habitats strongly associated with the species do not occur on or in the immediate vicinity of the site.
Low Potential to Occur - There is a historical record of the species in the vicinity of the WLCSP and potentially suitable habitat onsite, but existing conditions (e.g., density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, isolation) substantially reduce the possibility that the species may occur. The site is above or below the recognized elevation limits for this species.
Moderate Potential to Occur - The diagnostic habitats associated with the species occur on or in the immediate vicinity of the WLCSP, but there is not a recorded occurrence of the species within the immediate vicinity (within three miles). Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity.
High Potential to Occur - There is both suitable habitat associated with the species and a historical record of the species on or in the immediate vicinity of the WLCSP (within 3 miles).
Species Present - The species was observed in the WLCSP at the time of the survey or during a previous biological survey.
Source: Habitat Assessment, MSHCP Consistency Analysis, and HANS report, Michael Brandman Associates, September 2014.

disking of the site, and dominance of sparse, non-native low-quality vegetation. No additional Federal wildlife species of concern were analyzed for potential to occur in the project area because no additional Federal wildlife species of concern are known to occur on, or in the vicinity of, the site.

California State Endangered Plant Species. As shown in Table 4.4.B, two California State endangered plant species were analyzed for their potential to occur in the WLCSP and off-site facilities: slender-horned spine-flower and thread-leaved brodiaea. No evidence of these State-listed plant species was found in the project area nor is there any suitable habitat for these State-listed plant species due to regular disking of the site and dominance of sparse, non-native low-quality vegetation. No additional State-listed plant species were analyzed for potential to occur in the project area because no additional State-listed plant species are known to occur on, or in the vicinity of, the site, nor was any suitable habitat found to support other State-listed plant species. Therefore, State-listed plant species are not likely to occur in the project area and there is no potential impact to State endangered plant species.

California State Threatened Plant Species. As shown in Table 4.4.B, no California State threatened plant species are known to occur on, or in the vicinity of, the project site and no suitable habitat occurs within the project are for any California State threatened plant species. Therefore, California State threatened plant species are not likely to occur in the project area and there is no potential impact to State threatened plant species.

California State Endangered Wildlife Species. As shown in Table 4.4.B, four California State endangered wildlife species were analyzed for their potential to occur in the WLCSP and off-site facilities: western yellow-billed cuckoo, southwestern willow flycatcher, least Bell's vireo, and peregrine falcon (*Falco peregrinus anatum*). No evidence of these California State endangered wildlife species was found in the project area. In addition, no suitable habitat for these species occurs within the project area due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native low-quality vegetation. No additional California State endangered wildlife species were analyzed for potential to occur in the project area because no additional California State endangered wildlife species are known to occur on, or in the vicinity of, the site. No suitable habitat was found in the project area to support other California State endangered wildlife species. Therefore, California State endangered wildlife species are not likely to occur in the project area and there is no potential impact to State endangered wildlife species.

California State Threatened Wildlife Species. As shown in Table 4.4.C, two California State threatened wildlife species was analyzed for its potential to occur in the project area: Swainson's hawk (*Buteo swainsonii*) and Stephens' kangaroo rat. There is little to no nesting habitat within the WLCSP for Swainson's hawk and marginally quality foraging habitat. This species is known to occur with the adjacent SJWA and has a low potential to occur within the WLCSP project site. Although no sign of Stephens' kangaroo rat was identified in the project area, MBA concluded that this species may range through the general area. This species is known to occur in ruderal and minimally disturbed areas. Marginal habitat was observed along existing roadsides and within active pasture areas. Since the project area is within the known range of this species, and marginal habitat was identified on site, there is a moderate potential for Stephens' kangaroo rat to occupy some portion of the area.

No additional California State threatened wildlife species are known to occur on, or in the vicinity of, the site. No suitable habitat was found in the project area support other California State threatened wildlife species. Therefore, except for the Stephens' kangaroo rat, California State threatened wildlife species are not likely to occur in the project area and there is no potential impact to California State threatened wildlife species.

California State Fully Protected Species. The classification of Fully Protected was California's initial effort in the 1960s to identify and provide additional protection to those animals that were rare or faced possible extinction. The list of fully protected species included fish, mammals, amphibians, reptiles, birds, and mammals. Most fully protected species are currently listed as threatened or endangered species under the more recent endangered species laws and regulations.

Fully protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

California State Fully Protected Species. As shown in Table 4.4.C, three California State Fully Protected species were analyzed for their potential to occur in the project area: golden eagle (*Aquila chrysaetos*), white-tailed kite (*Elanus leucurus*) and peregrine falcon. No suitable nesting habitat for golden eagle, white-tailed kite or peregrine falcon occurs within the area due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native low-quality vegetation. However, agricultural land does represent marginal quality foraging habitat within the WLCSP project site and adjacent CDFW Conservation Areas. No additional California State fully protected wildlife species were analyzed for their potential to occur in the project area because no additional California State fully protected wildlife species are known to occur on, or in the vicinity of, the site. No suitable habitat was found in the WLCSP and off-site facilities to support other California State fully protected wildlife species. Therefore, California State fully protected wildlife species are not likely to occur in the project area and there is no impact to California State fully protected wildlife species.

California Rare Plants Species and California Species of Concern. California Species of Concern (CSC) applies to animals not listed under the FESA or CESA, but are declining at a rate that could result in Federal or State listing or historically occur in low numbers and known threats to their persistence currently exist.

California Rare Plant Species. No California rare plant species are known to occur on, or in the vicinity of, the project area nor is any suitable habitat known to occur within the area. Therefore, no California rare plant species were analyzed for their potential to occur in the project area. Eleven special status plant species, as determine by the California Native Plant Society, were identified as potentially occurring within the project area. Three of the species (Plummer's mariposa lily [*Calochortus plummerae*], Robinson's pepper-grass [*Lepidium virginicum* var. *robinsonii*], and San Bernardino aster [*Symphyotrichum defoliatum*]) are not covered by the MSHCP. Plummer's mariposa lily and Robinson' pepper-grass have a moderate to low potential to occur based on habitat type and soils requirements. These species were not identified during sensitive plant surveys (MBA 2010).

The 2010 sensitive plant survey was conducted based on the 2010 site boundary and the then-current existing conditions. Several areas within the current WLCSP were not surveyed because they were either not included in the proposed development footprint (such as the Off-site Improvement Areas) or were not within areas of suitable habitat. Therefore, areas that contained suitable habitat, but are outside of the proposed development footprint, or areas that were not accessible during the survey, were not included. Since all areas of the WLCSP were not surveyed, additional plant surveys are recommended on a project-by-project basis. There has been below-average rainfall in the area since the 2010 plant surveys were conducted. Project-level surveys will be required prior to submittal of the CEQA documents as part of the project-specific environmental review process.

The Sensitive Plant Focused Survey Report only discusses the plant communities in which focused plant surveys were conducted. Many of the areas within the Extensive Agricultural Areas and the Urban/Developed areas contain elements of Riversidean sage scrub, non-native grasslands, and riparian habitat, but not in a sufficient amount to be considered a separate plant community. The

remaining nine plant communities found within the WLCSP, either do not provide suitable habitat or are not within the proposed project impact area; these plant communities will not be directly or indirectly impacted by project development.

Updated focused plant surveys will likely be warranted on a project-level basis, especially if existing site conditions change over time. If the agricultural fields are left fallow, suitable habitat for a number of sensitive plant species may develop. Therefore, additional focused plant surveys will be required on a project-by-project basis as specific developments are proposed and subsequent or supplemental CEQA documentation is prepared.

The potential habitat for these species is confined to RSS and sandy-rocky soils, which are confined to the proposed open space area in the southwestern portion of the Specific Plan area.

California Species of Concern. Twenty-one California Wildlife Species of Concern were analyzed for their potential to occur in the WLCSP and off-site facilities:

- Orange-throated whiptail (*Aspidoscelis hyperythra*)
- Coast horned lizard (*Phrynosoma coronatum*)
- Tricolored blackbird (*Agelaius tricolor*)
- Bell's sage sparrow (*Amphispiza belli belli*)
- Ferruginous hawk (*Buteo regalis*)
- Merlin (*Falco columbarius*)
- Yellow-breasted chat (*Icteria virens*)
- White-faced ibis (*Plegadis chihi*)
- Western yellow bat (*Lasiurus xanthinus*)
- Southern grasshopper mouse (*Onychomys torridus ramona*)
- American badger (*Taxidea taxus*)
- Northern red-diamond rattlesnake (*Crotalus ruber ruber*)
- Western spadefoot (*Spea hammondii*)
- Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)
- Burrowing owl (*Athene cunicularia hypugaea*)
- California horned lark (*Eremophila alpestris actia*)
- Prairie falcon (*Falco mexicanus*)
- Loggerhead shrike (*Lanius ludovicianus*)
- Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)
- San Diego black-tailed jackrabbit (*Lepus californicus bennettii*)
- Los Angeles pocket mouse (*Perognathus longimembris brevinasus*)

The project area contains suitable foraging habitat for loggerhead shrike, ferruginous hawk, merlin, prairie falcon, California horned lark, and burrowing owl but no suitable nesting habitat for ferruginous hawk, merlin, or prairie falcon. Suitable ground-nesting habitat occurs for burrowing owl and California horned lark. No sign of burrowing owl was identified during focused surveys conducted in 2012. However, burrowing owl was identified within the southern portion of in the WLCSP project site and offsite facilities during focused surveys conducted in 2013 and, it was determined that this species may range through the general area. Several California horned larks and loggerhead shrikes were observed foraging within the area. No suitable habitat for western spadefoot, Bell's sage sparrow, yellow-breasted chat, white-faced ibis, western yellow bat, southern grasshopper mouse, and American badger occurs within the project area due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native low-quality vegetation. The western yellow bat, southern grasshopper mouse and American badger are not covered under the MSHCP. However, since there is no suitable habitat for these species, no impact is expected to occur. The remaining species are covered under the MSHCP.

There is limited suitable habitat for orange-throated whiptail, northern red-diamond rattlesnake, coast horned lizard, southern rufous-crowned sparrow, northwestern San Diego pocket mouse, San Diego jackrabbit, and Los Angeles pocket mouse in the project area. These species are generally associated with RSS, which is limited to the north near SR-60 and Gilman Springs Road and in the proposed Open Space Area adjacent to the LPSRA between Theodore Street and Redlands Boulevard, just south of Brodiaea Avenue. Focused surveys for Los Angeles pocket mouse in 2005, 2010, 2012, and 2013 were negative. The orange-throated whiptail is not covered under the MSHCP. There is limited habitat for the orange-throated whiptail in an area that is currently proposed for open space in the southwestern corner of the Specific Plan area. The other species mentioned are covered under the MSHCP. There is a low potential for these species to occur.

No additional California wildlife species of concern were analyzed for potential to occur in the project area because none is known to occur on, or in the vicinity of, the site. No suitable habitat was found in the project area to support other California Wildlife Species of Concern. Therefore, except for the burrowing owl, loggerhead shrike, and California horned lark, California Wildlife Species of Concern are not likely to occur in the WLCSP and off-site facilities.

California Native Plant Society (CNPS). The CNPS is a non-profit organization whose collaborative efforts in research helps maintain an inventory of rare and endangered plants that occur throughout California. The CNPS has developed its own classification system in defining the degree of endangerment for sensitive plant species that models that of the FESA and CESA. Plants considered to be rare, threatened, or endangered in California are designated as List 1B or List 2 plant species. Plants for which more information is needed to determine their status are designated List 3 species. Plants with limited distribution are designated as List 4 species.

CNPS Listed Plant Species. Eight CNPS List 1B plant species were analyzed for potential to occur in the project area: San Jacinto Valley crownscale, thread-leaved brodiaea, Plummer's mariposa lily, smooth tarplant (*Centromadia pungens* ssp. *laevis*), slender-horned spineflower, Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), Robinson's peppergrass, and San Bernardino aster.

Two CNPS List 2 plant species, mud nama (*Nama stenocarpum*) and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*), were analyzed for potential to occur in the project area.

One CNPS List 3 plant species, Parry's spineflower (*Chorizanthe parryi* var. *parryi*), was also analyzed for potential to occur in the project area.

No evidence of any CNPS List 1B, List 2, or List 3 plant species were observed in the project area. In addition, no suitable habitat for any of these species occurs due to historic agricultural activities, regular disking of the site, and dominance of sparse, low quality non-native vegetation.

No additional CNPS List plant species were analyzed for potential to occur in the WLCSP and off-site facilities because none is known to occur on, or in the vicinity of, the site. No suitable habitat was found in the project area to support other CNPS List plant species. Therefore, CNPS List plant species are not likely to occur in the project area.

Migratory Bird Treaty Act and Section 3503 of the State Fish and Game Code. The project area contains suitable nesting habitat for ground-nesting birds such as burrowing owl and horned lark. The few large trees on the site provide suitable habitat for other migratory birds.

Raptor Foraging Habitat. The project area contains flat, open areas with sparse vegetation, which provides marginal foraging habitat for some raptors species. Due to the regular, heavy disturbance associated with the various agricultural activities in the area, and the limited size of the site in relation

to the expansive foraging habitat in the vicinity including the CDFW Conservation Buffer Area and the SJWA, LPSRA, and the Badlands to the east, the foraging habitat on site is considered marginally suitable and of poor quality (MBA 2013, pages 94-95).

4.4.1.14 MSHCP Consistency Analysis

a. Burrowing Owl

The burrowing owl is an avian species of special concern that is protected by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code Section 3503. This species typically occurs in grassland and scrub habitats characterized by low-growing vegetation with an abundance of small mammal burrows, including the California ground squirrel. It often prefers areas with moderate disturbance and/or berms or drainage features. Reasons for burrowing owl population decline include habitat destruction, insecticide poisoning, rodenticide (particularly squirrel eradication), and shooting.

The project area contains potentially suitable habitat for burrowing owl, such as flat, open, valley floor plains occupied by non-native grasslands, fallow fields, and agricultural lands. Details of the methodologies for the focused surveys are discussed in Appendix D, Burrowing Owl Focused Surveys. Details for these focused surveys for burrowing owl may not match exactly with the project area as the boundaries of the various studies have evolved over time. The 2012 studies for burrowing owl encompassed the 3,300 acres of the project area.

Burrowing owl was identified within the southern portion of the WLCSP project site during focused surveys conducted in 2013, and may continue to range through the general area. Focused surveys for burrowing owl conducted in June–July 2012 did not locate any owls (MBA 2012b). During focused surveys conducted by MBA in 2005 (covering approximately 1,778 acres of the project area), a single breeding pair of burrowing owls was observed within an ephemeral drainage feature (Drainage 4) that longitudinally traverses the western portion of the survey area. The owls were observed perching and in flight along the western bank of the drainage feature, immediately south of its intersection with Dracaea Avenue. Conditions in this area have changed over the 6-year period and this was no longer habitat due to changes in land use.

In addition, focused burrow and burrowing owl surveys conducted by MBA in 2006 (750 acres), 2007 (2,904 acres), 2010 (3,714 acres), and 2012 (3,300 acres) did not determine the presence of any burrowing owls. (Appendix D, Burrowing Owl Focused Surveys). Burrowing owls were recorded in 2008 (246 acres) just south of the Skecher's Logistic Center (Fierro, personal communication). A single burrowing owl was observed within the temporary detention basin located south of the Skecher's building during the March 2012 site visit.

The disked and fallow fields within the project area continue to provide suitable foraging habitat for burrowing owl. The area contains numerous California ground squirrel and desert cottontail burrows, which are potentially suitable for burrowing and nesting by the owls. Therefore, this species appears to be present within portions of the project area and the CDFW Conservation Buffer Area, although it may not be a permanent resident.

b. Los Angeles Pocket Mouse

Los Angeles pocket mouse (LAPM) is a California species of special concern that inhabits lower elevation grasslands and scrub communities within Los Angeles, San Bernardino, and Riverside Counties. Los Angeles pocket mouse is the smallest of the pocket mice subspecies and is adapted for arid or semi-arid environments and nocturnal activity. The primary habitat requirement for the subspecies is a suitable burrowing substrate of fine sandy soils. LAPM is commonly found in low elevation open grasslands, coastal sage scrub, and alluvial fan sage scrub. The subspecies is recorded to have been observed approximately 2 miles southeast of the study area (CDFW 2012).

The majority of the project area does not contain suitable habitat for LAPM due to regular disturbance associated with agriculture, and the absence of fine sand soils. Drainage Feature 9, however, is not subject to regular agricultural disturbance and contains Riversidean sage scrub appropriate soils; therefore, this drainage feature contains marginally suitable habitat for LAPM.

MBA conducted surveys for LAPM in 2005, 2010, 2012, and 2013. In 2005, MBA conducted focused trapping surveys for LAPM in the south-central and southeastern portions of the project area. A total of 121 traps were set throughout the drainage features. In 2010, MBA conducted focused trapping surveys in the same location as in 2005 and in two additional drainage features. A total of 122 traps were set among the three drainage features. Only Drainage Feature 9 has suitable RSS and soils, and the other two drainage features only contained suitable soils. The 2012 trapping effort was conducted in the same area as in 2010. No LAPM were trapped. No LAPM were trapped during the focused surveys in any of the three trapping sessions (2005, 2010, 2012, and 2013); therefore, MBA has determined that this species is absent from the project area and no additional trapping is required.

c. Criteria Area Species

The following ten Criteria Area Species were assessed for their potential to occur in the project area:

- Mud nama (*Nama stenocarpum*);
- Little mousetail (*Myosurus minimus apus*);
- Coulter's goldfields (*Lasthenia glabrata* sub. *coulteri*);
- Thread-leafed brodiaea (*Brodiaea filifolia*);
- Davidson's saltscale (*Atriplex serenana davidsonii*);
- Parish's brittlescale (*Atriplex parishii*);
- San Jacinto valley crownscale (*Atriplex coronata notatior*);
- Round-leafed filaree (*Erodium macrophyllum*);
- Smooth tarplant (*Hemizonia pungens laevis*) and
- Nevin's Barberry (*Mahonia nevinii*).

The thread-leafed brodiaea typically occurs on gentle hillsides, valleys, and floodplains in semi-alkaline mudflats; therefore, it is not likely to occur within the WLC planning area.

Most of these species are associated with in highly alkaline, silty-clay soils in association with the Traver-Domino-Willows soil association. In Riverside County, vernal pool plant species are most closely associated with the Willows soil series.

According to the biological assessment, San Jacinto valley crownscale, Parish's brittlescale, Davidson's saltscale, smooth tarplant, Coulter's goldfields, and little mousetail are not likely to occur on the project site due to the absence of vernal pools or vernal pool-like conditions, or alkaline conditions (e.g., alkali annual grassland components of alkali vernal plains or areas that have semi-regular inundation).

The project site does not contain friable clay soils, so round-leafed filaree is not expected to occur. Although small areas of the site contain sage scrub and chaparral vegetation, no alluvial scrub or rocky chaparral slopes occur; therefore, Nevin's barberry is not likely to occur on the project site.

Mud nama is associated with ponds, lakes, or regularly muddy embankments. Since these conditions are not present, it is unlikely this species occurs on the project site.

d. Narrow Endemic Plant Species

The following six Narrow Endemic Plant Species were assessed for their potential to occur on the project area:

- San Diego ambrosia (*Ambrosia pumila*);
- Wright's trichocoronis (*Trichocoronis wrightii wrightii*);
- California Orcutt grass (*Orcuttia californica*);
- spreading navarretia (*Navarretia fossalis*);
- many-stemmed dudleya (*Dudleya multicaulis*); and
- Munz's onion (*Allium munzii*).

As with the Criteria Area species, San Diego ambrosia, Wright's trichocoronis, California Orcutt grass, and spreading navarretia are not likely to occur on the site due to the absence of vernal pools, vernal pool-like conditions, or alkaline conditions (e.g., alkali annual grassland components of alkali vernal plains or areas that have semi-regular inundation). In addition, no clay soils occur within the project area; therefore, many-stemmed dudleya and Munz's onion are not likely to occur.

e. Riparian/Riverine Habitat and Vernal Pools

The project area contains two types of riparian vegetation: mule fat scrub and southern willow scrub. Both plant communities are isolated, disturbed, low in vegetative cover, and generally of poor habitat quality. Three drainage features and one catch basin contain riparian/riverine areas (see previously referenced Figure 4.4.2). One of these drainage features is outside of the project area on the east side of Gilman Springs Road, within one of the proposed debris basins.

The mule fat scrub community on site occurs intermittently within Drainage Feature 9; a small patch within Drainage Feature 7; and within the debris basin associated with Drainage Feature 8. Drainage Feature 9 and the catch basin are both narrow and bordered on each side by disked agricultural fields. Drainage Feature 9 also contains a narrow band of mule fat scrub, but is bordered by relatively undisturbed Riversidean sage scrub. Over time, the drainage feature has fragmented and currently contains isolated patches of riparian vegetation. Within the mule fat scrub community, tree tobacco and other non-native plant species, have established in approximately equal quantity as mule fat.

Drainage Feature 8 has a proposed debris basin across Gilman Springs Road. This small drainage has an area of mule fat scrub that is probably surviving based on the blockage of the drainage at the road. The mule fat scrub portions of the project area are poor in habitat quality due to the small size of the stands, the sparse vegetative cover within the communities, the isolation of the individual stands, and the disturbance from the adjacent agricultural uses. Given the above characteristics, riparian wildlife species have a low potential to occur. Despite the absence of suitable habitat for federally and State listed threatened or endangered species such as least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo that commonly occur in riparian habitat, this drainage feature is considered riparian/riverine areas under the MSHCP because of the presence of mule fat and the subsurface connectivity to off-site riparian areas downstream.

Southern willow scrub occurs in a single isolated catch basin in the project area (Figure 4.4.2, Drainage Feature 14). The catch basin contains marginal vegetative characteristics and no hydrological characteristics that fit the MSHCP description for riverine/riparian areas. It exists as

isolated, human-made, catch basin that receives nuisance flows and agricultural runoff from concrete cattle containment areas adjacent to the basin, which have subsequently been removed. It is located south of Alessandro Road and does not contain any upstream or downstream connection to any other drainage features. There is no evidence of prolonged ponding within this basin. Due to the high percolation rate, this area does not hold water long enough to provide the necessary hydrology associated with the creation and maintenance of a vernal pool. There are no drainage features that convey natural flows into these basins. Therefore, the basins only source of hydrology is from natural rainfall within the limits of the basin. Vegetation in the catch basin consists of southern willow scrub and includes plant species such as Freemont's cottonwood, black willow, sandbar willow, and mule fat. The plant community primarily consists of a moderate density of trees with a few understory plants.

Southern willow scrub is typically considered suitable habitat for a number of wildlife species that commonly occur in riverine/riparian habitats throughout southern California. These wildlife species include sensitive avian species such as least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo. The southern willow scrub associated with Drainage 14 does not contain hydric soils or wetland hydrology indicators. This basin is considered low in habitat quality because it is isolated, small in size, and lacks significant vegetation density. The vegetation within the basin is sparse, with a 30- to 40- percent canopy cover of native willows. The small patch of riparian habitat also contains about 50 percent native willows and 50 percent non-native ornamental trees such as Peruvian pepper tree (*Schinus molle*). The southern willow scrub habitat is 0.86 acre in size (rounded up to 1 acre in the document). There is no suitable habitat for any riparian/riverine avian species, such as least Bell's vireo (*Vireo bellii pusillus),* southwestern willow flycatcher (*Empidonax traillii extimus*), and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), due to the limited size of the basin. There is also no suitable habitat within the immediate vicinity (approximately 2 miles) and there is no direct habitat connection to any suitable offsite habitat. Based on these factors, there is no suitable nesting habitat and limited resting habitat for the listed riparian species covered under the MSHCP. Given these characteristics, riparian wildlife species have a low potential to occur.

The term "functioning riparian habitat" describes a patch or area of riparian habitat that functions as a riparian habitat. It provides suitable habitat for plant and wildlife species that are commonly found in riparian habitats. Even low-quality riparian habitat may provide functional riparian habitat if it supports a population of riparian species. The riparian habitat onsite is extremely small and completely isolated from riparian habitat in the eastern portion of the City of Moreno Valley.

The riparian vegetation onsite does not support wildlife species commonly found within riparian habitat such as common yellow-throat (*Geothlypis trichas sinuosa*), yellow warbler (*Dendroica petechia brewsteri*), yellow-breasted chat (*Icteria virens*), and summer tanager (*Piranga rubra*), as described in the Birds as Indicators of Riparian Vegetation (no date) condition in the western U.S. Bureau of Land Management, Partners in Flight, Boise, Idaho. Therefore, even though the WLCSP contains small patches of riparian vegetation, it does not function as a riparian habitat. A few plants in an isolated area do not create a functional habitat.

MBA also conducted a vernal pool habitat assessment within the WLCSP and off-site facilities. As defined by the MSHCP, vernal pools are "seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation, and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season." No vernal pools or ephemeral ponds were observed in the WLCSP or any of the off-site areas during the habitat assessment survey. In addition, no suitable habitat for any fairy shrimp species was identified within any of the project area.

f. Urban/Wildlands Interface Analysis

This section addresses the indirect effects associated with locating development in proximity to MSHCP Conservation Areas. The project area is bordered to the east by Proposed Core 3 (MSHCP Section 6.1.1) and to the south by the SJWA and Existing Core H. Moreover, portions of the project area fall within the boundaries of these Conservation Areas.

The portion of the project area within the SJWA (i.e., Conservation Area) is currently used for agricultural land, but is owned by the CDFW and operated as conservation land as part of the SJWA. No development will occur in this area. The remaining portions of the project area that are on or adjacent to conservation areas will incorporate the design features and measures related to drainage features, toxics, lighting, noise, invasive plants, barriers, and grading/land development discussed below. These measures will make the proposed project consistent with the MSHCP, Section 6.1.4, Guidelines Pertaining to the Urban/Wildlands Interface. A detailed description of recommendations pertaining to an urban/wildlands interface is provided below for adjacency issues identified in the MSHCP. Additional discussion of indirect impacts of the project on the SJWA and Conservation Areas is included in Section 4.4.1.12, *Other Issues*, later in this section. This information is from Section 6.1.4 of the MSHCP, *Guidelines Pertaining to the Urban/Wildland Interface.*

Drainage Features. Development of the project area will include a comprehensive system of storm drains to handle runoff from the proposed project. The project drainage plan shows that drainage from the project area will be directed to the regional storm drain system and away from the adjacent open space, or treated by water quality and retention basins to maintain historical runoff rates and patterns onto downstream land, such as the Mystic Lake area.

The conceptual drainage plan for the WLCSP development consists of a series of collection basins throughout the development that will treat the first flush storm events and convey storm flows to a series of detention basins along the southern boundary of the WLCSP. The basins will be designed to provide a water quality treatment as well as provide an area for creation of riparian habitat. Based on the size of the proposed detention basins, only the inlet and outlet structures will require routine maintenance. This allows the majority of the detention basins to remain undisturbed, which allows for long-term conservation of the riparian habitat. The design, operation, and maintenance of the drainage system for the proposed project will be designed to regulate the discharge of water into any MSHCP Conservation Area under either of these design scenarios.

All development within the project area will be required to obtain a statewide general National Pollutant Discharge Elimination System (NPDES) construction permit for all construction activities associated with the proposed project and will be subject to the County of Riverside's regulations to implement the NPDES program. The NPDES requirements are discussed in greater detail in Section 4.9, *Hydrology and Water Quality*.

Barriers. The WLCSP project will incorporate special edge treatments designed to separate development areas from MSHCP open space areas both to the south and across Gilman Springs Road (i.e., fencing). The Specific Plan indicates that native landscaping and fencing will be installed to minimize unauthorized public access to the south and across Gilman Springs Road, which will also help minimize impacts related to domestic animal predation and illegal trespass and dumping. Impacts to adjacent native areas across Gilman Springs Road will therefore be minimized. In addition, the landscaping palette for the Specific Plan uses native species and precludes invasive plants as shown in the MSHCP invasive species list (MSHCP Table 6-2). The Specific Plan shows a 250-foot setback along the SJWA boundary to the south, as well as walls/fencing and controls on lighting that will comply with the City's new Municipal Code section 9.08.100 to preclude light spillage off site greater than 0.25 foot-candles per square meter. Warehousing will have a minimum 11-foot solid wall along the SJWA boundary with landscaping to soften the appearance and which may eventually provide roosting or nesting opportunities for native birds. There will be no public pedestrian or

vehicular access from the development onto the SJWA land to the south, and private access to MSHCP areas to the east across Gilman Springs Road will be limited by fencing along private property lines within the project site.

Access. The project will prohibit public access into all MSHCP conservation areas including those contained within SJWA and Existing Core H to the south of the project area. Private access to Proposed Core 3 (Section 6.1.1, Proposed Core 3) to the east of the WLC project area will be limited by fencing of private property limits, but the public may still be able to access these areas from public roads, including Gilman Springs Road.

Grading/Land Development. Project grading will not encroach into conservation land that will be designated as open space located within Existing Core H to the south or Proposed Core 3 (Section 6.1.1, *Proposed Core 3*) to the east of the WLC project area.

Fuels Management. Fuels management focuses on hazard reduction for humans and their property (MSHCP, p. 6-72). According to the Fuels Management Guidelines, for new development planned adjacent to all MSHCP conservation areas or other undeveloped areas, brush management shall be incorporated in the development boundaries and shall not encroach into the MSHCP conservation areas (MSHCP, p. 6-72). Any areas planted with fire-resistant, non-invasive plants must not encroach into the MSHCP conservation area. Accordingly, with implementation of these measures, the WLCSP project will be consistent with the MSHCP Fuels Management Guidelines.

g. Migratory Corridors/Linkages

The project area is adjacent to an existing migratory corridor across Gilman Springs Road (i.e., Criteria Cells 1290, 1389, and 1390) as designated by the MSHCP. While the open agricultural fields that presently occupy much of the project area are not designated as corridors or linkages in the MSHCP, the project site, including the CDFW property, supports extensive agricultural fields, which do not constitute native vegetation, but do provide some foraging value and may allow for migration or movement of wildlife through the general area even considering the level of repeated disturbance by agricultural activities. Wildlife movement through this area is generally planned to take place across the Mystic Lake property to the south. The northern (upland) portion of the SJWA (i.e., the CDFW Conservation Buffer Area) and the southern portion of the Specific Plan area do not provide suitable habitat or resources to support wildlife migration or regular wildlife movement.

4.4.1.15 MSHCP Conservation Criteria Areas

Figure 4.4.4 shows the location and relationship of the MSHCP conservation areas described in this section, as well as their relationship to the project area.

a. Core 3

NOTE: The following changes have been made due to revision to the Specific Plan project size.

The MSHCP establishes a number of “core” areas that contain or support important biological habitat or species. Some of the core areas are existing reserves, while others are proposed for preservation. This section analyzes the proposed project in relation to the nearby MSHCP core areas. The project area is located within the Reche Canyon/Badlands Area Plan and falls within both the Badlands North Area Plan Subunit and the SJWA/Mystic Lake Area Plan Subunit. No existing or proposed linkage, or constrained linkage areas are in the vicinity of the project. Proposed Core 3 (MSHCP Section 6.1.1) is located to the north and east of the project area and Existing Core H is located to the south (see previously referenced Figure 4.4.3). As shown in Table 4.4.D, portions of the project area fall within 12 Criteria Cells that are all associated with existing or proposed core areas. However, the following

analysis will show that almost all criteria cells are within the CDFW-owned Conservation Buffer Area and thus will not be directly affected by the development within the Specific Plan. The project also proposes no development within the 74.3-acre Open Space area in the southwestern corner of the Specific Plan.

Table 4.4.D: MSHCP Criteria Cells within the Project Area

Area Plan Subunit within MSHCP	Cell Group	Criteria Cells
Badlands North Area Plan Subunit 3	Cell Group E	1390
	Cell Group X	1297
		1204
San Jacinto Wildlife Area/Mystic Lake Area Plan Subunit 4	Cell Group D	1364
		1370
		1377
		1386
		1389
		1482
		1483
		1477
		1577

The portions of the project area within Cell Group D are within the SJWA/Mystic Lake Area Plan Subunit 4. This Cell Group supports Existing Core H. Approximately 929 acres of the project area are within Cell Group D. This portion within Cell Group D is located within the SJWA. This area is currently owned by the State of California through a purchase in 2001 and is now designated as Public/Quasi-Public Conserved Land under the MSHCP (see Figure 4.4.3). Although this land is not considered to be mitigation for the proposed development, it does provide more than 900 acres of buffer between the project and the high quality habitat areas of the SJWA.

As shown in Figure 4.4.4, the CDFW-owned portion of the project area overlaps Cell Groups E and X, which are within the Badlands North Area Plan Subunit 3. These Cell Groups support Proposed Core 3. Approximately 52 acres of the CDFW area overlap Cell Group E, and approximately 114 acres of the CDFW Area occurs within Cell Group X. The project will not conflict with MSHCP Conservation Criteria because no development is planned within the CDFW area of the project (which is part of the SJWA). However, any development adjacent to the SJWA will need to address edge effects.

Minimizing edge effects is considered a significant goal of Proposed Core 3. Approximately 56 acres of the project area occur within the western extent of Proposed Core 3. The portions of the Core along Gilman Springs Road are currently subject to edge effects associated with existing traffic, and the development of the project may incrementally increase these edge effects. All development in the southern portion of the project will need to implement measures that minimize edge effects associated with urban development in wildlands. The minimization efforts are addressed in Section 4.4.1.8g, *Urban/Wildlands Interface Analysis*, of this report.

The CDFW-owned land within the project area is located adjacent to the junction of Proposed Core 3 and Existing Core H. Development of the project will not impede the movement of wildlife or reduce the continuous area of the two cores, which are both goals of Proposed Core 3. Additionally, the portion of the project area located adjacent to the Core 3/Core H junction will remain undeveloped, facilitating connectivity between the two Cores.

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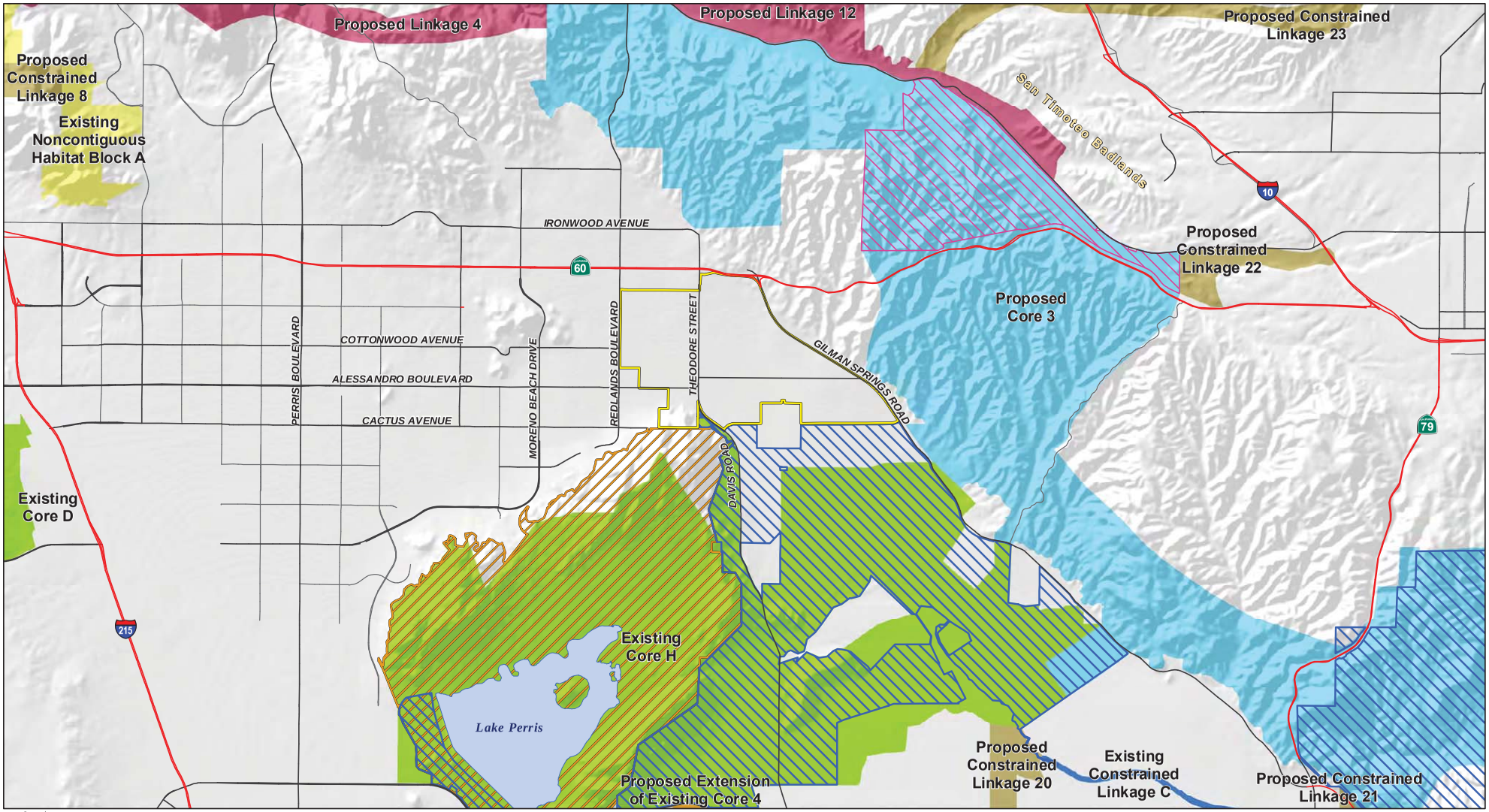

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Project Boundary
San Jacinto Wildlife Area (CDFW)
Lake Perris State Recreation Area
Norton Younglove Reserve
Existing Constrained Linkage
Existing Core
Existing Noncontiguous Habitat Block
Proposed Core
Proposed Noncontiguous Habitat Block
Proposed Extension of Existing Core
Proposed Constrained Linkage
Proposed Linkage

SOURCE: County of Riverside, 2003 & 2011; California Dept. of Fish and Game, 2011.

I:\HFV1201\Reports\EIR\fig4-4-4_Linkages.mxd (12/18/2013)

FIGURE 4.4.4

World Logistics Center Specific Plan Project
Environmental Impact Report

MSHCP Conservation Areas

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The project area occupies less than 0.1 percent of Proposed Core 3 and the goals of the Proposed Core 3 will be maintained.

b. Existing Core H

Existing Core H consists of the Lake Perris State Recreation Area (LPSRA), SJWA, private lands, and lands with pre-existing conservation agreements (see Figure 4.4.4). It provides resident habitat for several species, contains soils suitable for some Narrow Endemic plant species, supports vernal pool complexes and may provide a connection to Core Areas in the Badlands and the middle reach of the San Jacinto River. Maintenance of habitat quality, floodplain processes along the San Jacinto River, and conservation of vernal pool complexes are important for species covered by the MSHCP. The Core Area provides potentially suitable live-in habitat for small rodents and common mammals.

Approximately 113.1 acres of the project area are located within the northern extent of Existing Core H. The CDFW-owned Area in Existing Core H contains potentially suitable habitat for small rodents, common mammals, and burrowing owl. No vernal pool complexes or floodplain conditions occur on the project site and there is no suitable habitat for any narrow endemic plant species. The portion of the project area within Existing Core H will not be developed (i.e., the Conservation Buffer Area) because it is part of the SJWA. The WLC planning area occupies less than 0.2 percent of Existing Core H and the goals of this core area will be maintained.

c. Reche Canyon/Badlands Area Plan

The Reche Canyon/Badlands Area Plan of the MSHCP is in the northern portion of western Riverside County, south of the City of San Bernardino, west of The Pass Area Plan and the San Jacinto Valley Area Plan, north of the Mead Valley Area Plan and the Lakeview/Nuevo Area Plan, and east of the Highgrove Area Plan, the Cities of Norco and Riverside Area Plan, and the March Area Plan. The City of Moreno Valley sits entirely within the Reche Canyon/Badlands Area Plan. The Area Plan incorporates lands within the LPSRA and SJWA, and is separated into 4 Area Plan Subunits. The project area is located within portions of Area Plan Subunit 3: Badlands North and Area Plan Subunit 4: San Jacinto Wildlife Area/Mystic Lake (see Figure 4.4.4).

The target conservation acreage range for the Reche Canyon/Badlands Area Plan is 30,815 to 35,905 acres; it is composed of approximately 20,295 acres of existing Public/Quasi-Public Lands and 10,520 to 15,610 acres of Additional Reserve Lands. The target acreage range within the City of Moreno Valley is 80 to 130 acres. The City of Moreno Valley target acreage is included within the 10,520 to 15,610 acre target conservation range on Additional Reserve Lands for the entire Area Plan.

The Conservation Buffer Area portion of the WLC planning area includes approximately 910 acres of the SJWA, which is designated as Additional Reserve Land. All of this area is within the City of Moreno Valley, and preservation of the Conservation Area of the project will fulfill the MSHCP's target acreage range for the City.

d. Area Plan Subunit 3: Badlands, North

Area Plan Subunit 3 of the Reche Canyon/Badlands Area Plan includes lands within the northeastern and eastern portions of the Area Plan within the Badlands (see Figure 4.4.4). Area Plan Subunit 3 contains a total of 88 Criteria Cells organized into 16 Cell Groups and 4 independent cells. The MSHCP conservation objectives for Area Plan Subunit 3 include conserving land within the Badlands area, north to the vicinity of SR-60, south to southeastern extent of the SJWA, west to the eastern boundary of the SJWA, and east to the Laborde Canyon vicinity. Target acreage range required for

Additional Reserve Lands within Area Plan Subunit 3 is 8,270 to 10,895 acres. Plant and Wildlife Planning Species within Area Plan Subunit 3 include:

- Nevin's barberry;
- Bell's sage sparrow;
- Cactus wren;
- Loggerhead shrike;
- Southern California rufous-crowned sparrow;
- Los Angeles pocket mouse;
- San Bernardino kangaroo rat;
- Stephens' kangaroo rat;
- Bobcat; and
- Mountain lion.

Under the MSHCP, additional biological issues and considerations are proposed for conservation for each Area Plan Subunit. The biological issues and considerations emphasized in Area Plan Subunit 3 include:

- Conserving large habitat blocks in the Badlands.
- Maintain Core Area for bobcat.
- Maintaining Core and Linkage Areas for mountain lion.
- Determining potential for populations of San Bernardino kangaroo rat along San Timoteo Creek.
- Maintain Linkage Area to SJWA for Stephens' kangaroo rat.
- Determine presence of potential Core Area for Los Angeles pocket mouse in San Timoteo Creek and tributaries to the Badlands.
- Maintain Core Area for Nevin's barberry.

The eastern boundary of the project area (i.e., Gilman Springs Road) is within Area Plan Subunit 3, the main focus of which is protection of bobcat and mountain lion habitat. The portions of the project area within Area Plan Subunit 3 are along the southwestern edge of the Subunit and collectively comprise approximately one percent of the target acreage range proposed for conservation. Since the project area encroaches on a limited portion of the boundary of the Area Plan Subunit, and since these portions of the project area are already subject to existing edge effects, impacts from development under the WLCSP does not conflict with the long-term conservation goals for bobcat or mountain lion habitat. It should be noted that the project site is across a major roadway (Gilman Springs Road) from the Badlands and the sensitive habitat contained in this Area Plan Subunit.

e. Cell Group E and Criteria Cell 1390

Conservation within Cell Group E will contribute to assembly of Proposed Core 3 and will focus on chaparral, coastal sage scrub, grassland, and Riversidean alluvial fan sage scrub habitat. Areas conserved within this Cell Group will be connected to habitat proposed for conservation in Cell Group X to the north, habitat proposed for conservation in Cell Group C also to the north, and to habitat proposed for conservation in Cell Group F to the south. Conservation within Cell Group E will range from 45 percent to 55 percent of the Cell Group focusing in the western portion (see Figure 4.4.4).

Within the westernmost portion of Cell Group E, and specifically within Criteria Cell 1390, the project area encroaches on 51.9 acres. This portion of the project area is already in public ownership, is within the northeastern portion of the SJWA which is Public/Quasi-Public Conserved Land and is

designated to be conserved by the CDFW. The project proposes no development on this land, so it would be consistent with the MSHCP (see Figure 4.4.3). It should be noted that this area is already part of the SJWA and is not proposed for any development under the proposed project.

f. Cell Group X: Criteria Cells 1204 and 1297

Conservation within Cell Group X will contribute to assembly of Proposed Core 3 and will focus on chaparral, coastal sage scrub, and grassland habitat. Areas conserved within Cell Group X will be connected to habitat proposed for conservation in Cell Groups C to the east, V to the northeast, and to chaparral and grassland habitat proposed for conservation in Cell Group E to the south. Conservation within Cell Group X will range from 65 percent to 75 percent of the Cell Group focusing in the northeastern portion of the Cell Group (see Figure 4.4.4).

Within the southwestern portion of Cell Group X, and specifically within Criteria Cells 1204 and 1297, the project area encroaches on 114.2 acres. Under the MSHCP, conservation for Cell Group X is proposed for the northeastern portions of the Cell Group. The project area is not within the targeted conservation areas and, therefore, will not adversely affect the County's ability to achieve the goals of the MSHCP (see Figure 4.4.4).

g. Area Plan Subunit 4: San Jacinto Wildlife Area/Mystic Lake

Area Plan Subunit 4 of the Reche Canyon/Badlands Area Plan includes lands within the southeastern portions of the Area Plan within the SJWA. Area Plan Subunit 4 contains 26 Criteria Cells organized into 3 Cell Groups and 12 independent cells. The MSHCP conservation objectives for Area Plan Subunit 4 include conserving land within the SJWA and Mystic Lake (see Figure 4.4.4). The target acreage range required for Additional Reserve Lands within Area Plan Subunit 4 is 860 to 1,750 acres.

Plant and Wildlife Planning Species within Area Plan Subunit 4 include:

- California Orcutt grass
- Los Angeles pocket mouse
- Smooth tarplant (*Hemizonia pungens*)
- Thread-leaved brodiaea
- Wright's trichocoronis
- Stephens' kangaroo rat
- Loggerhead shrike
- Northern harrier (*Circus cyaneus*)
- Peregrine falcon (*Falco peregrinus*)
- Tricolored blackbird (*Agelaius tricolor*)
- White-tailed kite (*Elanus leucurus*)
- Black-crowned night heron (*Nycticorax nycticorax*)
- California horned-lark (*Eremophila alpestris actia*)
- Coulter's goldfields
- San Jacinto Valley crownscale
- Spreading navarretia
- Vernal barley (*Hordeum intercedens*)
- American bittern (*Botaurus lentiginosus*)
- Burrowing owl
- Bobcat
- Mountain plover (*Charadrius montanus*)
- Osprey (*Pandion haliaetus*)
- Prairie falcon (*Falco mexicanus*)
- White-faced ibis (*Plegadis chihi*)
- Davidson's saltscale (*Atriplex serenana var. davidsonii*)
- Double-crested cormorant (*Phalacrocorax auritus*)

The biological issues and considerations emphasized in Area Plan Subunit 4 include:

- Conservation of alkali playa and other habitat to augment existing conservation in the SJWA and Mystic Lake.

- Conservation of existing vernal pool complexes associated with the San Jacinto River floodplain in the SJWA and Mystic Lake area. Conservation should focus on vernal pool surface area and supporting watersheds.
- Provide for a connection of intact habitat between the SJWA and the adjacent Badlands to the north.
- Conservation of Willow-Domino-Travers soils supporting sensitive plants such as San Jacinto Valley crownscale, Davidson saltscale, Coulter's goldfields, spreading navarretia, vernal barley and Wright's trichocoronis.
- Provide for and maintain a continuous linkage along the San Jacinto River from the southern to the southeastern boundary of the Reche Canyon/Badlands Area Plan.
- Maintain Linkage Area for bobcat.
- Maintain a Linkage Area for Stephens' kangaroo rat to SJWA.
- Determine the potential presence of potential Core Area for Los Angeles pocket mouse in connection between the Badlands and the SJWA.

The southern portion of the project area (i.e., the CDFW-owned Conservation Buffer Area) includes grasslands and agricultural lands that will be conserved as part of the northern portion of the SJWA. The project area is not within or along the San Jacinto River floodplain, and does not contain any alkali playa habitat or vernal pool complexes under the definition provided by the MSHCP.

There is no Willow-Domino-Travers soil within the project area; therefore, San Jacinto Valley crownscale, Davidson saltscale, Coulter's goldfields, spreading navarretia, vernal barley and/or Wright's trichocoronis are not likely to occur in the project area.

The project area is located immediately north of the Stephens' kangaroo rat preserve within the SJWA. The CDFW-owned portion of the project area adjacent to the SJWA is subject to regular disking and other disturbances associated with agricultural uses. The regular disturbances have resulted in an absence of suitable habitat for Stephens' kangaroo rat within the project area. The presence of a habitat linkage for this species within the project area is unlikely and population fragmentation is not anticipated.

Small portions of the project area contain suitable habitat for Los Angeles pocket mouse and burrowing owl; however, MBA's focused surveys concluded that the project area does not support the Los Angeles pocket mouse. The population of burrowing owl on site fluctuates from year to year, but they have been observed on site in the past and this EIR concludes this species may be present, especially in areas with suitable habitat or where agricultural fields become fallow for extended periods of time.

h. Cell Group D: Criteria Cells 1364, 1370, 1377, 1386, 1389, 1477, 1482, 1483, and 1577

Conservation within Cell Group D will contribute to assembly of areas proposed for conservation for Existing Core H (see Figures 4.4.4 and 4.4.3). Conservation within Cell Group D will focus on agricultural land. Conservation within this Cell Group will be approximately five percent of Cell Group D focused on the southern and western portion of the Cell Group. This cell group is already part of the SJWA and is being maintained as agricultural land by the CDFW (i.e., it constitutes the CDFW-owned Conservation Buffer Area).

Within Cell Group E, and specifically within Criteria Cells 1364, 1370, 1377, 1386, 1389, 1477, 1482, 1483, and 1577, the project area encroaches on 928.5 acres. Under the MSHCP, conservation for Cell Group D is proposed for the southern and western portions of the Cell Group. The project area

includes approximately 60 percent of the northern portion of the Cell Group; therefore, future development of the project area is consistent with the conservation goals for this cell group. The majority of Cell Group D is within the northern extent of SJWA, a Public/Quasi-Public Conserved Land. This area is part of the SJWA and designated as conserved by the CDFW. It is designated as the Conservation Area and is not proposed for development under the project. Any development within land adjacent to Cell Group D (and the SJWA) must incorporate urban edge design features to minimize any potential impacts to the SJWA.

4.4.1.16 Federal Migratory Bird Act and California Department of Fish and Wildlife Protection

a. Nesting Birds

The extensive agriculture plant communities in the project area provide suitable nesting habitat for ground-nesting avian species such as western meadowlark (*Sturnella neglecta*) and burrowing owl. Suitable habitat for shrub and tree nesting species such as red-tailed hawk, black phoebe (*Sayornis nigricans*), and house finch occur along the edges of existing development surrounding the project area as well as isolated, remnant patches of vegetation in undisturbed portions of the project area. Therefore, portions of the project area provide suitable nesting habitat for migratory birds protected under the MBTA and California Fish and Game Code.

b. Stephens' Kangaroo Rat

The project area is located just north of the Core Reserve Area for the Stephen's Kangaroo Rat Habitat Conservation Plan (HCP), but is not located within a core area. However, the project area is located within the fee area of the HCP. The project would have to comply with the HCP's Implementing Agreement (IA) and pay the County's per-acre mitigation fee.

The CDFW-owned portion of the project area is located immediately north of Core Reserve Area for Stephens' kangaroo rat and is not proposed for development as it is owned by the State and is already part of the SJWA. Therefore, incorporating this area into the Core Reserve Area for Stephen's kangaroo rat will provide a setback from the areas proposed for development within the project.

c. USFWS Designated Critical Habitat

No USFWS designated Critical Habitat for any species is present within the project area.

d. Other Special Status Species

Based on the CDFW and CNPS database searches mentioned above, 26 special status species that are not listed as Threatened or Endangered have the potential to occur in the project vicinity (previously referenced Tables 4.4.B and 4.4.C). Species that are not covered under the MSHCP or are not adequately conserved by the MSHCP at this time are also included in those tables.

4.4.1.17 Special-Status Species Not Covered by the MSHCP

The vast majority of special-status species considered in this analysis are "covered" species under the MSHCP. However, 18 special-status species have the potential to occur in the general project vicinity and are not covered under the MSHCP or are not adequately conserved by the MSHCP at this time. Details regarding the potential occurrence of these non-covered species are included in the

General Biological Resources and MSHCP Compliance Report prepared by MBA and included as Appendix E-1. Due to unsuitable habitat and conditions within the project limits, none of these 18 non-covered species is expected to occur in the project area (see previously referenced Tables 4.4.B and 4.4.C). Neither additional surveys nor additional conservation measures will be required for the project to address these species.

Note: Table 4.4.D has been deleted in its entirety. Please refer to Volume IV of the Final EIR to see original Table 4.4.D in section 4.4.1.17.

a. Special-Status Wildlife

Note: The following changes have been made in response to the revised Habitat Assessment MSHCP Consistency Analysis and in response to Comment F-7A-34 in Letter F-7A from Lozeau Drury LLP.

The revised MBA report (2013) states that no special-status wildlife species were observed during field surveys. However, raptors are numerous in the agricultural fields on the project site and off site in the SJWA. None of the other special-status wildlife species was determined to be present within the WLC planning area because their habitat requirements are not present on the site; therefore, no further survey or study is required to determine likely presence, absence, or to assess project-related effects to these species.

While none of the bat species identified in the MSHCP Compliance Report (Appendix E-1) is expected to roost in the project area, the site does contain suitable foraging habitat for bat species that may roost in the surrounding region. The incremental loss of bat foraging habitat on the site would be compensated by participation in the MSHCP because the MSHCP mitigation fees are meant to purchase conservation lands to support species throughout western Riverside County.

b. Raptors and Other Avian Species

California Fish and Game Code, Sections 3503, 3503.5, 3505, and 3513, and the California Code of Regulations (Title 14, Sections 251.1, 652 and 783-786.6) have specific provisions for the protection of raptors (birds of prey). Furthermore, the MBTA protects the nests of migratory birds and raptors. There are a limited number of tall trees within the project site that would provide roosting or nesting habitat for raptors, such as hawks and owls, among other resident and migratory bird species. Two raptor species, red-shouldered hawk and American kestrel, have been observed in the area on a regular basis, suggesting at least these raptors may be roosting on site or nearby. The extensive open land within the project area provides foraging habitat for raptors and other avian species.

NOTE: The following changes have been made in response to the revised Habitat Assessment MSHCP Consistency Analysis and in response to Comment F-7A-34 in Letter F-7A from Lozeau Drury LLP.

Thirteen species have a low-to-moderate potential to occur on the site based on existing habitat quality. Burrowing owl is assumed to be present on site, especially in areas of suitable habitat and in agricultural fields that are left fallow for extended periods of time.

As previously indicated, the project site is within the MSHCP burrowing owl survey area, and habitat assessments and focused surveys were conducted. During the focused survey in 2005, one location within the project site contained burrowing owl sign (i.e., whitewash and bone fragments) and a pair was observed in this same area. Field surveys also identified suitable burrows in the project area that

may provide habitat for the western burrowing owl. Therefore, the species is considered to be present due to the presence of suitable habitat on site.

To confirm presence or absence of the burrowing owl in specific development areas of the project area, an MSHCP 30-day pre-construction protocol survey for burrowing owl will need to be conducted prior to any ground-disturbing activities. Figure 4.4.5 shows the location of burrowing owl habitat on the project site.

Of the species with potential to occur on the site, none is listed as threatened or endangered under State or Federal law, all are relatively widespread, and the project area does not contain high quality habitat for any of these species.

4.4.1.18 Other Issues

a. Setbacks

The MSHCP's urban/wildlands interface analysis encourages buffers or setbacks between development and areas with sensitive biological resources. The SJWA is considered an important resource due to the large number and diversity of birds that utilize it. Available research and MSHCP guidelines recommend a setback or buffer between the north boundary of the SJWA and the south boundary of development within the proposed project. Existing scientific and academic literature can provide guidance on the appropriate width of such a buffer under these types of conditions. Typical setbacks to protect wildlife from human presence (though not warehousing) ranges from 50 to 500 feet, but 200–250 feet appears adequate for the most sensitive or valuable wetlands.[1] As an example, Placer County has setback guidelines in its General Plan of a setback range of 100–400 feet between field crops and natural areas, and a setback range of 50–200 feet between rangeland/pastures and natural areas[2]. In addition, the MSHCP and adopted guidelines of the USFWS and CDFW include a setback of 200 feet or more from nesting birds during construction activities. For example, typical burrowing owl mitigation says, "To adequately avoid active nests, no grading or heavy equipment activity shall take place within at least 250 feet of an active nest during the breeding season (February 1 through August 31) and 160 feet during the non-breeding season."

In evaluating the potential impacts of project development on the SJWA and Mystic Lake, it will be important to consider that the CDFW Conservation Buffer Area was originally purchased by the State to provide a buffer between SJWA/Mystic Lake and future development within the Moreno Highlands Specific Plan (now the proposed project area).

Note: The following information has been excerpted from the Jurisdictional Delineation Report prepared by MBA which was updated in 2014 to respond to comments from the resource agencies.

4.4.1.19 On-site Drainages

A formal jurisdictional delineation (JD) was conducted within the WLCSP and offsite facilities by MBA in September 2007 and again in March 2012. A total of 15 primary drainage features were identified during these combined surveys. A number of sub-drainages or tributaries were also identified. Jurisdiction for each drainage and/or sub-drainage or tributary was evaluated for jurisdiction under Section 404 and 401 of the CWA as administered by USACE and RWQCB, respectively; the Porter Cologne Act as administered by the RWQCB; and Section 1600 of the Fish and Game Code as administered by CDFW.

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1 *Setting Buffer Sizes for Wetlands.* J. McElfish 2008.
2 Placer County General Plan, Land Use Element, Table I-4, 1994.

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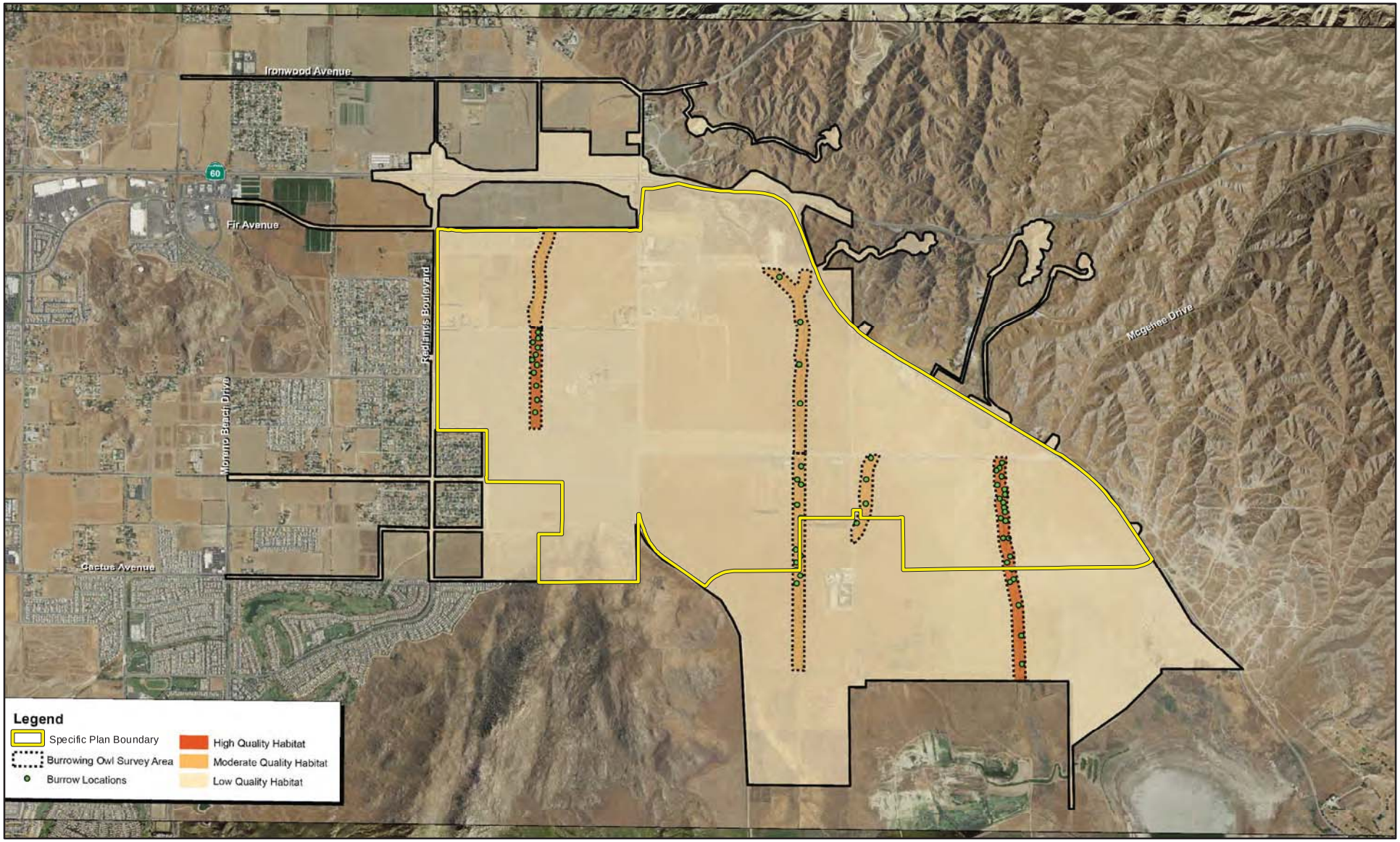

LSA

FIGURE 4.4.5

N

0 1,800 3,600

FEET

SOURCE: Michael Brandman Associates, 2010.

I:\HFV1201\Reports\EIR\fig4-4-5_BuowHabitat.mxd (2/7/2014)

World Logistics Center Specific Plan Project
Environmental Impact Report

Burrowing Owl Habitat Suitability

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Based on comments received from the resource agencies, the 2013 JD report concludes that two drainage features (Drainage 12 and 15) have been determined to be jurisdictional waters of the U.S. under Section 404 and 401 of the CWA. Drainage 15 is included in this discussion because it may occur within two offsite utility improvements. Approximately 500 linear feet of the drainage feature was included in the survey area. Approximately 5,430 linear feet of Drainage 12 is included in the survey area (0.5 acres). This includes approximately 1,300 linear feet within the WLCSP, and the remaining 4,130 linear feet will be part of the offsite improvements. The remaining 13 drainage features are considered isolated features with no direct connectivity to downstream traditional navigable waters or have no significant nexus. Drainage features 1, 5, and 6 are roadside ditches that are also isolated features. Drainage features 3, 4, 10, 11, and 13 are upland swales with evidence of periodic erosion but no evidence of annual flows and no clearly defined bed and bank feature. No jurisdictional wetlands were identified within the entire WLCSP. However, the regulatory agencies make all final jurisdictional determinations.

Drainage features 3, 4, 10, 11, and 13 do not have a clearly defined bed and bank feature and do not have any riparian habitat or evidence of flows. These features are better described as upland swales with occasional eroded areas. Under the Porter Cologne Act, the RWQCB takes jurisdiction of drainage features that would normally be under USACE jurisdiction, but are considered isolated. Drainages 7, 8, 9, 12, and 15 were determined to be waters of the state and subject to the jurisdiction of both the CDFW and RWQCB. The jurisdictional limits of waters of the state are not required to have downstream connectivity. There are approximately 3.0 acres of waters of the state, which includes areas with a clearly defined bed and bank feature within the WLCSP and offsite facilities. However, the CDFW makes all final Section 1600 jurisdictional determinations.

Drainage 1: This feature is a roadside ditch that conveys nuisance flows on the east side of Redlands Boulevard. Currently the ditch is contained within a concreted-lined swale and has intermittent areas with an earthen bed and bank. This ditch has no vegetation and leaves the site in an underground storm drain facility. This roadside ditch typically conveys flows during any storm event because most of the drainage is currently paved. This feature does not contribute to the function or value of any downstream drainage features and is not considered a riparian/riverine feature (see Photos 9 and 10).

Drainage 2: This feature is an upland swale that conveys nuisance flows within an actively disked agricultural field and only receives flows every 5 to 7 years. This swale contains periodic sign of erosion, but is mostly an unvegetated swale with minimal evidence of flows. This drainage begins to sheet flow just north of Bay Avenue and has no hydrologic connection to any downstream drainage feature. This feature does not contribute to the function or value of any downstream drainage and is not considered a riparian/riverine feature (see Photos 11 and 12).

Drainage 3: This feature is a temporary detention basin used to treat nuisance flow from the adjacent Skechers logistic facility. The flows within this feature are completely contained within the facility and there is no downstream connection to any other drainage features. This feature does not contribute to function or value to any downstream drainage features and is not considered a riparian/riverine feature (see Photo 13).

Drainage 4: The drainage feature previously originated from an underground storm drain beneath SR- 60. The previous flows from this feature have been redirected into the detention basin associated with Drainage 3. Drainage 4 currently conveys flows from local runoff within the WLCSP footprint and only receives flows every 5 to 7 years. This feature has evidence of a historic channel near the intersection of Dracaea Avenue and Sinclair Street. However, this feature sheet flows just south of Cottonwood Avenue and has no hydrologic connection to any downstream drainage features. This drainage does not contribute to the function or value of any downstream drainage features and is not considered a riparian/riverine feature (see Photos 14 and 15).

Drainage 5: This drainage is a roadside ditch located along the western side of Theodore Street. This drainage originates at the eastbound Theodore Street off-ramp from SR- 60. This feature conveys nuisance flows from Theodore Street and immediate vicinity during large storm events and may only receive flows every 5 to 7 years. This feature contains an intermittent bed and bank feature, but terminates just north of Alessandro Boulevard. This feature has no hydrologic connection to any downstream drainage. This feature does not contribute to function or value to any downstream drainage features and is not considered a riparian/riverine feature (see Photos 16 and 17).

Drainage 6: This feature is also a roadside ditch located along the eastern side of Theodore Street. This drainage originates from an underground storm drainage beneath SR- 60. It conveys nuisance flow from Theodore Street and immediate vicinity and may only receive flows every 5 to 7 years. This feature contains an intermittent bed and bank feature, but terminates southeast of Alessandro Boulevard within an active agricultural field. This feature has no hydrologic connection to any downstream drainage. This feature does not contribute to function or value to any downstream drainage features and is not considered a riparian/riverine feature (see Photos 18 and 19).

Drainage 10: This drainage is an isolated feature that contains some evidence of erosion and is caused by a change in slope within highly erosive soils. This feature terminates as the topography levels resulting in sheet flows. This feature contains a few scattered tree tobacco, but otherwise has no change in soils or vegetation. This feature has no hydrologic connection to any downstream drainage and may only receive flows every 5 to 7 years. This feature does not contribute to function or value to any downstream drainage features and is not considered a riparian/riverine feature (see Photo 20).

Drainage 11: This drainage is an isolated feature and similar to Drainage 10. This feature contains some evidence of erosion and is likely caused by runoff associated with Gilman Springs Road. This feature terminates as the topography levels resulting in sheet flows. This feature has no hydrologic connection to any downstream drainage and may only receive flows every 5 to 7 years. This feature does not contribute to function or value to any downstream drainage features and is not considered a riparian/riverine feature (see Photo 21).

Drainage 13: This drainage is an isolated feature and similar to Drainage 10. This feature contains some evidence of erosion and is likely caused by runoff associated with the steep hillsides to the south. This feature terminates as the topography levels resulting in sheet flows. This feature has no hydrologic connection to any downstream drainage and may only receive flows every 5 to 7 years. This feature does not contribute to function or value to any downstream drainage features and is not considered a riparian/riverine feature (see Photo 22).

Drainages 1, 2, 3, 4, 5, 6, 10, 11, and 13 do not provide any function or value as drainage features and do not meet the minimum criteria to be designated as Riparian/Riverine areas. All of the above-mentioned drainage features, with the exception of Drainage 13, flow in a north-to-south direction and in a straight-line channel. Drainage 13 flows in a south-to-north orientation. All of these channels terminate as sheet-flow within the WLCSP or immediately offsite and do not reappear further downstream. These features have a parallel flow pattern and are artificially created to minimize flooding impacts to the surrounding agricultural lands within the WLCSP. None of these features has any downstream hydrologic connectivity to any downstream drainage features.

Project components affecting streambed and bank subject to CDFW jurisdiction, including riparian habitat, would require a Streambed Alteration Agreement (SAA) from CDFW.

When impacts are identified during project-specific applications, the proponent will apply for appropriate permits. Mitigation ratios will be determined following standard guidelines and mitigation will include a mixture of onsite habitat creation, offsite habitat creation, or the purchase of offsite mitigation credits at an established mitigation bank. Compensatory mitigation will be no less than a

1:1 replacement ratio to guarantee a no net loss of riparian habitat, but this mitigation ratio is negotiated during permit the acquisition process on a project-by-project basis.

The WLCSP also incorporates a number of potential offsite improvements. All offsite improvements east of Redlands Boulevard may potentially impact drainage features likely considered jurisdictional by USACE, RWQCB, and CDFW. Once these offsite improvements have been finalized, a project specific jurisdictional delineation will be required in order to document the existing conditions, potential impacts, and recommended mitigation measures.

The previous jurisdictional delineation report[1] conducted in 2012 concluded that the project area contained 14 drainage features including four roadside ditches, seven isolated drainage features, and three isolated features. All 14 drainage features lack direct connectivity to any downstream Traditional Navigable Waters (TNWs) or any other Relatively Permanent Waters (RPW). The four roadside ditches lack riparian vegetation and only convey nuisance flows from localized runoff from the adjacent road. These flows eventually revert to sheet flow within the survey area and have no direct connectivity.

According to the previous 2012 report, the three isolated features include an abandoned water quality detention basin and two abandoned basins associated with previous cattle activities. The water quality basin is a temporary facility that was constructed to treat drainage flows resulting from the construction of the Skechers facility. The two isolated basins were previously used to collect polluted runoff from the associated cattle facility. The facility included concrete-lined areas to contain cattle in a dairy operation. Animal waste would be collected in the basins to protect downstream water quality. The livestock facilities have been removed and the basins are no longer functioning.

The 2012 report determined that the on-site features did not meet the minimum requirements to be considered jurisdictional by regulatory agencies due to the following:

- Lack of connectivity to any downstream waters of the US or waters of the State.
- Absence of a consistent bed and bank and/or ordinary high water mark (OHWM).
- Low biological resource value.
- The roadside ditches and agricultural drainages drain only upland areas and do not carry relatively permanent water flows.
- No jurisdictional wetlands occur within the project area.

Important Note. Although the previous JD report from 2012 concluded the onsite drainages were not jurisdictional, the 2013 JD report has amended that conclusion based on comments by the state and Federal resource agencies. The 2013 JD report concludes there are two (2) drainage channels on the WLC site (Drainages 12 and 15) are considered jurisdictional by both Federal and state agencies, while drainages 7, 8, and 9 are considered jurisdictional by the CDFW and the RWQCB. The location and extent of these on-site drainages in relation to the project site are illustrated in previously referenced Figure 4.4.2.

4.4.1.20 NOP/Scoping Comments

Local residents and representatives of several conservation groups related the biological resources of the San Jacinto Wildlife Preserve expressed concern about impacts of the project on the Preserve, including diesel particulates and other air pollutants, noise, night lighting, etc. At least one

[1] *Jurisdictional Delineation Report*, Michael Brandman Associates, April 23, 2012.

conservation group representative felt that project impacts should be identified for every species present in the area (see Section 2.6.1, *Notice of Preparation*). Copies of NOP comment correspondence is included in Appendix A.

The discussion of potential environmental impacts of the project on biological resources and the MSHCP that was requested by conservation groups has been addressed in previous sections, including indirect effects of diesel air pollutant emissions, lighting, noise, etc.

4.4.2 Existing Policies and Regulations

4.4.2.1 Federal Regulations

Federal Endangered Species Act (FESA). The FESA was enacted to protect any species of plant or animal that is endangered or threatened with extinction. Section 9 of the FESA prohibits "take" of federally threatened or endangered wildlife. Take, as defined under the FESA, means to harass, harm, pursue, hunt, wound, kill, trap, capture, collect, or attempt to engage in any such conduct (16 USC 1532[19]). Section 9 also prohibits the removal and reduction of endangered plants from lands under Federal jurisdiction, and the removal, cutting, digging, damage, or destruction of endangered plants on any other area in "knowing violation of State law or regulation."

Section 9 of the FESA (16 USC 1538) prohibits take of a federally listed endangered species of fish or wildlife except pursuant to a permit and HCP approved under Section 10(a) of the FESA (16 USC 1539). The FESA prohibitions and requirements are different, however, for endangered species of plants. Section 9 prohibits the take of endangered plants only from areas under Federal jurisdiction, or if such take would violate state law.

Development proposed by the WLC project site is located on private land. For listed plants located on private land, formal consultation with the USFWS is required when a project has a Federal "nexus" (i.e., a Federal permit is required or Federal funding is involved). In the absence of a Federal nexus, a project does not require a permit under the FESA for impacts to listed plants on private lands.

Clean Water Act. The USACE regulates discharges of dredged or fill material into waters of the United States. These waters include wetlands and non-wetland bodies of water that meet specific criteria, including a direct or indirect connection to interstate commerce. The USACE regulatory jurisdiction pursuant to Section 404 of the Federal Clean Water Act (CWA) is founded on a connection, or nexus, between the water body in question and interstate commerce. This connection may be direct (through a tributary system linking a stream channel with traditional navigable waters used in interstate or foreign commerce) or may be indirect (through a nexus identified in the USACE regulations). The USACE typically regulates as non-wetland waters of the U.S. any body of water displaying an ordinary high water mark (OHWM). In order to be considered a jurisdictional wetland under Section 404, an area must possess three wetland characteristics: hydrophytic vegetation, hydric soils, and wetland hydrology. Each characteristic has a specific set of mandatory wetland criteria that must be satisfied in order for that particular wetland characteristic to be met.

In 2006, the United States Supreme Court in the consolidated cases *Rapanos v. United States* and *Caravell v. United States*, Nos. 04-1034 and 04-1384 (*Rapanos*: June 19, 2006) addressed CWA jurisdiction over wetlands adjacent or abutting navigable, non-navigable and ephemeral tributaries and jurisdiction over permanent and relatively permanent non-navigable tributaries. According to the United Sates Supreme Court, the CWA does not assert jurisdiction over upland erosional features, gullies, and roadside ditches that have infrequent, low volume, and short duration of water flow. The

USACE uses a significant nexus analysis. A water body is considered to have a "significant nexus" with a traditional navigable water (TNW)[1] if its flow characteristics and functions in combination with the ecologic and hydrologic functions performed by all wetlands adjacent to such a tributary, affect the chemical, physical, and biological integrity of a downstream traditional navigable water. Additional information is provided in the Environmental Protection Agency (EPA) memorandum titled "Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States* & *Caravell v. United States*," dated June 5, 2007 (USACE 2007), and also the *U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook* (USACE and EPA 2007).

The Regional Water Quality Control Board (RWQCB) is responsible for the administration of Section 401 of the CWA, through water quality certification of any activity that may result in a discharge to jurisdictional waters of the U.S. The RWQCB may also regulate discharges to "waters of the State," including wetlands, under the California Porter-Cologne Water Quality Control Act.

4.4.2.2 State Regulations

California Endangered Species Act (CESA). The CESA is similar to the FESA in that its intent is to protect species of fish, wildlife, and plants that are in danger of, or threatened with, extinction because their habitats are threatened with destruction, adverse modification, or severe curtailment, or because of overexploitation, disease, predation, or other factors.

"Take" as defined under CESA means hunt, pursue, capture, or kill, or attempt to hunt, pursue, capture, or kill. Under certain conditions, CESA has provisions for take through a 2081 Permit or a Section 2081 Memorandum of Understanding. The impacts of the authorized take must be minimized and fully mitigated. No permit may be issued if the issuance of the permit would jeopardize the continued existence of the species.

California Environmental Quality Act. Section 15380(b) of the *CEQA Guidelines* provides that a species not listed on the Federal or State lists of protected species may be considered rare or endangered if the species can be shown to meet specified criteria. These criteria have been modeled after the definitions in FESA and CESA and § 2780–2781 of Article 1 of the California Fish and Game Code dealing with the California Wildlife Protection Act of 1990. This section was included in the guidelines primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on a species that has not yet been listed by either the USFWS or CDFW.

California Fish and Game Code Section 3503 and the Migratory Bird Treaty Act. Section 3503 of the California Fish and Game Code prohibits the destruction of bird nests except as otherwise provided for in the Fish and Game Code. The MBTA similarly protects the nests of migratory birds. These regulations apply to the individual nests of these species, but do not regulate impacts to the species' habitats.

Raptor Protection. The California Fish and Game Code (Fish and Game Code, Sections 3503, 3503.5, 3505 and 3513), and California Code of Regulations (Title 14, Sections 251.1, 652 and 783-786.6) have specific provisions for the protection of raptors (birds of prey).

[1] A "traditional navigable water" includes all of the "navigable waters of the United States," defined in 33 C.F.R. § 329 and by numerous decisions of the Federal courts, plus all other waters that are navigable-in-fact.

Streambed Alteration Agreements. Sections 1600 et seq. of the California Fish and Game Code define the responsibilities of the CDFW and require public and private applicants to obtain an agreement for projects that would "divert, obstruct, or change the natural flow or bed, channel, or bank of any river, stream, or lake designated by the CDFW in which there is at any time an existing fish or wildlife resource or from which those resources derive benefit, or would use material from the streambed designated by the department." CDFW wardens and/or unit biologists typically have the responsibility for formulating and issuing Streambed Alteration Agreements. The CDFW, through provisions of the Code (Sections 1601–1603), is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. Streams (and rivers) are defined by the presence of a channel bed and banks, and at least an intermittent flow of water. The CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by the CDFW.

Native Plant Protection Act (NPPA). Sections 1900–1913 of the California Fish and Game Code (Native Plant Protection Act) direct the CDFW to carry out the Legislature's intent to "… preserve, protect and enhance endangered or rare native plants of this state." The NPPA gives the California Fish and Game Commission the power to designate native plants as "endangered" or "rare" and protect endangered and rare plants from take.

4.4.2.3 Regional Regulations

Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The continued loss of habitat to new development and the cumbersome process of environmental review and habitat mitigation on a project-by-project basis led to preparation of the MSHCP. The MSHCP is a multi-jurisdictional effort that provides a regional conservation solution to species and habitat issues. The underlying goal of the MSHCP is to protect multiple species by preserving a variety of habitat and providing linkages between different habitat areas and other undeveloped lands. The MSHCP allows Riverside County and its cities to better control local land-use decisions and maintain a strong economic climate in the region while addressing the requirements of CESA and FESA. The overall goal of the MSHCP is to enhance and maintain biological diversity and ecosystem processes while allowing future economic growth.

The MSHCP was adopted on June 17, 2003. The MSHCP is a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP) focusing on the long-term conservation of species and their habitats in western Riverside County. The MSHCP serves as an HCP pursuant to Section 10(a)(1)(B) of FESA as well as the Natural Communities Conservation Plan (NCCP) under the State of California. The USWFS issued a Biological Opinion for the MSHCP on June 22, 2004. The CDFW also issued the NCCP Approval and Take Authorization for the MSHCP. As long as adherence to the policies and requirements of the MSHCP is maintained, participants in the MSHCP, which include the County of Riverside and fourteen cities (including the City of Moreno Valley), are allowed to authorize "incidental take" of plant and wildlife species of concern.

The MSHCP will eventually result in an MSHCP Conservation Area in excess of 500,000 acres and focuses on conservation of 146 species including amphibians, reptiles, birds, mammals, invertebrates, and plants. The MSHCP Conservation Area includes approximately 347,000 acres on existing Public/Quasi-Public Lands and approximately 153,000 acres of Additional Reserve Land. The MSHCP Plan Area encompasses approximately 1.26 million acres (1,966 square miles); it includes all unincorporated Riverside County land west of the crest of the San Jacinto Mountains to the Orange County line, as well as the jurisdictional areas of the Cities of Temecula, Murrieta, Lake Elsinore, Canyon Lake, Norco, Corona, Riverside, Moreno Valley, Banning, Beaumont, Calimesa, Perris, Hemet, and San Jacinto. It provides a coordinated MSHCP Conservation Area and implementation program to preserve biological diversity and maintain the region's quality of life.

The MSHCP serves as a HCP pursuant to Section 10(a)(1)(B) of FESA, as well as an NCCP under the NCCP Act of 2001. The MSHCP allows the City of Moreno Valley as well as other signatories of the Plan to authorize "Take" of plant and wildlife species identified within the Plan Area. The USFWS and CDFW have authority to regulate the Take of Threatened, Endangered, and rare Species. Under the MSHCP, the USFWS and CDFW can grant "Take Authorization" for otherwise lawful actions—such as public and private development that may incidentally Take or harm individual species or their habitat outside of the MSHCP Conservation Area—in exchange for the assembly and management of a coordinated MSHCP Conservation Area.

Of the 1.26 million acres covered by the MSHCP, 500,000 acres have been designated for preservation: 347,000 acres are already conserved as public or quasi-public land and another 45,270 acres have been acquired as habitat by the Regional Conservation Authority (RCA). According to the most recent RCA-MSHCP Annual Report, the City of Moreno Valley has a high-end goal of conserving 130 acres within its sphere of influence of the MSHCP; the City has already conserved 943 acres (RCA Annual Report 2010, Table 3). Altogether, Riverside County has reached 77 percent of the goal in the MSHCP.

Stephens' Kangaroo Rat Habitat Conservation Plan (SKR HCP). The USFWS issued a permit to the Riverside County Habitat Conservation Agency on May 3, 1996, for incidental take of Stephens' kangaroo rat (*Dipodomys stephensi*). The 30-year plan is designed to acquire and permanently conserve, maintain, and fund the conservation, preservation, restoration, and enhancement of Stephens' kangaroo rat occupied habitat. The SKR HCP covers approximately 534,000 acres within the member jurisdictions (including the City of Moreno Valley), and includes an estimated 30,000 acres of occupied Stephens' kangaroo rat habitat. The SKR HCP requires members to preserve and manage 15,000 acres of occupied Stephens' kangaroo rat habitat in 7 Core Reserves encompassing over 41,000 acres. Currently 12,460 acres of occupied habitat exists within the Core Reserves.

4.4.2.4 City of Moreno Valley General Plan Policies

The specific policies outlined in the City's General Plan Conservation Element related to biological resources include:

Conservation Element

Policy 7.4.1 Require all development, including roads, proposed adjacent to riparian and other biologically sensitive habitats to provide adequate buffers to mitigate impacts to such areas.

Policy 7.4.3 Preserve natural drainage courses in their natural state and the natural hydrology, unless the protection of life and property necessitate improvement as concrete channels.

Policy 7.4.5 The City shall fulfill its obligations set forth within any agreement(s) and permit(s) that the City may enter into for the purpose of implementing the Western Riverside County Multiple Species Habitat Conservation Plan.

4.4.3 Methodologies

The project area was assessed to determine consistency with the MSHCP focusing on conservation of species and their associated habitats in western Riverside County. The Riverside County Integrated Project (RCIP) Conservation Summary Report was first reviewed to determine habitat assessment and potential survey requirements for the study area. Geographic Information Systems (GIS) software was used to map the site in relation to MSHCP areas including Criteria Cells;

conservation areas and linkages; Criteria Area Species Survey Areas for plant, bird, mammal, and amphibian species; Narrow Endemic Plants Survey Area; and survey requirements for inadequately covered species.

4.4.3.1 Literature Search

Prior to each field visit, a literature review to determine environmental conditions occurring on the study area and the surrounding area was conducted. The primary objective of the review is to evaluate the potential for suitable habitat for sensitive plant and wildlife species, as well as to determine the applicability of other MSHCP and CEQA requirements as they pertain to the proposed project. A compilation of sensitive plant and wildlife species recorded in the vicinity of the study area was derived from the CDFW's California Natural Diversity Data Base (CDFW 2012), a sensitive species and plant community account database. Additional recorded occurrences of plant species found on or near the planning area were derived from the California Native Plant Society's (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California database. The CNDDB and CNPS search was based on the *Lakeview, Sunnymead*, and *El Casco, California* USGS 7.5-minute topographic quadrangles, encompassing 126 square miles. Additional recorded occurrences of these species found on or near the study area were derived from biota studies conducted for the MSHCP as well as studies conducted by MBA biologists for other projects over the years.

The MSHCP and CEQA also require an assessment to determine the potentially significant effects of the project on riparian/riverine areas and vernal pools. According to the MSHCP, the documentation for the assessment shall include mapping and a description of the functions and values of the mapped areas with respect to the species listed in the MSHCP's Section 6.1.2, Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools. This assessment is independent from considerations given to waters of the U.S. and waters of the State under the Clean Water Act (CWA) and California Fish and Game Code. This assessment has been completed for all of the study area but not in the zone of potentially indirect effects.

As part of the MSHCP requirements, an Urban/Wildlands Interface Analysis is required to address the indirect effects associated with locating proposed development in proximity to MSHCP conservation areas. The development may result in edge effects, which could potentially affect biological resources within the MSHCP Conservation Area. According to the MSHCP, the analysis should include an assessment of the potential indirect project impacts that may result from drainage features, toxics, noise, invasive species, barriers, access, and grading/development, as listed and described in the MSHCP's Section 6.1.4, *Guidelines Pertaining to Urban/Wildlands Interface*. For this study, the Urban/Wildlands Interface Analysis was extended eastward to include indirect effects adjacent to Gilman Springs Road.

4.4.3.2 Habitat Assessment Survey

MBA originally assessed the planning area in 2005 and has conducted numerous additional surveys since then. Details of the survey dates and specific survey areas are provided in the 2012 MBA report (DEIR Appendix E). The planning area, including the off-site facilities and the CDFW Conservation land, was surveyed to determine the plant communities present, the suitability for Narrow Endemic and Criteria Area plant species, the presence of riparian areas, and the presence of suitable habitat for burrowing owl and Los Angeles pocket mouse. Parameters assessed included soil conditions, presence of indicator species, slope, aspect, and hydrology.

4.4.3.3 Plants

Plant communities were mapped using 7.5-minute USGS topographic base maps and aerial photographs. The plant communities within the planning area were classified according to the CDFW's List of Terrestrial Natural Communities (2003) and cross-referenced to descriptions provided in Holland's Preliminary Descriptions of the Terrestrial Natural Communities of California (1986) and Oberbauer's Terrestrial Vegetation Communities in San Diego County Based on Holland's Descriptions (1996). Common plant species observed during reconnaissance-level surveys in the planning area were identified by visual characteristics and morphology in the field and recorded in a field notebook. Uncommon and less familiar plants were identified off site using taxonomical guides. A list of all species observed on the study area was compiled from the survey data, shown in Appendix A of the MBA 2012 report (DEIR Appendix E).

4.4.3.4 Wildlife

Wildlife species detected during field surveys in the planning area by sight, calls, tracks, scat, or other sign recorded during surveys in a field notebook by all biologists working on the project. Field guides were used to assist with identification of species during surveys. Although common names of wildlife species are fairly well standardized, scientific names are used in this report and are provided in Appendix A of the 2013 MBA report (DEIR Appendix E).

4.4.3.5 Riparian/Riverine and Vernal Pool Habitat

Aerial photography was reviewed prior to conducting general surveys to identify any potential natural drainage features and water bodies that may qualify as riparian/riverine. In general, the surface drainage features indicated as blue-line streams on USGS topographic quadrangle maps that were observed or expected to exhibit evidence of flow, can potentially support riparian/riverine areas. The planning area was evaluated for any riparian/riverine and vernal pool habitat in 2005, 2007, 2012, and 2013.

4.4.3.6 Burrowing Owl

The project site is within the MSHCP burrowing owl survey area, and habitat assessments for burrowing owl (*Athene cunicularia hypugea*) were conducted 2005, 2006, 2010, 2012, and 2013 on various portions of the project site. Areas of suitable habitat, if present, were mapped onto an aerial photograph. Potential owl burrows, such as abandoned small mammal burrows, as well as manmade structures including earthen berms, cement culverts, cement, asphalt, rock, or wood debris piles, or openings beneath cement or asphalt pavement are generally mapped onto an aerial photograph. The site was determined to have suitable habitat in a number of widespread locations, and owls were observed in various locations during the MSHCP fieldwork, so a focused survey was recently conducted in 2013.

A focused western burrowing owl survey was conducted for the proposed project site on seven separate days in 2013. Under the MSHCP, the focused survey protocol was divided into two parts: 1) a Focused Burrow Survey; and 2) a Focused Burrowing Owl Survey. The focused survey was conducted during the breeding season (March 1–August 31) as defined under the MSHCP,[1] and also in accordance with the California Burrowing Owl Consortium's (CBOC) *Burrowing Owl Survey Protocol and Mitigation Guidelines*.[2] Although the species was not observed during the most recent survey, it has been observed at other times in the past, and is assumed to be present due to the presence of suitable

[1] Western Riverside County Multiple Species Habitat Conservation Plan, Volume I, Dudek & Associates, June 17, 2003.
[2] Burrowing Owl Survey Protocol and Mitigation Guidelines, California Burrowing Owl Consortium, 1993.

habitat and the fact they can occupy fallow agricultural fields relatively quickly. The MSHCP requires that pre-construction surveys be completed in areas of suitable habitat.

4.4.3.7 Los Angeles Pocket Mouse

Focused surveys for the Los Angeles pocket mouse (LAPM) (*Perognathus longimembris brevinasus*) were conducted in August 2005, June 2010, June 2012, and July 2013 (see DEIR Appendix E). The surveys were conducted according to the established USFWS protocols for Pacific pocket mouse (*Perognathus longimembris longimembris*), a similar species. The current protocol requires trapping for 5 consecutive nights: conducted when the animal is active aboveground at night, during a new moon phase, if possible. No LAPM were observed in the project area during the focused surveys, but there is marginal habitat located in Drainages 7 and 9. MBA concluded that the project area was not occupied by LAPM. However, future surveys may be needed for development in areas of the site that contain suitable habitat for the project to be consistent with the long-term conservation goals of the MSHCP.

4.4.3.8 Jurisdictional Determination Report

Prior to beginning the field delineation, a color aerial photograph, a topographic base map of the project area and the previously cited USGS topographic maps were examined to determine the locations of potential areas of USACE/CDFW/RWQCB jurisdiction. Potential jurisdictional areas were field-checked for the presence of definable channels[1] and/or wetland vegetation, soils and hydrology. Suspected wetland habitats on the site were evaluated using the methodology set forth in the *U.S. Army Corps of Engineers 1987 Wetland Delineation Manual*[2] (Wetland Manual) and the *2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Version 2.0).[3] The limits of USACE/CDFW/RWQCB jurisdiction were recorded using sub-meter GPS technology while in the field.

4.4.4 Thresholds of Significance

Based on Appendix G of the *CEQA Guidelines*, biological resource impacts would occur if the proposed project would:

- Have a substantial adverse effect, either directly or indirectly or through habitat modification, on any species identified as endangered or threatened in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
- Have a substantial adverse effect, either directly or indirectly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or the USFWS;

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1 U.S. Army Corps of Engineers. 2008. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) ion the Arid West Region of the United States: A Delineation Manual. ERDC/CRREL TR-08-12: Cold Regions Research and Engineering Laboratory, U.S. Army Engineer Research and Development Center, Hanover NH.

2 Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*, Technical Report Y-87-1, U.S. Army Engineer Waterways Experimental Station, Vicksburg, Mississippi.

3 U.S. Army Corps of Engineers. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region. Ed. J.S. Wakeley, R.W. Lichevar, and C.V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native or resident migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

4.4.5 Less than Significant Impacts

4.4.5.1 Adopted Policies and/or Ordinances

Threshold	Would the proposed project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Table 4.4.E summarizes the City's General Plan and Municipal Code policies regarding biological resources and their consistency with the WLCSP.

Table 4.4.E: General Plan and Municipal Code Biological Resources Policies

Goals, Objectives, Policies, Ordinances		Project Consistency
City of Moreno Valley General Plan		
Objective 7.4	Maintain, protect, and preserve biologically significant habitats where practical, including the San Jacinto Wildlife Area, riparian areas, habitats of rare and endangered species, and other areas of natural significance.	No significant riparian or other biologically sensitive habitat is on or adjacent to the study area. The project is consistent with this objective.
Policy 7.4.1	Require all development, including roads, proposed adjacent to riparian and other biologically sensitive habitats to provide adequate buffers to mitigate impacts to such areas.	No significant riparian or other biologically sensitive habitat is on or adjacent to the study area. The project is consistent with this policy.
Policy 7.4.2	Limit the removal of natural vegetation in hillside areas when retaining natural habitat does not pose threats to public safety.	Limited stands of natural plant communities or stands of native vegetation occur in the study area within hillside areas. These areas are proposed as open space under the proposed action. The project is consistent with this policy.
Policy 7.4.3	Preserve natural drainage courses in their natural state and the natural hydrology, unless the protection of life and property necessitate improvement as concrete channels.	The study area contains 14 drainages and/or basins. As specific projects are designed within the WLCSP, consistency with the policy will have to be determined.
Policy 7.4.4	Incorporate significant rock formations into the design of hillside developments.	The study area is generally not a hillside area. Limited natural rock formations occur in a proposed open space area. The project is consistent with this policy,
Policy 7.4.5	The City shall fulfill its obligations set forth within any	See Consistency with Chapter 3.48

Table 4.4.E: General Plan and Municipal Code Biological Resources Policies

Goals, Objectives, Policies, Ordinances		Project Consistency
	agreement(s) and permit(s) that the City may enter into for the purpose of implementing the Western Riverside County Multiple Species Habitat Conservation Plan.	of the City of Moreno Valley Municipal Code below.
City of Moreno Valley Municipal Code		
Title 3 Revenue and Finance		
Chapter 3.48 MSHCP Fee Program (Ordinance 742 Section 1.1, 2007)	Establish a local development mitigation fee to assist in the maintenance of biological diversity and the natural ecosystem processes that support this diversity; the protection of vegetation communities and natural areas within the city and western Riverside County which are known to support threatened, endangered or key sensitive populations of plant and wildlife species; the maintenance of economic development within the city by providing a streamlined regulatory process from which development can proceed in an orderly process; and the protection of the existing character of the city and the region through the implementation of a system of reserves which will provide for permanent open space, community edges, and habitat conservation for species covered by the MSHCP.	MBA conducted an MSHCP Consistency Analysis for the proposed project in 2012 and found that the study area is within the MSHCP fee area. Impacts are potentially significant and mitigation is provided.
Title 8 Buildings and Construction		
Chapter 8.60 Threatened and Endangered Species (Ordinance 502 Section 2.1, 1996)	Adopt and require certain implementation measures as required by the Stephens' Kangaroo Rat Habitat Conservation Plan (SKRHCP), the Section 10(a) Permit and the Management Authorization; and to adopt and impose an impact and mitigation fee to provide funds to the Riverside County Habitat Conservation Authority to implement the terms of the SKRHCP.	The study area is located within the known range of SKR. The study area is also located within the SKRHCP fee area and not in the SKRHCP Core Reserve Area. Impacts are potentially not consistent; however mitigation is provided.

Sources: City of Moreno Valley General Plan, 2006; City of Moreno Valley Municipal Code.

This analysis indicates the proposed project is consistent with local policies and ordinances protecting biological resources that apply to the project area. Compliance with State and Federal regulations to ensure protection and preservation of significant biological resources, and the implementation of the MSHCP are the applicable policies/programs that the project must implement. As there are no other local policies or ordinances regarding the protection of biological resources identified by the City or other local jurisdiction applicable to the project site, no impact would occur and no mitigation is required.

4.4.5.2 Habitat Fragmentation/Wildlife Movement

Threshold	Would the proposed project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Habitat fragmentation occurs when a single, contiguous habitat area is divided into two or more areas, or where an action isolates the two or more new areas from each other. Isolation of habitat occurs when wildlife cannot move freely from one portion of the habitat to another or to/from one habitat type to another. Habitat fragmentation may occur when a portion of one or more habitats is converted into another habitat, as when scrub habitats are converted into annual grassland habitat

because of frequent burning. Wildlife movement includes seasonal migration along corridors, as well as daily movements for foraging. Examples of migration corridors may include areas of unobstructed movement for deer, riparian corridors providing cover for migrating birds, routes between breeding waters and upland habitat for amphibians, and between roosting and feeding areas for birds.

The project area contains no significant cover of native plant communities and currently experiences heavy disturbance associated with agricultural activities. Additionally, the project area is adjacent to SR-60 and Gilman Springs Road on the north and east and is bordered by urban development on the west. The nearest linkage area as identified under the MSHCP is Proposed Linkage 5 and is located approximately 3 miles north of the project and approximately 3.6 miles south of the project is Proposed Constrained Link 20. The development of the project area will not impede the movement of any wildlife; therefore, the proposed project will not affect any wildlife movement corridor.

The Conservation Buffer Area located in the southern portion of the project area is owned by the CDFW and currently regularly disked as part of the SJWA's agricultural operations. It currently provides foraging habitat for various resident and migratory wildlife species. The portion of the project area adjacent to the SJWA lands has been actively farmed for decades and is regularly disked. The Conservation Buffer Area is designated as open space in the proposed project and no development is proposed for this area.

Although the project area does not contain any designated wildlife movement corridors or MSHCP linkages (i.e., MSHCP, City General Plan, etc.), it is likely that wildlife moves through adjacent properties such as the SJWA and the Mystic Lake area to the south, the Badlands area to the east and the Lake Perris State Recreation Area to the southwest. The project biological report concluded that development of the project as proposed would not directly have any significant impact on wildlife movement in the area, and would not fragment habitat or adversely affect wildlife movement through the surrounding areas. The biological report also determined that the proposed project would not impede or minimize any significant wildlife corridor for the target species associated within the Reche Canyon/Badlands Area plan, which include Bell's sage sparrow (*Amphispiza belli belli*), cactus wren (*Campylorhynchus brunneicapillus sandiegensis*), loggerhead shrike (*Lanius ludovicianus*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), bobcat (*Lynx rufus*), Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), mountain lion (*Puma concolor*), San Bernardino kangaroo rat (*Dipodomys merriami parvus*), Stephens' kangaroo rat (*Dipodomys stephensi*), and Nevin's barberry (*Berberis nevinii*). In addition, although not required, Drainage 9 is being designed to allow for wildlife movement between the Badlands and the SJWA (e.g., relatively natural channel conditions with 50-foot setbacks on either side of the channel through the WLCSP property. These project design features will maintain a wildlife travel path along Drainage 9. Therefore, impacts related to wildlife movement are less than significant, and no mitigation is needed.

4.4.6 Significant Impacts

4.4.6.1 Endangered and Threatened Species

Impact 4.4.6.1: *The project may have significant impacts on listed species.*

Threshold	Would the proposed project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as endangered or threatened in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Of the special-status plant and animal species that have the potential to occur within the general vicinity of the project area, 17 plant and animal species are designated as endangered or threatened by State and/or Federal authorities (Table 4.4.F). None of these species was observed or is believed

to be present on the project site; it is possible the listed birds may utilize the SJWA on a seasonal basis.

Table 4.4.F: Endangered/Threatened Species Within the Project Area

Species	Status Designation	Potential for Occurrence
Munz's onion *Allium munzii*	Federal: Endangered State: Threatened	Not Expected
San Diego ambrosia *Ambrosia pumila*	Federal: Endangered State: None	Not Expected
Marsh sandwort *Arenaria paludicola*	Federal: Endangered State: Endangered	Low
Nevin's barberry *Berberis nevinii*	Federal: Endangered State: Endangered	Not Expected
Thread-leaved brodiaea *Brodiaea filfolia*	Federal: Endangered State: Threatened	Not Expected
Slender-horned spineflower *Dodecahema leptoceras*	Federal: Endangered State: Endangered	Not Expected
Spreading navarretia *Navarretia fossalis*	Federal: Threatened State: None	Not Expected
California Orcutt grass *Orcuttia californica*	Federal: Endangered State: Endangered	Not Expected
Vernal pool fairy shrimp *Brachinecta lynchi*	Federal: Threatened State: Special Animal	Not Expected
Riverside fairy shrimp *Streptocephalus woottoni*	Federal: Endangered State: Special Animal	Not Expected
Quino checkerspot butterfly *Euphydryas editha quino*	Federal: Endangered State: Special Animal	Not Expected
California tiger salamander *Ambystoma californiense*	Federal: Threatened State: Species of Special Concern	Not Expected
Southwestern willow flycatcher *Empidonax traillii extimus*	Federal: Endangered State: Special of Special Concern	Not Expected
Coastal California gnatcatcher *Polioptila californica californica*	Federal: Threatened State: Special of Special Concern	Not Expected
Least Bell's vireo *Vireo belli pusillus*	Federal: Threatened State: Special of Special Concern	Not Expected
San Bernardino kangaroo rat *Dipodomys merriami parvus*	Federal: Threatened State: Special of Special Concern	Not Expected
Stephens' kangaroo rat *Dipodomys stephensi*	Federal: Endangered State: Threatened	Not Expected

Source: *MSHCP Compliance Report,* Michael Brandman Associates. April 23, 2012 Appendix E-1.

The potential for occurrence determination was based on the results of focused biological resource surveys, and/or the lack of suitable habitat in the project limits for the referenced species. No Federal or State endangered/threatened species were detected on the project site during the focused biological resource surveys. However, to err on the side of caution, it is reasonable to conclude that, at a minimum, indirect impacts to listed species may be significant, and mitigation is required.

Project or Specific Plan Design Features. The proposed World Logistics Center Specific Plan provides for a number of project design features to address the interface between the project and the SJWA. These features include enhanced landscaping along the southern boundary, restrictions on

site lighting, restrictions on native/drought-tolerant landscape materials, the installation of special drainage facilities, restrictions on public access, special architectural standards for building elevations facing the SJWA, restrictions on the orientation of adjacent buildings, signage restrictions, and other development guidelines intended to create an interface area that is sensitive to the unique relationship between the project and the SJWA.

The Specific Plan establishes a 250-foot wide development setback from the southernmost property line along the SJWA boundary, and an additional 150-foot building setback (i.e., in addition to the setback provided by the CDFW Conservation Area) to help minimize potential impacts on biological resources of the SJWA.

It is important to note that the 910-acre area immediately south of the project was purchased by the State of California largely to serve as a buffer between the habitat area and future development to the north (at that time, the Moreno Highlands Specific Plan). The acquisition of this buffer area created a State-owned 3,000-foot wide separation between the project and the SJWA at that time.

The Specific Plan includes development restrictions that may affect off-site areas such as the SJWA, including architecture and building design, landscaping, and off-site lighting:

- *Architecture and Building Restrictions (Specific Plan Section 4.1).* Sections 4.1.2 and 4.1.3 require ground- and roof-mounted equipment to be screened from off-site view.
- *Landscaping Restrictions (Specific Plan Section 4.2).* Section 4.2.4 provides "Special Edge Treatment Areas" in terms of adjacent land uses, including the SJWA (Section 4.2.4.3) and Gilman Springs Road (Section 4.2.4.4).
- *Off-site Lighting (Specific Plan Section 4.3).* Section 4.3.1 indicates one of the main objectives of the project lighting is "… all lighting in the vicinity of the San Jacinto Wildlife Area shall be designed to confine all direct light rays to the project site and preclude the visibility of direct light rays from the wildlife area" (page 4-42). The project will also have to comply with the City's new Dark Sky Lighting Ordinance, which reduces spillover light to 0.25 foot-candles at five feet from the adjacent property lines.

The Specific Plan provides for a 250-foot development setback and an additional 150-foot building setback adjacent to the CDFW Conservation Buffer Area. The development setback area would include landscape areas, drainage facilities, site fencing and walls, etc. According to available research previously presented in Section 4.4.1.18a, a 250-foot development setback is adequate for a project-SJWA buffer and is supported by a compilation of available academic and scientific literature and studies on wildlife impacts from diesel emissions, and also the distance established in nesting bird surveys for setbacks from human activity. In addition, the Specific Plan requires solid walls along the property line, which will help provide an additional buffer from building lighting and noise and effectively mitigate potential direct and indirect impacts on the SJWA.

Roadkill. As development occurs within the WLCSP, some local wildlife will be injured or killed by the additional vehicles and trucks on SR-60, Gilman Springs Road, Redlands Boulevard north of Eucalyptus Avenue, and all internal WLCSP roads. There is no accurate way to quantify this impact, since there are no data on existing roadkill on these roadways. However, it is reasonable to assume this impact will increase linearly (from current levels) as project-related traffic increases. It should be noted that development within the Specific Plan along the west side of Gilman Springs Road will be separated from the roadway by fencing or walls as appropriate; this will help restrict human access to Gilman Springs Road and native areas along the east side of the roadway, and may incrementally reduce roadkill along Gilman Springs Road. Native wildlife will still experience incremental adverse impacts from roadkill along Gilman Springs Road as the WLC project develops in the future, but these impacts would be less than significant as long as the County coordinates with the RCA and takes

wildlife movement between Core H and proposed Core 3 into account when designing and improving Gilman Springs Road.

Operational Noise. The northern portion of the SJWA will experience increased, fluctuating sound levels during construction and operation (e.g., vehicle traffic and truck loading and unloading), but truck traffic and human activity will result in an incremental increase in overall ambient sound over the long term. In addition, it is possible construction activities on the project site, including areas adjacent to the SJWA, may be subject to construction activity on a 24-hour-per-day, 7-day-per-week schedule. The calculations in Table 4.4.G were provided by the project noise consultant (Mestre Greve Associates) specifically for the southern boundary area of the project.

The portion of the SJWA immediately south of the Specific Plan site (i.e., the Conservation Buffer Area) is vacant and regularly disked for dry farming. This area is quiet, with L_{eq} levels during the day of 35.8 dB and nighttime levels of 40.8 dB. Noise levels in this north SJWA area are affected by road noise from Gilman Springs Road to the east and from noise generated at the existing natural gas facilities.

Table 4.4.G: Noise Levels along the Project Southern Boundary

Noise Conditions	Daytime (dB)			Nighttime (dB)		
	L_{min}	L_{eq}	L_{max}	L_{min}	L_{eq}	L_{max}
Warehousing Noise						
50 feet	38.3	48.6	63.1	38.3	48.6	63.1
100 feet	37.5	47.8	62.3	37.5	47.8	62.3
250 feet	34.4	44.7	59.2	34.4	44.7	59.2
500 feet	30.6	40.9	55.4	30.6	40.9	55.4
Warehousing Noise Plus Ambient[1]						
50 feet	38.3	49.3	63.1	38.3	48.8	63.1
100 feet	37.5	48.6	62.3	37.5	48.1	62.3
250 feet	35.9	46.2	59.2	34.4	45.2	59.2
500 feet	35.9	43.9	55.4	30.6	42.1	55.4
Change in Ambient Noise Levels[2]						
50 feet	2.4	8.5	12.8	8.3	13.0	12.0
100 feet	1.6	7.8	12.0	7.5	12.3	11.2
250 feet	0.0	5.4	8.9	4.4	9.4	8.1
500 feet	0.0	3.1	5.1	0.6	6.3	4.3

1 Distances are in feet, noise levels are in dBA.
2 L_{eq} noise added logarithmically, L_{max} and L_{min} will not add in this situation.
Highest L_{max} and highest L_{min} were used.
Source: Project noise report and tabular noise data email, Mestre Greve Associates, May 2012.

The noise data in Table 4.4.G indicate that warehousing activity would raise ambient noise levels (measured at 50 feet) by 8 dB during the day and 13 dB at night. If a physical setback or buffer were implemented in this area to reduce impacts such as noise, the project noise consultant has estimated the noise levels for distances from 50 to 500 feet shown in Table 4.4.G.

These calculations show that the increase in noise levels from development would be close to 3 dB at a distance of 500 feet, resulting in overall noise levels (ambient plus development) of 43.9 dB measured at a distance of 500 feet (L_{eq}) during the day and 45.2 dB at 500 feet at night.

In addition to regular background noise contributions from traffic on Gilman Springs Road and the compressors at the SDG&E plant that run 24 hours per day, the SDG&E compressor plant has regular "blow-down" events, which is an automatic pipeline pressure relief process. When these occur, noise levels in the CDFW Conservation Buffer Area adjacent to the compressor plant property lines may reach 130 dB or higher, which is equivalent to a jet plane landing or a train horn at 100 feet. For more information on "blow-down" effects to humans, see Section 4.12, *Noise*, and 4.8, *Hazards and Hazardous Materials*. It should be noted that the pump noise and the blow-down events have been occurring regularly for many years, along with their potential impacts on SJWA wildlife; however, these utility facilities already exist and are not part of any development proposed within the WLC project.

Based on available information, it is reasonable to conclude that increased noise from human activity (project construction, traffic on local roads, loading and unloading of trucks, etc.) related to the proposed project will not have significant impacts on local wildlife in the SJWA area. Available research indicates that increased noise levels near wildlife areas can contribute to behavioral changes such as increased startling in birds, which can be especially harmful during nesting periods, hunting pattern changes or avoidance which decrease habitat value and use, sleep pattern disruption, and decreased overall health from noise stress. These impacts can affect mammals, birds, and other species present within the SJWA. For these reasons, human activity should be set back from the SJWA to help minimize these impacts. The WLCSP indicates there will be a 250-foot minimum development setback and an additional 150-foot building setback along the southern boundary of the Specific Plan area to act as a buffer between the WLCSP and the SJWA. With implementation of the two setback areas (total 400 feet) and proposed solid walls along the SJWA boundary, the anticipated increase in noise from the proposed project will not have a significant impact on wildlife and would not require mitigation.

Construction Noise. Development within the WLCSP and off-site facilities must incorporate landscape elements including trees, shrubs, and groundcover, which would assist in off-site noise reduction. A noise analysis has been prepared for the project to quantify potential short-term and long-term noise impacts that could occur as a result of development of the parcel adjacent to open space areas. Based on recent studies (Landrum and Brown 2012), noise contours would exceed 60 dBA (L_{eq}) roughly 1,000 feet into the CDFW Conservation Buffer Area during construction of the southernmost areas of Phase 2. There is no projected change in noise contours associated with the operation of the facility over those of the no project condition. Therefore, any noise-related impacts would be temporary in nature and generally limited to construction of Phase 2 facilities along the southern boundary of the WLC.

Invasive Species. The WLCSP landscaping palette does not include any of the invasive plant species listed in Section 6.1.4 of the MSHCP (Table 6-2), but there should be mitigation to ensure that no on-site landscaping along the southern boundary of the site conflicts with MSHCP invasive plant guidelines.

Lighting. Lighting associated with planned warehouse development of the eastern and southern portions of the WLCSP would have various direct and indirect impacts on local wildlife, depending on the species and the nature of light exposure. There is some scientific and academic research on the effects of night lighting on various species, even though the subject species and lighting conditions vary widely. This section generally compares the results of this research to the relationship of the project and the SJWA.

Some available research[1] states that night lighting can have a wide range of adverse effects on wildlife, including mammals, birds, bats, amphibians, insects, fish, even plants. Effects range from reduced health by upsetting diurnal rhythms, reduced clutch size, egg size, or survival success of nesting birds, to actual mortality from increased predation under higher ambient light levels. Bats and certain insects are also attracted to outdoor night lighting, which may adversely affect their survival or cause them to become dependent on the lighting. Small mammals would also be attracted to these areas and might suffer increased predation or roadkill crossing streets.

Future development within the Specific Plan will have to comply with the off-site lighting restrictions outlined in Section 4.3 of the Specific Plan, including the requirement that direct light rays from all lighting fixtures be directed downward, illuminate only the building or space intended, and do not spill onto adjacent properties (Section 9.08.100 Lighting 5.5.2.1). This will also apply to project-related development in Planning Areas 10 and 12, which will help minimize lighting impacts on biological species in the adjacent SJWA land.

All on-site lighting will also have to comply with the new night lighting guidelines in Section 9.08.100 of the City's Municipal Code, which limits off-site impacts to 0.25 foot-candles per square meter. As development occurs within the Specific Plan, adherence to these design guidelines and restrictions will help ensure that night lighting increases will not result in significant indirect lighting impacts on native wildlife within the SJWA.

For example, the Specific Plan requires that streetlights, parking lot lighting, and other project-related illumination sources be positioned, directed, and shielded to avoid "direct light spill" into MSHCP conservation areas including those contained within Existing Core H to the south of the project area, and Proposed Core 3 (Section 6.1.1, Proposed Core 3) to the east of the project area. Lighting installed according to the WLC Specific Plan will be consistent with MSHCP guidelines. The project will also have to comply with the City's new Dark Sky Lighting Ordinance, which reduces spillover light to 0.25 foot-candles at five feet from the adjacent property lines. However, due to the size of the WLC project and its proximity to the SJWA, additional mitigation may be necessary for cumulative lighting impacts on the SJWA.

In addition to night lighting issues associated with construction and operation, the proposed facilities are to include roof-mounted photovoltaic panels to provide electricity for the facilities and aid in the sustainability of the project and reduce additional GHG emissions. There is a potential for glare from these panels to confuse migratory birds into attempting to land in the area of the panels. However, the project design calls for the use of low glare and high solar transmission films to increase solar capacity and prevent unnecessary glare, so this impact would be less than significant.

Toxics, Water. Development plans for the project will include Water Quality Best Management Practices (BMPs) such as vegetated earthen channels, storm drain stenciling, street sweeping, and education. The BMPs recommended for the proposed WLCSP are described in more detail in Section 4.9.6.1, *Construction-Related Water Quality Impacts,* and Section 4.9.6.2*, Operational Water Quality Impacts*. (Detention basins will be designed to filter potential toxics from storm water. Section 4.9.6.2, *Operational Water Quality Impacts*, also requires the regular removal of any contaminated materials from the detention basins to protect downstream water quality.) These BMPs will be implemented as part of the storm water pollution prevention measures for the project, in accordance with all appropriate NPDES requirements.

Development of the project will result in the additional use of hazardous materials in limited quantities associated with normal logistics use such as janitorial and cleaning products, solvents, herbicides,

[1] *Ecological Consequences of Artificial Night Lighting.* C. Rich and T. Longcore (ed), 2006.

and insecticides. However, compliance with regulations, standards, and guidelines established by the Environmental Protection Agency (EPA), State, County, and local agencies relating to the storage, use, and disposal of hazardous waste will reduce the potential risk of hazardous materials exposure.

Development plans for the project will include Water Quality BMPs such as vegetated earthen channels, storm drain stenciling, street sweeping, and education. Detention basins will be designed to filter potential toxics from storm water. These BMPs will be implemented as part of the storm water pollution prevention measures for the project, in accordance with all appropriate NPDES requirements.

Toxics, Air Pollution and Diesel Exhaust. Local wildlife (i.e., within the SJWA) may be exposed to vehicular exhaust and diesel particulates and toxic air contaminants from truck exhaust as the project builds out. New development will produce significant amounts of diesel-related air pollutants that will be released into the atmosphere, including gases and particles of various sizes.

Most of the available (and most applicable) research is on diesel pollutant impacts on humans. Although the physiology of many animals is very different than humans, data on health effects from diesel pollution may nonetheless be somewhat instructive when attempting to assess diesel impacts on wildlife. Potential health effects on wildlife obviously depend on the species involved,[1] but in general health effects from air pollution/diesel exhaust include impaired cardiac and lung or respiratory function,[2] reduced heart function or longevity, decreased clutch size or hatching success, increased incidence of cancer and other mutagenic or teratogenic effects, ingestion of air deposited particulates, reduction in overall biodiversity, reproductive failure, etc. In general, impacts on higher animals are most commonly attributed to food loss and reproductive effects, rather than to direct toxic effects on adults. There are relatively few examples of higher animals suffering direct toxic effects from either atmospheric acidity or gaseous air pollution. However, a number of mammals are known to build up high levels of heavy metals and other pollutants in their systems from air pollution.[3]

Diesel emissions[4] contain thousands of pollutant species, and the composition depends on the fuel, vehicle, and driving conditions. The main public health concerns are from fine and ultrafine particulate matter, black or elemental carbon, polyaromatic hydrocarbons (PAHs) like phenanthrene, metallic ashes, gases like nitrogen dioxide, aldehydes like acetaldehyde, acrolein, and crotonaldehyde, volatile organic compounds like benzene and 1,3-butadiene, etc. One of the research limitations is that some health effects from these pollutants take a long time, in some cases even a lifetime, to exhibit themselves. These pollutant species can also be emitted from other sources, so in complex urban environments, it can be difficult to trace individual sources of air pollution. In this case, air quality is relatively good and the only major activity is agriculture, so the increase in most of these pollutant species would predominantly be the result of new warehouse uses within the project. Research[5] suggests that wildlife may be more susceptible to air pollutant impacts than humans, due to their smaller size, higher respiration rates, smaller lung capacities, ingestion of local plant materials that have also been exposed, higher metabolic rates, etc., although some factors like shorter lifespans would reduce the length of exposure over time. For these reasons and for the purposes of this analysis, it is assumed that animals within the SJWA would be at least as susceptible to health effects from air pollution, including diesel exhaust compared to humans.

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1 "Air Pollution and Biodiversity: A Review." 1995.
2 "Cardiovascular and thermoregulatory responses of unrestrained rats exposed to filtered or unfiltered diesel exhaust." C. Gordon et al, Inhalation Toxicology, 2012.
3 Ibid.
4 "Diesel Emissions, Toxics, and Health Implications." M. Costantini, 2006.
5 "*Exhausted by Diesel."* NRDC 1998.

In 2002, the EPA compiled a wide range of scientific studies on the health effects of diesel exhaust, including non-carcinogenic effects[1] of diesel exhaust on laboratory animals. Studies found that diesel particulate matter (diesel PM) had a limited effect on the survival and growth of rats and mice when exposed to diesel PM for short periods of time. However, rats, mice and hamsters all experienced increased lung to body-weight ratios when exposed to 1.5 mg/m^3 diesel PM concentrations for extended periods of time. Several studies looked at behavior effects in animals, and found that juvenile rats exposed to diesel emissions (DE) exhibited a decreased ability to move around on their own, and negatively affected their learning in adulthood.

Extended exposure to diesel emissions caused negative effects on the pulmonary functions of rats, hamsters, cats and monkeys. Depending on the species, DE levels of 1.5–11.7 mg/m^3 affected lung mechanical properties, diffusing capacity, lung volumes, and ventilator performance of the subject animal. The ability of rats to clear their airways was also severely impaired by diesel PM concentrations of 1 mg/m^3or greater. Data on the effect of diesel PM on airway clearance in other animals were limited, but the pathological effects of diesel PM seemed to be dependent on the relative rates of pulmonary deposition and clearance (rate of breathing) of the subject animal. The studies also showed that diesel PM can reduce an animal's resistance to respiratory infections. Diesel PM can begin to impair an animal's immune system in as little as 2–6 hours with exposures of 5–8 mg/m^3 of diesel PM. The testing data also suggested that diesel PM may be a factor in increased allergic reactions in animals.

When comparing filtered versus non-filtered DE, studies found that diesel particulates are the main cause of noncancerous health effects. However, they could not determine if diesel PM acts additively with the gas, or whether it combines with the gases to create different effects. The studies also found that other airborne contaminants (e.g., criteria pollutants) can be altered by diesel PM when absorbed by the diesel particles and increase the physical health effects caused by the diesel PM and other contaminants. These increased health risks were only found in laboratory settings. There was no evidence for DE interacting with other contaminants in normal urban atmospheric settings except for the impaired ability of animals to resist respiratory tract infections. No other noncancerous effects were found in any of the studies.

Chapter 7 of the EPA document includes studies that concluded diesel emissions also have carcinogenic effects on animals. Studies indicated that DE and/or diesel PM did result in increased cases of cancer in laboratory animals as well as humans. Rats experienced a trend of increased tumor growth when exposed to concentrations of DE exceeding 1×10^4 mg × hr/m^3. Because tumors were induced at high concentrations it is believed that they are caused by the lungs experiencing particle overload. The studies also examined the effect of filtered exhaust and discovered that it did not cause tumors. They concluded that filtered exhaust either was not a carcinogenic or had low cancer potency.

In addition to pollutants associated with diesel trucks, passenger vehicles produce additional air pollutants including carbon monoxide, nitrogen oxides, particulates,[2] etc. These pollutants will also have indirect impacts on wildlife resources of the SJWA. Two impacts of most concern would be ozone degradation (e.g., plants having an unusual dry or "burned" look) and the deposition of additional nitrogen, both of which can disrupt plant growth cycles.

Direct air pollutant impacts on wildlife within the northern end of the SJWA will be reduced somewhat because prevailing winds are mainly to the southeast with the remainder mostly to the east (i.e., very little to the south), based on data from the project air quality study (MBA 2012). However, some diesel

1 "*Health Assessment Document for Diesel Engine Exhaust."* United States EPA. March 2002.
2 "Pulmonary and cardiovascular of traffic-related particulate matter from roadside and diesel engine exhaust particles." M. Gerlofs-Nijland et al. Inhalation Toxicology, 2010.

and other project-related air pollutants will still be expected to disperse toward the SJWA, including gases and particulates, from trucks and passenger vehicles, when prevailing winds are absent.

There appears to be little academic or scientific research on the specific impacts of diesel air pollutant emissions on wildlife (i.e., not laboratory animals) in natural settings, or specific setbacks for wildlife protection areas from warehouse distribution centers or other sources of diesel pollution. Most available research is too limited or specific regarding the type of pollutant and/or the species considered to be affected (e.g., impacts of one pollutant on one species). The portion of the SJWA adjacent to the WLCSP property is upland agricultural fields which may be used by foraging birds. Indeed, the northern portion of the SJWA land serves as an existing buffer and it was acquired by the CDFW in 1994 for that purpose. Additional buffer areas imposed as mitigation are discussed below.

Based on available scientific data, it is reasonable to conclude that the proposed project, due to its size and expected amount of truck traffic, will have potentially significant impacts on wildlife within the SJWA and east across Gilman Springs Road from project air pollution, including diesel truck exhaust.

Research by the California Air Resources Board (CARB)[1] indicates that 80 percent of the particulates generally settle out of the atmosphere within 1,000 feet of emission sources. Therefore, diesel particulate deposition may occur within approximately 1,000 feet of truck activities within the project, which would extend part way into the CDFW Conservation Buffer Area. This demonstrates one benefit of the State acquiring this Conservation Buffer Area (i.e., to reduce potential impacts of future development to the north from the SJWA and Mystic Lake to the south). In addition, the Specific Plan establishes an additional 250-foot setback along the SJWA boundary, which provides additional buffering from potential air pollutant impacts.

Toxics, Health Risk Assessment. A Health Risk Assessment (HRA) (MBA 2012) was completed for the project primarily prepared for human health risks associated with airborne hazards. An HRA is a guide that helps to determine if current or future exposure to a chemical or substance could affect the health of a population. The State of California Office of Environmental Health Hazard Assessment (OEHHA) develops methods for conducting health risk assessments. As defined under the Air Toxics "Hotspots" Information and Assessment Act of 1987 ["AB 2588" (Chapter 1252, Statutes of 1987), California Health and Safety Code Section 44306], "A health risk assessment means a detailed comprehensive analysis prepared pursuant to Section 44361 to evaluate and predict the dispersion of hazardous substances in the environment and the potential for exposure of human populations and to assess and quantify both the individual and population-wide health risks associated with those levels of exposure" (Office of Environmental Health Hazard Assessment 1987).

The HRA of toxic air contaminants builds upon the assessment methodology described above but requires one additional step beyond that for *assessment* of the local pollutants. This step involves applying a risk characterization model to the results from the air dispersion model to estimate potential health risks at each sensitive receptor location.

Table 4 in the HRA (MBA 2012) provides a discussion on the air pollutants that could potentially be present as a result of the construction and/or operation of the proposed facilities and the most relevant effects from pollutant exposure to humans. No standards for impacts to wildlife have been established. Since air is not stationary, there is a potential that air quality concerns associated with the project will not be confined to the project site itself and thus would disperse into "wildland" areas. The primary wind direction near the project site is to the southeast, as shown in Exhibit 5 in the HRA (MBA 2012). The wind direction would send any air hazards toward the Badlands MSHCP Criteria Cells and points to the east across Gilman Springs Road.

[1] *Air Quality and Land Use Handbook.* CARB and EPA. 2005.

Health risks within the context of this analysis are represented as the increase in cancer risk associated with exposure to diesel particulate matter emissions from project operations. These diesel particulate matter emissions arise from both exhaust and idling of diesel trucks while operating on and near the project site. The methodology applied in calculating cancer risk from diesel particulate matter has been published by the SCAQMD and the California OEHHA.

The methodology basically assumes that a person is exposed continuously to a project's emissions for a period of 350 days per year, 24 hours per day over a 70-year lifetime period. In this regard, cancer risk is expressed as the probability of an individual developing cancer due to exposure to diesel particulate matter emissions at the above-referenced durations from the project, out of a population of 1 million individuals. Thus, a receptor calculated to have a cancer risk of 1 in one million means that this receptor has a probability of 1 in 1 million of developing cancer from the continuous exposure to diesel particulate matter. The SCAQMD has established a significance threshold of 10 in 1 million for cancer risk attributable to exposure to a project's emissions. No such threshold exists for wildlife and a number of factors vary from the criteria established for human populations. The average life of migratory waterfowl ranges from 10 to 20 years. This might represent the most long-lived of the species in the vicinity of the project site. These species are also not present year round and may spend as little at 100 days in the project area on the SJWA.

Specific Plan Design Features. The Specific Plan requires a 250-foot development setback and an additional 150-foot building setback along the southern boundary of project development and the CDFW Conservation Buffer Area. In addition, the Specific Plan calls for native landscaping in the setback area and a wall along the north side of the 250-foot setback zone. The separation between planned development along the east side of Gilman Springs Road will be set back from the roadway. This setback, plus the width of the roadway and related shoulder areas, will be sufficient to separate the proposed project from the MSHCP criteria cell areas east of Gilman Springs Road, so no additional setback is needed in that area.

Mitigation Measures. The following measures are proposed to mitigate potential direct and indirect impacts to listed species due to the project's proximity to the SJWA site, even with the presence of the CDFW Conservation Buffer Area:

4.4.6.1A All Plot Plan applications within Planning Areas 10 and 12 (i.e. adjacent to the San Jacinto Wildlife Area as shown in Final EIR Volume 2 Figure 4.1.6B) shall provide a 250-foot setback from the southerly property line. Permitted uses within this setback area include landscaping, drainage and water quality facilities, fences and walls, utilities and utility structures, maintenance access drives, and similar related uses. No logistics buildings or truck access/parking/maneuvering facilities are permitted in this setback area.

In addition, logistics buildings within Planning Areas 10 and 12 may not be located within 400 feet of the southerly property line. All development proposals in Planning Areas 10 and 12 shall include a minimum six-foot tall chain link fence or similar barrier to separate warehouse activity from the setback area. This fence/barrier shall have metal mesh installed below and above ground level to prevent animals from moving between the development area and the setback area.

Within Planning Areas 10 and 12, all truck activity areas adjacent to the 250-foot buffer area along the southern property line shall be enclosed by minimum 11-foot tall solid walls to reduce noise and lighting impacts on the adjacent property. This measure shall be implemented to the satisfaction of the Planning Official.

A preliminary landscape plan for the 250-foot setback area shall be submitted with all Plot Plan applications for lots adjacent to the California Department of Fish and Wildlife property. Precise landscape plans shall be submitted with any grading permit for said lots and must be approved prior to the issuance of any building permit on said lots. The landscape plan shall be prepared by a licensed landscape architect in consultation with a qualified biologist and shall be consistent with the design standards contained in the World Logistics Center Specific Plan. No plant species listed in Section 6.1.4 of the Western Riverside County Multiple Species Habitat Conservation Plan shall be installed within the setback area. Cottonwood trees shall be planted within the setback area consistent with the World Logistics Center Specific Plan. This measure shall be implemented to the satisfaction of the Land Development Division Manager.

4.4.6.1B Each Plot Plan application in Planning Areas 10 and 12 shall provide runoff management and water quality facilities adequate to minimize downstream erosion, maintain water quality standards and retain pre-development flows in a manner meeting the approval of the City Engineer. All drainage improvements shall be designed to minimize runoff and erosional impacts on adjacent property. This measure shall be implemented to the satisfaction of the Land Development Division Manager of Public Works.

The 250-foot setback identified in **Mitigation Measure 4.4.6.1A**, and the presence of the CDFW Conservation Buffer Area, will effectively mitigate potential indirect impacts of air pollutants, including diesel particulate matter, on wildlife within the SJWA. Compliance with the off-site lighting guidelines of the Specific Plan, compliance with the night lighting standards in Section 9.08.100 of the City Municipal Code, and implementation of Aesthetics **Mitigation Measure 4.1.6.4A** will help reduce lighting impacts on the SJWA to less than significant levels

In addition, **Mitigation Measure 4.4.6.2A** will help assure that potential impacts to listed or sensitive plant species remain at less than significant levels.

Level of Impact After Mitigation. Compliance with the Specific Plan, Municipal Code, and implementation of the recommended **Mitigation Measures 4.4.6.1A** and **4.4.61B** will help reduce project impacts to listed species to less than significant levels.

4.4.6.2 Adopted Habitat Conservation Plans

Impact 4.4.6.2: *Implementation of the project may conflict with portions of the MSHCP for Western Riverside County.*

Threshold	Would the proposed project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The project site is subject to the provisions of two HCPs: the SKR HCP and the MSHCP. Impacts related to these HCPs are discussed in this section.

a. Stephens' Kangaroo Rat Habitat Conservation Plan

The project site is within the SKR HCP Fee Area. The SKR is relatively widespread throughout the SKR HCP Fee Area, but the main blocks of occupied habitat are concentrated in several Core Areas that must be conserved. The proposed project site is not within an SKR Core Area. The SKR also requires species-specific monitoring and management to ensure its long-term viability in the SKR HCP, including tracking population densities and maintaining sparse, open grassland habitats.

The long-term SKR HCP provides Take Authorization for the SKR within its boundaries. The core reserves established by the SKR HCP will be managed as part of the MSHCP Conservation Area consistent with the provisions of the SKR HCP. Focused surveys for Stephens' kangaroo rat will not be required for this project because the project lies within the SKR Fee Area; therefore, no requirements under the SKR HCP other than payment of a local mitigation fee are required.

b. Summary of Western Riverside County Multiple Species Habitat Conservation Plan Impacts

The project area is located within the Reche Canyon/Badlands Area of the MSHCP. Development of the project area would not conflict with the conservation goals established by the MSHCP for Cell Group X or Cell Group E. In addition, no conflict from development would occur in relation to the Reche Canyon/Badlands Area Plan, the Area Plan Subunit 4, the Area Plan Subunit 3, Proposed Core 3, or Existing Core H.

The WLCSP and the proposed offsite facilities occur immediately adjacent and within the vicinity of Core H and proposed Core 3. RCA staff commented that they believed any increase in truck traffic associated with the proposed project along Gilman Springs Road could significantly affect wildlife movement between Core H and proposed Core 3 and requested mitigation to offset those impacts. However, the appropriate mitigation for increased traffic on Gilman Springs Road is payment of the project's fair share of the improvements to Gilman Springs Road, including provisions for wildlife movement or crossings. The design and improvement of Gilman Springs Road is a County project that is not under the control of the project applicant.

No development is proposed within the portion of the project area that lies within Cell Group D and the SJWA. This area is already owned by the State and managed by the CFDW. However, development that will be adjacent to the SJWA property may cause significant indirect impacts to species within the SJWA, which will require mitigation (i.e., designing an appropriate buffer along this "urban edge" will help minimize potential impacts on the SJWA).

The project area is not adjacent to any Cores or Linkages identified in the MSHCP. However, it is adjacent to the SJWA and is subject to the project guidelines provided in MSHCP Section 6.1.4 (Guidelines Pertaining to the Urban/Wildlands Interface). The project is also required to adhere to the Best Management Practices (BMPs) found in Appendix C of the MSHCP.

The project does not propose to alter land use in any way that would adversely affect Cores, Linkages, or Reserve Assembly within the Reche Canyon/Badlands Area Plan.

The project is not located within any Amphibian, Mammalian, or Special Linkage Areas identified by the MSHCP. The project is in an area requiring burrowing owl surveys, is within the MSHCP Criteria Area Species Survey Area (CASSA), and is within the Narrow Endemic Plant Species Survey Area (NEPSSA).

The MSHCP and its Implementation Agreement contain a fee mitigation program pursuant to which local agencies collect development impact fees and remit such fees to the Riverside Conservation Authority (RCA). These fees are in turn used to acquire lands that are suitable for habitat preservation for species covered by the MSHCP. Payment of the local MSHCP mitigation fee will be required of the project prior to the issuance of building permits.

From available information, potential indirect impacts to avian and other biological resources within Mystic Lake and the SJWA will be reduced to less than significant levels by the creation of a 250-foot on-site setback or buffer area in **Mitigation Measure 4.4.6.1A**, which will be in addition to the existing

setback provided by the CDFW Conservation Buffer Area just south of the proposed development area.

Participation in the MSHCP and contribution of MSHCP provides compensation for the loss of raptor foraging habitat due to approved projects. Typically, a project proponent would participate as outlined in the MSHCP, so that loss of raptor foraging habitat is typically considered to be less than significant and no mitigation is required.

Narrow Endemic Plant Species. No Narrow Endemic plant species are anticipated to occur in the project area, but compliance with **Mitigation Measure 4.4.6.2A** will assure there will be no significant impacts to these plant species.

Criteria Area Plant Species. No Criteria Area plant species are anticipated to occur on the project area, but compliance with **Mitigation Measure 4.4.6.2A** will assure there will be no significant impacts to these plant species.

Riparian/Riverine Areas and Vernal Pools. Drainage Features 7, 8, 9, 12, and 15 contain riparian/riverine areas, as designated by the MSHCP. The project area does not contain habitat suitable for covered riparian species, such as least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo. No vernal pools or ephemeral ponds were observed on the project area and no suitable habitat for any fairy shrimp species was identified on site. No additional mitigation regarding vernal pools or vernal pool species is required. A programmatic-level DBESP was prepared by MBA in 2013 to outline specific requirements for project related impacts to these features in the future. A project-specific DBESP will be required during each development project.

c. Nitrogen Deposition

Nitrogen deposition is the term used to describe nitrogen-based pollutants that are deposited as a result of emissions from future project related activities. The pollutants are typically in the form of nitrogen oxide (NO_x) and ammonia (NH_3)-derived pollutants, primarily nitric acid (HNO_3). Although there are many types of nitrogen-based pollutants resulting from project-related emissions, HNO3 is typically the easiest to measure and is used in determining nitrogen deposition rates. Mechanisms by which nitrogen deposition can lead to impacts on sensitive species include (1) direct toxicity, (2) changes in species composition among native plants, and (3) enhancement of invasive species (Fenn et al. 2003; Weiss 2006a). Direct toxicity refers to impacts associated with direct contact with the nitrogen pollutants. There is no scientific documentation that links direct toxicity to impacts associated with sensitive plant and wildlife species. Therefore, direct toxicity is not considered a significant impact.

An increase in available nitrogen promotes the growth of non-native weedy species, which alone is not considered a significant impact. The increased dominance and growth of invasive annual grasses is especially prevalent in low-biomass vegetation communities that are naturally nitrogen-limited, such vegetation communities that occur in the project vicinity include coastal sage scrub and vernal pools (Weiss 2006a). An increase in nitrogen deposition does not inhibit the growth of native plants, but promotes the rapid growth of non-native invasive species that could out-compete native plants for available water and nutrients. If the increase of non-native plant species is detrimental to the growth of native plants, the result may be a conversion from a native plant community to a non-native plant community. This change in habitat is only considered a significant impact if that change occurs in suitable habitat for a federally threatened or endangered species within USFWS-designated critical habitat.

In addition, vernal pools were identified by Weiss (2006a) as a California ecosystem that may be sensitive to nitrogen deposition. Nitrogen deposition in vernal pools stimulates plant growth (including non-native species in adjacent uplands) and the nitrogen is rapidly assimilated by plants and invertebrates within the pools (biomass and dissolved organic nitrogen) (Hobson and Dahlgren 1998). Because of the isolated nature of vernal pools, the nitrogen pollutants accumulate over time and provide a more concentrated level of nitrogen for non-native plants. Since vernal pools are known to provide suitable habitat for a number of federally threatened or endangered species, impacts to vernal pools caused by nitrogen deposition may be considered a significant impact. There are no vernal pools within the project site.

Although non-native plant invasions have affected the vernal pools in the region (the closest recorded occurrence of vernal pool habitat is approximately 3.5 miles to the south), these invasions generally occur in years when precipitation is sparse. In wetter years, the number of non-native plants is reduced since the non-native upland species are intolerant of inundation and the invasion cycle may be reset in some cases. This means that the established non-native plants are not adaptable to an aquatic habitat and die-off during prolonged periods of inundation. Even though the non-native plant species will have an abundance of available nitrogen and optimum growing conditions, the prolonged inundation periods prohibit non-native invasive species growth.

The WLC will consist of mobile, non-point pollution sources (diesel trucks), which will result in a highly random dispersion of emissions that will occur in a broad, regional fashion. Because of the way in which nitrogen is generated by the WLC project, its overall patterns for dispersion, and the multi-variant parameters that would need to be taken into consideration for such an analysis, there is no established scientific basis or standards to study the effects of nitrogen dispersion for non-point pollution sources; hence, project-specific conclusions or mitigation would be overly speculative for the purposes of this EIR.

Specific Plan Design Features. The project is consistent with the major MSHCP requirements relative to core areas, criteria cells, threatened and endangered species. In addition, the project complies with the MSHCP guidelines for urban/wildland interface, riparian/riverine areas, or related buffers (with implementation of **Mitigation Measure 4.4.6.1A**). In addition, future development will be required to demonstrate that it is also consistent with all MSHCP requirements, including indirect impacts such as lighting, noise, and air pollution effects.

Regulatory Compliance. Stephens' kangaroo rats have a low potential to occur within the study area. While the study area is not within the SKR Core Reserve Area, the SKR HCP Implementing Agreement requires payment for loss of habitat within defined areas. The entire study area lies within the fee area. An assessment of individual actions for development within the WLCSP would be required prior to any implementation. The number of acres of disturbance associated with the development and any off-site improvements shall require payment to comply with the SKR HCP. In addition, prior to issuance of a grading permit on each project, applicants will be required to pay the mandatory mitigation fee for the MSHCP. The mitigation fee is a per acre fee for commercial or industrial development.

Mitigation Measures. In addition to payment of SKR and MSHCP impact fees, the following measures will help ensure that potential impacts to sensitive species are reduced to less than significant levels:

4.4.6.2A Each Plot Plan application shall include a focused plant survey of the proposed development site prepared by a qualified biologist to identify if any of the following sensitive plants (i.e., Coulter's goldfields, smooth tarplant, Plummer's mariposa lily, or

thread-leaved brodiaea) are present. If any of the listed plants are found, they may be relocated to the 250-foot setback area outlined in the Specific Plan and discussed in Mitigation Measure 4.4.6.1A. Alternatively, at the applicant's discretion, an impact fee may be paid to the Western Riverside County Regional Conservation Authority (RCA) or other appropriate conservation organizations to offset for the loss of these species. This measure shall be implemented to the satisfaction of the Planning Official.

4.4.6.2B Prior to the approval of any tentative maps for development including or adjacent to any Criteria Cells identified in the Western Riverside County Multiple Species Habitat Conservation Plan, the applicant shall prepare and process a Joint Project Review (JPR) with the Riverside County Resource Conservation Agency (RCA). All criteria cells shall be identified on all such tentative maps. This measure shall be implemented to the satisfaction of the City Planning Division and Riverside County Resource Conservation Agency ("RCA").

In addition, the previously outlined **Mitigation Measures 4.4.6.1A and 4.4.6.1B** will also help reduce potential direct and indirect impacts to biological resources covered by the MSHCP.

Level of Impact After Mitigation. With implementation of **Mitigation Measures 4.4.6.1A, 4.4.6.1B, 4.4.6.2A,** and **4.4.6.2B**, potential impacts related to MSHCP consistency will be reduced to less than significant levels.

4.4.6.3 Jurisdictional Delineation, Riparian Habitat or Other Sensitive Natural Communities

Impact 4.4.6.3: *The project has the potential to result in significant impacts to jurisdictional land, riparian habitat and sensitive natural communities and may require subsequent permits from various resource agencies.*

Threshold	Would the proposed project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? Would the proposed project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Drainages in the project area were investigated and delineated by MBA in March 2012 and updated in 2013. A total of 15 primary drainage features were identified during this survey and a number of sub-drainages or tributaries were also identified. Jurisdiction for each drainage and/or sub-drainage or tributary was evaluated for jurisdiction under Section 404 and 401 of the CWA as administered by USACE and RWQCB, respectively; Porter Cologne as administered by the RWQCB; and Section 1600 of the Fish and Game Code as administered by the CDFW.

All 15 drainage features identified in the 2013 document were assessed to determine the jurisdictional limits. Based on current conditions, two of the 15 features are subject to the jurisdiction of the USACE and/or RWQCB. In addition, no jurisdictional wetlands or isolated wetlands were identified. Drainage Features 1, 2, 4, 12, and 13 flow to the south and then southwest of the project area. These drainage features are contained in roadside ditches or otherwise sheet flow prior to leaving the project area.

Drainage Feature 12 and 15 are likely subject to USACE jurisdiction. However, if any portion of Drainage Features 12 and 15 are affected by WLC project construction activities or flood control improvements in the future, then regulatory permitting may be required.

There are two drainage features that are completely isolated, Drainage Features 3 and 14. Drainage Feature 3 is an isolated temporary water quality facility serving the new Skechers building. This feature was created in an existing upland area and will eventually be converted into an underground storm drainage system. The second feature (consisting of two small basins) was created in an upland area to contain polluted runoff from a now-abandoned cattle operation. The eastern feature (Feature 14) is dominated by non-native tree species and contains no native riparian habitat. The western feature contains a mix of non-native trees and native riparian habitat. There is no evidence of ponding and the basin is no longer in use. These basins no longer serve any water quality function and are therefore not considered to be isolated waters of the State under the Porter Cologne Act.

The remaining seven features flow to the south and eventually revert to sheet flow conditions before reaching the San Jacinto Wildlife Area. Each drainage feature was walked until neither an ordinary high water mark (OHWM) nor a clearly defined bed and bank feature was present and the drainage course reverted to sheet flow onto open land. There was no evidence of flows downstream of the drainage where the OHWM was no longer present. Therefore, these features are hydrologically and physically isolated from any downstream RPW or TNW. Surface flows from the project area will eventually be conveyed into the SJWA. The SJWA's system of ponded areas was surveyed to document any downstream connectivity to any RPW or TNW. Based on current site conditions, the water within the SJWA is completely contained within the ponded area system with a large overflow area that conveys flows over a spillway in the southwest corner of the facility. There is no evidence of active flows within the spillway channel and all upstream flows are likely maintained within the SJWA exclusive of major flood events (50- to 100-year floods).

The MBA 2013 report concludes that two of the drainages on the project site are under the jurisdiction of the USACE (Drainages 12 and 15), and several additional drainages are under the jurisdiction of the CDFW and RWQCB (Drainages 7, 8, 9, 12, and 15).

Riparian or riverine areas are lands that contain habitat dominated by trees, shrubs, and persistent emergents, which occur close to or depend upon soil moisture from a nearby water source; or areas with fresh water flowing during all or a portion of the year. Unvegetated drainages (ephemeral streams) may be included if alterations to that drainage have the potential to affect Covered Species and Conservation Areas.

Drainage Feature 7, 8, 9, 12, and 15 within the WLC project are considered riparian/riverine areas, as defined by MSHCP. If impacts to any of these areas cannot be avoided, a DBESP report and relevant mitigation will be required by the RCA.

The project area does not contain habitat suitable for sensitive riparian species, such as least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo. Additionally, no vernal pools or ephemeral ponds were observed on the project area and no suitable habitat for any fairy shrimp species was identified on site.

Raptor Foraging Habitat. The WLCSP and off-site facilities contain flat, open areas with sparse vegetation, which could be considered foraging habitat for some raptor species. Due to the regular, heavy disturbance associated with the various agricultural activities in the WLCSP and off-site facilities resulting in a rather limited prey base, and the limited size of the site in relation to the expansive foraging habitat in the near vicinity including both the CDFW Conservation Buffer Area and the SJWA, LPSRA and the extensive Badlands to the east, the foraging habitat on site is considered marginally suitable and an adverse but not significant impact to raptor foraging habitat is anticipated.

Project or Specific Plan Design Features. The WLCSP does not contain any design features related to riparian habitat or other sensitive natural communities.

NOTE: The following changes have been made in responses to Comments A-1-1 in Letter A-1 from the U.S. Army Corps of Engineers, and A-6-12 in Letter A-6 from the U.S. Fish and Wildlife Service and et al.

Mitigation Measures. The JD prepared for the project in 2013 is programmatic in nature because no specific development activity or building plans are proposed at this time. The 2012 JD determined the on-site drainages were not under the jurisdiction of the USACE, but one or more may be under the jurisdiction of the CDFW. Therefore, **Mitigation Measure 4.4.6.3A** will help ensure there will be no significant impacts to riparian areas associated with Waters of the U.S. or Waters of the State as a result of future development within the project.

In addition to the previously identified **Mitigation Measures 4.4.6.1A** through **4.4.6.1C**, the following measures have been identified to reduce the significance of potential impacts to riparian/riverine habitat:

4.4.6.3A Prior to the issuance of grading permits the applicant shall secure a jurisdictional determination from the United States Army Corps of Engineers (USACE) and confirm with the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (CDFW) if drainage features mapped on the property to be developed are subject to jurisdictional authority. If the features are subject to regulatory protection, the applicant will secure permit approvals with the appropriate agencies prior to initiation of construction. Compensatory riparian habitat mitigation will be provided at a minimum ratio of 1:1 (replacement riparian habitat to impacted riparian habitat) to ensure no net loss of riparian habitat or aquatic resources. It should be noted that this is a minimum recommended ratio but the actual permitting ratio may be higher. These detention basins will be oversized to accommodate the provision of areas of riparian habitat. Maintenance of the basins will be limited to that necessary to ensure their drainage and water quality functions while encouraging habitat growth. Riparian habitat mitigation will be provided concurrent to or prior to impacts. A Compensatory Mitigation Plan will be prepared for all unavoidable impacts and will be consistent with the United States Army Corps of Engineers (USACE)/United States Environmental Protection Agency's Compensatory Mitigation for Losses of Aquatic Resources; Final Rule and the United States Army Corps of Engineers Standard Operating Procedure for Determination of Mitigation Ratios.

The applicant shall consult with United States Army Corps of Engineers, California Department of Fish and Wildlife, and Regional Water Quality Control Board to establish the need for permits based on the results of a recent jurisdictional delineation and final design plans for each of the proposed the facilities. Consultation with the three agencies shall take place and appropriate permits obtained for project-level development. Compensation for losses associated with the altering of drainages on site shall be in agreement with the permit conditions and in coordination with compensation outlined below.

Mitigation will consist of onsite creation, offsite creation, or purchase of mitigation credits from an approved mitigation bank. As outlined in the WLC programmatic DBESP report, onsite riparian habitat will be created at a minimum 1:1 ratio due to the poor quality of onsite habitat. New habitat will be created within the onsite detention/infiltration basins to the extent allowed by the resource agencies to reduce storm flows, improve water quality, and reduce sediment transport. Habitat creation will include the installation of mule fat scrub or similar riparian scrub habitat to promote higher quality riparian habitat, but still

maintain the basins for their primary role as detention facilities. The use of these areas as conservation areas would require consent from CDFW and the City of Moreno Valley (MM BIO-2b and MM DBESP 1 through 3).

4.4.6.3B As required by the Resource Conservation Agency (RCA), a program-level Determination of a Biological Equivalent or Superior Preservation (DBESP) for impacts to Riverine/Riparian habitat has been prepared and shall be approved by the Resource Conservation Agency prior to project approval. The Determination of a Biological Equivalent or Superior Preservation includes a general discussion of mitigation options for impacts to riverine/riparian areas as well as general location and size of the mitigation area and includes a monitoring program.

If impacts to riparian habitat within the World Logistics Center Specific Plan (WLCSP) cannot be avoided at the time of specific development, then a separate project-level Determination of Biologically Equivalent or Superior Preservation (DBESP) shall be prepared to identify project-specific impacts to riparian habitat and incorporate mitigation options identified in Mitigation Measure 4.4.6.3A.

A project-level Determination of a Biological Equivalent or Superior Preservation for each specific development shall be prepared to document measures to reduce impacts to riparian/riverine habitats in accordance with the Western Riverside County Multiple species Habitat Conservation Plan (MSHCP). The project-level Determination of a Biological Equivalent or Superior Preservation shall include specific measures to reduce impacts to riparian areas and provide mitigation in the form of onsite preservation of riparian areas and/or a combination of compensation through purchase and placement of lands with riparian/riverine habitat into permanent conservation through a conservation easement and/or restoration or enhancement efforts at offsite or onsite locations. Therefore, mitigation required for compensation for impacts to riparian/ riverine areas will require a minimum of 1:1 mitigation ratio of riparian/riverine mitigation land.

As outlined in the WLC programmatic DBESP, erosion control improvements will be installed within Drainage 9 to reduce sediment transport, and additional riparian habitat will be enhanced within this drainage following the installation of the erosion control improvements (MM DBESP 4 and 5).

Note: The following Mitigation Measure has been added in response to Comment F-1-6 in Letter F-1 from the Center for Biological Diversity/San Bernardino Valley Audubon Society.

4.4.6.3C Prior to issuance of any grading permit for any offsite improvements that support development within the World Logistics Center Specific Plan, the developer shall retain a qualified biologist to prepare a jurisdictional delineation (JD) for any drainage channels affected by construction of the offsite improvements. This jurisdictional delineation shall be submitted to the U.S. Army Corps of Engineers (USACE) and California Department of Fish and Wildlife (CDFW) for review and concurrence. If the offsite improvements will not affect any identified jurisdictional areas, no United States Army Corps of Engineers permitting is required. However, permitting through the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (i.e., Streambed Alternation Agreement) may still be required for these improvements. The applicant shall consult with United States Army Corps of Engineers, California Department of Fish and Wildlife and Regional Water Quality Control Board to establish the need for permits based on the results of the 2012 jurisdictional delineation and final design plans for each of the proposed the facilities. Consultation with the three agencies shall take place and appropriate permits obtained. Compensation for losses associated with any altered offsite drainages shall be in agreement with the permit conditions. Any landscaping associated with these offsite improvements shall use only native species to help protect biological

resources residing within or traveling through these drainages per Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Table 6.1.2. This measure shall be implemented to the satisfaction of the City Planning Division in consultation with the U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, and the California Department of Fish and Wildlife.

Level of Significance after Mitigation. With implementation of **Mitigation Measures 4.4.6.1A, 4.4.6.1B, 4.4.6.3A, and 4.4.6.3A** through **4.4.6.3C**, potential impacts to riparian habitat or other sensitive natural communities, including on-site drainages, will be reduced to less than significant levels.

4.4.6.4 Candidate, Non-listed Sensitive, or Special-Status Species

Impact 4.4.6.4: *The proposed project has the potential to affect the burrowing owl, designated "species of special concern" by the California Department of Fish and Wildlife.*

Threshold	Would the proposed project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Critical Habitat. No USFWS designated Critical Habitat for any species is located within the project area; therefore, no further action with regard to Critical Habitat is necessary.

Los Angeles Pocket Mouse. Focused surveys for the LAPM were conducted in August 2005, June 2010, June 2012, and July 2013. Suitable habitat was found within Drainage Feature 9, one of the main drainage features located in the eastern end of the project area. In its MSHCP Consistency Report, MBA concluded that LAPM is absent from the project area. However, the Specific Plan indicates this drainage will remain in its present natural condition, except for the southern end as it becomes the Street H channel and outlets to the SJWA land to the south. Extensive surveys were completed in 2005, 2010, 2012, and 2013, which concluded that Los Angeles pocket mouse was not present. In addition, there is no suitable habitat between the known occurrence of Los Angeles pocket mouse and the WLCSP. The known populations of Los Angeles pocket mouse are located within the southern portion of the SJWA, which is more than 2 miles from the southern WLCSP boundary. The area between the known recorded occurrences of Los Angeles pocket mouse and the WLCSP is actively disked farmland. Therefore, there is no habitat connectivity between the known occurrences of Los Angeles pocket mouse and the WLCSP. However, to ensure that no impacts occur**, Mitigation Measure 4.4.6.4E** has been added below.

Migratory or Nesting Birds. The 2013 MBA report found the extensive agriculture plant communities in the WLCSP and offsite facilities provide suitable nesting habitat for ground-nesting avian species such as western meadowlark (*Sturnella neglecta*) and burrowing owl. Suitable habitat for shrub and tree nesting species such as red-tailed hawk, black phoebe (*Sayornis nigricans*), and house finch occur along the edges of existing development surrounding the WLCSP and offsite facilities as well as isolated, remnant patches of vegetation in undisturbed portions of the WLCSP and offsite facilities. Therefore, portions of the WLCSP and offsite facilities and immediately adjacent to the WLCSP and off-site facilities provide suitable nesting habitat for migratory birds protected under the MBTA and California Fish and Game Code.

The project area contains suitable nesting habitat for several tree-, shrub-, and ground-nesting avian species. Therefore, MBA recommends construction activities avoid the avian nesting season, from February to August, if possible. If construction activity must take place during the nesting season, a pre-construction nesting bird survey should be conducted prior to any ground disturbance activities. The survey can be conducted in conjunction with the pre-construction survey for burrowing owl.

If passerine birds are found to be nesting or if there is evidence of nesting behavior within 250 feet of the impact area, a 250-foot setback will be required around the nest where no vegetation disturbance will be permitted. For raptor species such as hawks and owls, this buffer should be expanded to 500 feet. A qualified biologist will be required to closely monitor nests until it is determined that they are no longer active, at which time construction activity in the vicinity of nests could continue. Construction activity may proceed within the buffer area at the discretion of the biological monitor.

Burrowing Owl. For those species that are not covered by the take and incidental take provisions of the MSHCP (e.g., burrowing owl), the MSHCP requirements dictate that further protective action be taken. While no burrowing owls were identified within the project's proposed area of disturbance, because suitable habitat is present within the project area for the burrowing owl and because the species is highly mobile, a potential exists that, at some future date prior to project development, this species may occupy the development sites. This is a potentially significant impact requiring mitigation.

All burrowing owl observations within the project site are associated with artificially created berms. The recorded sightings have been within a bank of an existing drainage feature, a berm within the recently constructed detention basin associated with the Skechers Building (Drainage 3), and a roadside berm just south of Alessandro Boulevard.

The proposed detention basins will be constructed with similar manufactured berms. Based on historic observations of burrowing owl within the project site, it is reasonable to assume that construction of similar berms will continue to provide optimum burrow habitat for resident burrowing owls.

In addition, since there have been no recorded occurrences of burrowing owl in the northern portion of the SJWA there is no concern for competition with other burrowing owls. It is reasonable to assume that the created detention basins will provide more than a sufficient amount of foraging habitat to support a single pair of burrowing owl. Since the southern 250 -feet of the WLCSP will not contain any building development and construction activities will be restricted to detention basins and associated access roads, it would be more appropriate to include the buffer area in a deed restriction rather than a conservation easement.

Plant Survey Areas. The project limits are within MSHCP Survey Area 10 of the NEPSSA and MSHCP Survey Area 9 of the CASSA for plant species. The MSHCP requires that a habitat site assessment (HSA) be conducted for all proposed developments within Narrow Endemic Plant Species' (NEPSSAs) and Criteria Area Sensitive Plant Species' (CASSAs). The HSA for most NEPSSA and CASSA plants must be done during a normal rainfall year and/rainy season. If it is determined during the HSA that suitable soils and/or growing conditions are present on site to support identified NEPSSA species, a focused plant survey is required during the plant species blooming period.

Habitat suitability of the site for NEPSSA and CASSA species is detailed in the General Biological Resources and MSHCP Compliance Report (EIR Appendix E). None of the species analyzed in the NEPSSA or CASSAs is anticipated to occur on the WLC project site. The implementation of the WLC project would not affect the habitat or result in a direct impact for any special status plant species.

Project or Specific Plan Design Features. The WLCSP does not contain any design features relative to sensitive species or birds, other than the landscape palette that contains all native and/or drought-tolerant plants that may be utilized by birds tolerant of human activity.

The following mitigation measures have been changed in response to Comments A-6-17 in Letter A-6 from the U.S. Fish and Wildlife Service, and Comment B-3-33 in Letter B-3 from the California Department of Fish and Wildlife.

Mitigation Measures. The following measures have been identified to reduce the significance of potential impacts to special status bird species:

Listed or Sensitive Species:

The previously identified **Mitigation Measures 4.4.6.1A** through **4.4.6.1D** will reduce potential impacts on listed or otherwise sensitive plant or animal species or critical habitat to less than significant levels, other than the following which are addressed with additional measures:

Migratory/Nesting Birds

4.4.6.4A Pursuant to the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code (CFGC), site preparation activities (removal of trees and vegetation) shall be avoided during the nesting season of potentially occurring native and migratory bird species (generally February 1 to August 31). If site preparation activities must occur during the nesting season, a pre-activity field survey shall be conducted by a qualified biologist prior to issuance of grading permits for such development. The survey shall determine if active nests of species protected by the Migratory Bird Treaty Act or California Fish and Game Code are present in the construction zone. If active nests of these species are found, the developer shall establish an appropriate buffer zone with no grading or heavy equipment activity within of 500 feet from an active listed species or raptor nest, 300 feet from other sensitive or protected bird nests (non-listed), 250 feet from passerine birds, or 100 feet for sensitive or protected songbird nests. All construction activity within the vicinity of active nests must be conducted in the presence of a qualified biological monitor. Construction activity may encroach into the buffer area at the discretion of the biological monitor in consultation with CDFW. In the event no special status avian species are identified within the limits of disturbance, no further mitigation is required. In the event such species are identified within the limits of ground disturbance, mitigation measure 4.4.6.4B shall also apply. This measure shall be implemented to the satisfaction of the City Planning Division.

4.4.6.4B If it is determined that project-related grading or construction will affect nesting migratory bird species, no grading or heavy equipment activity shall take place within the limits established in Mitigation Measure 4.4.6.4A until it has been determined by a qualified biologist that the nest/burrow is no longer active, and all juveniles have fledged the nest/burrow. This measure shall be implemented to the satisfaction of the City Planning Division.

4.4.6.4C The loss of foraging habitat for golden eagle and white-tailed kite will be mitigated by payment of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) fee and the creation of a landscaped buffer area adjacent to the San Jacinto Wildlife Area property (SJWA). First, the payment of the Western Riverside County Multiple species Habitat Conservation Plan fee will be required on a project-by-project basis. Second, a 250-foot setback as described in Mitigation Measure 4.4.6.1A will be established within the World Logistics Center Specific Plan area. This area will reduce impacts to raptor species foraging in the adjacent San Jacinto Wildlife Area open space areas.

Burrowing Owl

4.4.6.4D A pre-construction clearance survey for burrowing owl shall be conducted by a qualified biologist no more than thirty (30) days prior to any grading or ground disturbing activities within the project area.

In the event no burrowing owls are observed within the limits of ground disturbance, no further mitigation is required.

If construction is to be initiated during the breeding season (February 1 through August 31) and burrowing owl is determined to occupy any portion of the disturbance area during the 30-day pre-construction survey, construction activity shall maintain a 500 foot buffer area around any active nest/burrow until it has been determined that the nest/burrow is no longer active, and all juveniles have fledged the nest/burrow. If this avoidance buffer cannot be maintained, consultation with the California Department of Fish and Wildlife (CDFW) shall take place and an appropriate avoidance distance established. No disturbance to active burrows shall occur without appropriate permitting through the Migratory Bird Treaty Act and/or California Department of Fish and Wildlife.

If active burrowing owl burrows are detected outside the breeding season (September through January), or within the breeding season but owls are not nesting or in the process of nesting, active and/or passive relocation may be conducted following consultation with the California Department of Fish and Wildlife. A relocation plan may be required by California Department of Fish and Wildlife if active and/or passive relocation is necessary. The relocation plan will outline the basic process and provides options for avoidance and mitigation. Artificial burrows -may be constructed within the buffer area south of the World Logistics Center Specific Plan. Construction activity may occur within 500 feet of the burrows at the discretion of the biological monitor in consultation with CDFW.

A relocation plan may be required by California Department of Fish and Wildlife if active or passive relocation is necessary. Artificial burrows may be constructed within appropriate burrowing owl habitat within the proposed open space/conservation area (Planning Area 30), a 74.3-acre area in the southwest portion of the Specific Plan. This area abuts the Lake Perris State Recreation Area (LPSRA) which is already in conservation. If suitable habitat is not present in Planning Area 30, owls may be relocated to the SJWA, the 250-foot buffer area or other suitable on-site or off-site areas. Construction activity may occur within 500 feet of the burrows at the discretion of the biological monitor.

Los Angeles Pocket Mouse

4.4.6.4E Prior to the approval of any Plot Plans proposing the development of land including or adjacent to Drainage 9, a protocol survey for the Los Angeles Pocket Mouse (LAPM), including 100 feet upstream and downstream of the affected reach shall be prepared by a qualified biologist and submitted to the City. If the affected drainage is not occupied, the area is considered not to be occupied and development can continue without further action. If the species is found within the specific survey area, no development shall occur until an appropriate mitigation fee is paid or appropriate amount of land set aside on the project site or off site to compensate for any loss of occupied Los Angeles Pocket Mouse habitat. Alternatively, individuals may be relocated to the 250-foot setback zone along the southern boundary of the property identified in Mitigation Measure 4.4.6.1A, or other appropriate areas as determined by the United States Fish and Wildlife Service. If necessary, this measure shall also be coordinated with Mitigation Measure 4.4.6.2B regarding preparation and processing of a Determination of a Biological Equivalent or Superior Preservation report. This measure shall be implemented to the satisfaction of the City Planning Division.

Resource Management

4.4.6.4F Prior to approval of any discretionary permits for development within Planning Areas 10 and 12, a Biological Resource Management Plan (BRMP) shall be prepared to prescribe how the 250-foot setback area outlined in Mitigation Measure 4.4.6.1A will be developed and maintained This plan will identify frequent and infrequent vegetation management requirements (i.e., removal of invasive plants) and the planting and maintaining trees to provide roosting and nesting opportunities for raptors and other birds. The Biological Resource Management Plan will also describe how relocation of listed or sensitive species will occur from other locations as outlined in Mitigation Measures 4.4.6.2A, 4.4.6.4D, and 4.4.6.4E.

The Biological Resource Management Plan shall be reviewed and approved by the Planning Official in consultation with the San Jacinto Wildlife Area Manager. The Biological Resource Management Plan shall cover all the land within the 250-foot setback zone within Planning Areas 10 and 12 Implementation of the plan shall be supervised by a qualified biologist, to the satisfaction of the City Planning Division.

4.4.6.4G Mitigation Measure 4.4.6.1A specifies that a landscape plan shall be submitted with any development proposal for lots adjacent to the California Department of Fish and Wildlife (CDFW) San Jacinto Wildlife Area (SJWA) property prior to issuance of a precise grading permit. The landscape plan shall be prepared by a licensed landscape architect in consultation with a qualified biologist and shall be consistent with the design standards contained in the Specific Plan. No plant species listed in Section 6.1.4 or Table 6.2 of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) shall be installed within the setback area. In conjunction with development adjacent to the San Jacinto Wildlife Area (SJWA), cottonwood trees shall be planted within the 250-foot setback area, consistent with the World Logistics Center Specific Plan plant palette (per DBESP MM 8).

During construction, the runoff leaving construction areas will be directed to onsite detention basins and away from downstream drainage features located offsite. All projects within the WLCSP will be required to prepare a Storm Water Pollution Prevention Plan (as outlined in MM 4.9.6.2B). Regarding the 250-foot setback area, pedestrian and vehicular access to areas of riparian/riverine habitat will be prohibited except for controlled maintenance access. Finally, no grading shall be permitted within conserved riparian/riverine habitat areas except for grading necessary to established or enhance habitat areas (DBESP MM 6, 7, 9, and 10).

4.4.6.4H As outlined in Mitigation Measure 4.4.6.1A, development adjacent to the 250-foot open space setback shall have a six-foot chain link fence or similar barrier to help separate human activity and the buffer area. Any chain link fencing installed on any properties adjacent to the 250-foot buffer area shall have metal mesh installed below and above ground level to prevent animals from accessing new development areas.

4.4.6.4I The individual property owner and/or Property Owners Association (POA) as appropriate shall be responsible for maintaining the various onsite landscaped areas, open improved or natural drainage channels, and detention or flood control basins in a manner that provide for fuel management and vector control pursuant to standards maintained by the City Fire Marshall and County Department of Environmental Health- Vector Control Group. This measure requires the individual owner or Property Owners Association (POA) to manage vegetation in and around these areas or improvements so as to not represent a fire hazard as defined by the City Fire Department through the substantial buildup of combustible materials. This measure also requires the individual owner or Property Owners Association to manage vegetation and standing water in drainage channels and basins such that they do not encourage or allow vectors to occur (primarily rats and mosquitoes). Runoff shall not be allowed to stand in channels or basins for more

than 72 hours without treatment or maintenance to prevent establishment of mosquitoes per published County vector control guidelines and "Best Management Practices for Mosquito Control on California State Properties" which is available from the California West Nile Virus website at http://www.westnile.ca.gov/resources. This measure shall be implemented by the Property Owners Association in consultation with the City Fire Department and Riverside County Department of Environmental Health – Vector Control Group.

4.4.6.4J A Fuel Management Plan shall be prepared on a project-by-project basis for those Planning Areas adjacent to the south and east boundary of the World Logistics Center Specific Plan adjacent to Western Riverside County Multiple Species Habitat Conservation Plan Conservation Areas. The Fuel Management Plan shall be prepared by the project proponent and submitted for approval to the prior to plot plan approval for those projects on the southern and eastern Western Riverside County Multiple Species Habitat Conservation Plan boundary. Per the Western Riverside County Multiple Species Habitat Conservation Plan guidelines, the Fuel Management Plan shall include the following:

- A plant palette of adequate plant species that may be planted within the Fuel Management Area, which will be approved by a biologist familiar with the plant requirements of the area.
- A list of non-native invasive plants that are prohibited from installation.
- Maintenance activities and a maintenance schedule.

Fuel modification zones shall be mapped and include an impact assessment as required under California Environmental Quality Act guidelines for a project-level analysis. The plan shall demonstrate that the adjacent Western Riverside County Multiple Species Habitat Conservation Plan Areas are adequately protected from expected fire risks.

4.4.6.4K Prior to approval of any plot plans for development adjacent to the SJWA, the applicant shall demonstrate that direct light rays have been contained within the development area, per requirements of the MSHCP Section 6.0 which states, "Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting." This measure shall be implemented to the satisfaction of the City Planning Division.

Level of Significance after Mitigation. Implementation of the above-listed mitigation measures would reduce impacts to burrowing owl, migratory bird species, and Los Angeles pocket mouse to less than significant levels.

4.4.7 Cumulative Impacts

The cumulative area for biological resources is the Western Riverside County MSHCP area. The MSHCP establishes a comprehensive, multi-jurisdictional program focused on the conservation of 146 species and their habitats in western Riverside County. As stated in its Conservation Element, the City reviews all public and private development and construction projects and other land use plans/activities within the MSHCP area to ensure compliance with the conservation criteria procedures and mitigation requirements set forth in the MSHCP. As a signatory to the MSHCP Implementing Agreement, the City has been issued "Take Authorization," which allows the implementation of land use decisions consistent with the MSHCP without individual authorization by State or Federal authorities. As required by the MSHCP, focused biological resource studies have been conducted to assess potential impacts associated with development of the proposed uses. Where impacts to special status bird species and jurisdictional areas have been identified, mitigation

has been identified to reduce the project specific impacts to a less than significant level. Additionally, the MSHCP and its Implementation Agreement contain a fee mitigation program pursuant to which local agencies collect development impact fees and remit such fees to the RCA. These fees are in turn used to acquire lands which are suitable for habitat preservation for species covered by the MSHCP. In fact, habitat lands created by the MSHCP also have biological benefits for species technically not covered by the MSHCP, such as the burrowing owl. Habitat acquired by the MSHCP may be suitable as owl habitat. The latest adjustment of the MSHCP fee mitigation (July 1, 2009) allows the collection of fees of $6,597 per acre of industrial development. The payment of required MSHCP is a standard requirement for all development occurring within the MSHCP area.

This EIR determined that indirect impacts of the project on the SJWA would be less than significant with mitigation, and the regional (cumulative) implications of the project can be addressed through the fee payment program of the MSHCP because it provides a regional and comprehensive approach to conservation planning. For example, future development that impacts Drainage 9 would be required to prepare a DBESP report consistent with MSHCP requirements. Through the implementation of the stated mitigation for project-specific impacts, and the payment of required MSHCP mitigation fees, no significant cumulative effect on biological resources would result from the development of the proposed uses with implementation of the identified program mitigation measures.

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4.5 CULTURAL AND PALEONTOLOGICAL RESOURCES: TABLE OF CONTENTS

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NOTE TO READERS. *This section has been revised in response to public comments received on the Programmatic DEIR which have resulted in project changes, updates to technical studies, and revisions to DEIR sections and proposed Mitigation Measures.*

4.5 CULTURAL AND PALEONTOLOGICAL RESOURCES

This section identifies and evaluates the potential of the proposed project to have adverse effects on archaeological, historical, and paleontological resources. The resources of concern include, but are not limited to, prehistoric and historic artifacts, burials, sites of religious or cultural significance to Native American groups, and historic structures. This section provides a detailed discussion of impacts potentially attributable to the proposed project, and criteria used to determine impact significance to cultural resources.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 29 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.

The analysis contained in this section is based on the following technical study prepared for the proposed project:

- Cultural Resources Assessment, Michael Brandman Associates, original dated April 12, 2012, updated September 2014 (Appendix F).
- Copies of City correspondence illustrating City compliance with SB 18 tribal consultation requirements (Appendix A).

In addition to this technical study, the analysis contained in this section is also based on the following reference documents:

- Moreno Valley General Plan Conservation Element, adopted October, 2006.
- Moreno Valley General Plan Environmental Impact Report, certified July, 2006.

4.5.1 Existing Setting

4.5.1.1 Archaeological Resources

Archaeological resources are those associated with prehistoric cultural sites, prehistoric isolates, and the remnants of historic cultural sites that lack substantive building remnants (termed "historic archaeological sites") such as roads and trails. Prehistoric cultural resources consist of those physical properties that predate the advent of written records in a particular region that are considered important to a culture, subculture, or community for scientific or humanistic reasons. These include geographic districts, structures, sites, objects, and other physical evidence of past human activity. Similar to prehistoric cultural resources, historic cultural resources in a particular geographic region are considered important to a culture, subculture, or community, and postdate the advent of written records. An archaeological records search was conducted through the Eastern Information Center (EIC) at the University of California, Riverside by the project archaeologist, Michael Brandman Associates (MBA).

The results of this records search indicated that the project site and surrounding area contain a number of Native American (NA) sites, mainly milling features and slicks associated with the uplands of the nearby Mount Russell Range. The area also contains several historic sites mainly remnant artifacts and foundations of historic homestead/farmstead buildings and/or ranch complexes.

4.5.1.2 Historic Resources

The following is excerpted and summarized from Viola Hamner's "In the Beginning," a history of life in Moreno Valley (Hamner 2003):

> *Our valley was once called San Jacinto Plains. It was so named because the land was considered a part of the huge Rancho San Jacinto, dating back to mission times. It has been described as part of the tableland that stretches between Box Springs and the San Jacinto Mountains, and between the Badlands and Temecula.*
>
> *Great bands of sheep and herds of cattle from the rancho roamed our valley and munched the grasses and weeds. Indian made trails and camped near the hills. Just as new, the hills turned brown during the summer months and into the spring, the undisturbed land became a billowy lake of blossoms…*
>
> *When the huge Alessandro Tract on the western part of our valley was recorded in August 1887, and the town of Alessandro was established, our valley became known as Alessandro Valley or Alessandro Plains. After 1890 when the town of Moreno was established, it became known as Moreno Valley as well as Alessandro Valley.*
>
> *Then in 1890 appeared Frank E. Brown and his Bear Valley and Alessandro Development Company, coming in like a great wind, and in one big swoop, changed our valley forever… Brown and his partner Edward Judson, devised a plan to build a dam and transport water to their land from Big Bear Mountain. They then founded the successful colony of Redlands. They concluded that if they built the Bear Valley Dam higher, there would be enough water in the big reservoir to establish another colony in what is now Moreno Valley.*

Brown and his investors bought and subdivided thousands of acres of land throughout the valley.

In April 1891, the precious Bear Valley water finally arrived. It traveled down the mountain and through pipelines, tunnels, and ditches for a distance of forty miles… With only a promise of water, the excited settlers started to improve their parcels.

For several years, there was great hope and planting activity in the valley. Then, in 1894, a series of misfortunes befell the valley, including several years of drought and a lack of irrigation water as a result of losing a water rights decision with Redlands. It turned out the Big Bear Dam had not been built large enough to handle drought conditions.

The drought continued and by 1898, Big Bear Lake was virtually dry. Depopulation of Moreno Valley began, and some settlers moved to nearby towns, taking their houses with them. An English writer described it as a "Valley on Wheels." Even the three-story Hotel de Moreno (at the corner of Alessandro Avenue and Redlands Boulevard). "Some businesses continued to operate in the town of Moreno. The General Store and Post Office continued on for over 100 years. The town may have withered, but it never died.

Over the years, other settlers who could afford it, dug their own wells and continued to raise citrus. In the spring, the sweet smell of orange blossoms gave delightful encouragement. Olives and other crops were planted, but most of the acreage in Moreno Valley was filled with "amber fields of grain." The dry-land farming had only the winter rains to sustain them.

The author then refers to the "second coming or the second spurt of development. This began with the subdivision of the Sunnymead Orchard Tract in 1912, the establishment of Alessandro Flying Field (March Field) in 1918, and the subdivision of the Edgemont Tract in 1923."

Finally, the author refers to the "third coming when huge parcels of open land were turned into housing tracts, starting in the 1960's, resulting in an explosion of population. The city of Moreno Valley was founded in November 1984. It encompassed the Moreno, Sunnymead, and Edgemont areas. It became the 20th City in Riverside County and the second largest in population at that time."

4.5.1.3 Paleontological Resources

The project site is located at the northern end of the Peninsular Range Geomorphic Province California Geologic Survey (2002), a 900-mile long northwest-southeast trending structural block that extends from the tip of Baja California to the Transverse Ranges and includes the Los Angeles Basin. This region is characterized by a series of mountain ranges separated by northwest-trending valleys sub-parallel to faults branching from the San Andreas Fault. The trend of topography is similar to that of the Coast Ranges Geomorphic Province located to the north, but the geology is more like that of the Sierra Nevada, with granitic rock intruding on the older metamorphic rocks. It contains extensive pre-Cretaceous (greater than 65 million years ago) igneous and metamorphic rocks covered by limited exposures of post-Cretaceous sedimentary deposits.

Specifically, the project site is located on the Perris Block, which extends from the southern foot of the San Gabriel and San Bernardino Mountains southeast to the vicinity of Bachelor Mountain and Poly Butte. It is bounded on the southwest by the Elsinore Fault Zone and on the northeast by the San Jacinto Fault. The surface of the Perris Block consists of granitic exposures that have been tectonically tilted eastward, leaving granitic outcrops elevated and exposed on the west side of the Perris Block (Jurupa Hills) and allowing Pleistocene sediments to cover the east side, filling the eastern San Bernardino, Lakeview, Perris, and San Jacinto Valleys.

The project site lies between the plutonic batholith of Mt. Russell, the San Jacinto fault zone and the Pliocene-era non-marine sedimentary rocks of The Badlands.[1] Within the project limits, Holocene alluvial sediments and isolated Pleistocene alluvial sediments have been mapped across much of the site, with a small outcrop of Cretaceous granitic bedrock on the surface in the southwestern portion of the site. It is possible that deposits of middle to late Pleistocene (300,000 to 10,000 years ago) alluvium are present just below the surface in isolated locations of the site, but there are no surface expressions of this older formation on the surface within the project site.

Artificial Fill. Artificial fill consists of sediments that have been removed from one location and transported to another by human activity. Artificial fill will sometimes contain modern debris such as asphalt, wood, bricks, concrete, metal, glass, plastic, and plant material. Artificial fill can contain fossils, but since these fossils have been removed from their original location, it is unlikely to contain in-situ fossils. Artificial fill can be found in isolated areas on the project site, mainly associated with former ranch/farm sites or existing residences and farms.

Holocene Alluvial Fan Deposits. Holocene Alluvial Fan Deposits are also known as Recent to Young Alluvial Fan Deposits. They are found at the mouths of canyons or along the sides of hills that flank river and stream valleys (e.g., the Badlands to the east and northeast). They represent deposition by small streams that flow out of mountains and hills. They were deposited during the early to late Holocene and range in age from the recent to 10,000 years before the present. Although Holocene alluvium can contain remains of plants and animals, generally not enough time has passed for the remains to become fossilized. In addition, the remains are contemporaneous with modern species, and these remains are usually not considered to be significant. These deposits are too young to contain in-situ fossils and have low paleontological sensitivity; however, it should be noted that although an area may be mapped with younger alluvium on the surface, deposits of older alluvium are often encountered at shallow depths below the surface, and these older sediments can and do contain fossils.

Pleistocene Alluvial Fan Deposits. Pleistocene Alluvial Fan Deposits are also known as Old Alluvial Fan Deposits and Very Old Alluvial Fan Deposits. Like the Holocene Alluvial Fan Deposits described above, they are found at the mouths of canyons and along the sides of hills that flank river and stream valleys, they are older than the Holocene deposits. The Old Alluvial Fan Deposits were deposited during the late to middle Pleistocene (10,000–300,000 years ago) and the Very Old Alluvial Fan Deposits were deposited during the middle to Early Pleistocene (300,000–1.8 million years ago). Within the subsurface of the project area, sediments from the middle to late Pleistocene likely exist at depths (i.e., possibly as shallow as 5 feet). In addition, as early to middle Pleistocene alluvial sediments are mapped as occurring just to the east and west of the project area, it is also likely that these older sediments may be encountered as well. Fossils are known in similar Pleistocene deposits from excavations for roads, housing developments, and quarries within the Southern California area. These sediments have the potential to contain in-situ fossils and have a high paleontological sensitivity.

Heterogeneous Granitic Rocks. Heterogeneous mixtures of granitic rocks contain some metamorphic rocks such as schist and gneiss. Granitic rocks range in composition from hornblende-rich quartz diorite to leucocratic tonalite and from potassium feldspar-free rocks to granodiorite and quartz diorite. Because of its igneous origin, granitic rocks do not contain paleontological resources. Surface bedrock deposits are found in the upland areas near the southwest portion of the project site, associated with the Mount Russell Range surrounding Lake Perris.

[1] *Cultural Resources Assessment*, Michael Brandman Associates, Inc., April 24, 2012.

Summary. A paleontological locality search indicated that there was a low potential for significant paleontological resources to be encountered by construction excavation on the project site at the depths planned for the project, although it is possible that Pleistocene alluvial deposits, which have a higher potential to contain fossils, may be found in some locations during project grading.

4.5.1.4 Ethnographic Context

The Moreno Valley General Plan EIR states that the Luiseño and Cahuilla peoples occupied the region during the Late Prehistoric period. Unfortunately, there is a lack of definitive archaeological evidence linking the prehistoric site complexes located within the City limits of Moreno Valley to any single modern tribal group. It is likely that northern Luiseño and western Cahuilla peoples accessed this area during the late prehistoric period for resource gathering. Areas located at the base of Mt. Russell would have been a logical place for a trade route, as it would link prehistoric site complexes at the north end of the City with the marshy areas at the north end of the San Jacinto Valley. Serrano peoples may have also used the San Jacinto Valley to link with their more southern groups.

a. Cahuilla

The Cahuilla Indians occupied the San Timoteo valley prior to contact with Spanish Mission padres and military personnel, which places the project area near their traditional use areas. Of all the southern California Indians, the Cahuilla existed within the most geographically diverse region, constrained only by water supplies and topography. Currently, it is thought that a migration of Shoshonean peoples from the Great Basin occurred approximately 1,000 to 600 years ago, with populations moving into much of desert and coastal Southern California. Included among these migrants were the forbearers to the modern Cahuilla. The prehistoric Cahuilla were characterized by the occupation of sedentary villages in subsistence territories that permitted them to reach the majority of their resources within a day's walk. Villages were commonly located near reliable sources of water. During October to November, much of the village population moved to temporary camps in the mountains to harvest acorns and hunt game.

Inland groups also had fishing and gathering spots on the coast that they visited annually. In comparison with the Gabrielino and Luiseño, the Cahuilla appear to have had a lower population density and a less rigid social structure. The Cahuilla patterns may have been relatively stable until mission secularization in 1834, due to the policy of the Catholic Mission fathers or padres to maintain imported European traditional style settlement and economic patterns.

b. Luiseño

The Luiseño, belong to the Shoshonean linguistic family, which is also shared by Cahuilla, Gabrielino, and Serrano among others.[1] Luiseño villages could be found from the Pacific Ocean inland to the western base of the San Jacinto River and near Fallbrook. The villages were typically established near defined water and food sources and in good defensive locations, so these villages were commonly located along valley bottoms, streams, or coastal strands. The Luiseño characteristically lived in sedentary villages, therefore one clan or family occupied several food-gathering locations and aggressively guarded these areas against other clans.

c. Serrano

The project area is considered to be in an area historically used by the Serrano. All indigenous groups adjacent to the eastern San Bernardino Mountains were decimated by the Spanish, but some

[1] *Cultural Resources Assessment*, Michael Brandman Associates, Inc., April 24, 2012.

Serrano survived for many years thereafter in the far eastern San Bernardino Mountains due to the ruggedness of the terrain and the dispersed population. It is believed Serrano families inhabited the *Guachama Ranchería* or *Politana* in the early 1800s. This village apparently housed the Rancho San Bernardino *estancia* after about 1819. Their range is generally thought to have been located in and east of the Cajon Pass area of the San Bernardino Mountains, north of Yucaipa, west of Twentynine Palms and south of Victorville. Like all prehistoric Californians, the range of this group was determined by reliable water sources. A Serrano village typically consisted of a collection of families centered about a ceremonial house, with individual families inhabiting willow-framed huts with tule thatching. Considered hunter-gatherers, the Serrano exhibited a sophisticated technology devoted to hunting small animals and gathering roots, tubers, and seeds of various kinds. Today, Serrano descendants are found mostly on the Morongo and San Manuel reservations.

4.5.1.5 Local History

a. Spanish Period (A.D. 1769 to 1821)

The earliest record of exploration of the Moreno Valley area is from the journal of Juan Bautista de Anza, a Spanish explorer who traveled from Mexico City through the San Jacinto Valley, passing by Mystic Lake and through the Moreno Valley area, on his way to Monterrey and San Francisco in 1774.

Father Junipero Serra was sent to Alta California to create a chain of Missions and Mission outposts to bring Christianity to the indigenous population, and create a foundation for colonization of the region. Located between the previously established presidios in Monterey and San Diego, Serra had military assistance in his quest and the San Bernardino area came under the early control of Spanish soldier Pedro Fages and Father Francisco Garces. In 1819, Rancho San Bernardino was established. This followed a decision by the heads of the mission system to expand their agricultural holdings into the interior and later establish a chain of additional Missions in the desert interior. A decision was made to create an *estancia*, or a ranch headquarters with a chapel that was occasionally visited by padres at the *Guachama Ranchería*. Work on the San Bernardino *Asistencia* was started about 1830, and it was not yet finished when the project was abandoned in 1834. The rancho traditions were kept once Mexico established control over the area, but without the original authority of the Mission padres.

b. Mexican Period (A.D. 1821 to 1848)

After years of internal fighting, Mexico achieved its independence from Spain in 1821 and Alta California became the northern frontier of the State of Mexico. The Mission padres were then forced to swear allegiance to Mexico in 1822. Secularization of the missions took place over the next decade and the former mission lands were transferred to the large Mexican families that had settled in the area. Affiliated with Mission San Luis Rey, the Rancho San Jacinto was formed on December 21, 1842 and granted to Jose Antonio Estudillo. This rancho provided Estudillo with twice as much land, 8 square leagues, or 46,080 acres, as he had petitioned for the previous August. Lands north of the modern Alessandro Boulevard were not claimed by any family, probably because little reliable water existed in the area, except for the Mystic Lake cienega, and because it was a two-day ride from the closest Missions, San Gabriel, and San Luis Rey. The property was petitioned for division by Estudillo's brother-in-law Miguel de Pedrorena, soon after and a small portion of The Badlands north of Hemet was added to form the Rancho San Jacinto Nuevo y Potrero.

There is historical evidence a road led from the Rancho San Jacinto headquarters northwest along the base of The Badlands to the springs in the Box Springs Mountains east of what is now Riverside, then over to roads near the Santa Ana River. The route, which likely followed the current alignment of Gilman Springs Road, has been used for travel for over 160 years. The primary purpose of the

interior ranchos was to raise cattle and sheep; however, beyond the Mystic Lake *cienega* west of Eden Hot Springs, little reliable water was found north of San Jacinto. The trail likely brought travelers along the base of Mt. Russell as this would shorten the trip to Box Springs. The upper San Jacinto Valley proved marginal in terms of food production for Native Americans, a factor that limited agricultural growth expansion well into the 1950s.

c. Moreno Valley Before 1893

Theodore Street was the eastern border of the old Bear Valley and Alessandro Development Company (BV&A) development. BV&A conceptualized the town of Moreno and the community of Alessandro in 1889. Frank Elwood Brown, an engineer who moved to California in 1876, was the co-founder with Edward Judson of the town of Redlands. In 1890, Brown and other investors formed the BV&A to "plat out new towns, bring Bear Valley water to the [Moreno] Valley, and open another large area to agricultural and town site development."[1] Brown and Judson began growing citrus in Redlands between 1878 and 1882 using meager local water supplies. Brown formed the Bear Valley Land and Water Company (BVLWC) in the early 1880s and constructed the Big Bear Dam in 1883. After successfully creating Big Bear Lake, at that time the largest man-made reservoir in the world, water began flowing from the dam through a series of flumes and canals to Redlands orchards in 1885. This demonstration led locals to believe that the area could be successfully irrigated using water brought in from the mountains to the north.

The potential for Big Bear Lake seemed enormous because the winters between 1875 and 1885 were some of the wettest winters on record. Brown assumed that the abundance of water stored in the reservoir in those years was typical and would continue as such. With little knowledge of precipitation fluctuations in southern California, water supplies appeared unlimited and Brown and others fostered grandiose schemes for attracting moneyed investors. Between 1889 and 1890, Brown began trading stocks from his own companies to develop land south of Redlands and consolidate his water rights. After organizing the BV&A in 1889, Brown and his associates bought all of the BVLWC stock individually. They then incorporated the Bear Valley Irrigation Company (BVIC), which bought all of the original BVLWC stock, including the dam, from the BV&A.[2]

Frank Brown hoped to duplicate the success of the City of Redlands, which by 1890 was a thriving commercial citrus center located along an established railroad right-of-way. Turning his attention to the valley south of Redlands, a 280-acre town site was named the Town of Moreno. Initially, the town was to have been named New Haven, after New Haven, Connecticut where many of the investors, including Brown, were from. However, to honor Brown, the name Moreno, which is the Spanish word for "brown," was chosen. North-south streets in the BV&A development in Moreno and Alessandro were named for the corporation leaders, while east-west streets were named for plant and tree species common in California at the time. Hopes were high that Moreno would prosper and local newspapers in 1891 declared that "Moreno will be a rail road town in the future [which has] every advantage of the most favored locality in Southern California and the disadvantages of none."

In April 1891, it was estimated that between 1,500 and 2,000 people went to the new town site of Moreno to purchase town lots being sold at public auction. In the following eight months, a Congregational Church, four brick commercial buildings, a lumberyard, two brickyards, a cement pipe works, and a school were constructed with as many as "thirty houses being built at one time."

By 1893, the Hotel de Moreno, three stories high and encompassing an entire city block, was operational and doing a brisk business with people needing a place to stay while developing their land. Investors interested in Moreno Valley land were from nearby locations, Los Angeles, San Diego, San Bernardino, and from as far away as Wisconsin, Pennsylvania, and New York. A map was

[1] *Cultural Resources Assessment*, Michael Brandman Associates, Inc., September 2014.
[2] Ibid.

created to show potential buyers what types of irrigation systems would be built and where the land was located.[1]

d. Moreno Valley After 1893

Moreno had become a small boomtown with new businesses developing, and orchards and crops being planted on nearby fields. The success for both local businesses and the farmers depended on the availability and consistency of water. Although Brown had studied the feasibility of bringing water into the Valley and had initially been successful piping water from Bear Valley, by 1893 Brown and others realized that without a higher dam, the reservoir could not hold enough water to meet the irrigation needs of Redlands and Moreno. To worsen the situation for Moreno, Redlands was the town for whom the reservoir was initially built and therefore had first rights to the water. A legal suit won by Redlands in 1894, in effect permanently shut off the water to Moreno, although a local judge ordered that domestic water to Moreno homes must be reinstated.[2]

In addition to the lack of water, it is likely that the Recession (Panic) of 1893 forced many potential farmers in southern California to reconsider their options, and new farmers went out of business. The Panic was caused by railroad overbuilding and speculation, much of which was driven by westward expansion into California. According to several sources, over 15,000 businesses and 500 banks failed during this period, many of them in California. The Northern Pacific Railway, the Union Pacific Railroad, and the Atchison, Topeka & Santa Fe Railroad all failed. The resultant depression lasted for three years and farmers went bankrupt nationwide; good economic times did not resurface until about 1899. By that time, the speculative land boom in this part of Southern California was over.

The City remained a rural agricultural community for many decades, until after World War II. The expansion of the Federal freeway system and housing boom following the war led to the start of suburbanization in the Moreno Valley area that slowly converted agricultural land to new homes, shopping centers, etc. In the 1990s at one time, Moreno Valley was one of the fastest-growing communities in the nation. The older agriculture-oriented towns of Alessandro and Moreno gave way to suburban residential neighborhoods. By 2010, “Moreno” had suburban development to the west and agricultural fields to the east.

Alessandro Boulevard. In connection with the development of the Town of Moreno in the 1890s as part of the Bear Valley and Alessandro Development Company’s real estate venture, Alessandro Boulevard was constructed across much of the project site. The roadway has been in continuous use in largely its same location since that time. In 1988, the City adopted Resolution CPAB 88-2 recognizing the landmark status of this roadway and providing for the preservation of its 120-foot right-of-way through the City.

4.5.1.6 NOP/Scoping Comments

The Sierra Club expressed concern about how the project would affect Native American sites in this area, as well as the agricultural history of this area. In addition, Susan Nash provided information about the route that Juan Bautista de Anza took through the San Jacinto Valley and the project site on his travels from San Diego to points north. These comments are addressed in this section of the EIR.

[1] Ibid.
[2] Ibid.

4.5.2 Existing Policies and Regulations

4.5.2.1 Federal Regulations

National Historic Preservation Act (NHPA) of 1966 (as amended), Section 106. The NHPA declares a national policy of historic preservation to protect, rehabilitate, restore, and reuse districts, sites, buildings, structures, and objects significant in American architecture, history, archaeology, and culture. The NHPA established the National Register of Historic Places (National Register), State Historic Preservation Offices (SHPOs) and programs, and the Advisory Council on Historic Preservation. This Act applies to all properties on or eligible for inclusion in the National Register. The Section 106 review process requires consultation to mitigate damage to "historic properties" (defined per 36 CFR 800.16[1] as places that qualify for the National Register), including Native American traditional cultural places (TCPs). Evaluation of cultural resources consists of determining whether it is significant (i.e., whether it meets one or more of the criteria for listing in the National Register). These eligibility criteria are defined in 36 CFR 60.4 as follows:

> The quality of significance in America history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association:
>
> A. That is associated with events that have made a significant contribution to the broad patterns of our history;
>
> B. That is associated with the lives of persons significant in our past;
>
> C. That embodies the distinctive characteristics of a type, period or method of construction, or that represents the work of a master, or possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction; and/or
>
> D. That has yielded, or may be likely to yield, information important to prehistory or history.

4.5.2.2 State Regulations

California Environmental Quality Act. An "historic resource" includes, but is not limited to, any object, building, site, area, place, record, or manuscript that is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.[1] CEQA mandates that lead agencies consider a resource "historically significant" if it meets the criteria for listing in the California Register of Historic Resources (California Register). Such resources meet this requirement if they (1) are associated with events that have made a significant contribution to the broad patterns of California history, (2) are associated with the lives of important persons in the past, (3) embody distinctive characteristics of a type, period, region, or method of construction, and/or (4) represent the work of an important creative individual or possesses high artistic value.[2] These criteria mimic the criteria utilized to determine eligibility for the National Register.

In addition, Public Resources Code Section 21083.2 and *CEQA Guidelines* Section 15064.5(f) recognize that historical or unique archaeological resources other than potential Native American burials may be accidentally discovered during project construction. This guideline recommends that immediate evaluation defined by qualified archaeologists be included in mitigation measures. This guideline also recommends that if the find is determined to be a historical or unique archaeological resource, that contingency funding and time allotments sufficient to allow for implementation and avoidance measures be available.

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1 Public Resources Code, Section 5020.1(j).
2 Public Resources Code, Section 5024.1(c).

Senate Bill 18. Signed into law in September 2004, and effective March 1, 2005, SB 18 permits California Native American tribes recognized by the Native American Heritage Commission (NAHC) to hold conservation easements on terms mutually satisfactory to the tribe and the landowner. The term "California Native American tribe" is defined as "a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC."

The bill also requires that, prior to the adoption or amendment of a city or county's general plan, the city or county consult with California Native American tribes for the purpose of preserving specified places, features, and objects located within the city or county's jurisdiction. SB 18 also applies to the adoption or amendment of specific plans. This bill requires the planning agency to refer to the California Native American tribes specified by the NAHC and to provide them with opportunities for involvement.

California Health and Safety Code. The California Health and Safety Code Section 7050.5 states that if human remains are discovered on site, no further disturbance shall occur until the County Coroner has made a determination of origin and disposition. If the Coroner determines that the remains are not subject to his or her authority and if the Coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the NAHC. This regulation is applicable to any project where ground disturbance would occur.

4.5.2.3 City of Moreno Valley General Plan Policies

The General Plan defines goals and policies related to cultural resources within the City of Moreno Valley. The Chapter 9 Goals and Policies section provides the following guidelines to City staff:

Objective 7.6: Identify and preserve Moreno Valley's unique historical and archaeological resources for future generations.

Policies in Response to Objective 7.6:

7.6.1) Historical, cultural and archaeological resources shall be located and preserved, or mitigated consistent with their intrinsic value.

7.6.2) Implement appropriate mitigation measures to conserve cultural resources that are uncovered during excavation and construction activities.

7.6.3) Minimize damage to the integrity of historic structures when they are altered.

7.6.4) Encourage restoration and adaptive reuse of historical buildings worthy of preservation.

7.6.5) Encourage documentation of historic buildings when such buildings must be demolished.

To help define when a cultural resource becomes "significant" within the context of Moreno Valley history, a professional cultural resource manager must conduct an assessment with consideration of an appropriate threshold. Certain cultural resources will have an intrinsic value to the City. City policy suggests that significant cultural resources uncovered during project-related excavation and construction activities should be preserved and/or mitigated to the extent feasible consistent with their intrinsic value.

Prehistoric sites on Mount Russell are located within lands under the jurisdiction of the City and the County of Riverside are part of an unofficial prehistoric district known as the Wolfskill Ranch North

Complex, and its general location has been published in the Moreno Valley General Plan Final EIR.[1] Page 5.10-14 of the Moreno Valley General Plan Final EIR notes that the North Complex is located on Open Space and that a project's potential effect to all prehistoric cultural resources in the City, including those of the Wolfskill complex, is considered a significant impact.

4.5.3 Methodology

4.5.3.1 Phase 1 Research

a. Cultural Resource Assessment

Over the past ten years, a number of cultural resource assessments have been conducted on the project site and in surrounding areas. The following information summarizes the results of those surveys as described in Tables 1 and 2 from the Cultural Resources Assessment conducted for the project. There are 45 archaeological Native American and historical resource sites in the general area of the project, with most being milling features or slicks in the Mount Russell area.[2]

Table 4.5.A lists 11 sites were identified in the southwest portion of the project site, which is designated "Open Space" in the Specific Plan and will not be disturbed. These sites are all milling features associated with the Mount Russell Range and will not be affected by development of the project.

Table 4.5.A: Cultural Resources Identified in the Southwest Portion of the Project Site

CA-RIV-610	CA-RIV-3238	CA-RIV-3345	CA-RIV-8006
CA-RIV-860	CA-RIV-3343	CA-RIV-3346*	CA-RIV-8007**
CA-RIV-2993	CA-RIV-3344	CA-RIV-3347	

* Includes a midden.
** Renamed from CA-RIV-2775, 2776, and 2777.

It should be noted that the cultural assessments for the project do not show the specific locations of the cultural resource sites. This information is restricted from the public, and is considered confidential and protected under CEQA, to protect the resources from illegal or inappropriate damage or theft. The project's Cultural Resources Assessment fulfills the requirements of CEQA as outlined in Section 4.5.6.2, *Significant Impacts*. (*See, e.g. Clover Valley Foundation v. City of Rocklin* (2011) 197 Cal.App.4th 200.)

The project's cultural assessments also found five sites within the project area during previous excavations for the MWD pipeline (four sites) and the EMWD Gilman tunnel (the fifth site CA-RIV-6200) that will not be affected by development within the project:[3]

- CA-RIV-6065 (P33-8168);
- CA-RIV-6066 (P33-8169);
- CA-RIV-6067 (P33-8170);
- CA-RIV-6068 (P33-8171); and
- CA-RIV-6200 (P33-8709).

1 City of Moreno Valley General Plan EIR, 2006
2 *Cultural Resources Assessment*, Michael Brandman Associates, Inc., September 2014.
3 Ibid.

All of these sites are buried prehistoric Native American artifacts found during trench work except CA-RIV-6200, which was a deeply buried hearth (21 feet below ground surface). All of these resources remain in their original locations and will not be disturbed by the development of the project.

Four (4) historic-era cultural resource sites were identified within the project site in areas that could be affected by development as outlined in Tables 1 and 2 from the project cultural assessment:[1]

- CA-RIV-4201H (historic foundation remnants and trash);
- CA-RIV-4210H (old farm location);
- CA-RIV-5862 (historic era 2-room farmhouse); and
- P33-11621 (historic farmstead in the open space area of the project).

CA-RIV-4201H consists of historic foundation remnants and historical trash (e.g., bottles, nails, and broken dishes) along Virginia Street. Old topographic maps and photographs show a historic farm complex here. This site was Phase 2 tested by MBA in 2011 and found to be not significant according to CEQA criteria. CA-RIV-4210H consists of a historic structure, foundations, and trash deposits. Old topographic maps and photographs show a farm complex at this location. The MBA report indicates this site was Phase II-tested and found to be not significant under CEQA. CA-RIV-5862 consists of a historic era two-room farm structure, but it is on MWD property and is not considered a significant cultural resource under CEQA. P33-11621 is a historic farmstead but is within the open space property in the southern portion of the project site and will not be directly affected by construction within the project.[2]

In addition, there are seven rural residential properties within the project site that may contain historic buildings or resources, but these are private property and MBA staff did not access them and no detailed assessment was conducted. The Specific Plan designates these properties as “Light Logistics” and they will eventually be developed. There is evidence that at least one structure located east of Redlands Boulevard and north of Brodiaea Avenue was built around 1900. These sites will be investigated in connection with any development proposals affecting these properties.

In November 1988, the Cultural Preservation Advisory Board (CPAB) of the City of Moreno Valley designated the entire length of Alessandro Boulevard as a City Historical Landmark (Resolution CPAB 88-2). At that time, the CPAB made the alignment, right-of-way, and name of Alessandro part of the historical designation. Alessandro Boulevard was first established in 1890 and over the years has served as a San Bernardino County Road, Riverside County Road, a California State Highway, part of the transcontinental U.S. Route 60, part of the “Jack Rabbit Trail,” and a City boulevard (Hamner 2003). Resolution CPAB 88-2 was adopted to ensure the maintenance, enhancement, or protection of a street of historical significance. Over the years, various portions of Alessandro Boulevard have been modernized to enhance traffic flow throughout the City, but the original routing has remained unchanged.

4.5.3.2 Phase II Testing

Based on the results of Phase I survey work on a portion of project-related lands (i.e., plowed and vacant parcels) performed in August and September of 2005, Phase II testing of certain prehistoric cultural resources, located in the southwest portion of the site, was undertaken in the summer of 2006. A monitor representing the Soboba Band of Luiseño Indians was in attendance. Additional properties in the Specific Plan were surveyed in the summer and fall of 2007. The last pieces of agricultural land within the Specific Plan boundary were surveyed in July 2011. Known as the Lee

[1] Ibid.
[2] *Cultural Resources Assessment*, Michael Brandman Associates, Inc., April 24, 2012.

Property, these exhibited two previously recorded historic-era cultural resources. MBA also re-located prehistoric archaeological site CA-RIV-3347 during the July 2011 survey. The Phase I surveys had revealed three historic-era cultural resource sites, ten prehistoric-era cultural resource sites, and six isolated artifacts located within the boundaries of the project, but not in areas planned for development within the Specific Plan. Each resource was recorded.

In early 2006, a subsurface significance-testing program (Phase II testing) on a series of nine prehistoric cultural resources located at the southwest portion of the project site was conducted to determine if these resources should be considered significant under CEQA. The Phase II-tested sites included:

- CA-RIV-610
- CA-RIV-860
- CA-RIV-3238
- CA-RIV-3343
- CA-RIV-3344
- CA-RIV-3345
- CA-RIV-3346
- CA-RIV-8006
- CA-RIV-8007

NOTE: The following changes have been made due to revision to the Specific Plan project size.

All of these sites are milling features, and CA-RIV-8006 and -8007 are milling slicks. The testing work revealed that only one of these sites exhibited evidence of intact subsurface cultural resources (CA-RIV-3346). For this reason, CA-RIV-3346 should be considered a significant cultural resource for the purposes of CEQA.[1] MBA also determined that the other eight prehistoric sites lacked additional subsurface resources.[2] The MBA report concluded that development of the Specific Plan would not impact the nine prehistoric sites, so no further research on these sites was recommended unless the project created proposed physical disturbance (grading) of these areas.[3] The 74.3 acres of open space shown in the Specific Plan (previously referenced Figure 3.8) encompasses all of the nine prehistoric sites identified by MBA. Therefore, development under the project will not have a significant impact on archaeological resources.

Several buried and isolated prehistoric resources were detected during the monitoring phase of the Highland Fairview Corporate Park Project,[4] located adjacent to the northern edge of the Specific Plan. Likewise, several buried sites adjacent to Davis Road were detected in connection with the 1998 Inland Feeder Project by MWD. Given previous finds in the project area, MBA concluded that certain portions of the project site have a “high” and “moderate” probability of containing significant buried cultural resources, while other areas of the project site have a “low” probability of containing significant buried cultural resources. The high probability areas are within 1,000 feet of the base of the southwestern foothills, while the moderate probability areas are within 2,000 feet of the same area

4.5.3.3 Native American Consultation (SB 18)

MBA contacted the NAHC in March 2011 requesting a Sacred Lands File search for the project area in order to determine if there were records of cultural resources in the area. The response from the NAHC was received on March 25, 2011, indicating that no sacred lands or traditional cultural properties are known to the NAHC within the 3,714 acres of the project area, including the Specific Plan area, Conservation Areas, and Public Facilities. However, other cultural sites have been found in the uplands outside of the project area (i.e., Lake Perris National Recreation Area to the southwest and the San Jacinto Wildlife Area to the south).

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1 Ibid.
2 Ibid.
3 Ibid.
4 *Cultural Resources Assessment*, Michael Brandman Associates, Inc., April 24, 2012.

Pursuant to SB 18, on February 29, 2012, MBA sent information-request letters to each of the 11 tribal entities identified by the NAHC (see previously referenced Table 2.C for a summary of the correspondence in this regard). In response, two tribes requested government-to-government consultation under SB 18 during the 90-day notification period (Pechanga and Soboba). The City met with the Pechanga Tribe on May 30, 2012, and with the Soboba Tribe on November 27, 2012. No other Native American entities requested a government-to-government consultation meeting. In addition, several tribes provided information to the City regarding cultural resources to be included in the EIR but did not include a consultation request.

4.5.3.4 Paleontological Contacts

MBA contacted Eric Scott of the Division of Geological Sciences of the San Bernardino County Museum on June 2005 requesting a paleontological records check of the original Moreno Highlands Specific Plan area. Mr. Scott's paleontological review showed that the project area rests entirely on exposures of Holocene (Recent) alluvium and granitic bedrock. Both the alluvium and the bedrock have low potential for fossil deposits to be uncovered during grading. However, the Holocene alluvium rests upon a veneer of Older Pleistocene alluvium and San Timoteo Formation deposits, both of which are highly sensitive for fossil resources.

MBA's monitoring work at the Highland Fairview Corporate Park project, located north and adjacent to this project area, included monitoring for paleontological resources. During construction of the Highland Fairview Corporate Park, it was shown that shallow soils (0 to 20 feet) did not contain paleontological resources. Therefore, MBA recommends that full-time paleontological monitoring on this project should take place only in those portions of the project where earthmoving occurs 20 feet or more below existing grade.

4.5.4 Thresholds of Significance

4.5.4.1 Importance of Cultural Resources

Prior to determining whether a cultural resource is significant under *CEQA Guidelines* and therefore subject to mitigation, a threshold of significance must be developed prior to testing/evaluation. This procedure is recommended by the Office of Historic Preservation (OHP)/State Prehistoric Preservation Officer (SHPO). The threshold of significance is simply a point where the qualities of significance are defined during the analysis such that the resource can be defined as a historical resource. An adverse effect to a historic resource is regarded as the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource will be reduced such that it no longer meets the significance criteria. In lay terms, should an analysis show that future development will destroy elements that make the cultural resource historical, but leave non-unique elements intact, then the significance of the resource will be lost and there must be mitigation for that loss.

CEQA Section 15064.5, Determining the Significance of Impacts to Archaeological and Historical Resources, states that:

> "Generally, a resource shall be considered by the lead agency to be 'historically significant' if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code §5024.1, Title 14 CCR, Section 4852) including the following:
>
> (A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
>
> (B) Is associated with the lives of persons important in our past;

(C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

(D) Has yielded, or may be likely to yield, information important in prehistory or history."

If a prehistoric cultural resource is tested, it is traditionally held that buried features such as hearths, burials, and middens could hold analytical information that will pass the significance threshold and make the site eligible for the cultural resource under Criterion D alone (listed above) For resources created after the historic period began (post-1769 AD) and which are at least 45 years old, analysis of the condition and integrity of exposed features may cause the resource to pass Criterion A, B, C, and/or D thresholds (shown above).

For buildings and other structures at least 45 years old, the completeness and integrity of the structural architecture may cause the site to pass Criterion A, B, and/or C thresholds. The threshold should be associated with the site context or theme. If sets of unusual artifacts, buried but unusual buildings, or human remains are detected during tests of cultural resources in the project site, or if a historical review of the resource finds that it was once associated with a person and/or event of historical significance at the State/National level, such resources will likely be considered potentially significant for California Register/National Register listing. In the event that the significance of the historical resource will be reduced below the threshold because of development, feasible mitigation must be developed.

4.5.4.2 Definition of Cultural Resource Sites and Isolates

Prehistoric and historic cultural resources can vary in form and function from area to area, but it is a "site" as opposed to isolated artifacts and certain features that must be considered significant. Prehistoric and historic cultural resource sites are defined in this study as three or more items, such as lithics, stone tools, glass, cans, etc., that are not from a single source or material found within a 10 square meter area. There is no limit to the physical size of a site.

Sites that could qualify as significant are typically more than 45 years old or have the potential to be more than 45 years old. These definitions assume that items found in an area with a diversity of materials can represent more than a single activity at a location. Discrete components of a site may be identified to represent repeated activity, such as milling stations, hearths, or isolated structures. Isolated artifacts and certain isolated features do not meet these minimal criteria. Isolates could consists of one or two cans, stone flakes, one metate fragment or fence posts, brass section markers, or well heads. Potential impacts to isolates need not be mitigated.

4.5.4.3 CEQA Thresholds

Based on Appendix G of the *CEQA Guidelines*, the effects of a project on cultural resources are considered to be significant if the project would:

- Cause a substantial adverse change in the significance of a historical resource as defined in *CEQA Guidelines* Section 15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to *CEQA Guidelines* Section 15064.5;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; and/or
- Result in any disturbance of human remains, including those interred outside of formal cemeteries.

4.5.5 Less than Significant Impacts

The following impacts were determined to be less than significant. In each of the following issues, either no impact would occur (therefore, no mitigation would be required) or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level.

4.5.5.1 Human Remains

Threshold	Would the proposed project disturb any human remains, including those interred outside of formal cemeteries?

The project site is currently undeveloped. No evidence suggesting the project site has been utilized in the past for human burials has been identified. In the unlikely event that human remains are discovered during grading or construction activities within the project site, compliance with State law (Health and Safety Code § 7050.5) (HSC § 7050.5) would be required. These requirements are imposed on any construction activity in which human remains are detected, and include the following provisions:

- There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
  - The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required; and
  - If the coroner determines the remains to be Native American:
    - The coroner shall contact the Native American Heritage Commission within 24 hours.
    - The NAHC shall identify the person or persons it believes to be the most likely descended from the deceased Native American.
    - The most likely descendant may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code § 5097.98 (PRC § 5097.98), or
  - Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further and future subsurface disturbance pursuant to PRC § 5097.98(e).
    - The NAHC is unable to identify a most likely descendant.
    - The most likely descendant is identified by the NAHC, fails to make a recommendation within 48 hours of being granted access to the site; or
    - The landowner or his authorized representative rejects the recommendation of the descendant, and mediation by the NAHC fails to provide measures acceptable to the landowner.

There is a small possibility that ground-disturbing activities during construction may uncover previously unknown buried human remains. In the event of an accidental discovery or recognition of any human remains, California State Health and Safety Code § 7050.5 dictates that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to CEQA regulations and PRC § 5097.98. Compliance with existing State law would ensure that impacts related to the discovery of buried human remains would be less than significant and no mitigation is required.

4.5.6 Significant Impacts

The following potential impacts were determined to be potentially significant. In each of the following issues, mitigation measures have been recommended to reduce the significance of impacts.

4.5.6.1 Archaeological Resources

Impact 4.5.6.1: *The proposed project has the potential to affect known or previously undetected subsurface archaeological resources.*

Threshold	Would the proposed project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

NOTE: The following changes have been made due to revision to the Specific Plan project size.

Review of all cultural resource factors in and near the project site suggests that the project site is sensitive for archaeological resources in the southwestern portion of the site and the Specific Plan has set aside these 74.3 acres as open space (Planning Area 30) to permanently protect these resources. There is no evidence that any other cultural resources are located in or near the project area; however, two tribes indicated a desire to consult with the City under SB 18 regarding the potential of such resources on the site.

The nine prehistoric cultural resources located near the southwestern portion of the project site were Phase II tested for significance: CA-RIV-610, CA-RIV-860, CA-RIV-3238, CA-RIV-3343, CA-RIV-3344, CA-RIV-3345, CA-RIV-3346, CA-RIV-8006, and CA-RIV-8007. Of these nine sites, only CA-RIV-3346 (milling features and a “midden”) is considered a significant resource under *CEQA Guidelines* because it exhibited evidence of intact subsurface cultural resources (MBA 2014). The project cultural assessment concluded that all the identified prehistoric sites are outside of the development area of the Specific Plan and thus there would be no significant impact to archaeological resources from the proposed development.

Unknown Cultural Resources. It is possible that unknown cultural resources could be discovered during project-related construction. The land within 1,000 feet of exposed granitic bedrock outcrop areas in the southwesterly corner of the project is considered to have “high” sensitivity, while areas located within 2,000 feet of this area are considered to have “moderate” sensitivity. The remainder of the site is considered to have “low” sensitivity for cultural resources. As set forth below, a qualified archaeologist should be retained by the City to monitor any earthmoving in the areas of high and moderate sensitivity.

In addition, a number of project-related improvements, including the SR-60/Theodore Street interchange, SR-60/Gilman Springs Road interchange, three reservoir sites, water, sewer, and storm drain connections, debris basins, etc. are off site and cultural surveys will be conducted when specific sites are identified for these off-site improvements.

Project or Specific Plan Design Features. The 74.3-acre open space area in the southwest corner of the WLCSP encompasses the entire foothill area some of which is considered sensitive for archaeological resources. This area is designated as Open Space in the Specific Plan and only the extension of Cactus Avenue and passive open space uses will be permitted in this area. The updated cultural report by MBA determined that potential impacts to cultural resources from constructing Cactus Avenue through this area could be reduced to less than significant levels by the implementation of the mitigation measures already proposed for project grading (MM 4.5.6.1C through 4.5.6.1E).

The following mitigation measure had been revised in response to Comments A-3-23 in Letter A-3 from the Pechanga Temecula Band of Luiseño Mission Indians, A-5-6 in Letter A-5 from Soboba Band of Luiseño Indians, et al.

Mitigation Measures. The following measures are proposed to help reduce potential impacts on known, unknown, or potential archaeological or historical resources to less than significant levels. The wording of the measures has been changed from the Original DEIR to address specific comments made by the Pechanga Tribe. The Tribe did request that the survey area limitations outlined in Measures 4.5.6.1C and 4.5.6.1D be removed. After consultation with the project archaeologist the measures have been modified to refer to specific planning areas within the WLC Specific Plan as shown below:

4.5.6.1A Prior to the approval of any grading permit for any of the "Light Logistics" parcels, the parcels shall be evaluated for significance by a qualified archaeologist. A Phase 1 Cultural Resources Assessment shall be conducted by the project archaeologist and an appropriate tribal representative(s) on each of the "Light Logistics" parcel to determine if significant archaeological or historical resources are present.

A Phase 2 significance evaluation shall be completed for any of these sites in order to determine if they contain significant archaeological or historical resources. Cultural resources include but are not limited to stone artifacts, bone, wood, shell, or features, including hearths, structural remains, or historic dumpsites. All resources determined to be prehistoric or historic shall be documented using DPR523 forms for archival research/storage in the Eastern Information Center (EIC). If the particular resource is determined to be not significant, no further documentation is required. If prehistoric resources are determined to be significant, they shall be considered for relocation or archival documentation. If any resource is determined to be significant, a Phase 3 recovery study shall be conducted to recover remaining significant cultural artifacts. If prehistoric archaeological/cultural resources are discovered during the Phase 1 survey and it is determined that they cannot be avoided through site design, they shall be subject to a Phase 2 testing program. The project archaeologist in consultation with appropriate tribal group(s) shall determine the significance of the resource(s) and determine the most appropriate disposition of the resource(s) in accordance with applicable laws, regulations and professional practices (per Cultural Report MM CR-1, MM CR-2, MM CR-7 Table 3, pg.74).

4.5.6.1B Prior to the issuance of any grading or ground-disturbing permit for construction of off-site improvements a qualified archaeologist shall be retained to prepare a Phase I cultural resource assessment (CRA) of the project site if an up to date Phase I cultural resource assessment is not available for the site at the time of development per Cultural Report MM CR-5, Table 3, pg.74).

Appropriate tribal representatives as identified by the City shall be invited by the Project Archeologist to participate in this assessment.

If archaeological resources are discovered during construction activities, no further excavation or disturbance of the area where the resources were found shall occur until a qualified archaeologist evaluates the find. If the find is determined to be a unique archaeological resource, appropriate action shall be taken to (a) plan construction to avoid the archeological sites (the preferred alternative); (b) cap or cover archeological sites with a layer of soil before building on the affected project location; or (c) excavate the site to adequately recover the scientifically consequential information from and about the resource. At the discretion of the project archaeologist, work may continue on other parts of the project site while the unique archaeological resource mitigation takes place. This measure shall be implemented to the satisfaction of the Planning Official.

If the project archaeologist, in consultation with the monitoring Tribe(s), determines that the find is a unique archaeological resource, the resource site shall be evaluated and recorded in accordance with requirements of the State Office of Historic Preservation (OHP). If the resource is determined to be significant, data shall be collected by the qualified archaeologist and the findings of the report shall be submitted to the City. If the find is determined to be not significant no mitigation is necessary.

Should a future project-level analysis show that cultural resource site CA-RIV-3346 will be directly or partially impacted by project-level construction, an Addendum cultural resource report must be prepared and include an analysis of the alternatives associated with mitigation for impacts to this resource following CEQA Guidelines Section 15126.4(b)(3). This information must be included in any project-level CEQA compliance documentation. It should be noted that Phase 3 data recovery is an acceptable mitigation action under CEQA Guidelines Section 15126.4(b)(3)(C) (per Cultural Report MM CR-3,Table 3, pg.74).

Should it be determined through a future project-level EIR analysis that prehistoric cultural resource sites CA-RIV-2993 and/or CA-RIV-3347 shall be directly impacted by future construction, these sites must be Phase 2 tested for significance (per Cultural Report MM CR-4, Table 3, pg.74).

4.5.6.1C Prior to the issuance of any grading permits a qualified archaeologist shall be retained to monitor all grading and shall invite tribal groups to participate in the monitoring. Project-related archaeological monitoring shall include the following requirements per Cultural Report MM CR-6, MM CR-8, Table 3, pg.74):

1. All earthmoving shall be monitored to a depth of ten (10) feet below grade by the Project Archaeologist or his/her designated representative. Once all areas of the development project that have been cut to 10 feet below existing grade have been inspected by the monitor, the Project Archaeologist may, at his or her discretion, terminate monitoring if and only if no buried cultural resources have been detected;
2. If buried cultural resources are detected, monitoring shall continue until 100 percent of virgin earth within the specific project area has been disturbed and inspected by the Project Archaeologist or his/her designated representative.
3. Grading shall cease in the area of a cultural artifact or potential cultural artifact as delineated by the Project Archaeologist or his/her designated representative. A buffer of at a minimum 25 feet around the cultural item shall be established to allow for assessment of the resource. Grading may continue in other areas of the site while the particular find are investigated; and
4. If prehistoric cultural resources are uncovered during grading, they shall be Phase 2 tested by the Project Archaeologist, and evaluated for significance in accordance with §15064.5(f) of the CEQA Guidelines. Appropriate actions for significant resources as determined by the Phase 2 testing include but are not limited to avoidance or capping, incorporation of the site in green space, parks, or delineation into open space. If such measures are not feasible, Phase 3 data recovery of the significant resource will be required, and curation of recovered artifacts and/or reburial, shall be required. A report associated with Phase 2 testing or Phase 3 data recovery must be delivered to the City and, if necessary, the museum where any recovered artifacts have been curated.
5. No further grading shall occur in the area of the discovery until the City approves specific actions to protect identified resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution approved by the City where they would be afforded long-term preservation to allow future scientific study.

6. The developer shall make reasonable efforts to avoid, minimize, or mitigate significant adverse impacts on cultural resources The State Historic Preservation Office (SHPO) and local Native American tribes will be consulted and the Advisory Council on Historic Preservation will be notified within 48 hours of the find in compliance with 36 CFR 800.13(b)(3). This measure shall be implemented to the satisfaction of the Planning Official.

4.5.6.1D Prior to the issuance of any grading permit the project archaeologist shall invite interested Tribal Group(s) representatives to monitor grading activities. Qualified representatives of the Tribal Group(s) shall be granted access to the project site to monitor grading as long as they provide 48-hour notice to the developer of their desire to monitor, so the developer can make appropriate safety arrangements on the site. This measure shall be implemented to the satisfaction of the Planning Official.

4.5.6.1E It is possible that ground-disturbing activities during construction may uncover previously unknown, buried cultural resources (archaeological or historical). In the event that buried cultural resources are discovered during grading and no Project Archaeologist or Historian is present, grading operations shall stop in the immediate vicinity of the find and a qualified archaeologist shall be retained to determine the most appropriate course of action regarding the resource. The Archeologist shall make recommendations to the City on the actions that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with §15064.5 of the *CEQA Guidelines*. Cultural resources could consist of, but are not limited to, stone artifacts, bone, wood, shell, or features, including hearths, structural remains, or historic dumpsites. Any previously undiscovered resources found during construction within the project area shall be recorded on appropriate California Department of Parks and Recreation forms and evaluated for significance in terms of CEQA criteria. If the resources are determined to be unique historic resources as defined under §15064.5 of the *CEQA Guidelines*, appropriate protective actions for significant resources such as avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds shall be implemented by the project archaeologist and the City.

No further grading shall occur in the area of the discovery until the City and project archaeologist approve the measures to address these resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution approved by the City where they would be afforded long-term preservation to allow future scientific study.

Level of Significance After Mitigation. Adherence to **Mitigation Measures 4.5.6.1A** through **4.5.6.1E** will reduce potential impacts to archaeological resources to less than significant levels.

4.5.6.2 Historic Resources

Impact 4.5.6.2: *The proposed project has the potential to directly or indirectly affect local historical resources.*

Threshold	Would the proposed project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5 of the *State CEQA Guidelines*?

The California Register of Historical Resources. The California Register criteria are based on National Register criteria. For a property to be eligible for inclusion in the California Register, one or more of the following criteria must be met:

1. It is associated with the events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;
2. It is associated with the lives of persons important to local, California, or national history;
3. It embodies the distinctive characteristics of a type, period, region, or method or construction, or represents the work of a master, or possesses high artistic values; and/or
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

The California Register requires that a resource possess integrity, which is defined as "the authenticity of a historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance" (California Office of Historic Preservation 1999). To retain integrity, a resource should have its original location, design, setting, materials, workmanship, feeling, and association. Which of these factors is most important depends on the particular criterion under which the resource is considered eligible for listing (California Office of Historic Preservation 1999).

The prehistoric sites recorded within or adjacent to the project boundaries are typical example of common resource type; a prehistoric milling complex lacking temporally diagnostic artifacts or a "single-use resource extraction and processing location." Although broadly associated with prehistoric Native American occupation, the sites do not represent unique archaeological information. The sites are not associated with significant events or persons, and do not embody distinctive characteristics of a type, period, or method of construction, nor do they appear to have the potential to yield information important in prehistory. Therefore, they do not meet any of the above criteria and are not eligible for listing in the California Register. However, they do constitute locally important examples of Native American activity and are not considered a historical resource under CEQA. Impacts to these sites relative to Native American resources are addressed in more detail in Section 4.5.6.1, *Archaeological Resources*.

The project site contains two previously identified historic sites: CA-RIV-4201H and CA-RIV-4210H. Both of these are historic-era homesteads and previously contained farm buildings and related out-buildings. They were located in the eastern portion of the Specific Plan, but MBA could find no remains of these facilities or related artifacts. The MBA report concludes the buildings were demolished and/or their materials removed for disposal or reuse at some point in the past.

There are seven rural residential structures and associated out-buildings currently present on the project site, and one (APN 478-220-009) near Redlands Boulevard contains a farm building that was built around 1900 and may be one of the oldest surviving buildings of the historic Moreno community.[1] No other evidence of past structures or unique features was identified; however, access to the seven rural residential properties was not available at the time of survey, and it appears from general observations, historical aerial photographs, and historical records that one or more of these buildings may be older than 40 years. Without more information, there is a possibility that removal of these buildings could represent a significant impact to historic structures, features, or resources, and mitigation is required.

Local Historical Resources: Alessandro Boulevard. In connection with the development of the Town of Moreno in the 1890s as part of the Bear Valley and Alessandro Development Company's real estate venture, Alessandro Boulevard was constructed across much of the project site. The roadway has been in continuous use in largely its same location since that time. In 1988, the City adopted Resolution CPAB 88-2 recognizing the landmark status of this roadway and providing for the preservation of its

[1] *Cultural Resources Assessment*, Michael Brandman Associates, Inc., April 24, 2012.

120-foot right-of-way through the City. Alessandro Boulevard was designated as a City Historic Landmark in 1988 "assure the maintenance, enhancement, or protection of a street of historical significance." Over the years, various portions of Alessandro Boulevard have been modernized to enhance traffic flow throughout the City, but the original routing has remained unchanged. Alessandro Boulevard within the WLCSP would retain its original alignment but the roadway would be enhanced to serve modern traffic needs. This has been done in multiple areas along Alessandro Boulevard in the past to better serve the needs of the community (i.e., Streets C and E originally indicated in the DEIR and Specific Plan that circulated for public review). See Figure 4.5.1. Based on these project revisions, the proposed WLCSP will not affect the integrity of the landmark status, as the significance of the Landmark status is associated with the original location of the boulevard since 1890 and the retention of the original name of the boulevard across the City. These aspects would remain and the impacts would not be considered significant since the California Register requires that a resource possess integrity, which is defined as "the authenticity of a historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance" (California Office of Historic Preservation 1999). To retain integrity, a resource should have its original location, design, setting, materials, workmanship, feeling, and association. Which of these factors is most important depends on the particular criterion under which the resource is considered eligible for listing (California Office of Historic Preservation 1999). Alessandro Boulevard integrity is retained in the original location; however, design, setting, materials feeling have changed over time through modifications to the road throughout the City, and thus the impacts of the WLCSP would not be significant in the context of the overall conditions of Alessandro Boulevard.

Approximately 1,350 feet of Alessandro Boulevard east of Merwin Street would be closed to through traffic to keep trucks from using Alessandro Boulevard through the residential neighborhoods to the west of the WLC. Eliminating vehicular use of this portion of Alessandro Boulevard would not have a significant impact on the landmark status of the road, as the name and the original routing would be retained. These are the two key characters of the landmark status. This portion of road would be designed to keep access open to non-vehicular users, including pedestrians and bicyclists. Both the original route and name would be retained in keeping with the main aspects of the landmark designation.

In recognition of the historical significance of Alessandro Boulevard and in compliance with Resolution CPAB 88-2, the project will retain and protect the Alessandro Boulevard right-of-way through the project. The conceptual circulation plan for the WLC contained in the Specific Plan (Exhibit 3-1) incorporates nearly all of the current Alessandro alignment. Where the ultimate roadway right-of-way varies from the historic right-of-way, the historic right-of-way will be retained and may be improved with walks, trails, landscaping or similar compatible improvements. Prior to approval of any development including or adjacent to the historic Alessandro Boulevard right-of-way, a concept plan for its entire length shall be submitted to and approved by the Planning Commission. These requirements are contained in the Specific Plan in Section 12.9 "Alessandro Boulevard – Historical Landmark." Retaining Streets C and E as proposed in the DEIR would have resulted in a potentially significant impact to a historical resource (Alessandro Boulevard), Mitigation Measure 4.5.6.2C has been introduced to keep Alessandro Boulevard in its original alignment. Therefore, any impact is less than significant.

In addition, historical evidence indicates Juan Bautista de Anza traveled through the project area (i.e., along the base of Mt. Russell from south to northwest), which should be acknowledged as part of the trail proposed within the Specific Plan.

Specific Plan Design Features. The Specific Plan was revised to show the realignment of Streets C and E to follow the historical alignment of Alessandro Boulevard and the eastern extension of Cactus Avenue through a part of the on-site Open Space area.

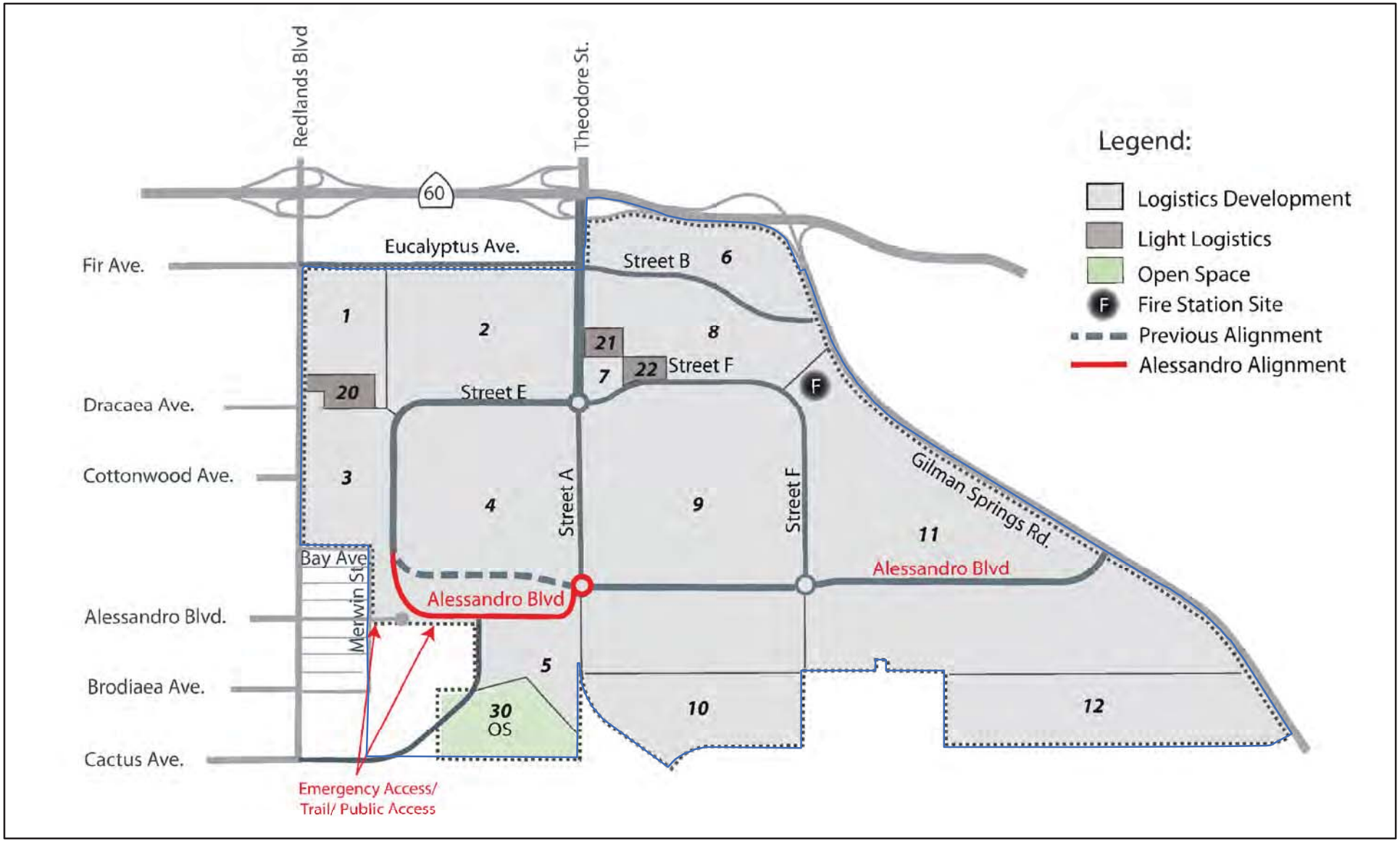

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FIGURE 4.5.1

0 1,300 2,600
FEET

World Logistics Center Specific Plan Project
Environmental Impact Report

Alessandro Historical Street Alignment

SOURCE: World Logistics Center Specific Plan, Highlandfairview, September, 2014.

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The following mitigation measure had been revised in response to Comments A-3-23, A-5-6, et al (see FEIR Volume 1, Table 2.A).

Mitigation Measures. Mitigation Measure 4.5.6.1A requires surveying the seven occupied parcels for archaeological resources since these properties could not be surveyed at the time the EIR was prepared. These surveys will identify the potential for significant historical resources on these properties. In addition, the following measure will further reduce the potential impacts of the project on historical resources:

4.5.6.2A If any historic resources are found during implementation of Mitigation Measure 4.5.6.1A, the Project Archaeologist or Historian (as appropriate) shall offer any artifacts or resources to the Moreno Valley Historical Society (MVHS) or the Eastern Information Center/County Museum or the Western Science Center in Hemet as appropriate for archival storage. From the time any artifacts are turned over to the Moreno Valley Historical Society or other appropriate historical group, the developer shall have no further responsibility for their management or maintenance.

In addition, the following measure is proposed to acknowledge the route of Juan Bautista de Anza through the project area as an important historical event:

4.5.6.2B As part of construction of the trail segment connecting Redlands Boulevard to the California Department of Fish and Wildlife property, the developer shall contribute $5,000 to the City for the installation of a historical marker acknowledging the passing of Juan Bautista de Anza through this area during his exploration of California. This measure shall be incorporated into trail plans for this segment which will be subject to review and approval by the City Park and Recreation Department in consultation with the Moreno Valley Historical Society.

4.5.6.2C Streets C and E shall follow the historical alignment of Alessandro Boulevard and shall be named Alessandro Boulevard.

Level of Impact After Mitigation. Implementation of the Specific Plan as revised and **Mitigation Measures 4.5.6.1A, 4.5.6.2A,** and, **4.5.6.2B 4.5.6.2C** will help reduce potential impacts to historical resources to less than significant levels.

4.5.6.3 Paleontological Resources

Impact 4.5.6.3: *The proposed project has the potential to affect previously undetected subsurface paleontological resources.*

Threshold	Would the proposed project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

As described in the *Paleontological Resources Assessment*, no paleontological resources were observed during the field survey. The majority of the project site is underlain by a thin veneer of Holocene alluvium that caps Pleistocene alluvial sediments. In addition, there is a small outcrop of Cretaceous granite that is exposed on the surface, and likely within the subsurface in some areas as well. The results of the assessment indicate that there are no known paleontological resources located within the project limits or within a one mile radius around the project site. The Holocene Alluvium that is exposed on the surface has a low sensitivity for containing paleontological resources. The Cretaceous granitic rocks that are exposed in a small area of the project have no sensitivity for containing paleontological resources. However, the Pleistocene Alluvium that exists in the subsurface

of the project has produced paleontological resources in many areas of the Inland Empire and Southern California area.

The portions of the site underlain by older Pleistocene alluvium and San Timoteo Formation rock units should be assigned a “moderate” paleontological sensitivity because these deposits have yielded paleontological resources in other areas in the past. Overall, the project site is considered to have a moderate paleontological sensitivity; therefore, impacts are considered potentially significant and mitigation is required.

Specific Plan Design Features. The Specific Plan does not contain any policies regarding paleontological resources.

Mitigation Measures. The following mitigation measures have been identified to address potential impacts to paleontological resources that may be located within the project limits:

4.5.6.3A Prior to the issuance of any grading permits, a City-approved Paleontologist shall be retained to conduct paleontological monitoring as needed for all grading related to development. Development monitoring shall include the following actions:

1. Monitoring must occur in areas where excavations are expected to exceed twenty (20) feet in depth, in areas where fossil-bearing formations are found during grading, and in all areas found to contain, or are suspected of containing, fossil-bearing formations.
2. To avoid construction delays, paleontological monitors shall be equipped to salvage fossils and remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates if they are unearthed.
3. Monitors shall be empowered to temporarily halt or divert equipment to allow removal of specimens.
4. Monitoring may be reduced if the potentially fossiliferous units described herein are not present, or, if present, are determined upon exposure and examination by the Project Paleontologist to have low potential to contain fossil resources . This measure shall be implemented to the satisfaction of the Planning Official. The Project Paleontologist and the Project Archaeologist described in Mitigation Measure 4.5.6.1C may be the same person if he/she meets the qualifications of both positions per Cultural Report MM PR-1, Table 4, pg.76).

4.5.6.3B Prior to the issuance of any permits for the construction of off-site improvements, a qualified paleontologist shall conduct an assessment for paleontological resources on each off-site improvement location. If any site is determined to have a potential for exposing paleontological resources, the project paleontologist shall monitor off-site grading/excavation, subject to coordination with the City. Development monitoring shall include the following mitigation measures:

1. Monitoring must occur in areas where excavations are expected to reach fossil-bearing formations during grading. This monitoring must be conducted by the Project Paleontologist in all areas found to or suspected of containing fossil-bearing formations.
2. To avoid construction delays, the Project Paleontologist shall be equipped to salvage fossils and remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates as they are unearthed.
3. The Project Paleontologist shall be empowered to temporarily halt or divert equipment to allow removal of specimens.

4. Monitoring may be reduced if the potentially fossiliferous units described herein are not present, or, if present, are determined upon exposure and examination by the Project Paleontologist to have low potential to contain fossil resources.

Level of Significance After Mitigation. Adherence to **Mitigation Measures 4.5.6.3A** and **4.5.6.3B** will reduce potential impacts to paleontological resources to less than significant levels.

4.5.7 Cumulative Impacts

The cumulative area for cultural resources is the City of Moreno Valley and the western portion of Riverside County. Implementation of the proposed project and related off-site improvements would require measures to identify, recover, and/or record any cultural and/or paleontological resource that may occur within the project limits. Although unlikely to occur, potential impacts associated with human remains would be reduced to a less than significant level through adherence to existing State law. With implementation of the recommended mitigation measures, potential impacts to archaeological or paleontological resources from future development will be reduced to less than significant levels. Since this region contains archaeological, historical, and paleontological resources that have been found in the past, future development in the surrounding region may impact these resources as well. However, implementation of the mitigation measures outlined in this document, and other CEQA documents for development projects in the area, will help reduce potential impacts to cultural resources to less than significant levels. With implementation of the project-level mitigation for future development identified in Section 4.5.6, the proposed project will not have significant impacts related to cultural resources, and will also not make any significant contributions to cumulatively considerable impacts relative to cultural resources. Therefore, no additional mitigation is required.

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4.6 GEOLOGY AND SOILS: TABLE OF CONTENTS

FIGURE

TABLE

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NOTE TO READERS. *This section has been revised in response to public comments received on the Programmatic DEIR which have resulted in project changes, updates to technical studies and revisions to EIR sections and proposed Mitigation Measures.*

4.6 GEOLOGY AND SOILS

This section describes the location of the proposed project relative to the known geologic features and soil conditions and qualitatively evaluates potential impacts. Additionally, this chapter evaluates whether development on the proposed project site would significantly be affected by fault rupture, seismic shaking, erosion or unstable slopes, liquefaction, settlement, expansive soils, or other soil or geologic conditions.

NOTE: The following changes have been made due to revision of the Specific Plan project size.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 29 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.

The following documents were prepared to analyze the geologic impacts of the proposed WLC project:

- *Preliminary Geotechnical Evaluation for Environmental Impact Report the World Logistics Center Specific Plan South of Highway 60 Between Redlands Boulevard and Gilman Springs Road City of Moreno Valley, California.* Leighton and Associates, Inc. original dated January 23, 2013 updated September 2014. (Appendix G).
- *Response to NOP Comments for the World Logistics Center Specific Plan.* Leighton and Associates, Inc. May 2012 (Appendix G).

- *"Preliminary Geotechnical Report, Tentative Parcel Map 35629, Moreno Valley, California, Project No. 111061-108," by Leighton and Associates, Inc. June 15, 2007.*
- *"Update Preliminary Geotechnical Report, Tentative Parcel Map 35629, Highland Fairview Corporate Park, City of Moreno Valley, California, Project No. 111061-108," by Leighton and Associates, Inc. April 30, 2008.*
- *"Update Geotechnical Report, Moreno Highlands Specific Plan Area, Southeast Corner of Highway 60 and Redlands Boulevard, City of Moreno Valley, California, Project No. 111061-108," by Leighton and Associates, Inc. July 21, 2008.*
- *"Preliminary Geotechnical Evaluation for Environmental Impact Report, "The Highlands Specific Plan," South of Highway 60 between Redlands Boulevard and Gilman Springs Road, City of Moreno Valley, California, Project No. 111061-127", by Leighton and Associates, Inc. December 13, 2011.*

In addition, the analysis contained in this section is based on the following reference documents:

- Moreno Valley General Plan, Safety Element, July 11, 2006;
- U.S. Department of Agriculture, Natural Resources Conservation Service, Soil Survey Geographic (SSURGO) database for Western Riverside Area, California, September 15, 2003; and
- Geotechnical reports, comments, and responses to comments on geotechnical issues from the Westridge, Skechers, and ProLogis Environmental Impact Reports (various dates).

4.6.1 Existing Setting

The City lies within the Perris Block, a structural unit that is located within the Peninsular Range Geomorphic Province, one of the major geologic provinces of southern California. The Perris Block is a large mass of granitic rock generally bounded by the San Jacinto Fault, the Elsinore Fault, the Santa Ana River, and a non-defined southeast boundary. The Perris Block has had a history of vertical land movements of several thousand feet due to shifts in the Elsinore and San Jacinto Faults. The materials within the valley area are characterized by Pliocene-Pleistocene-aged alluvium ranging from relatively thin (20 feet to 200 feet) to intermediate thickness (up to 2,000 feet), which overlies the older granitic bedrock. The rocky, mountainous areas, including the Box Springs Mountains and the Mount Russell/Lake Perris State Recreation area, have underlying granitic bedrock that consists of quartz diorite, and displays granite rock outcrops and large boulders. The Badlands range, at the eastern end of the area, comprises deposits of what was once an inland sea later elevated and deformed by geologic processes, before becoming severely eroded to its present state. This area consists of folded semi-consolidated sedimentary sandstone, siltstone, and shale. The proposed project is located within the northern portion of the San Jacinto Valley, a fault-bounded tectonic basin that has evolved from movement along the San Jacinto fault system resulting in a down-dropped northwest-trending trough.

The existing setting for geology and soils includes faulting and seismicity, soils, and geologic and seismic hazards, which are discussed below.

4.6.1.1 Faulting and Seismicity

Pursuant to Public Resources Code Section 2690 *et seq*. Leighton & Associates prepared a geotechnical report that analyzes the seismic hazards underlying the project site. Much of the information set forth below and throughout this document is taken from that report. The proposed project site, like the rest of Southern California, is located within a seismically active region as a result

of being located near the active margin between the North American and Pacific tectonic plates. The principal source of seismic activity is movement along the northwest-trending regional fault systems such as the San Andreas, San Jacinto, and Elsinore Fault Zones. Currently, these fault systems accommodate up to approximately 55 millimeters per year (mm/yr) of slip between the plates. The on-site San Jacinto Fault Zone is estimated to accommodate slip of approximately 12 mm/yr. However, geodetic measurements between 1973 and 1981 show that the San Jacinto and San Andreas Faults currently have comparable strain rates. It has been estimated that an average slip rate of as much as 20 mm/yr occurs for the San Jacinto Fault. The San Jacinto Fault zone presents a substantial seismic hazard in Southern California.

By definition of the California Geological Survey, an active fault is a fault, which has had surface displacement within Holocene time (about the last 11,000 years). This definition is used in delineating Earthquake Fault Zones as mandated by the Alquist-Priolo Geologic Hazards Zones Act of 1972 and as most recently revised in 2007 as the Alquist-Priolo Earthquake Fault Zoning Act and Earthquake Fault Zones. The intent of this act is to require fault investigations on sites located within Earthquake Fault Zones to ensure that certain inhabited structures are not constructed across the traces of active faults. The nearest Alquist-Priolo zoned “active faults” is the on-site Claremont Segment of the San Jacinto Fault Zone (see Figure 4.6.1). The western portion of the site is crossed by the City of Moreno Valley Seismic Zone and the postulated trace of the Casa Loma Fault. The nearest off-site fault zones include Casa Loma Segment of the San Jacinto Fault Zone, located 1.6 miles to the south, the San Andreas Fault Zone, located 12.7 miles northeast, and the Glen Ivy Segment of the Elsinore Fault is located approximately 22.7 miles to the southwest of the site.

4.6.1.2 Soils

Based on the *Soil Survey of Western Riverside County,* the project area contains 20 different soil-mapping units belonging to 10 different soil series. (See Table 4.6.A below and Figure 4.2.1 in Section 4.2.) A soil series is a group of soils with similar profiles. These profiles include major horizons with similar thickness, arrangement, and other distinct characteristics. The project site is dominated by San Emigdio loam (SgA and SgC) and San Emigdio fine sandy loam (SeC2), with smaller inclusions of Arbuckle loam (AkC), Badland (BaG), Gorgonio loamy sand (GhC), Greenfield sandy loam (GyA, GyD2), Hanford coarse sandy loam (HcC and HcD2), Metz loamy sand (MdC and MeD), Metz loamy fine sand (MfA), Metz gravelly sandy loam (MID), Ramona sandy loam (RdD2), Rockland (RtF), San Emigdio fine sandy loam (SeA and SeD2), and San Timoteo loam (SmE2).[1]

4.6.1.3 Geologic and Seismic Hazards

Geologic and seismic hazards discussed in this subsection include the following:

- Surface rupture;
- Ground shaking;
- Liquefaction;
- Subsidence and seismic settlement;
- Landslides/slope stability; and
- Compressible, expansive and collapsible soils.

[1] Habitat Assessment, MSHCP Consistency Analysis, and HANS Review Highland Fairview Specific Plan City of Moreno Valley, Riverside County, California, November 10, 2011.

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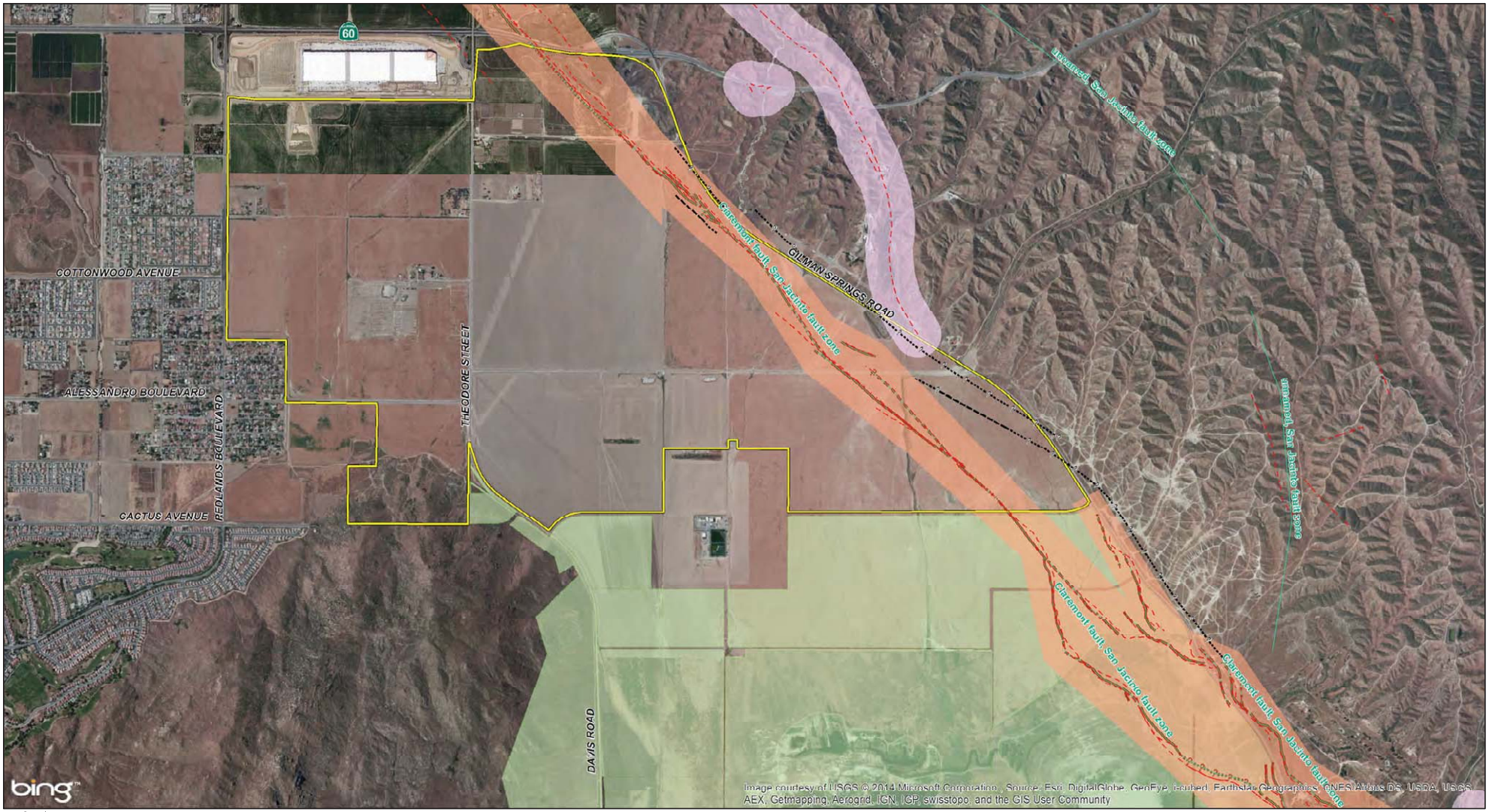

LSA

Project Boundary
CDFW Land

Alquist-Priolo Fault Zone
Alquist-Priolo Zone
Fault, Concealed
Fault, Inferred
Fault, Approximate
Fault, Certain

CGS Faults (2005)
Riverside County Fault
Riverside County Fault Zone

Approximate Location of Dibblee Mapped Fault Trace
Approximate
Concealed

0 1,000 2,000
FEET

FIGURE 4.6.1

World Logistics Center Specific Plan Project
Environmental Impact Report

Alquist-Priolo Zones and Earthquake Faults

SOURCE: County of Riverside, 2011; ESRI World Imagery & Bing Imagery, 2010; California Geological Survey, 2002 & 2005; Riverside County, 2011; Thomas Dibblee, 2003; California Dept of Fish & Wildlife. 2011.

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Table 4.6.A: Major On-site Soil Types

Soil Name	Map Symbol	Shrink-Swell Potential	Runoff Potential	Permeability	Erosion Hazard
San Emigdio loam	SgA, SgC	Low	Slow (SgA) Moderate (SgC)	Moderate	Slight (SgA) Moderate (SgC)
San Emigdio fine sandy loam	SeC2	Low	Medium	Moderately rapid	Moderate
San Emigdio fine sandy loam	SeA, SeD2	Low	Very slow (SeA) Medium (SeD2)	Moderate	Slight(SeA) Moderate (SeD2)
Arbuckle loam	AkC	Moderate	Medium	Moderately slow	Moderate
Badland	BaG	NI	NI	NI	NI
Gorgonio loamy sand	GhC	Low	Slow	Rapid	Slight
Greenfield sandy loam	GyA, GyD2	Low	Slow (GyA) Medium (GyD2)	Moderate	Slight (GyA) Moderate (GyD2)
Hanford coarse sandy loam	HcC, HcD2	Low	Slow to Medium (HcC) Medium (HcD2)	Moderate	Slight to Moderate (HcC) Moderate (HcD2)
Metz loamy sand	MdC, MeD	Low	Slow	Rapid	Slight (MdC) High (MeD)
Metz loamy fine sand	MfA	Low	Slow	Rapid	Slight
Metz gravelly sandy loam	MID	Low	Slow to Medium	Moderately rapid	Slight to Moderate
Ramona sandy loam	RdD2	Low	Medium	Moderately slow	Moderate
Rockland	RtF	-	Slow	Slow	Moderate to High
San Timoteo loam	SmE2	Low	Rapid	Moderate	High

NI = no information
Source: Soil Survey of Western Riverside County, U.S. Soil Conservation Service

Surface Rupture. Surface rupture occurs where displacement or fissuring occurs along a fault zone. While primary ground damage due to earthquake fault rupture typically results in a relatively small percentage of the total damage in an earthquake, the location of structures or facilities too close to a rupturing fault can cause profound damage. It is difficult to reduce the hazards of surface rupture through structural design. The primary method to avoid this hazard is to either set structures and facilities away from active faults, or avoid their construction in close proximity to an active fault.

Faults throughout southern California have formed over millions of years. Some of these faults are considered inactive under present geologic conditions, and other faults are known to be active.[1] Such faults have either generated earthquakes in historic times (200 years), or show geologic and geomorphic indications of movement within the last 11,000 years. Faults that have moved in the relatively recent geological past are generally presumed to be the most likely candidates to generate damaging earthquakes in the lifetimes of residents, buildings, or communities. As previously identified, the Claremont Segment of the San Jacinto Fault Zone is located on the eastern portion of the site; therefore, ground surface rupture is an identified seismic hazard within the project limits.

[1] The Alquist-Priolo Earthquake Fault Zoning Act defines *active faults* as those that show proven displacement of the ground surface within about the last 11,000 years. *Potentially active faults* are those that show evidence of movement within the last 1.6 million years.

Ground Shaking. The vast majority of earthquake damage is caused by ground shaking. Source effects include earthquake size, location, and distance. The bigger and closer the earthquake is, the more severe the damage will be. The exact way that rocks and other earth materials move along the fault can also influence shaking, as can the subsurface orientation of the fault.

Path effects are caused by seismic waves that change direction as they travel through the earth's contrasting layers, just as light bounces (reflects) and bends (refracts) as it moves from air to water. Sometimes this can focus seismic energy at one location, and cause damage in unexpected areas.

Site effects are brought about by seismic waves that slow down in the loose sediments and weathered rock at the surface of the earth. As they slow, their energy converts from speed to amplitude, which increases shaking. This is identical to the behavior of ocean waves. As the waves slow down near shore, their crests grow higher. Sometimes, too, seismic waves get trapped at the surface and resonate. Whether resonance will occur depends on the period (the length) of the incoming waves. Waves, soils and buildings all have resonant periods. When these match, tremendous damage can occur.

The primary threat associated with on-site and the nearby faults previously identified is the intensity of ground shaking that could be generated at the project site.

Liquefaction. Liquefaction occurs primarily in saturated, loose, fine-to-medium-grained soils in areas where the groundwater table is within 50 feet of the surface. Shaking suddenly causes soils to lose strength and behave as a liquid. Excess water pressure is vented upward through fissures and soil cracks, and a water-soil slurry bubbles onto the ground surface. The resulting features are called “sand boils,” “sand blows,” or “sand volcanoes.” Liquefaction-related effects include loss of bearing strength, ground oscillations, lateral spreading, and flow failures or slumping. Based on Figure 6-3 of the Safety Element of the City’s General Plan, the project site is not located in an area identified as having a liquefaction potential. Site-specific geotechnical studies by Leighton have concluded the project site has a very low potential for liquefaction.

Subsidence and Seismic Settlement. Ground subsidence is typically a gradual settling or sinking of the ground surface with little or no horizontal movement, although fissures (cracks and separations) can result from lowering of the ground surface.

The common causes of subsidence that can produce small or local collapses to broad regional subsidence include:

- Dewatering of peat or organic soils;
- Dissolution in limestone aquifers;
- First-time wetting of moisture-deficient, low-density soils (hydrocompaction);
- Natural compaction;
- Liquefaction;
- Crustal deformation;
- Ground shaking;
- Subterranean mining; and
- Withdrawal of fluids (groundwater, petroleum, or geothermal).

Most of the damage caused by subsidence is the result of oil, gas, or groundwater extraction from below the ground surface, or the organic decomposition of peat deposits. Ground subsidence may occur as a response to natural forces such as earthquake movements, which can cause abrupt elevation changes of several feet or densification of low density granular soils during an earthquake event that may cause several inches of settlement.

Landslides/Slope Stability. Significant factors that contribute to slope failure include slope height and steepness, shear strength and orientation of weak layers in the underlying geologic units, and pore water pressures. There are no known landslides within the project area; however, a large older landslide has been mapped primarily off site on the northeasterly flanks of Mount Russell, near the southwest portion of the property. The landslide appears to have originated on the higher slopes (off site) and moved northeast, partially onto the subject property.

Alluvial Soil. Alluvial soil was encountered in all exploratory borings, fault trenches, and test pits excavated at the site.[1] The alluvial soils were deposited as part of a complex depositional environment and generally include interbedded fine sands and silts with varying amounts of clay. The yellow-brown to medium gray recent alluvial soils (younger alluvium) are found in drainages and believed to constitute the upper surficial materials (upper 3 to 10 feet). The deeper materials (older alluvium and older fan-deposits) are generally dark yellow-brown to dark gray and consist of silty fine sand to sandy silt with interbedded lenses of silt clay and sandy gravel. The alluvium along the southeastern side of the site is significantly denser and contains considerable amounts of coarser sands and gravel. Pertinent engineering characteristics of the encountered alluvium are summarized below:

- **Compressibility Characteristics.** The alluvium is generally loose in the upper 10 to 15 feet in most areas. At depths greater than 15 feet, the alluvium is generally medium dense. The results of testing by Leighton also indicate a high rebound potential during unloading for some of the tested alluvium. This rebound affect may cause some elevation rise in areas of significant excavation.
- **Expansive Soils.** Expansive soils generally have a significant amount of clay particles that can give up water (shrink) or take on water (swell). The change in volume exerts stress on buildings and other loads placed on these soils. The extent of shrink/swell is influenced by the amount and kind of clay in the soil. The occurrence of these soils is often associated with geologic units having marginal stability. The majority of the site materials are expected to have a low expansive potential; however, expansive soils are known to exist on site. The more expansive soils are expected to be localized and associated with interbedded silt and clay layers.
- **Collapse Potential.** Hydroconsolidation, or soil collapse, typically occurs in recently deposited Holocene (less than 10,000 years before present time) soils that were deposited in an arid or semi-arid environment. Soils prone to collapse are commonly associated with man-made fill, wind-laid sands and silts, and alluvial fan and mudflow sediments deposited during flash floods. Particles of these soils, which typically contain minute pores and voids, may be partially supported by clay or silt, or chemically cemented with carbonates. When saturated, collapsible soils undergo a rearrangement of their grains and the water removes the cohesive (or cementing) material, and a rapid, substantial settlement may occur. An increase in surface water infiltration (such as from irrigation) or a rise in the groundwater table, combined with the weight of a building or structure, may initiate settlement, causing foundations and walls to crack. Soil borings and laboratory testing conducted by Leighton determined that on-site soils have low to moderate

[1] *Preliminary Geotechnical Evaluation for Environmental Impact Report World Logistics Center Specific Plan South of Highway 60 Between Redlands Boulevard and Gilman Springs Road City of Moreno Valley, California.* Leighton and Associates, Inc. January 2013.

potential for collapse with the exemption of dispersed areas just south of the extension of Eucalyptus Avenue.[1]

4.6.1.4 Off-site Improvements

After the approximate locations of the various project-related off-site improvements were identified (e.g., reservoirs, and the Theodore Street/SR-60 interchange), the project geologist (Leighton) conducted a brief geotechnical assessment of the various off-site areas to identify the potential for geotechnical constraints (see Appendix G). Leighton concluded that none of the off-site improvement areas had substantial seismic or seismically related constraints, but did recommend additional testing and evaluation for localized soil constraints once specific improvement footprints had been established.

4.6.1.5 NOP/Scoping Comments

Several members of the public said the EIR should examine potential seismic and other impacts related to the San Jacinto Fault Zone, as well as the Casa Loma and Farm Road Faults. These comments were addressed by the project geologist and geotechnical consultant (Leighton) and are addressed in Sections 4.6.5 and 4.6.6 in relation to project impacts.

4.6.2 Policies and Regulations

4.6.2.1 State Regulations

Alquist-Priolo Earthquake Fault Zoning Act. The major State legislation regarding earthquake fault zones is the *Alquist-Priolo Earthquake Fault Zoning Act* (A-P Act). In 1972, the State of California began delineating “Earthquake Fault Zones” (called Special Studies Zones prior to 1994) around and along faults that are “sufficiently active” and “well defined” to reduce fault-rupture risks to structures for human occupancy (California Public Resources Code Sections 2621–2630). The boundary of an “Earthquake Fault Zone” is generally 500 feet from major active faults and from 200 to 300 feet from well-defined minor faults. The mapping of active faults has been completed by the State Geologist, and these maps are distributed to all affected cities, counties, and State agencies for their use in developing planning policies and controlling renovation or new construction.

Before a project can be permitted within an identified Earthquake Fault Zone, cities and counties must require a geologic investigation to demonstrate that proposed buildings will not be constructed across active faults. A site-specific evaluation and written report must be prepared by a licensed geologist. If an active fault is identified, a structure intended for human occupancy cannot be placed over the trace of the fault and must be set back from the fault.

The A-P Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards.

The Seismic Hazards Mapping Act. Passed in 1990, the Seismic Hazards Mapping Act (SHMA) addresses non-surface fault rupture earthquake hazards, including strong ground shaking, liquefaction, and seismically induced landslides. The California Geological Survey (CGS) is the principal State agency charged with implementing the 1990 SHMA. Pursuant to the SHMA, the CGS is directed to provide local governments with seismic hazard zone maps that identify areas susceptible to amplified shaking, liquefaction, earthquake-induced landslides, and other ground failures. The goal is to minimize loss of life and property by identifying and mitigating seismic hazards.

[1] Ibid.

The seismic hazard zones delineated by the CGS are referred to as "zones of required investigation." Site-specific geotechnical hazard investigations are required by SHMA when construction projects fall within these areas.

Natural Hazards Disclosure Act. Effective June 1, 1998, the Natural Hazards Disclosure Act requires that sellers of real property and their agents provide prospective buyers with a "Natural Hazard Disclosure Statement" when the property being sold lies within one or more State-mapped hazard areas. If a property is located in a Seismic Hazard Zone as shown on a map issued by the State Geologist, the seller or the seller's agent must disclose this fact to potential buyers.

4.6.2.2 Local Policies

City of Moreno Valley General Plan Policies. The City of Moreno Valley General Plan includes policies and goals related to geologic and seismic hazards. The following goals and policies are applicable to the proposed WLC project.

Safety Element

Goal 6.1 To achieve acceptable levels of protection from natural and man-made hazards to life, health and property.

Goal 6.2 To have emergency services which are adequate to meet minor emergency and major catastrophic situations.

Safety Element Objectives and Policies

Objective 6.1

Minimize the potential for loss of life and protect residents, workers, and visitors to the City from physical injury and property damage due to seismic ground shaking and secondary effects.

Policies:

6.1.1 Reduce the effects from fault rupture and liquefaction hazards through the identification and recognition of potentially hazardous conditions and areas as they relate to the San Jacinto fault zone and the high and very high liquefaction hazard zones. During the review of future development projects, the City shall require geologic studies and mitigation for fault rupture hazards in accordance with the Alquist-Priolo Special Study Zones Act. Additionally, future geotechnical studies shall contain calculations for seismic settlement on all alluvial sites identified as having high or very high liquefaction potential. Should the calculations show a potential for liquefaction, appropriate mitigation shall be identified and implemented.

6.1.2 Require all new developments, existing critical and essential facilities and structures to comply with the most recent Uniform Building Code seismic design standards.

4.6.3 Methodology

The analysis of potential geologic and soil-related impacts is based upon the preliminary site specific geotechnical study prepared by Leighton and Associates, the City's Safety Element of the General Plan, literature prepared by the California Department of Mines and Geology (CDMG), information from the federal Natural Resources Conservation Service (NRCS), mapping published by the United States Geological Survey (USGS), and other documents such as the City's Building Code, and the City's Standard Design Guidelines, which were reviewed and summarized to establish existing conditions. In determining the level of significance, the analysis assumes that construction and

operation of the proposed project would comply with relevant Federal and State laws and regulations, as well as City General Plan policies.

4.6.4 Thresholds of Significance

The following thresholds of significance regarding potential impacts to geology and soils are based on *CEQA Guidelines* (2011). A project would have a significant impact related to geology and soils if it would:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zone Maps issued by the State Geologist for the area or based on other substantial evidence of a known fault.
  - Strong seismic ground shaking.
  - Seismic-related ground failure, including liquefaction.
  - Landslides.
- Result in substantial soil erosion or the loss of topsoil;
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse;
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994 or most current edition), creating substantial risks to life or property; and/or
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

4.6.5 Less than Significant Impacts

The following impacts were determined to be less than significant. In each of the following issues, either no impact would occur (therefore, no mitigation would be required) or adherence to established regulations, standards and policies would reduce potential impacts to a less than significant level.

4.6.5.1 Landslides and Rockfalls

Threshold	Would the proposed project expose persons or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

NOTE: The following changes have been made due to revision to the Specific Plan project size.

A large older landslide has been mapped primarily off site on the north easterly flanks of Mount Russell, near the southwest portion of the property. The landslide appears to have originated on the higher slopes off site, and moved northeast, partially onto the subject property. The Specific Plan designates 74.3 acres in the southwestern portion of the property as open space. This 74.3 acres includes the steepest slopes on site (i.e., the Mount Russell foothills), which will reduce the potential for significant landslide or rockfall impacts on the project to less than significant levels; therefore, no mitigation is needed.

4.6.5.2 Soil Erosion or Loss of Topsoil

Threshold	Would the proposed project result in substantial soil erosion or the loss of topsoil?

The proposed project includes the grading of approximately 2,684 acres for the construction of the proposed logistics buildings. In addition, the project proposes the construction of various infrastructure improvements both on site and off site. These improvements include the construction of on-site and off-site water, sewer, freeway interchange and roadway/intersection improvements, debris basins, reservoirs, water and sewer lines, utility substations, etc. These activities have the potential to cause erosion both on site and off site.

Development of the site would require the movement of on-site soils. Portions of the site have been and are being used for dry farming, and several rural residences are present. Prior to the issuance of grading permits, the project proponent will be required to prepare and submit detailed grading plans as each phase is developed. These plans will be prepared in conformance with applicable standards of the City's Grading Ordinance. Construction of off-site utility and roadway improvements will also result in the movement of soil. Plans are not available at this time for off-site improvements but that construction will be subject to the same permitting and plan checking processes.

Development of the site and related off-site improvements would involve the disturbance of more than one acre; therefore, the project is required to obtain a National Pollutant Discharge Elimination System (NPDES) permit. A Storm Water Pollution Prevention Plan (SWPPP) will also be required to address erosion and discharge impacts associated with the proposed on-site grading. Compliance with storm water regulations include minimizing storm water contact with potential pollutants by providing covers and secondary containment for construction materials, designating areas away from storm drain systems for storing equipment and materials and implementing good housekeeping practices at the construction site. The following SWPPP components will reduce potential impacts of soil erosion or loss of topsoil to less than significant levels:

- Protect all storm drain inlets and streams located near the construction site to prevent sediment-laden water from entering the storm drain system.
- Prevent erosion by implementing one or more of the following soil stabilization practices: mulching, surface roughening, permanent or temporary seeding.
- Limit vehicular access to and from the site. Stabilize construction entrances/exits to minimize the track out of dirt and mud onto adjacent streets. Conduct frequent street sweeping.
- Protect stockpiles and construction materials from winds and rain by storing them under a roof, secured impermeable tarp or plastic sheeting.
- Avoid storing or stockpiling materials near storm drain inlets, gullies or streams.
- Phase grading operations to limit disturbed areas and duration of exposure.
- Perform major maintenance and repairs of vehicles and equipment off site.
- Wash out concrete mixers only in designated washout areas at the construction site.
- Set-up and operate small concrete mixers on tarps or heavy plastic drop cloths.
- Keep construction sites clean by removing trash, debris, wastes, etc. on a regular basis.
- Clean up spills immediately using dry clean-up methods (e.g., absorbent materials such as cat litter, sand or rags for liquid spills; sweeping for dry spills such as cement, mortar or fertilizer) and by removing the contaminated soil from spills on dirt areas.
- Maintain all vehicles and equipment in good working condition. Inspect frequently for leaks, and repair promptly.

- Cover open dumpsters with secured tarps or plastic sheeting. Clean out dumpsters only in approved locations on the construction site.
- Arrange for an adequate debris disposal schedule to insure that dumpsters do not overflow.

A preliminary WQMP was prepared for the WLCSP and is included in Appendix J-2. The preliminary WQMP contains the following post-construction measures, which will help reduce potential impacts to soil erosion to less than significant levels and identifies measures to treat and/or limit the entry of contaminants into the storm drain system:

- *Maximize the permeable area.* A significant portion of the project will remain pervious for the purposes of landscaping, water quality treatment, and flood detention. By incorporating more pervious, lower Runoff Coefficient (C factor) surfaces into the project, lower volumes of runoff will be produced.
- *Incorporate landscaped buffer areas between sidewalks and streets.* Bioretention areas between sidewalks and streets will be incorporated and serve the dual purpose of landscaping and water quality treatment.
- *Maximize canopy interception and water conservation by preserving existing native trees and shrubs, and planting additional native or drought-tolerant trees and large shrubs.* Although most of the project area will require mass grading, some existing native trees and shrubs will be preserved where feasible.
- *Use natural drainage systems.* The majority of the project site currently sheet flows to small earthen ditches. Under the proposed condition, most of these natural ditches will be removed, with the exception of one natural drainage course. This natural drainage path, located at the eastern portion of the project, will be maintained under the proposed condition.
- *Where soils conditions are suitable, use perforated pipe or gravel filtration pits for low flow infiltration.* Infiltration basins will be proposed where soil conditions are appropriate.
- *Construct on-site ponding areas or retention facilities to increase opportunities for infiltration consistent with vector control objectives.* Detention basins and/or infiltration basins will be provided on site. The locations of these facilities will be shown in the project-specific WQMP.
- *Construct streets, sidewalks and parking lot aisles to the minimum widths necessary, provided that public safety and a walkable environment for pedestrians are not compromised.* Street, sidewalk, and parking design will incorporate minimum street widths that still meet City requirements and emergency access requirements.
- *Reduce widths of street where off-street parking is available.* Street design will incorporate minimum street widths that still meet City requirements and emergency access requirements.
- *Minimize the use of impervious surfaces, such as decorative concrete, in the landscape design.* The use of impervious surfaces for decorative purposes will be minimized where possible.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

- *Conserve natural areas.* There are 1,205 acres of natural areas that will be designated as undisturbed open space. The proposed project designates 1,086 acres of CDFW land, and an additional 44 acres of natural areas maintained by utility companies, and 74.3 acres within the WLC Specific Plan, for Open Space use.
- *Development sites will be designed to contain and infiltrate roof runoff, or direct roof runoff to vegetative swales or buffer areas, where feasible.* Runoff from impervious areas will sheet flow or be directed to Treatment Control BMPs.

- *Where landscaping is proposed, impervious sidewalks, walkways, and trails will be designed to drain into adjacent landscaping.* Streets, sidewalks, and parking lots will sheet flow to landscaping/bioretention areas.
- *Increase the use of vegetated drainage swales in lieu of underground piping or imperviously lined swales.* Runoff from impervious areas will sheet flow to vegetated swales, bioretention areas, infiltration basins, and/or detention basins.
- *Rural swale system: street sheet flows to vegetated swale or gravel shoulder, curbs at street corners, culverts under driveways and street crossings.* Streets will sheet flow to adjacent landscaping/bioretention areas.
- *Urban curb/swale system; street slopes to curb, periodic swale inlets drain to vegetated swale/biofilter.* Streets will sheet flow to adjacent landscaping/bioretention areas.
- *Design driveways to drain into landscaping prior to discharging to the MS4.* Driveways will sheet flow to adjacent landscaping/bioretention areas.
- *Uncovered parking may be paved with a permeable surface, or designed to drain into landscaping prior to discharging to the MS4.* Parking lots will sheet flow to adjacent landscaping/ bioretention areas.

The WQMP is incorporated by reference and/or attached to the project's SWPPP as the Post-Construction Management Plan.

As soils covering the project site have a slight-to-high erosion hazard potential and because the project would be required to adhere to the City's Grading Ordinance, obtain an NPDES Permit, and prepare an SWPPP and a WQMP, construction and operational impacts associated with soil erosion hazards are considered to be less than significant, and no mitigation is required.

Grading for off-site improvements would require subsequent grading permits or related approvals from both the City and County of Riverside, depending on the improvement and its location. Most roadway and intersection improvements will occur within existing rights-of-way or on land that has been previously disturbed. The SWPPP and the WQMP establish performance standards for future development, and implementation the identified measures in those plans will reduce potential erosion impacts to less than significant levels (See also Section 4.9, *Hydrology and Water Quality*, for a discussion of potential issues associated with soil erosion during construction and project operations).

4.6.5.3 Septic Tanks

Threshold	Would the proposed project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

All buildings within the project will be connected to existing wastewater facilities (sewer) owned and operated by the Eastern Municipal Water District. Septic tanks will not be used anywhere within the project. No mitigation is required.

4.6.5.4 Seismic-Related Ground Failure

Threshold	Would the proposed project expose persons or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic ground failure?

NOTE: The following changes have been made due to revision to the Specific Plan project size.

Development of the proposed project will result in the construction of up to 40.6 million square feet of logistics warehouse uses. The project site is located within Seismic Zone 4 as defined by the Uniform Building Code (UBC). Exhibit S4 of the Safety Element of the City's General Plan indicates that the project site is not located in an area susceptible to landslides or slope instability.

The project site lies on relatively flat terrain (±2% grade) and no landslide areas or mass movement were observed on site. The only steep topographical features are located in the southwest corner of the project area (see Section 4.6.6.3 below). This area is designated for Open Space uses and is not proposed for development.

The project does not propose any activity known to cause damage by subsidence (e.g., oil, gas, or groundwater extraction). Settlement generally occurs within areas of loose, granular soils with relatively low density. The project site is underlain by relatively dense alluvial and dense sedimentary bedrock materials at depth and the potential for settlement is considered low. Because the project site does not exhibit characteristics of a high potential for subsidence or settlement, impacts are considered less than significant. No mitigation is required.

The potential for liquefaction generally occurs during strong ground shaking within relatively cohesionless loose sediments where the groundwater is typically less than 50 feet below the surface. Because the project site does not exhibit characteristics of a high potential for liquefaction induced settlement (i.e., relatively dense soils with groundwater levels in excess of 100 feet), impacts are considered less than significant. No mitigation is required.

4.6.6 Significant Impacts

The following impacts were determined to be potentially significant. In each of the following issues, mitigation measures have been recommended to reduce the significance of the identified impacts.

4.6.6.1 Fault Rupture

Impact 4.6.6.1: *Future development permitted by the project would locate development in an area susceptible to fault rupture.*

Threshold	Would the proposed project expose persons or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zone Maps issued by the State Geologist for the area or based on other substantial evidence of a known fault.

Surface rupture occurs where displacement or fissuring occurs along a fault zone. While primary ground damage due to earthquake fault rupture typically results in a relatively small percentage of the total damage in an earthquake, the location of structures or facilities too close to a rupturing fault can cause profound damage. The primary method to avoid this hazard is to either set structures and facilities away from active faults, or avoid their construction in close proximity to an active fault.

Faults throughout southern California have formed over millions of years. Some of these faults are generally considered inactive under present geologic conditions and other faults are known to be

active.[1] Such faults have either generated earthquakes in historic times (within the last 200 years) or show geologic and geomorphic indications of movement during the last 11,000 years. Faults that have moved in the relatively recent geological past are generally presumed to be the most likely candidates to generate damaging earthquakes in the lifetimes of residents, buildings, or communities.

The Seismic Hazards Mapping Act establishes a statewide public safety standard for mitigation of earthquake hazards. According to the Act the minimum level of mitigation for a project "should reduce the risk of ground failure during an earthquake to a level that does not cause the collapse of a building intended for human occupancy," though generally not to a level of no ground failure to all. Moreover, the California Building Code 2010 (CBC) establishes standards for seismic safety in the design and construction of buildings, and includes "significant building design and construction criteria that have been tailored for California earthquake conditions." It "provides standards that must be met to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all buildings and structures within its jurisdiction." Chapter 18 of the UBC specifies the required level of soil investigation. It contains requirements applicable to buildings and foundations, which take into consideration reduction of potential seismic hazards.

The CBC requires geologic and earthquake engineering reports for all proposed construction, prepared by a California-certified engineering geologist in consultation with a California-registered geotechnical engineer, the purpose of which is to identify geologic and seismic conditions that may require project mitigations. (Cal. Code Regs., Title 24, §§ 1802.7.1, 1802.7.2.) The report must contain data which provide an assessment of the nature of the site and potential for earthquake damage based on appropriate investigations of the regional and site geology, project foundation conditions and the potential seismic shaking at the site. (Cal. Code Regs., Title. 24, § 1802.7.2.) The CBC also requires a geotechnical report, which would provide evaluations of the soil conditions of the site and the potential geologic/seismic hazards affecting the site. The report must include site-specific evaluations of design criteria related to the nature and extent of foundation materials, groundwater conditions, liquefaction potential, settlement potential, slope stability, and potential site ground motion. (Cal. Code Regs., Title. 24, § 1802.81.)"

City Ordinance 9.08.160 states "In accordance with provisions of the Alquist-Priolo Special Studies Zone Act (Division 2, Chapter 7.5 of the Public Resource Code) and the Public Health and Safety Element of the City General Plan, a geologic investigation shall be required for any development proposal involving structures for human occupancy within the special study zone for the San Jacinto Fault, as identified on the special studies zone maps prepared by the state of California Department of Conservation, or the Casa Loma Fault, as identified on the seismic zone map in the City General Plan. Geologic investigations shall be prepared by a geologist registered in the state of California and shall be reviewed for acceptance by a geologist registered in the state of California who is either an employee or under contract to the City. Geologic investigations shall consider ground shaking as the greatest potential risk and include a thorough evaluation of potential hazards based upon soils types, slope stability, proximity to fault lines and expected magnitude. Copies of all geologic investigations shall be kept on file in the office of the City building official."

The western portion of the site is crossed by the City of Moreno Valley Seismic Zone, a postulated trace of the Casa Loma Fault and the Farm Road Strand. A detailed fault investigation was performed by Leighton for these projected faults. Although no active faulting was observed, some local discontinuous fracturing was observed and documented. Because of the potential for ground movements in this area, mitigation is required.

[1] The Alquist-Priolo Earthquake Fault Zoning Act defines *active faults* as those that show proven displacement of the ground surface within about the last 11,000 years. *Potentially active faults* are those that show evidence of movement within the last 1.6 million years.

Specific Plan Design Features. The Specific Plan does not contain any policies that specifically address seismic limitations, but does acknowledge that all future development will require the preparation of site-specific geotechnical reports to ensure compliance with all applicable standards.

Mitigation Measures. State law prohibits the construction and placement of habitable structures[1] over the trace of an active fault pursuant to the Alquist-Priolo Act. The A-P Earthquake Fault Zone is located on the eastern border of the project site (refer to Figure 4.6.1). Trenching conducted by Leighton across the Claremont Segment of the San Jacinto Fault in the eastern area of the project site identified the location of a portion of the fault; however, the entire length of the fault through the project site was not trenched. Although no habitable structure can be located on an active fault per State law, fault rupture hazard represents a potential significant seismic hazard on site that would require mitigation. To ensure fault rupture impacts are appropriately mitigated, the following measures has been identified:

4.6.6.1A Prior to approval of any projects for development between Redlands Boulevard and Theodore Street, south of Dracaea Avenue (projected east from Redlands Boulevard), and the area south of Alessandro from the western boundary along the Mount Russell toe of slope easterly into the site 1,500 feet, the City shall determine if a detailed fault study of the Casa Loma Fault Zone area is required based on available evidence. If necessary, any additional geotechnical investigations shall be prepared by a qualified geologist and determine if structural setbacks are needed, and shall identify specific remedial earthwork and/or foundation recommendations. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur. Structures intended for human occupancy shall not be located within any structural setback zone as determined by those studies. This measure shall be implemented to the satisfaction of the City Engineer in consultation with the Project Geologist.

4.6.6.1B Prior to approval of any projects for development within or adjacent to the San Jacinto Alquist-Priolo Earthquake Fault Zone, the City shall review and approve a geotechnical fault study prepared by a qualified geologist to confirm the alignment and size of any required building setbacks related to the fault zone. If necessary, this study shall identify a “special foundation or grading remediation zone” for the areas supporting structures intended for human occupancy where coseismic deformation (fractures) is observed. This zone shall be determined after subsurface evaluation based on proposed building locations. Specific remedial earthwork and foundation recommendations shall be evaluated as necessary based on proposed building

[1] California Code of Regulations, Section 3601 states, “A structure for human occupancy is any structure used or intended for supporting or sheltering any use of occupancy, which is expected to have a human occupancy rate of more than 2,000 person-hours per year.”

locations. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur.

This study may involve trenching to adequately identify the location of the Claremont segment of the San Jacinto Fault Zone that crosses the eastern portion of the World Logistics Center Specific Plan property. This measure shall be implemented to the satisfaction of the City Engineer in consultation with the Project Geologist.

4.6.6.1C Prior to the approval of grading permits, or permits for construction of off-site improvements, the City shall review and approve plans confirming that the project has been designed to withstand anticipated ground shaking and other geotechnical and soil constraints (e.g., settlement). The project proponent shall submit plans to the City as appropriate for review and approval prior to issuance of grading permits or issuance of permits for the construction of any offsite improvements. This measure shall be implemented to the satisfaction of the City Engineer

Level of Impact After Mitigation. Adherence to the measures identified in the geotechnical investigations, as well as other requirements identified and required by the City, will ensure fault rupture hazards are reduced to a less than significant level.

4.6.6.2 Ground Shaking

Impact 4.6.6.2: *Future development permitted by the proposed project would locate development in an area susceptible to strong seismic ground shaking.*

Threshold	Would the proposed project expose persons or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong ground shaking?

Southern California is a seismically active area and, therefore, will continue to be subject to ground shaking resulting from seismic activity on regional faults. Ground shaking from earthquakes associated with nearby and more distant faults is expected to occur during the lifetime of the project. The level of potential ground motion is considered moderate to high in the City of Moreno Valley and, therefore, in the project area.

Project or Specific Plan Design Features. The Specific Plan does not contain any policies that specifically address seismic limitations, but does acknowledge that all future development will require

the preparation of site-specific geotechnical reports to ensure compliance with all applicable standards.

Mitigation Measures. In accordance with the City's General Plan Safety Element (Objective 6.1),[1] project development will require geological and geotechnical investigations by State-licensed professionals. The geotechnical investigations will provide design considerations and earthwork recommendations to ensure that ground shaking impacts are appropriately mitigated. In addition, California Code of Regulations (CCR), Title 24, also known as the California Building Standards Code, contains building design and construction requirements relating to fire and life safety, and structural safety. The CBC also includes standards designed to ensure that structures within California are built to withstand expected levels of seismic activity for each earthquake region throughout the State. Specifically, Part 2 of Title 24, including Chapters 4, 16-18, and Appendix J provide guidance regarding grading, soils, and construction techniques related to seismic protection. These codes are provided to protect public safety and ensure that all structures built in the State can withstand anticipated seismic ground shaking and other related geotechnical and soils constraints.

To ensure ground shaking impacts are appropriately mitigated, the following measure is recommended:

4.6.6.2A Prior to issuance of building permits for any portion of the project site, a site-specific, design level geotechnical investigation for each parcel shall be submitted to the City , which would comply with all applicable state and local code requirements, and includes an analysis of the expected ground motions at the site from known active faults using accepted methodologies. The report shall determine structural design requirements as prescribed by the most current version of the California Building Code, including applicable City amendments, to ensure that structures can withstand ground accelerations expected from known active faults. The report shall also determine the final design parameters for walls, foundations, foundation slabs, utilities, roadways, parking lots, sidewalks, and other surrounding related improvements. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur. In addition, adherence to **Mitigation Measure 4.6.6.1C** addresses impacts of off-site improvements in this regard.

Level of Significance After Mitigation. Adherence to the measures identified in the geotechnical investigations, as well as other requirements identified and required by the City, will ensure ground shaking hazards are reduced to a less than significant level.

[1] Moreno Valley General Plan, Chapter 9 Goals and Objectives, pg. 9-30.

4.6.6.3 Unstable Soils

Impact 4.6.6.3: *Future development permitted by the proposed project may locate development in an area with expansive soils.*

Threshold	Would the proposed project be located on expansive soil, creating substantial risks to life or property?

As previously identified, expansive soils generally have a substantial amount of clay particles, which can give up water (shrink) or absorb water (swell). The change in the volume exerts stress on buildings and other loads placed on these soils. The extent or range of the shrink/swell is influenced by the amount and kind of clay present in the soil. Expansive soils can be widely dispersed and they can occur in hillside areas as well as low-lying alluvial basins. On-site soils (Dv and Wb soils) are identified as having a moderate to low shrink-swell potential. Because the potential exists to locate development on moderately expansive soils, impacts are considered significant and mitigation is required.

Project or Specific Plan Design Features. The Specific Plan does not contain any policies that specifically address seismic limitations, but does acknowledge that all future development will require the preparation of site-specific geotechnical reports to ensure compliance with all applicable standards.

Mitigation Measures. In accordance with the City's General Plan Safety Element (Implementation Measure I.E.1) and as indicated previously, development of the project will require geological and geotechnical investigations by State-licensed professionals. To ensure impacts from expansive soils are addressed for specific development sites, adherence to **Mitigation Measures 4.6.6.3A** through **4.6.6.3C** will be required.

4.6.6.3A Each Plot Plan application for development shall include a site-specific, design level geotechnical investigation for each parcel, in compliance with all applicable state and local code requirements, and including an analysis of the expected soil hazards at the site. The report shall determine:

1. Structural design requirements as prescribed by the most current version of the California Building Code, including applicable City amendments, to ensure that structures can withstand ground accelerations expected from known active faults.
2. The final design parameters for walls, foundations, foundation slabs, utilities, roadways, parking lots, sidewalks, and other surrounding related improvements.

Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site-specific geotechnical investigations. In addition, the project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet the California Building Code requirements, and incorporate all applicable mitigations from the investigation into the structural design plans and shall ensure that all structural plans for the project meet current Building Code requirements. These investigations shall identify any site-specific impacts from compressible and expansive soils based on the actual location of individual pads proposed in the future, so that differential movement can be further verified or evaluated in view of the actual foundation plan and imposed fill or structural loads. Additionally, a registered geotechnical engineer shall review each site-specific geotechnical investigation, approve the final report, and require

compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure, and all other relevant construction permits. The City Building Division shall review and approve plans to confirm that the siting, design and construction of all structures and facilities are in accordance with the regulations established in the California Building Code (California Code of Regulations, Title 24), and/or professional engineering standards appropriate for the seismic zone in which such construction may occur.

Compliance with this measure will ensure that future buildings are designed to protect the structure and occupants from on-site soil limitations, consistent with State Building Code requirements. This measure shall be implemented to the satisfaction of the City Engineer.

4.6.6.3B Any cut slopes in excess of five (5) feet in vertical height shall be constructed as "replacement fill slopes" per the project geotechnical report, due to the variable nature of the onsite alluvial soils. This measure shall be implemented to the satisfaction of the City Land Development Division and the City Engineer in consultation with the Project Geologist.

4.6.6.3C During all grading activities, a geotechnical engineer shall monitor site preparation, removal of unsuitable soils, mapping of all earthwork excavations, approval of imported earth materials, fill placement, foundation installation, and other geotechnical operations. Laboratory testing of subsurface materials to confirm compacted dry density and moisture content, consolidation potential, corrosion potential, expansion potential, and resistance value (R-value) shall be performed prior to and during grading as appropriate. This measure shall be implemented to the satisfaction of the City Engineer in consultation with the Project Geologist.

Level of Impact After Mitigation. Implementation of **Mitigation Measures 4.6.6.3A** through **4.6.6.3C**, and adherence to actions identified in subsequent geotechnical investigations, as well as other requirements identified and required by the City, will ensure that the potential impact from expansive soils are reduced to a less than significant level.

4.6.7 Cumulative Impacts

The cumulative area for geologic issues is the City of Moreno Valley and western Riverside County, within the larger context of southern California due to regional seismicity. The project area has potential geotechnical and soils constraints, as the entire southern California area contains a number of major regional and local faults, including the San Andreas, San Jacinto, and Elsinore Faults.

The presence of regional faults creates the potential for damage to structures or injury to persons during seismic events. However, City, County, and State regulations provide guidelines for development in areas with geologic constraints and ensure that the design of buildings is in accordance with applicable CBC standards and other applicable standards, which reduces potential property damage and human safety risks to less than significant levels. Anticipated development in the City and surrounding area in general will not have a cumulatively considerable impact on earth resources, nor will regional geotechnical constraints have a cumulatively considerable impact on the proposed WLC project or cumulative projects, as long as proper design and engineering are implemented based on available seismic and other geotechnical data. The proposed WLC project represents an incremental portion of this potential impact, so the project will not have cumulatively significant impacts in this regard.

Because it is reasonable to conclude that all development within seismically active areas will be required to adhere to applicable State regulations, CBC standards, and the design and siting standards required by local agencies, a less than significant cumulative impact would occur with implementation of the proposed WLC project.

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4.7 GREENHOUSE GAS EMISSIONS, CLIMATE CHANGE, AND SUSTAINABILITY: TABLE OF CONTENTS

FIGURES

TABLES

NOTE TO READERS. *This section has been revised in response to public comments received on the Programmatic DEIR which have resulted in project changes, updates to technical studies and revisions to EIR sections and proposed Mitigation Measures.*

4.7 GREENHOUSE GAS EMISSIONS, CLIMATE CHANGE, AND SUSTAINABILITY

This section provides a discussion of global climate change, existing regulations pertaining to global climate change, and an analysis of greenhouse gas (GHG) emissions associated with the proposed project. This analysis examines the short-term construction and long-term operational impacts and evaluates the effectiveness of measures incorporated as part of the project design.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 29 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.

This section analyzes the proposed project's potential climate impacts based on the following technical study:

- *Air Quality, Greenhouse Gas, and Health Risk Assessment Report World Logistics Center Specific Plan* (Michael Brandman Associates/FirstCarbon Solutions, original dated January 2013 revised dated April 2015) contained in Appendix D of this EIR.

4.7.1 Existing Setting

4.7.1.1 Global Climate Change

Global climate change is the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. The term "global climate change" is often used interchangeably with the term "global warming," but "global climate change" is preferred by some scientists and policy makers to "global warming" because it helps convey the notion that there are other changes in addition to rising temperatures.

Climate change refers to any significant change in measures of climate such as temperature, precipitation, or wind, lasting for decades or longer (U.S. Environmental Protection Agency [EPA], 2007). Climate change may result from:

- Natural factors, such as changes in the sun's intensity or slow changes in the Earth's orbit around the sun;
- Natural processes within the climate system (e.g., changes in ocean circulation); and/or
- Human activities that change the atmosphere's composition (e.g., through burning fossil fuels) and the land surface (e.g., deforestation, reforestation, urbanization, and desertification).

The primary observed effect of global climate change has been a rise in the average global tropospheric[1] temperature of 0.36 degrees Fahrenheit (°F) per decade, determined from meteorological measurements worldwide between 1990 and 2005. Climate change modeling shows that further warming could occur, which would induce additional changes in the global climate system during the current century. Changes to the global climate system, ecosystems, and the environment of California could include higher sea levels, drier or wetter weather, changes in ocean salinity, changes in wind patterns or more energetic aspects of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold and increased intensity of tropical cyclones (hurricanes). Specific effects in California might include a decline in the Sierra Nevada snowpack, erosion of California's coastline, and seawater intrusion in the Delta.

Human activities, such as fossil fuel combustion and land use changes release carbon dioxide (CO_2) and other compounds, cumulatively termed greenhouse gases (GHGs). GHGs are effective in trapping infrared radiation that otherwise would have escaped the atmosphere, thereby warming the atmosphere, the oceans, and earth's surface (EPA, 2007). Many scientists believe that "most of the warming observed over the last 50 years is attributable to human activities."[2] The increased amounts of CO_2 and other GHGs are alleged to be the primary causes of the human-induced component of warming.

GHGs are present in the atmosphere naturally, released by natural sources, or formed from secondary reactions taking place in the atmosphere. They include CO_2, methane (CH_4), nitrous oxide (N_2O), and ozone (O_3). In the last 200 years, substantial quantities of GHGs have been released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere, enhancing the natural greenhouse effect, which is believed to be causing global climate change. While human-made GHGs include CO_2, CH_4, and N_2O, some (like chlorofluorocarbons [CFCs]) are completely new to the atmosphere.

GHGs vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The global

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1 The troposphere is the zone of the atmosphere characterized by water vapor, weather, winds, and decreasing temperature with increasing altitude.

2 Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2007: The Physical Science Basis*, http://www.ipcc.ch.

warming potential is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to CO_2, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. GHG emissions are typically measured in terms of metric tons of "CO_2 equivalents" (mt CO_2e or MTCO_2e).

Methane is produced when organic matter decomposes in environments lacking sufficient oxygen. Natural sources include wetlands, termites, and oceans. Human-made sources include the mining and burning of fossil fuels; digestive processes in ruminant animals such as cattle; rice paddies; and the burying of waste in landfills. As for CO_2, the major removal process of atmospheric CH_4—chemical breakdown in the atmosphere—cannot keep pace with source emissions, and CH_4 concentrations in the atmosphere are increasing.

Worldwide emissions of GHGs in 2010 were approximately 47,183 million mt CO_2e[1] Emissions from the top five countries and the European Union accounted for approximately 55 percent of the total global GHG emissions, according to the most recently available data. The United States was the number two producer of GHG emissions, contributing 14 percent of the emissions. The primary GHG emitted by human activities in the United States was CO_2, representing approximately 84 percent of total GHG emissions. CO_2 from fossil fuel combustion, the largest source of GHG emissions, accounted for approximately 80 percent of the GHG emissions.[2]

In 2009, the United States emitted approximately 6.6 billion mt CO_2e or approximately 25 tons per year (tpy) per person. Of the six major sectors nationwide (electric power industry, transportation, industry, agriculture, commercial, and residential), the electric power industry and transportation sectors combined account for approximately 62 percent of the GHG emissions; the majority of the electrical power industry and all of the transportation emissions are generated from direct fossil fuel combustion. Between 1990 and 2006, total United States GHG emissions rose approximately 14.7 percent.[3]

World carbon dioxide emissions[4] are expected to increase by 1.9 percent annually between 2001 and 2025. Much of the increase in these emissions is expected to occur in the developing world where emerging economies, such as China and India, fuel economic development with fossil energy. Developing countries' emissions are expected to grow above the world average at 2.7 percent annually between 2001 and 2025; and surpass emissions of industrialized countries near 2018.

The California Air Resources Board (CARB) is responsible for developing the California Greenhouse Gas Emission Inventory. This inventory estimates the amount of GHGs emitted into and removed from the atmosphere by human activities within the State of California and supports the Assembly Bill (AB) 32 Climate Change Program. The most recent inventory of GHG emissions in California estimated 458.68 million mt CO_2e in 2012.[5] This is a 1.7 percent increase in GHG emissions from 2011 and the first emissions increase since 2007. This increase was driven primarily by strong economic growth, the unexpected closure of the San Onofre Nuclear Generating Station, and drought conditions that limited instate hydropower generation. Since 2000, GHG emissions have decreased by 1.6 percent (from 466 to 459 million mt CO_2e) after reaching a peak of 493 million mt CO_2e in 2004. The top contributor of emissions in 2012 was transportation, which contributed 37 percent of

1 World Resources Institute, CAIT 2.0. 2013. Climate Analysis Indicators Tool: WRI's Climate Data Explorer. Washington, DC. Available at: http://cait2.wri.org. Accessed February 11, 2014.
2 Ibid.
3 U.S. Environmental Protection Agency (EPA). 2011. *Inventory of U.S. Greenhouse Gas Emissions And Sinks: 1990 – 2009*. http://www.epa.gov/climatechange/emissions/usinventoryreport.html. Accessed July 2011.
4 http://www.eia.gov/oiaf/1605/ggccebro/chapter1.html.
5 California Air Resources Board. California Greenhouse Gas Inventory: 2000-2012. 2014 edition. www.arb.ca.gov/cc/inventory/pubs/reports/ghg_inventory_00-12_report.pdf

the emissions. The second highest sector was industrial (22 percent), which includes sources from refineries, general fuel use, oil and gas extraction, and cement plants. The CARB staff has projected statewide GHG emissions for the year 2020 to be 509.4 million mt CO_2e.[1]

The methodology used to estimate the GHG emissions from transportation differs from that used to estimate the GHG emissions for the project. The California inventory is based on fuel sales in California, while the project inventory is based on trip generation rates provided by the Traffic Impact Analysis for the project and are conservative due to the fact that conservative trip generation rates were used to estimate vehicle trips.

4.7.1.2 Effects of Global Climate Change

Climate change is a change in the average weather of the earth that is measured by alterations in wind patterns, storms, precipitation, and temperature. These changes are assessed using historical records of temperature changes occurring in the past, such as during previous ice ages. Many of the concerns regarding climate change use these data to extrapolate a level of statistical significance specifically focusing on temperature records from the last 150 years (the Industrial Age) that differ from previous climate changes in rate and magnitude.

The International Panel on Climate Change (IPCC) constructed several emission trajectories of greenhouse gases needed to stabilize global temperatures and climate change impacts. In its Fourth Assessment Report, the IPCC predicted that the global mean temperature change from 1990 to 2100, given six scenarios, could range from 1.1 degrees Celsius (°C) to 6.4 °C. Regardless of analytical methodology, global average temperatures and sea levels are expected to rise under all scenarios (IPCC 2007a). The IPCC concluded that global climate change was largely the result of human activity, mainly the burning of fossil fuels. However, the scientific literature is not consistent regarding many of the aspects of global warming or climate change, including actual temperature changes during the 20th century, the accuracy of the IPCC report, and contributions of human versus non-human activities.

Effects from global climate change may arise from temperature increases, climate-sensitive diseases, extreme weather events, and degradation of air quality. There may be direct temperature effects through increases in average temperature leading to more extreme heat waves and less extreme cold spells. Those living in warmer climates are likely to experience more stress and heat-related problems. Heat-related problems include heat rash and heat stroke. In addition, climate-sensitive diseases may increase, such as those spread by mosquitoes and other disease-carrying insects. Such diseases include malaria, dengue fever, yellow fever, and encephalitis. Extreme events such as flooding and hurricanes can displace people and agriculture. Global warming may also contribute to air quality problems from increased frequency of smog and particulate air pollution.

Additionally, the following climate change effects, which are based on trends established by the IPCC, can be expected in California over the course of the next century:

- A diminishing Sierra snowpack declining by 70 percent to 90 percent, threatening the State's water supply. If GHG emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier.
- A rise in sea levels resulting in the displacement of coastal businesses and residences. During the past century, sea levels along California's coast have risen about seven inches. If emissions continue unabated and temperatures rise into the higher anticipated warming range, sea level is

[1] California Air Resources Board. Forecast for Updated Scoping Plan. May 27, 2014. www.arb.ca.gov/cc/inventory/data/tables/2020_bau_forecast_by_scoping_category_2014-05-22.pdf

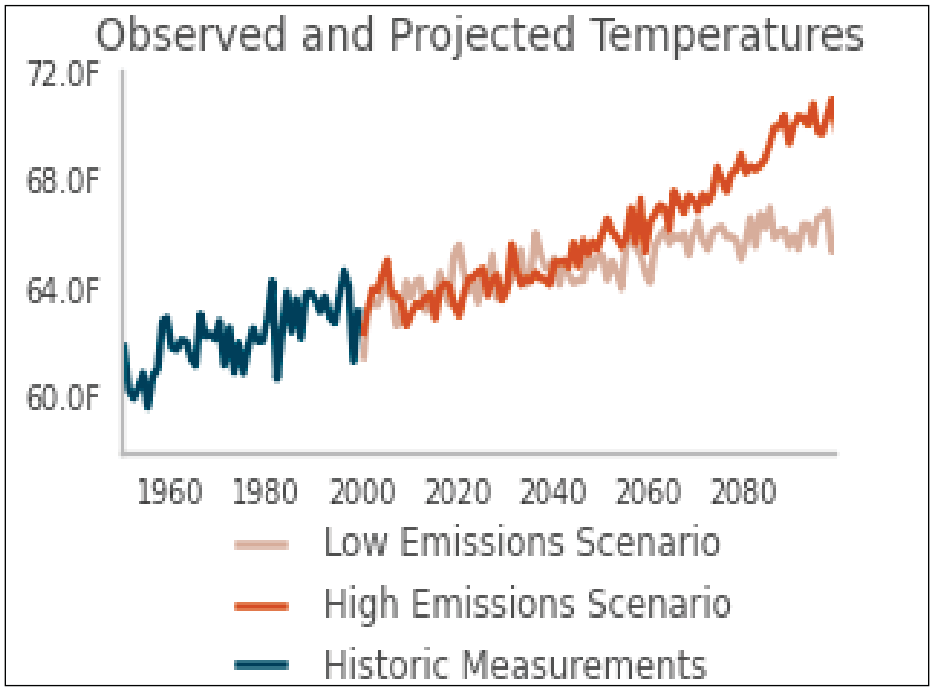
expected to rise an additional 22 to 35 inches by the end of the century. Elevations of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. (Note: This condition would not affect the project area as it is a significant distance away from coastal areas.)

- An increase temperature and extreme weather events. Climate change is expected to lead to increases in the frequency, intensity, and duration of extreme heat events and heat waves in California. More heat waves can exacerbate chronic disease or heat-related illness.
- Increased risk of large wildfires if rain increases as temperatures rise. Precipitation, winds, temperature, and vegetation influence wildfire risk; therefore, wildfire risk is not uniform throughout the state. Changes in current precipitation patterns could influence that risk. As an example, wildfires in the grasslands and chaparral ecosystems of *southern* California are estimated to increase by approximately 30 percent toward the end of the 21st century because more winter rain will stimulate the growth of more plant fuel available to burn in the fall. In contrast, a hotter, drier climate could promote up to 90 percent more *northern* California fires by the end of the century by drying out and increasing the flammability of forest vegetation.
- Increasing temperatures from 8 to 10.4°F under the higher emission scenarios, leading to a 25 percent to 35 percent increase in the number of days ozone pollution levels are exceeded in most urban areas (see below).
- Increased vulnerability of forests due to forest fires, pest infestation, and increased temperatures.
- Reductions in the quality and quantity of certain agricultural products. The crops and products likely to be adversely affected include wine grapes, fruit, nuts, and milk.
- Exacerbation of air quality problems. If temperatures rise to the medium warming range, there could be 75 to 85 percent more days with weather conducive to ozone formation in Los Angeles and the San Joaquin Valley, relative to today's conditions. This is more than twice the increase expected if rising temperatures remain in the lower warming range. This increase in air quality problems could result in an increase in asthma and other health-related problems.
- A decrease in the health and productivity of California's forests. Climate change can cause an increase in wildfires, an enhanced insect population, and establishment of non-native species.
- Increased electricity demand, particularly in the hot summer months.
- Increased ground-level ozone formation due to higher reaction rates of ozone precursors.

Note: The following text regarding specific consequences of climate change in Moreno Valley was in the 2013 report; minor revisions were made and it has been added to this section.

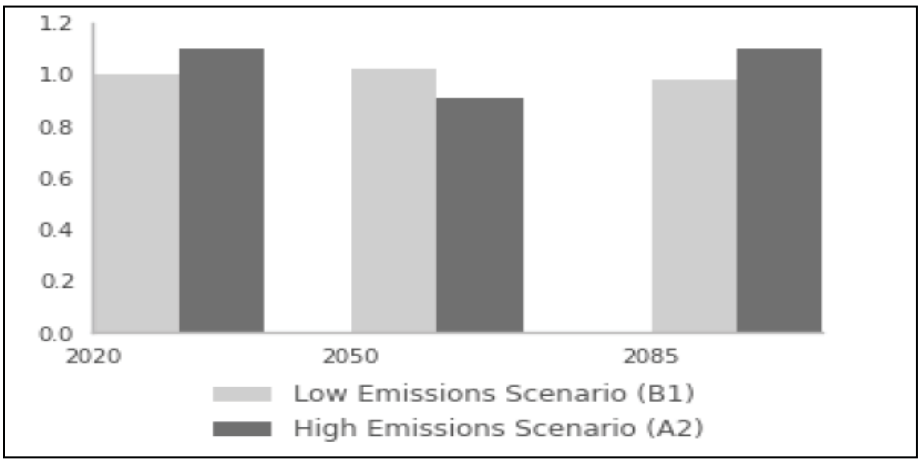
Consequences of Climate Change in Moreno Valley. The figure below displays a chart of measured historical and projected annual average temperatures in the Moreno Valley area. As shown in the figure, temperatures are expected to rise in the low and high GHG emissions scenarios.

Water for the project would be provided by the Eastern Municipal Water Department (EMWD). The EMWD 2010 Urban Water Management Plan considered the impact of climate change on water supplies as part of its long-term strategic planning. One of the outcomes of climate change could be more frequent limitations on imported supplies. To limit the impact of climate change, EMWD's long-term planning focuses on the development of reliable local resources and the implementation of water use efficiency. This includes the full utilization of recycled water and the recharge of local groundwater basins to increase supply reliability during periods of water shortage. EMWD is also focused on reducing demand for water supplies, especially outdoors. Increasing the use of local resource and reducing the need for imported water has the dual benefit of not only improving water quality reliability, but reducing the energy required to import water to EMWD's service area.



The figure below displays the fire risk in Moreno Valley relative to 2010 levels. The figure displays the projected increase in potential area burned given three different 30-year averaging periods ending in 2020, 2050, and 2085 and two different scenarios (A2, B1). The data are modeled solely on climate projections and do not take landscape and fuel sources into account (there is very little combustible material in the project area). The data modeled the ratio of additional fire risk for an area as compared to the expected burned area. The data are shown in the figure below and indicate that under the low-emissions scenario, the additional wildfire risk is about 1, which means that wildfire risk is expected to remain about the same. Under the high-emission scenario, additional risk is variable with a slight increase. Other areas in California, such as the area near the border with Oregon, are projected to have a 9-fold increase in potential area burned.

Wildfire Risk in Moreno Valley



4.7.1.3 Greenhouse Gases

The most common greenhouse gases include water vapor, carbon dioxide, methane, nitrous oxides, chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, ozone, and aerosols. Greenhouse gases defined by AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

Natural processes and human activities emit greenhouse gases. The presence of greenhouse gases in the atmosphere affects the earth's temperature. Many scientists believe that emissions from human activities, such as electricity production and vehicle use, have led to elevated concentrations of these gases in the atmosphere beyond the level of naturally occurring concentrations. Table 4.7.A lists greenhouse gases, the effects of each greenhouse gas, and some of the sources for each of the greenhouse gases.

Climate change is driven by radiative forcings and feedbacks. Radiative forcing is the difference between the incoming energy and outgoing energy in the climate system. In other terms, radiative forcing is the energy absorbed by the greenhouse gas that would otherwise be lost to space. Positive forcing tends to warm the surface while negative forcing tends to cool it. A feedback is a climate process that can strengthen or weaken a forcing. For example, when ice or snow melts, it reveals darker land underneath, which absorbs more radiation and causes more warming.

In order to attempt to quantify the impact of greenhouse gases, the gases are assigned global warming potentials. Individual greenhouse gas compounds have varying global warming potential and atmospheric lifetimes. Carbon dioxide, the reference gas for global warming potential, has a global warming potential of one. The global warming potential of a greenhouse gas is a potential of a gas or aerosol to trap heat in the atmosphere compared to the reference gas, carbon dioxide, and is a measurement of the radiative forcing of a gas. There are positive (warming) and negative (cooling) forcings. To describe how much global warming a given type and amount of greenhouse gas may cause, the carbon dioxide equivalent is used. The calculation of the carbon dioxide equivalent is a consistent methodology for comparing greenhouse gas emissions since it normalizes various greenhouse gas emissions to a consistent reference gas, carbon dioxide. Carbon dioxide as a molecule has a certain potential for warming; other molecules have a different potential. For example, methane's warming potential of 21 indicates that methane has 21 times greater warming effect than carbon dioxide on a molecule per molecule basis. A carbon dioxide equivalent is the mass emissions of an individual greenhouse gas multiplied by its global warming potential.

Note: The following information is added in response to comments received on the Draft EIR. In addition, black carbon is now estimated in the GHG inventory.

Black Carbon. A specific aerosol of concern is black carbon. Black carbon is a light absorbing component of particulate matter and is formed by the incomplete combustion of fossil fuels, biofuels, and biomass. The following is additional information on black carbon:

- Black carbon is emitted directly into the atmosphere in the form of fine particles ($PM_{2.5}$).
- Black carbon contributes to the adverse impacts on human health, ecosystems, and visibility associated with $PM_{2.5}$.
- Black carbon influences climate by: 1) directly absorbing light, 2) reducing the reflectivity ("albedo") of snow and ice through deposition, and 3) interacting with clouds.
- The direct and snow/ice albedo effects of black carbon are widely understood to lead to climate warming. However, the globally averaged net climate effect of black carbon also includes the effects associated with cloud interactions, which are not well quantified and may cause either warming or cooling. Therefore, though most estimates indicate that black carbon has a net warming influence, a net cooling effect cannot be ruled out.

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Table 4.7.A: Greenhouse Gas Properties, Effects, and Sources

Constituent	Description and Physical Properties	Health Effects	Sources
Water Vapor	Water vapor (H_2O) is the most abundant, important, and variable greenhouse gas in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization.	There are no health effects from water vapor. When some pollutants come in contact with water vapor, they can dissolve and then the water vapor can be a transport mechanism to enter the human body.	The main source of water vapor is evaporation from the oceans (approximately 85%). Other sources include evaporation from other water bodies, sublimation (change from solid to gas) from sea ice and snow, and transpiration from plant leaves.
Carbon Dioxide	Carbon dioxide (CO_2) is an odorless, colorless natural greenhouse gas.	Outdoor levels of carbon dioxide are not high enough to result in negative health effects.	Carbon dioxide is emitted from natural and anthropocentric (human) sources. Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic out gassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood.
Methane	Methane (CH_4) is an extremely effective GHG with a global warming potential of 21, though its atmospheric concentration is less than carbon dioxide and its lifetime in the atmosphere is brief (10–12 years) compared to other greenhouse gases.	There are no health effects from methane.	Methane has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Other anthropocentric sources include fossil-fuel combustion and biomass burning.
Nitrous Oxide	Nitrous oxide (N_2O), also known as laughing gas, is a colorless greenhouse gas. It has a lifetime of 114 years. Its global warming potential is 310.	Nitrous oxide can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses it is harmless. In some cases, heavy and extended use can cause Olney's Lesions (brain damage).	Concentrations of nitrous oxide also began to rise at the beginning of the Industrial Revolution. In 1998, the global concentration was 314 ppb. Nitrous oxide is produced by microbial processes in soil and water, including those reactions that occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used as an aerosol spray propellant, e.g., in whipped cream bottles. It is also used in potato chip bags to keep chips fresh. It is used in rocket engines and in race cars.
Chloro-fluorocarbons	Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in methane or ethane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). Global warming potentials range from 3,800 to 8,100.	In confirmed indoor locations, working with CFC-113 or other CFCs is thought to have resulted in death by cardiac arrhythmia (heart frequency too high or too low) or asphyxiation.	CFCs have no natural source, but were first synthesized in 1928. They were used for refrigerants, aerosol propellants, and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are now remaining level or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.
Hydro-fluorocarbons	Hydrofluorocarbons (HFCs) are synthetic man-made chemicals that are used as a substitute for CFCs. Out of all the greenhouse gases, they are one of three groups with the highest global warming potential (depending on the gas, ranges from 140 to 11,700). Prior to 1990, the only significant emissions were HFC-23. HFC-134a use is increasing due to its use as a refrigerant.	None.	HFCs are man-made for applications such as automobile air conditioners and refrigerants.
Per-fluorocarbons	Perfluorocarbons (PFCs) have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6). Global warming potentials range from 6,500 to 9,200.	None.	The two main sources of PFCs are primary aluminum production and semiconductor manufacture.
Sulfur Hexafluoride	Sulfur hexafluoride (SF_6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated, 23,900. Concentrations in the 1990s were about 4 ppt. It has a lifetime of 3,200 years.	In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing.	Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.
Aerosols	Aerosols are particles emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light. Cloud formation can also be affected by aerosols.	Similar health effects associated with particulate matter (see Section 4.3, Air Quality, for a description of the health effects of particulate matter).	Sulfate aerosols are emitted when fuel containing sulfur is burned. Another source of aerosols (in the form of black carbon or soot) is the result of incomplete combustion or the incomplete burning of fossil fuels. Although particulate matter regulation has been lowering aerosol concentrations in the United States, global concentrations are likely increasing as a result of other sources around the world.

Source: LSA Associates 2012 as summarized from the *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015

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- Sensitive regions such as the Arctic and the Himalayas are particularly vulnerable to the warming and melting effects of black carbon.
- Black carbon is emitted with other particles and gases, many of which exert a cooling influence on climate. Therefore, estimates of the net effect of black carbon emissions sources on climate should include the offsetting effects of these co-emitted pollutants. This is particularly important for evaluating mitigation options.
- Black carbon's short atmospheric lifetime (days to weeks), combined with its strong warming potential, means that targeted strategies to reduce black carbon emissions can be expected to provide climate benefits within the next several decades.
- The different climate attributes of black carbon and long-lived GHGs make it difficult to interpret comparisons of their relative climate impacts based on common metrics.
- Based on recent emissions inventories, the majority of global black carbon emissions come from Asia, Latin America, and Africa. Emissions patterns and trends across regions, countries and sources vary significantly.
- Control technologies are available to reduce black carbon emissions from a number of source categories.
- Black carbon mitigation strategies, which lead to reductions in $PM_{2.5}$, can provide substantial public health and environmental benefits.

4.7.1.4 Greenhouse Gas Inventories

The City of Moreno Valley estimated greenhouse gas emissions for the community for 2007 and 2010 and projected emissions for 2020 are shown in Table 4.7.B, which shows the reduced 2020 emissions are below the reduction target. The emissions shown are not actual emissions but are estimated using calculations and assumptions. The emissions represent emissions from the community of Moreno Valley (as opposed to the city government operations). Only select years were estimated based on data available.

Table 4.7.B: City of Moreno Valley Projected Greenhouse Gas Emissions

Source Category	Moreno Valley Greenhouse Gas Emissions (mt CO_2e per year)			
	2007	2010	BAU 2020	Reduced 2020
Transportation	517,098	513,581	788,267	421,561
Energy	287,261	277,230	356,192	251,372
Area	69,390	69,437	84,665	73,046
Water and Wastewater	21,595	16,831	20,216	14,158
Solid Waste	44,294	43,633	49,203	38,000
Total	**939,638**	**920,712**	**1,298,543**	**798,137**
Reduction Target	—	—	**798,693**	**798,693**

Notes: mt CO_2e = metric tons of carbon dioxide equivalents BAU = business as usual
Source: Table 9, City of Moreno Valley Greenhouse Gas Analysis, 2012.

The existing WLC project site is largely vacant with scattered dry farming that generates minimal greenhouse gas emissions. For the purposes of this analysis, a zero baseline will be assumed to identify the "worst case" emissions (i.e., GHG emissions from the entire WLC project without removal of any existing GHG emissions).

4.7.2 Regulatory Setting

4.7.2.1 International Regulation of Climate Change

Intergovernmental Panel on Climate Change (IPCC). In 1988, the United Nations created the IPCC to provide independent scientific information regarding climate change to policymakers. The IPCC does not conduct research itself, but rather compiles information from a variety of sources into reports regarding climate change and its impacts. The IPCC has thereafter periodically released reports on climate change, and in 2007 released its Fourth Assessment Report which concluded most global climate change was the result of human activity, mainly the burning of fossil fuels (see Section 4.7.1.1).

United Nations Framework Convention on Climate Change. On March 21, 1994, the United States joined a number of countries around the world in signing the United Nations Framework Convention on Climate Change (Convention). Under the Convention, governments gather and share information on greenhouse gas emissions, national policies, and best practices; launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

Kyoto Protocol. The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change. The major feature of the Kyoto Protocol is that it sets binding targets for 37 industrialized countries and the European community for reducing greenhouse gas emissions at average of five per cent against 1990 levels over the five-year period 2008-2012. The Convention (discussed above) encouraged industrialized countries to stabilize emissions; however, the Protocol commits them to do so. Developed countries have contributed more emissions over the last 150 years; therefore, the Protocol places a heavier burden on developed nations under the principle of “common but differentiated responsibilities.” The United States has not entered into force of the Kyoto Protocol.

Moreover, since the United States declined to ratify the Kyoto Protocol in 1995, it has become increasingly clear that global climate change cannot be addressed without limiting GHG emissions from developing, as well as developed, countries. According to many sources, China has already surpassed the United States as the world’s largest GHG emitter and is building new coal-fired power plants at a rate of approximately one per week. A recent study conducted by economists at the UC Berkeley and UC San Diego estimated that China’s CO_2 emissions are growing by as much as 11 percent annually. In 2007, China released its first national plan on climate change, which includes goals related to increasing energy efficiency and increasing use of renewable resources. The plan, however, makes no commitments regarding reduction of GHG emissions.

Like China, India is already one of the top emitters of GHGs and continues to grow rapidly. India has recently pledged to take more action to fight global warming, for example, by pursuing solar energy, urging energy efficiency, and conservation, but it has not set any concrete goals in these areas, let alone pledged to reduce its carbon emissions. To the contrary, India’s emissions are projected to increase fourfold by 2030 (see “Melting Asia,” *The Economist*, June 5, 2008). Similarly, Brazil, the largest economy in South America, and another rapidly developing country, has no national policy requiring it to reduce carbon emissions. Brazil’s carbon emissions increased by more than 60 percent between 1990 and 2004, and are projected to continue to rise at a similar pace (see International Energy Agency, World Energy Outlook 2006).

The Kyoto Protocol expired in 2012. Formal negotiations to replace the protocol officially began in December 2007 at the UNFCCC Climate Change Conference in Bali, Indonesia (http://unfccc.int/ .php). Whether a workable agreement can be reached, however, remains to be seen, as the United

States continues to press for an agreement that requires firm commitments from developing nations, and countries like China and India continue to oppose binding targets (see http://news.bbc.co.uk/////.stm).

In addition, it should be noted that most mitigation measures that address greenhouse gas reduction typically parallel those that reduce the consumption of energy (i.e., electricity and natural gas). Reducing energy use in a market economy typically reduces the cost of energy. However, a reduced cost of energy can release pent-up demand (latent demand) for energy use, particularly in less developed portions of the world, such as Africa and Asia. As such, it is not clear how much energy use reduction in California or the U.S. would actually reduce worldwide energy use. The same would apply to measures to reduce greenhouse gas emissions.

4.7.2.2 Federal Regulations/Standards

Prior to the last decade, there have been no concrete Federal regulations of greenhouse gases or major planning for climate change adaptation. The following are actions regarding the Federal government, greenhouse gases, and fuel efficiency.

Greenhouse Gas Endangerment. *Massachusetts v. EPA* (Supreme Court Case 05-1120) was argued before the United States Supreme Court on November 29, 2006, in which it was petitioned that the EPA regulate four greenhouse gases, including carbon dioxide, under Section 202(a)(1) of the Clean Air Act. A decision was made on April 2, 2007, in which the Supreme Court found that greenhouse gases are air pollutants covered by the Clean Air Act. The Court held that the EPA Administrator must determine whether emissions of greenhouse gases from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the EPA Administrator signed two distinct findings regarding greenhouse gases under section 202(a) of the Clean Air Act:

- *Endangerment Finding:* The Administrator finds that the current and projected concentrations of the six key well-mixed greenhouse gases—carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride—in the atmosphere threaten the public health and welfare of current and future generations.
- *Cause or Contribute Finding:* The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution, which threatens public health and welfare.

These findings do not impose requirements on industry or other entities. However, this was a prerequisite for implementing greenhouse gas emissions standards for vehicles, as discussed in the section “Clean Vehicles” below.

In September 2011, the EPA Office of Inspector General evaluated the EPA’s compliance with established policy and procedures in the development of the endangerment finding, including processes for ensuring information quality. The evaluation concluded that the technical support document should have had more rigorous EPA peer review.

In June 2012, a Federal appeals court rejected a lawsuit against the EPA. The suit alleged that the EPA violated the law by relying almost exclusively on data from the United Nations IPCC rather than doing its own research or testing data according to Federal standards. The U.S. Chamber of Commerce and the National Association of Manufacturers (with others) filed petitions to the U.S. Court of Appeals – D.C. Circuit to rehear the case. The EPA and Department of Justice provided a response on October 12, 2012.

Clean Vehicles. Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the EPA and the Department of Transportation's Highway Traffic and Safety Administration (NHTSA) announced a joint final rule establishing a national program that would reduce greenhouse gas emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program would apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The vehicles must meet an estimated combined average emissions level of 250 grams of carbon dioxide per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this carbon dioxide level solely through fuel economy improvements. Together, these standards would cut carbon dioxide emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). The EPA and the National Highway Safety Administration are working on a second-phase rule to establish national standards for light-duty vehicles for model years 2017 and beyond.

On October 25, 2010, the EPA and the U.S. Department of Transportation proposed the first national standards to reduce greenhouse gas emissions and improve fuel efficiency of heavy-duty trucks and buses. For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20 percent reduction in carbon dioxide emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10 percent reduction for gasoline vehicles and up to a 15 percent reduction for diesel vehicles by 2018 model year (12% and 17% respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles (includes other vehicles like buses, refuse trucks, concrete mixers; everything except for combination tractors and heavy-duty pickups and vans), the agencies are proposing engine and vehicle standards starting in the 2014 model year, which would achieve up to a 10 percent reduction in fuel consumption and carbon dioxide emissions by the 2018 model year.

Mandatory Reporting of GHG. The Consolidated Appropriations Act of 2008, passed in December 2007, requires the establishment of mandatory GHG reporting requirements. On September 22, 2009, the EPA issued the Final Mandatory Reporting of Greenhouse Gases rule. The rule requires reporting of GHG emissions from large sources and suppliers in the United States, and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions, are required to submit annual reports to the EPA.

This rule does not apply to high cube logistics developers within the WLC Project because, although the project would emit more than 25,000 mt CO_2e per year of GHGs, the rule only applies to the following categories: fossil fuel suppliers and industrial gas suppliers, direct GHG emitters, and manufacturers of heavy-duty and off-road vehicles and engines. The EPA's Applicability Tool was used to determine if the project developer would need to report the GHG emissions. The source categories that are required to report GHG emissions (i.e., production, manufacturing, electricity generation, and industrial waste landfills) did not apply to the project.

New Source Review Prevention of Significant Deterioration (GHG Tailoring Rule). The EPA issued a final rule on May 13, 2010, that establishes thresholds for greenhouse gases that define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. Operating permits

are legally enforceable documents that permitting authorities issue to air pollution sources after the source has begun to operate. Title V Operating Permits are required from Title V of the Clean Air Act. This final rule "tailors" the requirements of these Clean Air Act permitting programs to limit which facilities will be required to obtain Prevention of Significant Deterioration and Title V permits. In the preamble to the revisions to the Federal Code of Regulations, the EPA states:

> *This rulemaking is necessary because without it the Prevention of Significant Deterioration and Title V requirements would apply, as of January 2, 2011, at the 100 or 250 tons per year levels provided under the Clean Air Act, greatly increasing the number of required permits, imposing undue costs on small sources, overwhelming the resources of permitting authorities, and severely impairing the functioning of the programs. EPA is relieving these resource burdens by phasing in the applicability of these programs to greenhouse gas sources, starting with the largest greenhouse gas emitters. This rule establishes two initial steps of the phase-in. The rule also commits the agency to take certain actions on future steps addressing smaller sources, but excludes certain smaller sources from Prevention of Significant Deterioration and Title V permitting for greenhouse gas emissions until at least April 30, 2016.*

EPA estimates that facilities responsible for nearly 70 percent of the national greenhouse gas emissions from stationary sources will be subject to permitting requirements under this rule. This includes the nation's largest greenhouse gas emitters—power plants, refineries, and cement production facilities.

On December 23, 2010, the EPA issued a series of rules that put the necessary regulatory framework in place to ensure that 1) industrial facilities can get Clean Air Act permits covering their GHG emissions when needed and 2) facilities emitting GHGs at levels below those established in the Tailoring Rule do not need to obtain Clean Air Act permits.

Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units. As required by a settlement agreement, the EPA proposed new performance standards for emissions of carbon dioxide for new affected fossil fuel-fired electric utility generating units on March 27, 2012. New sources greater than 25 megawatt would be required to meet an output based standard of 1,000 pounds of carbon dioxide per megawatt-hour.

Cap and Trade. Cap and trade refers to a policy tool where emissions are limited to a certain amount and can be traded, or provides flexibility on how the emitter can comply. Successful examples in the United States include the Acid Rain Program and the NO_X Budget Trading Program in the northeast. There is no Federal cap and trade program currently and no pending legislation exists to establish a cap and trade program.

Energy Policy and Conservation Act. The Energy Policy and Conservation Act of 1975 sought to ensure that all vehicles sold in the U.S. would meet certain fuel economy goals. Through this Act, Congress established the first fuel economy standards for on-road motor vehicles in the U.S. Pursuant to the Act, the National Highway Traffic and Safety Administration (NHTSA), which is part of the U.S. Department of Transportation (USDOT), is responsible for establishing additional vehicle standards and for revising existing standards. Since 1990, the fuel economy standard for new passenger cars has been 27.5 miles per gallon (mpg). Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 mpg. The Corporate Average Fuel Economy (CAFE) program, administered by the EPA, was created to determine vehicle manufacturers' compliance with the fuel economy standards. The EPA calculates a CAFE value for each manufacturer based on city and highway fuel economy test results and vehicle sales. Based on

the information generated under the CAFE program, the USDOT is authorized to assess penalties for noncompliance. Please also refer to the subsection, "Clean Vehicles," above.

Energy Policy Act of 1992. The Energy Policy Act (EPAct) of 1992 was passed to reduce the country's dependence on foreign petroleum and improve air quality. EPAct includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. EPAct requires certain Federal, State, and local governments and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are also included in EPAct. Federal tax deductions will be allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the Act to consider a variety of incentive programs to help promote AFVs.

Energy Policy Act of 2005. The Energy Policy Act of 2005 includes provisions for renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a Federal purchase requirement for renewable energy.

4.7.2.3 State Regulations/Standards

California Code of Regulations Title 24, Part 6. Enacted in 1978, this part of the California Code established energy efficiency standards for residential and nonresidential buildings in response to a legislative mandate to reduce California's energy consumption. These standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The most recent standards (2013 Building Energy Efficiency Standards) were adopted and went into effect went into effect July 1, 2014.[1] Such standards include the provision of cool roofs, demand control ventilation, skylights for day-lighting in buildings, thermal breaks for metal building roofs, and lighting power limits. These standards are expected to reduce the growth in electricity use of residential and non-residential buildings. Continual updates to Title 24 along with the State's implementation of AB 1493 and SB 1368 will have a major impact on the State's attainment of the AB 32 goals.

California Code of Regulations Title 24, Part 11. This part of the California Code is known as the California Green Building Standards Code (CALGreen Code) and was enacted to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts with positive environmental impacts and through encouragement of sustainable construction practices. The CALGreen Code is not intended to substitute for or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC). This update to Part 11 of Title 24 of the California Code of Regulations was effective January 1, 2011. Key provisions of the CALGreen Code that apply to the type of new non-residential development proposed for the project site are as follows:

Division 5.1—Planning and Design

Section 5.106 Site Development

5.106.4 Bicycle Parking and Changing Rooms:

[1] *2013 Building Energy Efficiency Standards for Residential and Nonresidential Buildings,* California Energy Commission, effective July 1, 2014, http://www.energy.ca.gov/title24/2013standards/

Short-term bicycle parking. If the new project or an addition or alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5 percent of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1).

Long-term bicycle parking. For buildings with over 10 tenant-occupants or alterations that add 10 or more tenant vehicular parking spaces, provide secure bicycle parking for 5 percent of tenant vehicular parking spaces being added, with a minimum of one space. Acceptable parking facilities shall be convenient from the street and shall meet the following: 1. Covered, lockable enclosures with permanently anchored racks for bicycles; 2. Lockable bicycle rooms with permanently anchored racks; or 3. Lockable, permanently anchored bicycle lockers (5.106.4.2).

5.106.5 Clean Air Vehicle Parking: For new projects or additions or alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles [201 spaces and over require at least 8 percent] (5.106.5.2).

5.106.8 Light Pollution Reduction (specific backlight, uplight, and glare ratings)

5.106.10 Grading and Paving: Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings.

Division 5.2—Energy Efficiency

Section 5.201.1 Energy Efficiency (Mandatory energy efficiency standards through California Code of Regulations, Title 24, Part 6)

Division 5.3—Water Efficiency and Conservation

Section 5.303 Indoor Water Use

5.303.1 Meters: Separate water meters for buildings in excess of 50,000 sq. ft or buildings projected to consume more than 1,000 gallons per day.

5.303.2 Twenty Percent Savings: Use of plumbing fixtures and fittings that will reduce the overall use of potable water within the building by 20 percent, based on the maximum allowable water use per fixture and fitting as required by the California Building Code (California Code of Regulations, Title 24, Part 2)

5.304.3 Irrigation design: Automatic irrigation system controllers installed at the time of final inspection shall be weather- or soil moisture-based controllers that adjust irrigation in response to changes in plant needs; weather-based controllers.

5.303.4 Wastewater Reduction: Each building shall reduce by 20 percent wastewater by one of the following methods: 1. The installation of water-conserving fixtures or 2. Use of non-potable water systems (5.303.4).

5.303.6 Plumbing Fixtures and Fittings

Section 5.304 Outdoor Water Use

5.304.1 Water Budget: A water budget shall be developed for landscape irrigation use that conforms to the local water efficient landscape ordinance or to the California Department of Water Resources Model Water Efficient Landscape Ordinance where no local ordinance is applicable.

5.304.2 Outdoor Water Use (separate submeters or metering devices)

5.304.3 Irrigation Design (irrigation controllers and sensors)

Division 5.4—Material Conservation and Resource Efficiency

Section 5.407 Water Resistance and Moisture Management

Section 5.408 Construction Waste Reduction, Disposal and Recycling

5.408.1 and 5.408.3 Construction Waste Diversion: Recycle and/or salvage for reuse a minimum 50 percent of the nonhazardous construction and demolition waste. 100 percent of trees, stumps, rocks and associated vegetation and soils resulting from land clearing shall be reused or recycled.

5.408.2 Construction Waste Management Plan

Section 5.410 Building Maintenance and Operation

5.410.1 and 5.713.10 Recycling by Occupants: Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling.

Division 5.5—Environmental Quality

Section 5.504 Pollutant Control

5.504.3 Covering of Duct Openings and Protection of Mechanical Equipment During Construction

5.504.4 Finish Material Pollutant Control: Low-pollutant emitting interior finish materials such as adhesives, paints, carpet, and flooring

5.404.5.3 Filters: Minimum Efficiency Reporting Value (MERV) of 8 or higher in mechanically ventilated buildings.

California Code of Regulations Titles 14 and 27. These parts of the California Code require energy-efficient practices as part of solid and hazardous waste handling and disposal.

Pavley Regulations and Fuel Efficiency Standards. California AB 1493, enacted on July 22, 2002, required the CARB to develop and adopt regulations that reduce greenhouse gases emitted by passenger vehicles and light duty trucks. The regulation was stalled by automaker lawsuits and by the EPA's denial of an implementation waiver. On January 21, 2009, the CARB requested that the EPA reconsider its previous waiver denial. On January 26, 2009, President Obama directed that the EPA assess whether the denial of the waiver was appropriate. On June 30, 2009, the EPA granted the waiver request. On September 8, 2009, the U.S. Chamber of Commerce and the National Automobile Dealers Association sued the EPA to challenge its granting of the waiver to California for its standards. California assisted the EPA in defending the waiver decision. The U.S. District Court for the District of Columbia denied the Chamber's petition on April 29, 2011.

The standards phase in during the 2009 through 2016 model years. When fully phased in, the near term (2009–2012) standards will result in about a 22 percent reduction compared with the 2002 fleet, and the mid-term (2013–2016) standards will result in about a 30 percent reduction. Several technologies stand out as providing significant reductions in emissions at favorable costs. These include discrete variable valve lift or camless valve actuation to optimize valve operation rather than relying on fixed valve timing and lift as has historically been done; turbocharging to boost power and allow for engine downsizing; improved multi-speed transmissions; and improved air conditioning systems that operate optimally, leak less, and/or use an alternative refrigerant.

Low Carbon Fuel Standard, Executive Order S-01-07. The Governor signed Executive Order S-01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. In particular, the

executive order established a Low Carbon Fuel Standard and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission (CEC), the CARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. The CARB adopted the Low Carbon Fuel Standard on April 23, 2009. The Low Carbon Fuel Standard requires producers of petroleum based fuels to reduce the carbon intensity of their products, beginning with a quarter of a percent in 2011, ending in a 10 percent total reduction in 2020. Petroleum importers, refiners and wholesalers can either develop their own low carbon fuel products, or buy LCFS Credits from other companies that develop and sell low carbon alternative fuels, such as biofuels, electricity, natural gas or hydrogen. The Low Carbon Fuel Standard was challenged in the United States District Court in Fresno in 2011. The court's ruling issued on December 29, 2011, included a preliminary injunction against the CARB's implementation of the rule. The Ninth Circuit Court of Appeals stayed the injunction on April 23, 2012 pending final ruling on appeal, allowing the CARB to continue to implement and enforce the regulation and vacated the injunction on September 18, 2013, and remanded the case to the district court for further consideration.

Senate Bill (SB) 1368. In 2006, the State Legislature adopted SB 1368, which was subsequently signed into law by the Governor. SB 1368 directs the California Public Utilities Commission (CPUC) to adopt a performance standard for greenhouse gas emissions for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than 5 years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. Because of the carbon content of its fuel source, a coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as combined cycle natural gas power plants. Accordingly, the new law will effectively prevent California's utilities from investing in, financially supporting, or purchasing power from new coal plants located in or out of the State. Thus, SB 1368 will lead to dramatically lower greenhouse gas emissions associated with California's energy demand, as SB 1368 will effectively prohibit California utilities from purchasing power from out-of-state producers that cannot satisfy the performance standard for greenhouse gas emissions required by SB 1368. The CPUC adopted the regulations required by SB 1368 on August 29, 2007.

SB 97 and the *CEQA Guidelines* Update. Passed in August 2007, SB 97 added Section 21083.05 to the Public Resources Code. The code states "(a) On or before July 1, 2009, the Office of Planning and Research shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the California Governor's Office of Planning and Research (OPR) pursuant to subdivision (a)." Section 21097 was also added to the Public Resources Code. It provided CEQA protection until January 1, 2010, for transportation projects funded by the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 or projects funded by the Disaster Preparedness and Flood Prevention Bond Act of 2006, in stating that the failure to analyze adequately the effects of greenhouse gases would not violate CEQA.

On April 13, 2009, the OPR submitted to the Secretary for Natural Resources its recommended amendments to the *CEQA Guidelines* for addressing greenhouse gas emissions. On July 3, 2009, the Natural Resources Agency commenced the Administrative Procedure Act rulemaking process for certifying and adopting these amendments pursuant to Public Resources Code section 21083.05. Following a 55-day public comment period and two public hearings, the Natural Resources Agency proposed revisions to the text of the *CEQA Guidelines* amendments. The Natural Resources Agency transmitted the adopted amendments and the entire rulemaking file to the Office of Administrative Law on December 31, 2009. On February 16, 2010, the Office of Administrative Law approved the

Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The Amendments became effective on March 18, 2010.

The CEQA Amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of greenhouse gas emissions in CEQA documents. The CEQA Amendments fit within the existing CEQA framework by amending existing *CEQA Guidelines* to reference climate change.

A new section, *CEQA Guidelines* Section 15064.4, was added to assist agencies in determining the significance of GHG emissions. The new section allows agencies the discretion to determine whether a quantitative or qualitative analysis is best for a particular project. However, the *CEQA Guidelines* offer little guidance on the crucial next step in this assessment process—how to determine whether the project's estimated greenhouse gas emissions are significant or cumulatively considerable.

Also amended were *CEQA Guidelines* Sections 15126.4 and 15130, which address mitigation measures and cumulative impacts respectively. Greenhouse gas mitigation measures are referenced in general terms, but no specific measures are championed. The revision to the cumulative impact discussion requirement (Section 15130) simply directs agencies to analyze greenhouse gas emissions in an EIR when a project's incremental contribution of emissions may be cumulatively considerable; however, it does not answer the question of how to determine whether emissions are cumulatively considerable.

Section 15183.5 permits programmatic greenhouse gas analysis and later project-specific tiering. A tiered project is a project that was addressed in a certified program document, such as an EIR or Mitigated Negative Declaration. The *CEQA Guidelines* state the following:

> Lead agencies may analyze and mitigate the significant effects of greenhouse gas emissions at a programmatic level, such as in a general plan, a long range development plan, or a separate plan to reduce greenhouse gas emissions. Later project-specific environmental documents may tier from and/or incorporate by reference that existing programmatic review. Project-specific environmental documents may rely on an EIR containing a programmatic analysis of greenhouse gas emissions (Section 15183.5(a)).

Compliance with plans for the reduction of GHG emissions can support a determination that a project's cumulative effect is not cumulatively considerable, according to proposed Section 15183.5(b).

In addition, the amendments revised Appendix F of the *CEQA Guidelines*, which focuses on energy conservation. The sample environmental checklist in the *CEQA Guidelines'* Appendix G was amended to include greenhouse gas impact questions, which are used in this analysis (see Section 4.7.4).

Executive Order S-3-05. Executive Order S-3-05 was signed by Governor Schwarzenegger in 2005 proclaiming California is vulnerable to the impacts of climate change. It states that increased temperatures could reduce the Sierra Nevada's snowpack, worsen California's air quality problems, and potentially cause a rise in sea levels. The Executive Order establishes total GHG emission targets including emissions reductions to the 2000 level by 2010, and the 1990 level by 2020, and to 80 percent below the 1990 level by 2050. The 2050 reduction goal represents what scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be an aggressive, but achievable, mid-term target.

Assembly Bill 32 (AB 32). California's major initiative for reducing GHG emissions is outlined in AB 32, the "Global Warming Solutions Act," passed by the California State legislature on August 31,

2006. This effort aims at reducing GHG emissions to 1990 levels by 2020. The original 2020 GHG emissions limit was 427 million mt CO_2e. The current 2020 GHG emissions limit is 431 million mt CO_2e. AB 32 requires the CARB to prepare a Scoping Plan that outlines the main State strategies for meeting the 2020 deadline and to reduce GHGs that contribute to global climate change.

The Scoping Plan was approved by the CARB on December 11, 2008, and includes measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures.[1] The Scoping Plan includes a range of GHG reduction actions that may include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. The Scoping Plan, even after Board approval, remains a recommendation. The measures in the Scoping Plan will not be binding until after they are adopted through the normal rulemaking process. The CARB rule-making process includes preparation and release of each of the draft measures, public input through workshops and a public comment period, followed by a CARB hearing and rule adoption.

Pursuant to AB 32, the CARB and the Climate Action Team (CAT)[2] did the following:

- Adopted a list of discrete early action measures;
- Established a statewide GHG emissions cap for 2020 based on 1990 emissions and adopted mandatory reporting rules for significant sources of GHG;
- Indicated how emission reductions will be achieved from significant GHG sources via regulations, market mechanisms and other actions; and
- Adopted regulations to achieve the maximum technologically feasible and cost-effective reductions in GHG, including provisions for using both market mechanisms and alternative compliance mechanisms.

In June 2007, the CARB approved a list of 37 early action measures, including three discrete early action measures (Low Carbon Fuel Standard, Restrictions on High Global Warming Potential Refrigerants, and Landfill Methane Capture). Discrete early action measures are measures that were required to be adopted as regulations and made effective no later than January 1, 2010, the date established by Health and Safety Code (HSC) Section 38560.5. The CARB adopted additional early action measures in October 2007[3] that tripled the number of discrete early action measures. These measures relate to truck efficiency, port electrification, reduction of perfluorocarbons from the semiconductor industry, reduction of propellants in consumer products, proper tire inflation, and sulfur hexafluoride (SF_6) reductions from the non-electricity sector. The combination of early action measures was estimated to reduce statewide GHG emissions by nearly 16 million mt CO_2e.[4]

AB 32 codifies Executive Order S-3-05's[5] year 2020 goal by requiring that statewide GHG emissions be reduced to 1990 levels by the year 2020.

The AB 32 Scoping Plan identifies a cap-and-trade program as one of the strategies California will employ to reduce the GHG emissions that cause climate change. The program is a central element of AB 32 and covers major sources of GHG emissions in the State such as refineries, power plants,

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1 CARB, *Climate Change Proposed Scoping Plan: a Framework for Change,* October 2008.

2 CAT is a consortium of representatives from State agencies who have been charged with coordinating and implementing GHG emission reduction programs that fall outside of CARB's jurisdiction.

3 CARB. 2007. *Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California Recommended for Board Consideration*. October.

4 CARB. 2007. "ARB approves tripling of early action measures required under AB 32." News Release 07-46. http://www.arb.ca.gov/newsrel/nr102507.htm. October 25.

5 Executive Order S-3-05 establishes greenhouse gas emission reduction targets for California.

industrial facilities, and transportation fuels. The regulation includes an enforceable GHG cap that will decline over time. The CARB will distribute allowances, which are tradable permits, equal to the emission allowed under the cap. The program started on January 1, 2012, with the first offset credit auctions in November 2012 and an enforceable compliance obligation beginning with 2013 GHG emissions. For the first two years of the program, large industrial emitters will receive 90 percent of their allowances for free in a soft start meant to give companies time to reduce emissions through new technologies or other means. The cap, or number of allowances, will decline over time in an effort to drastically reduce greenhouse gas emissions by 2050.

The California Chamber of Commerce filed suit[1] challenging the validity of the state's cap-and-trade program. The suit challenges the California Air Resources Board's authority as stated under AB 32 to sell the permits, called "allowances," for the purpose of generating revenue for the state. It is also challenging the sale of allowances as an illegal tax, arguing that taxes need a two-thirds vote by the Legislature. The suit was rejected on November 12, 2013, by the California Superior Court.

Scoping Plan. The California State Legislature adopted AB 32 in 2006 which focuses on reducing greenhouse gases (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) to 1990 levels by the year 2020. Pursuant to the requirements in AB 32, the CARB adopted the Climate Change Scoping Plan (Scoping Plan) in 2008, which outlines actions recommended to obtain that goal. The Scoping Plan calls for an "ambitious but achievable" reduction in California's greenhouse gas emissions, cutting approximately 30 percent from BAU emission levels projected for 2020, or about 10 percent from today's levels. On a per-capita basis, that means reducing annual emissions of 14 tons of carbon dioxide for every man, woman, and child in California down to about 10 tons per person by 2020.

The Scoping Plan[2] contains the following 18 strategies to reduce the State's emissions:

1. *California Cap-and-Trade Program Linked to Western Climate Initiative.* Implement a broad-based California Cap-and-Trade program to provide a firm limit on emissions. Link the California cap-and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California. Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms.
2. *California Light-Duty Vehicle Greenhouse Gas Standards.* Implement adopted standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.
3. *Energy Efficiency.* Maximize energy efficiency building and appliance standards; pursue additional efficiency including new technologies, policy, and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California.
4. *Renewable Portfolio Standard.* Achieve 33 percent renewable energy mix statewide. Renewable energy sources include (but are not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas.
5. *Low Carbon Fuel Standard.* Develop and adopt the Low Carbon Fuel Standard.
6. *Regional Transportation-Related Greenhouse Gas Targets.* Develop regional greenhouse gas emissions reduction targets for passenger vehicles. This measure refers to SB 375.
7. *Vehicle Efficiency Measures.* Implement light-duty vehicle efficiency measures.

[1] The Huffington Post, November 14, 2012, http://www.huffingtonpost.com////s-cap-and-trade_n_2131251.html).
[2] Scoping Plan Reduction Measures from California Air Resources Board 2008.

8. *Goods Movement.* Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities.
9. *Million Solar Roofs Program.* Install 3,000 MW of solar-electric capacity under California's existing solar programs.
10. *Medium/Heavy-Duty Vehicles.* Adopt medium and heavy-duty vehicle efficiency measures.
11. *Industrial Emissions.* Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce greenhouse gas emissions and provide other pollution reduction co-benefits. Reduce greenhouse gas emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive methane emissions and reduce flaring at refineries.
12. *High Speed Rail.* Support implementation of a high-speed rail system.
13. *Green Building Strategy.* Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.
14. *High Global Warming Potential Gases.* Adopt measures to reduce high global warming potential gases.
15. *Recycling and Waste.* Reduce methane emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero-waste.
16. *Sustainable Forests.* Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation.
17. *Water.* Continue efficiency programs and use cleaner energy sources to move and treat water.
18. *Agriculture.* In the near-term, encourage investment in manure digesters and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020.

The First Update to the Scoping Plan was approved by the CARB on May 22, 2014. The First Update builds upon the initial Scoping Plan with new strategies and recommendations. The Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The Update defines CARB's climate change priorities for the next five years and sets the groundwork to reach California's post-2020 climate goals set forth in Executive Orders S-3-05 and B-16-2012. The Update highlights California's progress toward meeting the near-term 2020 GHG emission reduction goals defined in the initial Scoping Plan. It will also evaluate how to align the State's longer-term GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use.

Executive Order B-16-2012 (Zero-Emission Vehicles). This executive order indicates that all State entities under the Governor's control support and facilitate the rapid commercialization of zero-emission vehicles. The order contains a target similar to Executive Order S-3-05, but for the transportation sector instead of all sectors: that California target for 2050 a reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels. Executive order B-16-2012 also indicates that the CARB, the California Energy Commission, the Public Utilities Commission and other relevant agencies are ordered to work with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve the following:

- By 2015: The State's major metropolitan areas able to accommodate zero-emission vehicles, each with infrastructure plans and streamlined permitting; the State's manufacturing sector expend zero-emission vehicle and component manufacturing; an increase in the private sector's investment in zero-emission vehicle infrastructure; and the State's academic and research institutions contributing to zero-emission vehicle research, innovation and education.

- By 2020: The State's zero-emission vehicle infrastructure ability to support up to one million vehicles; the costs of zero-emission vehicles competitive with conventional combustion vehicles; zero-emission vehicles accessible to mainstream consumers; widespread use of zero-emission vehicles for public transportation and freight transport; and a decrease in transportation sector GHG emissions as a result of the switch to zero-emission vehicles; electric vehicle charging integrated into the electricity grid.
- By 2025: over 1.5 million zero-emission vehicles on California roads; easy access to zero-emission vehicle infrastructure in California; the zero-emission vehicle industry strong and sustainable part of California's economy; and California's vehicles displace at least 1.5 billion gallons of petroleum fuels per year.

Greenhouse Gas Emissions Performance Standard for Power Plants. On January 25, 2007, the CPUC adopted an interim GHG emissions performance standard. This standard is a facility-based emissions standard requiring all new long-term commitments for baseload generation to serve California consumers with power plants that have emissions no greater than a combined cycle gas turbine plant. The established level is 1,100 pounds of CO_2 per megawatt-hour.

Senate Bill 375. SB 375 was signed into law on October 1, 2008. SB 375 provides emissions-reduction goals around which regions can plan, integrates disjointed planning activities, and provides incentives for local governments and developers to implement "smart growth" planning and development strategies, including reducing the average VMT to reduce commuting distances and reduce criteria and greenhouse gas air pollutant emissions. SB 375 has three major components:

- Using the regional transportation planning process to achieve reductions in GHG emissions consistent with AB 32's goals;
- Offering CEQA incentives to encourage projects that are consistent with a regional plan that achieves GHG emission reductions; and
- Coordinating the regional housing needs allocation process with the regional transportation process while maintaining local authority over land use decisions.

SB 375 requires each Metropolitan Planning Organization (MPO) to include a Sustainable Communities Strategy (SCS) in the regional transportation plan that demonstrates how the region will meet the greenhouse gas emission targets and creates CEQA streamlining incentives for projects that are consistent with the regional SCS. The focus of SB 375 is on placement of new residential projects and coordinated transportation planning.

Renewable Electricity Standards. There have been several renewable electricity senate bills in California. On September 12, 2002, Governor Gray Davis signed SB 1078 requiring California to generate 20 percent of its electricity from renewable energy by 2017. SB 107 changed the due date to 2010 instead of 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08, which established a Renewable Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Governor Schwarzenegger also directed the CARB (Executive Order S-21-09) to adopt a regulation by July 31, 2010, requiring the state's load serving entities to meet a 33 percent renewable energy target by 2020. The CARB approved the Renewable Electricity Standard on September 23, 2010, by Resolution 10-23. Senate Bill X1-2 (2011) codifies the Renewable Electricity Standard into law.

SmartWay Partners. SmartWay effectively refers to aerodynamic and rolling resistance requirements geared toward reducing fuel consumption. Most large trucking fleets driving newer vehicles are compliant with SmartWay design requirements. CARB's Tractor-Trailer Greenhouse Gas Regulation requires that all 2010 and older model year tractors that pull 53-foot or longer box type trailers must use SmartWay verified low rolling resistance tires beginning January 1, 2013.

The EPA has evaluated the fuel saving benefits of various devices through emissions and fuel economy testing, demonstration projects and technical literature review. As a result, EPA has determined the following types of technologies provide fuel saving and/or emission reducing benefits when used properly in their designed applications:

- **Idle Reduction Technologies** allow engine operators to refrain from long-duration idling of the main propulsion engine by using an alternative technology. An idle reduction technology is generally defined as the installation of a technology or device that:
  - Reduces unnecessary main engine idling of the vehicle or equipment; and/or
  - Is designed to provide services (e.g., heat, air conditioning, and/or electricity) to the vehicle or equipment that would otherwise require the operation of the main drive engine while the vehicle or equipment is temporarily parked or remains stationary.
- **Aerodynamic Technologies** minimize drag and improve airflow over the entire tractor-trailer vehicle. Aerodynamic technologies include gap fairings that reduce turbulence between the tractor and trailer, side skirts that minimize wind under the trailer, and rear fairings that reduce turbulence and pressure drop at the rear of the trailer.
- **Low Rolling Resistance Tires:** Certain tire models can reduce NO_X emissions and fuel use by 3 percent or more, relative to the best-selling new tires for line haul class 8 tractor trailers. These improvements are achieved under the following conditions:
  - Tires are used on the axle positions stated on the list below.
  - Verified low rolling resistance tires are installed on all of the axle positions of the tractor and trailer.
  - All tires must be properly inflated according to the manufacturer's specifications.
- **Retrofit Technologies:** Diesel retrofit technologies that the EPA has approved or conditionally approved, such as:
  - Diesel Particulate Filter (DPF);
  - CMX Catalyst Muffler;
  - Selective Catalytic Reduction (SCR) System;
  - Diesel Oxidation Catalyst (DOC); and
  - Diesel Oxidation Catalyst (DOC) plus CDTi Closed Crankcase Ventilation (CCV) System.

Within each of these categories, the EPA has verified specific products and continues to evaluate and verify new products. Although the EPA has verified the fuel saving and/or emission reducing benefits of the listed products, it does not endorse the purchase of products or services from any specific vendor.

4.7.2.4 Regional Regulations

Note: the subsection "Scoping Plan" was moved from this section to the California Regulation section following AB 32, because it is not a regional plan but a state plan.

Southern California Association of Governments (SCAG) Sustainable Communities Strategy (SCS) within Regional Transportation Plan (RTP) demonstrates the region's ability to attain and exceed the GHG emission reduction targets set by the CARB. The SCS outlines the plan for integrating the transportation network and related strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. The regional vision of the SCS maximizes current voluntary local efforts that support the goals of SB 375, as evidenced by several Compass Blueprint Demonstration Projects and various county transportation improvements. The SCS focuses the majority of new housing and job growth in high-quality transit areas and other opportunity areas in existing main streets, downtowns, and commercial corridors, resulting in an improved jobs-housing balance and more opportunity for transit-oriented development. This overall land use development pattern supports and complements the proposed transportation network, which emphasizes system preservation, active transportation, and transportation demand management measures.

The RTP/SCS exceeds its greenhouse gas emission-reduction targets set by the CARB by achieving a 9 percent reduction by 2020 and 16 percent reduction by 2035 compared to the 2005 level on a per capita basis. Table 4.7.C shows the assumptions regarding Moreno Valley that SCAG used in its analysis.

Table 4.7.C: SCAG Assumptions for Moreno Valley

Year	Population	Households	Employment
2008	187,400	51,100	32,300
2020	213,700	60,000	48,000
2035	255,200	72,800	64,400

Source: Southern California Association of Governments 2012 and the *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015.

The RTP also includes an appendix on the Goods Movement, which provides an overview of the regional goods movement and initiatives to facilitate it. Strategies in the RTP that include the Local Jurisdiction as a responsible party, that could be applicable to the project, and that pertain to air quality or greenhouse gases are shown in Table 4.7.D. Many of the strategies are similar to the project's mitigation measures (see Section 4.7.6.1) and project design features.

Table 4.7.D: Select Regional Transportation Plan Strategies

Strategy	Responsible Party*	Project Consistency
Encourage the use of range-limited battery electric and other alternative fueled vehicles through policies and programs, such as, but not limited to, neighborhood oriented development, complete streets, and electric (and other alternative fuel) vehicle supply equipment in public parking lots.	Local Jurisdictions, COGs, SCAG, CTCs	Consistent with **Mitigation Measures 4.3.6.3B** (non-diesel yard trucks), **4.3.6.3C** (alternative fuel station), and **4.3.6.4A** (electric vehicle charging stations).
Support projects, programs, and policies that support active and healthy community environments that encourage safe walking, bicycling, and physical activity by children, including, but not limited to development of complete streets, school siting policies, joint use agreements, and bicycle and pedestrian safety education.	Local Jurisdictions and CTCs	Consistent with **Mitigation Measure 4.3.6.4A** (bicycle lanes, storage lockers, and pedestrian connections/pathways).
Engage in a strategic planning process to	Local	The project is consistent with City's goal of

Table 4.7.D: Select Regional Transportation Plan Strategies

Strategy	Responsible Party*	Project Consistency
determine the critical components and implementation steps for identifying and addressing open space resources, including increasing and preserving park space, specifically in park-poor communities.	Jurisdictions and CTCs	conserving open space. As compared to the Moreno Highlands Specific Plan, the proposed project would change the zoning on 910 acres of the CDFW Conservation Buffer Area from residential to open space. In addition, the proposed project preserves the zoning of 74 acres of open space in the southwest corner of the project site for passive open space and recreation uses. Finally, a network of trails has been proposed within the project site to provide public trail access to the Lake Perris Recreational Area and the San Jacinto Wildlife Area.
Develop first-mile/last-mile strategies on a local level to provide an incentive for making trips by transit, bicycling, walking, or neighborhood electric vehicle or other zero emission vehicle options.	Local Jurisdictions and CTCs	Consistent with **Mitigation Measure 4.3.6.4A** (Riverside County's Rideshare Program), bicycle lanes, and pedestrian access.
Encourage transit fare discounts and local vendor product and service discounts for residents and employees of transit oriented development/high quality transit areas or for a jurisdiction's local residents in general who have fare media	Local Jurisdictions	Not applicable. This measure is for areas in transit-oriented development.
Encourage the implementation of a Complete Streets policy that meets the needs of all users of the streets, roads and highways—including bicyclists, children, persons with disabilities, motorists, neighborhood electric vehicle (NEVs) users, movers of commercial goods, pedestrians, users of public transportation and seniors—for safe and convenient travel in a manner that is suitable to the suburban and urban contexts within the region.	Local Jurisdictions, COGs, SCAG, CTCs	Although the project is not implementing what is labeled as a "Complete Streets" policy, the project would include bicycle lanes and pedestrian access (**Mitigation Measure 4.3.6.4A**) and would implement handicapped access pursuant to current regulations.
Support work-based programs that encourage emission reduction strategies and incentivize active transportation commuting or ride-share modes.	SCAG, Local Jurisdictions	Consistent through **Mitigation Measure 4.3.6.4A** (Riverside County's Rideshare Program; designated parking for carpool/van pools).
Develop infrastructure plans and educational programs to promote active transportation options and other alternative fueled vehicles, such as neighborhood electric vehicles, and consider collaboration with local public health departments, walking/biking coalitions, and/or Safe Routes to School initiatives, which may already have components of such educational programs in place.	Local Jurisdictions	Consistent with **Mitigation Measures 4.3.6.4A** (bicycle lanes, pedestrian access, electric vehicle charging) and **4.3.6.3C** (alternative fueling infrastructure).
Encourage the development of telecommuting programs by employers through review and revision of policies that may discourage alternative work options.	Local Jurisdictions and CTCs	Not applicable. Tenants may choose to implement telecommuting if feasible.

Table 4.7.D: Select Regional Transportation Plan Strategies

Strategy	Responsible Party*	Project Consistency
Emphasize active transportation and alternative fueled vehicle projects as part of complying with the Complete Streets Act (AB 1358).	State, SCAG, Local Jurisdictions	Consistent with **Mitigation Measure 4.3.6.3C** (alternative fueling station) and **Mitigation Measure 4.3.6.4A** (electric vehicle charging stations)

* Abbreviations:
SCAG = Southern California Association of Governments
CTCs = county transportation commissions
COGs = subregional councils of governments
Source: Southern California Association of Governments 2012 and the *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015.

SB 375 took effect in 2009 and required regional municipal planning organizations to develop regional land use plans that demonstrate how the regions will achieve compliance with the GHG reduction goals of AB 32. Cities located within these regions are then required, in turn, to update their General Plans in accordance with the regional plans. Non-compliance with SB 375 will result in transportation funds being withheld from the regional and/or local agency. To date, the regional municipal planning organization for Riverside County (the Western Riverside Council of Governments, or WRCOG) has not adopted a regional plan that is in compliance with SB 375.

South Coast Air Quality Management District. In April 2008, the SCAQMD, in order to provide guidance to local lead agencies on determining the significance of GHG emissions identified in CEQA documents, convened a "GHG CEQA Significance Threshold Working Group."[1] The goal of the working group is to develop and reach consensus on an acceptable CEQA significance threshold for GHG emissions that would be utilized on an interim basis until the CARB (or some other State agency) develops statewide guidance on assessing the significance of GHG emissions under CEQA.

Initially, SCAQMD staff presented the working group with a significance threshold that could be applied to various types of projects—residential, non-residential, industrial, etc. However, the threshold is still under development. In December 2008, staff presented the SCAQMD Governing Board with a significance threshold for stationary source projects in which it is the lead agency. This threshold uses a tiered approach to determine a project's significance, with 10,000 metric tons (mt) of carbon dioxide equivalent (CO_2e) as a screening numerical threshold.

In September 2010, the Working Group released additional revisions, which recommended a project-level efficiency target of 4.8 mt CO_2e per service population (SP) as a 2020 target and 3.0 mt CO_2e, per SP as a 2035 target. The recommended plan-level target for 2020 was 6.6 mt CO_2e and the plan level target for 2035 was 4.1 mt CO_2e. The SCAQMD has not announced when staff is expecting to present a finalized version of these thresholds to the Governing Board.

The SCAQMD has also adopted Rules 2700, 2701, and 2702 to establish a voluntary program to encourage, quantify, and certify voluntary GHG emission reductions in the SCAQMD's jurisdiction. The CARB adopted a resolution regarding the adoption of GHG accounting protocols that distinguishes between the offset certification programs that were developed for the voluntary market, and the program that must be developed to certify offsets to be used under CARB's cap-and-trade rule. This resolution withdrew CARB approval of voluntary protocols but would not impact the use of these protocols for voluntary purposes. Protocols in Rules 2701 and 2702 are voluntary protocols, which no longer have CARB's approval.

[1] For more information see: http://www.aqmd.gov/ceqa/handbook/GHG/GHG.html.

4.7.2.5 City of Moreno Valley General Plan Policies

The City adopted its General Plan in 2006. The General Plan does not contain policies directly related to greenhouse gases; however, it does have some air quality[1] policies applicable to the proposed project that are related to reducing greenhouse gases, as shown below:

Objective 6.6 Promote land use patterns that reduce daily automotive trips and reduce trip distance for work, shopping, school, and recreation.

Objective 6.7 Reduce mobile and stationary source air pollutant emissions.

Policy 6.7.1 Cooperate with regional efforts to establish and implement regional air quality strategies and tactics.

Policy 6.7.2 Encourage the financing and construction of park-and-ride facilities.

Policy 6.7.3 Encourage express transit service from Moreno Valley to the greater metropolitan areas of Riverside, San Bernardino, Orange and Los Angeles Counties.

Policy 6.7.6 Require building construction to comply with the energy conservation requirements of Title 24 of the California Administrative Code.

4.7.2.6 City of Moreno Valley Climate Action Strategy

The City of Moreno Valley approved the Energy Efficiency and Climate Action Strategy (Strategy) in October 2012. The Strategy identifies ways that the City can reduce energy and water consumption and greenhouse gas emissions as an organization (its employees and the operation of its facilities) and outlines the actions that the City can encourage and community members can employ to reduce their own energy and water consumption and greenhouse gas emissions. The Strategy contains the following policies to reduce greenhouse gas emissions in 2010 by 15 percent by 2020:

R2-T1 *Land Use Based Trips and VMT Reduction Policies.* Encourage the development of Transit Priority Projects along High Quality Transit Corridors identified in the SCAG Sustainable Communities Plan, to allow a reduction in vehicle miles traveled.

R2-T3 *Employment-Based Trip Reductions.* Require a Transportation Demand Management (TDM) program for new development to reduce automobile travel by encouraging ride-sharing, carpooling, and alternative modes of transportation.

R2-E1 *New Construction Residential Energy Efficiency Requirements.* Require energy efficient design for all new residential buildings to be 10 percent beyond the current Title 24 standards.

R2-E2 *New Construction Residential Renewable Energy.* Facilitate the use of renewable energy (such as solar [photovoltaic] panels or small wind turbines) for new residential developments. Alternative approach would be the purchase of renewable energy resources off site.

R2-E5 *New Construction Commercial Energy Efficiency Requirements.* Require energy efficient design for all new commercial buildings to be 10 percent beyond the current Title 24 standards.

R3-E1 *Energy Efficient Development, and Renewable Energy Deployment Facilitation and Streamlining.* Updating of codes and zoning requirements and guidelines to further implement green building practices. This could include incentives for energy-efficient projects.

[1] Policies 6.7.4 and 6.7.5 are discussed in the Air Quality EIR Section, 4.3.

R3-L2 *Heat Island Plan.* Develop measures that address "heat islands." Potential measures include using strategically placed shade trees, using paving materials with a Solar Reflective Index of at least 29, an open grid pavement system, or covered parking.

R2-W1 *Water Use Reduction Initiative.* Consider adopting a per capita water use reduction goal which mandates the reduction of water use of 20 percent per capita with requirements applicable to new development and with cooperative support of the water agencies.

R3-W1 *Water Efficiency Training and Education.* Work with EMWD and local water companies to implement a public information and education program that promotes water conservation.

R2-S1 *City Diversion Program.* For solid waste, consider a target of increasing the waste diverted from the landfill to a total of 75 percent by 2020.

4.7.3 Methodology

Bearing in mind that CEQA does not require "perfection" but instead "adequacy, completeness, and a good faith effort at full disclosure," the analysis of project GHG emissions and climate change is based on methodologies and information available at the time this EIR was prepared. Many uncertainties exist regarding the precise relationship between specific levels of GHG emissions and the ultimate impact on global climate. Significant uncertainties also exist regarding the reduction potential of mitigation strategies. Thus, while information is presented below to assist the public and the City's decision-makers in understanding the project's potential contribution to global climate change impacts, the information available to the City is not sufficiently detailed to allow a direct comparison between particular project characteristics and particular climate change impacts, nor between any particular proposed mitigation measure and any reduction in climate change impacts.

The recommended approach for GHG analysis included in the California Governor's Office of Planning and Research (OPR's) June 2008 release is to: (1) identify and quantify GHG emissions, (2) assess the significance of the impact on climate change, and (3) if significant, identify alternatives and/or mitigation measures to reduce the impact below a level of significance.[1] Neither the CEQA statute nor Guidelines prescribe quantitative thresholds of significance or a particular methodology for performing an impact analysis; as with most environmental topics, significance criteria are left to the judgment and discretion of the lead agency.

The June 2008 OPR guidance provides some additional direction regarding planning documents as follows: "CEQA can be a more effective tool for GHG emissions analysis and mitigation if it is supported and supplemented by sound development policies and practices that will reduce GHG emissions on a broad planning scale and that can provide the basis for a programmatic approach to project-specific CEQA analysis and mitigation. For local government lead agencies, adoption of General Plan policies and certification of General Plan EIRs that analyze broad jurisdiction-wide impacts of GHG emissions can be part of an effective strategy for addressing cumulative impacts and for streamlining later project-specific CEQA reviews."

Pursuant to SB 97, the OPR is in the process of developing guidelines for analysis of the effects of GHG emissions. As part of this process, the OPR has asked CARB technical staff to recommend statewide interim thresholds of significance for GHGs. The CARB released a preliminary draft staff proposal in October 2008 that included initial suggestions for significance criteria related to industrial, commercial, and residential projects.

In March 2010, *CEQA Guidelines* amendments were adopted and include the following direction regarding determination of significant impacts from GHG emissions (Section 15064.4):

[1] State of California, 2008. Governor's Office of Planning and Research. *CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act Review*. June 19.

(a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in Section 15064. A lead agency should make a good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

(1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; or

(2) Rely on a qualitative analysis or performance based standards.

(b) A lead agency may consider the following when assessing the significance of impacts from greenhouse gas emissions on the environment:

(1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.

(2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.

(3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

CEQA Guidelines Section 15064(b) provides that the "determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data," and further, states that an "ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting."

On February 3, 2011 the SCAQMD released the California Emissions Estimator Model (CalEEMod) Emissions Inventory Model. CalEEMod was updated in July 2013, after publication of the Draft EIR; therefore, the emissions were remodeled using the new version for the Final EIR. The latest version of CalEEMod was utilized to calculate GHG emissions from the following source categories: construction, energy, waste, land use change, and water. For a detailed description of the assumptions used to estimate the GHG emissions, refer to the Air Quality, Greenhouse Gas, and Health Risk Assessment Report.

As a result of comments on the Draft EIR, the GHG inventory was revised as follows:

- **Revisions to Construction Assumptions.** Construction related GHG emissions were estimated using the same procedures as for air quality. For a list of the changes to the construction emissions methodology, please refer to Section 4.3.3.1 in the Air Quality Final EIR or the revised Air Quality, Greenhouse Gas, and Health Risk Assessment (2015).
- **Revisions to Operational Mobile Assumptions**. Operational mobile GHG emissions were estimated using the same procedures for the air quality analysis. The new emission factors model

was used (EMFAC2014). Please refer to Section 4.3.3.2 in the Air Quality Final EIR or the revised Air Quality, Greenhouse Gas, and Health Risk Assessment (2015) for a list of those changes.

- **Addition of Onsite Equipment Emissions.** During operation of the project, there would be on-site equipment operating on the project site. Yard trucks are trucks that are used in moving trailers and containers short distances around the warehouses. Emergency generators would be run for testing purposes. Fuel powered forklifts are assumed for the light industrial uses; however, the warehouse and distribution centers would use electric forklifts, which would not have emissions.
- **Addition of Black Carbon Emissions Estimation.** The analysis in the Draft EIR did not estimate black carbon emissions, which may contribute to climate change. This analysis includes an estimate of black carbon emissions for both construction and operation.
- **New Waste Generation Factors**. The new version of CalEEMod has revised operational waste generation factors, which results in less estimated waste generated during operation and less greenhouse gas emissions.
- **Land Use Change.** In the Draft EIR, the GHG emissions from the land use change (conversion of dry farming to a built up environment), was included as a one-time occurrence in the construction emissions. For the Final EIR, these emissions are operational and occur every year.

4.7.4 Thresholds of Significance

Based on Appendix G of the *CEQA Guidelines*, climate change/greenhouse gas emissions impacts would occur if the proposed project would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment (i.e., exceeds the SCAQMD's 10,000 mt CO_2e emissions screening threshold of significance); and/or
- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

Global climate change may result in significant adverse effects to the environment that will be experienced worldwide, with some specific effects observed in California. AB 32 requires statewide GHG emissions reductions to 1990 levels by 2020. Although these statewide reductions are now mandated by law, no generally applicable GHG emission threshold has yet been established.

State CEQA Guidelines Section 15064(b) provides that "…the determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data," and further, that an "ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting." The *State CEQA Guidelines* further indicate that even when thresholds are established, they may include "identifiable quantitative, qualitative or performance level of a particular environmental effect" (*State CEQA Guidelines*, Section 15064.7).

Some policymakers and regulators suggest that a zero emissions threshold would be appropriate when evaluating GHGs and their potential effect on climate change. Such a rule appears inconsistent with the State's approach to mitigation of climate change impacts. AB 32 does not prohibit all new GHG emissions; rather, it requires a reduction in statewide emissions to a given level. Thus, AB 32 recognizes that GHG emissions will continue to occur; increases will result from certain activities, but reductions must occur elsewhere.

Individual projects incrementally contribute toward the potential for global climate change (GCC) on a cumulative basis in concert with all other past, present, and probable future projects. While individual projects are unlikely to measurably affect GCC, each of these projects incrementally contributes toward the potential for GCC on a cumulative basis, in concert with all other past, present, and probable future projects. This analysis examines whether the project's emissions should be considered cumulatively significant.

In order to evaluate the significance of a proposed project's environmental impacts related to GHG emissions, it is necessary to identify quantitative or qualitative thresholds which, if exceeded, would constitute a finding of significance. As previously described, while project-related GHG emissions can be estimated the direct impact of such emissions on climate change and global warming cannot be determined on the basis of available science. There is no evidence at this time that the proposed project would directly affect GCC. The SCAQMD has adopted a quantitative GHG emission significance threshold to assess direct impacts from industrial projects where the SCAQMD is the lead agency. The SCAQMD and other air quality agencies agree that GHG and GCC should be assessed as a potentially significant cumulative impact rather than a project-specific impact.

The following is an excerpt from the SCAQMD (*Draft Guidance Document – Interim CEQA Greenhouse Gas [GHG] Significance Threshold,* October 2008):

> *"The overarching policy objective with regard to establishing a GHG significance threshold for the purposes of analyzing GHG impacts pursuant to CEQA is to establish a performance standard or target GHG reduction objective that will ultimate contribute to reducing GHG emissions to stabilize climate change. Full implementation of the Governor's Executive Order S-3-05 would reduce GHG emissions 80 percent below 1990 levels or 90 percent below current levels by 2050. It is anticipated that achieving the Executive Order's objective would contribute to worldwide efforts to cap GHG concentrations at 450 ppm, thus, stabilizing global climate.*
>
> *As described below, staff's recommended interim GHG significance threshold proposal uses a tiered approach to determining significance. Tier 3, which is expected to be the primary tier by which the AQMD will determine significance for projects where it is the lead agency, uses the Executive Order S-3-05 goal as the basis for deriving the screening level."*

This project utilizes Tier 3 of the SCAQMD's draft threshold and compares the project's uncapped greenhouse gas emissions to the SCAQMD's threshold for industrial projects, 10,000 mt CO_2e per year. Therefore, the threshold used for this project was based on the goal in Executive Order S-3-05. If the project's uncapped emissions are under the threshold, then the project would be in compliance with Executive Order S-3-05.

In September 2013, the SCAQMD adopted two Negative Declarations last year stating that GHG emissions subject to the ARB Cap-and-Trade Program do not count against the 10,000 MT CO2e significance threshold the SCAQMD applies when acting as a lead agency. In addition, the San Joaquin Valley Air Pollution Control District (SJVAPCD) has recently taken this one issue step further and adopted a policy: "CEQA Determinations of Significance for Projects Subject to ARB's GHG Cap-and-Trade Regulation." This policy applies when the SJVAPCD is the lead agency and when it is a responsible agency. In short, the SJVAPCD "has determined that GHG emissions increases that are covered under ARB's Cap-and-Trade regulation cannot constitute significant increases under CEQA…." The SJVAPCD classifies ARB's Cap-and-Trade Program as an approved GHG emission reduction plan or GHG mitigation program under CEQA Guidelines Section 15064(h) (3). Here are some other pertinent excerpts from that policy:

- "Consistent with CCR §15064(h)(3), the District finds that compliance with ARB's Cap-and-Trade regulation would avoid or substantially lessen the impact of project-specific GHG emissions on global climate change."
- "The District therefore concludes that GHG emissions increases subject to ARB's Cap-and-Trade regulation would have a less than significant individual and cumulative impact on global climate change."
- "[I]t is reasonable to conclude that implementation of the Cap-and-Trade program will and must fully mitigate project-specific GHG emissions for emissions that are covered by the Cap-and-Trade regulation."
- "[T]he District finds that, through compliance with the Cap-and-Trade regulation, project-specific GHG emissions that are covered by the regulation will be fully mitigated."

The policy acknowledges that "combustion of fossil fuels including transportation fuels used in California (on and off road including locomotives), not directly covered at large sources, are subject to Cap-and-Trade requirements, with compliance obligations starting in 2015." As such, the SJVAPCD concludes that GHG emissions associated with vehicle miles traveled (VMT) cannot constitute significant increases under CEQA. This regulatory conclusion is therefore directly applicable to the WLC project because VMT is by far the largest source of project GHG emissions.

In the IPCC Assessment Report (IPCC 2007b, Synthesis Report), the IPCC acknowledges that man-made warming and sea level rise would continue for centuries due to the time scales associated with climate processes and feedback even if GHG concentration were to be stabilized. The IPCC further found that both past and future man-made CO_2 emissions will continue to contribute to warming and sea level rise for more than a millennium, due to the time scales required for the removal of CO_2 from the atmosphere. Furthermore, the IPCC assessment noted that the definition of what is a dangerous man-made interference with the climate system and, consequently, the limits to be set for policy purposes are complex tasks that can only be partially based on science, as such definitions inherently involve normative judgments (IPCC 2007b – Working Group III).

4.7.5 Less than Significant Impacts

Due to the size of the project, all potential impacts related to greenhouse gas emissions are considered to be potentially significant.

4.7.6 Significant Impacts

4.7.6.1 Greenhouse Gas Emissions

Threshold	Would the proposed project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Future development that could occur within the proposed project site could generate GHG emissions during both construction and operation activities. The following activities are associated with the proposed project and could directly or indirectly contribute to the generation of GHG emissions:

- **Removal of Vegetation (Land Use Change) and Sequestration:** Carbon sequestration is the process of capture and storage of carbon dioxide; trees, vegetation, and soil store carbon in their tissues and wood. The net removal of vegetation for construction from land use change results in a loss of the carbon sequestration in plants. However, planting additional vegetation (sequestration) would result in additional carbon sequestration and would lower the carbon footprint of the project.

- **Construction Activities:** During construction of the project, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O.
- **Gas, Electric, and Water Use:** Natural gas use results in the emissions of CH_4 (the major component of natural gas) and CO_2 from the combustion of natural gas. Electricity use can result in GHG production if the electricity is generated by combusting fossil fuel. Conveying water to the project and treating wastewater also uses electricity.
- **Solid Waste Disposal:** Solid waste generated by the project could contribute to GHG emissions in a variety of ways. Landfilling and other methods of disposal use energy for transporting and managing the waste, and they produce additional GHGs to varying degrees. Landfilling, the most common waste management practice, results in the release of CH_4 from the anaerobic decomposition of organic materials. CH_4 is approximately 21 times more potent than CO_2. Landfill CH_4 can also be a source of energy. In addition, many materials in landfills do not decompose fully, and the carbon that remains is sequestered in the landfill and not released into the atmosphere.
- **Motor Vehicle Use:** Transportation associated with the proposed project would result in GHG emissions from the combustion of fossil fuels in daily automobile and truck trips.
- **On-site Equipment:** During operation of the project, there would be on-site equipment operating, including yard trucks, emergency generators, and forklifts.

Construction Emissions. The project would emit GHGs mainly from direct sources such as combustion of fuels from worker vehicles and construction equipment, as shown in Table 4.7.E. The GHG emissions are from all phases of construction.

Table 4.7.E: Construction Greenhouse Gas Emissions (without mitigation)

Year	Annual Emissions (mt CO_2e)
2015	14,315
2016	14,396
2017	19,052
2018	14,515
2019	25,605
2020	16,655
2021	18,318
2022	15,582
2023	18,028
2024	16,792
2025	18,041
2026	14,491
2027	17,097
2028	15,686
2029	11,789
2030	14,500
Total	264,861
Averaged over 30 years	**8,829**
Capped: Fuel-Based Emission Sources Averaged over 30 years	**8,823**

Table 4.7.E: Construction Greenhouse Gas Emissions (without mitigation)

Year	Annual Emissions (mt CO_2e)
Uncapped: Refrigerant Installation and Construction Waste Averaged over 30 years	**6**

mt CO_2e = metric tons of carbon dioxide equivalents.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015
Sources include onsite construction equipment, worker trips, haul trips, vendor trips, refrigerant installation for the air conditioning in the offices, construction waste, and water use.

Operational Emissions, Worst-Case Scenario. Operational or long-term emissions occur over the life of the project. Operational emissions for a worst-case buildout condition are shown in Table 4.7.F. The emissions are presented by greenhouse gas (in tons per year), which was also converted to metric tons of carbon dioxide equivalents (mt CO_2e). The vehicle emissions in the table represent travel within the South Coast Air Basin. The emissions do not take into account mitigation measures to reduce emissions, such as the use of model year 2010 and later medium and heavy-heavy duty trucks on the project site. As shown in the table, the project's uncapped emissions are over the SCAQMD's significance threshold of 10,000 mt CO_2e per year. Therefore, emissions are potentially significant.

The analysis presented in Table 4.7.F also represents a worst-case analysis because the emission factors do not take into account full reductions from regulation or reductions from newer trucks and cars. The emissions are estimated using emission factors from EMFAC2014, CARB's emission factor model, for the year 2012.

Table 4.7.F: Project Operational GHG Emissions (Worst-Case 2012 Analysis at Buildout)

Source	Individual Emissions (tons/year)					Greenhouse Gas Emissions (mt CO_2e)
	Carbon Dioxide	Methane	Nitrous Oxide	Hydrofluoro-carbons	Black Carbon	
AB 32 Capped Emissions						
Mobile	370,445	9.75	2.18	0.00	37.19	362,507
Other	137,884	8.11	1.16	0.00	2.65	127,503
Total	508,329	17.86	3.34	0.00	39.84	490,010
Uncapped Emissions	**9,689**	**504.08**	**0.00**	**0.62**	**0.00**	**19,237**
					Threshold	**10,000**
					Significant?	**Yes**

Notes:
mt CO_2e = metric tons of carbon dioxide equivalents, which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.
The "other" emissions include the non-mobile capped emissions as presented in Table 4.7.G below.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015

Operational Emissions, Annual Reasonable Scenario. The emissions presented herein are a reasonable scenario, because unlike the worst-case scenario displayed above, the mobile emissions use emission factors for the actual year assessed. The motor vehicle and truck emissions for Phase 1 (2016 to 2022) use emission factors for the year 2022, whereas motor vehicle and truck emissions for Phase 2 (2023 to buildout, 2031) use emission factors for the year 2035.

CARB has designed a California cap-and-trade program that is enforceable and meets the requirements of AB 32. The program began on January 1, 2012, with an enforceable compliance

obligation beginning with its 2013 GHG emissions inventory. Some of the project's GHG emissions are subject to the requirements of the AB 32 Cap and Trade Program and will have a GHG allocation based on current GHG emissions levels. The AB32 Cap-and-Trade Program has divided allocations into sectors. The transportation and electricity sectors would be covered by the cap-and-trade program.

Table 4.7.G shows the unmitigated project emissions at buildout by individual GHG (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, and black carbon). Those emissions are converted to mt CO_2e based on the global warming potential of the gas/aerosol. The table also shows the emissions divided by AB 32 capped and uncapped emissions. AB 32 capped emissions are shown for informational purposes, as those emissions are not compared with the SCAQMD's significance threshold. As shown in the table, the uncapped emissions exceed the threshold and are significant.

Table 4.7.G: Project GHG Emissions at Buildout by GHG (Unmitigated)

Source	Emissions (tons per year)					GHG Emissions (mt CO_2e)
	Carbon Dioxide	Methane	Nitrous Oxide	HFCs	Black Carbon	
AB 32 Capped Emissions						
Mobile	*297,342*	*1.54*	*2.17*	*0.00*	*0.66*	*270,846*
Electricity	*118,844*	*5.46*	*1.13*	*0.00*	*0.00*	*108,237*
*Construction fuel**	*8,325*	*2.12*	*<0.01*	*0.00*	*1.78*	*8,823*
Yard trucks	*5,631*	*0.00*	*0.00*	*0.00*	*0.00*	*5,108*
Electricity-convey water	*2,346*	*0.11*	*0.02*	*0.00*	*0.00*	*2,136*
Natural gas	*885*	*0.02*	*0.01*	*0.00*	*0.02*	*823*
Generator	*266*	*0.01*	*0.00*	*0.00*	*0.50*	*583*
Forklifts	*213*	*0.00*	*0.00*	*0.00*	*0.01*	*198*
Total AB 32 Capped	*433,852*	*9.26*	*3.33*	*0.00*	*2.97*	*396,754*
Significant?	--	--	--	--	--	*No*
Uncapped Emissions						
Waste	8,539	504.66	0.00	0.00	0.00	17,361
Land use change	1,272	0.00	0.00	0.00	0.00	1,154
Refrigerants	0	0.00	0.00	0.61	0.00	827
Construction*	0	-0.58	0.00	0.01	0.00	6
Sequestration	-122	0.00	0.00	0.00	0.00	-111
Total Uncapped	**9,689**	**504.08**	**0.00**	**0.62**	**0.00**	**19,237**
Threshold	--	--	--	--	--	10,000
Significant impact?	--	--	--	--	--	Yes

mt CO_2e = metric tons of carbon dioxide equivalents which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons [HFC] – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072. <0.01 = less than 0.01
* Construction emissions are the average over 30 years. Construction uncapped emissions are from refrigerants and construction waste.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015

Table 4.7.H shows a summary of AB 32 capped and uncapped project emissions for each year between 2015 and buildout. The emissions do not take into account the project design features or mitigation. As shown in the table, the uncapped emissions in the year 2022 and after are over the SCAQMD's significance threshold of 10,000 mt CO_2e per year. Therefore, emissions are potentially significant.

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Table 4.7.H-a: Project Operational GHG Emissions (Year by Year without Mitigation)

Source	GHG Unmitigated Emissions (mt CO_2e/year)							
	2015	2016	2017	2018	2019	2020	2021	2022
AB 32 Capped Emissions								
Mobile	0	15,982	31,964	53,274	74,584	114,159	153,734	174,629
Electricity	0	5,598	11,197	18,662	26,126	39,989	54,119	61,183
Construction fuel	14,306	14,388	19,040	14,503	25,584	16,633	18,307	15,578
Yard trucks	0	264	528	881	1233	1,887	2,554	2,888
Electricity to convey water	0	110	221	368	516	789	1,068	1,207
Natural gas	0	43	85	142	199	304	411	465
Generator	0	30	60	101	141	216	292	330
Forklifts	0	10	20	34	48	73	99	112
Total AB 32 Capped Emissions	14,306	36,425	63,115	87,965	128,431	174,050	230,584	256,392
Uncapped Emissions								
Waste	0	898	1,796	2,993	4,191	6,414	8,681	9,814
Land use change	0	60	119	199	279	426	577	652
Refrigerants	0	43	86	143	200	306	414	467
Construction refrigerant install and waste*	9	9	11	11	21	22	11	4
Sequestration	0	-6	-11	-19	-27	-41	-56	-63
Total Uncapped Emissions	**9**	**1,004**	**2,001**	**3,327**	**4,664**	**7,127**	**9,627**	**10,874**
Threshold	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Significant impact?	No	No	No	No	No	No	No	Yes

Notes:
mt CO_2e = metric tons of carbon dioxide equivalents which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015

Table 4.7.H-b: Project Operational GHG Emissions (Year by Year without Mitigation)

Source	Emissions (mt CO_2e/year)								
	2023	2024	2025	2026	2027	2028	2029	2030	Buildout
AB 32 Capped Emissions									
Mobile	183,616	192,604	205,429	219,972	234,515	249,059	258,591	268,123	270,846
Electricity	64,116	69,981	76,246	83,364	90,455	97,573	102,239	106,904	108,237
Construction fuel*	18,019	16,783	18,030	14,480	17,086	15,679	11,782	14,497	8,823
Yard trucks	3,026	3,303	3,599	3,935	4,269	4,605	4,825	5,046	5,108
Electricity to convey water	1,265	1,381	1,505	1,645	1,785	1,926	2,018	2,110	2,136
Natural gas	487	532	580	634	688	742	777	813	823
Generator	346	377	411	449	488	526	551	576	583
Forklifts	117	128	139	152	165	178	187	196	198
Total AB 32 Capped Emissions	270,992	285,089	305,939	324,631	349,451	370,288	380,970	398,265	396,754
Uncapped Emissions									
Waste	10,284	11,225	12,230	13,371	14,509	15,651	16,399	17,147	17,361
Land use change	684	746	813	889	964	1040	1,090	1,140	1,154
Refrigerants	490	535	583	637	691	746	781	817	827
Construction refrigerant install and waste*	9	10	11	11	11	7	7	2	6
Sequestration	-66	-72	-78	-85	-93	-100	-105	-110	-111
Total Uncapped Emissions	**11,401**	**12,444**	**13,559**	**14,823**	**16,082**	**17,344**	**18,172**	**18,996**	**19,237**
Threshold	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Significant impact?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes:
mt CO_2e = metric tons of carbon dioxide equivalents which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.
* Construction would not occur at buildout; however, according to SCAQMD recommendations, it is included at buildout as the average over 30 years.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015

Compared with emissions as estimated in the DEIR, motor vehicle emissions at buildout were reduced by about 164,000 mt CO_2e/year (435,000 to 271,000) for the following reasons. First, the emission factors used in the revised analysis are from EMFAC2014 instead of EMFAC2007 (as used in the DEIR). Secondly, the unmitigated emissions in the revised analysis include reductions from current regulation; in the DEIR, only the mitigated emissions accounted for regulation. Finally, the total vehicle miles traveled decreased from 1,249,400 miles per day to 1,034,800 miles per day (a reduction of 214,600 miles/day). This decrease reflects more realistic vehicle and truck patterns provided by the revised Traffic Impact Analysis which modeled the expected vehicle trips and volumes from the project instead of a general average of 50 miles per truck trip.

Waste emissions were reduced by approximately 136,000 mt CO_2e/year because the new version of CalEEMod (2013) lowered its waste generation rates for warehouse development.

Use of Cap-and-Trade Program Benefits for Project Impacts. The SCAQMD issued Negative Declarations last year stating that GHG emissions subject to the ARB Cap-and-Trade Program do not count against the 10,000 MT CO2e significance threshold the SCAQMD applies when acting as a lead agency. In addition, the San Joaquin Valley Air Pollution Control District (SJVAPCD) has recently taken this one issue step further and adopted a policy: "CEQA Determinations of Significance for Projects Subject to ARB's GHG Cap-and-Trade Regulation." This policy applies when the SJVAPCD is the lead agency and when it is a responsible agency. In short, the SJVAPCD "has determined that GHG emissions increases that are covered under ARB's Cap-and-Trade regulation cannot constitute significant increases under CEQA…." The SJVAPCD classifies ARB's Cap-and-Trade Program as an approved GHG emission reduction plan or GHG mitigation program under CEQA Guidelines Section 15064(h) (3). Here are some other pertinent excerpts from that policy:

- "Consistent with CCR §15064(h)(3), the District finds that compliance with ARB's Cap-and-Trade regulation would avoid or substantially lessen the impact of project-specific GHG emissions on global climate change."
- "The District therefore concludes that GHG emissions increases subject to ARB's Cap-and-Trade regulation would have a less than significant individual and cumulative impact on global climate change."
- "[I]t is reasonable to conclude that implementation of the Cap-and-Trade program will and must fully mitigate project-specific GHG emissions for emissions that are covered by the Cap-and-Trade regulation."
- "[T]he District finds that, through compliance with the Cap-and-Trade regulation, project-specific GHG emissions that are covered by the regulation will be fully mitigated."

The policy acknowledges that "combustion of fossil fuels including transportation fuels used in California (on and off road including locomotives), not directly covered at large sources, are subject to Cap-and-Trade requirements, with compliance obligations starting in 2015." As such, the SJVAPCD concludes that GHG emissions associated with vehicle miles traveled (VMT) cannot constitute significant increases under CEQA. This regulatory conclusion is therefore directly applicable to the WLC project because VMT is by far the largest source of project GHG emissions.

Specific Plan Design Features. The WLCSP incorporates site and building designs that emphasize conservation of water and energy, which in turn help reduce greenhouse gas emissions (WLCSP September 2014, Section 1.3.2, Green Building-Sustainable Development). Table 4.7.I evaluates to what degree various design features of the proposed project will reduce potential GHG emissions.

Mitigation Measures. Table 4.7.I evaluates to what degree the mitigation measures recommended in other impact sections will reduce potential GHG emissions. The only mitigation measure that is required is the following.

4.7.6.1A The project shall implement the following requirements to reduce solid waste and greenhouse gas emissions from construction and operation of project development:

a) Prior to January 1, 2020, divert a minimum of 50 percent of landfill waste generated by operation of the project. After January 1, 2020, development shall divert a minimum of 75 percent of landfill waste. In January of each calendar year after project approval the developer and/or Property Owners Association shall certify the percentage of landfill waste diverted on an annual basis.

b) Prior to January 1, 2020, recycle and/or salvage at least 50 percent of non-hazardous construction and demolition debris. After January 1, 2020, recycle and/or salvage at least 75 percent of non-hazardous construction and demolition debris. In January of each calendar year after project approval the developer and/or Property Owners Association shall certify the percentage of landfill waste diverted on an annual basis.

Develop and implement a construction waste management plan that, at a minimum, identifies the materials to be diverted from disposal and whether the materials will be sorted on-site or co-mingled. Calculations can be done by weight or volume, but must be consistent throughout.

c) The applicant shall submit a Recyclables Collection and Loading Area Plan for construction related materials prior to issuance of a building permit with the Building Division and for operational aspects of the project prior to the issuance of the occupancy permit to the Public Works Department. The plan shall conform to the Riverside County Waste Management Department's Design Guidelines for Recyclable Collection and Loading Areas.

d) Prior to issuance of certificate of occupancy, the recyclables collection and loading area shall be constructed in compliance with the Recyclables Collection and Loading Area plan.

e) Prior to issuance of certificate of occupancy, documentation shall be provided to the City confirming that recycling is available for each building.

f) Within six months after occupancy of a building, the City shall confirm that all tenants have recycling procedures set in place to recycle all items that are recyclable, including but not limited to paper, cardboard, glass, plastics, and metals.

g) The property owner shall advise all tenants of the availability of community recycling and composting services.

h) Existing onsite street material shall be recycled for new project streets to the extent feasible.

Level of Impact After Mitigation. Less than significant (original DEIR conclusion was significant).

Figure 4.7.1 displays the unmitigated and mitigated uncapped GHG emissions. As shown in the figure, the mitigated uncapped emissions are less than the significance threshold and are less than significant.

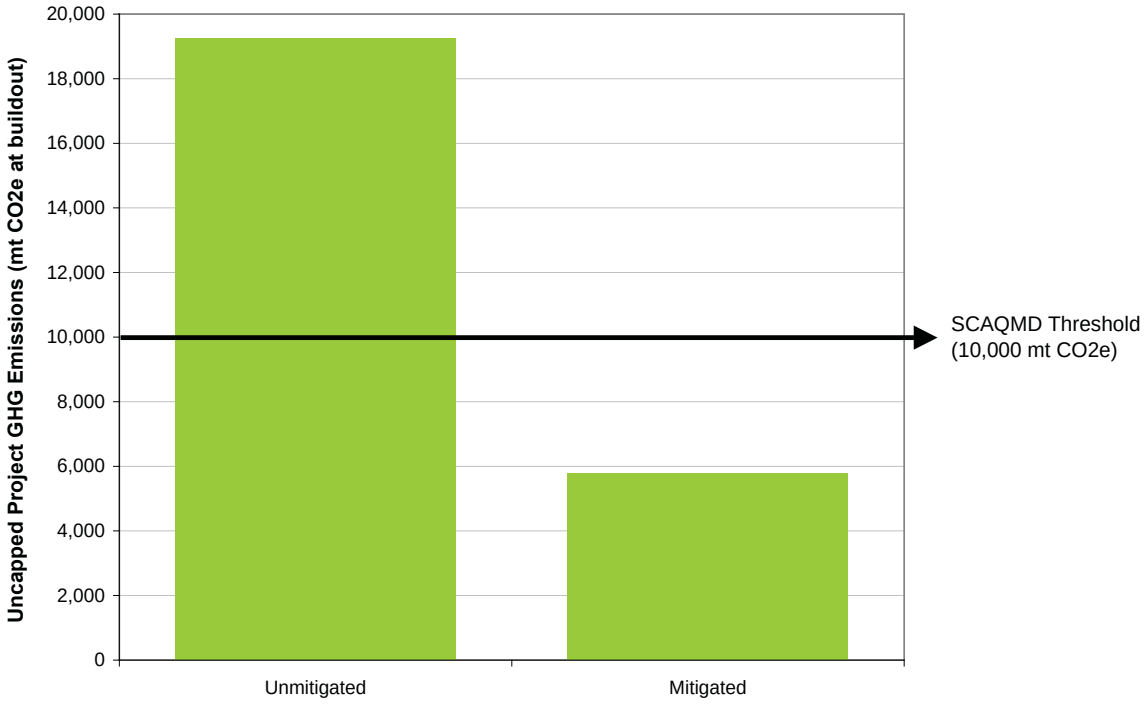

Figure 4.7.1: Uncapped Project GHG Emissions at Buildout

Table 4.7.J shows the GHG emissions and mitigation reductions after implementation of mitigation at buildout only. Table 4.7.K shows the mitigated GHG emissions through construction of the project to buildout.

AB 32 capped emissions are shown for informational purposes, as those emissions are not compared with the SCAQMD's significance threshold. The tables indicate that after implementation of **Mitigation Measure 4.7.6.1A**, the uncapped emissions would not exceed the significance threshold. GHG emissions are less than significant after mitigation.

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Table 4.7.I: Greenhouse Gas Emissions Reduction Analysis

Category	Operational Mitigation Measure or Project Design Feature[1]	Calculation Method and Reductions
Construction Fuel	**Mitigation Measure 4.3.6.2A** would require that construction equipment be Tier 4.	This reduction was estimated in CalEEMod. Tier 4 construction equipment would have fewer PM2.5 emissions, and therefore black carbon emissions.
Construction Waste	Regulation in the California Green Building Standards require that projects divert (reduce or recycle) at least 50 percent of waste.	This reduction was estimated using the U.S. EPA's Waste Reduction Model (WARM) version 13.
Vehicles: Local	*Project Design Feature:* Local bus service to the area is provided by the Riverside Transit Agency. Local bus routes would typically be extended into the project area when adequate demand is generated from this employment center. Future bus routes could circulate on available looped routes with adequate right-of-way along the major arterial roadways of Redlands Boulevard, Theodore Street, and Alessandro Boulevard. Likewise, the industrial collector roadways provide access to locations nearest building front entrances. Due to building scale, bus stops may be spread out by grouped entrances or centralized gateway drive areas as compared to individual business entries.	The California Air Pollution Control Officer's Association (CAPCOA) report's reduction measure TRT-1 indicates a 5.2 percent reduction in commute vehicle miles traveled for low-density suburbs for inclusion of a commute trip reduction program. However, this reduction is not used in this analysis. The trip generation rates for which the unmitigated emissions were based are not necessarily based on development with pedestrian connections. Therefore, CalEEMod includes pedestrian connections as part of its mitigation module. In the Draft EIR, the measures shown to the left were estimated to reduce local vehicle emissions by 3 percent. However, with the revised methods for estimating the motor vehicle and truck emissions (calculations are now based on more realistic trip lengths), this reduction would be more difficult to quantify. Therefore, no reductions are taken for these measures in order to provide a conservative analysis.
	Mitigation Measure 4.3.6.4A: Class II bike lanes.	
	Mitigation Measure 4.3.6.4A: Participate in Riverside County's rideshare program	
	Mitigation Measure 4.3.6.4A: Lockers for employees.	
	Mitigation Measure 4.3.6.4A: Bicycle storage and changing rooms	
	Project Design Features: The project would have pedestrian circulation (, sidewalks, and a multiuse trail.	
	Mitigation Measure 4.3.6.4A*:* Safe pedestrian connections	
	Mitigation Measure 4.3.6.4A: Parking for fuel-efficient vehicles	
Long haul trucks	**Mitigation Measure 4.3.6.3B:** Require model year 2010 medium-heavy duty and heavy-heavy duty trucks or later.	This was implemented by changing the emission factors for medium-heavy duty and heavy-heavy duty trucks from the CalEEMod default to the EMFAC2014 for year 2010 and after.
Vehicles and Trucks	*Pavley-I Regulation:* A clean-car standard to reduce greenhouse gas emissions from new passenger vehicles (light duty automobiles and medium duty vehicles) from 2009 through 2016. *Low Carbon Fuel Standard:* A fuel standard that requires a reduction of at least 10 percent in the carbon intensity of California's transportation fuels by 2020.	EMFAC2014 provides emission factors for carbon dioxide that include these regulations. Therefore, both the unmitigated and mitigated emissions account for these regulations.

Table 4.7.I: Greenhouse Gas Emissions Reduction Analysis

Category	Operational Mitigation Measure or Project Design Feature[1]	Calculation Method and Reductions
Electricity and Natural Gas: Title 24	**Mitigation Measures 4.16.4.6.1A** and **4.16.4.6.1B** would reduce electricity related emissions. In addition, the project would require LEED certification for buildings and would require buildings to exceed Title 24 (2008 version) by 10 percent or comply with the current version in place.	This measure was applied in CalEEMod through its mitigation measure module (10 percent beyond Title 24 checkbox).
Electricity, Lighting	**Mitigation Measures 4.16.4.6.1B** (lighting efficiency) and **4.16.4.6.1C** (Title 24) would reduce electricity from lighting.	These measures are accounted for in CalEEMod by using its mitigation measure module, "Install High Efficiency Lighting," with a reduction of 10 percent.
Solar	**Mitigation Measure 4.16.4.6.1C** requires that the project install solar panels.	The estimated electricity generation from onsite solar is 19,739 MWh per year, which is 5.2 percent of the electricity demand at buildout (376,426 MWh). Therefore, 5.2 percent of the unmitigated GHG emissions are reduced by solar generation.
Water	**Mitigation Measure 4.16.1.6.1A** would reduce outdoor water usage	CalEEMod mitigation for water-efficient irrigation systems (6.1% reduction, CalEEMod default)
	Mitigation Measure 4.16.1.6.1B would reduce interior water usage, including low flow fittings, fixtures and equipment.	CalEEMod mitigation for: - low-flow toilet (20% reduction in flow, CalEEMod default) - low flow bathroom faucet (32% reduction in flow, CalEEMod default) - low-flow kitchen faucet (18% reduction in flow, CalEEMod default) - low-flow shower (20% reduction in flow, CalEEMod default)
	Mitigation Measure 4.16.1.6.1C would allow reclaimed water to be used for irrigation.	No reductions are taken for the potential use of reclaimed water.
Waste	**Mitigation Measure 4.7.6.1A***:* Recycling and composting availability and reduce operational waste by at least 25 percent before 2020 and 75 percent after.	The project would commit to reducing operational waste by 25 percent prior 2020 and 75 percent after; therefore, a percent reduction is applied.
	Project Design Feature: Specific Plan (Section 5.1.6) requires that all development within the project provide enclosures or compactors for trash and recyclable materials.	

[1] Project design features are from the Project Description, mitigation measures are shown in Section 1.0, Table 1.B.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015

Table 4.7.J: GHG Reductions at Buildout

Type of Emissions	Source	GHG Emissions (mt CO_2e) at Buildout		
		Unmitigated	Reductions from Mitigation	With Reductions (Mitigated)
AB 32 Capped Emissions	Mobile	270,846	-466	270,380
	Electricity	108,237	-9,131	99,106
	Construction fuel*	8,823	-1,072	7,751
	Yard trucks	5,108	0	5,108
	Electricity to convey water	2,136	-207	1,929
	Natural Gas	823	-80	743
	Generator	583	-298	285
	Forklifts	198	0	198
	Solar (electricity)	0	-5,676	-5,676
	Total	**396,754**	**-16,930**	**379,824**
	Significant?	No	—	—
Uncapped Emissions	Waste	17,361	-13,021	4,340
	Land use change	1,154	0	1,154
	Refrigerants	827	0	827
	Construction*	6	-441	-435
	Sequestration	-111	0	-111
	Total	**19,237**	**-13,462**	**5,775**
	Threshold	10,000	—	10,000
	Significant?	Yes	—	No

Notes:
mt CO_2e = metric tons of carbon dioxide equivalents which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.
* Construction would not occur at buildout; however, according to SCAQMD recommendations, it is included as the average over 30 years. Construction uncapped emissions include emissions from refrigerant installation and construction waste.
For information on the regulation and mitigation calculations, please refer to Table 4.7.I.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015

Table 4.7.K-a: Project Operational GHG Emissions (Year by Year with Mitigation)

Source	GHG Mitigated Emissions (mt CO_2e/year)							
	2015	2016	2017	2018	2019	2020	2021	2022
AB 32 Capped Emissions								
Mobile	0	15,596	31,193	51,988	72,783	111,403	150,023	170,413
Electricity	0	5,126	10,252	17,087	23,922	36,616	49,553	56,022
Construction fuel*	12,267	12,227	16,203	12,343	22,003	14,126	15,647	13,279
Yard trucks	0	264	528	881	1233	1,887	2,554	2,888
Electricity to convey water	0	100	200	333	466	713	965	1,090
Natural gas	0	38	77	128	179	274	371	420
Generator	0	15	30	49	69	105	143	161
Forklifts	0	10	20	34	48	73	99	112
Solar (electricity)	0	-294	-587	-979	-1,370	-2,097	-2,838	-3,208
Total AB 32 Capped Emissions	12,267	33,082	57,916	81,864	119,333	163,100	216,517	241,177
Uncapped Emissions								
Waste	0	673	1,347	2,245	3,143	1,603	2,170	2,453
Land use change	0	60	119	199	279	426	577	652
Refrigerants	0	43	86	143	200	306	414	467
Construction refrigerants and waste*	-675	-675	-900	-900	-1,671	-1,704	-852	-354
Sequestration	0	-6	-11	-19	-27	-41	-56	-63
Total Uncapped Emissions	**-675**	**95**	**641**	**1,668**	**1,924**	**590**	**2,253**	**3,155**
Threshold	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Significant impact?	No	No	No	No	No	No	No	No

mt CO_2e = metric tons of carbon dioxide equivalents, which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.
* Estimated construction emissions are included prior to buildout; at buildout, the total construction averaged over 30 years is shown.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015

Table 4.7.K-b: Project Operational GHG Emissions (Year by Year with Mitigation)

Source	GHG Mitigated Emissions (mt CO_2e/year)								
	2023		2023		2023		2023		2023
AB 32 Capped Emissions									
Mobile	179,751	189,088	202,413	217,523	232,633	247,743	257,647	267,550	270,380
Electricity	58,707	64,077	69,814	76,331	82,824	89,342	93,614	97,885	99,106
Construction fuel*	15,497	14,405	15,580	12,320	16,251	14,981	11,396	14,006	7,751
Yard trucks	3,026	3,303	3,599	3,935	4,269	4,605	4,825	5,046	5,108
Electricity to convey water	1,143	1,247	1,359	1,486	1,612	1,739	1,822	1,905	1,929
Natural gas	440	480	523	572	621	669	701	733	743
Generator	169	184	201	220	238	257	269	282	285
Forklifts	117	128	139	152	165	178	187	196	198
Solar	-3,362	-3,670	-3,998	-4,371	-4,743	-5,117	-5,361	-5,606	-5,676
Total AB 32 Capped Emissions	255,488	269,242	289,630	308,168	333,870	354,397	365,100	381,997	379,824
Uncapped Emissions									
Waste	2,571	2,806	3,057	3,343	3,627	3,912	4,099	4,287	4,340
Land use change	684	746	813	889	964	1,040	1,090	1,140	1,154
Refrigerants	490	535	583	637	691	746	781	817	827
Construction refrigerants and waste*	~~27~~-707	~~29~~-755	~~33~~-858	~~33~~-855	~~33~~-858	~~21~~-562	~~21~~-562	~~6~~-161	~~17~~-435
Sequestration	-66	-72	-78	-85	-93	-100	-105	-110	-111
Total Uncapped Emissions	**2,972**	**3,260**	**3,517**	**~~3,929~~**	**4,331**	**5,036**	**5,303**	**5,973**	**5,775**
Threshold	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000

mt CO_2e = metric tons of carbon dioxide equivalents, which is calculated from the emissions (tons/year) by multiplying by the individual global warming potential (carbon dioxide – 1, methane – 21, nitrous oxide – 310, hydrofluorocarbons – 1500, black carbon 760) and converted to metric tons by multiplying by 0.9072.
* Estimated construction emissions are included prior to buildout; at buildout, the total construction averaged over 30 years is shown.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015

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4.7.6.2 Greenhouse Gas Plan, Policy, Regulation Consistency

Threshold	Would the proposed project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

This impact assesses whether the project would conflict with any applicable plans, policies, or regulations, as discussed below.

Federal and State Reduction Strategies. Table 4.7.L evaluates the consistency of the proposed project with the various Federal and State energy conservation and other regulations related to GHG emissions.

Table 4.7.L: Project Compliance with Federal/State Greenhouse Gas Reduction Strategies

Strategy	Project Compliance
Mandatory Codes	
California Green Building Code. The Cal Green Code prescribes a wide array of measures that would directly and indirectly result in reduction of GHG emissions from the Business as Usual Scenario (California Building Code). The mandatory measures that are applicable to nonresidential projects include site selection, energy efficiency, water efficiency, materials conservation and resource efficiency, and environmental quality measures.	**Compliant.** The project will be required to adhere to the non-residential mandatory measures as required by the Cal Green Code.
Energy Efficiency Measures	
Energy Efficiency. Maximize energy efficiency building and appliance standards, and pursue additional efficiency efforts including new technologies, and new policy and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California (including both investor-owned and publicly owned utilities).	**Compliant with Mitigation Incorporated.** The proposed project will comply with current California Building Code (CBC) requirements for building construction, including the Title 24 energy conservation standards, which will help reduce GHG emissions. In addition, the project will include various energy-efficient building design features and mitigation (**Mitigation Measures 4.16.4.6.1A, B,** and **C**) to help further reduce GHG emissions.
Renewables Portfolio Standard. Achieve a 33 percent renewable energy mix statewide. This means that 33 percent of the electricity sold in California must be generated by renewable energy (solar, wind, etc.).	**Not applicable.** The project is not part of the State's power generation grid, but would install solar photovoltaic panels on project roofs pursuant to **Mitigation Measure 4.16.4.6.1C**. The solar would reduce the project's electricity related emissions by approximately 5.2 percent. In addition, Moreno Valley Electric Utility purchases its power from Southern California Edison, which is subject to the Renewable Portfolio Standard.
Green Building Strategy. Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.	**Compliant.** The proposed project will comply with current CBC requirements for building construction, including the Title 24 energy conservation standards.

Table 4.7.L: Project Compliance with Federal/State Greenhouse Gas Reduction Strategies

Strategy	Project Compliance
Water Conservation and Efficiency Measures	
Water Use Efficiency. Continue efficiency programs and use cleaner energy sources to move and treat water. Approximately 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions.	**Compliant with Mitigation Incorporated.** The Specific Plan outlines a number of water conservation measures, and **Mitigation Measures 4.16.1.6.1A** through **4.16.1.6.1C** will help reduce potential water use even further.
Solid Waste Reduction Measures	
Increase Waste Diversion, Composting, and Commercial Recycling, and Move Toward Zero-Waste. Increase waste diversion from landfills beyond the 50 percent mandate to provide for additional recovery of recyclable materials. Composting and commercial recycling could have substantial GHG reduction benefits. In the long term, zero-waste policies that would require manufacturers to design products to be fully recyclable may be necessary.	**Compliant with Mitigation Incorporated.** Data available from the California Integrated Waste Management Board (CIWMB) indicate that the City of Moreno Valley has not achieved the 50 percent diversion rate. The project will comply with **Mitigation Measure 4.7.5.1A** to help increase solid waste diversion, composting, and recycling. The measure would also have a goal to reduce waste by 75 percent by 2020.
Transportation and Motor Vehicle Measures	
Vehicle Climate Change Standards. AB 1493 (Pavley) required the State to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of GHG emissions from passenger vehicles and light-duty trucks. Regulations were adopted by the CARB in September 2004.	**Compliant.** The project does not involve the manufacture of vehicles. However, vehicles that are purchased and used within the project site would comply with any vehicle and fuel standards that the CARB adopts or has adopted. In addition, the project would require medium-heavy and heavy-heavy duty trucks be 2010 or newer (**Mitigation Measure 4.3.6.3B**).
Light-Duty Vehicle Efficiency Measures. Implement additional measures that could reduce light-duty vehicle GHG emissions. For example, measures to ensure that tires are properly inflated can both reduce GHG emissions and improve fuel efficiency.	
Adopt Heavy- and Medium-Duty Fuel and Engine Efficiency Measures. Regulations to require retrofits to improve the fuel efficiency of heavy-duty trucks that could include devices that reduce aerodynamic drag and rolling resistance. This measure could also include hybridization of and increased engine efficiency of vehicles.	
Low Carbon Fuel Standard. The CARB identified this measure as a Discrete Early Action Measure. This measure would reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020.	

Table 4.7.L: Project Compliance with Federal/State Greenhouse Gas Reduction Strategies

Strategy	Project Compliance
Regional Transportation-Related Greenhouse Gas Targets. Develop regional GHG emissions reduction targets for passenger vehicles. Local governments will play a significant role in the regional planning process to reach passenger vehicle GHG emissions reduction targets. Local governments have the ability to directly influence both the siting and design of new residential and commercial developments in a way that reduces GHGs associated with vehicle travel.	**Compliant.** Specific regional emission targets for transportation emissions do not directly apply to this project; regional GHG reduction target development is outside the scope of this project. The project will comply with any plans developed by the City.
Measures to Reduce High Global Warming Potential (GWP) Gases. The CARB has identified Discrete Early Action measures to reduce GHG emissions from the refrigerants used in car air conditioners, semiconductor manufacturing, and consumer products. The CARB has also identified potential reduction opportunities for future commercial and industrial refrigeration, changing the refrigerants used in auto air conditioning systems, and ensuring that existing car air conditioning systems do not leak.	**Compliant.** New products used or serviced on the project site (after implementation of the reduction of GHG gases) would comply with future CARB rules and regulations.

AB = Assembly Bill CARB = California Air Resources Board GHG = greenhouse gas
Source: based on analysis in the *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015

With implementation of applicable strategies/measures project design features, and mitigation measures, the project's contribution to cumulative GHG emissions would be reduced. In order to ensure that the proposed project complies with and would not conflict with or impede the implementation of reduction goals identified in AB 32, the Mitigation Measures listed in the above table shall be implemented.

CARB Scoping Plan. AB 32 focuses on reducing GHG emissions (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) to 1990 levels by the year 2020. Pursuant to the requirements in AB 32, the CARB adopted the Climate Change Scoping Plan (Scoping Plan) in 2008, which contains a variety of strategies to reduce the State's emissions. The First Update to the Scoping Plan was approved in 2014. The project will comply with existing State and Federal regulations regarding the energy efficiency of buildings, appliances, and lighting. The warehouse buildings will be built in compliance with the California Building Code to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices. In addition, **Mitigation Measure 4.16.4.6.1A** states the project will exceed the Title 24 energy conservation standards (2008 version) by 10 percent or comply with the current version. As shown in Table 4.7.M, the strategies are either consistent with or not applicable to the project; therefore, the project does not conflict with the Scoping Plan.

Table 4.7.M: Analysis of Scoping Plan Reduction Measures

Scoping Plan Reduction Measure	Consistency Analysis
1. *California Cap-and-Trade Program Linked to Western Climate Initiative.* Implement a broad-based California Cap-and-Trade program to provide a firm limit on emissions. Link the California cap-and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California. Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms.	**Not Applicable.** This cap-and-trade system covers products or services (such as electricity) and the cost of the cap-and-trade system would be transferred to the consumers. Large industrial uses are the most likely source of participants for this program, and it is not likely individual logistics warehousing will be an active participant in this program. Under AB 32, emissions from natural gas use, transportation fuel use, and electricity generation are covered under the cap-and-trade program and subject to the program's emission reduction requirements.
2. *California Light-Duty Vehicle Greenhouse Gas Standards.* Implement adopted standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.	**Applicable.** This is a statewide measure that cannot be implemented by an individual project applicant or lead agency. When this measure is initiated, the standards would be applicable to the light-duty vehicles that would access the project site.
3. *Energy Efficiency.* Maximize energy efficiency building and appliance standards; pursue additional efficiency including new technologies, policy, and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California.	**Applicable.** This is a measure for the state to increase its energy efficiency standards. However, the project will increase its energy efficiency through existing regulation and project design by implementing current Title 24 energy standards and green building characteristics. In addition, **Mitigation Measures 4.16.4.6.1A** and **B** would increase energy efficiency and **Mitigation Measures 4.16.4.6.1C** would require exceeding Title 24 (2008 version) by 10 percent or comply with the version in place at the time.
4. *Renewable Portfolio Standard.* Achieve 33 percent renewable energy mix statewide. Renewable energy sources include (but are not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas.	**Partially Applicable.** This is a measure applicable to the utility provider for the project. However, the project would provide on-site solar (**Mitigation Measure 4.16.4.6.1C**).
5. *Low Carbon Fuel Standard.* Develop and adopt the Low Carbon Fuel Standard.	**Applicable.** This is a statewide measure that cannot be implemented by an individual project applicant or lead agency. However, when this measure is initiated, the standard would be applicable to the fuel used by vehicles that would access the project site.
6. *Regional Transportation-Related Greenhouse Gas Targets.* Develop regional greenhouse gas emissions reduction targets for passenger vehicles. This measure refers to SB 375.	**Applicable.** The project is not directly related to developing greenhouse gas emission reduction targets. However, this project will improve the jobs/ratio for the City and thereby help reduce commuter-related emissions. For a discussion of the Regional Transportation Plan and the Sustainable Communities Strategy, refer to Table 4.7.D above.
7. *Vehicle Efficiency Measures.* Implement light-duty vehicle efficiency measures.	**Applicable.** When this measure is initiated, the standards would be applicable to the light-duty vehicles that would access the project site.

Table 4.7.M: Analysis of Scoping Plan Reduction Measures

Scoping Plan Reduction Measure	Consistency Analysis
8. *Goods Movement.* Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities.	**Not Applicable.** The project does not propose any changes to maritime, rail, or intermodal facilities or forms of transportation. However, the project is related to goods movement and provides logistics warehousing away from port areas.
9. Million Solar Roofs Program. Install 3,000 MW of solar-electric capacity under California's existing solar programs.	**Applicable.** This measure is to increase solar throughout California, which is being done by various electricity providers and existing solar programs. Pursuant to **Mitigation Measure 4.16.4.6.1C**, the project will be incorporating onsite solar panels.
10. Medium/Heavy-Duty Vehicles. Adopt medium and heavy-duty vehicle efficiency measures.	**Applicable.** This is a statewide measure that cannot be implemented by an individual project applicant or lead agency. However, when this measure is initiated, the standards would be applicable to the vehicles that access the project site. In addition**, Mitigation Measure 4.3.6.3B** requires that trucks be model year 2010 or newer.
11. *Industrial Emissions.* Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce greenhouse gas emissions and provide other pollution reduction co-benefits. Reduce greenhouse gas emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive methane emissions and reduce flaring at refineries.	**Not Applicable.** This measure would apply to the direct greenhouse gas emissions at major industrial facilities emitting more than 0.5 million mt CO_2e (500,000 mt CO_2e) per year. It is not anticipated that the project would emit more than 500,000 mt CO_2e per year; however, the project is not considered a single facility but would consist of multiple warehouse buildings. The project is a "project" under CEQA but not one facility, which is why a programmatic EIR is being prepared. This measure would be applicable to power plants, refineries, cement plants, and other related sources. In addition, most emissions from the project are indirect since the majority of the emissions are from trucks and motor vehicles.
12. High Speed Rail. Support implementation of a high-speed rail system.	**Not Applicable.** This is a statewide measure that cannot be implemented by a project applicant or lead agency.
13. Green Building Strategy. Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.	**Applicable.** The State now requires development to use various green building practices. The project will implement green building strategies through existing regulation. In addition, **Mitigation Measures 4.16.4.6.1A** and **B** would increase energy efficiency. **Mitigation Measure 4.16.4.6.**1**C** would require that the project exceed Title 24 (2008 version) by 10 percent or comply with the current version.
14. High Global Warming Potential Gases. Adopt measures to reduce high global warming potential gases.	**Applicable.** When this measure is initiated, it would be applicable to the high global warming potential gases that would be used by the project (such as in air conditioning).
15. Recycling and Waste. Reduce methane emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero-waste.	**Not Applicable.** The project would not contain a landfill. The State wishes to help increase waste diversion, and the project would reduce waste with implementation of mitigation.

Table 4.7.M: Analysis of Scoping Plan Reduction Measures

Scoping Plan Reduction Measure	Consistency Analysis
16. *Sustainable Forests.* Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation.	**Not Applicable.** No forested lands exist on site.
17. *Water.* Continue efficiency programs and use cleaner energy sources to move and treat water.	**Not Applicable.** This is a measure for State and local agencies. However, the project would reduce water through project design (i.e., implementation of the Specific Plan) and **Mitigation Measures 4.16.6.1A** through **4.16.6.1C.**
18. *Agriculture.* In the near term, encourage investment in manure digesters and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020.	**Not Applicable.** No grazing, feedlot, or other agricultural activities that generate manure occur on site or are proposed to be implemented by the project.

Sources: California Air Resources Board 2008, *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015

City General Plan Policies. The project must also be evaluated against the City's General Plan policies that relate to greenhouse gas emissions, as shown in Table 4.7.N. This analysis shows that the project is consistent with the applicable General Plan objectives and policies, or the particular objective or policy is not applicable to the proposed WLC project.

Table 4.7.N: Consistency with City General Plan Air Quality Policies

Objective or Policy	Project Consistency
Objective 6.6. Promote land use patterns that reduce daily automotive trips and reduce trip distance for work, shopping, school, and recreation.	**Consistent.** The project is providing employment opportunities to Moreno Valley and the surrounding area.
Policy 6.6.1. Provide sites for new neighborhood commercial facilities within close proximity to the residential areas they serve.	**Not Applicable.** The project does not propose the development of neighborhood commercial facilities or residential dwellings.
Policy 6.6.2. Provide multifamily residential development sites in close proximity to neighborhood commercial centers in order to encourage pedestrian instead of vehicular travel.	**Not Applicable.** The project is industrial and does not propose the development of residential uses.
Policy 6.6.3. Locate neighborhood parks in close proximity to the appropriate concentration of residents in order to encourage pedestrian and bicycle travel to local recreation areas.	**Not Applicable.** The project is industrial and does not propose the development of residential uses.
Objective 6.7. Reduce mobile and stationary source air pollutant emissions.	**Consistent.** The project would be implementing feasible Mitigation Measures to reduce mobile and stationary emissions (**Mitigation Measures 4.3.6.3B, 4.3.6.3C, 4.3.6.3D,** and **4.3.6.4A**).
Policy 6.7.1. Cooperate with regional efforts to establish and implement regional air quality strategies and tactics.	**Not Applicable.** This measure is beyond the scope of the project; the City will continue to work with the SCAQMD in regional planning efforts.
Policy 6.7.2. Encourage the financing and construction of park-and-ride facilities.	**Not Applicable.** The project consists of industrial uses; a park and ride on the project would not be feasible.
Policy 6.7.3. Encourage express transit service from Moreno Valley to the greater metropolitan areas of Riverside, San Bernardino, Orange and Los Angeles Counties.	**Not Applicable.** No express mass transit facilities are designated on the project site or planned on the project site; therefore, this measure is beyond the scope of the project.

Table 4.7.N: Consistency with City General Plan Air Quality Policies

Objective or Policy	Project Consistency
Policy 6.7.6. Require building construction to comply with the energy conservation requirements of Title 24 of the California Administrative Code.	**Consistent.** The project will comply with Title 24 requirements.

Policies 6.7.4 and 6.7.5 are discussed in the air quality EIR section, Section 4.3).
Source of objective and policy: Moreno Valley General Plan (2006).
Source of project consistency: *Air Quality, Greenhouse Gas, and Health Risk Assessment Report,* 2015

City Climate Action Strategy. Finally, Table 4.7.O evaluates the consistency of the proposed project with the policies of the City's Climate Action Strategy approved in October 2012. As shown below and in Appendix D of the revised Air Quality, Greenhouse Gas, and Health Risk Assessment, the project is consistent with the requirements of the Strategy for non-residential development with implementation of project design features and mitigation measures.

Table 4.7.O: Consistency with City Climate Action Strategy

Strategy Items	Project Consistency
R2-T1: Land Use Based Trips and VMT Reduction Policies. Encourage the development of Transit Priority Projects along High Quality Transit Corridors identified in the SCAG Sustainable Communities Plan, to allow a reduction in vehicle miles traveled.	**Not Applicable.** A Transit Priority Project is one that has at least 50 percent residential use based on area, at least 20 units per acre and is within a ½ mile of a major transit stop or High Quality Transit Corridor. A High Quality Transit Corridor is defined as one with 15-minute frequencies during peak commute hours. The proposed project does not include a residential component and is not along a High Quality Transit Corridor nor are there any High Quality Transit Corridors or major transit stops in the vicinity of the project area. As a result, the strategy is not applicable.
R2-T3: Employment-Based Trip Reductions. Require a Transportation Demand Management (TDM) program for new development to reduce automobile travel by encouraging ride-sharing, carpooling, and alternative modes of transportation.	**Consistent** with implementation of **Mitigation Measure 4.3.6.4A.**
R2-E1: New Construction Residential Energy Efficiency Requirements. Require energy efficient design for all new residential buildings to be 10 percent beyond the current Title 24 standards.	**Not Applicable.** This measure applies to residential projects.
R2-E2: New Construction Residential Renewable Energy. Facilitate the use of renewable energy (such as solar (photovoltaic) panels or small wind turbines) for new residential developments. Alternative approach would be the purchase of renewable energy resources offsite.	**Not Applicable.** This measure applies to residential projects.
R2-E5: New Construction Commercial Energy Efficiency Requirements. Require energy efficient design for all new commercial buildings to be 10% beyond the current Title 24 standards.	**Consistent** with **Mitigation Measure 4.16.4.6.1C.**
R3-E1: Energy Efficient Development, and Renewable Energy Deployment Facilitation and Streamlining. Updating of codes and zoning requirements and guidelines to further implement green building practices. This could include incentives for energy efficient projects.	**Not Applicable.** This refers to updating building and zoning codes and does not apply to this warehousing development plan.

Table 4.7.O: Consistency with City Climate Action Strategy

Strategy Items	Project Consistency
R3-L2: Heat Island Plan. Develop measures that address "heat islands." Potential measures include using strategically placed shade trees, using paving materials with a Solar Reflective Index of at least 29, an open grid pavement system, or covered parking.	**Consistent.** The Specific Plan indicates that vehicle parking areas are to be landscaped to provide a shade canopy (50 percent coverage at maturity).
R2-W1: Water Use Reduction Initiative. Consider adopting a per capita water use reduction goal which mandates the reduction of water use of 20 percent per capita with requirements applicable to new development and with cooperative support of the water agencies.	**Consistent.** California Green Building Standards Code, Chapter 5, Division 5.3, Section 5.303.2 requires that indoor water use be reduced by 20 percent. Section 5.304.3 requires irrigation controllers and sensors. The Specific Plan also contains a variety of water conservation features. **Mitigation Measures 4.16.1.6.1A, B,** and **C** also provide water reduction measures.
R3-W1: Water Efficiency Training and Education. Work with EMWD and local water companies to implement a public information and education program that promotes water conservation.	**Consistent.** Tenants and owners within the WLCSP will provide water conservation information from EMWD and other sources to workers on a regular basis.
R2-S1: City Diversion Program. For Solid Waste, consider a target of increasing the waste diverted from the landfill to a total of 75 percent by 2020.	**Consistent.** The project would incorporate standard City waste reduction features and **Mitigation Measure 4.7.6.1A** (has a target to reduce waste by 75 percent by 2020).
C11: Require that developer recycle existing street material for use as base for new streets.	**Consistent.** Project will implement **Mitigation Measure 4.7.6.1A** where feasible.

Executive Order S-3-05. As discussed in Section 4.7.4, the SCAQMD developed its thresholds based on consistency with California Executive Order S-3-05. As shown in Impact 4.7.6.1, the project's uncapped GHG emissions would not exceed the SCAQMD's industrial threshold. Therefore, the project would not conflict with Executive Order S-3-05. This impact is less than significant.

Specific Plan Design Features. The WLCSP contains a sustainability section that emphasizes water and energy conservation throughout the project design, which in turn will help reduce GHG emissions (Section 1.3.2, Green Building-Sustainable Development).

Mitigation Measures. Implementation of previously referenced **Mitigation Measures 4.3.6.3B, 4.3.6.4A, 4.3.6.3C, 4.3.6.3D, 4.7.6.1A, 4.16.1.6.1A, 4.16.1.6.1B, 4.16.1.6.1C, 4.16.4.6.1A, 4.16.4.6.1B,** and **4.16.4.6.1C** will help reduce project-related GHG emissions and therefore make it more consistent with GHG reduction plans, policies, and/or regulations.

Level of Significance After Mitigation. Less than significant (original DEIR conclusion was significant). As previously identified, implementation of the proposed project could result in the development of an approximately 40.6 million square foot high cube-logistics distribution logistics. The proposed project includes a variety of physical attributes and operational programs that would help reduce operational-source pollutant emissions from worker commuting, including GHG emissions. Future development that would occur under the proposed project would be consistent with greenhouse gas emission reduction strategies and policies, including the City's Climate Change Strategy. The project would implement the Mitigation Measures listed above to

reduce its contribution to GHG emissions and to ensure it does not conflict with or impede implementation of reduction goals identified in AB 32, Governor's Executive Order S-3-05, and other strategies to help reduce GHGs to the level proposed by the Governor. In addition, the project would also be subject to all applicable regulatory requirements, which would also reduce the GHG emissions of the project. Therefore, the proposed project would not conflict with any applicable plan, program, policy, or regulation related to the reduction of GHG emissions. Impacts are considered less than significant.

Similar to the discussion of cumulative air quality impacts, the project may employ workers locally from the City. This has the benefit of improving the local jobs/housing balance leading to air quality benefits in terms of shorter trip lengths, which lead to lower emissions than if the workforce was derived from distant locations.

The analysis in the EIR concluded that the Project's contributions to climate change are less than significant. Given (i) the global nature of climate change; (ii) uncertainty regarding the extent to which anthropogenic sources are the true causes of any increase in the earth's temperatures; and (iii) the lack of emissions controls being imposed by the world's most rapidly developing nations, even if there is a causal relationship between anthropogenic emissions and an increase in the world's temperature, it is difficult to argue that an individual Project's cumulative contribution to climate change is foreseeable and cumulatively considerable. Nonetheless, the State of California has adopted a number of policies, including AB32, Governor's Executive Order S-3-05, and Pavley I, that provide the structure and commitment to address California's contribution to global climate change. Since the proposed project is consistent with these policies, including being below the SCAQMD threshold for greenhouse gases that was structured in accordance with these State policies, the project is consistent with greenhouse gas plans, policies and regulations.

4.7.7 Cumulative Impacts

Given the findings of AB 32, of SB 97, and the requirements of CEQA, the Lead Agency must determine whether a project will or will not have a cumulatively considerable contribution to greenhouse gas emissions and global climate change. Due to the lack of guidance for determining the significance of cumulative impacts to climate change from projects, and out of an overabundance of caution, the project has been evaluated to determine whether emissions of greenhouse gases have been minimized to the extent feasible with current technology and measures.

While it is not possible for any one development project to have a significant impact on global warming or climate change, the proposed project will contribute to cumulative GHG emissions in California. Cumulatively, the buildout of the proposed project would contribute approximately from 12,000 metric tons of CO_2e in its first year of construction up to 386,000 mt CO_2e per year at buildout (with mitigation). Of those emissions at buildout, the majority, 98 percent, are within the AB 32 cap meaning that total emissions will not increase due to the cap-and-trade program. The remainder, approximately 6,000 mt CO_2e per year at buildout, represents an increase in uncapped emissions, which is 0.001 percent of California's total emissions of 458.68 million mt of CO_2e in 2012 for the entire State. Comparing the state inventory to the project's inventory is not a straightforward comparison because different methods are utilized in each inventory. The mitigation measures discussed above will reduce the project's emissions of GHGs to below significance. The CARB is currently in the process of designing regulations to monitor, limit, and ultimately reduce California GHG emissions, but there are as yet no adopted numerical or quantifiable standards for assessing the significance of cumulative impacts from projects in the South Coast Air Basin.

Cumulatively, the emissions from electricity production (which are capped under the requirements of AB 32) would comprise approximately 26 percent of the project's total CO_2e emissions. Water usage and solid waste disposal emissions comprise approximately 2 percent of the project's total CO_2e emissions while the emissions from vehicle exhaust would comprise approximately 70 percent of the project's total CO_2e emissions. The emissions from vehicle exhaust are controlled by the State and Federal governments and are outside the control of the City. The remaining CO_2e emissions are primarily associated with building systems. The proposed project is required to comply with existing State and Federal regulations regarding the energy efficiency of buildings, appliances, and lighting, which would reduce the project's electricity demand. The new buildings constructed in accordance with current energy efficiency standards would be more energy-efficient than older buildings.

With implementation of the strategies and programs described previously, the project is consistent with the strategies to reduce California's emissions to the levels proposed in Executive Order S-3-05. In addition, emissions not covered or capped by AB 32 are below the significance threshold. Therefore, cumulative impacts are less than significant.

4.8 HAZARDS AND HAZARDOUS MATERIALS: TABLE OF CONTENTS

TABLE

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NOTE TO READERS. *A number of comments were made regarding hazardous materials, mainly potential pesticide contamination[1]. In response, the mitigation measures in this section have been revised. Otherwise, no major revisions have been made to this section in response to comments.*

4.8 HAZARDS AND HAZARDOUS MATERIALS

This section describes and analyzes the potential impact to human health and the environment due to the exposure to hazardous materials or conditions that could be encountered as a result of the construction activities within the WLC project area and also the operational activities of the project. Potential effects include those associated with the routine transport, use, or disposal of hazardous materials; reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment; safety hazards associated with the project's existing agricultural use, impairment/interference with adopted emergency response plans or emergency evacuation plans, and exposure of people or structures to risks involving wildland fires.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 29 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.

The evaluation was based on review of available information included with the application, review of previous Phase I Environmental Site Assessments for the WLC project area, and review of other

[1] *Letters F-7A and F-7B from Lozeau Drury LLP (Comments F-7A-18, -21 and -22 and F-7B-2) and in Letter F-8 from Shute Mihaly.*

published materials. This section is based in part on the following reports, which are included as Appendix I of this EIR:

- *Phase I Environmental Site Assessment Reports,* World Logistic Center Specific Plan WLC project area—approximately 3,820 acres in the WLC planning area, south of State Route 60 (SR-60) between Redlands Boulevard and Gilman Springs Road, extending to the southerly City Limit, LOR Geotechnical Group, Inc., 18 reports for various locations within the WLC project area prepared between June 10, 2003–May 28, 2008, plus one comprehensive Phase 1 as recent as January 2013.

4.8.1 Existing Setting

4.8.1.1 Project Site History

The project area is approximately 3,714 acres and is located in Rancho Belago, the eastern portion of the City of Moreno Valley, in northwestern Riverside County. The area is bounded by State Route 60 (SR-60) to the north, Gilman Springs Road to the east, Redlands Boulevard to the west, and the City boundary to the south.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

Within the project area, 2,610 acres will be covered by the World Logistics Center Specific Plan, which is planned to be developed with up to 40.6 million square feet of modern logistics facilities. The remainder of the project area, approximately 1,104 acres is owned by the State and by existing utility facilities. This area will be designated as permanent open space and will allow the continued operation of the utility facilities.

The majority of the project area is vacant undeveloped land. There are seven existing single-family homes with associated ranch/farm buildings located throughout the project area. The project area has been historically used for dry-farming and livestock grazing, and portions of it are currently being dry farmed. There are currently no flood control facilities that are owned, operated, or maintained by the Riverside County Flood Control and Water Conservation District (RCFCWCD). Over the years, 18 separate Phase I Environmental Site Assessments (ESAs) have been conducted covering a large majority of the property (Table 4.8.A).

Table 4.8.A: Project-Related Phase 1 Hazmat Reports

Location	Date	Conclusion and Follow Up Action
Group A Properties consisting of 352 acres located between Redlands Boulevard and Gilman Hot Springs Road to the east and west and Eucalyptus and Davis Roads to the north and south.	6/10/03	*No Further Action:* No recognized environmental conditions associated with the site.
Colville Property, 17.8 acres (2 parcels, APNs 478-240-006 and 007) located on the southwest corner of Alessandro Boulevard and Theodore Street.	2/23/04	*No Further Action:* No recognized environmental conditions associated with the site.
13241 Theodore Street.	2/11/05	Clean up of one empty 55-gallon metal drum and trash and debris for disposal in a Class III municipal landfill; no further remedial action necessary.

Table 4.8.A: Project-Related Phase 1 Hazmat Reports

Location	Date	Conclusion and Follow Up Action
Kerr Stock Farm Properties: 12600 and 12560 Sinclair Street; 4 parcels, 120± acres, located southeast of Redlands Boulevard and SR-60; *Triana Property*, 12540 Sinclair Street (APN: 477-090-001), southeast of Redlands Boulevard and SR-60; *Smith Property*, 0.88-acre property at 12550 Sinclair Street (APN 477-090-013).	5/5/03	Several 55-gallon and smaller containers of paint, both latex and oil base containers, and waste oil found; containers and stained soil are to be removed and properly disposed of. Dumped green waste and household trash and debris to be removed; two aboveground fuel tanks to be removed. Based on the age of structures, an asbestos and lead-based paint survey should be conducted prior to demolition. No further remedial action necessary upon removal of above-noted items.
Sanindon Property, 19± acres (APNs 477-090-004 and 006) located southeast of Sinclair Street and SR-60.	9/10/03	*No Further Action:* No recognized environmental conditions associated with the site.
APNs 478-240-011, 017, 026, 027, and 030, 46.5+-acre vacant property, located on the southeast corner of Brodiaea Avenue and Sinclair Street.	4/30/04	*No Further Action:* No recognized environmental conditions associated with the site.
Chehade Property, 2 parcels (APNs 478-240-24 and 29) 18.75 acres, southwest of Alessandro Boulevard and Theodore Street.	12/29/04	Removal of one 55-gallon waste oil drum. Surface-stained surrounding soil to be removed and properly disposed of. No further remediation necessary.
APNs 478-240-019, 025, and 028.	4/11/05	Significant illegal dumping of trash and debris, but all appears suitable for disposal in a Class Ill municipal landfill; ten tires present, additional disposal fees may be incurred; metal 5-gallon bucket about half full with racing fuel, located in the southeast portion of Parcel 028 west of the east boundary and southeast of the old borrow pit quarry area; bucket should be lawfully transported off site and properly disposed of or recycled. No further remedial action required.
Mabon Property (APN 477-080-042) 8.8+ acres.	2/28/05	*No Further Action:* No recognized environmental conditions associated with the site.
APNs 477-090-008 through 012 and 477-100-011 through 014, 69.5± acres.	11/30/04	Trash and debris present appeared suitable for disposal in a Class III municipal landfill, but forty tires, including some large-sized tires, may require special disposal fees. A black 5-gallon bucket, approximately one-third full of waste oil, observed at north end of the drainage channel. Very minor oil-stained soil and organic debris was noted. The oil stained soil is insignificant in extent and is of no environmental concern, the 5-gallon bucket of waste oil should be properly disposed of or recycled. No further remedial action required.
APN 477-090-007, northeast corner of Sinclair Street and Fir Avenue.	4/25/07	*No Further Action:* No recognized environmental conditions associated with the site.
APNs 477-080-027, 028, 029, and 030, 36.7+ acres of vacant land, southeast corner of Ironwood Avenue and Sinclair Street.	3/24/05	*No Further Action:* No recognized environmental conditions associated with the site.
APNs 478-240-005 and 008.	3/1/06	Illegal dumping of trash and debris, especially on the south end near the boundary. All of the trash and debris observed appear to be suitable for disposal in a Class Ill municipal landfill. No further remedial action required.

Table 4.8.A: Project-Related Phase 1 Hazmat Reports

Location	Date	Conclusion and Follow Up Action
Himada Property, 30050 Dracaea Avenue, (APN 422-070-033)	7/9/07	Significant amounts of trash and debris are present and appear suitable for disposal in a Class III municipal landfill. No drums, barrels, or other containers were observed; one partially crushed vehicle battery and minor oil-stained soils were observed, battery should be properly transported off site for recycling or disposal. The minor oil stained soils is a *de minimis* condition and should be mitigated as a result of normal grading activities. No further remedial action required.
Sunnymead Poultry Group "C" Properties consisting of 421 acres east of Theodore Street and north of Alessandro Boulevard.	5/5/03	A former chicken ranch made up 75 acres and the remainder was dry-farmed. Former underground storage tanks (USTs) converted to aboveground storage tanks (ASTs) were present at the chicken ranch, which was undergoing demolition. Soil samples collected during and after demolition activities confirmed the removal of hydrocarbon-affected soil. Soil samples collected from beneath the location of the two former USTs at 6, 8, and 10 feet deep had no reported concentrations of petroleum hydrocarbons. Pesticide sampling (42 samples) indicated all results below residential limits. No further action.

Source: Phase 1 Environmental Site Assessment Reports (various), LOR Geotechnical.

Historic land uses noted for the WLC project area included tree farms (olives/citrus), rural residential uses, a horse ranch, minor auto repair related to residential users, two dairies, and a chicken ranch. However, the tree orchards were not sustained and the horse, dairy, and chicken ranches ceased operating several years ago as well. Present land use is limited to dry farming, undeveloped vacant land, and seven residential structures. In 1992, the City approved a master-planned, mixed-use community called "Moreno Highlands" on most of the project site but no uses within this community were ever built.

Dry-land farming does not typically apply pesticides or other agricultural chemicals. The ESAs did not find significant residual pesticides within the project area. Soil sampling conducted within limited site characterizations revealed trace concentrations of pesticides present in the near-surface soils at some of the sampling locations. However, the sample results showed concentrations of pesticides to be below the Environmental Protection Agency's (EPA's) Preliminary Remediation Goals for residential properties, which indicated that no further sampling was necessary and unrestricted use of the property was allowed.

NOTE: The following information was added to clarify or expand on the issue of agricultural chemicals raised in Letter F-7A, F-7B, and F-8.

The commenters all expressed the opinion that the Phase 1 documents for the project site did not provide an accurate assessment of current soil conditions. The many Phase 1 reports done on many parcels throughout the WLC property and over a long period of time constitute an extensive random sampling of the on-site soils, and demonstrate the site does not contain widespread soil contamination from pesticides. Dry farming does not use a variety of agricultural chemicals because it relies on ambient rainfall and other conditions to support the limited crops grown on the site. Many of the organo-chloro-phosphate (OCP) based chemicals used for more intensive irrigated crops are not used in dry farming due to their cost and lack of irrigation to distribute the chemicals. In addition, the chemicals used in dry farming typically break down quickly in the soil and are not broadcast but rather

applied by hand sprayers, so any applications would be necessarily limited. There is no practical reason why intense crop herbicides or pesticides like DDT would be used in conjunction with dry farming in general, and there is no evidence such chemicals were used on the WLC site in the past. In fact, onsite soil sampling conducted for the Phase 1 reports found no evidence of significant OCP contamination on the WLC site. The chicken ranch and related facilities that were on the site for a time are in the process of being removed, including any surficial materials with waste products. There has been no empirical evidence presented that would demonstrate there is actual contamination by agricultural chemicals or wastes on the WLC site.

According to records from the State Department of Toxic Substances Control (DTSC), dry farmed agricultural properties of the WLC project site have had pesticides like 2,4-Dichlorophenoxyacetic acid, commonly called 2, 4, D applied in the past. 2, 4 D is the 3rd most common herbicide used in the US and can be purchased at retailers like Home Depot and Lowes. 2,4 D has a half-life of a few days to two weeks, depending on site conditions (available water, sun etc.). Within a few months after application, the residual amount of pesticide is less than 1 percent. Dry farming operations, and any pesticide application, will have ceased well before the actual grading of the site, and any current pesticide application, will have biodegraded to less than significant levels. 2,4 D was the most common pesticide applied to the site, often combined with Agri-Dex (as indicated in the DTSC records) which is used as a wetting agent to increase absorption of the 2, 4 D. The DTSC records indicate these chemicals were applied to grapes on the site, but there are no areas of cultivated grapes at present on the WLC site. It is possible some of these materials were used on the rural residences on the site, however the 2, 4 D and Agri-Dex were by far the most common chemical used on the site by weight in 2010, which accounted for almost a thousand pounds of chemical applied. Other chemicals applied to properties within the WLC site during that time include pyrethrins, spinosad, beta-cyfluthrin, sulfur, “Roundup” (glyphosate), “scythe, and rimsuffuron mainly as herbicides and fungicides, but less than one pound of each of these materials was typically applied at a given time, so the overall potential exposure is considered to be relatively minor at present. Therefore, there is no evidence there will be adverse environmental impacts on adjacent property owners or WLC site workers from past pesticide applications at the site, including 2, 4 D. However, to err on the side of caution, Mitigation Measure 4.8.6.1A has been modified to include soil sampling for agricultural chemicals prior to grading of the 7 rural residential lots where it is possible more chemical materials were applied in more concentrated locations than broadcast on large wheat fields.

The Phase I ESAs noted some illegal dumping of trash and debris, including paints, tires and trash, which has occurred on and around the project area. Most of the trash and debris observed appeared to be suitable for disposal in a Class Ill municipal landfill. Prior to development, all containers of hazardous materials and waste will need to be lawfully transported off site for disposal or recycling by a licensed hazardous waste transporter.

Former aboveground and belowground fuel storage tanks associated with the former chicken ranch were removed. Hydrocarbon-affected soil associated with the aboveground storage tanks (ASTs) and other chicken ranch operations were removed during demolition activities at the site. During the demolition activities, hazardous waste in 55-gallon drums and smaller, and hydrocarbon-affected soil were removed and transported off site by a licensed hazardous waste hauler for proper disposal.

Given that some of the residential and rural farming-related structures date back to the 1930s and 1940s, it is likely that some of them contain asbestos and lead-based paint. Therefore, it is recommended that the demolition of the structures at the site be performed in accordance with all applicable regulations for the handling of such materials.

The Phase I ESAs revealed no evidence of recognized environmental conditions indicative of releases or threatened releases of hazardous substances on, at, in, or to the WLC project area. A recognized environmental condition is defined as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a

past release, or a material threat of a release of any hazardous substance or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property.

Several natural gas pipelines (16-inch to 36-inch diameter) cross the site (see also Section 4.16, *Utilities and Service Systems*). At present, the San Diego Gas and Electric Company (SDG&E) company and the Southern California Gas Company (SCGC) maintain these natural gas pipelines under medium and high pressure across the central and southern portions of the site. None of the rural residences on site is located adjacent to any of these existing regional gas lines.

4.8.1.2 Surrounding Area

Major access to the project area is from State Route 60, Redlands Boulevard, Alessandro Boulevard, Gilman Springs Road, and Theodore Street. Redlands Boulevard, Theodore Street, and Gilman Springs Road are north-south roadways that intersect with SR-60.

There is little development adjacent to the eastern and southern boundaries of the project area. The area to the east of the project area is commonly referred to as the Badlands, a rugged area that separates the City of Moreno Valley from San Timoteo Canyon and the City of Beaumont. Due to its steep slopes and canyons, the Badlands area has experienced little development; however, there are approximately ten single-family homes in the area east of Gillman Springs Road adjacent to the project site. The Badlands Sanitary Landfill, operated by the County of Riverside Waste Management Department, is located approximately 1.5 miles northeast of the WLC project area. The area south of the project area is known as the San Jacinto Wildlife Area (SJWA), which includes an “Upland Game Hunting Area”. The SJWA is owned and operated by the California Department of Fish and Wildlife (CDFW) and contains approximately 20,000 acres of restored wetlands and ponds. Hunting is allowed, with the proper state hunting license. Depending on the time of year, hunting in this area includes jackrabbits, rabbits, waterfowl as well as pheasants, chukar, and quail. The SJWA is accessed from Davis Road, off of Ramona Expressway. In addition to the hunting allowed at the SJWA, there are private hunting clubs that abut the SJWA, including the Mystic Lake Duck Club and the Four Winds Pheasant Club.

The Lake Perris State Recreation Area is immediately southwest of the project site and is owned and operated by the California State Parks Department. It contains approximately 6,000 acres of open space land, which is used both for recreation and preservation of the natural southern California landscape.

A large logistics facility (1.8 million-square foot Skechers facility) is located northwest of the project area. Other developed properties include residential neighborhoods along Redlands Boulevard along the western boundary of the project area. An area of the City known as Old Moreno is adjacent to the southwest portion of the project site (at the intersection of Redlands Boulevard and Alessandro Boulevard). The homes along Merwin Street and Bay Street and east of Redlands Boulevard are the closest sensitive receptors to the project site.

There are two future commercial sites located immediately north of the project area. One is located at the northwest corner of Theodore Street and Eucalyptus Avenue (approved for 80,000 square feet), and the other is at the northeast corner of Redlands Boulevard and Eucalyptus Avenue (approved for 120,000 square feet). The nearest large-scale commercial development is located on the south side of SR-60 at Moreno Beach Drive, approximately 1.25 miles to the west of the proposed project. This shopping complex includes Walmart and Target along with restaurants and ancillary commercial and service uses, as well as the Moreno Valley Auto Center. The central core of Moreno Valley, which includes other residential neighborhoods and commercial activity, is located approximately three miles west of the project area.

There are no airports in the vicinity of the project area. The nearest airport is March Air Reserve Base (MARB) located approximately seven miles southwesterly of the project area. The MARB is under the authority of the March Joint Powers Authority (MJPA), which acts as the land use authority, in addition to the Redevelopment Agency as well as the March Inland Port Airport Authority are involved in the reuse of the former March Air Force Base. The March Air Field is a joint-use airport, used both for military and civilian purposes. March Inland Port (MIP)[1] is the civilian portion of the airport. The proposed project area is not located within the Airport Influence Area.

There are no existing school facilities within one-quarter of a mile of the project area. Calvary Chapel Christian School is the closest existing school, located approximately 1.17 miles northwest of the project area, north of SR-60. There is a site for a proposed public elementary school, Wilmot Elementary School, located approximately one-quarter of a mile from the project area located on Bay Avenue at Wilmot Street. A Preliminary Environmental Assessment Report (PEA) was prepared for the proposed elementary school site in July 2007.

4.8.1.3 NOP/Scoping Comments

Several residents commented during the NOP period that there are major natural gas facilities located on the WLCSP project site, and were concerned about safety during construction, relocation, and operation of the pipelines. During the scoping meeting, a conservation group representative encouraged the City to look at freeway accident data involving trucks and expressed concern that accidents on the freeway would cause truck drivers to divert off the freeway and onto local streets in Moreno Valley. The WLC project biology report also warned of risks to new project buildings and employees from errant gunfire from the Mystic Lake area (i.e., hunting clubs) (MBA 2013). Several residents also commented that there are major natural gas facilities and pipelines located on the WLCSP project site. These comments are addressed in the following analysis of potential hazards.

4.8.2 Existing Policies and Regulations

4.8.2.1 Federal Regulations

Comprehensive Environmental Response, Compensation, and Liability Act. Discovery of environmental health damage from disposal sites prompted the U.S. Congress to pass the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund). The purpose of the CERCLA is to identify and clean up chemically contaminated sites that pose a significant environmental health threat. The Hazard Ranking System is used to determine whether a site should be placed on the National Priorities List for cleanup activities.

Superfund Amendments and Reauthorization Act. The Superfund Amendments and Reauthorization Act (SARA) pertain primarily to emergency management of accidental releases. It requires formation of State and local emergency planning committees, which are responsible for collecting, material handling, and transportation data for use as a basis for planning. Chemical inventory data are made available to the community at large under the “right-to-know” provision of the law. In addition, SARA also requires annual reporting of continuous emissions and accidental releases of specified compounds. These annual submissions are compiled into a nationwide Toxics Release Inventory (TRI).

Resource Conservation and Recovery Act. The Resource Conservation and Recovery Act (RCRA) Subtitle C addresses hazardous waste generation, handling, transportation, storage, treatment, and

[1] March Inland Port was previously called March Air Reserve Base.

disposal. It includes requirements for a system that uses hazardous waste manifests to track the movement of waste from its site of generation to its ultimate disposition. The 1984 amendments to the RCRA created a national priority for waste minimization. Subtitle D establishes national minimum requirements for solid waste disposal sites and practices. It requires states to develop plans for the management of wastes within their jurisdictions. Subtitle I requires monitoring and containment systems for underground storage tanks that hold hazardous materials. Owners of tanks must demonstrate financial assurance for the cleanup of a potential leaking tank.

Hazardous Materials Transportation Act. The Hazardous Materials Transportation Act is the statutory basis for the extensive body of regulations aimed at ensuring the safe transport of hazardous materials on water, rail, highways, in the sky, or in pipelines. It includes provisions for materials classification, packaging, marking, labeling, placarding, and shipping documentation.

4.8.2.2 State Regulations

California Code of Regulations. Most State and Federal regulations and requirements that apply to generators of hazardous waste are spelled out in the California Code of Regulations (CCR), Title 22, Division 4.5. Title 22 contains the detailed compliance requirements for hazardous waste generators, transporters, treatment, storage, and disposal facilities. Because California is a fully authorized State according to RCRA, most RCRA regulations (those contained in 40 Code of Federal Regulations [CFR] 260, et seq.) have been duplicated and integrated into Title 22. However, because the Department of Toxic Substance Control (DTSC) regulates hazardous waste more stringently than the U.S. EPA, the integration of California and Federal hazardous waste regulations that make up Title 22 do not contain as many exemptions or exclusions as does 40 CFR 260. As with the California Health and Safety Code, Title 22 also regulates a wider range of waste types and waste management activities than do the RCRA regulations in 40 CFR 260. To aid the regulated community, California compiled the hazardous materials, waste and toxics-related regulations contained in CCR, Titles 3, 8, 13, 17, 19, 22, 23, 24, and 27 into one consolidated CCR, Title 26 “Toxics.” However, the California hazardous waste regulations are still commonly referred to as Title 22. For the purposes of clarity, because of the extensive reach of Title 22 and Title 26, many common household products sold in grocery stores and home improvement warehouses qualify as hazardous materials. These items include household cleaners, detergents, paint, motor oil, lubricants, glues, pesticides, etc. The term “hazardous materials” is also defined to include many on site materials as well, such as lubricants, fuel, etc. Thus, when this section of the EIR discusses the transport and storage of “hazardous materials,” it is referring to the potential transport of bulk products to the project locations and to the temporary storage of such materials at the project sites prior to re-package and transport to subsequent destinations.

Cortese List: Section 65962.5(a). Government Code Section 65962.5 requires the California Environmental Protection Agency (CalEPA) to develop at least annually an updated Hazardous Waste and Substances Sites list (Cortese List). The Cortese List is a planning document used by the State, local agencies, and developers to comply with CEQA requirements in providing information about the location of hazardous materials release sites. Release sites include or hazardous materials release sites may include the following:

- All hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code.
- All land designated as hazardous waste property or border zone property pursuant to Article 11 (commencing with Section 25220) of Chapter 6.5 of Division 20 of the Health and Safety Code.

- All information received by the Department of Toxic Substances Control pursuant to Section 25242 of the Health and Safety Code on hazardous waste disposals on public land.
- All sites listed pursuant to Section 25356 of the Health and Safety Code.
- All sites included in the Abandoned Site Assessment Program.

The California DTSC is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List.

The California Hazardous Material Management Act. The Hazardous Materials Management Act (HMMA) requires that businesses handling or storing certain amounts of hazardous materials prepare a Hazardous Materials Business Emergency Plan (HMBEP), which includes an inventory of hazardous materials stored on site (above specified quantities), an emergency response plan, and an employee training program. An HMBEP is a written set of procedures and information created to help minimize the effects and extent of a release or threatened release of a hazardous material. The intent of the HMBEP is to satisfy Federal and State Community Right-to-Know laws and to provide detailed information for use by emergency responders.

Per the California Health and Safety Code (HSC), Chapter 6.95, Section 25500–25532, an HMBEP must be submitted by any business that handles a hazardous material or a mixture containing a hazardous material in quantities equal to, or greater than:

- A total weight of 500 pounds or a total volume of 55 gallons;
- 200 cubic feet of a compressed gas at standard temperature and pressure; and/or
- A radioactive material handled in quantities for which an emergency plan is required pursuant to Parts 30, 40, or 70 of Chapter 10, Title 10, CFR, or equal to or greater than the amounts specified above, whichever amount is less.

An HMBEP must be prepared prior to facility operation. Any business subject to HMBEP requirements shall submit an amendment of its HMBEP to the local implementing agency when there is:

- A 100 percent or more increase in the quantity of a previously disclosed hazardous material;
- Any handling of a previously undisclosed hazardous material subject to the inventory requirements;
- Change of business address;
- Change of ownership;
- Change of business name; and/or
- Change of contact information.

In addition, any business subject to HMBEP requirements is also required to certify the inventory of hazardous materials handled at the business every year. Businesses are also required to review their HMBEP at least once every three years to determine if a revision is necessary. Once the review has been conducted, the business must certify in writing to the local implementing agency that a review has been completed and necessary changes were made. For businesses within the City of Moreno Valley, HMBEPs are submitted to and approved by the County of Riverside Community Health Agency, Department of Environmental Health.

The California Hazardous Waste Control Law. The Hazardous Waste Control Law (HWCL) is the primary hazardous waste statute in the State of California. The HWCL requires a hazardous waste generator, which stores or accumulates hazardous waste for periods greater than 90 days at an on-site facility or for periods greater than 144 hours at an off-site or transfer facility, which treats, or transports hazardous waste, to obtain a permit to conduct such activities. The HWCL implements RCRA as a "cradle-to-grave" waste management system in the State of California. HWCL specifies that generators have the primary duty to determine whether their wastes are hazardous and to ensure their proper management. The HWCL also establishes criteria for the reuse and recycling of hazardous wastes used or reused as raw materials. The HWCL exceeds Federal requirements by mandating source reduction planning and a much broader requirement for permitting facilities that treat hazardous waste. It also regulates the number of types of wastes and waste management activities that are not covered by federal law with RCRA.

State Aeronautics Act (Public Utilities Code Section 21670, et seq.). The Public Utilities Code (PUC) establishes the requirement for the creation of airport land use commissions for every county in which there is located an airport that is served by a scheduled airline. Additionally, these sections of the Code mandate the preparation of Comprehensive Land Use Plans (CLUP) to provide for the orderly growth of each public airport and the area surrounding the airport. The purpose of CLUPs includes the protection of the general welfare of inhabitants within the vicinity of the airport and the general public.

California Emergency Services Act. Government Code 8550–8692 provides for the assignment of functions to be performed by various agencies during an emergency so that the most effective use may be made of all manpower, resources, and facilities for dealing with any emergency that may occur. The coordination of all emergency services is recognized by the State to mitigate the effects of natural, man-made, or war-caused emergencies which result in conditions of disaster or extreme peril to life, property, and the resources of the State, and generally, to protect the health and safety and preserve the lives and property of the people of the State.

State Fire Plan. The State Board of Forestry and the California Department of Forestry and Fire Protection have drafted a comprehensive update of the State Fire Plan for wildland fire protection in California. The planning process defines a level of service measurement, considers assets at risk, incorporates the cooperative interdependent relationships of wildland fire protection providers, provides for public stakeholder involvement, and creates a fiscal framework for policy analysis.

4.8.2.3 County of Riverside Regulations

Riverside County Department of Community Health. The Department of Environmental Health (DEH) of the Riverside County Community Health Agency is responsible for regulation the operations of businesses and institutions that handle hazardous materials or generate hazardous wastes in the City of Moreno Valley.[1] As part of the State-mandated Certified Unified Programs administered by the CalEPA, the DEH coordinates regulatory and enforcement of the following programs: Household Hazardous Waste, Hazardous Waste Minimization, Underground Storage Tanks (USTs), Hazardous Waste Generator Permits, and Hazardous Materials Handlers Program.

Riverside County Airport Land Use Plan. The Riverside County Airport Land Use Commission (ALUC) assists local agencies by ensuring the development of compatible land uses in the vicinity of

[1] *Section 5.5 Hazards,* Moreno Valley General Plan, Final Program EIR, July 2006.

existing airports. The ALUC adopted the Airport Land Use Plan (ALUP) for MIP on April 26, 1984. A new ALUC is currently in the process of updating the 1984 ALUP for MIP;[1] however, the portion of this document that pertains to MARB is not available for public review at this time. The ALUP specifies land use restrictions for areas falling within an airport's Influence Area boundaries.

2005 Air Installation Compatible Use Zone (AICUZ) Study. March Air Field is a joint-use airport, used for both military and civilian (MIP) purposes. The airport is owned and regulated by the military. Military installations prepare AICUZ studies to protect vicinity land uses from hazard and noise impacts associated with military airports. The Air Force Reserve (AFRES) completed a new AICUZ for March Air Field in 2005. The AICUZ delineates the clear zones and accident potential zones for the joint use airfield, as well as the noise contours based upon the project flight operations and use of the aviation field. The noise contours include both military and civilian use, as projected in the Federal Aviation Administration (FAA) conformity determination.

4.8.2.4 City of Moreno Valley

General Plan Policies. The Safety Element and the Land Use Element of the General Plan define the following issues and opportunities related to hazards that are relevant to the proposed project:

- **Safety Element**
  - **Issues and Opportunities Section 6.2.8:** Acknowledge natural topography, terrain, volatile fuel types, and local climatic conditions that have resulted in large and damaging wildfires, particularly when the Santa Ana winds blow, increasing the potential for wildland fires. Consider these factors during the planning phases of devolvement and include mitigation measures to reduce potential life safety and other consequences of these types of fires.
  - **Issues and Opportunities Section 6.2.10:** Require the use of automatic sprinkler systems in new and existing structures to control future demand for fire protection services, and to reduce fire losses. Continue annual fire inspections of all occupancies by the Fire Prevention Bureau to reduce the potential for fire code violations and to inspect sprinkler systems.
  - **Issues and Opportunities Section 6.2.13:** Emphasize planning, training, disaster drills and public education and awareness programs to prepare for emergency and disaster response.
  - **Issues and Opportunities Section 6.9.2:** The City has the ability to establish land use patterns that minimize the hazards associated with the use, storage and transport of hazardous materials. The Household Hazardous Waste Element and the Hazardous Waste Management Plan for the City of Moreno Valley contains programs on the reduction of hazardous waste and criteria for the siting of hazardous waste facilities. These plans should be updated from time to time to reflect changing conditions.
- **Land Use Element**
  - **Issues and Opportunities Section 2.8.2:** Fees will need to be collected in conjunction with new development to ensure that new development pays its fair share toward the future expansion of City facilities.

NOTE: The following changes have been made in response to Comment F-13-32 in Letter F-13 from Johnson & Sedlack on Behalf of Sierra Club, Moreno Valley Group & Residents for a Livable Moreno Valley.

[1] Riverside County Airport Land Use Commission New Compatibility Plans, http://www.rcaluc.org/plan_new.asp, website accessed April 23, 2012.

- **Safety Element Goal**

  Goal 6.1 To achieve acceptable levels of protection from natural and man-made hazards to life, health, and property

Local Hazard Mitigation Plan. The City of Moreno Valley prepared a Local Hazard Mitigation Plan (LHMP) to develop an understanding of the natural and man-made hazards to the City and to determine ways to reduce those risks, prioritize and implement mitigation strategies.

4.8.3 Methodology

Evaluation of hazards and hazardous material impacts associated with the proposed project included a focus on the use, generation, management, transport, and disposal of hazardous or potentially hazardous materials on the project site. Phase I ESAs were prepared to document existing site conditions involving the presence or absence of hazardous materials that may have been deposited through previous land uses. In addition, the City of Moreno Valley's LHMP was consulted to identify existing known hazards that may affect the project area. For airport hazards, the County of Riverside ALUC was consulted to determine if the proposed WLC project would increase air hazards. In determining the level of significance, the analysis assumes that construction and operation of the proposed project would be in compliance with relevant local, State, and Federal laws and regulations pertaining to the use, storage, and disposal of hazardous materials.

4.8.4 Thresholds of Significance

Based on Appendix G of the *CEQA Guidelines*, the proposed WLC project would result in a significant adverse impact with regard to hazards if it were to:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
- For a project located within an airport land use plan or where such a plan has not been adopted within two miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area;
- For a project located within the vicinity of a private airstrip, result in a safety hazard for people working in the project area;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation; and/or
- Result in the exposure of people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

4.8.5 Less than Significant Impacts

In each of the following issues, either no impact would occur (therefore, no mitigation would be required) or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level.

4.8.5.1 Within Two Miles of a Private Airport or Within an Airport Land Use Plan or Within Two Miles of a Public Airport

Threshold	For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the proposed project area? Would the project be located within an airport land use plan or where such a plan has not been adopted within two miles of a public airport or public use airport, resulting in a safety hazard for people residing or working in the project area?

The nearest airport to the project area is MARB, approximately 7 miles to the southwest. The airfield is operated by two entities, March Air Reserve Base (military) and March Inland Port Airport Authority (quasi-governmental/private). In addition, Perris Valley Airport is located approximate 15 miles southwest of the project area. Perris Valley Airport is a private airport that is open to the public, and is utilized for skydiving and ballooning activities. The WLC project area is not located within the Airport Influence Area for either airport. Given the distance of the WLC project area to both airports in the vicinity, the development of the WLC project area as proposed would not result in private airport safety hazards for people working in the WLC project area. No impacts associated with this issue would occur and no mitigation is required.

4.8.5.2 Existing or Proposed School

Threshold	Would the proposed project emit hazardous emissions or handle acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

There are no existing school facilities within one-quarter of a mile of the project area. The nearest existing school is Calvary Chapel Christian School which is located approximately 1.17 miles northwest of the project. There is one proposed elementary school site that is located within one-quarter mile of the WLC project area. The site for proposed Wilmot Elementary School is located on Bay Avenue at Wilmot Street, approximately 0.25 mile west of the project area. A PEA was prepared for the proposed elementary school in 2007; however, there has been no further discussion by the Moreno Valley Unified School District (MVUSD) since then.[1] The City does not have jurisdiction with respect to the location, design, or construction of school facilities. The City works with each school district concerning the design of roads and other public improvements in and around school sites. The City also notifies any school district of development proposals that might affect school facilities.[2]

The amount and type of materials that would be used during project construction (building and infrastructure) or stored in the high-cube logistics distribution center after construction is unknown at this time. The emission of air pollutants is discussed in the Air Quality Section of the EIR. While the warehouse facilities themselves are not expected to utilize acutely hazardous materials, the possibility exists that such materials could be stored or transported to and from the project site. For the purposes of this analysis, it is assumed that the project will handle substances that may be acutely hazardous. The handling of hazardous materials or emission of hazardous substances in

[1] Moreno Valley Unified School District, Minutes for Regular Meeting of the Board of Education, July 17, 2007.
[2] City of Moreno Valley General Plan, Land Use Element, Section 2.5.0.

accordance with the Hazardous Materials Business Emergency Plan (HMBEP) as required by applicable local, State, and Federal standards, ordinances, and regulations will ensure that impacts associated with environmental and health hazards related to an accidental release of hazardous materials or emissions of hazardous substance near existing or proposed schools are less than significant and no mitigation is required.

4.8.5.3 Routine Transport, Use, or Disposal of Hazardous Materials and Reasonable Foreseeable Upset and Accident Conditions

Threshold	Would the proposed project create a significant hazard to the public through the routine transport, use, or disposal of hazardous materials? Would the proposed project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident?

The proposed project area includes the development of 40.6 million square feet of high-cube logistics warehouse space. These warehouses would be used primarily for the storage and/or consolidation of manufactured goods, with minimal assembly and no manufacturing activities, prior to their distribution to secondary retail outlets.

Truck-Related Risks. Truck activities would frequently occur during off-peak hours. Deliveries to the project area would come from the Ports of Long Beach and Los Angeles as well as from other locations. Goods sorted for re-distribution would then be delivered via truck to both in and out of state locations. The exact tenants of the warehouse buildings are unknown at this time and will likely change over time so there is the potential that hazardous materials such as petroleum products, pesticides, fertilizer, and other household hazardous products such as paint products, solvents, and cleaning products may be stored and transported in conjunction with the proposed warehouse uses. These hazardous materials would only be stored and transported to and from the site. Manufacturing and other chemical processing will not be permitted under the provisions of the Specific Plan. Exposure to hazardous materials during the operation of the proposed on-site uses may result from (1) the improper handling or use of hazardous substances; (2) transportation accidents; or (3) an unforeseen event (e.g., fire, flood, or earthquake). The severity of any such exposure is dependent upon the type and amount of the hazardous material involved; the timing, location, and nature of the event; and the sensitivity of the individual or environment affected.

The City of Moreno Valley has no direct authority to regulate the transport of hazardous materials on State highways.[1] This activity is governed by the United States Department of Transportation (USDOT), as described in Title 49 of the Code of Federal Regulations[2] and by Title 13 of the California Code of Regulations. The State Office of Hazardous Materials Safety enforces regulations for the safe transportation of hazardous materials. It is possible that vendors may bring hazardous materials to and from the project site. Appropriate documentation for all hazardous waste that is transported in connection with project site activities would be provided as required by hazardous materials regulations. Hazardous waste produced on site is subject to requirements associated with accumulation time limits, proper storage locations and containers, and proper labeling. Additionally, for removal of hazardous waste from the site, hazardous waste generators are required to use a certified hazardous waste transportation company, which must ship hazardous waste to a permitted facility for treatment, storage, recycling, or disposal. Compliance with applicable regulations would reduce impacts associated with the use, transport, storage, and sale of hazardous materials. For

[1] Moreno Valley General Plan, Safety Element, 6.9.1
[2] Code of Federal Regulations, Title 49—Transportation, Pipeline and Hazardous Materials Safety Administration, Department of Transportation, http://ecfr.gpoaccess.gov/cgi/t/text/text idx?c=ecfr&tpl=/ecfrbrowse/Title49/49tab_02.tpl, site accessed April 23, 2012.

example, the California Hazardous Materials Management Act requires that businesses handling or storing certain amounts of hazardous materials prepare a Hazardous Materials Business Emergency Plan, which includes an inventory of hazardous materials stored on site (above specified quantities), an emergency response plan, and an employee training program.

The enforcement of applicable local, State, and Federal standards, ordinances, and regulations will ensure that potential impacts associated with environmental and health hazards related to an accidental release of hazardous materials are less than significant and no mitigation is required.

Freeway Accident Risks. The following information is provided in response to NOP/Scoping comments regarding freeway accidents. According to the California Department of Transportation's Traffic Accident Surveillance and Analysis System (TASAS) report, there are approximately 105 accidents per year along a 3.75-mile stretch of SR-60 between Nason Street and Gilman Springs Road in the general vicinity of the project area. The data were derived for the three-year span of January 1, 2008, to December 31, 2010[1]. During this period, there were 316 accidents (average of 105 per year) along SR-60 (both westbound and eastbound). Of the 316 accidents, approximately 15.8 percent involved trucks (tractor/trailer). There were 127 eastbound accidents (19 or 15% involving trucks) and 189 westbound accidents (31 or 16.4% involving trucks). It is possible that congestion on the freeway might result in some WLCSP-related trucks exiting the freeway at off-ramps other than Theodore Street, or attempting to enter the freeway at on-ramps if the drivers see or hear on their radios that the freeway is congested. In most instances, drivers will use the shortest route indicated on GPS system maps or the route(s) they have used previously, regardless of traffic conditions at the time. In addition, due to the type of uses planned within the WLCSP, much of the project-related traffic will be accessing the WLC site during off-peak times, so the changes of congestion or accidents occurring during the time they are accessing the site would be reduced. The accident database contains no information on whether the truck was the cause of a particular accident or the time of day, the vehicles involved, if hazmat spills occurred, if trucks or other vehicles detoured off the freeway, etc. Without these data, it is overly speculative to extrapolate any particular conclusions. Despite the lack of specific evidence regarding freeway accidents, it is reasonable to conclude that potential environmental impacts in this regard will be less than significant given the regulation of truck traffic on freeways according to State and Federal laws, and truck restrictions on local streets according to City municipal code (i.e., truck route enforcement) and no mitigation is necessary.

Land Use-Related Hazmat Risks. Both the Federal Government and the State of California require all businesses that handle more than a specified amount of hazardous materials or extremely hazardous materials, to submit an HMBEP to the local Certified Unified Program Agency (CUPA). The CUPA with responsibility for the City of Moreno Valley is the County of Riverside Community Health Agency, Department of Environmental Health.[2] The HMBEP must include an inventory of the hazardous materials used in the facility, and emergency response plans and procedures to be used in the event of a significant or threatened significant release of a hazardous material. The HMBEP must also include the Material Safety Data Sheet for each hazardous and potentially hazardous substance used. The Material Safety Data Sheets summarize the physical and chemical properties of the substances and their health impacts. The plan also requires immediate notification to all appropriate agencies and personnel of a release, identification of local emergency medical assistance appropriate for potential accident scenarios, contact information of all company emergency coordinators of the business, a listing and location of emergency equipment at the business, an evacuation plan, and a training program for business personnel.

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1 California Department of Transportation, TSAR – Accident Summary 1/1/08-12/31/10.
2 *CUPA Directory Search,* http://www.calepa.ca.gov/CUPA/Directory/default.aspx, website accessed April 24, 2012.

HMBEPs are designed to be used by responding agencies, such as the Moreno Valley Fire Department, to allow for a quick and accurate evaluation of each situation for an appropriate response. HMBEPs are also used during a fire to quickly assess the types of chemical hazards that firefighting personnel may have to deal with, and to make decisions as to whether or not the surrounding areas need to be evacuated. Compliance with existing law will ensure that no significant impacts pertaining to the creation of hazards affecting the public will occur. The handling of hazardous materials in accordance with the HMBEP as required by applicable local, State, and Federal standards, ordinances, and regulations will ensure that impacts associated with environmental and health hazards related to an accidental release of hazardous materials are less than significant and no mitigation is required.

The Moreno Valley Fire Department will likely be first responders in the event of the release of hazard materials. The City of Moreno Valley contracts with the Riverside County Fire Department for fire services. The Riverside County Fire Department is administered and operated by the California Department of Forestry and Fire Protection (CalFire) per an agreement with the County of Riverside. The Fire Department has indicated it will need one or more fire stations in the area, and the project will mitigate impacts in this regard to less than significant levels (see Section 4.14, *Public Services and Facilities*).

Though the uses in the project area are not expected to utilize acutely hazardous materials in their daily operation, a potential for an accidental release of hazardous materials into the environment is present at the project site as it is at any commercial, retail, or industrial site. Compliance with the identified State and Federal transportation safety standards will govern the handling of hazardous materials during truck and freight transfer operations. These standards include procedures to contain, report, and remediate any accidental spill or release of hazardous materials. The handling of hazardous materials in accordance with all applicable local, State, and Federal standards, ordinances, and regulations will ensure that impacts associated with environmental and health hazards related to an accidental release of hazardous materials at the project site will be less than significant and no mitigation is required.

Hazardous On-site Facilities. The project site contains a regional natural gas compressor station operated by SDG&E. The Moreno Compressor Plant has been in operation for many years in the southeastern portion of the project area (see Section 4.16, *Utilities and Service Systems* and Section 4.5, *Biological Resources*). At present, the plant occupies a 19-acre site, surrounded by 174 acres of SDG&E-owned open space. There is additional open space around the plant, consisting of land owned by the CDFW as part of the SJWA. There are no plans to expand or otherwise modify the plant and/or its open space zone, which is considered adequate at this time to protect public health and safety, including users of the SJWA and new employees and users of the new warehouses associated with the WLCSP.

There will be sufficient setback from the plant to future warehouse uses (e.g., 1,000 feet). No development or change in operation has been announced for the property within the SJWA. Existing safety conditions will continue relative to the gas facility as it relates to the SJWA. Compliance with established safety laws and regulations regarding the natural gas facilities will reduce the potential impact to a less than significant level and no mitigation is required.

SCGC operates a natural gas metering station on a one-acre site located one-quarter mile north of the Moreno Compressor Plant. The land plan will provide 1,000 feet setback from the SCGC station as an additional setback between these uses. These setbacks appear sufficient to protect future uses/users within the WLCSP if upset conditions were to occur at this station. Compliance with established safety laws and regulations regarding natural gas plants is expected to reduce this potential impact to a less than significant level and no mitigation is required.

The site also contains two natural gas lines that cross the central and southern portions of the site in an east-west direction (Figure 3.17). They range in size from 16 to 36 inches in diameter and carry natural gas under medium and high pressure. The high pressure lines are managed by SDG&E while the moderate pressure lines are managed by SCGC. The utility companies that own and/or maintain these pipelines are responsible for the physical conditions of the pipelines. As development occurs in areas with buried natural gas lines, the project proponent will be required to negotiate with the involved utility provider as to whether these pipelines can be relocated or need to be protected in place. Future development is required to maintain clearance for pipelines depending on their contents and size, in consultation with the serving utility provider. As long as these design restrictions are implemented during the site design and construction process, no significant impacts are expected. However, if a catastrophic accident were to occur involving one or more natural gas lines on site, there could be property damage and loss of life. While the chance of occurrence is low, there are potential safety risks, mainly to project employees, if such an accident were to occur. Compliance with established safety laws and regulations regarding pipelines is expected to reduce this potential impact to a less than significant level and no mitigation is required.

Off-site Improvements. A number of off-site improvements will be needed to serve the project, including three reservoirs, various water, sewer, and drainage improvements within existing rights-of-way, and the SR-60/Theodore Street interchange. None of these facilities is expected to create significant hazards or risks to public health or safety. These facilities will require standard improvement plan approvals through the City of Moreno Valley and/or County of Riverside. Based on these plan reviews, no significant hazard-related impacts are expected and no mitigation is required.

Hunting Accidents. Based on comments received during the NOP/Scoping period, this section explores the possible hazards or risks that could result from stray gunfire from hunters on the adjacent SJWA property as a result of the proposed change in land use from dry-land farming to high-cube logistics warehouses. Immediately south of the project area is the SJWA, where limited hunting is permitted. Hunting in the area is generally pheasant hunting, but also includes waterfowl (such as ducks) as well as jackrabbits, rabbits and quail. Hunting in these areas requires a hunting license issued by the State. The Fish and Game Code provides strict regulations on hunting, including limits on hours, time of year, quantity, and firearms. Hunting on State lands, such as the SJWA, can only be done with shotguns that are smaller in size (higher in gauge) than 10-gauge shotguns. In addition, Federal law allows no more than three shells in the chamber of the shotgun at any given time during hunting. The SJWA is patrolled by CDFW wardens to ensure that all hunting rules and regulations are followed. The private hunt clubs are also governed by similar rules and regulations to ensure the safety of their members and the general public.

Given the proximity of the project area to the nearby hunting areas, it is appropriate to consider the possibility of stray gunfire as a possible risk to future employees, visitors, and facilities on the project site. Accident conditions that could arise from the nearby hunting activities are expected to be less than significant for the following reasons: the most intensive operations at the proposed high-cube logistics center would be during off-peak hours when there is no hunting; the hunting on the adjacent areas to the south of the WLC project area is in accordance with all applicable local, State, and Federal standards and regulations; and the range for the allowed firearms (shotguns smaller than 10-gauge) would be 60 yards or less providing a safe distance for development to occur in the WLC project area, which would be a safe distance from the actual hunting areas. It should also be noted that the Specific Plan provides for a minimum 250-foot setback along the southern boundary of the Specific Plan property, which is greater than the minimum safe distance described above.

Valley Fever. During processing of the Highland Fairview Corporate Park EIR, a local resident expressed concern regarding Valley Fever (*Coccidiomycosis*), a disease caused by fungus spores

(*Coccidioides immitis*). Since the project site is adjacent to the Highland Fairview Corporate Park site, this issue will be addressed in this EIR as well. These fungal spores most typically lie dormant in relatively undisturbed soil with native vegetation cover in the Central Valley of California.

The likelihood of these spores to occur at this site is remote. The soil at the project site is not undisturbed and has little, if any, native vegetation cover. The site consists primarily of disturbed agricultural soils (i.e., regularly tilled and occasionally irrigated) and had virtually no native vegetative cover. The local soils will be extensively disturbed during grading and would be regularly watered to control dust. Erosion control measures will be implemented immediately following grading. Under these conditions, it is unlikely that *Coccidioides immitis* spores would survive in the soil. This potential impact appears minimal and no mitigation is required.

4.8.5.4 Located on a List of Hazardous Materials Sites

Threshold	Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?

As detailed in the *Phase I Environmental Site Assessment Reports*, the project area is not listed in any of the searched regulatory databases provided by Environmental Data Resources (EDR). This included a review of Federal, State, and local environmental databases for information pertaining to documented and/or suspected contaminated sites, known handlers or generators of hazardous waste, waste disposal facilities, releases of regulated hazardous substances and/or petroleum products within specified search distances. Analysis of soil samples obtained during the limited site characterizations conducted as part of the Phase I ESAs, indicated there were trace concentrations of pesticides present in near surface soils at some of the sample locations. However, the pesticide concentrations were below the EPA's Preliminary Remediation Goals, for residential properties. No further sampling was deemed necessary and unrestricted use of the property is warranted. Since neither the project site nor areas in the vicinity of the project site are listed on any of the hazardous materials sites as defined by Government Code Section 65962.5, there would be a less than significant impact and no mitigation is required.

4.8.5.5 Conflict with Emergency Response Plans

Threshold	Would the project impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation?

The City of Moreno Valley adopted its Local Hazard Mitigation Plan (LHMP) on October 4, 2011. This document identifies known hazards throughout the community and identifies strategies for which to prepare for and respond to these hazards if and when it is necessary. Figure 12-2 of the LHMP maps primary and alternative evacuations routes out of Moreno Valley. There are three (3) routes that either run through or along the project area that are identified as primary evacuation routes: Redlands Boulevard, Theodore Street, and Alessandro Boulevard. The proposed project will be designed, constructed, and maintained in accordance with applicable standards associated with vehicular access, ensuring that adequate emergency access and evacuation will be provided. Construction activities that may temporarily restrict vehicular traffic would be required to implement appropriate measures to facilitate the passage of persons and vehicles through/around any required road closures. Compliance with existing regulations for emergency access and evacuation will ensure that impacts related to this issue are less than significant and no mitigation is required.

4.8.5.6 Wildland Fire Risks

Threshold	Expose people or structures to a significant risk or loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

The City of Moreno Valley is subject to both wildland and urban fires. Wildfires in particular pose a threat to the northern and eastern portions of the City, near the WLC project area. Moreno Valley's LHMP documents that three wildland fires have occurred within the WLC project area since 2003. Although the project area is not within a mapped fire hazard area, the Badlands directly east of the project area are considered a High Fire Hazard Area.[1] Development of the eastern portion of the project could expose persons or property to wildland fire risks given the proximity of the project area adjacent to a High Fire Hazard Area. Regardless of this proximity, all new structures in the project area must be constructed in compliance with Title 24 of the California Code of Regulations to safeguard life and property from fire hazards, including the installation of automated fire suppression systems. Compliance with these standards would be enforced during building permit review and the construction inspection period. In addition, no development will be allowed within the San Jacinto Fault Zone, which runs parallel and just west of Gilman Springs Road; this area of limited development will provide a fuel or fire break to help protect future occupied uses within the WLCSP.

Six fire stations presently serve the City of Moreno Valley. Station No. 58, the Moreno Beach station, is the closest station to the project area (approximately a quarter of a mile directly west). Given the proximity of Station No. 58 and with all new structures constructed in compliance with Fire and Building Code regulations, the susceptibility and exposure of the project to wildland fires would be limited. **Mitigation Measures 4.14.2.6A** and **4.14.2.6B** in the Public Services and Facilities section will address potential impacts related to future fire protection services for this area. Implementation of these measures will help reduce potential wildland fire risks to a less than significant level, and no additional mitigation is required.

4.8.6 Significant Impacts

4.8.6.1 On-site Conditions Involving Hazardous Materials

Impact 4.8.6.1A: *Demolition of the existing on-site rural residential structures may involve hazardous materials (ACM and LBP) and possibly soil contamination from past agricultural chemical use.*

Impact 4.8.6.1B: *Demolition of the existing on-site rural residential structures may involve hazardous materials (LNG/CNG).*

Threshold	Would the proposed project create a significant hazard to the public through the routine transport, use, or disposal of hazardous materials?

Due to the suspected age of the rural residential structures on the site, it is possible that demolition of these structures may involve asbestos-containing materials (ACMs) and/or lead-based paint (LBP). Demolition of these structures may need to be supervised or conducted by contractors certified to remove and dispose of ACMs and/or LBP.

During the comment period on the DEIR, several commenters suggested there may be soil contamination on the WLC site, and evidence from the State Department of Toxic Substances Control (DTSC) indicates organo-phosphate based herbicide and pesticide materials may have been applied on or near the 7 existing rural residences on the site. Prior to grading, soil testing should be

[1] City of Moreno Valley General Plan, Final Program EIR, Section 5.5 Hazards, Figure 5.5-2.

performed to determine if in fact these areas contain any significant levels of agricultural chemicals in the soil, and, if so, they should be remediated by a licensed contractor.

In addition, the Specific Plan proposes a liquefied natural gas/compressed natural gas (LNG/CNG) fueling station to be constructed on approximately 3,000 square feet somewhere in the eastern portion of the Logistics Development (LD) land use area of the Specific Plan. This LNG/CNG facility is referred to as "logistics support" in the Specific Plan land uses. It would provide natural gas to fuel heavy and light-duty trucks serving the project.

Since this facility would store natural gas under liquefied and compressed conditions, there is a potential for fire and/or explosion involving natural gas. Therefore, this is a potentially significant hazards impact requiring mitigation.

NOTE: The following changes were made based on the revised WLC Specific Plan.

Project or Specific Design Features. It is anticipated that the LNG/CNG fueling facility proposed in the LD zone will be constructed in Planning Area 7, in the northeastern portion of the project area.

The Specific Plan does not provide any design specifications for this facility. Eventually, the seven existing rural residences are developed into some industrial use consistent with the LL designation. Until they are all converted, it is possible the construction of an alternative fueling station in Planning Area 7 could be proximate to one or more rural residences. This is a potentially significant impact requiring mitigation (see Mitigation Measure 4.8.6.1B).

NOTE: The following mitigation measures have been revised in response to Comment F-7B-2 in letter F-7B from Lozeau Drury and Comment F-8-79 in Letter F-8 from Shute, Mihaly & Weinberger.

Mitigation Measures. Implementation of the following measure will ensure there will be no significant impacts from demolition of on-site buildings as a result of hazardous materials:

4.8.6.1A Prior to demolition of any existing structures on the project site, a qualified contractor shall be retained to determine if asbestos-containing materials (ACMs) and/or lead-based paint (LBP) are present. If asbestos-containing materials and/or lead-based paint are present, prior to commencement of demolition, these materials shall be removed and transported to an appropriate landfill by a licensed contractor. In addition, onsite soils shall be tested for contamination by agricultural chemicals. If present, these materials shall be removed and transported to an appropriate landfill by a licensed contractor. This measure shall be implemented to the satisfaction of the Building Division including written documentation of the disposal of any asbestos-containing materials, lead-based paint, or agricultural chemical residue in conformance with all applicable regulations.

The following measure is proposed to help ensure that the LNG/CNG natural gas fueling facility proposed in the "logistics support" area of the Specific Plan is constructed in a safe location to protect public health and safety:

4.8.6.1B Prior to the issuance of any discretionary permits associated with the proposed fueling facility ("logistic support" site in the LD zone), a risk assessment or safety study that identifies the potential public health and safety risks from accidents at the facility (e.g., fire, tank rupture, boiling liquid, or expanding vapor explosion) shall be submitted to the City for review and approval This study shall be prepared to industry standards and demonstrate that the facility will not create any significant public health or safety impacts or risks, to the satisfaction of the City Building and Safety Division and the Fire Prevention Bureau.

4.8.6.1C Prior to grading for any discretionary permits for development in Planning Areas 9-12 adjacent to the natural gas compressor plant, the applicant shall prepare a risk assessment report analyzing safety conditions relative to the existing compressor plant and planned development. The report must be based on appropriate industry standards and identify the potential hazards from the compressor plant (e.g., fire, explosion) and determine that the distance from the plant to the closest planned buildings in Planning Areas 9-12 is sufficient to protect the safety of workers from accidents that could occur (see Final EIR Volume 2 Figure 4.1.6B) at the compressor plant. This measure shall be implemented to the satisfaction of the City Building and Safety Division and the Fire Prevention Bureau.

4.8.6.1D Prior to the issuance of any grading permit, the developer shall inform the City of any existing solid waste materials within the development area. In conjunction with grading activities, all solid waste matter within the development area shall be removed by a licensed contractor and disposed of in an approved landfill. A record of the removal and disposal of any waste materials, in compliance with applicable laws and regulations, shall be submitted to the City prior to the issuance of any building permits.

Level of Impact After Mitigation. With implementation of **Mitigation Measures 4.8.6.1A** through **4.8.6.1D**, impacts associated with potential hazardous materials in existing rural residential structures or from the proposed natural gas fueling facility will be reduced to less than significant levels.

4.8.7 Cumulative Impacts

The cumulative impact analysis considers development of the proposed project in conjunction with other development in the City and this portion of Riverside County. Significant cumulative impacts associated with the routine transport, use, and disposal of hazardous materials would occur as the proposed project would increase the amount of truck traffic in the area as well as the number of trucks potentially transporting hazardous materials. The proposed project, in combination with other projects of a similar nature, has the potential to create a significant cumulative impact related to this issue. Some of these risks are site-specific and localized, such as businesses that handle hazardous materials within their facilities (i.e., on site); these types of hazmat impacts are generally limited to the project site. It is also possible there will be incrementally increased impacts by the transport and disposal of hazardous materials related to warehouse operations on the project site. For example, the substantial increase in trucks in and around the WLC site would incrementally increase the risks of accidents involving truck-related fuels (e.g., fire or explosion).[1] However, the number of trucks containing hazardous materials on the road in a given area at any given time would be difficult if not impossible to calculate, and it would be likewise difficult to estimate the number and/or location of accidental spills and leaks, which, by their nature, are accidental or unplanned occurrences, it would be impossible to predict the specific occurrence of such events on the project site. Despite these uncertainties, it is reasonable to assume that with an increase in vehicles transporting hazardous materials would incrementally increase the potential for accidents on a regional basis.

As anticipated in the City's General Plan, demographic increases, and the availability of vacant property in the City would lead to the new industrial development in the City and surrounding area. While the project-specific hazardous material impacts of individual development projects will be addressed separately in future CEQA documents, anticipated future development will contribute, through increases in population and the number of outlets that transport, or dispose of hazardous materials, to a cumulative increase in risk for hazardous material incidents. Although each project has unique hazardous materials considerations, it is anticipated that future cumulative projects would comply with the local, State, and Federal regulations and requirements as these are required for all

[1] *Statement added in response to Comment F-13-74 in Letter F-13 from the Sierra Club et al.*

development projects. As a result, cumulative impacts associated with hazardous materials would be less than significant.

Cumulative impacts involving wildfires consists of future development adjacent to a High Fire Hazard Area. The risk to each future project is based on the location and interface between urbanized area and wildland areas. The risks associated with development in these area can only be reduced through conformance with Fire and Building Code regulations, it is anticipated that cumulative development within the project area would not create a significant and cumulative impact associated with wildland fire hazards.

4.9 HYDROLOGY AND WATER QUALITY: TABLE OF CONTENTS

FIGURES

TABLES

NOTE TO READERS. *Various small revisions in this section have been made due to changes in the project description, related changes to the Draft Master Plan of Drainage Report, the Preliminary WQMP,[1] and in response to comments B-3-39 Letter B-3 from the California Department of Fish and Wildlife, and Comment B-6-5 from Letter B-6 from the Santa Ana Regional Water Quality Control Board.*

4.9 HYDROLOGY AND WATER QUALITY

This section describes the hydrologic conditions on and adjacent to the project site and evaluates potential impacts to surface and groundwater resources associated with the proposed project.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 30 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.

The analysis contained in this section is based on the following technical studies prepared for the proposed WLC project:

- *Draft Drainage Report for World Logistics Center Specific Plan and Environmental Impact Import,* CH2M HILL, September 2014 (Appendix J-1 of this EIR).
- *Preliminary Project Specific Water Quality Management Plan for World Logistics Center Specific Plan,* CH2M HILL, September 2014 (Appendix J-2 of this EIR).
- *Water Supply Assessment Report for the World Logistics Center Specific Plan in Moreno Valley,* Eastern Municipal Water District, March 21, 2012 (Appendix M-1 of this EIR).

[1] FEIR Volume 2 Appendix J-1 and J-2).

In addition to these project-specific technical studies, the analysis contained in this section is also based on the following reference documents:

- 2012 Water Quality Management Plan – A Guidance Document for the Santa Ana Region of Riverside County.
- 2011 Design Handbook for Low Impact Development Best Management Practices.
- 2009 California Stormwater Quality Association [CASQA] Construction Best Management Practices (BMP) Handbook, effective July 1, 2010.

A detailed discussion of jurisdictional waters and riparian/wetland impacts as it relates to the proposed WLC project is included in Section 4.4 (Biological Resources).

4.9.1 Existing Setting

The proposed project site is located in Rancho Belago in the eastern portion of the City of Moreno Valley in Riverside County. Geologically, the project area is located in the Peninsular Ranges Geomorphic Province of southern California, which extends southeastward from the San Bernardino and San Gabriel Mountains to the tip of the Baja California peninsula and is composed of alluvial deposits resulting from the erosion of nearby granitic mountain ranges.

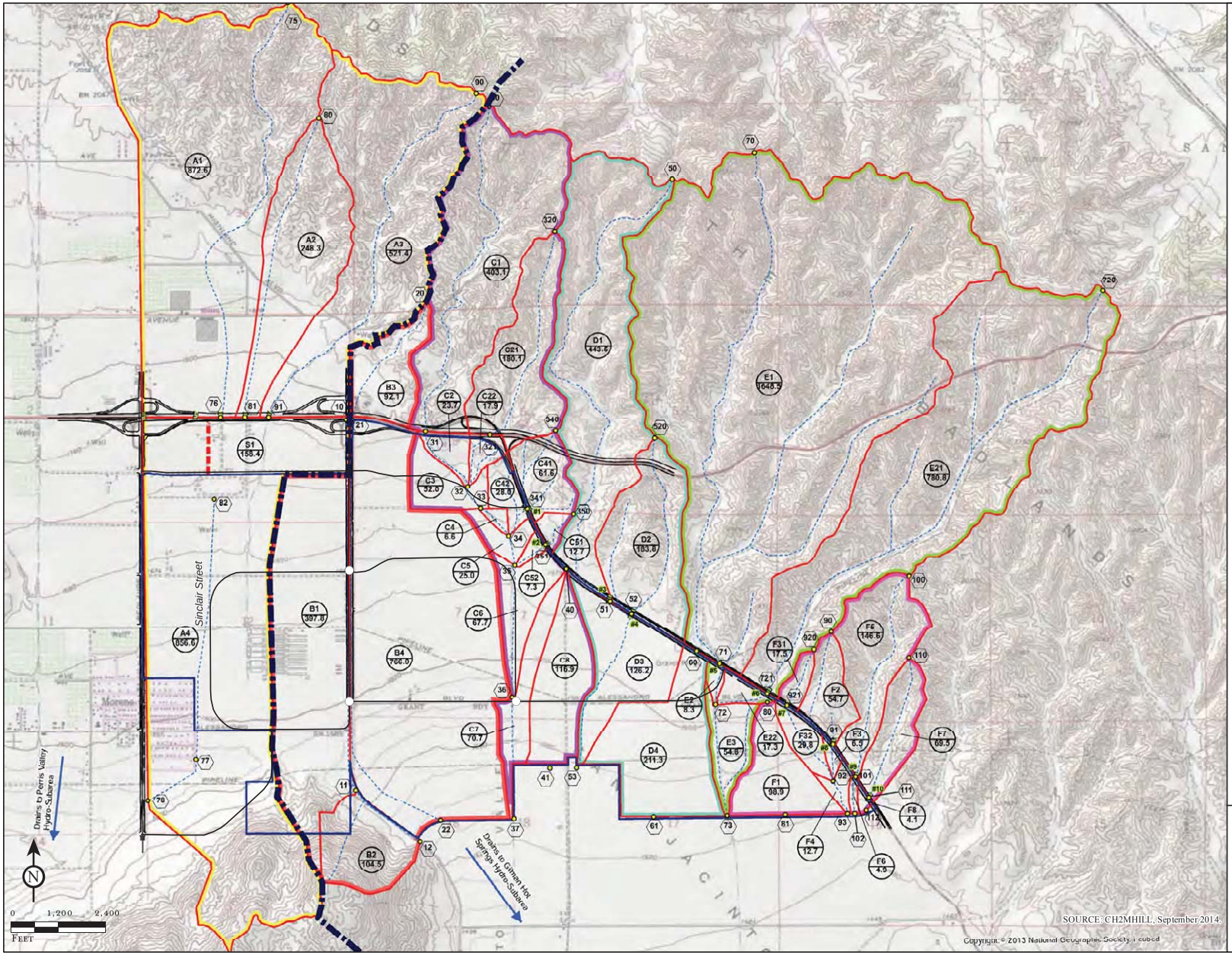
The project site is located in the Santa Ana River Basin, which includes the upper and lower Santa Ana River watersheds, the San Jacinto watershed, and several other small drainage areas. The Santa Ana region covers parts of southwestern San Bernardino County, western Riverside County, and northeastern Orange County. Of the approximately 2,610 acres within the project area, over 90 percent consists of dry-farmed agricultural fields.

NOTE: The following changes have been made in response to Comments B-3-38 in Letter B-3 from the California Department of Fish and Wildlife, B-6-5 in Letter B-6 from the Santa Ana Regional Water Quality Control Board, et al.

4.9.1.1 Drainage

The area is generally undeveloped with storm water runoff from the project area generally flowing in a southerly direction to the San Jacinto River. As illustrated in Figure 4.9.1, a topographic divide generally located west of Theodore Street separates storm water flows to the San Jacinto River in two directions. Runoff east of the divide flows through the San Jacinto Valley at a gradient ranging from 1 to 2 percent to the San Jacinto Wildlife Area (SJWA). Ultimately these flows drain to the Gilman Hot Springs Hydrologic Subarea (HSA). Runoff west of the divide flows to the Perris Valley Storm Drain at a gradient ranging from 1 to 2 percent. This runoff ultimately drains toward the Perris Valley HSA. Both the Gilman Hot Springs and Perris Valley HSAs eventually flow to the San Jacinto River, approximately 10 miles south of the project site. Flows are then conveyed through the San Jacinto River, Canyon Lake, again to the San Jacinto River (Reach 1), and ultimately to Lake Elsinore. In the event Lake Elsinore is at or beyond capacity, flows would continue through Temescal Creek, the Santa Ana River (Reaches 1–3), and then to the Pacific Ocean.

As illustrated in Figure 4.9.1, off-site flows tributary to the project area originate from the upstream foothill area known as the Badlands as well as a small portion of moderately developed area and open space. Flows from the upstream watershed collect in natural drainage courses and flow southerly across SR-60 and Gilman Springs Road through existing drainage culverts and onto the project site. These natural drainage courses are tributary to six (6) sub watersheds, named Watershed “A,” Watershed “B,” Watershed “C,” Watershed “D,” Watershed “E,” and Watershed “F” as



Subarea Designation
Subarea Area (acres)
Hydrology Node
Project Boundary
Existing Natural Drainage Course
Existing Culvert
Roads
Hydro-Subarea Boundry
Existing RCB
Watershed Boundary
A
B
C
D
E
F
Watershed Subarea

LSA

FIGURE 4.9.1

World Logistics Center Specific Plan Project
Environmental Impact Report
Existing Drainage Subareas

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shown on Figure 4.9.1. As identified in the hydrology and drainage report prepared for the project, the tributary drainage area includes the drainage area north of SR-60. The project site receives flow from SR-60 and culverts crossing the freeway. The project drainage plan takes into account this flow entering the project site and appropriate mitigation to downstream drainage facilities is provided. The existing capacity of the SR-60 culverts and drainage systems will not be affected by the project since the project is located downstream of these facilities. The following paragraphs describe the natural drainage courses and existing conditions of each sub watershed and capacities of the existing culverts at the SR-60 and Gilman Springs Road.

Watershed "A"

Watershed "A" is located within Riverside County Flood Control and Water Conservation District (RCFCWCD) Moreno Master Drainage Plan (MMDP) area. RCFCWCD is currently preparing a revised MMDP. The MMDP indicates that storm flows north of SR-60 will be routed to the proposed Sinclair Basin and Quincy Basin. Flows released from the proposed basins will pass under SR-60 and be conveyed to MMDP Line "F." Because it is unknown as to when these basins will be constructed, this study is prepared with the assumption that the basins are not in place prior to this project, and the offsite flows will be conveyed to MMDP Line "F" directly.

Downstream of SR-60 MMDP Line "F" is a 12-foot wide by 8-foot high reinforced concrete box (RCB) that conveys runoff from the existing culverts under SR-60: one triple 4-foot × 2-foot RCB, two double 48-inch corrugated metal pipe (CMP), one double 72-inch CMP, and one 42-inch reinforced concrete pipe (RCP) (with a 36-inch Riser). The capacity of the existing culverts are summarized in Table 4.9.A. Runoff north of SR-60, in excess of the capacities of the existing culverts, ponds north of SR-60 and flows towards the intersection of SR-60 and Redlands Boulevard. An existing 42-inch RCP conveys the runoff into the existing ditch along Redlands Boulevard. Since the 42-inch RCP does not have enough capacity to convey all of the offsite flows, the flows then sheet flow to the south. As a result, the interchange of SR-60 and Redlands Boulevard may be flooded. Ultimately the flows upstream of SR-60 will be less once RCFC&WCD constructs the master plan detention basins located north of SR-60.

Table 4.9.A: SR-60 Culverts

Culvert	Size/Material	Node	Capacity* (cfs)	100-year Flow (cfs)	Adequate to Convey 100-year flow
1	Triple 4' by 2' RCB	91	265	213	Yes
2	Double 48" CMP	76	250	715	No
3	Double 48" CMP	81	300	285	Yes
4	Double 72" CMP	81	805	557	Yes
5	42" RCP (36" Riser)		177	**	
Total			1797	1770	Yes

* Hydrology calculations based on a 100-year Water Surface Elevation of 1768.7 for all 5 culverts. ** Excess flows from Culvert 2 will pond at Culvert 2.

Source: Master Plan of Drainage Report, CH2MHILL, September 2014.

The outflow from Line "F" south of Eucalyptus Avenue sheet flows via a spreading area into the agricultural land downstream. Flows then sheet flow across the agricultural land to the southwest corner of the project at Alessandro Boulevard and Merwin Street. Flows leave the project boundary via a culvert under Alessandro Boulevard which outlets to an existing ditch, as shown on Figure 4.9.1.

The capacity of the existing ditch south of Alessandro Boulevard was evaluated and varies from 75 cubic feet per second (cfs) to 390 cfs. Just south of the culvert at Alessandro Blvd, the existing ditch is trapezoidal with a depth of approximately 4 feet and capacity of 390 cfs. The capacity of the ditch is 75 cfs about 70 feet south of the Alessandro culvert where the ditch is 2 feet deep. The ditch capacity remains at 75 cfs with a depth of 2 feet until after it crosses Cactus Avenue. About 160 feet downstream of the culvert, the ditch transitions to a v-ditch 3 feet deep with a capacity of 165 cfs. The v-ditch extends southwest for approximately 100 feet and crosses Redlands Blvd. Flows unable to be contained in the ditch will overtop the ditch into the agricultural area on the east and along Merwin Street on the west. Flows will flow south in Merwin Street and turn west into the residential area. Further downstream, the runoff flows to the Greenbelt Channel located south of Cactus Avenue. The Greenbelt channel ultimately drains to the Perris Valley Storm Drain.

Watershed "B"

Watershed "B" drains a total of 1,361 acres, of which 92 acres is offsite flow from north of SR-60 and 104 acres is offsite flow at the southerly end of the project. The total onsite area is 1,165 acres, of which approximately 90 percent is pervious and 10 percent is impervious. The drainage area is divided into two sub areas by Theodore Street. Flows to the west of Theodore Street, consisting of 398 acres of onsite area and 104 acres of offsite area, drain to the ditch on the west side of Theodore street. The 92 acres of offsite area flows to the ditch along the east side of Theodore Street. Onsite flows on the east side of Theodore Street sheet flow in a southerly direction through the project area. The ditches are vegetated with bottom widths varying from 1 to 2 feet and depths varying from 1 to 3 feet. The existing capacity of the ditch at the project boundary is 55 cfs. Flows greater than 55 cfs will sheet flow through the project area and leave the project boundary in a sheet flow condition.

Watershed "C"

Watershed "C" drains a total of 1,061 acres, of which 658 acres is offsite flow from north of SR-60 and Gilman Springs Road. The total onsite area is 403 acres, of which approximately 90 percent is pervious and 10 percent is impervious. The drainage area is divided into two watershed areas. The majority of the watershed, 944 acres, drains to a watercourse which exits the project area. A small portion of onsite flow, 117 acres, sheet flows offsite. The natural drainage course in Watershed "C" is vegetated, with an average bottom width of approximately 3 feet and a depth of approximately 2 feet. The existing capacity of the drainage course is 165 cfs. Flows greater than 165 cfs will sheet flow across the area. The drainage course drains southerly through the project boundary.

Watershed "D"

Watershed "D" drains a total of 965 acres, of which 627 acres is offsite flow from north of Gilman Springs Road. The total onsite area is 338 acres, of which approximately 90 percent is pervious and 10 percent is impervious. The drainage area is divided into two sub watersheds. The majority of the watershed, 754 acres, drains to a watercourse which exits the project area. A portion of onsite flow, 211 acres, sheet flows offsite. The natural drainage course in Watershed "D" is also vegetated. Its bottom width varies from approximately 1 to 3 feet, and its depth varies from approximately 1 to 2 feet. The existing capacity of the drainage course is 65 cfs. Flows greater than 65 cfs will sheet flow across the area. The drainage course ends east of the existing gas facility. It is estimated that when significant storm events occur, the runoff ponds locally and eventually drains southwest.

Watershed "E"

Watershed "E" drains a total of 2,510 acres, of which 2,430 acres is offsite flow from north of Gilman Springs Road. The total onsite area is 80 acres, of which approximately 90 percent is pervious and 10 percent is impervious. The natural drainage course in Watershed "E" has a bottom width varying from approximately 20 to 30 feet and depths varying from approximately 10 to 15 feet. The majority of this

channel is vegetated, with a few locations of erosion. Approximately 1,500 feet north of the southerly project boundary, another natural drainage course confluences with the earthen channel forming a "V" shape junction. The junction is moderately eroded.

Watershed "F"

Watershed "F" drains a total of 445 acres, of which 288 acres is offsite flow from north of Gilman Springs Road. The total onsite area is 157 acres, of which approximately 90 percent is pervious and 10 percent is impervious. The drainage area is divided into four sub areas. The first sub area, 99 acres consists entirely of onsite flow which sheet flows off site. The second sub area drains 121 acres, of which 72 acres is offsite area. The third subarea drains 151 acres, including 146 acres of offsite area. The last sub area drains 74 acres, of which 70 is offsite area. The flow from these sub areas will ultimately drain to the San Jacinto Wildlife Area. The main natural drainage course in Watershed "F" is located approximately 500 feet west of Gilman Springs Road. The drainage course is vegetated, with bottom widths varying from approximately 5 to 10 feet, and depths varying from approximately 1 to 3 feet. The capacity of the existing water course is 70 cfs. The remaining flow sheet flows offsite.

These natural drainage courses in Watersheds "B" through "F" drain into the San Jacinto Wildlife Area downstream. The majority of the project site sheet flows through the project's southerly boundary.

Existing Culverts along Gilman Springs Road

Within the project vicinity, there are ten (10) existing cross culverts located in Gilman Springs Road, as shown on Figure 4.9.2. Field visits by CH2M HILL staff found that most of the existing culverts were partially or completely blocked by sediment and debris allowing little flow from the culverts to enter the project site. In order to confirm if the existing culverts are sized appropriately to convey the offsite flow, the existing culvert capacities were analyzed using the inlet control capacity analysis chart. The results of the analysis are included in Appendix J of the DEIR, and summarized in Table 4.9.B. The analysis indicated that many of these culverts are undersized to convey the tributary 100-year flows even with proper maintenance, exclusive of culverts No. 2 and No. 7. Storm water unable to be conveyed by the culverts will flow to the existing ditches along the road, overtop the road and flow into the downstream natural drainage courses. The detailed flow patterns at these culverts were analyzed and summarized in Table 4.9.C and shown on Figure 4.9.2.

At Culvert No. 1, there is no existing ditch on either side of road. A total of 60 cfs offsite flow is tributary to the culvert, 20 cfs of the flow is conveyed through the 24-inch CMP, and 40 cfs overtops the road and flows to the natural drainage channel downstream. The impact to the downstream ditch is negligible due to the small amount of flow.

At Culvert No. 3, a total of 370 cfs flow is generated from offsite, 40 cfs is conveyed through the 36-inch CMP, and 330 cfs is conveyed along the existing ditch on the north side of the road, eventually flowing to Culvert No. 4.

At Culvert No. 4, a total of 170 cfs of flow comes from the offsite tributary area. One hundred (100) cfs is conveyed through the 48-inch CMP. The remaining 70 cfs combines with the 330 cfs of flow from Culvert No. 3 and 400 cfs overtops the road, draining to the natural channel downstream. The natural channel has a capacity of 365 cfs, therefore the flow will be spread beyond the top of bank.

At Culvert No. 5, a total of 1,370 cfs is generated from offsite, 370 cfs is conveyed through the 7-foot × 6-foot RCB, 52 cfs flow south within the existing ditch towards Culvert No. 6, and 938 cfs overtop the road draining to the natural channel downstream. The natural channel has a capacity of 330 cfs, the additional flow will overtop the channel at Alessandro Boulevard, and then sheet flow to the south.

Table 4.9.B: Gilman Springs Road Culvert Capacity Analysis

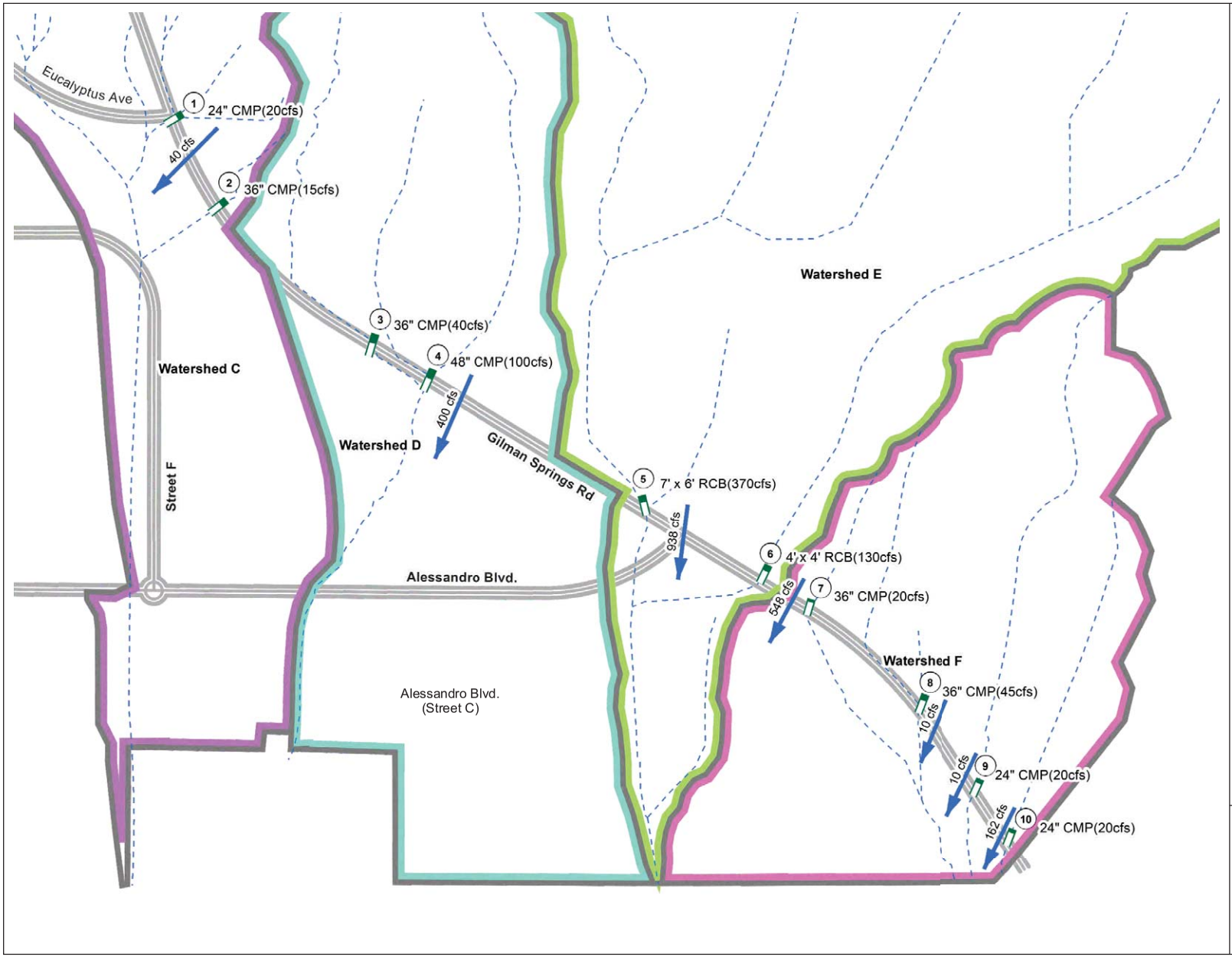
Culvert	Size/Material	Node	100-yr Flow (cfs)	Culvert Capacity * (cfs)	Adequate to Convey the 100-year flow?
1	24” CMP	341	60	20	No
2	36” CMP	351	15	50	Yes
3	36” CMP	51	370	40	No
4	48” CMP	52	170	100	No
5	7’×6’ RCB	71	1,360	370	No
6	4’×4’ RCB	721	650	130	No
7	36” CMP	921	20	70	Yes
8	36” CMP	91	55	45	No
9	24” CMP	101	140	20	No
10	24” CMP	111	70	20	No

Note: see Figure 4.9.1 for the locations of existing culverts.
* Assuming culverts cleared of sediment and debris.
Source: Master Plan of Drainage Report, CH2MHILL, September 2014.

Table 4.9.C: Gilman Springs Road Flow Analysis

Culvert	Size/ Material	100-yr Flow (cfs)	Culvert Capacity[1] (cfs)	Delta flow[2] (cfs)	Flow in Ditch @ North Side of Road (cfs)	Flow @ South Side of Road (cfs)	Flow over Road (cfs)
1	24” CMP	60	20	40	—	—	40
2	36” CMP	15	50	—	—	—	—
3	36” CMP	370	40	330	330	—	—
4	48” CMP	170	100	400[2]	—	—	400
5	7’×6’ RCB	1360	370	990	52	65	938
6	4’×4’ RCB	650	130	572[2]	24	—	548
7	36” CMP	20	70	—	24	—	—
8	36” CMP	55	45	10	-	—	10
9	24” CMP	140	20	120	112	—	8
10	24” CMP	70	20	162[2]	—	6	162

[1] Assuming culverts cleared of sediment and debris.
[2] Includes flow in ditch at north side of road from upstream culvert
Source: Master Plan of Drainage Report, CH2MHILL, September 2014.



Roads
Existing Culverts
Natural Drainage Course
1 Culvert No. (Size Capacity)
Flow Overtopping Gilman Springs Road (Flow Rate)
Watershed Boundary
C
D
E
F

Note: For the specific alignment of Alessandro Boulevard, see circulation Master Plan Figure 3.10.

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FIGURE 4.9.2

World Logistics Center Specific Plan Project Environmental Impact Report

Gilman Springs Road Culvert Flow Pattern

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SOURCE: HF, 2014.

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At Culvert No. 6, with a total of 650 cfs offsite flow, 130 cfs is conveyed through the 4-foot × 4-foot RCB, and 24 cfs is conveyed along the existing ditch along the road. The remaining flow combines with the flow of 52 cfs from Culvert No. 5 and 548 cfs overtop the road flowing to the downstream channel. Due to the large amount of offsite flow and small capacity of the existing channel, the flow will overtop the existing Alessandro Boulevard.

At Culvert No. 8, with a total of 55 cfs offsite flow, 45 cfs is conveyed through the 24-inch CMP, and 10 cfs overtop the road draining to the downstream natural channel. The downstream channel has a capacity of 75 cfs. Therefore the excess flow will be contained within the natural channel.

At Culvert No. 9, with a total of 140 cfs offsite flow, 20 cfs flow is conveyed through the 24-inch CMP, 112 cfs is conveyed along the existing ditch on the north side of the street, and 8 cfs overtop the road and drain to the existing natural channel downstream. The channel has a capacity of 1,600 cfs; therefore the impact of 8 cfs is considered negligible.

At Culvert No. 10, with a total of 70 cfs offsite flow, 20 cfs are conveyed through the 24-inch CMP, the remaining 50 cfs combine with the 112 cfs flow from the upstream ditch which overtop the road, 6 cfs drains to the existing ditch on the south side of the road, and the remaining flows to the natural drainage channel downstream, which has a capacity of 1,000 cfs. When larger storm events occur, Gilman Springs Road may be flooded. Even with proper maintenance to remove the existing sediment and debris to operate at full capacities, there will be excessive offsite flow overtopping the road and entering the project site in a 100-year storm.

4.9.1.2 Water Quality

The project area is within Region 8 (Santa Ana Region) of the Regional Water Quality Control Board (RWQCB), which encompasses the watersheds of the Santa Ana and San Jacinto Rivers. The 24-mile long San Jacinto River flows into southern Moreno Valley from the San Jacinto Mountains, across the San Jacinto Valley, through a portion of the City of Moreno Valley, to Railroad Canyon Reservoir, and finally to its terminus in Lake Elsinore, southwest of Moreno Valley. Table 4.9.D identifies receiving waters that receive urban storm water runoff from the project area.

NOTE: The following changes have been made to in response to Comment F-7A-59 in Letter F-7A from Lozeau Drury.

Table 4.9.D: Receiving Waters from the Project Site

Receiving Water	303(d) List Impairments	Designated Beneficial Use	Proximity to RARE Use* Designation
San Jacinto River Reach 3 (Hydrologic Units 802.11, 802.14 and 802.21)	None	Intermittent: MUN, AGR, GWR, REC1, REC2, WARM, WILD	Approximately 2 miles to RARE designated San Jacinto Wildlife Area
Canyon Lake (Railroad Canyon Reservoir), San Jacinto River Reach 2 (Hydrologic Unit 802.11)	Nutrients, Pathogens	MUN, AGR, GWR, REC1, REC2, WARM, WILD	Not Rare
San Jacinto River Reach 1 (Hydrologic Units 802.32 and 802.31)	None	Intermittent: MUN, AGR, GWR, REC1, REC2, WARM, WILD	Not Rare

Table 4.9.D: Receiving Waters from the Project Site

Receiving Water	303(d) List Impairments	Designated Beneficial Use	Proximity to RARE Use* Designation
Lake Elsinore (Hydrologic Unit 802.31)	Nutrients, Organic Enrichment/ Low Dissolved Oxygen, PCBs (polychlorinated biphenyls), sediment toxicity Unknown Toxicity	MUN, REC1, REC2, WARM, WILD	Not Rare

* Rare, Threatened or Endangered Species (RARE) waters support habitats necessary for the survival and successful maintenance of plant or animal species designated under State or Federal law as rare, threatened, or endangered.

Source: *Preliminary Project Specific Water Quality Management Plan for World Logistics Center Specific Plan*, CH2MHILL, September 2014.

According to the Santa Ana Region Basin Plan, water quality in the project area is affected by a number of factors including but not limited to consumptive use, importation of water high in dissolved solids, runoff from urban and agricultural areas, and the recycling of water within the basin. In general, water quality in the Santa Ana Region becomes progressively poorer as water moves along hydraulic flow-paths. The highest quality water is typically associated with tributaries flowing from surrounding mountains and groundwater recharged by these streams. As indicated in the Preliminary Water Quality Management Plan (WQMP)[1] prepared for the proposed project, two receiving waters downstream of the project site are included in the most recent Federal Clean Water Act (CWA) Section 303(d) list of impaired water bodies. Canyon Lake is listed for pathogens and nutrients while Lake Elsinore is listed for nutrients, organic enrichment/low dissolved oxygen, polychlorinated biphenyls (PCBs), and unknown toxicity. As indicated in Table 4.9.D, each of the receiving waters has multiple designated beneficial uses. These designations provide a description of how the water is used and what beneficial purposes it serves. Table 4.9.E provides a description of each of these beneficial water uses.

Table 4.9.E: Beneficial Uses of Receiving Waters

Designated Beneficial Use	Description of Beneficial Use
Agricultural Supply (AGR)	Waters used for farming, horticulture, or ranching, including, but not limited to, irrigation, stock watering, and support of vegetation.
Groundwater Recharge (GWR)	Waters used for natural or artificial recharge of groundwater proposed for future extraction, maintenance of water quality, or halting of saltwater intrusion into freshwater aquifers.
Municipal and Domestic Supply (MUN)	Waters used for community, military, or individual water supply systems including, but not limited to, drinking water supply.
(RARE)	Waters support habitats necessary for the survival and successful maintenance of plant or animal species designated under State or Federal law as rare, threatened, or endangered.
Water Contact Recreation (REC1)	Waters used for recreational activities involving body contact with water where ingestion of water is reasonably possible. Uses include, but are not limited to, swimming, water-skiing, whitewater activities, fishing, and use of natural hot springs.
Non-contact Water Recreation (REC2)	Waters used for recreational activities involving proximity to water, but not normally involving body contact with water where ingestion of water is reasonably possible. Uses include, but are not limited to, picnicking, sunbathing, hiking, camping, boating, hunting, sightseeing, and aesthetic enjoyment.

[1] *Preliminary Project Specific Water Quality Management Plan for World Logistics Center Specific Plan*, CH2MHILL,September 2014.

Table 4.9.E: Beneficial Uses of Receiving Waters

Designated Beneficial Use	Description of Beneficial Use
Warm Freshwater Habitat (WARM)	Waters that support warm water ecosystems including, but not limited to, preservation and enhancement of aquatic habitats, vegetation, fish, and wildlife, including invertebrates.
Wildlife Habitat (WILD)	Water that support wildlife habitats including, but not limited to, the preservation and enhancement of vegetation and prey species used by wildlife, such as waterfowl.

Source: Water Quality Control Plan for the Santa Ana River Basin, 1995.

4.9.1.3 Water Sources

Water resources in the City and throughout Riverside County are sustained by substantial groundwater basins, which are used as reservoirs to store water during wet years. These underground reservoirs are tapped throughout the year according to the demand for water. Groundwater conditions in these basins are influenced by natural hydrologic conditions such as percolation of precipitation, groundwater seepage, and ephemeral stream flow within the watershed areas. The project site lies within the Perris North and San Jacinto Lower Pressure Management Zones of the West San Jacinto Groundwater Management Plan (Plan) area, which covers approximately 164,200 acres.[1] This Plan area is bounded by the San Jacinto Mountains on the east, the San Timoteo Badlands on the northeast, the Box Mountains on the north, the Santa Rosa Hills and Bell Mountain on the south, and unnamed hills on the west. Groundwater conditions in these basins are influenced by natural hydrologic conditions such as percolation of precipitation, groundwater seepage, and ephemeral stream flow within the watershed areas. Currently, the City does not identify any major groundwater recharge areas within the project site.[2]

4.9.1.4 Water Supply

The project area is located within the service boundary of the Eastern Municipal Water District (EMWD), which serves the eastern portion of the watershed in Riverside County. The EMWD has a 555-square mile service area that provides water for a population of about 630,000. Without easy access to an ocean outfall for effluent, the EMWD has developed into one of the State's largest reclaimed water providers, having a combined capacity from its five sewage treatment plants of more than 43 million gallons per day (mgd). Reclaimed water has become extremely important in managing local water resources, and helps extend potable supplies by substituting reclaimed water for potable water typically used by certain facilities (e.g., golf courses and landscape irrigation). The EMWD utilizes an aggressive program of developing local groundwater resources, including desalination, water harvesting, and additional storage of surplus imported and reclaimed water.

The EMWD adopted the West San Jacinto Groundwater Basin Management Plan (Plan) in June 1995. The Plan serves to protect the interests of existing groundwater producers and to provide a framework for new water supply projects within the 256-square mile Management Plan area. This plan encompasses more than 164,200 acres and includes the groundwater management zones, as well as essentially non-water bearing areas such as the Lakeview Mountains, the Bernasconi Hills

[1] The West San Jacinto Groundwater Management Plan identifies groundwater areas as "management zones" which may not match the area or configuration of subbasins.

[2] *Section 5.7 Hydrology/Water Quality*, City of Moreno Valley General Plan Final Program EIR, City of Moreno Valley, July 2006.

around Lake Perris, the Double Butte area near Winchester, and areas in the extreme northern, western, and southern portions of the EMWD.[1]

A Water Supply Assessment (WSA) was prepared for this project and approved by the EMWD on February 21, 2012, which indicated that water service to the project site will be provided by the EMWD and that the EMWD has the supplies available to provide water to the proposed project.

The water supply available to the EMWD in 2010 totals approximately 154,700 acre-feet (AF).[2] Water sources for the EMWD include imported water purchased from the Metropolitan Water District of Southern California (Metropolitan), groundwater sources, desalted groundwater, and recycled water from the EMWD's five regional water reclamation facilities. Imported water from Metropolitan is delivered in three ways: as potable water, as raw water and treated at two local EMWD filtration plants, or as raw water for non-potable use.

EMWD has four (4) sources of water supply: imported water purchased from MWD, local potable groundwater, local desalted groundwater and recycled water. Imported water accounts for approximately 65 percent, local potable groundwater is approximately 11 percent, desalted groundwater is 3 percent, and recycled water is 21 percent of supply (page 5, project WSA).

In June 2011, the EMWD adopted its *2010 Urban Water Management Plan* (UWMP), which details the reliability of its current and future water supply. The document found that with all of its existing and planned supplies, the EMWD can meet 100 percent of projected supplemental demand through 2035, even with a repeat of a severe drought. In addition, the UWMP addresses conservation, local supplies and reliability of imported supplies. Table 4.16.A (q.v.) identifies EWMD's projected water supplies and demand.

The water supply demands of the proposed project have been assessed in the WSA and a determination was made that there is adequate water to serve the proposed WLC project. More information on this topic is provided in Section 4.16, *Utilities and Service Systems*, of the DEIR.

4.9.1.5 Storm Drain Infrastructure

The following revisions have been made in response to on Comment G-95-70 in Letter G-95 from Thomas Thornsley.

A portion of the project site is located within the Moreno Master Drainage Plan (MMDP) of the Riverside County Flood Control and Water Conservation District (RCFCWCD). The MMDP provides guidance for the construction of the master plan drainage system, and regional retention/detention basins. RCFCWCD is currently preparing a revised MMDP. The existing 12-foot wide by 8-foot high reinforced concrete box (RCB) east of Redlands Boulevard is owned by RCFCWCD and is designated as Line "F" in the MMDP. This facility conveys runoff from the existing culverts under SR-60 and through developed property to its current terminus immediately south of Eucalyptus Avenue. (Note: This RCB is located farther west than depicted on the MMDP to accommodate the existing logistics building south of SR-60.) The existing MMDP provides for storm flows north of SR-60 to be routed to the proposed Sinclair Detention Basin. Flows released from the proposed basin would pass under SR-60 through the existing culverts and be conveyed to the drainage systems identified as Line "F" in the MMDP.

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1 *West San Jacinto Groundwater Basin Management Plan 2010 Annual Report*, Eastern Municipal Water District, June 2011.

2 An acre-foot covers one acre to a depth of one foot. An acre foot is approximately 326,000 gallons, which is enough to meet the needs of two average southern California households a year.

4.9.1.6 NOP/Scoping Comments

A number of residents and representatives of local conservation groups expressed concerns regarding impacts the project might have on local drainage, especially historic localized flooding, groundwater quantity and quality, and water quality, especially related to the San Jacinto Wildlife Area immediately south of the project site to serve as a transition area or buffer. Sections 4.9.5 and 4.9.6 of the DEIR thoroughly analyze these issues.

4.9.2 Existing Policies and Regulations

In the past, the effort to control the discharge of storm water has focused on managing the quantity of storm water (e.g., flood control) and only to a limited extent on managing the quality of storm water. In recent years, awareness of the need to improve water quality has increased. With this awareness, an extensive body of Federal, State, and local laws and regulatory programs has been established to pursue the goal of reducing pollutants contained in storm water discharges to waterways. The emphasis of these programs is to promote the concept and the practice of preventing pollution at the source, before it can cause environmental harm.

4.9.2.1 Federal Regulations

Clean Water Act. The CWA was amended in 1972 to prevent discharge of pollutants to waters of the United States from any point source unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The 1987 amendments to the CWA added Section 402(p), which establishes the NPDES, a permitting system for the regulation of discharges of any pollutant into waters of the United States. Regional Water Quality Control Boards (RWQCBs) administer this permitting program in California. In November 1990, the EPA published final regulations that establish application requirements for storm water permits. The regulations require NPDES permits for discharges of storm water from industrial/construction and Municipal Separate Storm Sewer Systems (MS4s). To comply with the permits, storm water pollution controls must be implemented for construction and industrial activity that discharges either directly to surface waters or indirectly through separate municipal storm drains. Pollution control is achieved by establishing engineering measures that have been designed, tested and successfully implemented throughout the past decades, such as detention basins and sediment traps, during both the construction period and the operational phases of a project.

Pursuant to the requirements of the State Water Resources Control Board (SWRCB), the NPDES General Permit No. CAS000002 applies to all construction activities that result in the disturbance of at least one acre of total land area, or activity which is part of a larger common plan of development of one acre or greater. General Permit No. CAS000002 is issued by the SWRCB as part of the Federal delegation responsibilities under this section of the CWA. The RWQCB regulates hydromodification[1] as well as surface and groundwater quality through adoption of water quality plans and standards, and issuance of water quality permits and waivers. The NPDES permit deals with both the construction phase and operational phase of development projects. For the construction phase of a project, the NPDES permit identifies the preparation of an SWPPP.

The implementation of NPDES permits ensures that the state's mandatory standards for the maintenance of clean water and the Federal minimum standards are met. Coverage under an NPDES permit regulates sedimentation and soil erosion through implementation of an SWPPP and periodic inspections by RWQCB staff. An SWPPP is a written document that describes the

[1] Hydromodification is the alteration of the hydrologic characteristics of coastal and non-coastal waters, which, in turn, could cause degradation of water resources.

construction operator's activities to comply with the requirements in the NPDES permit. The SWPPP establishes a process whereby the operator evaluates potential pollutant sources at the site and implements Best Management Practices (BMPs) designed to prevent or control the discharge of pollutants in storm water runoff.

Storm water control measures during construction and grading will be outlined in the construction NPDES permit and SWPPP prepared for each proposed phase of the project. Examples of such BMP control measures include but are not limited to the following:

- Temporary detention basins for runoff and silt containment;
- Regular street-sweeping and truck washing prior to exiting construction areas;
- Covering of soil hauling trucks to minimize dust generation (and silt buildup on project roads;
- Dirt rockers at project exits to reduce soil transported out of construction areas;
- Monitoring of runoff and protection devices during storm events;
- Use of silt fencing, gravel bags, and/or straw bales to channel runoff to temporary basins; and
- Identification of emergency procedures in case of hazardous materials spills.

The project proponent will be required to obtain a construction NPDES permit prior to any site grading. In addition, the NPDES permit will require the identification of post-construction BMPs to be incorporated into the project WQMP and any subsequent site-specific WQMP. The WQMP identifies measures to control the post-construction entry of contaminants into storm flows.

In addition, pursuant to Section 404 of the CWA, the U.S. Army Corps of Engineers (USACE) regulates discharges of dredged or fill material into waters of the United States. These waters include wetlands and non-wetland bodies of water that meet specific criteria, including a direct or indirect connection to interstate commerce. The USACE regulatory jurisdiction pursuant to Section 404 of the CWA is founded on a connection, or nexus, between the water body in question and interstate commerce. This connection may be direct (through a tributary system linking a stream channel with traditional navigable waters used in interstate or foreign commerce) or may be indirect (through a nexus identified in the USACE regulations). The USACE typically regulates as non-wetland waters of the U.S. any body of water displaying an ordinary high water mark (OHWM). In order to be considered a jurisdictional wetland under Section 404, an area must possess three wetland characteristics: hydrophytic vegetation, hydric soils, and wetland hydrology. Each characteristic has a specific set of mandatory wetland criteria that must be satisfied in order for that particular wetland characteristic to be met. A project-specific discussion regarding Section 404 issues is provided in Section 4.4, *Biological Resources*, of this EIR.

National Flood Insurance Program. The National Flood Insurance Program (NFIP) is a relatively recent Federal program. The Federal government has been actively involved in flood control since 1927 following major floods on the Mississippi River. Beginning with the Flood Control Act of 1936, Congress assigned the USACE the responsibility for flood control engineering works and later for floodplain information services. Flood control was provided through the construction of dams and reservoirs. Despite these programs and rapidly rising Federal expenditures for flood control, flood losses continued to rise. In 1968, Congress passed the National Flood Insurance Act, which created the NFIP. The Flood Disaster Protection Act of 1973, which amended the 1968 Act, required the purchase of flood insurance by property owners who were located in special flood hazard areas and were being assisted by Federal programs, or by federally supervised, regulated, or insured agencies or institutions.

National Flood Insurance Program Reform Act of 1994. In 1994, the National Flood Insurance Program Reform Act went through its first major revision since its inception. Included in this revision were provisions that if a lender were to escrow an account and if the structure were in the floodplain, then the lender *must* escrow for flood insurance. The revised legislation also included increased flood insurance limits and the elimination of the 1962 buy-out program. However, the legislation did initiate the Hazard Mitigation Fund as part of the flood insurance policy. Also included in this legislation was the increase from a 5-day to a 30-day waiting period for a new policy to become effective. It also prohibits the waiver of flood insurance purchase requirements as a condition of receiving Federal disaster assistance. If the flood insurance policy were not maintained, in the event of another disaster, no disaster assistance would be made available for that structure.

Executive Order 11988, Floodplain Management. Executive Order 11988 requires the USACE to provide leadership and to take action to:

- Reduce the hazards and risk associated with floods;
- Minimize the impact of floods on human health, safety, and welfare; and
- Restore and preserve the natural and beneficial values of the current floodplain.

To comply with Executive Order 11988, the policy of the USACE is to develop projects that, to the extent possible, avoid or minimize adverse effects associated with use of the floodplain and that avoid development (or the inducement of development) in an existing floodplain unless there is no practicable alternative.

4.9.2.2 State Regulations

Porter-Cologne Water Quality Control Act. The California Water Code (CWC) is the principal state law regulating water quality in California. The CWC contains provisions regulating water and its use. This portion of the CWC, Division 7 (Porter-Cologne Act), establishes a program to protect water quality and beneficial uses of the State water resources and includes groundwater and surface water. The SWRCB is the principal State agency responsible for control of water quality. It establishes waste discharge requirements, water quality control planning and monitoring, enforcement of discharge permits, and ground and surface water quality objectives. It also prevents waste and unreasonable use of water, and adjudicates water rights.

Pursuant to requirements of the SWRCB, the NPDES Construction General Permit (CGP) No. CAS000002 applies to all construction activities that result in the disturbance of at least one acre of total land area, or activity which is part of a larger common plan of development of one acre or greater. The CGP is issued by the SWRCB as part of the Federal delegation responsibilities under Section 402 of the CWA. For all projects subject to the CGP, applicants are required to develop and implement an effective Storm Water Pollution Prevention Plan (SWPPP); to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the CGP. The CGP separates projects into Risk Levels 1, 2, or 3. Risk Levels are determined during the planning and design phases, and are based on potential erosion and transport to receiving waters. Requirements apply according to the Risk Level determined.

The BMPs for this project contained in the Preliminary Water Quality Management Plan (PWQMP, see DEIR Appendix J) have been developed by the project engineers to address project-specific water quality impacts. See Section 4.9.2.3 for more information on the MS4 Permit System as it applies to the project. For additional information on the major BMPs recommended in the PWQMP prepared by CH2MHill for the project that are consistent with these regulations, see Section 4.9.6.2, *Construction-Related Water Quality Impacts*, and Section 4.9.6.3, *Operational Water Quality Impacts*.

The BMPs for the project are described in Section 4.9.3.2 and 4.9.6.3 for treatment control BMPs, and in Section 4.9.6.2 for construction site BMPs.

California Fish and Game Code. The California Fish and Game Code has provisions to prevent unauthorized diversions of any surface water and discharge of any substance that may be deleterious to fish, plant, animal, or bird life. The California Department of Fish and Wildlife (CDFW), through provisions of the California Fish and Game Code (§1601 through §1603), is empowered to regulate any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. The presence of a channel bed and banks, and at least an intermittent flow of water define streams (and rivers), is one of the most important factor in establishing CDFW jurisdiction. The CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by the CDFW. Discussion of jurisdictional waters and riparian/wetland resources is provided in Section 4.4, *Biological Resources*, of this EIR.

California Code of Regulations. The California Code of Regulations (CCR) contains administrative procedures for the State and the nine Regional Water Quality Control Boards (RWQCBs) in Title 23, and for water quality for domestic uses, wastewater reclamation, and hazardous waste management in Title 22.

Health and Safety Code. The Health and Safety Code provides for protection of ground and surface waters from hazardous waste and other toxic substances.

Groundwater Management Act (AB 3030) [Sections 10750–10756 of the California Water Code]. The availability of groundwater and issues involving the adequacy of recharge capability are regional in nature. The Groundwater Management Act[1] (AB 3030) provides a systematic procedure for an existing local agency to develop a groundwater management plan. AB 3030 allows a local agency whose service includes a groundwater basin that is not already subject to groundwater management pursuant to law or court order to adopt and implement a groundwater management plan and includes plans to mitigate overdraft conditions, control brackish water, and to monitor and replenish groundwater.

There are currently few domestic uses for groundwater in the project area as the City of Moreno Valley primarily relies upon imported water from the EMWD for domestic use. Water sources for the EMWD include imported water purchased from Metropolitan, groundwater sources, and recycled water from the EMWD's five regional water reclamation facilities. Approximately two thirds of the EMWD's water is imported from Metropolitan, with the remaining water supplied by groundwater wells.[2] Groundwater supplies are drawn from the EMWD wells located in the Hemet, San Jacinto, Moreno Valley, Perris Valley, and Murrieta areas.

Cobey-Alquist Flood Plain Management Act (California Water Code Section). This Act states that a large portion of land resources of the State of California is subject to recurrent flooding. The public interest necessitates sound development of land use, as land is a limited, valuable, and irreplaceable resource, and the floodplains of the State are a land resource to be developed in a manner that, in conjunction with economically justified structural measures for flood control, would result in prevention of loss of life and of economic loss caused by excessive flooding. The primary

[1] Sections 10750–10756 of the California Water Code.
[2] EMWD History and Mission, http://www.emwd.org, Eastern Municipal Water District, website accessed April 20, 2012.

responsibility for planning, adoption, and enforcement of land use regulations to accomplish floodplain management rests with local levels of government. It is policy of the State of California to encourage local government to plan land use regulations to accomplish floodplain management and to provide state assistance and guidance. As part of its discretionary review process, the City must determine how the project will comply with this Act and not create flooding impacts on new occupied land uses.

California Toxics Rule. On May 18, 2000, the State Environmental Protection Agency (CalEPA) promulgated numeric water quality criteria for priority toxic pollutants and other provisions for water quality standards to be applied to waters in the State of California. The CalEPA promulgated this rule based on the Administrator's determination that the numeric criteria are necessary in California to protect human health and the environment. The rule fills a gap in California water quality standards that was created in 1994 when a State court overturned the State's water quality control plans containing water quality criteria for priority toxic pollutants. Thus, the State of California has been without numeric water quality criteria for many priority toxic pollutants as required by the CWA, necessitating this action by CalEPA. These Federal criteria are legally applicable in the State of California for inland surface waters, enclosed bays, and estuaries for all purposes and programs under the CWA.

4.9.2.3 Local Regulations

Municipal Separate Storm Sewer System (MS4) Permit System. The City of Moreno Valley is a co-permittee under the NPDES MS4 Permit No. CAS 618033, adopted on January 29, 2010. The NPDES MS4 permit is intended to regulate the discharge of urban runoff from the MS4 within Riverside County. Under the NPDES MS4 permit, the City is responsible for the management of storm drain systems within its jurisdiction. Cities are required to implement management programs, monitoring programs, implementation plans, and all BMPs outlined in the Riverside County Water Drainage Area Management Plan (DAMP) and Riverside County Water Quality Management Plan for Urban Runoff (WQMP). The current approved WQMP, dated October 22, 2012, addresses the 2010 MS4 NPDES permit.

Projects identified as a 'Priority Development Project' will be required to prepare a Project-Specific WQMP. The 2010 MS4 Permit mandates a Low Impact Development (LID) approach to storm water treatment and management of runoff discharges. The project site should be designed to minimize imperviousness, detain runoff, and infiltrate, reuse or evapotranspirate runoff where feasible. LID BMPs should be used to infiltrate, evapotranspirate, harvest and use, or treat runoff from impervious surfaces, in accordance with the Design Handbook for Low Impact Development Practices. The project must ensure that runoff does not create a hydrologic condition of concern. The RWQCB continuously updates impairments as studies are completed. The most current version of impairment data will be reviewed and implemented prior to the preparation of Preliminary and Final Project-Specific WQMPs for future phases of the project. As part of its discretionary review process, the City must ensure that each phase of the project complies with the MS4 requirements.

Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The MSHCP is an element of the Riverside County Integrated Project (RCIP), which is an integration of land use, transportation, and conservation planning and implementation to develop a consensus for the future development of Riverside County. The MSHCP is designed to protect over 150 species and conserve over 500,000 acres of land in western Riverside County. The MSHCP was adopted in 2003 and is being implemented specifically to address the direct, indirect, cumulative, and growth-related effects on covered species resulting from build out of planned land use and infrastructure, including the proposed project. The MSHCP involves efforts by the county, State, and Federal governments, the

fourteen cities in western Riverside County, and private and public entities engaged in construction activities that potentially affect the species covered under the MSHCP. The plan specifies an obligation of local projects, both public and private, to mitigate their impacts on species. The MSHCP includes incentives for conservation or the purchase of properties from willing sellers and will eventually result in a Conservation Area in excess of 500,000 acres, focusing on conservation of 150 species. The MSHCP Conservation Area includes approximately 347,000 acres of existing Public/ Quasi-Public Lands and approximately 153,000 acres of Additional Reserve Land. The MSHCP requires a proposed development project to evaluate any impacts to riparian or riverine resources on the project site, as well as what is referred to as the "urban/wildlands interface" when present. This analysis includes design features and measures related to drainage features, toxics, lighting, noise, invasive plants, barriers, and grading/land development.

The MSHCP requires new development to determine if a project site contains riparian or riverine resources/processes prior to development. If they are present, the MSHCP requires projects to protect these resources to the extent possible with creative project design, setbacks, etc. If such resources, or any other important resources identified in the MSHCP will be affected by development, the developer is required to submit a Determination of Biologically Equivalent or Superior Preservation (DBESP) report indicating how impacts to these resources will be mitigated or compensated for by the developer. For more information on the MSHCP and DBESP processes, see Section 4.4, *Biological Resources*.

4.9.2.4 City of Moreno Valley General Plan Policies

The following General Plan objectives, policies, and programs are applicable to the proposed project:

Objectives, Policies, and Programs

Objective 6.2 Minimize the potential for loss of life and protect residents, workers, and visitors to the City from physical injury and property damage, and to minimize nuisances due to flooding.

Policy 5.5.11 Implement National Pollutant Discharge Elimination System Best Management Practices relating to construction of roadways to control runoff contamination from affecting water resources.

Objective 7.2 Maintain surface water quality and the supply and quality of groundwater.

Program 7-2 Advocate for natural drainage channels to the Riverside County Flood Control District, in order to assure the maximum recovery of local water, and to protect riparian habitats and wildlife.

Policy 7.4.3 Preserve natural drainage courses in their natural state and the natural hydrology, unless the protection of life and property necessitate improvement as concrete channels.

NOTE: The following changes have been made in response to Comment F-13-32 in Letter F-13 from Johnson & Sedlack on Behalf of Sierra Club, Moreno Valley Group & Residents for a Livable Moreno Valley.

Ultimate Goals

VII Emphasizes public health and safety, including, but not limited to, police, fire, emergency and animal services and protection from floods and other hazards.

4.9.3 Methodology

Evaluation of hydrology and water quality impacts associated with the proposed project includes the following:

- Determine the construction phase water quality impacts based on NPDES standards;
- Determine the construction impacts on drainage patterns and drainage capacity;
- Determine the operational water quality impacts based on NPDES standards;
- Determine the operational impacts on drainage patterns and drainage capacity; and
- Determine the impacts on local groundwater table levels.

A PWQMP (included as Appendix J-2 of this EIR) has been prepared for the proposed project and evaluates impacts associated with operational activities. Drainage pattern and capacity impacts were evaluated by calculating existing and proposed flow condition rates using the rational method in accordance with the methods described in the Riverside County Flood Control and Water Conservation District Hydrology Manual. The peak 100-year storm runoff was utilized to preliminarily size storm drain pipes as indicated in the Draft Drainage Report conducted for this project (Appendix J-1 of this EIR).

Due to the land use change associated with the land development, a number of drainage systems are proposed to mitigate the changes of hydrologic characteristics of the watershed. The design guidelines for this project are in accordance with RCFCWCD requirements and City of Moreno Valley guidelines. The design guidelines and local flood protection requirements are summarized as the following:

- Drainage facilities shall be designed in accordance with the Riverside County Hydrology Manual and Design Manual Standard Drawings. The drainage systems shall be designed to provide 100-year level of flood protection through a combined hydraulic conveyance of the underground storm drains and detention basins;
- Proposed drainage systems, which are connecting to the existing downstream facilities, shall be designed properly so the proposed discharge does not exceed the existing discharge to the downstream facilities; and
- Provisions for maintenance and/or easement shall be incorporated in the proposed drainage systems.

4.9.3.1 Pollutants of Concern and Assessment Methodology

The pollutants of concern for the water quality analysis have been identified based on the previously described regulations and the pollutants identified by regulatory agencies that potentially could be generated by the proposed project. The potential pollutants associated with the project are reflected in Table 4.9.F. Table 4.9.G describes these pollutants (bacterial indicators, metals, nutrients, pesticides, toxic organic compounds, sediments, trash & debris, and oil & grease) and their general impact on water quality and aquatic habitat.

The project's priority pollutants of concern are defined as the pollutants associated with the project that are also present in impaired receiving waters. Based on the WQMP prepared for the proposed project, impaired receiving waters downstream from the project include Canyon Lake and Lake Elsinore. Canyon Lake is impaired for nutrients and pathogens, and Lake Elsinore is impaired for nutrients, organic enrichment/low dissolved oxygen, PCBs, and unknown toxicity. Therefore, the priority pollutants of concern for this project include pathogenic indicators, nutrients, pesticides, and toxic organic compounds.

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Table 4.9.F: Anticipated and Potential Pollutants Generated by Land Use Type

Priority Project Categories	General Pollutant Categories							
	Bacterial Indicators	Metals	Nutrients	Pesticides	Toxic Organic Compounds	Sediments	Trash & Debris	Oil & Grease
Commercial/Industrial Development	P[3]	P	P[1]	P[1]	P[5]	P[1]	P	P
Parking Lots (>5,000 ft^2)	P[6]	P	P[1]	P[1]	P[4]	P[1]	P	P
Retail Gasoline Outlets	N	P	N	N	P	N	P	P

P = Potential N= Not Potential
[1] A potential pollutant if non-native landscaping exists or is proposed onsite; otherwise not expected.
[2] A potential pollutant if the project includes uncovered parking areas; otherwise not expected.
[3] A potential pollutant if land use involves animal waste.
[4] Specifically petroleum hydrocarbons.
[5] Specifically solvents.
[6] Bacterial indicators are routinely detected in pavement runoff
Source: *Preliminary Project Specific Water Quality Management Plan for World Logistics Center Specific Plan (2014)*

Table 4.9.G: Pollutants and General Water Quality Impacts

Pollutant	Water Quality Impact
Bacterial Indicators	May result in water body impairments, can exceed public health standards for water contact recreation, creating a harmful environment. Can alter the aquatic habitat and create a harmful environment for aquatic life.
Metals	Bio-available forms of trace metals are toxic to aquatic life, potential of groundwater contamination, bio-accumulation in aquatic life, affect beneficial uses of a water body.
Nutrients	Elevated nutrient levels in surface waters cause algal blooms, excessive vegetative growth, and dissolved oxygen levels, which is detrimental to aquatic life.
Pesticides	Elevated levels can indirectly or directly constitute a hazard to life or health. During cleaning activities, these compounds can be washed off into storm drains creating runoff containing toxic levels of the pesticides active component. Dirt, grease, and grime may adsorb concentrations that are harmful or hazardous to aquatic life.
Toxic Organic Compounds	May contain levels that are harmful or hazardous to aquatic life.
Sediments	Excessive sediment can be detrimental to aquatic life by interfering with photosynthesis, respiration, growth, and reproduction.
Trash and Debris	Detrimental effect on recreational value of a water body and aquatic habitat; interferes with aquatic life respiration and can be harmful or hazardous to aquatic animals that mistakenly ingest floating debris.
Oil and Grease	Can accumulate in aquatic life from contaminated water, sediments, and food and are toxic at low concentrations. Can persist in sediments for long periods of time and result in adverse impacts on the diversity and abundance of existing bio-communities and can affect the aesthetic value of a water body.

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4.9.3.2 Treatment Control BMPs and Assessment Methodology

The treatment control BMP strategy is to select Low Impact Development (LID) BMPs that promote infiltration and evapotranspiration, including infiltration basins, bioretention facilities, and extended detention basins. Generally infiltration BMPs have advantages over other types of BMPs, including reduction of the volume and rate of runoff, as well as full treatment of all potential pollutants potentially contained in the storm water runoff. It is recognized however that infiltration may not be feasible on sites with low infiltration rates, or located on compacted engineered fill. If the BMP is considered in a fill condition, and the infiltration surface of the BMP cannot extend down into native soils, or if the BMP is considered in a cut condition, and there is no practicable way to verify infiltration rates at the final BMP elevation, infiltration BMPs will not be used. Prior to final design of each phase of the project, infiltration tests shall be performed within the boundaries of the proposed infiltration BMP and at the bottom elevation (infiltration surface) of the proposed infiltration BMP to confirm the suitability of infiltration. In situations where infiltration BMPs are not appropriate, bioretention and/or biotreatment BMPs (including extended detention basins, bioswales, and constructed wetlands) that provide opportunity for evapotranspiration and incidental infiltration will be considered. Harvest and use BMPs will also be considered as a treatment control BMP to store runoff for later non-potable uses.

Proprietary BMPs combined with traditionally accepted BMPs may assist with the treatment of project pollutants. Proprietary BMPs combined with traditionally accepted BMPs may be employed on a site-specific basis as approved by the City of Moreno Valley. The appropriate BMP(s) for each phase of the project will be determined based on the size of the project area, the types of pollutants that would be found in the development runoff, and pollutants of concern. Table 4.9.H describes these BMPs (infiltration basins, biofilters, detention basins, water quality inlets, and hydrodynamic separators) and their general characteristics.

Table 4.9.H: BMP Characteristics

BMP	General Characteristics
Biofilters	Includes grass swales, grass strips, wetland vegetation swales, and bioretention. Pollutants are removed by bioretention or biofiltration, and provide opportunity for evapotranspiration and incidental infiltration.
Water Quality Inlet	Pollutants are removed through sedimentation and separation as the design flow passes through one or more chambers. Generally used for pretreatment before discharging into another type of BMP.
Extended Detention Basin	Basin sized to detain and slowly release the design volume of urban runoff, allowing particles and associated pollutants to settle out. Maintenance efforts would need to be directed toward vegetation management, vector control, and removal of debris accumulations.
Infiltration Basins	Basin sized to detain and infiltrate runoff, allowing particles and associated pollutants to settle out. Maintenance efforts would be directed toward vegetation management, vector control, and removal of debris accumulations. This BMP may require groundwater monitoring.
Hydrodynamic Separator System	Device treats storm water by creating a whirlpool of water within a concrete chamber in which solids fall to the bottom of the chamber while buoyant debris, oil, and grease rise to the surface, allowing water to pass through a flow control opening.

4.9.4 Thresholds of Significance

The following thresholds of significance regarding potential impacts to hydrology and water quality are based on *CEQA Guidelines* (2012). A project would have a significant impact on surface hydrology, water quality, and/or groundwater if it would:

- Result in violations of any water quality standards or waste discharge requirements of the City of Moreno Valley or the Regional Water Quality Control Board;

- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion, siltation on site or off site;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff which would result in on-site or off-site flooding;
- Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff;
- Otherwise substantially degrade water quality;
- Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;
- Place within a 100-year flood hazard area structures which would impede or redirect flood flows;
- Expose people or structures to a significant risk of loss injury or death involving flooding, including flooding as a result of the failure of a levee or dam; and/or
- Expose people or structures to inundation by seiche, tsunami, or mudflow.

4.9.5 No Impacts/Less than Significant Impacts

The following potential impacts were determined to be less than significant. In each of the following issues, either no impact would occur (therefore, no mitigation would be required) or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level.

4.9.5.1 Seismic Flooding-Related Impacts

Threshold	Would the project expose people or structure to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

The project site and the off-site improvement areas are not identified as being located within the City's mapped inundation area;[1] therefore, the proposed project would not result in the exposure of people or structures to risk of loss, injury, or death involving flooding as a result of failure of either the Poorman Reservoir (Pigeon Pass Dam) or Lake Perris Dam. Impacts related to this issue would be less than significant, and no mitigation is required.

4.9.5.2 Seismic-Related Impacts

Threshold	Would the project expose people or structure to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow?

[1] *Figure 5.5-2 Floodplains and Fire Hazard Areas*, City of Moreno Valley General Plan Final Program EIR. July 2006.

A tsunami is a series of waves generated in a body of water by a pulsating or abrupt disturbance that vertically displaces water. Seiches are oscillations in enclosed bodies of water that are caused by a number of factors, most often wind or seismic activity. Lakes in seismically active areas such as Lake Perris are at risk from seiches. A mudslide (also known as a mudflow) occurs when there is fast-moving water and a great volume of sediment and debris that surges down a slope, stream, canyon, arroyo, or gulch. Mudslides are similar to flash floods and can occur suddenly without time for adequate warning. Mudflows can ruin substantial improvements with the force of the flow itself and the burying or erosion of improvements by mud and debris.

The project area is not at risk of inundation by a tsunami as it is located approximately 56 miles from the Pacific Ocean. The project area is located approximately 2.5 miles northeast of Lake Perris. Lake Perris is an enclosed body of water and could be subject to a seiche during a seismic event. However, a seiche event would not affect the project area because water levels in the lake are not high enough to overtop the Perris Dam in the event of a seiche.[1] The Perris Dam has been designed to prevent seiche phenomena due to the region's high seismicity. In addition, the topography between the Specific Plan area and Lake Perris has multiple hills and valleys. Given these factors, impacts associated with seiche events are less than significant for the proposed WLC project.

Except for the far southwest corner, the project site is located in a gently sloping area where landslides and mudslides would not occur. No development is proposed on the steep slopes of Mount Russell in the southwesterly portion of the property, which is included in the 74.3 acres of open space designated within the WLCSP other than the eastern extension of Cactus Avenue. Therefore, a less than significant impact associated with landslides, rockfalls, or mudslides would occur, and no mitigation is required.

4.9.5.3 Groundwater

Threshold	Would the proposed WLC project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level?

Based on the WSA prepared for the proposed project by the EMWD, water demand for the proposed on-site uses would total approximately 1,991.25 acre-feet per year (AFY).[2] The EMWD considers this a worst-case estimate based on the total acres and amount of square footage of high cube logistics uses proposed by the project. This estimate does not take into account the proposed project landscaping design with xeriscape drought-tolerant landscaping and on-site collection of runoff and channeling it to landscaped areas to minimize irrigation on the interior of the project site. Thus, the water demand analysis conducted by the EMWD and in this EIR is somewhat conservative in its estimate of the actual water usage of the proposed project as it builds out. For the purposes of analysis in this EIR, the EMWD's estimate of 1,991 AFY figure will be used relative to water consumption.

As identified in Section 4.16, *Utilities and Service Systems*, of this EIR, the proposed project will obtain water service from the EMWD. It is anticipated that the proposed project would primarily utilize imported water purchased from Metropolitan. In the event that the supply of imported water is

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1 The existing earthen wall is approximately 128 feet high with the highest elevation at 1,628 feet. Normal operating water levels for Lake Perris are at 1,588 feet (leaving 40 feet of excess height between the water level and the top of the dam). Restricted operating water levels for Lake Perris are at 1,563 feet (leaving 65 feet of excess height between the water level and the top of the dam).

2 *Water Supply Assessment Report for the World Logistics Center Specific Plan in Moreno Valley,* Eastern Municipal Water District, March 21, 2012.

reduced, it would be supplemented with new local supply projects during multiple dry years, if needed.

The WSA prepared for the proposed project indicates that development of the project will not include groundwater for water supply. Rather, this project, as well as other new developments in the EMWD's service area, will be supplied exclusively with imported water provided by MWD. The imported water may be treated by MWD, provided by Metropolitan as untreated water and subsequently treated by the EMWD, or recharged into the basin for later withdrawal.

NOTE: The following changes were made in Responses to Comments F-5-10 and F-5-23 in Letter F-5 from the Inland Empire Waterkeeper.

The proposed project will not substantially interfere with groundwater recharge due to the project implementation of bioretention areas and detention basins with infiltration capacity that mitigates the impact of reduced pervious areas. Bioretention areas and detention basins will be implemented in addition to the remaining impervious areas. The only use of groundwater may be to support continued agriculture on portions of the WLCSP property that have not yet been developed. The EMWD developed the West San Jacinto Groundwater Basin Management Plan to help ensure that local groundwater resources are conserved and groundwater overdraft does not occur, based on projections of future growth and expected water supply conditions. The Plan projects the water consumption demands of existing and future development based on rates of growth assumed by regional planning organizations (i.e., SCAG and WRCOG) and estimates water demand versus available supply under different water supply scenarios (e.g., multiple dry years).

The Specific Plan requires future development to minimize water use by installing drought-tolerant landscaping (Specific Plan Section 4.2, Offsite Landscaping, and Section 5.4, Onsite Landscaping), by designing buildings and hardscape areas to capture and reuse water on-site for landscape irrigation (Specific Plan Section 5.4, *On-Site Landscaping*), and installing water-conserving building fixtures such as sinks, toilets, etc. (Specific Plan Section 6.0, *Sustainability*).

State Water Supply Reliability. Based on the Water Allocation analysis released by the California Department of Water Resources (DWR) on March 22, 2010, export restriction could reduce Metropolitan deliveries by 150 to 200 thousand acre-feet (TAF) under mean hydrologic conditions, and operations could remain restricted until a long-term solution is found to improve the stability of the Bay-Delta region.

The State Water Project (SWP) and Central Valley Project (CVP) are the responsible partners for operation of the DWR and Bureau of Reclamation (Reclamation), respectively. In November 1986, DWR and Reclamation signed the Coordinated Operations Agreement (COA). The COA was subsequently authorized and approved by the California State Legislature and Congress. Under COA, DWR and Reclamation agree to operate the SWP and CVP in a balanced manner to coordinate releases from upstream reservoirs and unregulated flows to meet Sacramento Valley in-basin and in-Delta uses, including water quality standards established by the SWRCB.

Reclamation, as a Federal agency is required to consult with National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS) under Section 7 of the Federal Endangered Species Act (FESA) to determine if a Federal action that they authorize, fund, or implement could jeopardize the continued existence of a listed species in the wild, or destroy or modify the species' critical habitat. Because the SWP and CVP are operated in a balanced manner, the findings under Section 7 of the FESA affect operations of both the SWP and CVP.

The initial biological opinions related to long-term operations of the SWP and CVP were issued in 1993 by NMFS for protection of the winter-run Chinook salmon and by USFWS for protection of delta

smelt. Operations of the SWP and CVP were modified to reduce potential adverse impacts to these species primarily through:

1) Increased storage volumes of water in upstream reservoirs to provide adequate flows with appropriate temperatures for the winter-run Chinook salmon and adequate flows in the Delta for both species;
2) Flows released from upstream reservoirs to provide adequate in-Delta flows and Delta outflows for these species; and
3) Modification of periods of time when water can be diverted at the SWP and CVP south Delta intakes to reduce the potential for reverse flows, reduce the potential for high salinity in the south Delta, and reduce the potential for entrainment and entrapment of fish in the SWP and CVP south Delta intake facilities.

The biological opinions were modified as DWR and Reclamation modified operations of the SWP and CVP and new information related to aquatic resources became available. During this period, NMFS redesignated the Sacramento River winter-run Chinook salmon as “endangered” and designated two species as “threatened” (i.e., Central Valley spring-run Chinook salmon and Central Valley steelhead). Therefore, the consultations under Section 7 of the FESA were modified and new biological opinions were issued between 2000 and 2004. In 2005, the Department of the Interior was sued with respect to the 2004 biological opinion issued by USFWS. Subsequently, USFWS re-issued the biological opinion in 2005; however, the Department of the Interior was sued in 2005 with respect to the reissued biological opinion. The 2005 USFWS biological opinion was invalidated and the United States District Court for the Eastern District of California (the Court) ordered a new biological opinion and issued interim operations orders to protect delta smelt until a new biological opinion could be issued in 2008. The interim operations criteria included limitations for operation of the SWP and CVP south Delta intakes to protect delta smelt.

In response to these actions, Reclamation requested consultation with USFWS and NMFS in August 2008 with respect to the coordinated long-term operation of the SWP and CVP. In December 2008, the USFWS issued a new biological opinion on the coordinated long-term operation of the SWP and CVP on the effects to delta smelt. In June 2009, the NMFS issued a new biological opinion on the coordinated long-term operation of the SWP and CVP on the effects to currently listed species (e.g., Central Valley spring-run Chinook salmon, Central Valley steelhead, Southern District Population Segment of North American green sturgeon, and Southern Resident killer whale). Reclamation provisionally accepted and then implemented the Reasonable and Prudent Alternatives included in these biological opinions. The operational criteria included in the Reasonable and Prudent Alternatives resulted in changes to operations of upstream reservoirs, stream flows, Delta outflow, and SWP and CVP south Delta intakes.

Several lawsuits were filed in the Court related to various aspects of the USFWS and NMFS biological opinions, and to the acceptance and implementation of the associated Reasonable and Prudent Alternatives by Reclamation. Between 2009 and 2010, the Court ruled that Reclamation failed to conduct an environmental analysis under the National Environmental Policy Act (NEPA) of potential impacts to the human environment before provisionally accepting and implementing the Biological Opinion Reasonable and Prudent Alternatives. In 2010, the Court found certain portions of the USFWS biological opinion to be arbitrary and capricious, and remanded those portions of the biological opinion to the USFWS. The Court ordered Reclamation to review the biological opinion and Reasonable and Prudent Alternative in accordance with NEPA. In 2011, the Court remanded the biological opinion to the NMFS.

Reclamation has continued the consultation with USFWS and NMFS for modification of the biological opinions, and has initiated the NEPA process through publication of the Notice of Intent on March 28, 2012. The Court order required completion by Reclamation of the Environmental Impact Statement

(EIS) and the USFWS biological opinion related to delta smelt by December 1, 2013. The Court order also required completion by Reclamation of the EIS and the NMFS biological opinion related to Central Valley spring-run Chinook salmon, Central Valley steelhead, Southern District Population Segment of North American green sturgeon, and Southern Resident killer whale by February 1, 2016. The Court did not vacate the biological opinions, and therefore, SWP and CVP operations are analyzed each year with respect to the Reasonable and Prudent Alternatives.

The most recent Metropolitan Regional Urban Water Management Plan (RUWMP) (Metropolitan November 2010, page 1-18) indicates that operational constraints similar to the most recent biological opinions and associated Reasonable and Prudent Alternatives would likely be continued until future long-term plans, such as the Bay Delta Conservation Plan (BDCP), would be implemented. A similar discussion was included in the EMWD Urban Water Management Plan (UWMP) (2010, page 38).

To address potential constraints on the SWP, Metropolitan has developed near and long-term action plans to increase water supply reliability. Metropolitan is also working with stakeholders throughout the state to develop and implement long term solution to the problem in the Bay Delta. The BDCP developed by State and Federal resource agencies, aimed at addressing ecosystem needs and securing long-term operating permits for the SWP. A working draft of the BDCP was released in November of 2010 and reflects significant progress toward consensus on a plan to restoring the Bay-Delta ecosystem and associated sensitive species and provides for improved water supply and reliability.

Conclusion. Based on this analysis, the proposed WLC project is not expected to interfere with groundwater recharge activities or groundwater supplies. Impacts associated with this issue are less than significant, and no mitigation is required.

4.9.5.4 100-Year Flooding-Related Impacts

Threshold	Would the proposed project place within a 100-year flood hazard area structures that would impede or redirect flood flows? Would the proposed WLC project place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) identify areas subject to flooding during the 100-year storm.[1] Based on these FIRM maps, the project site does not fall within a 100-year flood zone.[2] Because the project site does not lie within a 100-year floodplain, impacts related to this issue are less than significant. No further discussion or mitigation is required.

4.9.6 Significant Impacts

4.9.6.1 Drainage Pattern and Capacity-Related Impacts

Impact 4.9.6.1: *The project may significantly increase off-site runoff.*

[1] The term “100-year” is a measure of the size of the flood, not how often it occurs. The “100-year flood” is a flooding event that has a one percent chance of occurring in any given year.
[2] FEMA DFIRM Data, 2008.

Threshold	Would the proposed WLC project substantially alter the existing local drainage patterns of the site and substantially increase the rate or amount of surface runoff in a manner which would result in substantial erosion, siltation, or flooding on site or off site? Would the proposed WLC project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

In general, runoff from the western portion of the site flows west toward the Perris Valley Storm Drain, while runoff from the eastern portion of the WLC site flows south into Mystic Lake, and (during times of high storm flow), reaches the San Jacinto River south of the San Jacinto Wildlife Area. As previously illustrated in Figure 4.9.1, the Specific Plan area is divided into six off-site and on-site HSAs. In general, existing storm water flows coming onto the Specific Plan area from the Badlands (Drainage Subarea A) are conveyed through a 12 foot by 8 foot reinforced concrete box (RCB). The RCB drains to the south through the existing Highland Fairview Corporate Park site (a 36-inch and 42-inch storm drain underlying Eucalyptus Avenue outlets to the RCB). Flows from the RCB sheet flow into a spreading area south of Eucalyptus Avenue and is dispersed onto the downstream agricultural land in its historical pattern. Further south, flows coming from the adjacent agricultural land are routed to an existing RCFCWCD earthen channel, identified as Line “F” in the MMDP, located along Redlands Boulevard and ultimately routed to the Perris Valley Storm Drain.

For the eastern portion of the Specific Plan Area (Drainage Subareas B, C, D, E, and F), there currently is no master plan of drainage. Open ditches and drainage culverts along Theodore Street and Gilman Springs Road convey off-site runoff from adjacent areas to the north and east. The drainage culverts along Gilman Springs Road drain into the San Jacinto Wildlife Area. The land uses and roadway facilities proposed under the Specific Plan would require modifications to the existing hydrologic patterns within the project vicinity to accommodate and manage these flows.

As part of the Specific Plan, a Master Plan of Drainage for the project area was developed (see Drainage Report). Table 4.9.I provides a summary of each of the proposed drainage subareas. Figure 4.9.3 outlines the drainage areas identified in this Master Plan of Drainage and indicates that, with implementation of the proposed project, the Specific Plan area would be divided into six drainage subareas.

As identified in Table 4.9.I, the majority of the existing Line “E” will remain as is; with four exceptions:

1) Where Line “E” crosses the proposed Alessandro Boulevard, a bridge or culvert will be provided at the crossing;
2) Where the proposed Lateral E-1 will connect with Line E.
3) Removal of the concrete at Alessandro Boulevard and lowering the grade above to match the downstream portion.
4) Installation of energy dissipating devices to slow water flow in order to reduce erosion and increase available moisture.

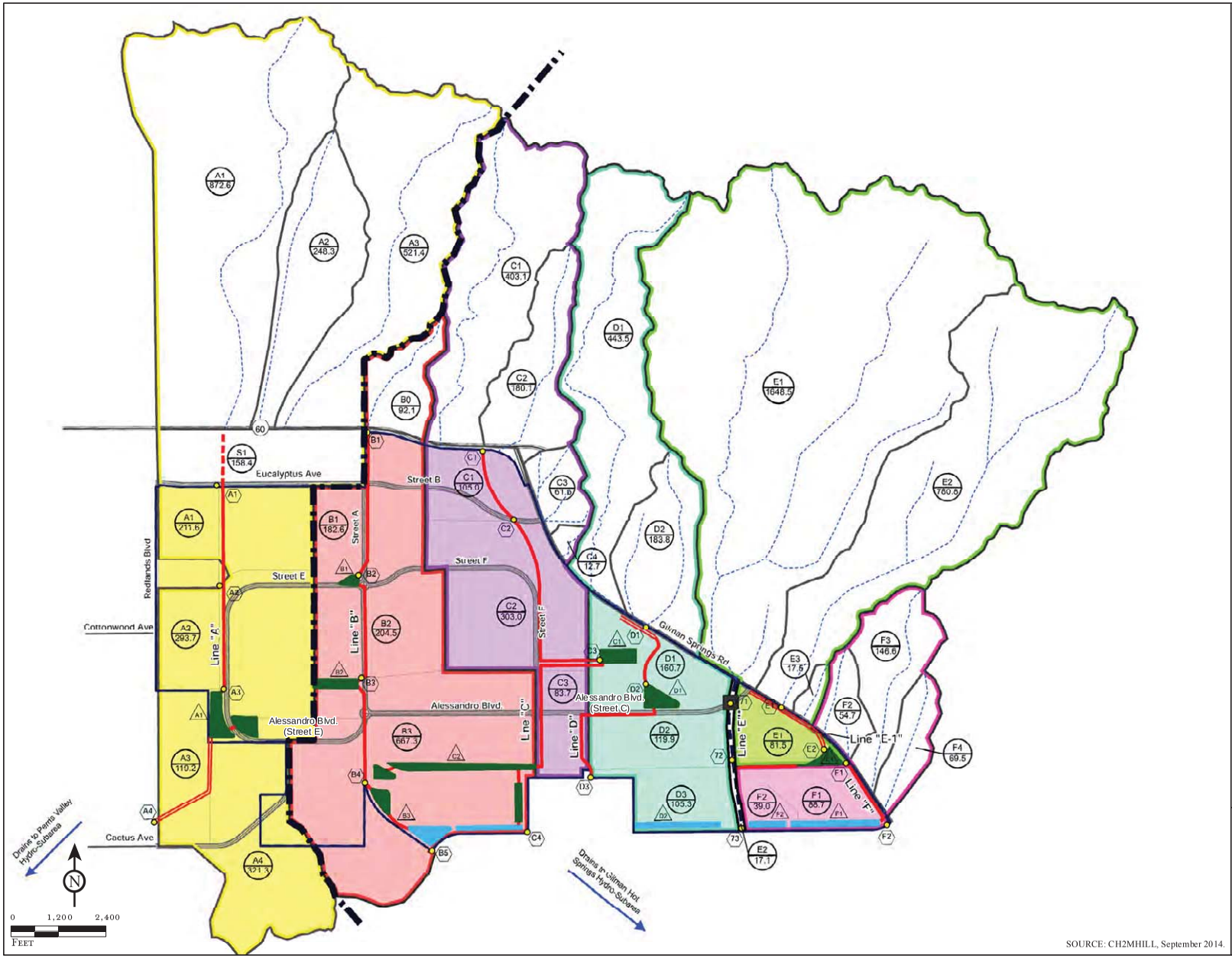
Storm water flows from the westerly portion of the project will be routed to Line “F” of the RCFCWCD MMDP similar to existing drainage patterns in the project area. Line “F” flows in a southwesterly direction and joins the Kitching Street Channel near Iris Avenue and Lasselle Street. Kitching Street Channel flows in a southerly direction and joins the Perris Valley Storm Drain south of Krameria Avenue. Once the storm water flows reach the Perris Valley Storm Drain, they will travel approximately 5.4 miles until joining Reach 3 of the San Jacinto River. This river travels 5.6 miles to Canyon Lake (Reach 2) and another 7.1 miles through Canyon Lake to Lake Elsinore (Reach 1).

Lake Elsinore is essentially the terminus for the San Jacinto River and the San Jacinto Watershed. Although Temescal Creek and the Santa Ana River were included in the ultimate flow path from the project site, flows that reach Lake Elsinore rarely spill into Temescal Creek or into the Santa Ana River due to local topography.

Table 4.9.I: Summary of Drainage Areas

Watershed	Area (acres)		HSA	Description
	Without Project	With Project		
A	2,657	2,746	Perris Valley	Storm water runoff coming from north of SR-60 would be routed to the proposed Sinclair Detention Basin. Since the proposed Sinclair Detention Basin is not expected to be constructed prior to the proposed WLC project, the existing 12-foot by 8-foot RCB will need to be extended southerly as proposed Line "F" (referred as Line "F" in MMDP) to convey the off-site flow. The project also proposes one on-site detention basin to mitigate on-site flows and then outlet to Line "F." Ultimately, Line "F" would flow to the discharge point Node 4 at Redlands Boulevard and eventually drain to the RCFCWCD regional facility.
B	1,361	1,147	Gilman Hot Springs	Storm water runoff coming from north of SR-60 would be conveyed to the proposed Line "B" along Theodore Street. The WLCSP proposes three (3) detention basins to mitigate the on-site flows. The outflow from the basins will be conveyed to Line "B" and routed to the proposed spreading area.
C	1,061	1,149	Gilman Hot Springs	Storm water runoff coming from north of SR-60 and north of Gilman Springs Road would be conveyed to the proposed Line "C" and routed to the proposed spreading area. The project proposes two (2) detention basins to mitigate the on-site flows. The outflow from the detention basin along with the off-site flow will sheet flow through the spreading area and then exit the project boundary.
D	965	1,013	Gilman Hot Springs	Off-site storm water runoff from north of Gilman Springs Road would be conveyed to the proposed Line "D." The WLCSP proposes two detention basins to mitigate the on-site flows. The outflow from the basins will be conveyed to Line "D" and the spreading area.
E	2,510	2,545	Gilman Hot Springs	Off-site runoff from north of SR-60 would be routed to the existing earthen channel Line "E." The majority of Line "E" will be protected in place. Easement on either side of the channel is provided for the floodplain. Where Line "E" crosses the proposed Street C a bridge or culvert will be provided. Line "E-1" conveys flows to and from one (1) detention basin. Line "E-1" within proposed Street C, will connect to Line "E". The concrete portion of Alessandro Boulevard will be removed and grades lowered to match downstream, and energy dissipating devices will be installed. The runoff exits the project southerly boundary at discharge point Node 73.
F	445	399	Gilman Hot Springs	Off-site runoff from north of Gilman Springs Road would be conveyed to the proposed Line "F." The WLCSP proposes two (2) detention basins to mitigate the on-site flows. The outflow from the basins will be conveyed to Line "F" and exit the project southerly boundary at discharge point Node 3.
Total	**8,999 acres**	**8,999 acres**		

Source: Table 4.1, Master Plan of Drainage Report, CH2M HILL, September 2014.



For the specific alignment of Alessandro Boulevard, see circulation Master Plan Figure 3.10.

SOURCE: CH2MHILL, September 2014.

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FIGURE 4.9.3

World Logistics Center Specific Plan Project
Environmental Impact Report

Proposed Drainage Subareas

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The Perris Valley Storm Drain Master Plan identifies future improvement needs of the channel based on future growth, including development of the WLCSP area. The backbone of the regional storm drainage system south of the City is the 250-foot wide earthen Perris Valley Storm Channel (PVSC). The PVSC is the primary collector of storm water in the northern part of Perris and the southern end of Moreno Valley. The PVSC was built and is currently owned and maintained by the RCFCWCD. The PVSC collects runoff from this area and transports the flows through Perris Valley and to the San Jacinto River. The 24-mile long San Jacinto River enters southern Perris from the east, at approximately the intersection of I-215 and Ellis Avenue, and runs approximately six miles to the extreme southwesterly boundary of the City. The PVSC is a major part of the Master Drainage Plan adopted as part of the Perris Valley Commerce Center Specific Plan.

The PVSC is part of the regional flood control system intended to convey regional flood flows from the upper watershed in Moreno Valley to the confluence with the San Jacinto River in the southern portion of the City. The Perris Valley Storm Channel Specific Plan (PVSCSP) Master Drainage Plan reduces the 100-year floodplain and accommodates 100-year flood events in the area. The PVSC regional system consists of several miles of open channel, several bridge crossings, and a number of retention basins to help capture storm water during seasonal and peak storm events. Historically, flooding in this part of the Perris Valley has been a longstanding issue. To manage seasonal, peak, and 100-year flooding events, in the late 1980s and early 1990s, Riverside County and the RCFCWCD adopted several Master Drainage Plans that were periodically refined. However, these Master Drainage Plans were adopted during the time period in which the land areas covered by the Master Drainage Plans were utilized primarily for agricultural uses. In the late 1990s, increasing urban development occurred in these areas and it became evident that variations to the precise Master Drainage Plans adopted by the County and RCFCWCD would be required to facilitate the construction of needed infrastructure. The adoption of the PVSCSP in 2012 by the City of Perris included refinements to the facilities necessary to control flooding in the PVSCSP planning area.

Engineering of these ultimate PVSC improvements has been designed to handle storm water flows from 100-year storm events. Within the City of Perris, the majority of the PVSC flood control system is not constructed to the ultimate condition envisioned by the PVSCSP. As a result, the reduced capacity within the existing channel causes regional flood flows to exceed the banks of the channel and flood the surrounding area. With the construction of the ultimate system, the 100-year storm floodplain will be reduced by several hundred acres, and the surrounding properties and roadways will be protected from flooding.

Although the PVSC has not yet been widened to its ultimate width, expected runoff from the proposed WLC project will not exceed current levels because on site detention and infiltration basins will be provided to mitigate and control runoff and drainage patterns to pre-project levels in accordance with **Mitigation Measure 4.9.6.1A**. Flow characteristics and locations of the detention and infiltration basins are outlined in the project hydrology study prepared by CH2MHill (see Appendix J). See Table 4.9.I and Figure 4.9.4. These proposed basins will be located and designed such that the existing sub-watersheds and the existing drainage pattern and flows leaving the project boundary mimic existing conditions. Therefore, development of the WLC project will not have significant impacts on regional flood control, even prior to ultimate buildout of the PVSC.

The development of this project will include the construction of buildings, parking areas, sidewalks, roads and other infrastructure such as storm water, water, and sewer facilities. Because the development of the proposed project will substantially increase the amount of impervious surfaces, the post-development flow volumes that will be generated on site are anticipated to be substantially higher than the pre-development flows.

Conditions resulting from this change will include increased runoff volumes and velocity; reduced infiltration; increased flow frequency, duration, and peak; shorter time to reach peak flow; and

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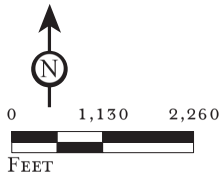

Proposed Basin Number
Exist Culvert
Bridge/Culvert
Proposed Basin
Proposed Spreading Basin
Existing Storm Drain
Existing RCB
Proposed Storm Drain
Proposed Open Channel; LINE D OPEN CHAN
Natural Flow (Line "E")
Project Boundary

Note: For the specific alignment of Alessandro Boulevard, see circulation Master Plan Figure 3.10.

FIGURE 4.9.4

World Logistics Center Specific Plan Project Environmental Impact Report

Master Drainage System

SOURCE: World Logistics Center Specific Plan, Highlandfairview, September, 2014.

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degradation in water quality. The project site currently has a low runoff coefficient, meaning that runoff during storms represents a relatively small portion of the total rainfall. The majority of the precipitation, particularly in smaller storms, infiltrates into the subsurface. The development of the Specific Plan area with impervious surfaces (such as roadways, parking lots, and buildings) would result in a condition in which nearly all rainfall becomes runoff.

NOTE: The following changes have been made in response to Comment B-3-39 in Letter B-3 from the California Department of Fish and Wildlife and Comment B-6-5 from Letter B-6 from the Santa Ana Regional Water Quality Control Board.

A significant impact would be deemed to have occurred in the event that post-development storm water flows, volumes or velocities are greater than pre-development storm water flows leaving the site. However, flows, volumes, and velocities will not increase because volume is stored in the basins and infiltrated or released at a controlled rate after the storms (CH2MHill 2014). Each detention basin has 2 feet of dead storage so that flows will infiltrate in the ground. Table 4.9.J presents the sizes of each of the basins. Figures 4.9.5 and 4.9.6 show typical sections for the basins. Two separate analyses were performed for the detention and infiltration basins. The first analysis was part of the drainage system analysis to size the basins to mitigate the flow from the 100-year 3 and 24-hour storms. In this analysis the bottom 2 feet of the basins (identified as Basin Infiltration Depth in Table 4.9.J) is infiltration storage and assumed to be full prior to the storm. The second analysis was performed to analyze the pre and post project infiltration for the project. This is a water balance model analysis of historical daily runoff.

The project hydrology study used local hydrographs and flood routing models to simulate the proposed condition. Based on the modeling results, the 100-year, 3-hour storm provides the highest peak flows, and the 100-year, 24-hour storm provides the highest flow volumes. The 100-year, 3-hour peak flows are used to preliminarily size the proposed drainage systems. Table 4.9.K provides the modeled peak flows for the 100-year, 3-hour storm scenario.

Flows at Project Boundary. Flows exiting the project's boundary in the proposed condition will mimic existing conditions. There are six watershed areas and drainage courses that deliver flow through the project area. These are identified as watershed areas "A" through "F" on Figure 4.9.3. The existing capacity of these drainage courses at the project boundary was determined. Flows in excess of this capacity would flow overland and sheet flow across the project boundary in the existing condition. Detention Basins and spreading area facilities are proposed to reduce the proposed conditions flow to pre-project conditions at the project boundary. Table 4.9.L identifies the existing and proposed 100-year flow, the drainage course capacity, and the sheet flow at the project boundary.

Flow Velocities at Project Boundary. This project proposes a number of open space, detention basins and spreading areas to mitigate the increased runoff, volumes and flow velocities. As a result, the flow velocities at the project boundary for the proposed condition are less than the existing condition, as illustrated in Table 4.9.M. For the watersheds "A" and "E" in the proposed condition, the runoff will flow to the existing Green Belt Channel and existing earth channel, respectively. Therefore, sheet flow would not occur at the project boundary. The flow velocities in the watersheds "B," "C," "D," and "F" for the proposed and existing conditions were analyzed. For the proposed condition, the runoff will flow to the basins and spreading areas, then weir flow over a level curb, and eventually flow to the existing channels downstream of the project's boundary. Flows in excess of channel capacity would flow overland and sheet flow across the project's boundary. For the existing condition, the runoff would flow in to the existing drainage channels, and the flow in excess of channel capacity would flow overland and sheet flow across the project's boundary.

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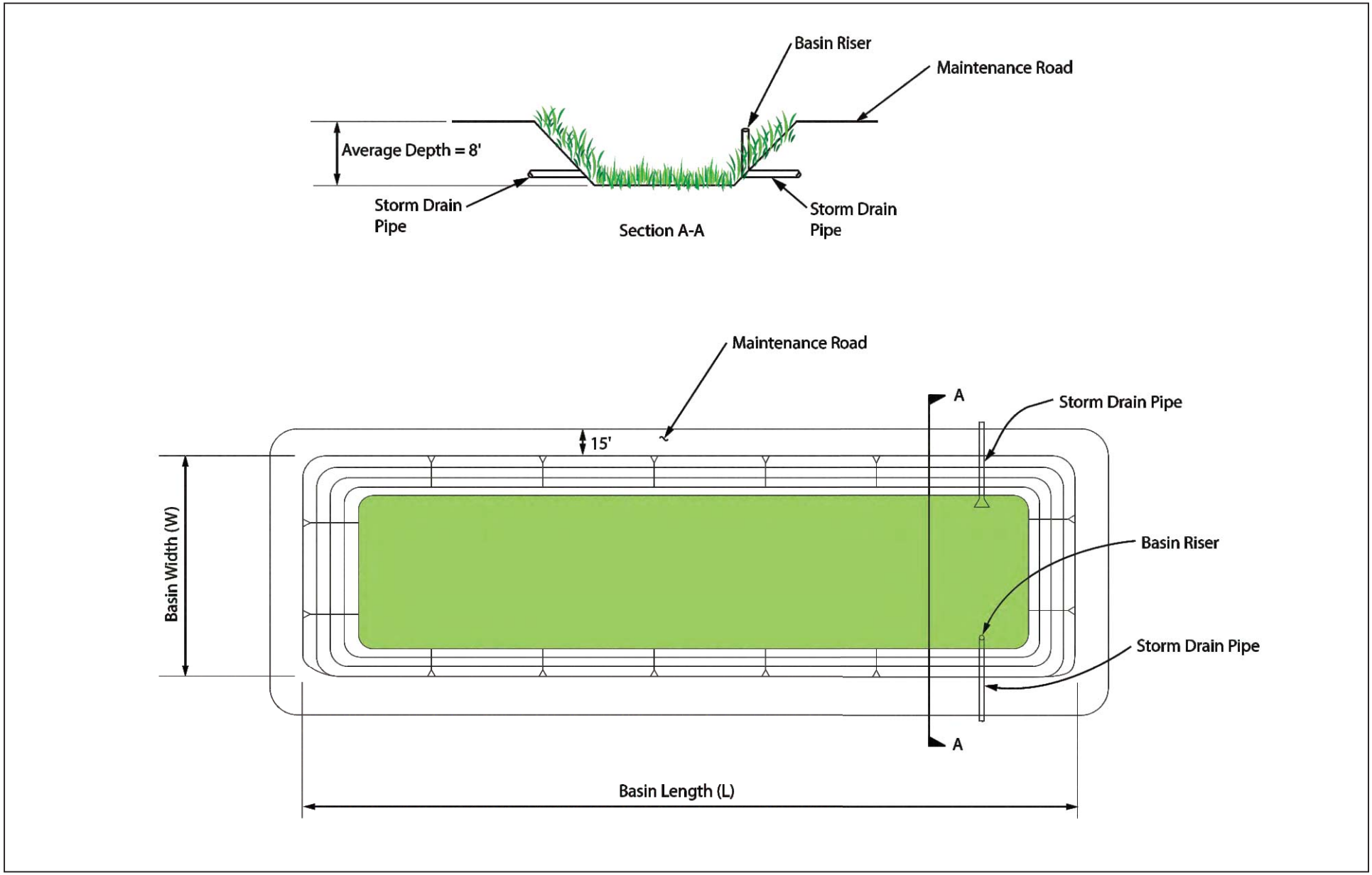

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FIGURE 4.9.5

World Logistics Center Specific Plan Project
Environmental Impact Report

Typical Detention Basin Sections

SOURCE: HF, 2014.

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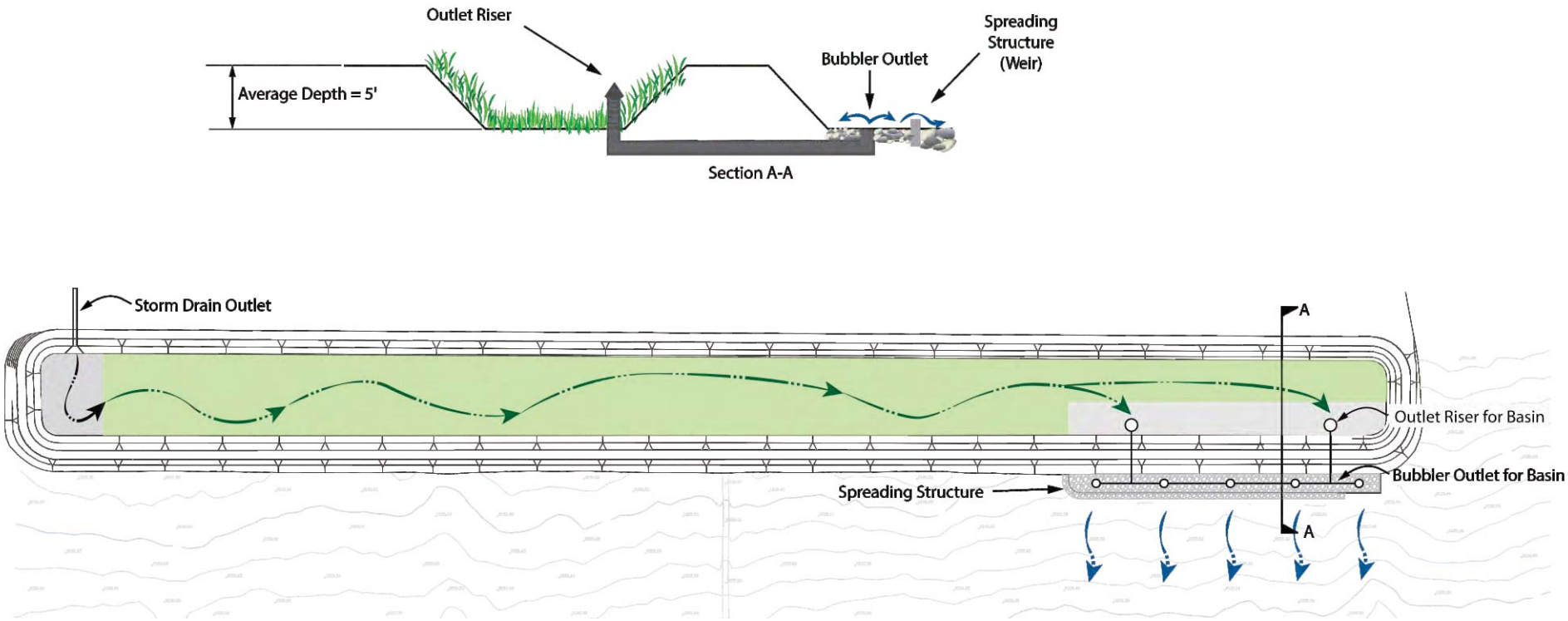

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FIGURE 4.9.6

World Logistics Center Specific Plan Project
Environmental Impact Report

Typical Detention Basin With Drainage Spreading Structure

SOURCE: HF, 2014.

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Table 4.9.J: Proposed Basins

Basin No.	Approx. Basin Length (ft)	Basin Top Width (ft)	Basin Depth (ft)	Basin Detention Depth (ft)	Basin Infiltration Depth (ft)	Side Slope	Basin Detention Volume (ac-ft)	Basin Infiltration Volume (ac-ft)	Total Basin Volume (ac-ft)
A1	1,200	1,260	8	6	2	2	97	32	129
B1	540	240	8	6	2	2	12	4	16
B2	1,140	240	8	6	2	2	41	14	55
B3*	2,520	360	5	3	2	2	45	30	75
C1	1100	360	8	6	2	2	80	27	107
C2*	6,120	120	5	3	2	2	73	49	122
D1	960	600	6	4	2	2	42	14	56
D2*	2200	120	5	3	2	2	28	18	46
E1	960	480	6	4	2	2	26	8	34
F1*	2300	120	5	3	2	2	18	12	30
F2*	840	120	5	3	2	2	7	4	11

**spreading basin*
Source: Master Plan of Drainage Report, CH2MHILL, September 2014.

Table 4.9.K: Existing and Proposed Storm Water Runoff for 100-Year, 3-Hour Storm Event

Watershed	Peak Flow (cfs)	
	Existing	Proposed[1]
A	2,470	2,170
B	1,130	930
C	820	750
D	815	795
E	1,990	1,800
F	495	390

Source: Master Plan of Drainage Report, CH2MHILL, September 2014.

Table 4.9.L: Comparison of Existing and Proposed Flows at Project Boundary

Watershed	Existing Conditions at Project Boundary			Proposed Conditions at Project Boundary		
	Existing 100-year Flow (cfs)	Existing Drainage Course Capacity (cfs)	Existing 100-year sheet flow (cfs)	Proposed 100-year Flow (cfs)	100-year flow from Basin to Drainage Course (cfs)	Proposed 100-year sheet flow from Basin (cfs)
A[1]	2,470	2,200	270	2,170	N/A	N/A
B	1,130	55	1,075	930	55	875
C	820	165	655	750	165	585
D	815	65	750	795	65	730
E[2]	1,990	6,220	0	1,800	N/A	N/A
F	495	70	425	390	70	320

[1] Flows to improved channel - No sheet flow proposed in proposed conditions.
[2] Existing facility has capacity for flow – No detention basin proposed.
Source: Master Plan of Drainage Report, CH2MHILL, September 2014.

Table 4.9.M: Comparison of Existing and Proposed Flow Velocities at Project Boundary

Existing Watershed	Node*	Velocity (fps)	Prop Watershed	Node*	Velocity (fps)
B	12	5.16	B	B5	2.19
	22	4.40			2.19
C	37	8.80	C	C4	2.01
	41	3.60			2.01
D	53	4.77	D	D3	2.10
	61	4.45			2.10
F	81	3.33	F	F2	1.78
	83	6.29			1.78
	102	3.61			1.78
	112	3.83			1.78

Source: Master Plan of Drainage Report, CH2MHILL, September 2014.

Runoff and Infiltration Volumes Comparison. An analysis and comparison of the volume of runoff and infiltration for the pre and post project conditions was performed. A total of three scenarios were analyzed, baseline plus the following two project scenarios:

- Baseline or Pre Project conditions, where most of the land use is agricultural and the crop is considered to be dry wheat.
- Scenarios of Post Project Conditions, where the development of the site will happen and the impervious area will increase. Two scenarios were considered under the Post development conditions, those are:

Scenario 1) Detention Basins and bioretention areas with 0.15 in/hr infiltration rate. This scenario considers the use of detention basins not only for storm peak attenuation but also for infiltration. The lower end of the minimum infiltration rate for soil type B is considered. The detention basins are assumed to take 3 days to empty and total dead storage currently assumed at 212 acre-feet (AF). In reality the amount of dead storage needed will be a function of the measured infiltration rate at the site. The bioretention areas are areas where the runoff is directed to prior to the detention basins. The bioretention areas consist of landscaped areas that provide treatment and infiltration.

Scenario 2) Detention Basins and bioretention areas with 0.3 in/hr infiltration rate. This scenario considers the use of detention basins not only for storm peak attenuation but also for infiltration. The higher end of the minimum infiltration rate for soil type B is considered. The detention basins are assumed to take 3 days to empty and dead storage is assumed at 212 acre-feet.

The results are summarized in Table 4.9.N

Table 4.9.N: Model Results for Runoff and Infiltration and the Percentage Change from Baseline Conditions

Scenario	Runoff		Infiltration	
	1990-2012 Average(AF/yr)	Percent Change from Baseline	1990-2012 Average(AF/yr)	Percent Change from Baseline
Baseline	59	—	1,649	—
Scenario 1	125	110%	1,850	12%
Scenario 2	40	-33%	1,945	18%

Source: Master Plan of Drainage Report, CH2MHILL, September 2014.

The project's impacts will be mitigated with the implementation of Scenario 2. The volume of runoff after the project is constructed will be less than the existing volume of runoff and the amount of infiltration will increase. Infiltration tests to refine Scenarios 1 and 2 will be performed in final design so runoff and infiltration will mimic existing conditions.

To the degree possible, the project will site basins in areas of cut that do not require over excavation, this should result in acceptable infiltration rates. In the event the soil at a basin site does not meet the required infiltration rate, dry wells, hybrid bioretention/dry wells or infiltration trenches will be used to achieve the target infiltration rate. All three of these BMP's will reach past impervious clay or compacted fill area to deeper more pervious soils. Dry wells are considered Class V wells and require submission of an "Inventory Form" to the EPA. Infiltration tests will be done prior to design of basins so that the proper BMP's can be incorporated into the basins. It should also be noted that groundwater levels in the project area are in excess of 100 feet below ground surface (DEIR Section 4.6.5.4, Geology and Soils).

Due to the construction of impervious surfaces on the project site, post-development flows will be higher than the pre-development flows. To avoid a significant impact to the existing drainage capacity, the post-development flows, volumes, and velocities coming from the proposed project site must be managed to be equal to or less than pre-development flows, volumes, and velocities.[1] As required by **Mitigation Measure 4.9.6.1A**, flows will be reduced to below or equal to pre-development conditions by routing the on-site storm water flows through a series of on-site detention and infiltration basins before flows are released off site. The existing storm water runoff discharge rate for the undeveloped project site is 7,720 cubic feet per second (cfs). With the installation of the on-site detention basins, culverts, and energy dissipaters included in the project, expected discharges would be at a rate of 6,835 cfs, which is less than the existing condition. With the installation of the storm drain system facilities outlined in *C*H2M Hill's hydrology reports (see Appendix J) and implementation of the recommended mitigation measures, the buildout of the project will convey storm flows safely through the region in accordance with Riverside County Flood Control requirements and will not result in flooding or additional erosion within the project area or any downstream areas, including the Perris Valley Storm Drain Channel.

For additional analysis regarding anticipated construction and operational pollutants, please refer to Section 4.9.6.2, *Construction-Related Water Quality Impacts,* and Section 4.9.6.3, *Operational-Related Water Quality Impacts*.

Development of the proposed WLC project site will increase impervious surfaces on the project site due to the construction of the project's buildings, roadways, and associated improvements. While the resultant increase in impervious surfaces would contribute to a greater volume and higher velocities of storm flow, **Mitigation Measure 4.9.6.1A** requires the WLC project site's drainage system be designed to accept and accommodate runoff that would result from the project construction at or better than historic, or pre-development, conditions, as outlined in the project's Master Plan of Drainage shown in previously referenced Figure 4.9.4. **Mitigation Measure 4.9.6.1B** provides for the operation and maintenance of these facilities to ensure that they will be maintained.

Ultimately, for the proposed condition, the peak flows at downstream discharge points where the flows exiting the southerly project boundary, will not exceed the peak flows for the existing condition. As the WLC project develops and regional drainage improvements are installed as anticipated (e.g., Perris Valley Storm Drain Master Plan), there should be no long-term significant impacts related to storm drainage or flood control. Overall, current experiences with flooding in the general project vicinity should decrease as on-site drainage is contained or controlled in planned improvements and detention basins. Section 4.16, *Utilities and Service Systems,* provides additional analysis of on-site drainage capacity relative to planned storm drain improvements.

NOTE: The following changes have been made in response to Comment F-1-77 in Letter F-1 from Center for Biological Diversity/San Bernardino Valley Audubon Society and Comment F-11-44 in Letter F-11 from the Sierra Club.

Project or Specific Plan Design Features. The Drainage Master Plan (DMP) and creation and maintenance of the proposed combined detention and infiltration basins in the southern portion of the project according to the DMP will help ensure that there will be no significant off-site impacts related to runoff from the proposed project. These facilities will be designed based on the most up–to-date hydrology based on the latest rainfall to runoff patterns in compliance with local, state, and federal regulations. The design of the drainage facilities include a factor of safety in the form of freeboard to

[1] As part of the MS4 Permit issuance requirements, projects must identify any Hydrologic Conditions of Concern and demonstrate that changes to hydrology are minimized to ensure that post-development runoff rates and velocities from a site do not adversely impact downstream erosion, sedimentation or stream habitat.

account for uncertainties due to climate change, rainfall patterns, friction factors and other uncertainties. One foot of freeboard was included in the detention basins and drainage facilities to account for these uncertainties. At the time of final design the amount of freeboard to account for these uncertainties will be finalized. The facilities are being designed to provide both detention and infiltration to mitigate increases in runoff volume, velocity and peak discharge as outlined in the following mitigation measure.

The changes to the following mitigation measures have been made in response to Comment B-3-39 in Letter B-3 from the California Department of Fish and Wildlife, Comment F-1-77 in Letter F-1 from Center for Biological Diversity/San Bernardino Valley Audubon Society, Comments F-5-13 and –F-5-23 in Letter F-5 from the Inland Empire Waterkeeper, Comment F-11-41 in Letter F-11 from the Sierra Club et al, and other related comments.

Mitigation Measures. The following measure is proposed to help ensure that runoff from the proposed project site does not have significant impacts on downstream off-site properties, including the SJWA:

4.9.6.1A Prior to issuance of any building permit within the Specific Plan area, the developer shall construct storm drain pipes and conveyances, as well as, combined detention and infiltration basin(s), bioretention areas, and spreading area(s) within each proposed watershed, as outlined in the project hydrology plan, to mitigate the impacts of increased peak flow rate, velocity, flow volume and reduce the time of concentration by storing and infiltrating increased runoff for a limited period of time and release the outflow at a rate that does not exceed the pre-development peak flows and velocities for the 2, 5, 10, 25, and 100-year storms and volumes as assessed in the water balance model for historical conditions. For the purpose of this mitigation measure, the term “construct” shall mean to substantially complete construction so as to function for its intended purpose during construction with complete construction prior to occupancy. Field investigations will be conducted to determine the infiltration rate of soils underlying the proposed locations of bioretention areas and detention basins. The infiltration rate of the underlying soils will be used to properly size the bioretention areas and detention basins/infiltration basins to ensure that adequate volumes of runoff, in cumulative total for all bioretention areas and detention basins are captured and infiltrated. The water balance model will be updated and rerun for the site-specific conditions encountered to confirm the water balance. This measure shall be implemented to the satisfaction of the City Engineer. Energy dissipaters shall be used as the spillways of basins to reduce the runoff velocity and dissipate the flow energy. Drainage weir structures shall be constructed at the downstream end of the watersheds flowing to the San Jacinto Wildlife Area to control the runoff and spread the flow such that the flows exiting the project boundary will return to the sheet flow pattern similar to the existing condition. Detention basins and spreading areas shall be designed to account for the amount of the sediment transported through the project boundary so that the existing sediment carrying capacity is maintained.

4.9.6.1B The bioretention areas and detention/infiltration basins shall be designed to assure infiltrations rates. The monitoring plan will follow the guidelines presented by the California Storm Water Quality Association (CASQA) in the California Storm Water Best Management Program (BMP) Handbook, Municipal, January 2003 Section 4, Treatment Control Best Management Programs Fact Sheets TC-11 Infiltration Basin and TC-30 Vegetated Swale).

For the Bioretention areas, as needed maintenance activities shall be conducted to remove accumulated sediment that may obstruct flow through the swale. Bioretention areas shall be monitored at the beginning and end of each wet season to assess any degradation in infiltration rates. The maintenance activities should occur when sediment

on channels and culverts builds up to more than 3 inches (CASQA 2003). The swales will need to be cultivated or rototilled if drawdown takes more than 72 hours.

For the detention/infiltration basins, a 3-5 year maintenance program shall be implemented mainly to keep infiltration rates close to original values since sediment accumulation could reduce original infiltration rate by 25-50%. Infiltration rates in detention basins will be monitored at the beginning and end of each wet season to assess any degradation in infiltration rates. If cumulative infiltration rates of all detention basins drops below the minimum required rates, then the detention basins will be reconditioned to improve infiltration capacity by scraping the bottom of the detention basin, seed or sod to restore groundcover, aerate bottom and dethatch basin bottom (CASQA 2003).

Level of Significance after Mitigation. Implementation of the Master Drainage Plan of the Specific Plan and **Mitigation Measures 4.9.6.1A** and **4.9.6.1B** will reduce potential impacts associated with runoff from the project site to less than significant levels.

4.9.6.2 Construction-Related Water Quality Impacts

Impact 4.9.6.2: *The project may cause surface water pollution during construction.*

Threshold	Would the proposed project violate any water quality standards or waste discharge requirements during construction phases of the project in form of increased soil erosion, sedimentation, or storm water discharges?

The grading phases of any portion of the project will require temporary disturbance of surface soils and removal of vegetative cover, which could potentially result in erosion and sedimentation, major visible water quality impacts attributable to construction activities. Stockpiles and excavated areas would be susceptible to high rates of erosion from wind and rain and, if not managed properly, could result in increased sedimentation in local watercourses.

By volume, sediment is the principal component in most storm runoff. The delivery, handling, and storage of construction materials and wastes, as well as the use of on-site construction equipment will also introduce a risk for storm water contamination. Spills and leaks could occur from the use of construction equipment and could originate from construction staging areas. Once released, substances such as fuels, oils, paints, and solvents can be transported to nearby surface waterways and/or to groundwater in storm water runoff, wash water, and dust control water, potentially reducing the quality of the receiving waters. The anticipated and potential pollutants in storm water or urban runoff for various land uses are reflected in previously referenced Table 4.9.F.

Short-term storm water pollutant discharges from each development site within the project will be mitigated through compliance with the required NPDES permits, resulting in a less than significant impact. The NPDES permit program was established under Section 402 of the CWA, which prohibits the unauthorized discharge of pollutants, including municipal, commercial, and industrial wastewater discharges, from point sources to U.S. waters. Permittees must verify compliance with permit requirements by monitoring their effluent, maintaining records, and filing periodic reports. An NPDES permit specifies an acceptable level of a pollutant or pollutant parameter in a discharge (for example, a certain level of bacteria) and the permittee selects an appropriate process or technology to achieve that level. Some permits, however, do contain certain generic BMPs. Table 4.9.O lists possible construction site BMPs for runoff control, sediment control, erosion control, and housekeeping that may be used during the construction phases of the proposed WLC project. These construction site

BMPs are only examples of what should be considered and should not preclude new or innovative approaches currently available or being developed.

The implementation of NPDES permits, including the General Construction permit, ensures that the Federal and State standards for clean water are met. Enforcement of required NPDES permit requirements will prevent sedimentation and soil erosion through implementation of an SWPPP and periodic inspections by RWQCB staff. An SWPPP is a written document that describes the construction operator's activities to comply with the requirements in the NPDES General Construction permit. Required elements of an SWPPP include (1) site description addressing the elements and characteristics specific to the project site; (2) descriptions of BMPs for erosion and sediment controls; (3) BMPs for construction waste handling and disposal; (4) implementation of approved local plans; and (5) proposed post-construction controls, including a description of local post-construction erosion and sediment control requirements. The SWPPP establishes a plan whereby the operator evaluates potential pollutant sources at the site and selects and implements BMPs designed specifically to prevent or control the discharge of the identified pollutants into storm water runoff.

Table 4.9.O: General Construction Site Best Management Practices

Runoff Control	Sediment Control	Erosion Control	Good Housekeeping
• Minimize clearing • Preserve natural vegetation • Stabilize drainage ways • Install check dams • Install diversion dikes	• Install perimeter controls (e.g., silt fences) • Install sediment trapping devices (e.g. straw wattles, hay bales, gravel bags) • Inlet protection (e.g. check dams) • Install fiber rolls	• Stabilize exposed soils (e.g., hydroseed, soil binders) • Protect steep slopes(e.g., geotextiles, compost blankets) • Cover stockpiles with blankets • Complete construction in phases	• Create waste collection area • Put lids on containers • Clean up spills immediately

Source: National Pollutant Discharge Elimination System, *Construction Site Storm Water Runoff Control*, http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm, site accessed April 20, 2012.

Project or Specific Plan Design Features. The Specific Plan itself does not contain any features that address water quality issues related to construction, but the WQMP (see Appendix J), the DMP, and the landscaping plan will help reduce long-term water consumption and water quality impacts within the project. However, additional information has been added to the *Hydrology and Water Quality Master Plan of Drainage Report* (FEIR Volume 2 Appendix J) to provide specific and detailed plans for the drainage systems to include the size, capacity, design, function and maintenance requirements of the detention basins. The detention basins have been modified to combine detention and infiltration. Additional analysis has been performed to detail the infiltration capacity of the basins and indicates that runoff leaving the project site will be less than or equal to the existing condition. Infiltration after the project will be greater than the existing condition. Additional details on the spreading areas and mitigation of flow volumes and velocities at the project boundary have been added to the *Master Plan of Drainage Report* and are summarized in the Response to Comment B-3-37 from the CDFW to address similar comments regarding drainage and water quality impacts of the project.

Mitigation Measures. Although adherence to NPDES requirements is required of all development within the City, the incorporation of these requirements as **Mitigation Measures 4.9.6.2A** and

4.9.6.2B are designed to ensure that any future development within the WLC Specific Plan area obtains coverage under the NPDES General Construction permit, and to track compliance with these requirements as part of the Mitigation Monitoring and Reporting Plan or Program (MMRP):

4.9.6.2A Prior to issuance of any grading permit for development in the World Logistics Center Specific Plan, the project developer shall file a Notice of Intent (NOI) with the Santa Ana Regional Water Quality Control Board to be covered under the National Pollutant Discharge Elimination System (NPDES) General Construction Permit for discharge of storm water associated with construction activities. The project developer shall submit to the City the Waste Discharge Identification Number issued by the State Water Quality Control Board (SWQCB) as proof that the project's Notice of Intent is to be covered by the General Construction Permit has been filed with the State Water Quality Control Board. This measure shall be implemented to the satisfaction of the City Engineer.

4.9.6.2B Prior to issuance of any grading permit for development in the World Logistics Center Specific Plan, the project developer shall submit to the State Water Quality Control Board (SWQCB) a project-specific Storm Water Pollution Prevention Plan (SWPPP). The Storm Water Pollution Prevention Plan shall include a surface water control plan and erosion control plan citing specific measures to control on-site and off-site erosion during the entire grading and construction period. In addition, the Storm Water Pollution Prevention Plan shall emphasize structural and nonstructural best management practices (BMPs) to control sediment and non-visible discharges from the site. Best Management Practices to be implemented may include (but shall not be limited to) the following:

(a) Sediment discharges from the site may be controlled by the following: sandbags, silt fences, straw wattles and temporary debris basins (if deemed necessary), and other discharge control devices. The construction and condition of the Best Management Practices are to be periodically inspected by the Regional Water Quality Control Board during construction, and repairs would be made as required.

(b) Materials that have the potential to contribute non-visible pollutants to storm water must not be placed in drainage ways and must be placed in temporary storage containment areas.

(c) All loose soil, silt, clay, sand, debris, and other earthen material shall be controlled to eliminate discharge from the site. Temporary soil stabilization measures to be considered include: covering disturbed areas with mulch, temporary seeding, soil stabilizing binders, fiber rolls or blankets, temporary vegetation, and permanent seeding. Stockpiles shall be surrounded by silt fences and covered with plastic tarps.

(d) The Storm Water Pollution Prevention Plan shall include inspection forms for routine monitoring of the site during the construction phase.

(e) Additional required Best Management Practices and erosion control measures shall be documented in the Storm Water Pollution Prevention Plan.

(f) The Storm Water Pollution Prevention Plan would be kept on site for the duration of project construction and shall be available to the local Regional Water Quality Control Board for inspection at any time.

The developer and/or construction contractor for each development area shall be responsible for performing and documenting the application of Best Management Practices identified in the project-specific Storm Water Pollution Prevention Plan. Regular inspections shall be performed on sediment control measures called for in the Storm Water Pollution Prevention Plan. Monthly reports shall be maintained and available for City inspection. An inspection log shall be maintained for the project and shall be available at the site for review by the City of Moreno Valley and the Regional Water Quality Control Board.

Level of Significance after Mitigation. While on-site grading and development activities will increase the potential for the erosion of soils, adherence to the BMPs mandated by **Mitigation Measures 4.9.6.2A** and **4.9.6.2B** will reduce impacts associated with short-term (construction) storm water discharges during project construction to a less than significant level.

4.9.6.3 Operational-Related Water Quality Impacts

Impact 4.9.6.3: *The project may result in surface water pollution during operation.*

Threshold	Would the proposed project violate any water quality standards or waste discharge requirements during the operational phases of the project in the form of increased soil erosion, sedimentation, or urban runoff?

During the operational phase of any urban use, the major source of pollution in storm water runoff will be contaminants that have accumulated on the land surface over which runoff passes. Storm runoff from the roadways, parking lots, and commercial and industrial buildings can carry a variety of pollutants such as sediment, petroleum products, commonly utilized construction materials, landscaping chemicals, and (to a lesser extent) trace metals such as zinc, copper, lead, cadmium, and iron, which may lead to the degradation of storm water in downstream channels. Runoff from landscaped areas may contain elevated levels of phosphorus, nitrogen, and suspended solids. Oil and other hydrocarbons from vehicles are also expected in storm water runoff.

Pollutant concentrations in urban runoff are variable depending on storm intensity, land use, elapsed time since previous storms, and the volume of runoff generated in a given area that reaches receiving waters. Pollutant concentrations are typically highest during the first major rainfall event after the dry season, known as the "first-flush." The WQMP prepared for the project identifies pollutants and hydrologic conditions of concern that may be associated with the implementation of the project. Table 4.9.P identifies the receiving waters for post-development runoff from the site and states if the receiving water is listed as impaired or has a total maximum daily load (TMDL) adopted for a certain type of pollutant. Table 4.9.Q provides a summary of pollutants associated with proposed land uses within the Specific Plan area.

Table 4.9.P: Pollutant Stressors in Receiving Waters

Receiving Waters	Receiving Water Classification	303(d) Listing		Adopted TMDL Pollutants
	Proximate	Listed?	Pollutant Causing Impairment	
San Jacinto River	Yes	No	None	None
Canyon Lake (Railroad Canyon Reservoir)	No	Yes	Nutrients, Pathogens	Phosphorus, Nitrogen
Lake Elsinore	No	Yes	Nutrients, Organic Enrichment/Low Dissolved Oxygen, PCBs, Sediment Toxicity, Unknown Toxicity	Phosphorus, Nitrogen, Dissolved Oxygen

Source: *Preliminary Water Quality Management Plan for World Logistics Center Specific Plan*, CH2MHILL, September 2014.

As identified in Table 4.9.Q, pollutants associated with the operations of the proposed logistics land uses include sediments, nutrients, toxic organic compounds, trash and debris, bacterial indicators, oil and grease, pesticides, and metals. Based on the WQMP, all downstream receiving waters to which a project directly or indirectly discharges have been identified. The selection of treatment controls for the project shall be based primarily on the potential pollutants associated with the project that are also present in impaired receiving waters.

As specific developments within the project are developed, updates to the Master WQMP for the World Logistics Center Specific Plan will be required to ensure that water quality treatment is being maintained per City requirements.

Table 4.9.Q: WLC Specific Plan Potential Pollutants

Pollutants	Specific Plan Land Use	Is/Does the Pollutant?	
		Have a Potential to Occur?	Impaired in Receiving Waters?
Sediments	Landscape/Open Areas	Yes	No
Nutrients	Industrial/Commercial Areas	Yes	Yes
Toxic Organic Compounds	Industrial/Commercial Areas	Yes	Yes
Trash and Debris	Industrial/Commercial Areas	Yes	No
Bacterial Indicators	Industrial/Commercial Areas	Yes	Yes
Oil and Grease	Industrial/Commercial Areas	Yes	No
Pesticides	Industrial/Commercial Areas	Yes	Yes
Metals	Industrial/Commercial Areas	Yes	No

Source: *Preliminary Water Quality Management Plan for World Logistics Center Specific Plan*, CH2MHILL, September 2014.

The WQMP prepared for the project (Appendix J) identifies the following BMPs to be implemented that will minimize the project's effects on site hydrology, urban runoff flow rates, and pollutant loads. This comprehensive water quality approach will be implemented throughout the project and will establish a three-tier program for achieving water quality goals through the enforcement of site design, source control, and treatment control BMPs. These project-specific site design, source control, and treatment control BMPs are listed below.

Site Design BMPs. Site design BMPs are implemented to create a hydrologically-functional project design that attempts to mimic the natural hydrologic regime. In accordance with the Riverside County WQMP, projects shall implement site design concepts that achieve each of the following:

1. Minimize Urban Runoff
   a. Maximize the permeable area.
   b. Incorporate landscaped buffer areas between sidewalks and streets.
   c. Maximize canopy interception and water conservation by planting native or drought-tolerant trees and large shrubs.
   d. Use natural drainage systems.
   e. Where soil conditions are suitable, use perforated pipe or gravel filtration pits for low flow infiltration.
   f. Construct on-site ponding areas or retention facilities to increase opportunities for infiltration consistent with vector control objectives.
2. Minimize Impervious Footprint
   a. Maximize the permeable area.

   b. Construct streets, sidewalks and parking lot aisles to the minimum widths necessary, provided that public safety and a walk able environment for pedestrians are not compromised.
   c. Reduce widths of street where off-street parking is available.
   d. Minimize the use of impervious surfaces such as decorative concrete, in the landscape design.

3. Conserve Natural Areas
   a. Conserve natural areas.
   b. Maximize canopy interception and water conservation by planting native or drought-tolerant trees and large shrubs.
   c. Use natural drainage systems.

4. Minimize Directly Connected Impervious Areas (DCIAs)
   a. Runoff from impervious areas will sheet flow or be directed to treatment control BMPs.
   b. Streets, sidewalks, and parking lots will sheet flow to landscaping/bioretention areas.

Source Control BMPs. Source control BMPs are implemented to eliminate the presence of pollutants through prevention. Such measures can be both non-structural and structural.

1. Non-structural operational source control BMPs include:
   a. Education for property owners, operator, tenants, occupants, or employees;
   b. Activity restrictions;
   c. Irrigation system and landscape maintenance;
   d. Common area litter control;
   e. Street sweeping private streets and parking lots; and
   f. Drainage facility inspection and maintenance.

2. Structural source control BMPs include:
   a. MS4 stenciling and signage;
   b. Landscape and irrigation system design;
   c. Protect slopes and channels; and
   d. Properly design fueling areas, refuse areas, loading docks, and outdoor material storage areas.

Treatment Control BMPs. Treatment control BMPs supplement the pollution prevention and source control measures by treating the water to remove pollutants before it is released from the project site. The treatment control BMP strategy for the project is to select LID BMPs that promote infiltration and evapotranspiration, including the construction of infiltration basins, bioretention facilities, and extended detention basins. Where infiltration BMPs are not appropriate, bioretention, and/or biotreatment BMPs (including extended detention basins, bioswales, and constructed wetlands) that provide opportunity for evapotranspiration and incidental infiltration may be utilized. Harvest and use BMPs (i.e., storage pods) may be used as a treatment control BMP to store runoff for later non-potable uses.

NOTE: The following changes have been made in response to Comment F-1-78 in Letter F-1 from the Center for Biological Diversity/San Bernardino Valley Audubon Society and F-11-44 in Letter F-11 from the Sierra Club.

Site-specific WQMPs have not been prepared at this time as no site-specific development project has been submitted to the City for approval. When specific projects within the project are developed, BMPs will be implemented consistent with the goals contained in the master WQMP. All development within the project will be required to incorporate on-site water quality features to meet or exceed the approved Master WQMP's water quality requirements identified previously. This would include the design based on the appropriate pollutant loads for the project from all sources including climate change.

The project will comply with the *Water Quality Management Plan for the Santa Ana Region of Riverside County* (approved by the Santa Ana Regional Water Quality Control Board October 22, 2012), which requires the use of Low Impact Development (LID) BMPs that maximize infiltration, harvest and use, evapotranspiration and/or bio-treatment. Flows from the project will be treated first by LID BMPs where the flow will be infiltrated, evapotranspired, or treated. As required by **Mitigation Measure 4.9.6.1A**, the treated flows will then be reduced to below or equal to pre-development conditions by routing the on-site storm water flows through a series of on-site detention and infiltration basins before flows are released off site. These basins will provide incidental infiltration and secondary treatment downstream of the LID BMPs. All runoff from the site will be treated by LID BMPs and then routed through the detention and infiltration basins before it leaves the project area and into Mystic Lake and the San Jacinto Wildlife Area.

The Water Quality Management Plan Guidance Document for the Santa Ana Region of Riverside County discusses water quality impacts and the use of LID BMPs:

> "LID BMPs have been shown in studies throughout the country to be effective and reliable at treating a wide range of Pollutants that can be found in urban runoff, including those listed above, and those subject to adopted TMDLs in the Santa Ana Region of Riverside County (Bacteria and Nutrients). As such, the LID BMPs required in this WQMP are expected to treat discharges of urban-sourced 303(d) listed Pollutants from subject projects to an impaired waterbody on the 303(d) list such that the discharge from the project would not cause or contribute to an exceedance of Receiving Water Quality Objectives."

The project will comply with the Nutrient TMDL for Lake Elsinore and Canyon Lake by implementing LID-based BMPs. According to the *Comprehensive Nutrient Reduction Plan for Lake Elsinore and Canyon Lake* (prepared for Riverside County Flood Control and Water Conservation District by CDM Smith, January 28, 2013 in compliance with Order No. R8-2010-0033, NPDES Permit No. CAS618033), "Post construction LID based BMPs required for new development and significant redevelopment projects are the only structural watershed based BMPs currently included in the CNRP. The newly developed WQMP requirements ensure that a portion of the wet weather runoff will be contained onsite for all future development projects subject to WQMP requirements. Implementation of WQMP requirements over time coupled with the in lake remediation projects are expected to provide sufficient mitigation of nutrients."

Specific Plan Design Features. Long-term water quality design is addressed in Section 5.4, *On-site Landscaping*, of the Specific Plan and encourages (a) minimization of urban runoff; (b) minimization of impervious footprint of development; (c) conservation of natural areas; and (d) minimization of directly connected impervious areas. The previous section outlined the BMPs from the Specific Plan that include the following:

1. Maximize the permeable area;
2. Incorporate landscaped buffer areas between sidewalks and streets;
3. Maximize canopy interception and water conservation by preserving existing native trees and shrubs, and planting additional native or drought tolerant trees and large shrubs;

4. Use natural drainage systems;
5. Where soils conditions are suitable, use perforated pipe or gravel filtration pits for low flow infiltration;
6. Construct ponding areas or retention facilities to increase opportunities for infiltration consistent with vector control objectives;
7. Minimize the use of impervious surfaces, such as decorative concrete, in the landscape design;
8. Sites must be designed to contain and infiltrate roof runoff, or direct roof runoff to vegetative swales or buffer areas, where feasible;
9. Where landscaping is proposed, drain impervious sidewalks, walkways, trails, and patios into adjacent landscaping;
10. Increase the use of vegetated drainage swales in lieu of underground piping or imperviously lined swales;
11. Parking areas may be paved with a permeable surface, or designed to drain into landscaping prior to discharging to the MS4; and
12. Where landscaping is proposed in parking areas, incorporate landscape areas into the drainage design.

Figure 4.9.7 summarizes how protection of water quality is incorporated into the project design.

NOTE: The changes to the following mitigation measures have been made in response to Comment B-6-3 in Letter B-6 from the Santa Ana Regional Water Quality Control Board.

Mitigation Measures. To address potential impacts to water quality during the project's long-term operations, the following measures have been identified:

4.9.6.3A Prior to discretionary permit approval for individual plot plans, a site-specific Water Quality Management Plan (WQMP) shall be submitted to the City Land Development Division for review and approval. The Water Quality Management Plan shall specifically identify site design, source control, and treatment control Best Management Practices that shall be used on site to control pollutant runoff and to reduce impacts to water quality to the maximum extent practicable. The Water Quality Management Plan shall be consistent with the Water Quality Management Plan approved for the overall World Logistics Center Specific Plan project. At a minimum, the site developer shall implement the following site design, source control, and treatment control Best Management Practices as appropriate:

Site Design Best Management Practices

(a) Minimize urban runoff.
(b) Maximize the permeable area.
(c) Incorporate landscaped buffer areas between sidewalks and streets.
(d) Maximize canopy interception and water conservation by planting native or drought-tolerant trees and large shrubs.
(e) Use natural drainage systems.
(f) Where soil conditions are suitable, use perforated pipe or gravel filtration pits for low flow infiltration.
(g) Construct on-site ponding areas or retention facilities to increase opportunities for infiltration consistent with vector control objectives.

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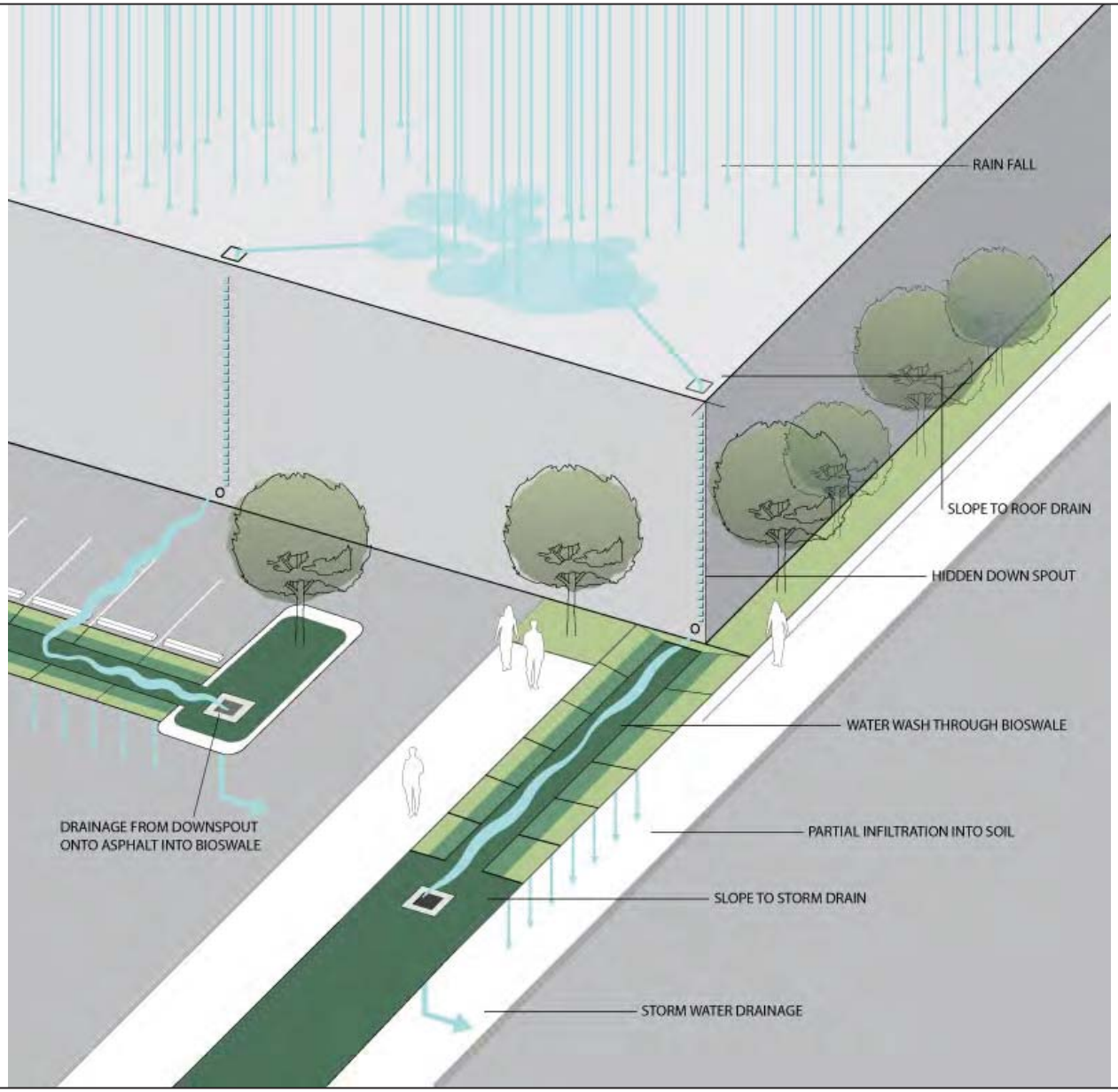

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FIGURE 4.9.7

World Logistics Center Specific Plan Project
Environmental Impact Report

Water Quality Management Diagram

SOURCE: World Logistics Center Specific Plan, Highlandfairview, November, 2012.

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(i) Minimize impervious footprint.
(j) Construct streets, sidewalks and parking lot aisles to the minimum widths necessary, provided that public safety and a walkable environment for pedestrians are not compromised.
(k) Reduce widths of street where off-street parking is available.
(l) Minimize the use of impervious surfaces such as decorative concrete, in the landscape design.
(m) Conserve natural areas.
(n) Minimize Directly Connected Impervious Areas (DCIAs).
(o) Runoff from impervious areas will sheet flow or be directed to treatment control Best Management Practices.
(p) Streets, sidewalks, and parking lots will sheet flow to landscaping/bioretention areas that are planted with native or drought tolerant trees and large shrubs.

Source Control Best Management Practices

Source control Best Management Practices are implemented to eliminate the presence of pollutants through prevention. Such measures can be both non-structural and structural:

Non-structural source control Best Management Practices include:

(a) Education for property owners, operator, tenants, occupants, or employees;
(b) Activity restrictions;
(c) Irrigation system and landscape maintenance;
(d) Common area litter control;
(e) Street sweeping private streets and parking lots; and
(f) Drainage facility inspection and maintenance.

Structural source control Best Management Practices include:

(g) MS4 stenciling and signage;
(h) Landscape and irrigation system design;
(i) Protect slopes and channels; and
(j) Properly design fueling areas, trash storage areas, loading docks, and outdoor material storage areas.

Treatment Control Best Management Practices

Treatment control Best Management Practices supplement the pollution prevention and source control measures by treating the water to remove pollutants before it is released from the project site. The treatment control Best Management Practice strategy for the project is to select Low Impact Development (LID) Best Management Practices that promote infiltration and evapotranspiration, including the construction of infiltration basins, bioretention facilities, and extended detention basins. Where infiltration Best Management Practices are not appropriate, bioretention and/or biotreatment Best Management Practices (including extended detention basins, bioswales, and constructed wetlands) that provide opportunity for evapotranspiration and incidental infiltration may be utilized. Harvest and Reuse Best Management Practice will be used to store runoff for later non-potable uses.

Site-specific Water Quality Management Plans have not been prepared at this time as no site-specific development project has been submitted to the City for approval. When specific projects within the project are developed, Best Management Practices will be implemented consistent with the goals contained in the Master Water Quality Management Plan. All development within the project will be required to incorporate on-site water quality features to meet or exceed the approved Master Water Quality Management Plan's water quality requirements identified previously.

4.9.6.3B The Property Owners Association (POA) and all property owners shall be responsible to maintain all onsite water quality basins according to requirements in the guidance Water Quality Management Plan and/or subsequent site-specific Water Quality Management Plans, and established guidelines of the Regional Water Quality Control Board. Failure to properly maintain such basins shall be grounds for suspension or revocation of discretionary operating permits, and/or referral to the Regional Water Quality Control Board for review and possible action. This measure shall be implemented to the satisfaction of the City Land Development Division, in consultation with the City Engineer, and Regional Water Quality Control Board.

The changes to the following mitigation measure has been made in response to Comment B-3-39 in Letter B-3 from the California Department of Fish and Wildlife, Comment B-6-3 in Letter B-6 from the Santa Ana Regional Water Quality Control Board, and other similar comments.

4.9.6.3C Prior to issuance of future discretionary permits for any development along the southern boundary of the World Logistics Center Specific Plan (WLCSP), the project developer of such sites, in cooperation with the Property Owners Association (POA), shall establish and annually fund a Water Quality Mitigation Monitoring Plan (WQMMP) to confirm that project runoff will not have deleterious effects on the adjacent San Jacinto Wildlife Area (SJWA). This program shall include at least quarterly sampling along the southern boundary of the site (i.e., at the identified outlet structures of the project detention basins) during wet season flows and/or when water is present, as well as sampling of any dry-season flows that are observed entering the San Jacinto Wildlife Area property from the project property, including Drainage 9, which is planned to convey only clean off-site flows from north of the World Logistics Center Specific Plan site across Gilman Springs Road. The program shall also include at least twice yearly sampling after completion of construction, and a pre-construction survey must be completed to determine general water quality baseline conditions prior to and during development of the southern portion of the World Logistics Center Specific Plan. This sampling shall be consistent with and/or comply with the requirements of applicable Storm Water Pollution Prevention Plans (SWPPPs) for the development site.

The project developer of sites along the southern border of the World Logistics Center Specific Plan shall be responsible for preventing or eliminating any toxic pollutant (not including sediment) found to exceed applicable established public health standards. In addition, the discharge from the project shall not cause or contribute to an exceedance of Receiving Water Quality Objectives for the potential pollutants associated with the project as identified in Table 4.9.J. Once development is complete, the developer shall retain qualified personnel to conduct regular (i.e., at least quarterly) water sampling/testing of any basins and their outfalls to ensure the San Jacinto Wildlife Area will not be affected by water pollution from the project site. This measure shall be implemented to the satisfaction of the City Land Development Division Manager based on consultation with the project developer, Eastern Municipal Water District, the Regional Water Quality Control Board-Santa Ana Region, and the Mystic Lake Manager.

Level of Significance After Mitigation. The proposed project incorporates on-site drainage control structures and programs sufficient to meet the applicable Federal, State, and local water quality requirements. Through the use of site design BMPs, source control BMPs (e.g., street and parking lot sweeping and vacuuming), and treatment control BMPs (e.g., infiltration basins, bioretention areas, and pervious pavement), the resulting pollutant loads coming from the project will be reduced, thereby reducing pollutants discharged from urban storm water runoff to surface water bodies. Compliance with the requirements of the NPDES permit, which include implementation of the BMPs outlined in the WQMP, will be enforced by the City during the ongoing operation of the project.

Implementation of **Mitigation Measures 4.9.6.3A** through **4.9.6.3C** will help to reduce potential water quality impacts resulting from storm water and urban runoff to less than significant levels.

4.9.7 Cumulative Impacts

Cumulatively, development within the watershed will result in an increase in impervious surfaces in addition to changes in land use and associated pollutant runoff characteristics. Increased impervious surfaces are likely to alter existing hydrology and increase potential pollutant loads. However, all future development in the City and throughout the Santa Ana RWQCB will be required to comply with the requirements of the NPDES permit program. Continued growth is anticipated to occur in the City and surrounding areas and all new development and significant redevelopment will be required to minimize its individual impacts to water quality and pollutant transport through implementation of BMPs. Therefore, since all new developments will be required to mitigate for impacts to water quality, a less than significant cumulative impact to water quality will occur.

Cumulatively, continued development within the West San Jacinto Groundwater Management Plan area will result in an increase in demand on water sources, including both surface and groundwater supplies. Since the majority of the projects within the Plan area obtain water service from the EMWD, most of the cumulative development will rely on imported water purchased from Metropolitan with supplements from local groundwater sources. As stated in the previous Section 4.9.5.3, there has been a shift in the water demand patterns in the last 15 years, as a residential market has replaced an agricultural market, with a resulting incremental increase in urban-related surface and groundwater pollution. The proposed project will make an incremental contribution to production of urban pollutants, but the site-specific water quality Best Management Practices will help ensure that these contributions will not make a significant contribution to any cumulatively considerable regional water quality impacts.

The EMWD's Urban Water Management Plan (UWMP) concludes that the EMWD has sufficient supplies of local groundwater and imported surface water to accommodate existing and planned development, including the proposed project, as documented in the project's Water Supply Assessment (see Appendix M). For these reasons, the proposed project will not make a significant contribution to any cumulatively considerable surface water or groundwater supply impacts.

The drainage system for the proposed project will be designed so that peak flows from post-development runoff are equal to or less than historic conditions at any given off-site discharge location and no additional mitigation measures are proposed for cumulative impacts. This same requirement will be placed on all other development in the vicinity of the project site by the City of Moreno Valley. The proposed project, including implementation of its master drainage plan, will not make a significant contribution to any cumulatively considerable impacts related to drainage or water quality on a local or regional basis.

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4.10 LAND USE AND PLANNING: TABLE OF CONTENTS

FIGURES

TABLES

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NOTE TO READERS. *Although there were numerous questions about potential impacts to the City Housing Element, no major revisions have been made to this section based on the response to comments in Final Programmatic EIR Volume 1.*

4.10 LAND USE AND PLANNING

This section of the EIR addresses the land use impacts that will result from the change from the existing on-site land uses to the proposed land uses. In addition, this section analyzes the consistency of the proposed WLC project with the goals and policies of the City of Moreno Valley General Plan, applicable community plans, and the Zoning Code, and compatibility within local and regional plans. This section also identifies and evaluates the compatibility of the proposed WLC project with existing land uses and the potential land use impacts that may result during or subsequent to development of the proposed on-site uses.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 30 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.

The following technical study was prepared to support the analysis of potential impacts in this section:

- David Taussig and Associates, Inc. (DTAA). *Fiscal and Economic Impact Study*, Draft dated March 13, 2012, revised report dated September 2014.

The analysis contained in this section is also based on the following reference documents:

- *City of Moreno Valley General Plan*, City of Moreno Valley, 2006;

- *Updated and Certified City of Moreno Valley Housing Element,* 2011;
- *Municipal Code*, City of Moreno Valley, codified through February 12, 2012;
- *Final Sustainable Communities Strategies Plan,* Southern California Association of Governments (SCAG), April 2012;
- *Final 2008 Regional Comprehensive Plan,* SCAG, October 2008;
- *Final 2012 Regional Transportation Plan*, SCAG, adopted April 2012;
- *Final 2010 Urban Water Management Plan*, Eastern Municipal Water District (EMWD), approved December 2010;
- *Riverside County Airport Land Use Compatibility Plan, Volume 1,* Riverside County Airport Land Use Commission (ALUC), October 14, 2004;
- *Water Quality Control Plan Santa Ana River Basin (8),* California Regional Water Quality Control Board (RWQCB), approved January 24, 1995;
- *Western Riverside County Multiple Species Habitat Conservation Plan*, Volume I, Part I, Dudek & Associates, June 17, 2003; and
- *Draft Environmental Impact Report, Highland Fairview Corporate Park*. (Skechers), Michael Brandman Associates, August 4, 2008.

4.10.1 Existing Setting

The project area includes two adjacent areas, the WLC Specific Plan Area and the General Plan Amendment Area. The two areas combined make up most of the older Moreno Highlands Specific Plan.

4.10.1.1 Project Location

The proposed WLC project area is located in the northwestern Riverside County, within the eastern portion of the City of Moreno Valley. The proposed WLC project is situated generally south of SR-60, between Redlands Boulevard and Gilman Springs Road (the easterly City limit), extending to the southerly City limit. Previously referenced Figure 1.2 in Section 1.0, *Executive Summary*, depicts the proposed WLC project boundary on the applicable U.S. Geological Survey (USGS) Quad sheets.

4.10.1.2 Existing On-site Land Uses

The project area is largely undeveloped land and Figure 4.10.1 shows an aerial view of existing land uses. Presently, there are seven single-family homes in various locations on the property along with associated ranch/farm buildings. Most of the site has been used for dry farming at one time or another since the early 1900s, and much of the site continues to be used for dry farming at the present time. San Diego Gas & Electric (SDG&E) operates a natural gas compressor station, known as the Moreno Compressor Station, on 18 acres in the southern portion of the site. Southern California Gas Company (SCGC) operates a valving, metering, and pipe cleaning station on a one-acre parcel in the south-central portion of the site.

4.10.1.3 Existing Roadways

The major roadways that currently provide access to the WLC project area are SR-60 (the Moreno Valley Freeway), Redlands Boulevard, Alessandro Boulevard, Gilman Springs Road, and Theodore Street. Redlands Boulevard and Theodore Street are north-south collector roadways that intersect

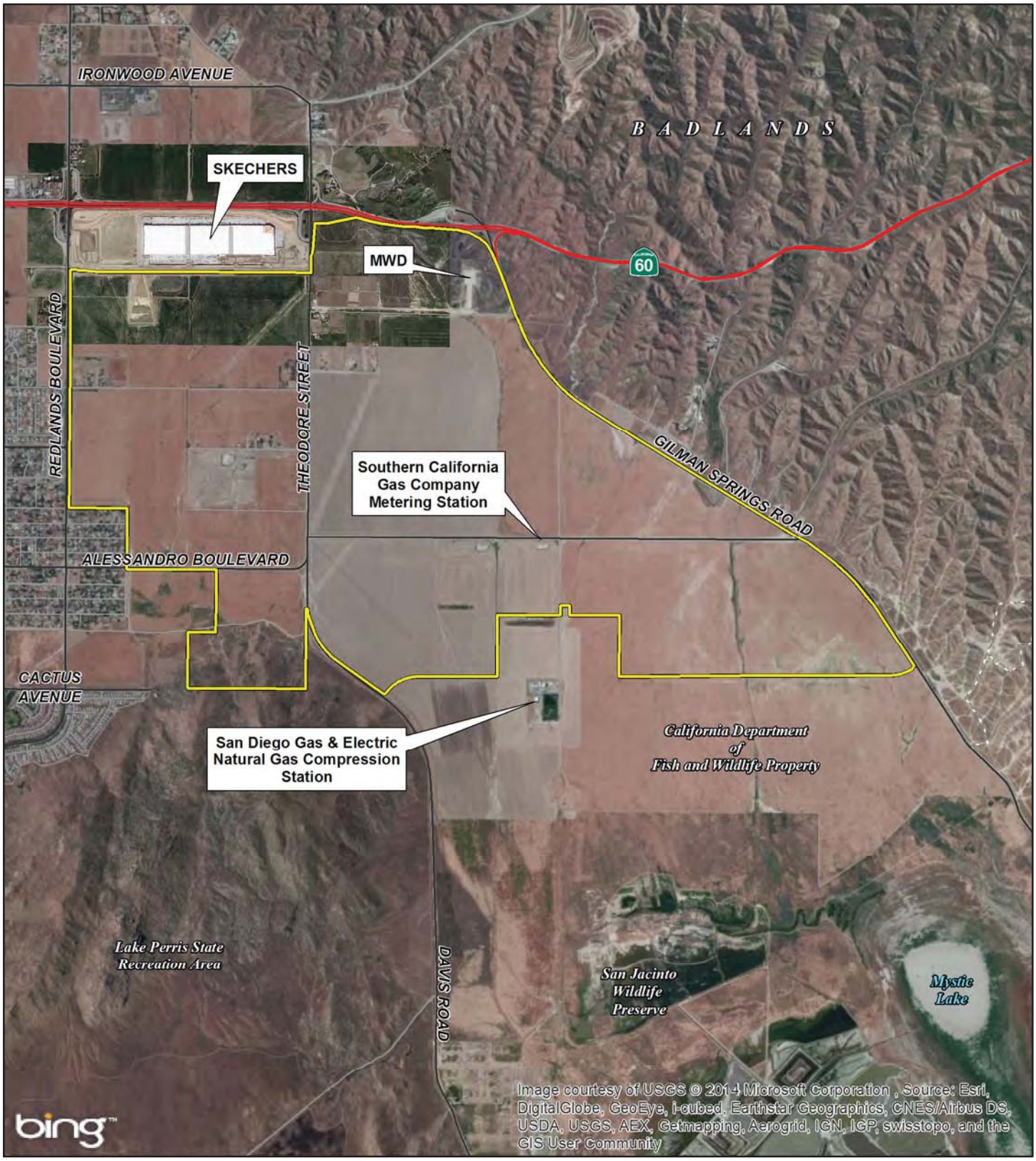

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FIGURE 4.10.1

Project Boundary

N

0 1,500 3,000

FEET

World Logistics Center Specific Plan Project
Environmental Impact Report

Aerial Photograph

SOURCE: ESRI World Imagery, 2010; Bing Maps, 2010; Google Maps, 2011.

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with SR-60. Alessandro Boulevard is an east-west thoroughfare that runs through Moreno Valley from Interstate 215 (I-215) on the west to Gilman Springs Road on the east. Gilman Springs Road runs in a northwesterly-southeasterly direction connecting SR-60 to the Hemet-San Jacinto area and State Route 79 (SR-79).

4.10.1.4 General Surrounding Land Uses

To the west of the proposed WLC project area are more developed portions of the City of Moreno Valley. Near the southern and western boundaries of the proposed project are existing residential neighborhoods along the west sides of Redlands Boulevard and Merwin Street; a small market and a Post Office are also located near Redlands and Alessandro Boulevards. A new industrial warehouse project (Westridge) was recently approved just west of Redlands Boulevard and south of SR-60 but it has been challenged in court. Another large warehouse project (ProLogis Eucalyptus Industrial Park) is currently being processed by the City just west of the Westridge project and is due to be considered by the City Council in December 2014. Farther to the west, there is a variety of commercial and auto sales uses along Moreno Beach Drive.

Highland Fairview Corporate Park (HFCP), located north and west of the project area between Redlands Boulevard and Theodore Street, is currently under development and the first phase was completed in late 2011 (Skechers). The area north of SR-60 is largely undeveloped with clusters of low-density residential development within the Moreno Valley city limits.

There is little development adjacent to the east and south boundaries of the project area. The area easterly of the project, commonly referred to as the Badlands, is a rugged area that separates the City of Moreno Valley from San Timoteo Canyon and the City of Beaumont. Most of the Badlands area north of SR-60 is incorporated into the Norton Younglove Reserve. Due to its reserve status, steep slopes and canyons, the Badlands area has experienced little development; however, there are scattered single-family homes in the area east of Gilman Springs Road. The Badlands Sanitary Landfill, operated by the County of Riverside Waste Management Department, is located approximately 1.5 miles northeasterly of the project area in the Badlands.

The area south of the proposed project site is the San Jacinto Wildlife Area (SJWA), which includes an Upland Game Hunting Area and is adjacent to the Lake Perris State Recreation Area. These lands are State-owned and access to these areas is restricted. The SJWA is owned and operated by the California Department of Fish and Wildlife (CDFW) and contains approximately 9,000 acres of restored wetland and ponds. The Lake Perris State Recreation Area is owned and operated by the California State Parks Department and contains approximately 6,000 acres of open space land, which is used both for recreation and preservation of the natural southern California landscape.

In 1981–82, the State Wildlife Conservation Board initially purchased 15,000 acres of the Mystic Lake area as mitigation for habitat impacts associated with the construction of the State Water Project. This area was designated as the SJWA. In 1995, the Board acquired an additional 921 acres of upland farmland within the southern portion of the Moreno Highlands Specific Plan (MHSP) property to incorporate into the SJWA. In 2001, the Board acquired an additional 274 acres in this same area. This land was purchased to provide a buffer between the land surrounding Mystic Lake and the planned urban development within Moreno Valley. The Board action on this purchase indicated the land was to "facilitate restoration of historic water flows back into the lake bed and allow for reversion back to wetlands during wet years, and areas of low vegetation cover during dry years, all providing significant habitat for species using the SJWA, including a number of state and federally listed species."[1]

Most of the State-owned land south of the project area is referred to as the SJWA. However, the land purchased out of the Moreno Highlands Specific Plan is referred to in this EIR as the CDFW

[1] Wildlife Conservation Board minutes from May 18, 2001.

Conservation Buffer Area to denote the reason for its original purchase. The 1,195 acres acquired by the Wildlife Board during the past 20 years was intended to serve as an effective buffer between the SJWA and the development expected to occur north of the SJWA area (the present mixed-use Moreno Highlands Specific Plan). Currently, this acreage provides not only a buffer area, but also provides open space for raptor and bird foraging habitat, and is actively farmed under CDFW contract. The proposed project will permanently designate this CDFW Conservation Buffer Area as Open Space under the City General Plan. It is anticipated the State would maintain its function as a buffer and also as foraging habitat for raptors as long as it is regularly tilled. There are no plans to alter the current agricultural use of the property.

There are two future commercial areas located immediately north of the project area. The first is located at the northwest corner of Theodore Street and Eucalyptus Avenue (proposed 80,000 square feet) and the second is at the northeast corner of Redlands Boulevard and Eucalyptus Avenue (proposed 120,000 square feet). The nearest large-scale commercial development is located on the south side of SR-60 at Moreno Beach Drive approximately 1.25 miles to the west of the proposed WLC project; this shopping complex includes Walmart and Target along with restaurants and ancillary commercial and service uses, as well as the Moreno Valley Auto Center. The central core of Moreno Valley, which includes residential neighborhoods and commercial activity, is located approximately three miles west of the project area.

March Air Reserve Base (MARB) is located approximately seven miles southwesterly of the WLC planning area. The MARB is under the authority of the March Joint Powers Authority, which acts as the land use authority, the Redevelopment Agency and Airport Authority (the March Inland Port Airport Authority) for reuse of the former March Air Force Base.

4.10.1.5 Existing General Plan, Specific Plan, and Zoning Land Use Designations Applicable to the Proposed WLC Project Site

The Community Development Element of the City's General Plan currently designates the project area as a mix of residential and associated uses, commercial, business park, and open space land uses. In 1992, the City approved the 3,038-acre Moreno Highland Specific Plan (MHSP) as a master planned, mixed-use community, consisting of up to 7,763 residential dwelling units and associated uses (on approximately 2,435 acres) and approximately 603 acres of business, retail, institutional, and other uses. The Moreno Highland Specific Plan is incorporated into the City's General Plan (Table 4.10.A).

Table 4.10.A: Moreno Highlands Specific Plan (Current Land Use Designations)

Land Use	Acreage
Residential Community	
Residential (7,763 dwelling units)	1,359.3
Parks and Open Space	701.9
Neighborhood Commercial	10.0
Cemetery	16.5
Public Facilities	347.7
Planned Business Center	
Business Park	360.8
Mixed Use	80.5
Community Commercial	16.0
Parks and Open Space	77.9
Public Facilities	67.4
Project Total	**3,038**

Adopted by City Council March 17, 1992

The MHSP called for the development of an approximately 7,300 new residential units in the City of Moreno Valley. However, as discussed below, the City of Moreno Valley already has a very low jobs-to-housing ratio, meaning that the City has a surplus of housing as compared to jobs. This reduces the demand for new housing in the area, and implementation of the MHSP would further lower the jobs/housing ratio. In addition, the 2008–2009 recession resulted in a substantial reduction of housing prices in the Inland Empire, the State of California, and throughout most of the U.S. As is well documented in the press, foreclosure rates became very high, and the demand for newly constructed housing has been greatly reduced. Therefore, the current demand for housing development on the site is greatly limited. As such, none of the MHSP has been implemented.

In February 2011, the City adopted an updated Housing Element that identified the MHSP project area as a potential location for future jobs-producing land uses, rather than residential uses. In April 2011, the City adopted its Economic Development Action Plan, which identified eastern Moreno Valley as a potential area for major job-producing land uses. The proposed WLC Specific Plan project is consistent with this planning prerogative, and seeks to comprehensively plan the project area for jobs-producing land uses.

4.10.1.6 Surrounding Land Uses

South of SR-60/East of Redlands Boulevard. The HFCP project is currently under development. Phase 1 (Skechers North American Operational Headquarters) was completed in late 2011. HFCP is located immediately north and west of the project area, on the north side of Eucalyptus Avenue between Redlands Boulevard and Theodore Street. The HFCP project was approved by the City of Moreno Valley in 2009. The City General Plan land use designation for the site is Commercial (C) and Business Park/Light Industrial (BP/LI).

North of SR-60. The land located on the north side of SR-60 and westerly of Theodore Street is within the City of Moreno Valley and has a land use designation of Office (O) and Residential (R1-density of one dwelling unit per acre). The area easterly of Theodore Street is unincorporated within the County of Riverside with land use designations of Scenic Highway Commercial (C-P-S) and Controlled Development Area (W-2). The W-2 area allows single-family residential and light agriculture (the suffix indicates a 2-acre minimum parcel size); and the C-P-S district allows certain wholesale and retail commercial uses. This County territory is within the City's Sphere of Influence; the City land use designation for the area is Rural Residential (RR) and Residential (R1).

East of Gilman Springs Road. The Badlands area, easterly of Gilman Springs Road, is unincorporated within the jurisdiction of the County of Riverside and has a land use designation of Controlled Development Area (W-2, W-2-1, and W-2-20); allowed uses include single-family residential and light agriculture (the suffix indicates minimum parcel size in acres). This County territory is also within the City's Sphere of Influence and the City land use designation for the area is Rural Residential (RR).

Southern Boundary. The land area to the south of the project is within the SJWA and the Lake Perris State Recreation Area. Portions of these facilities are within the City limits and have a City General Plan land use designation of Open Space (OS).

West of Redlands Boulevard. The City land use designations for the residential areas west of Redlands Boulevard are Residential R2 and R3 (maximum density of 2 and 3 dwelling units per acre,

respectively). Residential areas southerly of the site along Alessandro Boulevard are subject to City land use designations of R2 and R5 (maximum density of 2 and 5 dwelling units per acre).

4.10.1.7 Project Components

The project components are described in detail in Section 3.4, *Project Characteristics*. The City of Moreno Valley is the Lead Agency for the proposed WLC project. The entitlements necessary for the proposed WLC project include approval of the following:

- General Plan Amendment(s) for the former MHSP site to Business Park/Light Industrial (BP/LI);
- World Logistics Center Specific Plan with Logistics Development (LD) and Light Logistics (LL) zones;
- Corresponding Zone Change to Specific Plan for the WLCSP and redesignate the CDFW Conservation Buffer Area as Open Space and the natural gas facilities as Public Facilities
- Development Agreement for parcels owned by the project applicant;
- Tentative Parcel Map (for financing purposes only); and
- Annexation of an 85-acre parcel along Gilman Springs Road.

In addition, the project will require other associated actions and approvals by other public entities in order to construct and operate the proposed WLC project.

General Plan Amendment. The General Plan Amendment proposes a revision to the City General Plan land use designations for the entire MHSP area, including the project area as set forth in the proposed WLC Specific Plan. The General Plan Amendment also includes amendments to the following elements: (a) Community Development; (b) Parks, Recreation and Open Space; (c) Circulation; (d) Environmental Safety; and (e) Conservation. With these amendments, these elements will be modified to authorize the World Logistics Center Specific Plan and designate the WLC property for Business Park/Light Industrial (BP/LI) land uses.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

Specific Plan. The proposed WLC project includes the 2,610-acre World Logistics Specific Plan to implement the logistics and industrial portion of the General Plan Amendment and to set forth comprehensive land use regulations governing the proposed WLC project. The World Logistics Center Specific Plan is a master plan for the development of approximately 40.6 million square feet of modern high-cube logistics warehouse distribution facilities and up to 200,000 square feet of light logistics uses.

The Specific Plan establishes the master plan of development for the project area, including development standards and use regulations, a master plan for circulation and infrastructure, architectural, landscape and design guidelines and sustainability goals, all of which will be applicable to all development within the developable project area.

Within the Specific Plan, the primary land use category will be Logistics Development. This use will provide for high-cube logistics warehouse space consisting of buildings of 500,000 square feet or greater, with ceiling heights of approximately 60–80 feet. Warehousing and logistics activities consistent with the storage and processing of manufactured goods and materials prior to their distribution to other facilities and retail outlets will be permitted within this category. Ancillary office and maintenance space will be permitted, along with the outdoor storage of trucks, trailers, and shipping containers.

Change of Zone. The Change of Zone will establish the World Logistics Center Specific Plan, which will replace most of the Moreno Highlands Specific Plan and rezone several other properties. It will also redesignate the CDFW Conservation Buffer Area as Open Space and the natural gas facilities as Public Facilities. The WLCSP property will have two new land use zones, Logistics Development (LD) and Light Logistics (LL).

Annexation. The project includes the annexation by the City of an 85-acre parcel located on the north side of Alessandro Boulevard at Gilman Springs Road. This parcel is already within the City's Sphere of Influence. The proposed project includes pre-annexation General Plan land use designations and zoning for this parcel, and the EIR will be the environmental documentation used by the Local Agency Formation Commission (LAFCO) to complete the annexation process. The County's land use designation currently applicable to this parcel is W-2-2½. The W-2 area allows single-family residential and light agriculture (the suffix indicates minimum parcel size in acres) and the City's current General Plan land use designation for the site is Business Park (BP). This project proposes to incorporate this property into the World Logistics Center Specific Plan.

4.10.1.8 General Plan and Zoning Designations

Table 4.10.B compares the existing and proposed land uses in the project vicinity.

Table 4.10.B: Existing and Proposed Land Uses in the Project Vicinity

Location	Current Land Uses	Existing General Plan Land Uses	Proposed General Plan and Specific Plan/ Zoning Designations
On-site	Agricultural/ undeveloped	Moreno Highlands Specific Plan with Residential, Commercial, Public Facilities, Business Park, Open Space, Mixed Use	Business Park/Light Industrial (BP/LI) with the World Logistics Center Specific Plan Specific Plan including Logistics Development (LD), Light Logistics (LL), and Open Space (OS).
North of Site/ South of SR-60	Highland/ Fairview Corporate Park	Commercial/Light Industrial	No Change
North of Site/ North of SR-60	Low Density Residential/ Agriculture	Low Density Residential/ Office Strip along freeway	No Change
South	Open Space	Open Space	No Change
East	Open Space	Open Space	No Change
West	Residential/ Undeveloped	Residential	No Change

4.10.2 Applicable Regulations

The following goals, objectives, and policies of the City of Moreno Valley General Plan are applicable to the proposed WLC project:

Section 9.2.2 Community Development

Goal 2.1 A pattern of land uses which organizes future growth, minimizes conflicts between land uses, and which promotes the rational utilization of presently underdeveloped and undeveloped parcels.

Goal 2.2 An organized, well-designed, high quality, and functional balance of urban and rural land uses that will meet the needs of a diverse population, and promote the

optimum degree of health, safety, well-being, and beauty for all areas of the community, while maintaining a sound economic base.

Goal 2.3 Achieves an overall design statement that will establish a visually unique image throughout the City.

Objective 2.1 Balance the provision of urban and rural lands within Moreno Valley by providing adequate land for present and future urban and economic development needs, while retaining the significant natural features and the rural character and lifestyle of the northeastern portion of the community.

Objective 2.5 Promote a mix of industrial uses which provide a sound and diversified economic base and ample employment opportunities for the citizens of Moreno Valley with the establishment of industrial activities that have good access to the regional transportation system, accommodate the personal needs of workers and business visitors; and which meets the service needs of local businesses.

Policy 2.5.1 The primary purpose of areas designated Business Park/Industrial is to provide for manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities. The zoning regulations shall identify the particular uses permitted on each parcel of land. Development intensity should not exceed a Floor Area Ratio of 1.00 and the average floor area ratio should be significantly less.

Policy 2.5.2 Locate manufacturing and industrial uses to avoid adverse impacts on surrounding land uses.

Policy 2.5.3 Screen manufacturing and industrial uses where necessary to reduce glare, noise, dust, vibrations and unsightly views.

Policy 2.5.4 Design industrial development to discourage access through residential areas.

Section 9.6.2 Safety Element

Objective 6.6 Promote land use patterns that reduce daily automotive trips and reduce trip distance for work, shopping, school, and recreation.

4.10.3 Methodology

The focus of the land use analysis is on land use impacts that would result from implementation of the proposed WLC project. Land use conflicts are identified and evaluated based on existing land uses, land uses proposed as part of the project, land use designations, and standards and policies related to land use. Land use compatibility is based on the intensity and patterns of land use to determine whether a project would result in incompatible uses or nuisance impacts to sensitive receptors (e.g., residences, medical facilities, or schools).

An evaluation of the potential land use impacts associated with implementation of the proposed WLC project is based on review of the Moreno Valley General Plan and associated Final EIR, the Moreno Valley Municipal Code, SCAG Regional Comprehensive Plan, SCAG Regional Transportation Plan, SCAG Compass Growth Vision, SCAQMD Air Quality Management Plan, Santa Ana Water Quality Control Plan, Riverside County Drainage Area Management Plan, and the EMWD Urban Water Management Plan. Compatibility of the proposed WLC project with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) is discussed in Section 4.4, *Biological Resources*.

4.10.4 Thresholds of Significance

Appendix G of the *CEQA Guidelines* recognizes the following significance thresholds related to land use. Based on these significance thresholds, potential impacts to land use could be considered significant if the proposed WLC project would result in the following:

- Physically divide an established community;
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the General Plan, Specific Plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; and/or
- Conflict with any applicable habitat conservation plan or natural community conservation plan.

4.10.5 Less than Significant Impacts

The following potential impacts were determined to be less than significant. In each of the following issues, either no impact would occur (therefore, no mitigation would be required) or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level.

4.10.5.1 Conflict with Any Applicable Habitat or Natural Community Conservation Plan

Threshold	Would the proposed WLC project conflict with any applicable habitat conservation plan or natural community conservation plan?

Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The project site is located within the MSHCP area, Mead Valley and Reche Canyon/Badlands Plan Area.[1] The MSHCP is a comprehensive, multi-jurisdictional effort that includes Riverside County and fourteen cities to provide a regional approach to conservation planning. Portions of the project area occur in 14 criteria cells of the MSHCP. The project site is not located within any special linkage areas identified by the MSHCP. The project applicant, the City, and the County[2] are required to use the Joint Project Review (JPR) process established in the MSHCP to identify and acquire habitat as part of the development review process. The JPR process involves negotiations between a landowner and the Western Riverside County Regional Conservation Authority (RCA) so the County can acquire land with important habitat or other biological resources while providing fair compensation and/or reasonable development opportunities on the remaining land for the landowner.

The project site is located within areas requiring burrowing owl surveys, within the MSHCP Criteria Area Species Survey Area (CASSA), and Narrow Endemic Plant Species Survey Area (NEPSSA).

Because the project site is within an MSHCP CASSA and is considered to be a covered activity, the project is subject to provisions of the MSHCP. In particular, the project proponent will be required to provide payment of mitigation fees and adhere to the BMPs found in Appendix C of the MSHCP. Pursuant to agreements with the U.S. Fish and Wildlife Service (USFWS) and the CDFW, the payment of the mitigation fees and compliance provisions of the MSHCP provides full mitigation under CEQA, the Federal Endangered Species Act (FESA), and the California Endangered Species Act (CESA) for impacts to the species and habitats covered by the MSHCP. Since the City has adopted the MSHCP and its requirements and provisions, and since the project is within Moreno Valley, the proposed WLC project would be required to adhere to applicable MSHCP requirements

[1] *Multiple Species Habitat Conservation Plan Compliance Report*, Michael Brandman Associates. September 20, 2014.
[2] Western Riverside County Regional Conservation Authority (RCA)

and fees. Therefore, the WLC project was determined to be consistent with the MSHCP proposed WLC project (see Section 4.4, *Biological Resources*).

4.10.5.2 Conflict with Applicable Land Use Plans, Policies, or Regulations (Regional)

Threshold	Conflict with any applicable regional land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the General Plan, Specific Plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Section 15125 (d) of the *CEQA Guidelines* requires EIRs to "discuss any inconsistencies between the proposed project and applicable general plans and regional plans." The objective of such a discussion is to find ways to modify a project, if warranted, to eliminate any identified inconsistencies with relevant plans and policies, and thereby avoid creating an impact to the environment that consistency with the plan would otherwise mitigate. Pursuant to *CEQA Guidelines* Section 15125 (d), this EIR section includes an evaluation of the consistency of the proposed WLC project with pertinent goals and policies of relevant adopted local and regional plans. Because certain plans are more specifically tailored to other issue areas, such as air quality, transportation, biology, hazards, water quality, and water supply, the local and regional plans identified below are addressed in detail in other sections of this EIR. The following analysis evaluates the proposed project against all the applicable regional planning documents and processes, while the following Section 4.10.6.1 evaluates the project relative to the City of Moreno Valley General Plan.

Airport Regulations. MARB is a joint-use airport, used for military and civilian purposes, located seven miles west of the project site. The project area is outside of any Federal or State regulation related to MARB. The project is also outside of any areas regulated by the Riverside County Airport Land Use Plan (ALUP). Therefore, the project does not have a conflict with the ALUP and no impact will occur.

SCAG Applicable Regional Plans. On April 4, 2012, the SCAG approved the year 2012 Regional Transportation Plan (RTP)/Sustainable Communities Plan (SCS). This section evaluates consistency with both the SCAG 2008 RTP and the SCAG 2012 RTP.

SCAG 2008 Regional Comprehensive Plan (RCP), Regional Transportation Plan (RTP), and Compass Growth Vision (Compass): The SCAG (the designated Metropolitan Planning Organization [MPO] for the Counties of Ventura, Orange, San Bernardino, Riverside, Imperial, and Los Angeles) is federally mandated to develop plans for transportation, growth management, hazardous waste management, and air quality. With its members and other regional planning entities, the SCAG prepared the 2008 RCP to serve as a framework to guide decision-making with respect to the growth and changes that can be anticipated in the region for the 2008–2012 timeframe. The RCP is a major advisory plan prepared by the SCAG that addresses important regional issues like housing, traffic/transportation, water, and air quality. The RCP serves as an advisory document to local agencies in the Southern California region for their information and voluntary use for preparing local plans and handling local issues of regional significance.

The RCP identifies voluntary best practices to approach growth and infrastructure challenges in an integrated and comprehensive way. It also includes goals and outcomes to measure progress toward a more sustainable region. The RCP includes nine chapters, each based on specific areas of planning or resource management. Each of the nine chapters contains goals, policies, implementation, and strategies to achieve the SCAG's overall goals of improving the standard of

living for all; improving the quality of life for all; and enhancing equity and access to government. Local governments are required to use the RCP as the basis for their own plans and are required to discuss the consistency of projects of "regional significance" with the RCP.

Regional Comprehensive Plan: The RCP's overall goal is to reinvigorate the region's economy, avoid social and economic inequities and the geographical dislocation of communities, and to maintain the region's quality of life. The document is described as a regional policy framework for future land use decisions in the SCAG area that respects the need for strong local control, but that also recognizes the importance of regional comprehensive planning for issues of regional significance. The RCP is laid out much like a General Plan and organizes recommended policies into nine chapters. The highlight of each chapter is the regional strategy that addresses the RCP's vision for that resource area. As such, each chapter includes three levels of recommendations for the region:

- *Goals.* Each goal will help define how sustainability is defined for that resource area.
- *Outcomes.* These focus on quantitative targets that define progress toward meeting the RCP's Goals. Where possible, they are clearly defined (e.g., a 20% reduction in greenhouse gas emissions from 2007 levels), capable of being monitored with existing or reasonably foreseeable resources, and have a strong link to sustainability goals.
- *Action Plan.* This critical part of the RCP lays out a comprehensive implementation strategy that recommends how the region can systematically move to meet the RCP's quantitative Outcomes and achieve its Goals, Guiding Principles, and Vision. Each Action Plan contains:
    - *Constrained Policies.* This includes a series of recommended near-term, feasible policies that stakeholders should consider for implementation. For example, the RCP calls on the SCAG to adopt policies that reflect its role as a planning agency, council of governments, and metropolitan planning organization. The RCP also recommends voluntary policies for consideration by local governments and other key stakeholders.
    - *Strategic Initiatives.* This encompasses longer-term strategies that require significant effort to implement but are necessary to achieve the RCP's desired Goals and Outcomes. For example, identifying technological breakthroughs that can reduce air pollution from the transportation sector requires both commitment and time. Most of these initiatives are not constrained and will require political will, enabling legislation, new funding sources, and other key developments to become a reality. In most cases, this tier of strategies is the key to achieving the region's sustainability Goals and Outcomes.

Other policies contained within the 2008 RCP were either not applicable to the proposed WLC project or are directed at the SCAG and actions that the SCAG would undertake at the regional level that would not pertain directly to the proposed WLC project. Policies within the 2008 RCP that are applicable to the proposed WLC project were identified and are discussed below.

Land Use and Housing Chapter

Goal *Focusing growth in existing and emerging centers and along major transportation corridors.*

Consistent. The proposed WLC project site is currently either underdeveloped or used for agriculture. Regional access to the City and project area is provided from SR-60, which runs east-west just north of the project site. SR-60 provides direct access to the site via interchanges at Redlands Boulevard, Theodore Street, and Gilman Springs Road.

According to the City's "Rancho Belago Development Strategy" adopted in 2011, the proposed WLC project would occur in an area acknowledged by the City as appropriate for this type of development. The existing roadway system and infrastructure surrounding the project site will be utilized to the maximum extent possible, and the proposed WLC project will install improvements and/or pay necessary fees to facilitate the continuation of satisfactory operation. The proposed WLC project is

consistent with this SCAG policy in that it exists along a major transportation corridor of the City and will be connecting to the existing utilities underlying the arterial roadways.

Goal *Targeting growth in housing, employment, and commercial development within walking distance of existing and planned transit stations.*

Consistent. The proposed WLC project would comply with all City development policies, standards, and programs pertaining to supporting alternative modes of transportation included in the General Plan Circulation Element. In addition, the proposed WLC project is located within an urbanizing area of the City. As provided in the discussion on cumulative projects (Section 4.10.7), the approved and planned development in the project area includes residential, commercial, and industrial uses. As such, the project site is in an area that is developing with projects that have already been approved and constructed, or are in the various stages of the planning process.

Transit service in Moreno Valley is provided by the Riverside Transit Authority (RTA), which provides two routes in the vicinity of the proposed development:

- Route 35, which runs along Eucalyptus Street, Moreno Beach Boulevard, and SR-60; while this route does not directly serve the project site, it could be readily rerouted through the site.
- Route 20, which runs along the southerly portion of Moreno Beach Boulevard, approximately one mile west of the site.

Because the project site is located in close proximity existing RTA routes,[1] the proposed WLC project could be accessible to existing transit systems. As the project site is located adjacent to an area where commercial, residential, and industrial uses are planned or approved, and because the project site is readily accessible from SR-60 and from existing RTA bus routes, the proposed WLC project would be consistent with this SCAG Policy.

Goal *Inject new life into underused areas by creating vibrant new business districts, redeveloping old buildings, and building new businesses and housing on vacant lots.*

Consistent. The proposed WLC project site is currently used for agriculture. The proposed WLC project would introduce new high-cube logistics warehouse uses on vacant lots.

Outcome *Significantly increase the number and percentage of new housing units and jobs created within the Compass Blueprint 2% Strategy Opportunity Areas by 2012 and improve the regional jobs-housing balance. (Tracking the number of new units will measure the region's progress in accommodating forecast growth. The percentage of housing and jobs developed within the Opportunity Areas will indicate the locational efficiency of growth.)*

Consistent. The project is designed to address the City of Moreno Valley jobs/housing imbalance; the City has a scarcity of jobs compared to the number of residents.

Direct population increases are generally associated with residential developments and as there are no residential uses proposed for the project, there would be no direct increase in population. As most of the new employment opportunities are anticipated to be filled by existing local area residents, a large influx of new residents to the City would not occur. The City's current population per the 2010 Census is 195,216 and the SCAG projects the City's population will grow by 59,984 persons by the year 2035 (+31%). A City or sub-region with a jobs-to-housing ratio lower than the overall standard would be considered a "jobs poor" area, indicating that many of the residents must commute to places of employment outside the sub-area. The 2011 estimated jobs-to-housing ratios for the City,

[1] Riverside Transit Agency, http://www.riversidetransit.com, website accessed April 15, 2012.

County, and SCAG region are 0.45, 0.69, and 1.14, respectively. These ratios indicate that both Western Riverside County and the City of Moreno Valley are "jobs poor" because the jobs-to-housing ratios are below that of the Southern California region (as defined by SCAG).

It is anticipated that any new employment opportunities created by the proposed development would be filled by persons already residing in the local area. The proposed WLC project would serve the existing and continuing growth in the City and would not result in any direct increase to the population or households not previously anticipated in the City of Moreno Valley. In fact, it would result in a decrease in projected population in favor of an increase in anticipated job growth. As such, the proposed WLC project would be within the SCAG and Western Riverside Council of Governments (WRCOG) growth projection forecasts and would be consistent with this SCAG policy.

Outcome *Reduce total regional vehicle miles traveled (VMT) to 1990 levels by 2020. (The Land Use and Housing Action Plan can be expected to result in a 10% reduction in VMT in 2035 when compared to current trends. VMT serves as a proxy for jobs/housing balance, urban design, transit accessibility, and other urban form issues. VMT per household will decrease with Compass Blueprint implementation.)*

Consistent. As previously identified, the proposed WLC project would comply with all City development policies, standards, and programs pertaining to supporting alternative modes of transportation included in the General Plan Circulation Element. In addition, the proposed WLC project would result in the development of employment opportunities in fairly close proximity to existing residential development. The type of uses proposed and their proximity to each other allow for increased pedestrian and bicycle activity, limiting the need for vehicle travel. Because the project site is located adjacent to existing RTA Route 35[1] the proposed WLC project would be accessible to existing transit systems. Through consultation with the RTA, the project applicant will coordinate and facilitate the use of public transit to access the project site. The provision of additional employment options in proximity to existing residential development has the potential to reduce VMT; therefore, the proposed WLC project is consistent with this policy.

Section 4.15 of the EIR, *Traffic and Transportation*, indicates that Moreno Valley currently has a jobs/ housing imbalance resulting in long westbound commutes for thousands of City residents every workday. The Specific Plan would eventually create approximately 25,000 new jobs, nearly doubling the number of jobs in Moreno Valley. This would have several effects on commute patterns over the long-term:

- Many existing and future residents of Moreno Valley would be able to work locally with very short commute trips.
- Residents of neighboring cities who work within the Specific Plan area would have short commutes and be able to access the site using the local arterial road network rather than the freeway. This is consistent with the policies of the WRCOG and the Riverside County Transportation Commission (RCTC) to promote use of the arterial road network as an alternative to freeways. The traffic study indicates that nearly half of auto traffic associated with the project would be on surface streets (i.e., not on freeways).
- Workers coming from more distant residences would, in most cases, be traveling on freeways in the off-peak direction; i.e. commuters traveling to the project from Los Angeles or Orange Counties would be headed eastbound in the morning and westbound in the evening. This would enable them to take advantage of the existing unused off-peak capacity of facilities that were sized for flows in the peak direction. The traffic study determined that, although the project would increase freeway auto traffic eastbound in the morning, it would decrease the traffic in the more congested westbound direction (Figure 40, TIA 2014). In the evening, this pattern would reverse,

[1] Riverside Transit Agency, http://www.riversidetransit.com, website accessed April 15, 2012.

with the project relieving traffic in the congested eastbound direction (Figure 41, TIA 2014). Therefore, it appears the proposed project will have a net beneficial impact on the regional freeway auto traffic. This is consistent with the policies of the SCAG, WRCOG, and other regional bodies to encourage better jobs/housing balances as a way to reduce peak flow on the freeway system. It will also help the project and City comply with the requirements of SB 375 regarding long-term land use patterns to achieve a better regional balance of jobs/housing, which in turn will help reduce traffic congestion on regional freeways.

It should also be noted that this project will help reduce VMT within the City of Moreno Valley over the long term since it will add thousands of new jobs to the local workforce instead of new housing, thus improving the City's jobs to housing ratio.

Policy LU-6.2 *Developers and local governments should integrate green building measures into project design and zoning such as those identified in the U.S. Green Building Council's Leadership in Energy and Environmental Design, Energy Star Homes, Green Point Rated Homes, and the California Green Builder Program.*

Consistent. According to Section 1.3.2 of the WLC Specific Plan, the project will be in conformance with California's CALGreen building regulations. The Specific Plan states that 1) these are "the most stringent, environmentally friendly building codes in the U.S.;" and 2) "CALGreen is a comprehensive, far-reaching set of regulations which mandate environmentally advanced building practices and regulations designed to conserve natural resources and reduce greenhouse gas emissions, energy use, and water use."

In addition to compliance with the CALGreen building regulations, WLCSP Section 1.3.2, *Green Building – Sustainable Development*, indicates the project proposes to incorporate the following sustainable design features to further reduce its environmental footprint, including:

- Allow the installation of solar photovoltaic panels on each building (i.e., Mitigation Measure 4.16.4.6.1C requires that the project install solar panels to provide electricity for the office demands.) to help offset each building's annual electrical demand;
- The project would require LEED certification for buildings and would require buildings to exceed Title 24 by 10 percent;
- Channelizing street runoff into landscape areas instead of storm drains;
- Use of recycled and/or locally sourced building materials to the extent feasible;
- Reduction in the use of impervious surfaces throughout the project;
- The WLCSP provides for an alternative fueling station on the site;
- Provide for site access via existing transit systems (WLCSP Section 3.3.4, Mass Transit Circulation); and
- Provide for internal circulation via bicycles and walking (WLCSP Section 3.4, Non-Vehicular Circulation).

Therefore, the proposed WLC project is consistent with this SCAG policy.

Open Space and Habitat Chapter

Policy OSC-8 *Local governments should encourage patterns of urban development and land use, which reduce costs of infrastructure and make better use of existing facilities.*

Consistent. The proposed WLC project is adjacent to existing developed in areas that are presently served by various existing water, sewer, storm drainage, electrical, natural gas, and transportation

services. During the construction of the project and as needed throughout the process, necessary utility and roadway improvements will be installed or extended to the project site from adjacent existing facilities. The supply of electricity and natural gas is demand-responsive and the project proponent would be required to meet the service requirements of these utility providers. By maximizing the use of existing facilities, the costs of expanding infrastructure would be minimized. Because the proposed WLC project would be located in close proximity to existing industrial, commercial, and residential structures requiring a similar type of infrastructure, it is consistent with this growth management policy.

Policy OSC-12 *Developers and local governments should promote water-efficient land use and development.*

Consistent. As identified in Section 4.17 of this EIR, pursuant to Assembly Bill 325 (AB 325), the City of Moreno Valley implements landscape and irrigation design standards (Chapter 9.17 of the City's Municipal Code), which establishes water conservation requirements for new or rehabilitated landscapes.[1] The proposed WLC project is subject to this ordinance and will be required to implement water-efficient landscaping design (i.e., drought-tolerant landscaping) within the project site. In addition, a major design concept of the Specific Plan is water conservation through the careful selection and maintenance of drought-tolerant native plants. For example, Section 1.3.1 of the Specific Plan indicates a major goal of the project will be to minimize water consumption as outlined in Specific Plan Section 5.2.3 *Sustainable Design*, Section 5.4, *Onsite Landscaping,* and Section 6.0, *Sustainability*. All of these sections call for the project to minimize water use through installation of drought-tolerant landscaping and irrigating with runoff from building roofs and ground-level hardscape areas. Therefore, the proposed WLC project would be consistent with this SCAG policy.

Water Chapter

Policy WA-11 *Developers and local governments should encourage urban development and land uses to make greater use of existing and upgraded facilities prior to incurring new infrastructure costs.*

Consistent. Existing warehousing development is located in the immediate vicinity of the project site where infrastructure for water, sewer, storm drainage, electrical, natural gas, and transportation facilities currently exist. During the construction of the project and as needed throughout the process, necessary utility and roadway improvements will be installed or extended to the project site from adjacent existing facilities. The utility and roadway improvements will facilitate future growth in the surrounding area. The availability of this infrastructure would reduce the cost to public agencies that would provide services to the project area. The proposed WLC project would be developed in an area where such infrastructure is accessible. Furthermore, the project applicant would pay all applicable development fees for the necessary infrastructure and public service improvements, including those associated with water, sewer, drainage, roadways, fire, and police; therefore, the proposed WLC project is consistent with this policy.

Policy WA-12 *Developers and local governments should reduce exterior uses of water in public areas, and should promote reduced use in private homes and businesses by shifting to drought-tolerant native landscape plants (xeriscaping), using weather-based irrigation systems, educating other public agencies about water use, and installing related water pricing incentives.*

Consistent. As identified in earlier in this section, pursuant to Assembly Bill 325 (AB 325), the City of Moreno Valley implements landscape and irrigation design standards (Chapter 9.17 of the City's Municipal Code), which establishes water conservation requirements for new or rehabilitated

[1] *City of Moreno Valley Municipal Code.*

landscapes.[1] The proposed WLC project is subject to this ordinance and will be required to implement water-efficient landscaping design (i.e., drought-tolerant landscaping) within the project site. Therefore, the proposed WLC project would be consistent with this SCAG policy.

Energy Chapter

Policy EN-10 *Developers and local governments should integrate green building measures into project design and zoning such as those identified in the U.S. Green Building Council's Leadership in Energy and Environmental Design, Energy Star Homes, Green Point Rated Homes, and the California Green Builder Program. Energy-saving measures that should be explored for new and remodeled buildings include:*

- *Using energy-efficient materials in building design, construction, rehabilitation, and retrofit.*
- *Encouraging new development to exceed Title 24 energy efficiency requirements.*
- *Developing Cool Communities measures including tree planting and light-colored roofs. These measures focus on reducing ambient heat, which reduces energy consumption related to air conditioning and other cooling equipment.*
- *Utilizing efficient commercial/residential space and water heaters. This could include the advertisement of existing and/or development of additional incentives for energy-efficient appliance purchases to reduce excess energy use and save money. Federal tax incentives are provided online at http://www.energystar.gov/index.cfm?c=Products.pr_tax_credits.*
- *Encouraging landscaping that requires no additional irrigation; utilizing native, drought-tolerant plants can reduce water usage up to 60 percent compared to traditional lawns.*
- *Encouraging combined heating and cooling (CHC), also known as cogeneration, in all buildings.*
- *Encouraging neighborhood energy systems, which allow communities to generate their own electricity.*
- *Orienting streets and buildings for best solar access.*
- *Encouraging buildings to obtain at least 20 percent of their electric load from renewable energy.*

Consistent. According to Section 5.2.3 of the WLC Specific Plan (Sustainable Design), the project will be in conformance with California's "CALGreen" building regulations which are considered the most stringent, environmentally friendly building codes in the U.S. In addition to compliance with the CALGreen building regulations, the project proposes to incorporate the following additional sustainable design features to further reduce its environmental footprint, including:

- The project would require LEED certification for buildings and would require buildings to exceed Title 24 by 10 percent;
- Allow the future installation of solar photovoltaic panels on each building (i.e., Mitigation Measure 4.16.4.6.1C requires that the project install solar panels to provide electricity with a minimum capacity equal to office electrical demand.) to help offset annual electrical energy consumption;
- Substantially reduced water use for landscape irrigation;
- Channelizing street runoff into landscape areas instead of storm drains;

[1] *City of Moreno Valley Municipal Code*.

- Use of recycled and/or locally sourced building;
- Reduction in the use of impervious surfaces throughout the project;
- The WLCSP provides for an alternative fueling station on the site;
- Provide for site access via existing transit systems (WLCSP Section 3.3.4, Mass Transit Circulation); and
- Provide for internal circulation via bicycles and walking (WLCSP Section 3.4, Non-Vehicular Circulation).

In addition, the strategies listed in Section 4.7, *Greenhouse Gases and Global Climate Change*, of this EIR are considered to be greenhouse gas emission reduction strategies, which include green building measures. These strategies are either part of the project, required mitigation measures, or requirements under local or State ordinances. Since the project would implement these strategies into project design and operation, the project would be consistent with this SCAG policy.

Solid Waste Chapter

Policy SW-14 *Developers and local governments should integrate green building measures into project design and zoning including, but not limited to, those identified in the U.S. Green Building Council's Leadership in Energy and Environmental Design, Energy Star Homes, Green Point Rated Homes, and the California Green Builder Program. Construction reduction measures to be explored for new and remodeled buildings include:*

- *Reuse and minimization of construction and demolition (C&D) debris and diversion of C&D waste from landfills to recycling facilities.*
- *An ordinance that requires the inclusion of a waste management plan that promotes maximum C&D diversion.*
- *Source reduction through (1) use of building materials that are more durable and easier to repair and maintain, (2) design to generate less scrap material through dimensional planning, (3) increased recycled content, (4) use of reclaimed building materials, and (5) use of structural materials in a dual role as finish material (e.g., stained concrete flooring, unfinished ceilings).*
- *Reuse of existing building structure and shell in renovation projects.*

Building lifetime waste reduction measures that should be explored for new and remodeled buildings include:

- *Development of indoor recycling program and space;*
- *Design for deconstruction; and*
- *Design for flexibility through use of moveable walls, raised floors, modular furniture, moveable task lighting, and other reusable components.*

Consistent. As noted above, according to Section 5.2.3 of the WLC Specific Plan, *Sustainable Design*, the project will be in conformance with California's "CALGreen" building regulations. In addition to compliance with the CALGreen building regulations, the project proposes to incorporate the following additional sustainable design features to further reduce its environmental footprint, including:

- Substantially reduced water use for landscape irrigation;
- Channelizing street runoff into landscape areas instead of storm drains;

- Use of recycled and/or locally sourced building materials to the extent feasible;
- Reduction in the use of impervious surfaces throughout the project;
- Provide for site access via existing transit systems; and
- Provide for internal circulation via bicycles and walking.

The strategies listed in Section 4.7 *Greenhouse Gases and Global Climate Change* of this EIR are considered to be greenhouse gas emission reduction strategies, which include green building measures. These strategies are either part of the project, required mitigation measures, or requirements under local or State ordinances. With implementation of these strategies/measures, the project would be consistent with this SCAG policy.

Transportation Chapter

Goal *A more efficient transportation system that reduces and better manages vehicle activity.*

Consistent. The proposed WLC project would result in the development of employment opportunities in close proximity to housing. In addition, the project proposes sidewalks, bicycle routes, and landscaping treatments to provide for pedestrian and bicycle access throughout the project site. The type of uses proposed and their proximity to each other allow for increased pedestrian and bicycle activity, limiting the need for vehicle travel. At present, Moreno Valley has a jobs/housing imbalance that results in long westbound commutes for thousands of city residents every workday. The WLC would create approximately 24,000[1] permanent new jobs within the City (20,307 direct jobs and 3,693 indirect jobs); nearly doubling the number of jobs in Moreno Valley. This would have several effects on commute patterns:

- Many existing and future residents of Moreno Valley would be able to work locally with very short commute trips.
- Residents of neighboring cities who work at the WLC would have short commutes and, importantly, be able to access the site using the arterial road network. This is consistent with the policies of the WRCOG and the RCTC to promote use of the arterial road network as an alternative to freeways. Tests with the Riverside County Traffic Analysis Model (RivTAM) model suggest that nearly half of auto traffic associated with the WLC would be on surface streets (i.e., not on freeways).
- Workers coming from more distant residences would, in most cases, be traveling on freeways in the off-peak direction; i.e. commuters traveling to the WLC from Los Angeles or Orange Counties would be headed eastbound in the morning and westbound in the evening. This would enable them to take advantage of the existing unused off-peak capacity of facilities that were sized for flows in the peak direction. Although the project would increase freeway auto traffic eastbound in the morning, it would decrease the traffic in the more congested westbound direction. In the evening, the pattern would reverse, with the project relieving traffic in the congested eastbound direction. Therefore the WLC project will have a net beneficial impact on the regional freeway auto traffic. This is consistent with the policies of SCAG, WRCOG, and other regional bodies to encourage better jobs/housing balances as a way to reduce peak flow on the freeway system.

Therefore, this project is consistent with this transportation goal.

[1] *Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California, David Taussig & Associates, Inc., original dated January 2012, updated September, 2014.*

Security and Emergency Preparedness Chapter

Goal *Ensure transportation safety, security, and reliability for all people and goods in the region.*

Consistent. The proposed WLC project is consistent with this goal in that the proposed WLC project would be required to adhere to the City of Moreno Valley's General Plan. The General Plan contains goals and policies that aim to provide adequate and reliable transportation facilities. The goals and policies identified in the City's General Plan resemble those of the RCP that address mobility, traffic safety, environmental concerns, and land use consistency as the major traffic study factors to identify existing traffic conditions and to assess the future effects on area traffic patterns/flow.

Economy Chapter

Goal *Enable business to be profitable and competitive (locally, regionally, nationally, and internationally).*

Consistent. The proposed WLC project would add to the City's portfolio of industrial and logistics services. Through the addition of the proposed WLC project, the City would also expand its economic competitiveness with other areas in the region. Therefore, the proposed WLC project is consistent with this policy.

Goal *Promote sustained economic health through diversifying the region's economy, strengthening local self-reliance and expanding competitiveness.*

Consistent. As previously stated, the proposed WLC project would add to the City's portfolio of industrial and logistic services, which would enable the City to be more self-reliant through the provision of goods and services to residents within the City. Through the addition of the proposed WLC project, the City would also expand its economic competitiveness with other areas in the region. Therefore, the proposed WLC project is consistent with this policy.

Goal *Ensure a healthy, flourishing economy that provides sufficient employment opportunities to decrease poverty and meet the basic needs of all the people who participate in our economy by promoting education and workforce training policies that give residents an opportunity to compete for the full range of jobs available with good wages and benefits.*

Consistent. The proposed WLC project would provide additional employment opportunities in a community with a low jobs/housing ratio. In addition, the proposed WLC project would meet the basic needs of those who participate in the economy through the use of training in the workforce. Therefore, the proposed WLC project is consistent with this policy.

Outcome *Increase job growth to add three million jobs to the regional economy by 2035.*

Consistent. The proposed WLC project would result in additional jobs in the City and indirect jobs in the County and City, which would contribute to job growth in the regional economy. Therefore, the proposed WLC project is consistent with this policy.

Outcome *Increase the region's economic vitality and attractiveness by focusing housing and job additions in urban centers, employment centers, and transportation corridors, such that there will be a minimum of 35 percent of the region's household growth and 32 percent of employment growth in these areas from their levels in 2005 by 2035.*

Consistent. Development of the proposed on-site uses would increase the number of jobs in the City by approximately 24,000 at full development. The 2011 estimated jobs-to-housing ratios for the City,

sub-region, and region are 0.45, 0.69, and 1.14, respectively. The 2035 future jobs-to-housing ratios for the City, sub-region, and region are 0.88, 1.14, and 1.29, respectively. These ratios indicate that both western Riverside County and the City of Moreno Valley are "jobs poor" because the jobs-to-housing ratios are below the Southern California region (as defined by SCAG). A city or sub-region with a jobs-to-housing ratio lower than the overall standard would be considered a "jobs poor" area, indicating that many of the residents must commute to places of employment outside the sub-area. Since the proposed WLC project would add jobs to a "jobs poor" region, the proposed WLC project would increase the region's economic vitality and attractiveness by job additions in urban centers and along transportation corridors. Therefore, the proposed WLC project is consistent with this SCAG policy.

2008 Regional Transportation Plan: The 2008 RTP adopted by the SCAG in May 2008 contains a set of existing socioeconomic projections used as the basis for the SCAG's transportation planning efforts. They include projections of population, housing, and employment at the regional, county, sub-regional, jurisdictional, Census tract, and transportation analysis zone levels. The RTP includes policies and regulations set forth to ensure development within the SCAG regional area is within planned and forecast socioeconomic projections. Goals established within the RTP include the following:

- Maximize mobility and accessibility for all people and goods in the region (discussed in Section 4.15, *Traffic and Circulation*);
- Ensure travel safety and reliability for all people and goods in the region (discussed in Section 4.15, *Traffic and Circulation*);
- Preserve and ensure a sustainable regional transportation system (discussed in Section 4.15, *Traffic and Circulation*);
- Maximize the productivity of our transportation system (discussed in Section 4.15, *Traffic and Circulation*);
- Protect the environment, improve air quality, and promote energy efficiency (discussed in Section 4.3, *Air Quality*);
- Encourage land use and growth patterns that complement our transportation investments and improve the cost-effectiveness of expenditures (discussed in Section 4.15, *Traffic and Circulation*); and
- Maximize the security of our transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies (discussed in Section 4.15, *Traffic and Circulation*).

The proposed WLC project is consistent with the RTP in that it would be required to adhere to the City of Moreno Valley's General Plan. The General Plan contains goals and policies that aim to minimize traffic congestion, provide adequate transportation facilities, and require development to pay its share of costs. The goals and policies identified in the City's General Plan resemble those of the RTP that address mobility, traffic safety, environmental concerns, and land use consistency as the major traffic study factors to identify existing traffic conditions and to assess the future effects on area traffic patterns/flow.

Compass Growth Vision: The Compass Growth Vision plan provides a framework for local and regional decision-making regarding growth, transportation, land use, and economic development. The framework includes principles and a specific set of strategies intended to achieve and improve a quality of life that promotes and sustains for future generations the region's mobility, livability, and prosperity. The main objective of the Compass Growth Vision is to manage the forecast growth while improving future living conditions for all people within the SCAG area, including live, work, and play activities.

The following discussion includes the principles within the Compass Growth Vision plan and their association to the proposed WLC project.

- ***Principle 1:*** Improve mobility for all residents.
- ***Principle 2:*** Foster livability in all communities.
- ***Principle 3:*** Enable prosperity for all people.
- ***Principle 4:*** Promote sustainability for future generations.

The proposed WLC project is consistent with the four principles identified above. The nature of the proposed WLC project allows the transport of commodities from a single area rather than multiple areas, minimizing vehicle trip generation. The proposed WLC project supports the prosperity for all people by providing employment opportunities close to existing housing within the City of Moreno Valley. The proposed WLC project is located in an area that is already developing with urban uses and where existing infrastructure (freeway, sewer, electrical, water, etc.) is accessible. During the construction of the project and as needed throughout the process, necessary utility and roadway improvements will be installed or extended to the project site from adjacent existing facilities. The utility and roadway improvements will facilitate future growth in the surrounding area. The development of the proposed WLC project is consistent with the land use vision for the site and will augment existing services available in the City and region.

SCAG 2012 Regional Transportation Plan and Sustainable Communities Plan. As part of the adoption of the 2012 RTP, SCAG developed an SCS, which was required as part of SB 375. According to SB 375, each metropolitan planning organization shall prepare a sustainable communities strategy, including the requirement utilizing the most recent planning assumptions considering local general plans and other factors. The Sustainable Communities Strategy shall:

1. Identify the general location of uses, residential densities, and building intensities within the region;
2. Identify areas within the region sufficient to house all the population of the region, including all economic segments of the population, over the course of the planning period of the regional transportation plan taking into account net migration into the region, population growth, household formation and employment growth;
3. Identify areas within the region sufficient to house an eight-year projection of the regional housing need for the region;
4. Identify a transportation network to service the transportation needs of the region;
5. Gather and consider the best practically available scientific information regarding resource areas and farmland in the region;
6. Consider the State housing goals specified in Sections 65580 and 65581;
7. Set forth a forecast development pattern for the region, which, when integrated with the transportation network, and other transportation measures and policies, will reduce the greenhouse gas emissions from automobiles and light trucks to achieve, if there is a feasible way to do so, the greenhouse gas emission reduction targets approved by the State Board; and
8. Allow the regional transportation plan to comply with the Federal Clean Air Act.

The SCS and the 2012 RTP contain new regional growth projections for each city in the Southern California region. Table 4.10.C contains the population and employment forecasts for the City of Moreno Valley.

Table 4.10.C: SCAG Population and Employment Projections, 2008–2035

Population			Employment			Increase 2008–2035	
2008 per Census	2020 Projection	2035 Projection	2008 per Census	2020 Projection	2035 Projection	Population	Employment
187,400	213,700	255,200	32,300	48,000	64,400	36%	99%

Source: SCAG 2012 RTP

The 2012–2035 RTP/SCS contains a number of "Outcome and Performance Measures/Indicators"[1] that are used to evaluate various regional land use plan alternatives, with the objective being an improvement over the No Project (i.e., no SCS) baseline. These measures are applied on a regional basis, and are not necessarily applicable to individual projects like the World Logistics Center. However, the following general discussion of consistency with the relevant measures shown in Table 4.10.D can be provided.

Table 4.10.D: Discussion of RTP Outcomes and Performance Measures/Indicators

Performance Measure/Indicator	Definition	Consistency of Proposed WLC project
Share of growth in High Quality Transit Areas (HQTAs)	Increase share of the region's growth in households and employment in HQTAs	**Consistent.** The project is not currently located in an SCAG-defined HQTA. However, the project is located adjacent to existing transit routes and makes provisions for future bus service through the relocation of existing routes. By developing a focused employment center, the project can attract more frequent transit service to the area. Given the potential for readily providing transit service to the site, the project is generally consistent with this goal.
Land consumption	Reduce additional land needed for development that has not previously been developed or otherwise affected, including agricultural land, forest land, desert land, and other virgin sites.	**Consistent.** The SCAG plan calls for reducing the amount of virgin land converted to development, as compared to the "No Project" condition. The project would develop land long planned for suburban level development, but would replace the approved mixed-use residential project with a logistics warehousing project that would add employment instead of housing to the City which has long been considered by SCAG to be "housing rich." The EIR does note that the WLC project would convert agricultural land to other uses.
Average distance for work or non-work trips	Decrease the average distance traveled for work or non-work trips separately.	**Consistent.** The City of Moreno Valley is "jobs-poor," which forces many Moreno Valley residents to commute long distances from their homes to work. By providing employment opportunities closer to existing population centers, the project should reduce the length of work related trips.*
Percentage of work trips less than 3 miles.	Increase the share of total work trips that are fewer than 3 miles.	**Consistent.** As noted above, the City of Moreno Valley needs additional jobs for its residents. The project will increase the ability of Moreno Valley residents to find work closer to home and thereby reduce travel times. Approximately 50% of the City of Moreno Valley is within three miles of the project site. To the extent that Moreno Valley residents are employed at the project site, the

[1] http://rtpscs.scag.ca.gov/Documents/2012/final/SR/2012fRTP_PerformanceMeasures.pdf, Table 2.

Table 4.10.D: Discussion of RTP Outcomes and Performance Measures/Indicators

Performance Measure/Indicator	Definition	Consistency of Proposed WLC project
		share of work-related trips less than three miles should increase.
Work trip length distribution.	Reduce the statistical distribution of work trip length in the region.	**Consistent.** In addition to the discussion above, the project traffic study indicates that nearly half of auto traffic associated with the project would be on surface streets (i.e., not on freeways). The traffic study determined that, although the project would increase freeway auto traffic eastbound in the morning, it would decrease the traffic in the more congested westbound direction. In the evening, this pattern would reverse, with the project relieving traffic in the congested eastbound direction. Therefore, it appears the proposed project will have a net beneficial impact on the regional freeway auto traffic.
Criteria pollutants and greenhouse gas emissions.	Reduce CO, NO_X, $PM_{2.5}$, PM_{10}, VOC, and per capita greenhouse gas emissions (CO_2).	**Consistent.** To the extent that total work-related trip lengths are reduced, the project would reduce such emissions.
Annual household transportation cost.	Reduce annual household spending on transportation costs of vehicle ownership, operation, and maintenance, and public transportation.	**Consistent.** To the extent that total work-related trip lengths are reduced, the project would reduce such costs.
Percentage of jobs within 15 minutes' walk of transit.	Increase the number of jobs within 15 minutes' walk of public transportation.	**Consistent.** Assuming the bus service revisions as described above, all of the WLCSP site would be within 15 minutes' walk of public transportation.

* Market conditions at the time that employers move into the site will determine the actual match of jobs within the project to the then current employment needs of Moreno Valley residents.
Source: http://rtpscs.scag.ca.gov/Documents/2012/final/SR/2012fRTP_PerformanceMeasures.pdf

As Table 4.10.D shows, the project is generally consistent with the SCAG RTP/SCS Performance measures. It should be noted that the WLCSP project will significantly improve the jobs/housing ratio for the City, which will assist SCAG in achieving its regional RTP growth goals, as well as a number of RTP performance standards regarding sub-regional jobs/housing ratios (i.e., regional goal is to add housing in jobs rich areas and add jobs in housing rich areas like Moreno Valley). Additional information and analysis in this regard is provided in Section 4.13, *Population, Housing, and Employment.*

Santa Ana Water Quality Control Plan (Basin Plan). The Santa Ana Basin Plan, which is implemented by the Santa Ana RWQCB, specifically (1) designates beneficial uses for surface and ground waters, (2) sets qualitative and quantitative objectives that must be attained and maintained at that level in order to protect the designated beneficial uses and conform to the State's anti-degradation policy, and (3) describes implementation policies and programs to protect all waters in the region. In cases where the Basin Plan does not contain a standard for a particular pollutant, other criteria are used to establish a standard. Storm water runoff from approximately the western half of the project drains toward the west, into the Perris Valley Storm Drain, then flows into the San Jacinto River and eventually into Canyon Lake and Lake Elsinore. The eastern half of the project drains south into Mystic Lake when flows are high, and runoff eventually makes its way to the San Jacinto River. Because the proposed WLC project is required to comply with all applicable water quality standards and requirements established by the RWQCB, and is therefore in compliance with the NPDES permitting system, the proposed WLC project would be consistent with the Basin Plan.

Riverside County Drainage Area Management Plan (DAMP). Like the Basin Plan, the Drainage Area Management Plan deals primarily with the Santa Ana Region. The DAMP describes a wide range of continuing and enhanced Best Management Practices (BMPs) and control techniques for development projects within a municipality and are being implemented during the five-year terms of the third-term MS4 permits. In essence, the DAMP describes the overall urban runoff management strategies planned by the permittees in the Santa Ana Region. The proposed WLC project is required to comply with all applicable drainage standards and requirements designed to protect water resources and enhance water quality and would therefore, be consistent with the DAMP.

Eastern Municipal Water District Urban Water Management Plan (EMWD UWMP). A UWMP is required of every urban water supplier in order to be in compliance with the Urban Water Management Plan Act. The UWMP includes assessment of current and projected water supplies, evaluation of water demand, customer types, and reliability of water supplies, description of conservation measures, a response plan for water shortage, and a comparison of demand and supply projections. The proposed WLC project is required to comply with all applicable standards and requirements designed to conserve water supplies and ensure water source reliability for future years prior to the approval of the project. As such, the proposed WLC project would be consistent with the EMWD UWMP. A comprehensive Water Supply Assessment (WSA) was prepared for this project by the EMWD that determined there were sufficient water supplies, including during multiple drought years, to supply the WLCSP project.

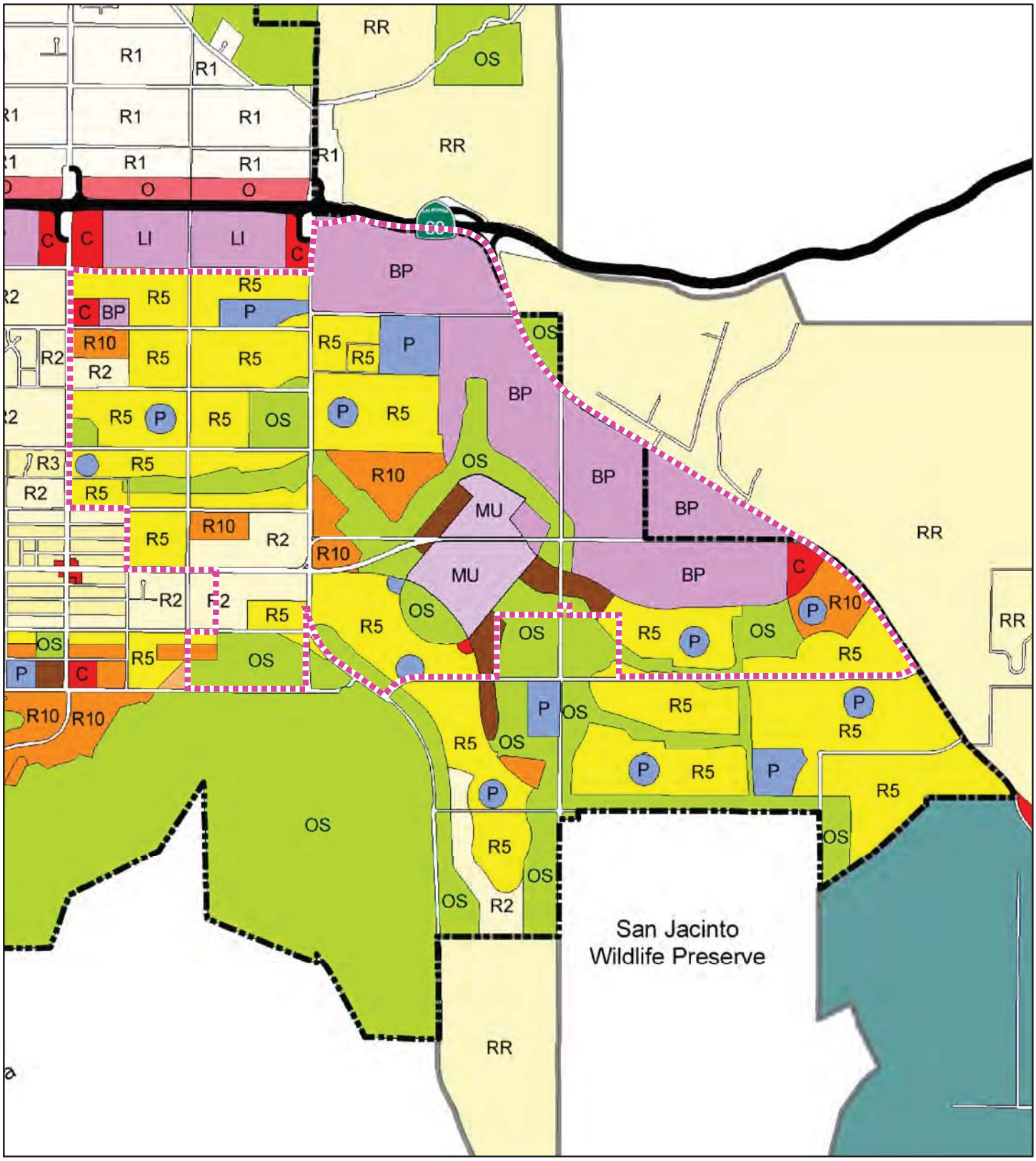
Summary of Impact 4.10.5.2: Conflict with Applicable Regional Land Use Plans, Policies, or Regulations. The preceding analysis demonstrates that the proposed project is generally consistent with the goals of SCAG's Regional Comprehensive Plan, Compass Plan and Regional Transportation Plan in that it seeks to add employment in an area that has historically been "jobs poor," which will help reduce worker commute trips from Moreno Valley over the long term. The WLCSP project is generally consistent with these plans because the WLCSP will generate fewer emissions than the currently approved Moreno Highland Specific Plan, and it will provide for a better balance of jobs versus housing in Moreno Valley, which will incrementally improve regional commuting directions and distances by providing almost 24,000 new jobs in an area currently planned for housing.

4.10.5.3 Conflict with Applicable Land Use Plans, Policies, or Regulations (Local)

Threshold	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the General Plan, Specific Plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Section 15125 (d) of the *CEQA Guidelines* requires EIRs to "discuss any inconsistencies between the proposed project and applicable general plans and regional plans." The objective of such a discussion is to find ways to modify a project, if warranted, to eliminate any identified inconsistencies with relevant plans and policies, and thereby avoid creating an impact to the environmental that consistency with the plan would otherwise mitigate. Pursuant to *CEQA Guidelines* Section 15125 (d), this EIR section includes an evaluation of the consistency of the proposed project with pertinent goals and policies of the adopted City of Moreno Valley General Plan (see Figure 4.10.2).

The project proposes to amend the existing City of Moreno Valley General Plan Land Use Plan for the project area. By definition, the project is inconsistent with the existing General Plan and approval of the project would correct the inconsistency by amending the General Plan Land Use and other Elements to be consistent with the WLC project and Specific Plan. Figures 4.10.2 and 4.10.3 show the existing General Plan land uses and the proposed land uses. Table 4.10.E compares the land uses allowed under the current General Plan with those allowed under the proposed amended General Plan.



LSA

FIGURE 4.10.2

N

0 1,500 3,000
FEET

Project Boundary
Highways
City Boundary
Sphere of Influence

Land Use

Residential: Max. 1 du/ac
Mixed Use
Residential: Max. 2 du/ac
Residential: Max. 3 du/ac
Residential: Max. 5 du/ac
Residential: Max. 10 du/ac
Residential: Max. 20 du/ac
Office
Commercial
Business Park/Light Industrial
Open Space
Public Facilities
Floodplain

World Logistics Center Specific Plan Project
Environmental Impact Report

General Plan Land Uses

SOURCE: Riverside County and City of Moreno Valley, August, 2010.

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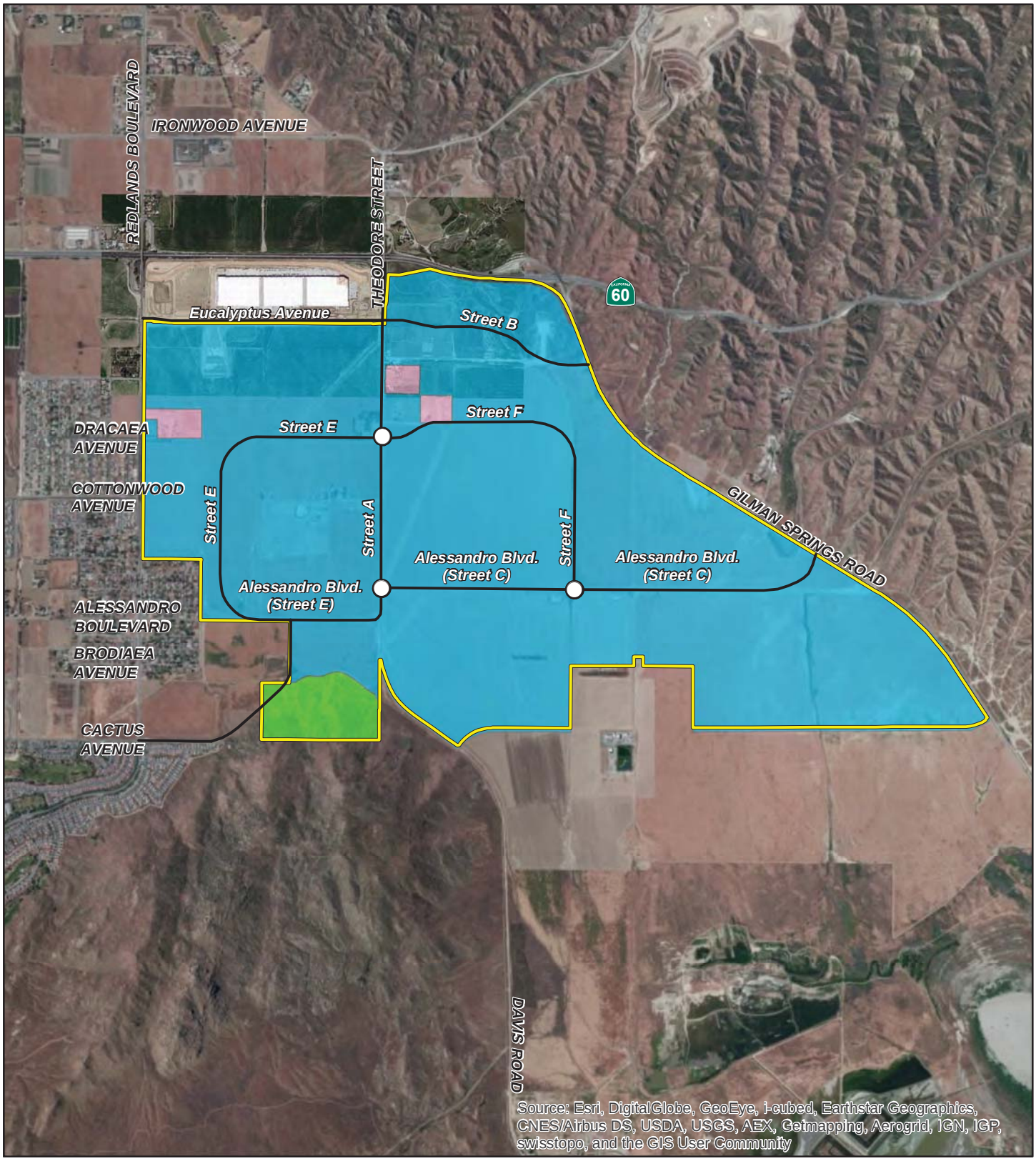

LSA

FIGURE 4.10.3

Project Boundary
Light Logistics
Logistics Development
Open Space

N

0 1,500 3,000
FEET

World Logistics Center Specific Plan Project
Environmental Impact Report

Specific Plan Land Uses

SOURCE: ESRI World Imagery, 2010; Bing Maps, 2010; Google Maps, 2011.

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Table 4.10.E: City of Moreno Valley General Plan Consistency Analysis

Goals, Policies and Objectives	Project Consistency Analysis
Ultimate Goal IV: Enjoys a healthy economic climate that benefits both residents and businesses.	**Consistent:** The City has determined that its low jobs/ housing ratio limits the job opportunities for local residents, and creates economic challenges for the City. By increasing employment opportunities and potentially increasing the jobs/housing ratio, the project will enhance the economic climate for both businesses and residents.
Ultimate Goal VI: Enjoys a circulation system that fosters traffic safety and the efficient movement of motor vehicles, bicycles, and pedestrians.	**Consistent:** The WLCSP circulation will be designed to modern safety standards, and provide for efficient movement and motor vehicles, both on the local streets and freeway. To the extent that the project increases job opportunities for local residents, it should decrease the length of employment trips, increasing the efficiency of the local transportation system. However, it will result in substantial additional traffic, including trucks, on SR-60 and Gilman Springs Road. The project will make various roadway and intersection improvements, and make fair share contributions to local Development Impact Fee (DIF) and regional Transportation Uniform Mitigation Fee (TUMF) traffic mitigation programs.
Community Development Goal 2.1: Develop a pattern of land uses, which organizes future growth, minimizes conflicts between land uses, and which promotes the rational utilization of presently underdeveloped and undeveloped parcels.	**Consistent:** The project proposes a major industrial/ logistics center on agricultural land in the eastern end of the City. With proposed mitigation, these land uses will have adequate setbacks or be buffered from adjacent residential land uses. The property was planned for a mixed use residential master planned community (i.e. Moreno Highlands Specific Plan) and so the proposed WLCSP project will require a General Plan Amendment. In addition, although this is a fundamental change from previous planned land uses, it will provide a substantial amount of new employment consistent with the City's Economic Development Strategy and the 2011 Housing Element. Therefore, the WLC project is considered to be consistent with the General Plan in this regard.
Objective 2.1: Balance the provision of urban and rural lands within Moreno Valley by providing adequate land for present and future urban and economic development needs, while retaining the significant natural features and the rural character and lifestyle of the northeastern portion of the community.	**Consistent:** The proposed WLCSP will provide logistics-related employment to help balance out the historical abundance of housing developed in the City. It would not affect the northeastern portion of the City (i.e., north of SR-60).
Community Development Objective 2.5: Promote a mix of industrial uses that provides a sound and diversified economic base and ample employment opportunities for the citizens of Moreno Valley with the establishment of industrial activities that have good access to the regional transportation system, accommodate the personal needs of workers and business visitors; and which meets the service needs of local businesses.	*NOTE: The following changes have been made due to revision to the Specific Plan project size.* **Consistent:** The project will provide 40.6 million square feet of logistics-related warehousing and supporting office space. This development will enhance the economic base and provide increased employment opportunities for the citizens of Moreno Valley in a limited number of worker categories. The project site has direct access to two interchanges on SR-60, along with arterial access to the balance of Moreno Valley, and access to the San Jacinto/Hemet Valley via Gilman Springs Road. It is therefore consistent with the General Plan.

Table 4.10.E: City of Moreno Valley General Plan Consistency Analysis

Goals, Policies and Objectives	Project Consistency Analysis
Community Development Policy 2.5.1: The primary purpose of areas designated Business Park/ Industrial is to provide for manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities. The zoning regulations shall identify the particular uses permitted on each parcel of land. Development intensity should not exceed a Floor Area Ratio of 1.00 and the average floor area ratio should be significantly less.	**Consistent**: The project is consistent with policies applicable to the Business Park/Industrial designation. The project will primarily provide opportunities for warehousing/logistics distribution, along with additional opportunities for manufacturing and research and development, along with associated office space. The Specific Plan will become the zoning regulations for the site, and designates the land uses allowed on each parcel. The net Floor Area Ratio is estimated to be 0.5, which is considered significantly less that the General Plan maximum of 1.0.
Community Development Policy 2.5.2: Locate manufacturing and industrial uses to avoid adverse impacts on surrounding land uses.	**Consistent:** The project proposes to locate logistics warehouses in the far eastern portion of the City, and residential uses are adjacent to the southwest portion of the project site. The Specific Plan addresses these adjacency impacts with setbacks and landscaping, berms, walls, etc. so the project will be compatible with surrounding uses.
Community Development Policy 2.5.3: Screen manufacturing and industrial uses where necessary to reduce glare, noise, dust, vibrations and unsightly views.	**Consistent:** The Specific Plan will provide visual and physical screening where planned uses are adjacent to existing residential uses.
Community Development Policy 2.5.4: Design industrial developments to discourage access through residential areas.	**Consistent:** The proposed circulations network provides primary project access directly from SR-60, and does not rely on residential streets. Trucks will generally access the site off SR-60 by using the Theodore Street Interchange. Truck access along the Cactus Avenue Extension to Cactus Avenue and along Redlands Boulevard south of Eucalyptus Avenue will be prohibited.
Community Development Objective 2.10: Ensure that all development within the City of Moreno Valley is of high quality, yields a pleasant living and working environment for existing and future residents, and attracts business as the result of consistent exemplary design.	**Consistent:** The Specific Plan includes contemporary design standards, which will provide a pleasant working environment.
Community Development Policy 2.10.1: Encourage a design theme for each new development that is compatible with surrounding existing and planned developments.	**Consistent:** Section 5.0 of the Specific Plan provides the architectural theme for the development.
Community Development Policy 2.10.12: Screen parking areas from streets to the extent consistent with surveillance needs (e.g., mounding, landscaping, low profile walls, and/or grade separations).	**Consistent:** Section 6.0 of the Specific Plan provides for mounding and screening of parking lots.

While the project would amend the General Plan Land Use Map, the project also needs to be assessed against the Goals, Policies, and Objectives of the adopted General Plan, as contained in Section 9 of the General Plan. The potentially relevant policies have been extracted in Table 4.10.E, and the project's consistency with said policies is assessed.

With the implementation of the General Plan amendment that is part of the project approvals being sought, the project will be consistent with the City's General Plan.

In summary, the project is consistent with the goals, objectives, and policies of the City of Moreno Valley General Plan, except Objective 2.1 and Community Development Policy 2.5.2. As proposed, the Specific Plan represents a fundamental land use change for the Rancho Belago area, the eastern portion of Moreno Valley. The land is currently planned for a mixed-use residential community, but the WLC project will introduce 40.6 million square feet of logistics warehousing onto existing agricultural land that is adjacent to existing residential uses to the west and the San Jacinto Wildlife Area to the south.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

Moreno Valley. The land is currently planned for a mixed-use residential community, but the WLC project will introduce 40.6 million square feet of logistics warehousing onto existing agricultural land that is adjacent to existing residential uses to the west and the San Jacinto Wildlife Area to the south.

Housing Element. During the NOP period, several group representatives expressed concern that the WLCSP would eliminate 7,700 housing units in the Moreno Highlands Specific Plan that would have to be replaced elsewhere in the City. The City adopted an updated Housing Element in February 2011 identifying the Moreno Highlands area as a potential location for future jobs-producing land uses rather than housing (affordable or otherwise).The 2011 Housing Element update indicated the Moreno Highlands area would likely be rezoned to support employment-generating uses rather than housing. It also stated that “pursuing any land use changes with the Moreno Highlands Specific Plan area will not hinder the City’s ability to meet its RHNA obligations.” The term RHNA refers to the Regional Housing Needs Allocation (affordable housing allocations) from the SCAG. The State Department of Housing and Community Development (HCD) certified the City’s Housing Element on May 31, 2011.

In April 2011, the City adopted its Economic Development Action Plan, which also identified the eastern part of the City as a potential area for major job-producing land uses. The *Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California* (“Study”) prepared by David Taussig & Associates, Inc., in 2014 concluded that the proposed WLC project would generate 24,000 jobs/employees to the area, which includes the creation of direct, indirect, and induced jobs/ employees to the City.

The City’s 2006 Housing Element identified the Moreno Highlands Specific Plan as a potential source of vacant land that could accommodate possible future residential growth in the City. However, in 2011 the City updated its Housing Element and (i) anticipated possible land use changes from mixed use and residential to jobs producing warehouses in the eastern part of the City, and (ii) concluded that redesignating the entire land east of Redlands to the eastern City border for warehouse uses would not impede the City’s Housing Element Objectives. As stated in the City’s Housing Element:

> *The City will likely consider undertaking future planning efforts to achieve an improved jobs-housing balance. These future planning efforts could include the consideration of future proposals to re-designate areas south of SR 60 and east of Redlands Boulevard to the City’s eastern border to jobs-producing commercial and/or industrial-type uses.*
>
> *The Moreno Highlands Specific Plan is an older, mixed use residential and industrial land use plan originally conceived and approved nearly twenty years ago and therefore may not be representative of the current economic environment and may not be viable. The plan does not specify unit types, thus allowing the City and the developer to tailor the unit mix to the community’s needs at the time the project is actually developed.*

Moreno Highlands does make provisions for the phasing of the residential units. The plan does not specifically address the phasing of the affordable units, but merely notes the total number of units that will be developed in each of the three phases.

As noted above, the current economic recession has severely and negatively affected the residents of the City. Unemployment in the City is extraordinarily high, and many City residents have expressed a desire that the City consider job-producing land uses that create an improved jobs-housing balance.

As shown in Table 8-19.5, even with the elimination of all residential uses from the land area approximately south of SR 60 and east of Redlands Boulevard and extending to the City's eastern and southern boundaries, the City is still fully capable of and is expected to achieve its RHNA obligations for the 2008-2014 planning period.

Table 8-19.5

AFTER removing sites south of SR 60 and east of Redlands, the Amended Inventory accommodates:
4,100 Low and Very Low Income units which is 1.3 times the RHNA number (3,045) (deleting sites south of SR 60 and east of Redlands has no effect on low and very low income housing opportunities)
2,600 Moderate Income units which is 2.1 times the RHNA number (1,239)
7,828 Above Moderate Income units which is 2.5 times the RHNA number (3,068)
14,528 total identified units which is 1.94 times the total RHNA number (7,474)

The HCD certified the City's Housing Element as compliant with State law on May 31, 2011. This means that approval of the proposed project will not impede the City's housing goals as set forth in its Housing Element, and no mitigation is required.

4.10.6 Significant Impacts

4.10.6.1 Physically Divide an Established Community

Impact 4.10.6.1: *The proposed project may adversely affect existing rural residences on the project site.*

Threshold	Would the proposed WLC project physically divide an established community?

The adjacent properties surrounding the proposed WLC project are residential, light industrial, open space and undeveloped. Essentially, the project site is located along the eastern urban boundary of the City of Moreno Valley with development only adjacent to the western boundary and northwest corner of the site. As it is located at the edge of the community, its development could not physically divide the community and no impact would occur relative to residences near the southwest corner of the site.

At present, there are seven rural residences on the project site. These properties vary in size from 0.5 to 5 acres and are located on the east side of Redlands Boulevard and Theodore Street. The WLC Specific Plan designates these properties as "Light Logistics" and allows various logistics-related uses but not actual development of logistics warehousing since none of the properties are large enough to support a warehouse building of 500,000 square feet or more. It is believed these properties are currently occupied. It is possible that, as development of the project site occurs according to the WLCSP, large warehouse buildings may eventually be located in close proximity to existing residences. It would be ineffective and inefficient to try to incorporate these residences into the WLCSP land plan of large logistics warehouses to accommodate these residences. In addition,

logistics operations would cause air pollutant, noise, lighting, and health risk impacts on residents living in these units if they were adjacent to operating warehouses. This is a significant land use impact.

Specific Plan Design Features. The WLCSP currently shows a 250-foot buffer or setback along the western boundary of the site to separate existing residences from the proposed warehouse buildings. However, it would be similarly ineffective and inefficient to try incorporate residences with similar buffers or setbacks into the WLCSP land plan.

Mitigation Measures. Installation of solid block walls around the warehouse building or the existing residence would help reduce noise and lighting impacts, but they would not help reduce air pollutant or health risk impacts. Therefore, there is no effective mitigation available to protect or separate these existing residences from future warehousing buildings and operations.

Level of Impact After Mitigation. Since there is no effective means of mitigating these onsite residences from the planned logistics warehouses, this land use impact is significant and unavoidable.

4.10.7 Cumulative Impacts

As discussed in this section, the WLC project would not have significant project-related impacts related to conflicts with applicable land use plans, policies, or regulations with approval of the proposed GPA, or conflict with an approved habitat conservation plan. While the project would represent a shift in land use policy for the eastern portion of the City, this policy shift does not represent a significant cumulative land use impact under CEQA. Section 4.10.6 determined the proposed project would have significant land use impacts on existing rural residences (“dividing an established community”), but this conflict does not rise to the level of a cumulative impact since the potential land use impacts to all adjacent residences will be less than significant, as discussed in Section 4.10.5.

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4.11 MINERAL RESOURCES: TABLE OF CONTENTS

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NOTE TO READERS. *No major revisions have been made to this section in response to comments.*

4.11 MINERAL RESOURCES

This chapter evaluates potential impacts related to known mineral resources that may result from the proposed project.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 30 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.

This chapter is based in part on the following document, which is incorporated by reference:

- *City of Moreno Valley General Plan*, City of Moreno Valley, adopted July 2006.

4.11.1 Existing Setting

There are no lands within the City of Moreno Valley designated by the California Department of Conservation as known significant resource areas, defined by the State as Mineral Resources Zone 2 areas. As identified in the City's General Plan, lands within the City of Moreno Valley and its Sphere of Influence are designated MRZ-3 and MRZ-4, which are not defined as significant mineral resource areas.

4.11.1.1 NOP/Scoping Comments

No comments were received from public agencies or the public regarding mineral resources.

4.11.2 Policies and Regulations

4.11.2.1 State Regulations

Surface Mining and Reclamation Act. The Surface Mining and Reclamation Act of 1975 (SMARA) requires classification of land into mineral resource zones (MRZs) according to the known or inferred mineral potential of the area. Construction aggregate resources (sand and gravel) deposits were the first commodity selected for classification by the State Mining and Geology Board. Once mapped, the State Mining and Geology Board is required to designate for future use those areas that contain aggregate deposits that are of prime importance in meeting the region's future need for construction-quality aggregates. There are three key objectives of SMARA regulations:

- Adverse environmental effects are prevented or minimized, and mined lands are reclaimed to a usable condition that is readily adaptable for alternative uses;
- The production and conservation of minerals are encouraged, while consideration is given to values relating to recreation, watershed, wildlife, range and forage, and aesthetic enjoyment; and
- Residual hazards to the public health and safety are eliminated.

The primary objective of the SMARA is for each jurisdiction to develop policies that will conserve important mineral resources, where feasible, that might otherwise be unavailable when needed. The SMARA requires that once policies are adopted, local agency land use decisions must be in accordance with its mineral resource management policies. These decisions must also balance the mineral value of the resource to the market region as a whole, not just their importance to the local jurisdiction. Under SMARA, areas are categorized into four MRZs as follows:

MRZ-1 Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their production.

MRZ-2 Areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists.

MRZ-3 Areas containing mineral deposits, the significance of which cannot be evaluated from available data.

MRZ-4 Areas where available information is inadequate for assignment to any other MRZ zone.

4.11.2.2 City of Moreno Valley General Plan Policies

No policies related to mineral resources are identified within the City's General Plan.

4.11.3 Methodology

The California Geological Survey (CGS) provides objective geologic information about California's diverse non-fuel mineral resources. Maps, reports, and other data products developed by CGS were used to locate mineral extraction areas in the project area. In addition, the City of Moreno Valley's General Plan was used to determine the location of possible mineral extraction areas in the project area.

4.11.4 Thresholds of Significance

Appendix G of the *State CEQA Guidelines* recognizes the following thresholds related to mineral resources. Based on these significance thresholds, potential impacts to mineral resources could be considered significant if the proposed project:

- Resulted in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State;
- Resulted in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plans.

4.11.5 Less than Significant Impacts

The following potential impacts were determined to be less than significant. In both of the following issues, either no impact would occur or adherence to established regulations, standards, and policies would reduce potential impacts to a less than significant level. In both instances, no mitigation is required.

4.11.5.1 Loss of Statewide, Regional, or Locally Important Mineral Resources

Thresholds	Would the proposed project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State? Would the proposed project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plans?

Lands within the City of Moreno Valley and its Sphere of Influence are designated MRZ-3 and MRZ-4, which are not defined as significant mineral resource areas. No sites have been designated as locally-important mineral resource recovery sites on any local plan.[1] In addition, Figure OS-5 of the Riverside County General Plan shows that the proposed project area is also located within MRZ-3. The development of the project site would not result in the loss of identified regional or local mineral resources, conversion of an identified mineral resource use, or conflict with existing mineral resource extraction activities. Therefore, the development of the project site would not result in a loss of statewide, regional, or locally important mineral resources. No impacts associated with this issue would occur and no mitigation is required.

4.11.6 Significant Impacts

Based on the analysis in Section 4.11.5, the project will have no significant impacts related to mineral resources, and no mitigation is required.

4.11.7 Cumulative Impacts

CEQA requires that an EIR discuss the project's incremental effects to determine if they are cumulatively considerable. The discussion of cumulative impacts must reflect the severity of the impacts and the likelihood of their occurrence; however, the discussion need not be as detailed as the

[1] *Section 6.10 Mineral Resources, Section 6.0 Issues Found Not To Be Significant*, Draft Environmental Impact Report for City of Moreno Valley General Plan 2030, State Clearinghouse #2004031135, City of Moreno Valley, October 2004.

discussion of environmental impacts attributable to the project alone. The discussion must demonstrate practicality and reasonableness.

The cumulative area for mineral resources is the City of Moreno Valley and this part of western Riverside County. As population levels increase in the region, greater demand for aggregate and other mineral materials will be placed on mineral resources, especially sand and gravel. Similarly, development pressures in areas where these materials are known or expected to occur would result in the loss of availability of these mineral resources. However, because the project site is not identified as a significant source of sand/gravel deposits and development subsequent to the adoption of the proposed land use actions on any of the sites would not decrease the local or regional availability of mineral resources, potential future development of any of the sites would have no significant cumulative mineral resources impact.

4.12 NOISE: TABLE OF CONTENTS

FIGURES

TABLES

NOTE TO READERS. *This section has been revised due to the following changes from the project characteristics analyzed in the original DEIR:*

- *Loss of 100 acres from the Specific Plan (in the southwest corner);*
- *Changes to the Traffic Impact Assessment (TIA, see Section 4.15); and*
- *Change in project construction phasing (from 10 to 15 years).*

These changes also resulted in updates to the traffic impact assessment and proposed mitigation measures. In addition, this section has been revised in response to public comments received on the Programmatic DEIR.

The original DEIR determined that 14 road or freeway segments would result in a significant noise increase attributable to the project, resulting in a significant cumulative impact requiring mitigation. These 14 segments were included in the original noise study, and all other impacts identified in the original noise study are unchanged except as noted below.

Revisions have been made to this section to address changes in the Specific Plan, revisions to the project noise study (assessment tables), and in responses to comments mainly regarding mitigation.[1] *Three street names have changed (Street C, D, and E) and may still be referenced in the section. For correct street names see Circulation Master Plan Figure 3.10. Due to a reduction in size of the Specific Plan, some impacts in this section have been reduced to less than significant levels.*

4.12 NOISE

Changes from January 24, 2013, Noise Analysis

The Noise Assessment report included in the Programmatic Draft EIR was issued in January 2013. Comments have been received from various public and private groups and individuals. The Noise Assessment report has been modified in response to these comments and to clarify the description of the analysis. In addition, the Traffic Impact Analysis contained in the Draft EIR has been revised to reflect a downsizing of the project and other factors, resulting in a reduction in associated traffic volumes for the "with project scenarios." The updated traffic volumes were used in the revised Noise Assessment report. The noise analysis procedures and significance thresholds have not been changed from the January 2013 noise assessment.

In the Noise Assessment report included in the Draft EIR, 33 roadway segments were identified where a significant noise impact would occur for at least one of the impact scenarios. In the revised Noise Assessment report for the Final EIR, 21 roadway segments have been identified as having a significant noise impact. The reduction in noise impact areas is a direct result of the revised traffic analysis which reflects a downsizing of the project and associated traffic volumes for the "plus project" traffic scenarios.

The roadway links that were previously identified as being impacted in the January 2013 noise analysis contained in the Draft EIR and are not directly affected in the revised noise analysis for the Final EIR are listed below:

- *Day Street between Cottonwood Avenue and Alessandro Boulevard (#109);*
- *Fir Avenue between Quincy Drive and Redlands Boulevard (#62);*
- *Moreno Beach Drive between Locust Avenue and Ironwood Avenue (#56);*

[1] *Mainly Comments C-4-2 and F-13-9 and F-13-84.*

- *Perris Boulevard between John F. Kennedy Drive and Iris Avenue (#303);*
- *Placentia Avenue from El Nido Avenue to Evans Road and on to Water Avenue (#431, #432);*
- *Quincy Drive from Cactus Avenue to Alessandro Boulevard and to Cottonwood Avenue (#502, #503);*
- *Reche Canyon Road from Keissel Road to Reche Vista Drive and on to High Country Drive (#205, #206);*
- *Redlands Boulevard from Eucalyptus Avenue to Dracaea Avenue (#12); and*
- *State Route 60 from Perris Boulevard to Nason Street (#31).*

There are five roadway segments that were previously identified in the January 2013 noise analysis contained in the Draft EIR that had a direct and cumulative impact. In the revised noise analysis for the Final EIR, these five roadway segments do not have a direct impact but have a cumulative impact only. These roadways are as follows:

- *Fir Avenue between Quincy Drive and Redlands Boulevard (#62);*
- *Gilman Springs Road between Eucalyptus Avenue and Street C (#31); and between Jack Rabbit Trail and Bridge Street (#191);*
- *Moreno Beach Drive between Locust Avenue and Ironwood Avenue (#56); and*
- *State Route 60 from Perris Boulevard to Nason Street (#31).*

The roadway link that was previously identified in the January 2013 noise analysis contained in the Draft EIR as being impacted and mitigation was considered infeasible is mitigated below a level of significance with feasible mitigation as shown in the revised noise analysis for the Final EIR:

- *Cactus Avenue west of Redlands Boulevard.*

This section of the EIR is intended to satisfy the City's requirements for a project-specific noise impact analysis by examining the short-term and long-term noise impacts of the proposed project on sensitive uses adjacent to the proposed project area and by evaluating the effectiveness of mitigation measures. This includes the potential for the proposed project to result in impacts associated with a substantial temporary and/or permanent increase in ambient noise levels in the vicinity of the project area; exposure of people to excessive noise levels, groundborne vibration, or groundborne noise levels.

CEQA requires an analysis of the proposed project's impacts on the existing environment; not an analysis on the existing environment's impacts on the proposed project. The occasional blow downs that occur at the Southern California Gas Company (SCGC) are part of the existing conditions and have been part of the existing conditions for years. Thus, for purposes of clarity, it should be noted that the impact analysis below goes beyond the requirements of CEQA and provided as part of an analysis to ensure worker safety. All mitigation measures imposed in this analysis are the responsibility of future developers and not SCGC.

Note: The following changes have been made due to revision to the Specific Plan project size.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 29 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.

The analysis contained in this section is based on the following technical study prepared for the proposed project:

- *Noise Assessment for the World Logistic Center Specific Plan,* Mestre Greve Associates, original dated January 24, 2013, revised dated September 2014 (Appendix K of this Revised DEIR).

In addition to these project-specific technical studies, the analysis contained in this section is also based on the following reference documents:

- *California Noise Insulation Standards,* California Code of Regulations, Title 24, Part 2, §3501;
- *Highway Traffic Noise Prediction Model (FHWA-RD-77-108)*, Federal Highway Administration (FHWA);
- *City of Moreno Valley General Plan*, City of Moreno Valley, July 2006;
- *Moreno Valley Municipal Code,* City of Moreno Valley, current through Ordinance 836 and the February 2012 code supplement; and
- *State of California General Plan Guidelines*, Governor's Office of Planning and Research, October 2003, pages 249 and 250.

4.12.1 Existing Setting

4.12.1.1 Background

Characteristics of Noise. To the human ear, sound is technically described in terms of its loudness (amplitude) and pitch (frequency). Pitch is generally an annoyance, while loudness can affect our ability to hear. Noise is usually defined as unwanted sound; it consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep.

Measurement of Noise. The standard unit of measurement of the loudness of sound is the decibel (dB). Decibels are based on a logarithmic scale. The logarithmic scale compresses the wide range in sound levels resulting in a more usable range of sound level values, similar to the Richter scale used to measure earthquakes. To humans, a sound 10 dB higher than another is considered to be twice as loud; a sound 20 dB higher than another is considered four times as loud; etc. Typical daily sounds in the environmental range from 30 dB (very quiet) to 100 dB (very loud).

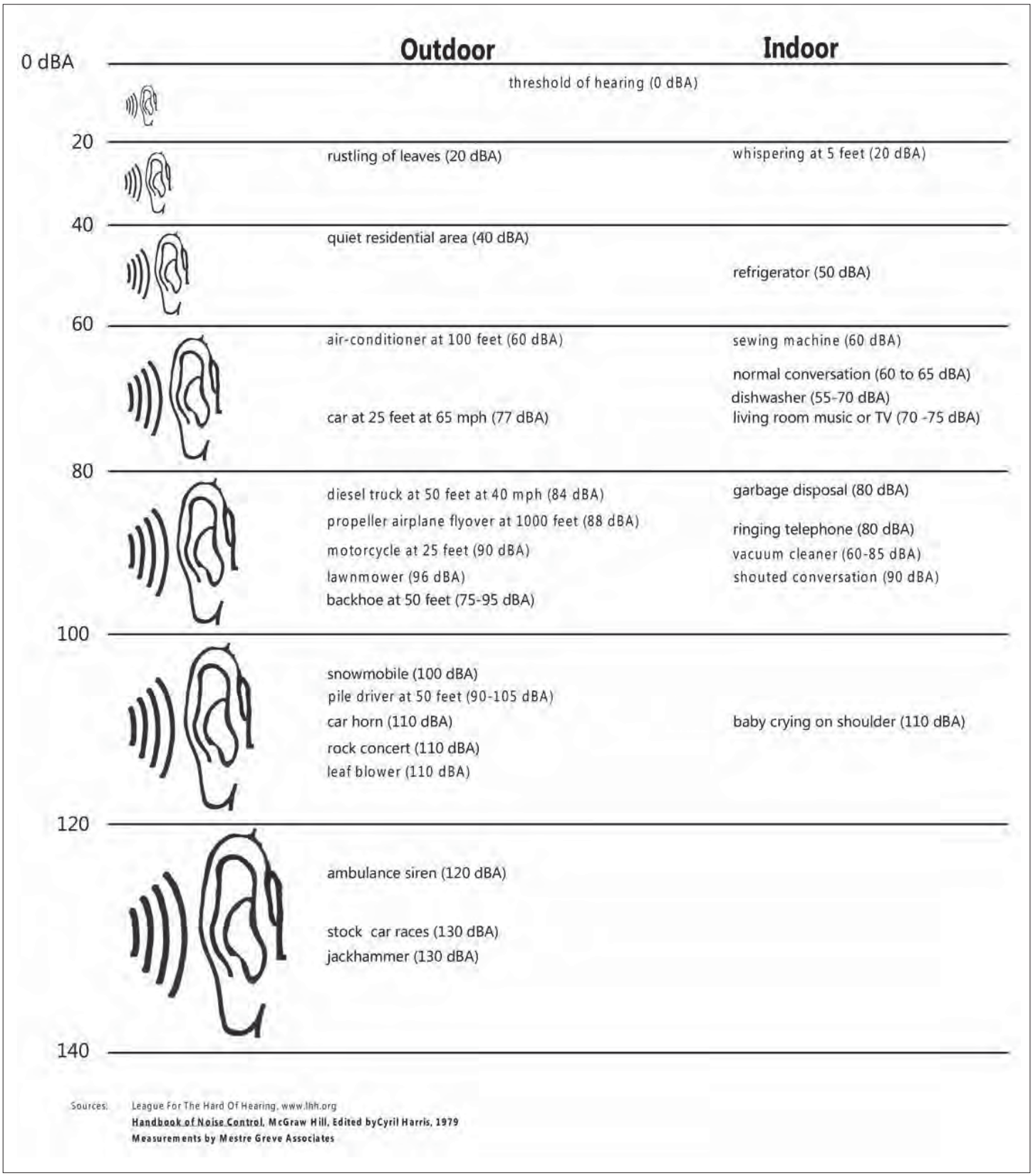
Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel (dBA) scale performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear. Community noise levels are measured in terms of the dBA. Figure 4.12.1 shows examples of various noises sources and their typical dBA noise level.

There are two categories of noise that are measured to characterize noise conditions: single event noise and community or cumulative noise. Single event measurements describe the noise levels from an individual event such as a passing airplane or a heavy-duty truck. Cumulative measurements average the total noise in a community over a specific time period, which is typically 1 or 24 hours.

The noise impact analysis performed for this EIR is based on assessment of both single event noise and community or cumulative noise. Several rating scales have been developed for measurement of community noise. These account for: (1) the parameters of noise that have been shown to contribute to the effects of noise on humans; (2) the variety of noises found in the environment; (3) the variations in noise levels that occur as a person moves through the environment; and (4) the variations associated with the time of day. They are designed to account for the known health effects of noise on people described previously. Based on these effects, the observation has been made that the potential for a noise to affect people is dependent on the total acoustical energy content of the noise. A number of noise scales have been developed to account for this observation. Two of the predominant noise scales are the Equivalent Noise Level (L_{eq}) and the Community Noise Equivalent Level (CNEL). L_{eq} is the sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. L_{eq} is the “energy” average noise level during the time period of the sample. L_{eq} can be measured for any time period, but is typically measured for 1 hour. This 1-hour noise level can also be referred to as the Hourly Noise Level (HNL). It is the energy sum of all the events and background noise levels that occur during that time period.

CNEL is the predominant rating scale now in use in California for land use noise compatibility assessment. The CNEL scale represents a time weighted 24-hour average noise level based on the dBA. Time weighted refers to the inclusion of penalties for noise that occurs during certain noise-sensitive time periods. The evening time period (7 p.m. to 10 p.m.) penalizes noises by 5 dBA, while nighttime (10 p.m. to 7 a.m.) noises are penalized by 10 dBA, reflecting people’s increased sensitivity to noise during these time periods. A CNEL noise level may be reported as a CNEL of 60 dBA, 60 dBA CNEL, or simply 60 CNEL.

L(%) is a statistical method of describing noise which accounts for variance in noise levels throughout a given measurement period. L(%) is a way of expressing the noise level exceeded for a percentage of time in a given measurement period. For example, since 5 minutes is 25 percent of 20 minutes, L(25) is the noise level that is equal to or exceeded for five minutes in a twenty-minute measurement period. It is L(%) that is used for most Noise Ordinance standards. For example most daytime County, State and City noise ordinances use a standard of 55 dBA for 30 minutes per hour, or an L(50) level of 55 dBA. In other words, the noise ordinance may state that no noise level should exceed 55 dBA for more than fifty percent of a given period.



LSA

FIGURE 4.12.1

World Logistics Center Specific Plan Project
Environmental Impact Report

Typical A-Weighted Noise Levels

Source: Mestre Greve Associates, Division of Landrum & Brown, 2012

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The maximum noise level (L_{max}) is the highest exponential time averaged sound level that occurs during a stated time period. The noise levels discussed in this analysis for short-term noise impacts are specified in terms of maximum levels denoted by L_{max}, which reflects peak noise conditions and addresses the annoying aspects of intermittent noise. It is often used together with another noise scale, or noise standards in terms of percentile noise levels, in noise ordinances for enforcement purposes. For example, the L_{10} noise level represents the noise level exceeded 10 percent of the time during a stated period. The L_{50} noise level represents the median noise level. Half the time the noise level exceeds this level, and half the time it is less than this level. The L_{90} noise level represents the noise level exceeded 90 percent of the time and is considered the background noise level during a monitoring period. For a relatively constant noise source, the L_{eq} and L_{50} are approximately the same.

Fundamentals of Groundborne Vibration. Vibration refers to groundborne noise and perceptible motion of the earth. Similar to noise, vibration is transmitted in noise-like waves through the earth and solid objects.

There are several ways to categorize vibration sources. One way is to divide vibration into natural sources (e.g., earthquakes, volcanic eruptions, sea waves, and landslides) and human sources (e.g., explosions, machinery, traffic, trains, and construction equipment). Similar to noise sources, vibration sources can also be described as continuous (e.g., operating factory machinery) or transient (e.g., explosions).

As with noise, ground vibrations can be described by amplitude and frequency. Vibration amplitude is characterized by its displacement, velocity, and acceleration. Displacement is the distance that soil particles travel from their original location as a result of vibration, as measured in inches or millimeters. Velocity is the speed of the soil particles measured in inches per second or millimeters per second. Acceleration is the acceleration of the soil particles measured in inches per second per second or millimeters per second per second. Particle velocity is the most commonly used vibration attribute used to describe vibration. Table 4.12.A presents the human reaction to various levels of peak particle velocity. Vibrations also vary in frequency. Traffic vibrations generally range in frequencies from 10 to 30 hertz (Hz), and tend to average around 15 Hz. As a point of reference, city buses often generate frequencies around 3 Hz at high vehicle speeds, due to their suspension systems.

Table 4.12.A: Human Reaction to Typical Vibration Levels

Vibration Level Peak Particle Velocity (inches/second)	Human Reaction
0.0059–0.0188	Threshold of perception, possibility of intrusion.
0.0787	Vibrations readily perceptible.
0.0984	Level at which continuous vibrations begin to annoy people.
0.1968	Vibrations annoying to people in buildings.
0.3937–0.5905	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges.

Source: Caltrans 1992.

Groundborne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors, where the motion may be discernable. However, without the effects associated with the shaking of a building, there is less adverse reaction. Building vibration may be perceived by the occupants as motion of building surfaces, rattling of items on shelves or hanging on walls, or as a low-frequency rumbling noise. Building damage is not a factor for normal projects, with the occasional exception of blasting and pile driving during construction or mining. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by up to 10 decibels. This is an order of magnitude below the damage threshold for normal buildings.

Typical sources of groundborne vibration are construction activities (e.g., blasting, pile driving, and operating heavy-duty earthmoving equipment), steel-wheeled trains, and occasional traffic on rough roads. Problems with groundborne vibration and noise from these sources are usually localized to within about 100 feet of the vibration source, although there are examples of groundborne vibration causing interference out to distances greater than 200 feet, as described in the FTA Transit Noise and Vibration Impact Assessment (FTA, May 2006). When roadways are smooth, vibration from traffic, even heavy trucks, is rarely perceptible.

Factors that influence groundborne vibration and noise include the following:

- *Vibration Source:* Vehicle suspension, wheel types and condition, track/roadway surface, track support system, speed, transit structure, and depth of vibration source.
- *Vibration Path:* Soil type, rock layers, soil layering, depth to water table, and frost depth.
- *Vibration Receiver:* Foundation type, building construction, and acoustical absorption.

Among the factors listed above, there are significant differences in the vibration characteristics when the source is underground versus at ground surface. In addition, soil conditions are known to have a strong influence on the levels of groundborne vibration. Among the most important factors are the stiffness and internal damping of the soil and the depth to bedrock. Vibration propagation is more efficient in stiff clay soils than in loose sandy soils, and shallow rock seems to concentrate the vibration energy close to the surface and can result in groundborne vibration problems at a great distance from the track. Factors such as layering of the soil and depth to water table can have significant effects on the propagation of groundborne vibration. Soft, loose, sandy soils tend to attenuate more vibration energy than hard, rocky materials. Vibration propagation through groundwater is more efficient than through sandy soils.

4.12.1.2 Sensitive Land Uses in the Project Vicinity

Certain land uses are considered more sensitive to noise than others. Examples include residential areas, educational facilities, hospitals, childcare facilities, and senior housing. The project vicinity and Specific Plan area are characterized by a mix of developed and undeveloped properties. Developed properties in the vicinity include an industrial/warehouse building in Moreno Valley to the northwest (Skechers) and several residential neighborhoods along Redlands Boulevard along the western boundary of the project site. An area of the City known as “Old Moreno” is situated near the southwest portion of the project site, around the intersection of Redlands and Alessandro Boulevards. The homes along Merwin Street, east of Redlands Boulevard, constitute the closest sensitive receptors to the project site (i.e., they are adjacent to the property).

4.12.1.3 Existing Noise Measurements

Existing noise levels in the vicinity of the proposed project are used establish baseline noise levels in key areas. Noise measurements within the project site and in the surrounding area were taken. The noise measurement locations were selected to provide coverage of the project’s potential noise impact area. The noise measurement locations are shown Figure 4.12.2.

Noise measurements were taken at sixteen sites in the project vicinity during the daytime hours (between 7 a.m. and 10 p.m.) and during nighttime hours (between 10 p.m. and 7 a.m.). For each measurement site and time period, noise levels were measured for 15 minutes and calibrated to ensure that the measured sound level readings were accurate. The measurements were used to calculate existing L_{eq}, L_{min}, L_{max}, $L_{1.7}$, $L_{8.3}$, L_{25} and L_{50} values for the measurement locations. Table 4.12.B shows the results for the daytime measurements, and Table 4.12.C shows the nighttime measurements.

4.12.1.4 Existing Traffic Noise Environment

The primary existing noise sources in the project area are transportation facilities. Traffic on SR-60, Redlands Boulevard, Theodore Street, Gilman Springs Road, and other local streets is the dominant source contributing to the ambient noise levels in the project vicinity. Noise from motor vehicles is generated by engine vibrations, the interaction between the tires and the road, and the exhaust system. Table 4.12.D identifies the existing (2012) traffic noise levels adjacent to roadway segments in the project vicinity.

4.12.1.5 Existing SDG&E and SCGC Facilities

The proposed World Logistics Center Specific Plan area is currently occupied by one San Diego Gas and Electric Company (SDG&E) compressor station and two Southern California Gas Company (SCGC) facilities. These facilities are located within the boundaries of the Specific Plan as shown in previously referenced Figure 4.12.2. The SDG&E compressor station recompresses natural gas received from interstate gas pipelines and delivers the gas to Southern California via transmission pipelines. The two SCGC facilities contain flow valve and metering equipment facilities. The southern SCGC facility contains a maintenance functions as well. All of these facilities contain gas pipeline blow-down equipment. This equipment includes exhaust stacks that vent the high pressure gas into the atmosphere occur during emergencies, scheduled maintenance, and annual testing of the blow-down systems.

The SDG&E and SCGC facilities produce noise from three different sources that could affect future development within the proposed project: 1) the operation of the compressor station; 2) blow-down events at the compressor station; and 3) blow-down events at the SCGC facilities. The blow-down events generate infrequent high noise levels for relatively short periods. The compressor station generates a relatively constant noise level, although noise levels vary slightly when the compressors are turned on and off when the gas is conveyed to the transmission pipelines.

The SDG&E compressors are the primary source of operational noise generated by the compressor station. The facility contains two sets of three reciprocating natural gas combustion engines and one set of four natural gas-fired turbines, for a total of ten compressors with power ranging from 995 to 3,400 horsepower. The compressors are located within noise attenuation structures and are equipped with intake and exhaust silencers. The facility routinely operates at maximum capacity 24 hours per day. It is anticipated that demand on the compressor station will increase in the future to the point where the facility operates 24 hours a day, year round.

The CNEL levels for the SDG&E compressor station presented in Figure 4.12.3 are based on a worst-case assumption that the compressor station is in full operation 24 hours a day. Figure 4.12.4 presents the average (L_{eq}) noise levels generated by the compressor station during full operation. Both the CNEL and L_{eq} metrics are used to assess the noise impacts from the facility.

There are several blow-down points within the SDG&E compressor station. As stated previously, these blow-down points allow for the release of pressurized gas during emergencies, scheduled maintenance, and annual testing. Blow-down events at the compressor station vent gas and last between 30 and 90 seconds. The maximum sound levels (L_{max} dBA) generated by the blow-down events is presented in Figure 4.12.5.

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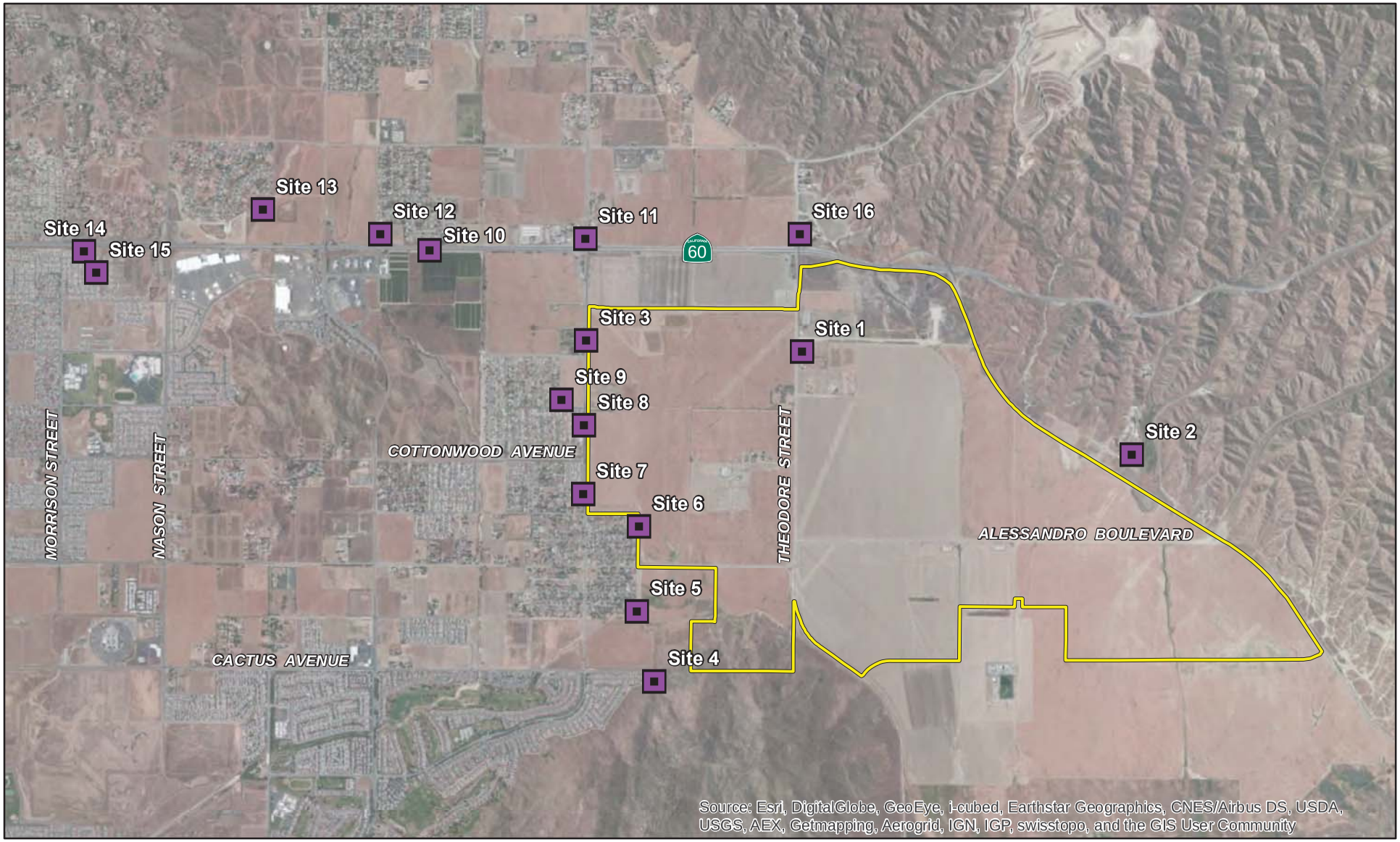

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FIGURE 4.12.2

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Specific Plan Boundary

Noise Measurement Location

World Logistics Center Specific Plan Project
Environmental Impact Report

Noise Measurement Locations

SOURCE: Mestre Greve Associates, 2014.

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Table 4.12.B: Existing Daytime Noise Measurements (dBA)

Site	Date	Start Time	L_{eq}	L_{max}	$L_{1.7}$	$L_{8.3}$	L_{25}	L_{50}	L_{min}
1	1-25-12	9:38 a.m.	55.4	72.0	63.0	56.5	54.0	53.0	48.7
2	1-25-12	10:15 a.m.	53.6	68.8	61.0	57.0	53.5	50.5	44.0
3	1-25-12	10:42 a.m.	66.3	73.7	73.0	71.5	68.0	61.5	43.5
4	1-25-12	11:04 a.m.	40.8	50.3	46.0	43.5	41.0	39.5	35.9
5	1-25-12	11:27 a.m.	40.4	56.9	48.0	44.5	39.5	36.0	31.4
6	1-25-12	11:48 a.m.	46.1	68.3	51.5	41.0	37.5	34.0	30.0
7	1-25-12	12:08 p.m.	57.7	75.3	66.5	63.0	55.5	47.5	34.8
8	1-25-12	12:30 p.m.	65.1	85.5	73.5	70.0	63.0	56.5	39.0
9	1-25-12	12:50 p.m.	42.9	55.8	53.0	46.0	41.5	37.5	33.5
10	1-25-12	1:48 p.m.	49.2	68.0	56.0	48.0	46.5	45.0	40.5
11	1-25-12	2:10 p.m.	60.4	73.0	66.5	64.5	61.0	58.0	47.2
12	1-25-12	2:32 p.m.	51.2	58.4	55.5	53.5	51.5	50.5	44.7
13	1-25-12	2:52 p.m.	45.8	59.8	52.0	48.0	45.5	44.0	39.9
14	1-25-12	3:15 p.m.	65.5	73.3	70.0	68.5	66.5	64.5	54.4
15	1-25-12	3:39 p.m.	52.6	72.1	59.5	55.5	51.5	49.5	42.9
16	1-25-12	4:08 p.m.	58.7	75.2	67.0	59.0	57.0	55.0	50.5

Table 4.12.C: Existing Nighttime Noise Measurements (dBA)

Site	Date	Start Time	L_{eq}	L_{max}	$L_{1.7}$	$L_{8.3}$	L_{25}	L_{50}	L_{min}
1	2-8-12	11:51 p.m.	50.6	64.5	59.0	54.5	50.5	45.5	36.0
2	2-6-12	10:30 p.m.	47.4	65.1	52.5	50.0	48.0	45.5	37.5
3	2-6-12	10:55 p.m.	61.8	75.9	71.0	67.5	58.0	54.0	45.9
4	2-6-12	11:33 p.m.	35.8	51.1	44.0	39.0	34.5	32.0	30.0
5	2-9-12	12:15 a.m.	36.4	46.6	42.5	39.5	36.0	35.0	31.5
6	2-7-12	12:15 a.m.	43.2	51.0	49.5	46.5	44.0	41.5	35.3
7	2-7-12	12:35 a.m.	51.5	66.9	64.0	54.0	41.5	37.5	32.6
8	2-7-12	12:55 a.m.	56.0	74.1	68.0	57.0	42.5	38.5	33.6
9	2-9-12	12:35 a.m.	41.5	57.1	50.5	44.5	38.0	36.0	30.4
10	2-9-12	1:01 a.m.	46.7	63.8	50.5	48.5	46.5	45.0	38.1
11	2-9-12	1:25 a.m.	59.6	68.3	67.5	64.5	60.5	54.0	46.3
12	2-9-12	1:48 a.m.	51.8	63.9	58.0	55.0	52.0	50.0	39.2
13	2-9-12	2:09 a.m.	48.0	59.7	55.5	52.0	47.5	45.0	38.6
14	2-9-12	2:33 a.m.	60.8	72.3	68.0	65.5	61.0	57.5	44.9
15	2-9-12	2:56 a.m.	48.2	59.9	54.5	52.5	49.0	45.0	35.4
16	2-9-12	3:20 a.m.	54.3	62.7	60.0	58.5	55.5	52.0	38.8

Table 4.12.D: Existing Traffic Noise Levels (dBA)

Roadway Segment	CNEL (dBA) at 100 feet
Alessandro Boulevard (Lasselle Street and Morrison Street)	55.5
Alessandro Boulevard (Morrison Street to Nason Street)	56.8
Alessandro Boulevard (Nason Street to Oliver Street)	64.4
Cactus Avenue (Nason Street to Oliver Street)	64.3
Cactus Avenue (Oliver Street to Moreno Beach Drive)	58.2
Cactus Avenue (Redlands Boulevard to Street D)	50.2
Cactus Avenue (west of Redlands Boulevard)	57.5
Canyon Crest Drive (Alessandro Boulevard to Sandtrack Road)	41.8
Canyon Crest Drive (Central Avenue to Country Club Drive)	67.0
Country Club Drive (Chicago Avenue to Canyon Crest Drive)	57.5
Crescent Avenue (west of Alessandro Road)	57.1
Day Street (Cottonwood Avenue to Alessandro Boulevard)	57.7
Elsworth Street (Cottonwood Avenue to Alessandro Boulevard)	62.9
Evans Road (Marbella Gate to Ramona Expressway)	56.9
Gilman Springs Road (Bridge Street to Beaumont Avenue)	61.0
Gilman Springs Road (Bridge Street to SR-79 Southbound Ramps)	61.0
Gilman Springs Road (Eucalyptus Avenue to Street C)	46.1
Gilman Springs Road (Jack Rabbit Trail to Bridge Street)	62.7
Gilman Springs Road (south of Street C)	56.1
Gilman Springs Road (SR-79 Northbound Ramps to Record Road)	60.7
Heacock Street (Alessandro Boulevard to Cactus Avenue)	59.7
Heacock Street (Cactus Avenue to John F Kennedy Drive)	62.6
Indian Street (Alessandro Boulevard to Cactus Avenue)	59.9
Indian Street (Cactus Avenue to John F Kennedy Drive)	59.3
Iris Avenue (Kitching Street to Lasselle Street)	6031
Iris Avenue (Lasselle Street to Nason Street)	57.0
Iris Avenue (Nason Street to Oliver Street)	60.0
Iris Avenue (Perris Boulevard to Kitching Street)	60.8
Ironwood Avenue (Moreno Beach Drive to Redlands Boulevard)	55.6
Ironwood Avenue (Redlands Boulevard to Highland Boulevard)	46.3
John F Kennedy Drive (south of Cactus Avenue)	61.5
Kitching Street (Alessandro Boulevard to Cactus Avenue)	58.2
Kitching Street (Cactus Avenue to John F Kennedy Drive)	59.1
Kitching Street (Iris Avenue to Ivory Avenue)	61.1
Kitching Street (Krameria Avenue to Lurin Avenue)	62.4
Krameria Avenue (Perris Boulevard to Lasselle Street)	57.5
Lasselle Street (Cahuilla Drive to Krameria Avenue)	60.5
Lasselle Street (Cottonwood Avenue to Alessandro Boulevard)	64.4
Lasselle Street (Krameria Avenue to Arroyo Park Drive)	56.4
Live Oak Canyon Road (San Timoteo Canyon Road to I-10)	56.5
Lochmoor Drive (Central Avenue to Fair Isle Drive)	52.1
Locust Avenue (Moreno Beach Drive to Redlands Boulevard)	55.7
Locust Avenue (Moreno Beach Drive to Smiley Boulevard)	46.2
Mission Grove Parkway (Alessandro Boulevard to Northrop Drive)	58.1
Mission Grove Parkway (Cannon Road to Alessandro Boulevard)	62.5

Table 4.12.D: Existing Traffic Noise Levels (dBA)

Roadway Segment	CNEL (dBA) at 100 feet
Moreno Beach Drive (John F Kennedy Drive to Cactus Avenue)	57.6
Moreno Beach Drive (John F Kennedy Drive to Oliver Street)	55.2
Moreno Beach Drive (Locust Avenue to Ironwood Avenue)	55.3
Old 215 Frontage Road (Eucalyptus Avenue to Alessandro Boulevard)	61.4
Orange Avenue (Evans Road to Foothill Drive)	55.3
Perris Boulevard (Alessandro Boulevard to Cactus Avenue)	61.0
Perris Boulevard (Alessandro Boulevard to Cottonwood Avenue)	61.9
Perris Boulevard (Cactus Avenue to John F Kennedy Drive)	62.0
Perris Boulevard (Iris Avenue to Krameria Avenue)	60.8
Perris Boulevard (John F Kennedy Drive to Iris Avenue)	67.2
Perris Boulevard (Krameria Avenue to Harley Knox Boulevard)	60.7
Perris Boulevard (Krameria Avenue to Harley Knox Boulevard)	59.6
Perris Boulevard (Sunnymead Boulevard to Fir Avenue)	69.0
Ramona Expressway (Evans Road to Rider Street)	59.2
Reche Canyon Road (Keissel Road to Reche Vista Drove)	62.7
Reche Vista Drive (Heacock Street to Reche Canyon Road)	66.7
Redlands Boulevard (Ironwood Avenue to San Timoteo Canyon Road)	67.8
Redlands Boulevard (Ironwood Avenue to SR-60)	68.3
Redlands Boulevard (SR-60 to Eucalyptus Avenue)	58.8
San Timoteo Canyon Road (Alessandro Road to Live Oak Canyon Road)	62.0
San Timoteo Canyon Road (Live Oak Canyon Road to Redlands Boulevard)	62.7
Street A (Eucalyptus Avenue to Street F)	47.0
Sunset Drive (Alessandro Road to Cameo Drive)	52.5
Sunset Drive (Crown Street to Alessandro Road)	49.0
Sycamore Canyon Boulevard (Central Avenue to College Boulevard)	62.8
Theodore Street (SR-60 to Highland Boulevard)	53.6
Freeways	
SR-60 (Heacock Street to Perris Boulevard)	65.2
SR-60 (Moreno Beach Drive to Redlands Boulevard)	62.5
SR-60 (Perris Boulevard to Nason Street)	64.6
SR-60 (Pigeon Pass Road/Frederick Street to Heacock Street)	66.5
SR-60 (Redlands Boulevard to Theodore Street)	60.2

Source: Mestre Greve Associates, September 2014.

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FIGURE 4.12.3

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Environmental Impact Report

Existing CNEL Noise Contours for the SDG & E Compressor Station

SOURCE: Mestre Greve Associates, 2013.

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FIGURE 4.12.4

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World Logistics Center Specific Plan Project
Environmental Impact Report

Existing Leq Noise Levels for the SDG & E Compressor Station

SOURCE: Mestre Greve Associates, 2013.

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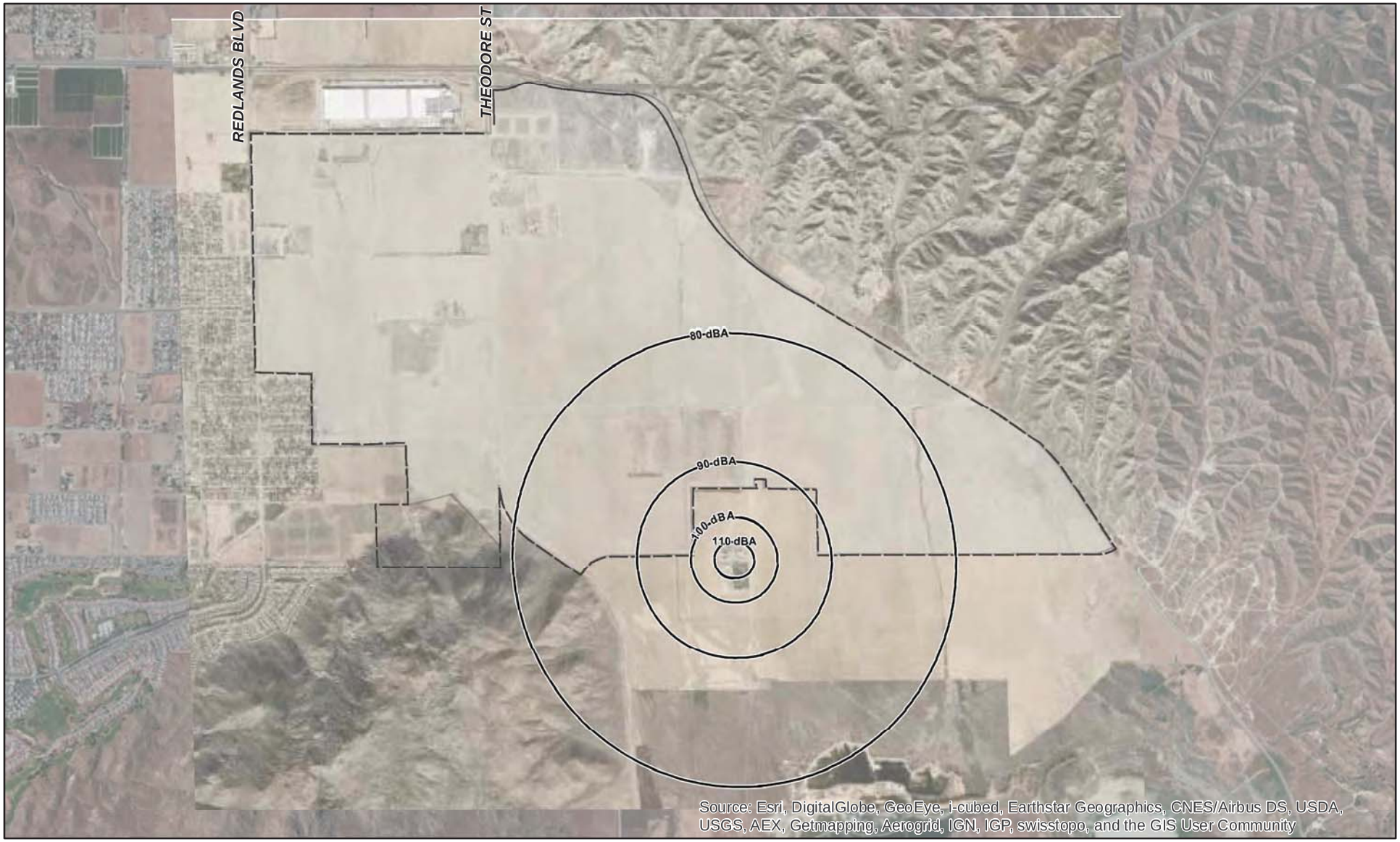

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FIGURE 4.12.5

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SOURCE: Mestre Greve Associates, 2013.

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World Logistics Center Specific Plan Project
Environmental Impact Report

Existing Lmax Levels for SDG&E Blow-Down

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There are blow-down points in the SCGC facilities. Blow-down events at the SCGC facilities vent gas from miles of pipeline and are much longer than those at the compressor station, and can last up to 90 minutes. Approximately four blow-down events occur annually at the SCGC facilities. L_{max} noise levels (dBA) are shown in in Figure 4.12.6. The noise level will be at or near the L_{max} level during the entire blow-down event. It should also be noted that blow-down events generate ground vibrations and natural gas odors in the vicinity in the surrounding area when events occur. Again, it must be noted that these blow-down events are part of the existing conditions of the project site, and any impacts caused by development of new warehousing near these facilities, and any mitigation necessary, are not the responsibility of SCGC or SDG&E.

4.12.2 Existing Policies and Regulations

The applicable noise standards governing the project site are the criteria in the City of Moreno Valley General Plan Safety Element (Environmental Safety, Noise) and Municipal Code (Noise Ordinance). The City's Safety Element of the General Plan does not contain specific noise standards or significance thresholds. However, the General Plan does cite applicable State standards including the California Administrative Code, Section 1092 of Title 25, Chapter 1, Subchapter 1, Article 4 and Section 5014 of Title 21, Subchapter 6, Article 2. In addition, other applicable standards identified in the *California Noise Insulation Standards*[1] and the *State of California Vehicular Code*[2] are included below. The following sections list the General Plan policies, Municipal Code, and State standards relevant to noise for the proposed project.

4.12.2.1 City of Moreno Valley General Plan Policies

Chapter 9 of the *City of Moreno Valley General Plan*[3] defines goals, objectives, policies, and action items related to noise conditions in the City. The specific policies related to noise that are relevant to the proposed project are as follows:

Objective 6.3 Provide noise compatible land use relationships by establishing noise standards utilized for design and siting purposes.

Policy 6.3.5 Enforce the California Administrative Code, Title 24 noise insulation standards for new multi-family housing developments, motels and hotels.

Policy 6.3.6 Building shall be limited in areas of sensitive receptors.

Objective 6.4 Review noise issues during the planning process and require noise attenuation measures to minimize acoustic impacts to existing and future surrounding land uses.

Policy 6.4.1 Site, landscape and architectural design features shall be encouraged to mitigate noise impacts for new developments, with a preference for noise barriers that avoid freeway sound barrier walls.

Objective 6.5 Minimize noise impacts from significant noise generators such as, but not limited to, motor vehicles, trains, aircraft, commercial, industrial, construction, and other activities.

Policy 6.5.1 New commercial and industrial activities (including the placement of mechanical equipment) shall be evaluated and designed to mitigate noise impacts on adjacent uses.

Policy 6.5.2 Construction activities shall be operated in a manner that limits noise impacts on surrounding uses.

---

1 California Code of Regulations, Title 24, Part 2, §3501, *California Noise Insulation Standards.*
2 Governor's Office of Planning and Research, *State of California General Plan Guidelines*, October 2003, pages 249 and 250.
3 *City of Moreno Valley General Plan*, City of Moreno Valley, July 2006.

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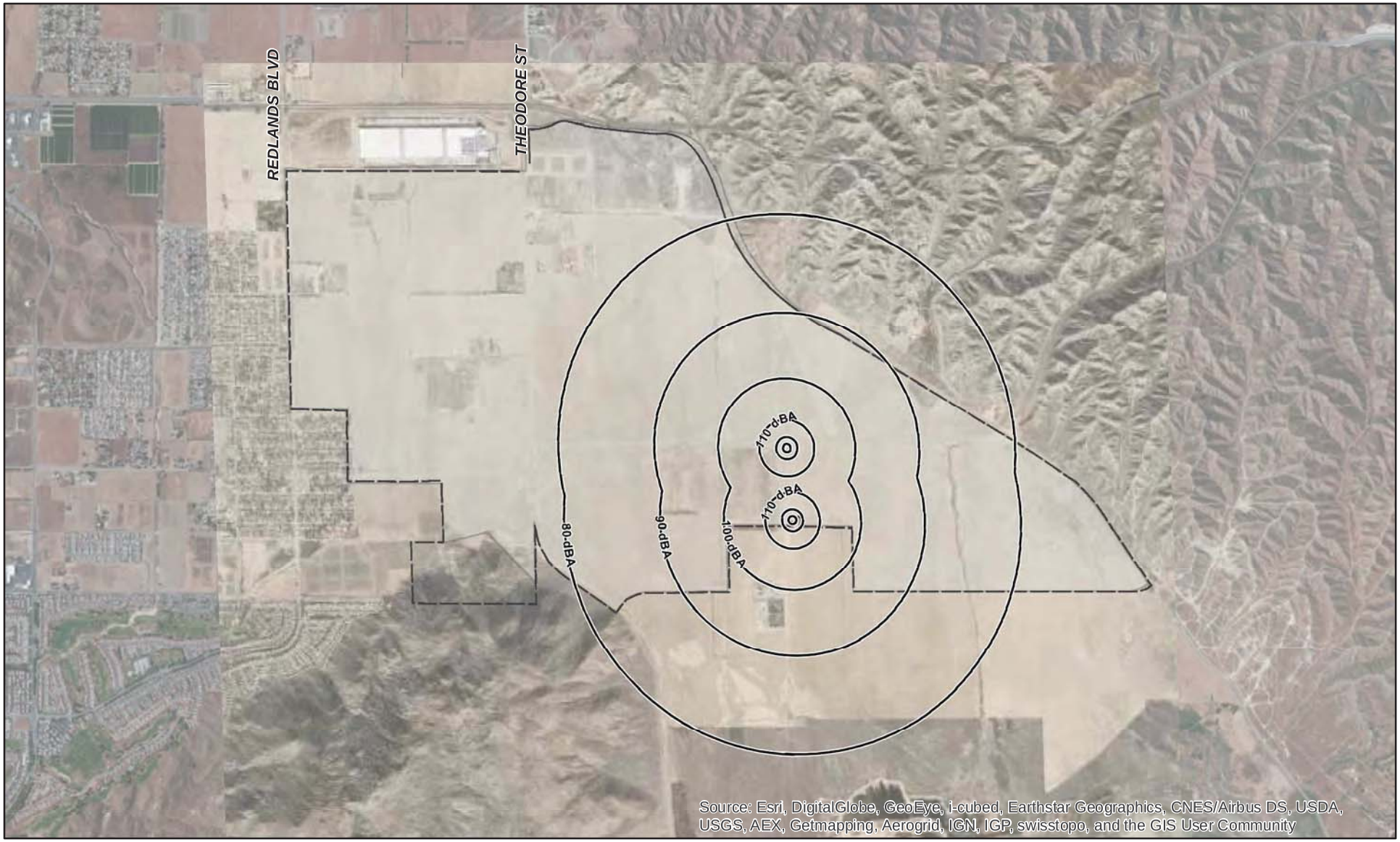

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FIGURE 4.12.6

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SOURCE: Mestre Greve Associates, 2013.

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Environmental Impact Report

Existing Lmax Noise Levels for the SCE Blow Down Event

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4.12.2.2 City of Moreno Valley Municipal Code

The *Moreno Valley Municipal Code*[1] establishes a Noise Ordinance that describes the noise standards within the City. Chapter 11.80.030 (Title 11) lists specific prohibited acts.

The City's residential site development standards, as identified in Chapter 9.03.040 of the City's Planning and Zoning Code, state that in all residential districts, air conditioners, heating, cooling, and ventilating equipment and all other mechanical lighting or electrical devices shall be operated so that noise levels do not exceed 60 dBA (L_{dn}) at the property line.

The City's Municipal Code, Section 6.04.030.J states that "to create, allow or maintain any loud or unusual noise or operate or maintain any device, instrument, vehicle, or machinery in such a manner as to create loud or unusual noise, cause vibrations, or unreasonable light spillage or glare which causes discomfort or annoyance to reasonable persons of normal sensitivity, or which endangers the comfort, repose, health or peace of the public or of any person using or occupying other property in the vicinity" is prohibited.

The City's Municipal Code, Section 9.10.140, specifies that all commercial and industrial uses shall be operated so that noise created by any loudspeaker, bells, gongs, buzzers, or other noise attenuation or attracting devices shall not exceed 55 dBA at any one time beyond the boundaries of the property.

Chapter 11.80.030 of the City's Municipal Code also states:

> *Based on statistics from the Center for Disease Control and Prevention and the National Institute for Occupational Safety and Health, Table 1 and Table 1-A specify sound level limits which, if exceeded, will have a high probability of producing permanent hearing loss in anyone in the area where the sound levels are being exceeded. No sound shall be permitted within the City which exceeds the parameters set forth in Table 11.80.030-1* [Table 4.12.E] *and 11.80.030-1-A* [Table 4.12.F] *of this chapter.*
>
> *No person shall maintain, create, operate or cause to be operated on private property any source of sound in such a manner as to create any nonimpulsive sound which exceeds the limits set forth for the source land use category (as defined in Section 11.80.020) in Table 11.80.030-2* [Table 4.12.F] *when measured at a distance of two hundred (200) feet or more from the real property line of the source of the sound, if the sound occurs on privately owned property, or from the source of the sound, if the sound occurs on public right-of-way, public space or other publicly owned property. Any source of sound in violation of this subsection shall be deemed prima facie to be a noise disturbance.*
>
> *The following uses and activities shall be exempt from the sound level regulations except the maximum sound levels provided in Tables 11.80.030-1* [Table 4.12.E] *and 11.80.030-1A* [Table 4.12.F]*:*
>
> 1. *Sounds resulting from any authorized emergency vehicle when responding to an emergency call or acting in time of an emergency.*
> 2. *Sounds resulting from emergency work as defined in Section 11.80.020.*
> 3. *Any aircraft operated in conformity with, or pursuant to, federal law, federal air regulations and air traffic control instruction used pursuant to and within the duly adopted federal air regulations; and any aircraft operating under technical difficulties in any kind of distress, under emergency orders or air traffic control, or being operated pursuant to and subsequent to the declaration of an emergency under federal air regulations.*

[1] *Moreno Valley Municipal Code,* City of Moreno Valley, current through Ordinance 836 and the November 2012 code supplement.

4. *All sounds coming from the normal operations of interstate motor and rail carriers, to the extent that local regulation of sound levels of such vehicles has been preempted by the Noise Control Act of 1972 (42 U.S.C. § 4901 et seq.) or other applicable federal laws or regulations.*
5. *Sounds from the operation of motor vehicles, to the extent they are regulated by the California Vehicle Code.*
6. *Any constitutionally protected noncommercial speech or expression conducted within or upon any public right-of-way, public space or other publicly owned property constituting an open or a designated public forum in compliance with any applicable reasonable time, place and manner restriction on such speech or expression or otherwise pursuant to legal authority.*
7. *Sounds produced at otherwise lawful and permitted city-sponsored events, organized sporting events, school assemblies, school playground activities, by permitted fireworks, and by permitted parades on public right-of-way, public space, or other publicly owned property.*
8. *An event for which a temporary use permit or special event permit has been issued under other provisions of this code, where the provision of Section 11.80.010 are met, the permit granted expressly grants an exemption from specific standards contained in this chapter, and the permittee and all persons under the permittee's reasonable control actually comply with all conditions of such permit. Violation of any condition of such permit related to sound or sound equipment shall be in violation of this chapter and punishable as such.*

Table 4.12.E and Table 4.12.F show the maximum sound levels that are permitted in the City for continuous and impulsive sounds, respectively.

Table 4.12.E: Maximum Continuous Sound Levels*

Duration Per Day Continuous Hours	Sound Level (dBA)
8	90
6	92
4	95
3	97
2	100
1.5	102
1	105
0.5	110
0.25	115

* When the daily sound exposure is composed of two or more periods of sound exposure at different levels, the combined effect of all such periods shall constitute a violation of this section if the sum of the percentage of allowed period of sound exposure at each level exceeds 100 percent.
Source: Chapter 11.80.030 Table 11.80.030-1, City of Moreno Valley Municipal Code, City of Moreno Valley.

Table 4.12.F: Maximum Impulsive Sound Levels

Number of Repetitions Per 24-Hour Period	Sound Level (dBA)
1	145
10	135
100	125

Source: Chapter 11.80.030 Table 11.80.030-1A, City of Moreno Valley Municipal Code, City of Moreno Valley.

The City also restricts the sound levels for non-impulsive sound on lands designated for residential and commercial land uses during the daytime and nighttime time periods. These levels are shown in

Table 4.12.G. Section 11.80.050 (3) clearly identifies the measurement as an "average" noise level, and therefore, the noise limits shown in Table 4.12.G are interpreted as the L_{eq} noise level.

Table 4.12.G: Maximum Sound Levels (in dBA) for Source Land Uses

Residential		Commercial	
Daytime	Nighttime	Daytime	Nighttime
60	55	65	60

Source: Chapter 11.80.030 Table 11.80.030-2, City of Moreno Valley Municipal Code, City of Moreno Valley.

The City prohibits all construction and demolition activities between the hours of 8:00 p.m. and 7:00 a.m. the day following a noise disturbance. A noise disturbance is defined as any sound which that disturbs a reasonable person of normal sensitivities, exceeds the sound level limits set forth in the Noise Ordinance, or is plainly audible. A noise disturbance is defined as plainly audible measured at a distance of 200 feet from the real property line of the source of the sound if the sound occurs on privately owned property, or from the source of the sound, if the sound occurs on public right-of-way, public space or other publicly owned property.

4.12.2.3 State of California Vehicle Code

Recent studies have shown that the most objectionable feature of traffic noise is the sound produced by vehicles equipped with illegal or faulty exhaust systems. In addition, such vehicles are often operated in a manner that causes tire squeal and excessively loud exhaust noise. A number of California State vehicle noise regulations can be enforced by local authorities as well as the California Highway Patrol. These include § 27150 (mufflers) of the California Vehicle Code (CVC), as well as excessive speed laws, which may be applied to curtail traffic noise. The California Highway Patrol and the Department of Health Services (through local health departments) are available to aid local authorities in code enforcement and training pursuant to proper vehicle sound level measurements.

4.12.2.4 State of California Noise Compatibility Guidelines

The State of California Noise Compatibility Guidelines, published by the Department of Health, Services provides guidance for use when siting land uses. The compatibility guidelines are shown in Figure 4.12.7. The guidelines will be used to evaluate the compatibility of the proposed land uses with the noise environment. The guidelines show compatibility of various land uses with different noise environments. The guidelines show that industrial uses are normally acceptable in noise environments up to 75 CNEL.

4.12.3 Methodology

Evaluation of noise impacts associated with the proposed project includes the following:

- Determination of the short-term construction noise impacts on off-site noise-sensitive uses;
- Determination of the long-term noise impacts, including vehicular traffic and stationary noise sources, on on-site and off-site noise-sensitive uses; and
- Determination of the required mitigation measures to reduce long-term noise impacts from all sources.

Because of the location of noise-sensitive receptors, the noise analysis evaluates the noise effects of the industrial development on the existing residential development (sensitive receptors) near the southwest portion of the proposed project area.

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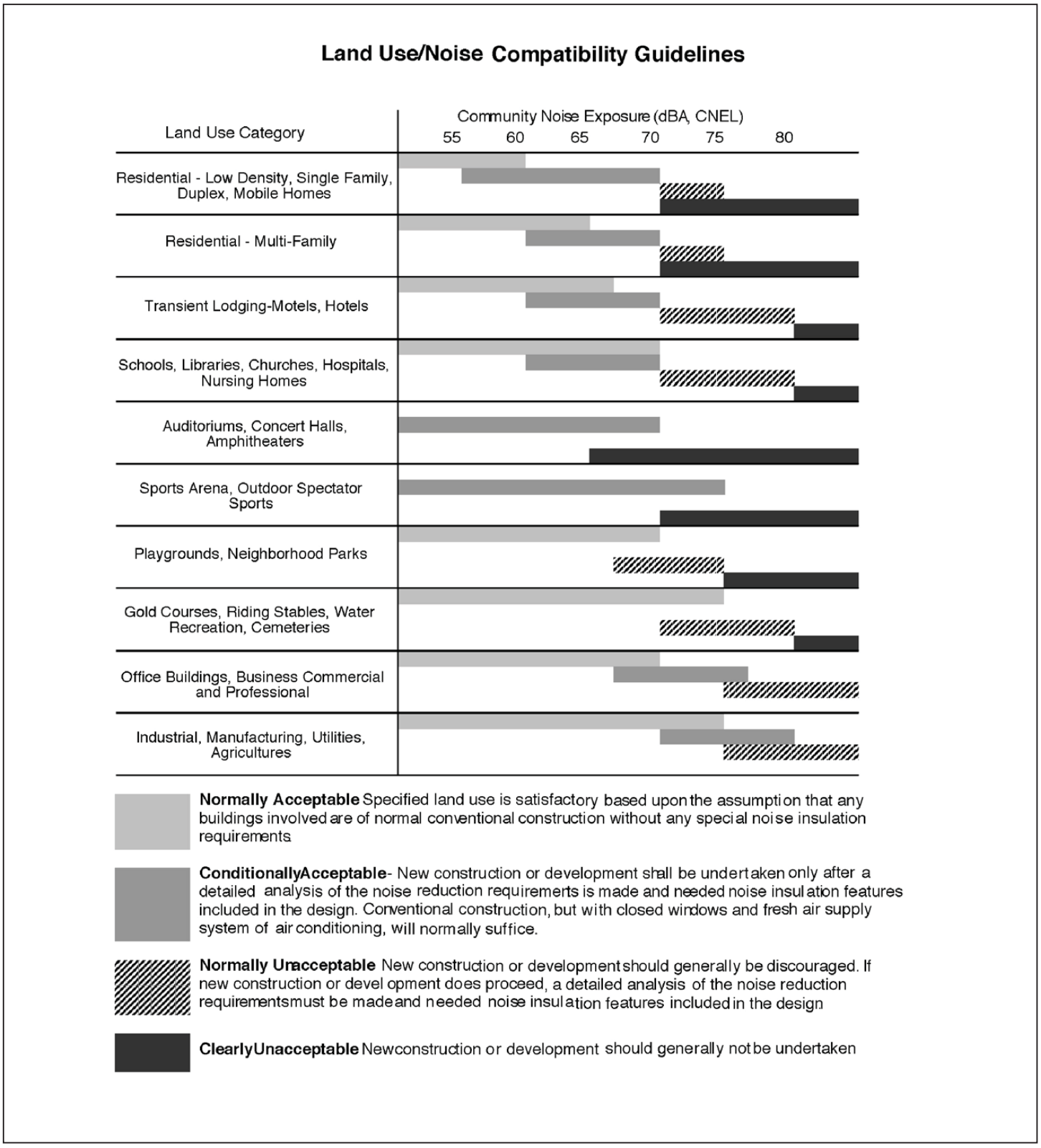

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FIGURE 4.12.7

World Logistics Center Specific Plan Project
Environmental Impact Report

California Noise Compatibility Guidelines

SOURCE: Mestre Greve Associates, 2012

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There are no Federal Highway Administration (FHWA), State, or local standards for vibration. According to the FHWA, highway traffic and construction vibrations pose no threat to buildings and structures; and annoyance to people is not considered any worse than other discomforts experienced from living near highways. However, a substantial amount of research has been completed to compare vibrations from single events such as dynamite blasts with architectural and structural damage. The U.S. Bureau of Mines has set a safe limit of 0.5 inch per second peak particle velocity to avoid structure damage in residential structures (U.S. Bureau of Mines 1980). Below this level, there is virtually no risk of building damage.

4.12.4 Thresholds of Significance

A project would have a significant effect on the environment related to noise if it would substantially increase the ambient noise levels for adjoining areas or if it would conflict with adopted environmental plans and goals of the community in which it is located.

The applicable noise standards and guidelines governing the project are those specified previously in Sections 4.12.2.1 through 4.12.2.4. In summary, these criteria are contained within the Safety Element of the General Plan, the Municipal Code, the California Vehicle Code, and the State Noise Compatibility Guidelines.

For this project, a noise impact is considered significant if the project would result in:

- Exposure of persons to or generation of noise levels in excess of standards established in the *City of Moreno Valley General Plan*, *Moreno Valley Municipal Code*, or applicable standards of other agencies;
- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;
- A substantial temporary, periodic, and/or permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels; and/or
- For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

The standards within the *City of Moreno Valley General Plan* and *Moreno Valley Municipal Code* determine the acceptable noise environment for proposed project and its vicinity. The standards are as follows:

- To the extent feasible, ensure through the design review process that exterior noise levels at commercial and industrial areas do not exceed 75 dBA CNEL.
- Consider the following uses noise-sensitive and discourage them in areas where exterior noise levels exceed 65 dBA CNEL unless measures are implemented that reduce the noise exposure below this level: single-family and multiple-family residential uses, group homes, hospitals, schools and other learning institutions, and parks and open space areas where quiet is a basis for use.

Long-term impacts from the project's traffic noise that affect existing sensitive land uses are considered to be substantial and, therefore, constitute a significant noise impact if the project would:

- Increase noise levels by 5 dB or more where the no project noise level is less than 60 CNEL;
- Increase noise level by 3 dB or more where the no project noise level is 60 CNEL to 65 CNEL; or
- Increase noise levels by 1.5 dB or more where the no project noise level is greater than 65 CNEL.

The project's incremental contribution to a cumulative noise increase would be considered cumulatively considerable and significant when ambient noise levels affect noise-sensitive land uses and when the project increases noise levels by 1 dB or more over pre-project conditions and the predicted future cumulative with project noise levels cause the following cumulative increases:

- Increase noise levels by 5 dB or more where the existing noise level is less than 60 CNEL;
- Increase noise levels by 3 dB or more where the existing noise level is 60 to 65 CNEL; or
- Increase noise levels by 1.5 dB or more where the existing noise level is greater than 65 CNEL.

4.12.5 No Impact/Less than Significant Impacts

The following impacts were identified as having a less than significant impact or no impact on the environment with implementation of the proposed project.

4.12.5.1 Groundborne Vibration Impacts

Threshold	Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Roadways in the vicinity of the project area are either paved or would be paved as the area develops, and would not result in project traffic driving over rough or dirt roads. Well maintained roads typically do not result in substantial vibration levels. Even roads with irregularities typically only generate substantial levels of vibration very near, less than 50 feet from the irregularity. Construction activities that would occur within the WLCSP area are not anticipated to require blasting or pile driving. Roadway vibrations are typically not perceptible more than 50 feet from the roadway except in very unusual circumstances. Generally, the interface between the soft tire of a truck or automobile will not generate significant vibration unless the road is in poor shape (e.g., potholes or pavement joints) Therefore, impacts associated with this issue are anticipated to be less than significant, and no mitigation is required.

4.12.5.2 Airport Noise Impacts

Threshold	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, results in exposure of people residing or working in the project area to excessive noise levels. For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

The project area is located approximately 5.5 miles northeast of the March Airfield (MAF) and is not located within two miles of a private airstrip. The MAF is a joint-use airport, used for both military and civilian purposes. The March Air Reserve Base (MARB) is the military operator of the MAF and March Inland Port (MIP) is the civilian operator of the airport. This facility is anticipated to play an increasingly important role in the transportation of goods and cargo for the Southern California region. Existing flight patterns affect a large portion of the City of Moreno Valley, along a path that affects the

western portion of the City in a northwest/southeast alignment. Aircraft operations from the airport currently contribute intermittent single-event noise.

There is potential for single-event noise exposure levels from MAF activity to affect the proposed project. The exposure levels will vary dependent upon the type of aircraft and flight track flown for each operation at MAF. However, the proposed project is not identified as being within the noise or safety contours delineated for the MARB Airport.[1] In addition, the proposed project is not considered to contain sensitive receivers and, therefore, the impacts from these single-event noise levels are considered to be below the level of significance. The City's exterior noise standard for industrial uses is 70 dBA CNEL. MAF noise levels are less than 60 dB CNEL within the project area. Therefore, the proposed project would not have the potential to expose people to excessive noise levels from airport operations. Therefore, no significant noise impacts would occur regarding these issues from implementation of the proposed project, and no mitigation is required.

4.12.6 Significant Impacts

4.12.6.1 Short-Term Construction Noise Impacts

Threshold	Would the project result in a substantial temporary, periodic, and/or permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Short-term noise would occur during the construction of the WLCSP. First, construction crew commutes and the transport of construction equipment and materials to the site for the proposed WLC project would incrementally increase noise levels on access roads in the WLC planning area. In addition, noise would be generated during excavation, grading, and building construction on various portions of the Specific Plan site. Construction is completed in discrete steps, each of which has its own mix of equipment, and consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on the site and, therefore, the noise levels surrounding the site as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. The site preparation phase, which includes excavation and grading of the site, tends to generate the highest noise levels, because the noisiest construction equipment is earthmoving equipment, which includes excavating machinery such as backfillers, bulldozers, draglines, and front loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve one or two minutes of full-power operation followed by three to four minutes at lower power settings. Implementation of the Specific Plan would result in construction activities that would require the use of scrapers, bulldozers, and water and pickup trucks within the WLCSP area.

Figure 4.12.8 presents construction noise levels measured at 50 feet. The peak noise level for the majority of the equipment that will be used during construction of the proposed project will range from 70 to 95 dBA. Based on the fact that noise levels dissipate with increases in distance from the noise source due to noise divergence, noise levels at greater distances are less than those presented in Figure 4.12.8. Noise measurements made by Mestre Greve Associates demonstrate that the noise levels generated by commonly used grading equipment (e.g., loaders, graders, and trucks) generate noise levels that typically do not exceed the middle of the range shown in Figure 4.12.8.[2] However, the noise levels shown in Figure 4.12.8 have been used as the basis for the noise analysis estimates presented in this EIR.

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1 *Figure 5.4-1 March Reserve Air Base Noise Impact Area*, City of Moreno Valley General Plan EIR, July 2006.

2 *Noise Assessment for the World Logistic Center Specific Plan*, page 27, Mestre Greve Associates, Division of Landrum & Brown, September 2014.

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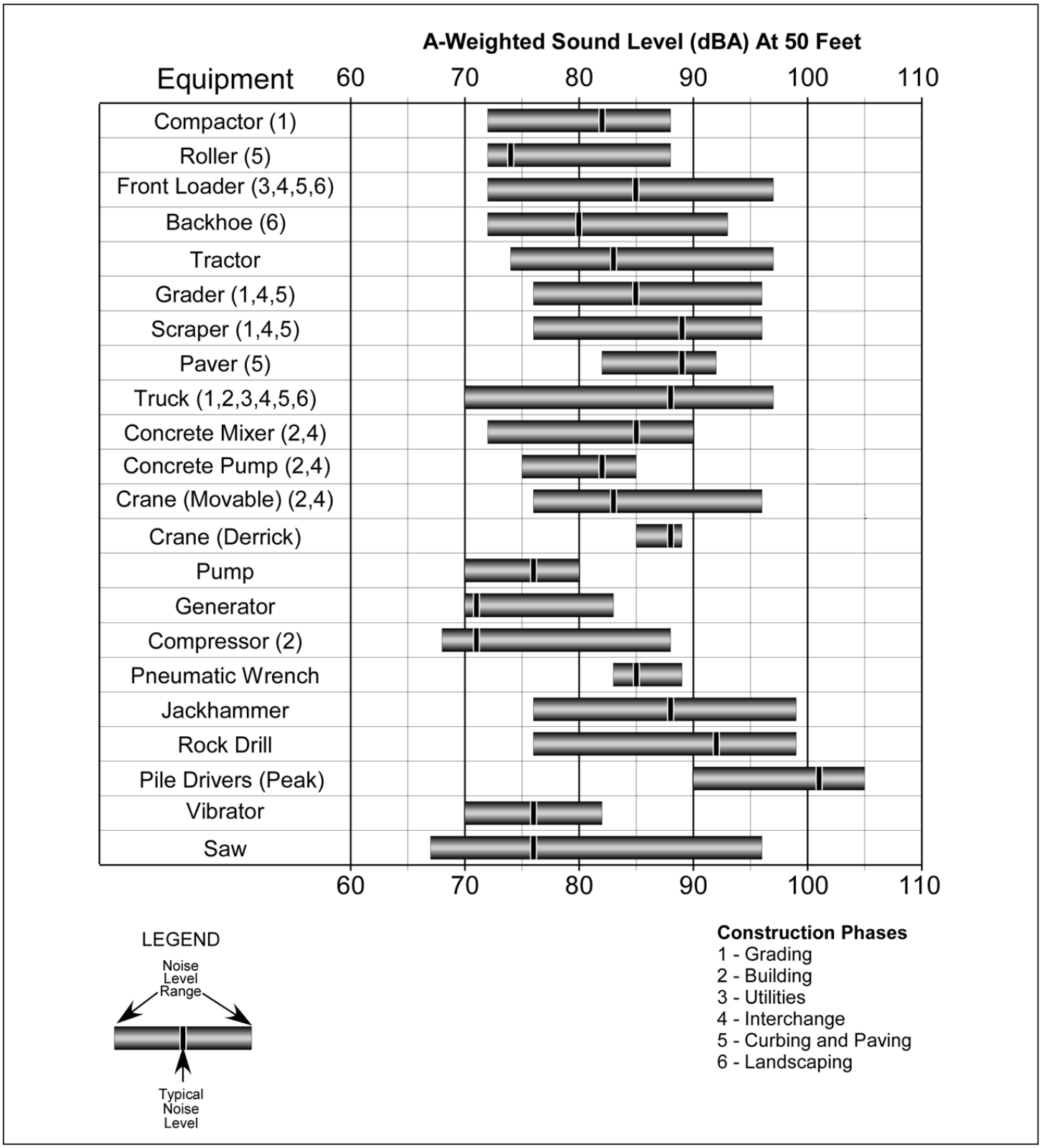

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FIGURE 4.12.8

World Logistics Center Specific Plan Project
Environmental Impact Report

Typical Construction Equipment Noise Levels

SOURCE: Mestre Greve Associates, 2012

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Construction activities that are associated with the proposed WLCSP project would occur in two general areas: on-site and off-site. Some phases of the on-site construction would occur for 24 hours a day for 7 days a week. It is anticipated that on-site construction would occur periodically over a nine-year period with a potential start year of 2015 and ending in 2030. Off-site construction (which would involve minor grading, drainage, interchange, utility, and roadway improvements) is anticipated to only during the daytime weekday hours and would have a shorter construction duration.

On-site Construction. Sensitive receptors that would be potentially affected by on-site construction activities would include residences located within and adjacent to the WLCSP area as well as residences located on the north side of SR-60. For residences on the opposite side of SR-60, existing daytime and nighttime freeway noise is anticipated to be greater than the noise generated by the construction activities that would occur within the WLCSP area. Although certain conditions at night, such as low inversions and very calm conditions, can increase the ability of construction noise to travel to the residences north of the freeway, these same conditions would also amplify the noise generated on the freeway. Since freeway noise would continue to be the dominant noise source in the area for these residences along SR-60, construction noise impacts on the residents north of the freeway will be less than significant and no mitigation is required.

Existing residences within the WLCSP area or adjacent to the Specific Plan area may be located within 50 feet or less from areas where intense construction (24 hours a day, 7 days a week) would occur. Although residential properties located within the WLCSP would be rezoned as Light Logistics, the existing residences are considered to be noise-sensitive uses that would be affected by intense construction activities. Similarly, residences located adjacent to the project site (i.e., along Redlands Boulevard, Merwin Street, Bay Avenue, Cactus Avenue, and Gilman Springs Road) would also be affected by intense construction activities. Based on a 50-foot noise attenuation distance, these residences may experience worst-case unmitigated peak construction noise levels (L_{max}) up to 97 dBA. The average noise levels are typically 5 to 15 dB lower than the peak noise levels. Average noise levels (L_{eq}) at 50 feet could easily be in the range of 82 to 92 dBA during most phases of construction.

The City of Moreno Valley Municipal Code does not include any exemptions for construction noise. Therefore, construction would be subject the limitations of 60 dBA during daytime and 55 dBA at nighttime measured at residential areas. According to Section 3.4.14, *Project Description*, WLC project construction may occur 24 hours a day, 7 days a week for certain activities. Significant noise impacts would be expected, especially if work with high noise levels occurs between 8:00 p.m. and 6:00 a.m.

Based on these projections, anticipated worst-case construction noise levels would regularly be exceeded during daytime and nighttime hours at residences within the Specific Plan area. Based on an L_{eq} noise level of 90 dBA at 50 feet, an observer would need to be 1,580 feet from the construction to experience a noise level of 60 dBA (L_{eq}), or 2,800 feet for a noise level of 55 dBA (L_{eq}). Therefore, a residence within 1,580 feet during active construction during the daytime would be affected. Similarly, a residence within 2,800 feet during the nighttime would be affected by construction noise.

As set forth in Section 3.4.14 and as stated by the project applicant, construction could occur 24 hours per day, 7 days per week for these construction activities. Therefore, noise levels at the nearest residences would exceed the City's exterior noise standard of the 60 dBA[1] CNEL daytime standard and 55 dBA CNEL nighttime standard for residential uses. This is a significant impact requiring mitigation.

[1] *Chapter 11.80.030 Table 11.80.030-2, City of Moreno Valley Municipal Code,* City of Moreno Valley.

Off-site Construction. Construction activities associated with off-site construction include road improvements along Cactus Avenue and Redlands Boulevard, water and utility improvements, construction of a detention basin, debris basins, and interchange improvements. Roadway and interchange improvements are planned along Cactus Avenue, Redlands Boulevard, State Route 60, and Gilman Springs Road. Often the loudest pieces of equipment associated with this type of construction are the graders/scraper equipment. Peak noise levels at 50 feet can reach 96 dBA, with average noise levels (L_{eq}) in the 85 dBA range. Noise levels of 60 dBA (L_{eq}) could be exceeded for up to 900 feet from the construction area. Existing residences are located within 900 feet of the off-site construction areas and would be exposed to noise levels that would exceed of the Moreno Valley noise criteria for residential uses.

Other off-site construction improvements such as drainage, sewer, water, and utility features would also generate noise in close proximity to existing sensitive uses. However, these activities typically utilize less construction equipment, which results in lower noise levels. These construction activities may commonly employ a backhoe as the loudest piece of equipment. A backhoe may have a peak noise level that exceeds 90 dBA at 50 feet, but has an average noise level around 80 dBA (L_{eq}) at 50 feet. However, at this noise level one would need to be more than 500 feet away to experience a noise level (L_{eq}) of less than 60 dBA. This noise level would exceed the City's daytime criteria at the nearest existing residences and mitigation measures would be required.

Specific Plan Design Features. The WLCSP does not contain any design features that specifically address noise. Other features, such as perimeter setback requirements, will have the effect of reducing noise to certain residential areas.

Note: The following changes to the mitigation measures were made as a result of the revised project noise assessment (Appendix K in FEIR Volume 2) and in responses to Comments C-4-2 in Letter C-4 from Sempra Energy and Comments F-13-9 and F-13-84 in Letter F-13 from Johnson & Sedlack on behalf of the Sierra Club, Moreno Valley Group & Residents for a Livable Moreno Valley.

Mitigation Measures. Construction of the proposed project would result in noise levels at the closest residences exceeding the maximum noise level allowed under the City's Municipal Code. The following measures[1] would reduce short-term construction-related noise impacts associated with the proposed WLC project:

4.12.6.1A Prior to issuance of any discretionary project approvals, a Noise Reduction Compliance Plan (NRCP) shall be submitted to and approved by the City. The Noise Reduction Compliance Plan shall show the limits of nighttime construction in relation to any then-occupied residential dwellings and shall be in conformance with City standards. Conditions shall be added to any discretionary projects requiring that the limits of nighttime grading be shown on the Noise Reduction Compliance Plan and all grading plans submitted to the City (per Noise Study MM N-2, pg. 51).

4.12.6.1B All construction equipment, fixed or mobile, shall be equipped with operating and maintained mufflers consistent with manufacturers' standards.

4.12.6.1C Construction vehicles shall be prohibited from using Redlands Boulevard south of Eucalyptus Avenue to access on-site construction for all phases of development of the Specific Plan (per Noise Study MM N-1, pg. 51).

[1] Measures 4.12.6.1B-F corresponds to the noise study measures N-1 through N-5.

4.12.6.1D No grading shall occur within 2,800 feet of residences south of State Route-60 between 8 p.m. and 6 a.m. on weekdays and between 8 p.m. and 7 a.m. on weekends. These restrictions shall be included as part of the Noise Reduction Compliance Plan per Mitigation Measure 4.12.6.1A (per Noise Study MM N-2, pg. 51)

4.12.6.1E As an alternative to Mitigation Measure 4.12.6.1D, a 12-foot tall temporary construction sound barrier may be installed for residences within 1,580 feet of active nighttime construction areas. The temporary sound barrier shall be constructed of plywood with a total thickness of 15 inches, or a sound blanket wall may be used. If sound blankets are used, they must have a Sound Transmission Class (STC) rating of 27 or greater. This shall be included as part of the Noise Reduction Compliance Plan required in Mitigation Measure 4.12.6.1A, which shall be reviewed and approved by the City prior to implementation (per Noise Study MM N-2 and N-3, pg. 51 and pg. 52).

4.12.6.1F As an alternative to Mitigation Measure 4.12.6.1D and 4.12.6.1E, on-site noise measurements of construction areas may be taken by qualified personnel and specific buffer distances between construction activities and existing residences may be proposed based on actual noise levels. These measurements will be incorporated into the Noise Reduction Compliance Plan required in Mitigation Measure 4.12.6.1A, which shall be reviewed and approved by the City prior to implementation (per Noise Study MM N-2, pg. 51).

4.12.6.1G Any discretionary approvals for development that proposes grading within 1,580 feet of occupied residential units shall require that all grading equipment be equipped with residential grade mufflers (or better). All stationary construction equipment shall be placed so that emitted noise is directed away from noise-sensitive receptors nearest the site. Additionally, stationary construction equipment shall have all standard acoustic covers in place during operation (per Noise Study MM N-4, pg. 52).

4.12.6.1H All material stockpiles in connection with any grading operations shall be located at least 1,200 feet from existing residences (per Noise Study MM N-5, pg. 52).

4.12.6.1I All project-related off-site construction shall be limited to 6 a.m. and 8 p.m. on weekdays only. Construction during weekends and City holidays shall not be permitted (per Noise Study MM N-6, pg. 53) to the satisfaction of the Land Development Division/Public Works.

4.12.6.1J Prior to issuance/approval of any grading permits, off-site construction activities adjacent to residential uses shall provide for installation of 12-foot temporary sound barriers for construction activities lasting more than one month. The sound barrier will reduce noise levels by approximately 10 dB. The temporary sound barrier may be constructed of plywood with a total thickness of 1.5 inches, or a sound blanket wall may be used. If sound blankets are used, the curtains must have a Sound Transmission Class (STC) rating of 27 or greater. No off-site construction is permitted during weekday nighttime hours (8 p.m. to 6 a.m.) or during weekends and City holidays except for emergencies (per Noise Study MM N-7, pg. 53).

Level of Significance after Mitigation. *On-site Construction*. Elimination of nighttime construction within 2,800 feet of residences would lower the noise levels to 55 dBA (L_{eq}) at the closest residences. The noise levels would just meet the 55 dBA (L_{eq}) nighttime criteria contained in the Moreno Valley Noise Ordinance resulting in a less than significant impact. With the implementation of **Mitigation Measures 4.12.6.1A** through **4.12.6.1J**, the loudest noise level that would be experienced at any developed residential parcel would be less than the 55 dBA (L_{eq}) nighttime threshold and would be consistent with the limits established in the City's Noise Ordinance resulting in a less than significant impact. In addition, implementation of **Mitigation Measure 4.12.6.1H**, would reduce the noise experienced at existing residences, resulting in a less than significant impact.

As previously stated, construction within 1,580 feet of residential areas south of the freeway has the potential to exceed the daytime Moreno Valley Noise Ordinance criteria of 60 dBA (L_{eq}). With implementation of **Mitigation Measure 4.12.6.1E**, any existing residences within 1,580 feet of a construction area would be shielded from construction noise with a 12-foot temporary sound barrier. A sound barrier will reduce the noise levels by about 10 dB resulting in a reduction of noise below City thresholds at residences 500 feet or further from the construction area. Although the installation of the temporary sound barrier would reduce noise levels experienced at the closest residences, those residences that are located within 500 feet of a construction area would still be exposed to noise levels greater than 60 dBA (L_{eq}). Therefore, impacts associated with this issue would remain significant and unavoidable.

Off-site Construction. With the implementation of **Mitigation Measure 4.12.6.1I**, off-site construction activities would be limited to daytime hours while **Mitigation Measure 4.12.6.1J** would require the installation of a temporary sound barrier. With these mitigation measures in place, residences adjacent to construction activities (depending on the loudness of the construction equipment) could experience noise levels greater than 60 dBA (L_{eq}) for off-site construction projects lasting less than one month. These impacts would only occur during weekday daytime hours. However, even with implementation of these mitigation measures, noise levels experienced at these residences would be above the City's threshold. Therefore, impacts would remain significant and unavoidable.

4.12.6.2 Long-Term Traffic Noise Impacts

Threshold	Would the project result in a substantial temporary, periodic, and/or permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

The January 2013 noise analysis contained in the Draft EIR identified 33 roadway segments where a significant noise impact would occur for at least one of the impact scenarios. In the revised noise analysis for the Final EIR, 21 roadway segments have been identified as having a significant noise impact. The reduction in noise impact areas is a direct result of the revised traffic analysis which reflects a downsizing of the project and associated traffic volumes for the "plus project" traffic scenarios. The roadway links that were previously identified as being impacted in the January 2013 noise analysis contained in the Draft EIR and are not impacted in the revised noise analysis for the Final EIR are listed below:

- Day Street between Cottonwood Avenue and Alessandro Boulevard (#109);
- Fir Avenue between Quincy Drive and Redlands Boulevard (#62);
- Moreno Beach Drive between Locust Avenue and Ironwood Avenue (#56);
- Perris Boulevard between John F. Kennedy Drive and Iris Avenue (#303);
- Placentia Avenue from El Nido Avenue to Evans Road and on to Water Avenue (#431, #432);
- Quincy Drive from Cactus Avenue to Alessandro Boulevard and to Cottonwood Avenue (#502, #503);
- Reche Canyon Road from Keissel Road to Reche Vista Drive and on to High Country Drive (#205, #206);
- Redlands Boulevard from Eucalyptus Avenue to Dracaea Avenue (#12); and
- State Route 60 from Perris Boulevard to Nason Street (#31).

The noise analysis for the proposed project is based on the traffic volume data contained in the revised Traffic Impact Analysis (TIA) prepared for the project (contained in its entirety as EIR

Appendix L). The TIA addressed the intersections of surface streets in Moreno Valley of a collector or higher classification street with another collector or higher classification street, at which the proposed project will add 50 or more peak hour trips. The study area also included the main travel routes between the project and the neighboring cities of Riverside, Perris, Beaumont, San Jacinto, and Redlands. The study area extended west to the nearest ramps on SR-91 and as far south as the I-215 ramps at Redlands Avenue in Perris. The study area for freeways was selected to cover the freeway routes radiating from the project site to the north, south, east, and west. The traffic analysis covered SR-60 from SR-62 in the east to SR-71 in the west, SR-91 from I-215 in the east to I-15 in the west, and I-215 from SR-210 in the north to the Scott Road interchange in the south.

Three hundred and thirty nine (339) roadway links and eighty nine (89) freeway segments were analyzed in the noise analysis. The change in noise level was calculated for all 428 roadway and freeway links with and without the project for the existing case (2012), 2022, and 2035 time horizons. Links with noise increases less than 1.5 dB would not have a substantial noise increase and were not presented in the main body of the noise report (i.e., the tables and figures). Similarly, any links that do not have sensitive receptors (e.g., residential uses) were also not presented in the main body of the noise report. Based on this filtering process, of the 428 links analyzed, 44 links have sensitive receptors and an increase of 1.5 dB for at least one time horizon and were therefore addressed in the analysis.

The projected future daily traffic volumes (Parsons Brinckerhoff, Inc., September 2014) for roadway segments in the project vicinity were used in the traffic noise impact analysis. Modeled noise levels represent the worst-case scenario, which assumes that no shielding is provided between the traffic and the location where the noise contours are drawn. As previously identified, the threshold for traffic noise is 65 dBA CNEL for sensitive receptors.

Operation of development that could occur within the proposed project area would generate traffic along roadways in the project vicinity. Table 4.12.H identifies existing with project roadway traffic noise levels with the project.

Note: Table 4.12.H has been replaced in its entirety. Please refer to Final EIR Volume IV for the original Table 4.12.H, which can be found in section 4.12.6.2.

Table 4.12.H: Existing Year (2012) Plus Project Traffic Noise Levels (dBA)

Roadway Segment	CNEL (dBA) at 100 feet			
	Without Project	With Project	Change	Substantial Increase?
Alessandro Road (Crescent Avenue to Sunset Drive)	63.3	65.1	1.8	No
Alessandro Road (Sunset Drive to San Timoteo Canyon Road)	63.3	65.3	2.0	No
Cactus Avenue (Oliver Street to Moreno Beach Drive)	58.2	59.7	1.5	No
Cactus Avenue (Redlands Boulevard to Street D)	51.3	68.3	17.0	Yes
Cactus Avenue (west of Redlands Boulevard)	60.5	62.7	2.2	No
Crescent Avenue (west of Alessandro Boulevard)	57.1	59.6	2.6	No
Fir Avenue (Quincy Drive to Redlands Boulevard)	0.0	0.0	0.0	No
Gilman Springs Road (Bridge Street to Beaumont Avenue)	61.0	62.2	1.2	No
Gilman Springs Road (Bridge Street to SR-79 Southbound Ramps)	—	73.9	1.2	No
Gilman Springs Road (Eucalyptus Avenue to Street C)	49.6	55.0	5.4	Yes
Gilman Springs Road (Jack Rabbit Trail to Bridge Street)	62.7	63.9	1.2	No
Iris Avenue (Kitching Street to Lasselle Street)	60.1	61.6	1.6	No

Table 4.12.H: Existing Year (2012) Plus Project Traffic Noise Levels (dBA)

Roadway Segment	CNEL (dBA) at 100 feet			
	Without Project	With Project	Change	Substantial Increase?
Iris Avenue (Lasselle Street to Nason Street)	60.0	62.4	2.4	No
Iris Avenue (Nason Street to Oliver Street)	63.0	65.9	2.9	No
Ironwood Avenue (Redlands Boulevard to Highland Boulevard)	46.3	57.3	11.0	Yes
John F Kennedy Drive (south of Cactus Avenue)	61.5	66.9	5.4	Yes
Krameria Avenue (Perris Boulevard to Lasselle Street)	57.5	60.6	3.1	No
Lasselle Street (Krameria Avenue to Arroyo Park Drive)	56.4	58.9	2.5	No
Live Oak Canyon Road (north of San Timoteo Canyon Road)	63.2	65.2	2.1	No
Live Oak Canyon Road (San Timoteo Canyon Road to I-10)	56.5	58.5	2.0	No
Locust Avenue (Moreno Beach Drive to Smiley Boulevard)	46.2	46.2	0.1	No
Locust Avenue (Moreno Beach Drive to Redlands Boulevard)	55.7	58.9	3.2	No
Moreno Beach Drive (John F Kennedy to Oliver Street)	55.2	58.7	3.5	No
Moreno Beach Drive (Locust Avenue to Ironwood Avenue)	55.3	57.2	1.9	No
Oliver Street (Alessandro Boulevard to Cactus Avenue)	54.1	56.4	2.2	No
Redlands Boulevard (Eucalyptus Avenue to Dracaea Avenue)	47.1	48.8	1.7	No
Redlands Boulevard (Ironwood Avenue to SR-60)	68.3	71.0	2.7	Yes
Redlands Boulevard (Ironwood Avenue to San Timoteo)	67.8	70.0	2.2	Yes
Redlands Boulevard (SR-60 to Eucalyptus Avenue)	60.9	64.5	3.4	Yes
San Timoteo Canyon Road (Alessandro Road to Live Oak Canyon Road)	62.0	65.1	3.1	Yes
San Timoteo Canyon Road (Live Oak Canyon Road to Redlands Boulevard)	62.7	65.7	3.0	Yes
Street A (Eucalyptus Avenue to Street F)	50.2	73.2	22.9	Yes
Street D (Street E to Cactus Avenue)	0.0	69.5	69.5	Yes
Street E (north of Alessandro Boulevard)	0.0	65.4	65.4	Yes
Street F (east of Street A)	0.0	68.4	68.4	Yes
Sunset Drive (Alessandro Road to Cameo Drive)	52.5	55.2	2.7	No
Sunset Drive (Crown Street to Alessandro Road)	49.0	51.4	2.3	No
Theodore Street (SR-60 to Highland Boulevard)	57.8	65.0	7.1	Yes
Freeways				
SR-60 (Pigeon Pass Road/Frederick Street to Heacock Street)	66.5	68.0	1.5	Yes
SR-60 (Heacock Street to Perris Boulevard)	65.2	66.9	1.7	Yes
SR-60 (Perris Boulevard to Nason Street)	64.6	66.7	2.1	No
SR-60 (Nason Street to Moreno Beach Drive)	52.0	54.3	2.3	No
SR-60 (Moreno Beach Drive to Redlands Boulevard)	62.5	65.5	3.1	Yes
SR-60 (Redlands Boulevard to Theodore Street)	60.2	63.5	3.4	Yes

Source: Mestre Greve Associates, September 2014.

As identified in Table 4.12.H, build out of the proposed WLC project would result in relatively minor changes in traffic noise levels in the Existing plus Project scenario case. The largest project-related increase in traffic noise would be along Streets D, E, and F where increases of greater than 65 dBA are predicted. The increase associated with these roadway segments is attributable in part to Streets D, E and F being new roads that will be constructed by the proposed project. A total of 18 road or

freeway segments would result in a significant noise increase attributable to the project, resulting in a significant project direct impact requiring mitigation.

Year 2022 (Phase I) with and without project scenarios projected daily traffic volumes on roadway segments in the project vicinity were used to conduct the traffic noise modeling. The projected daily traffic volumes in the area were taken from the TIA prepared for the proposed project. Table 4.12.I identifies year 2022 without project and with project traffic noise levels.

Note: Table 4.12.I has been replaced in its entirety. Please refer to Final EIR Volume IV for the original Table 4.12.I, which can be found in section 4.12.6.2.

Table 4.12.I: Phase I (2022) Plus Project Traffic Noise Levels (dBA)

Roadway Segment	CNEL (dBA) at 100 feet			
	Without Project	With Project	Change	Substantial Increase?
Alessandro Road (Crescent Avenue to Sunset Drive)	64.6	65.4	0.8	No
Alessandro Road (Sunset Drive to San Timoteo Canyon Road)	65.0	65.8	0.8	No
Cactus Avenue (Oliver Street to Moreno Beach Drive)	58.9	59.8	0.9	No
Cactus Avenue (Redlands Boulevard to Street D)	51.3	66.8	15.5	Yes
Cactus Avenue (west of Redlands Boulevard)	61.3	62.5	1.2	No
Crescent Avenue (west of Alessandro Boulevard)	58.5	59.8	1.3	No
Fir Avenue (Quincy Drive to Redlands Boulevard)	0.0	0.0	0.0	No
Gilman Springs Road (Bridge Street to Beaumont Avenue)	61.2	62.1	0.9	No
Gilman Springs Road (Bridge Street to SR-79 Southbound Ramps)	72.9	73.8	0.9	No
Gilman Springs Road (Eucalyptus Avenue to Street C)	49.9	49.9	0.0	No
Gilman Springs Road (Jack Rabbit Trail to Bridge Street)	63.0	63.9	1.0	No
Iris Avenue (Kitching Street to Lasselle Street)	61.0	61.7	0.7	No
Iris Avenue (Lasselle Street to Nason Street)	61.1	62.3	1.2	No
Iris Avenue (Nason Street to Oliver Street)	63.8	65.5	1.6	No
Ironwood Avenue (Redlands Boulevard to Highland Boulevard)	51.9	56.1	4.2	No
John F Kennedy Drive (south of Cactus Avenue)	62.8	66.1	3.3	Yes
Krameria Avenue (Perris Boulevard to Lasselle Street)	60.5	61.2	0.7	No
Lasselle Street (Krameria Avenue to Arroyo Park Drive)	59.2	60.1	0.9	No
Live Oak Canyon Road (North of San Timoteo Canyon Road)	64.9	65.7	0.9	No
Live Oak Canyon Road (San Timoteo Canyon Road to I-10)	58.0	59.2	1.2	No
Locust Avenue (Moreno Beach Drive to Smiley Boulevard)	46.2	46.2	0.0	No
Locust Avenue (Moreno Beach Drive to Redlands Boulevard)	60.7	61.4	0.7	No
Moreno Beach Drive (John F Kennedy to Oliver Street)	56.1	58.2	2.1	No
Moreno Beach Drive (Locust Avenue to Ironwood Avenue)	58.8	59.3	0.5	No
Oliver Street (Alessandro Boulevard to Cactus Avenue)	58.9	59.1	0.2	No
Redlands Boulevard (Eucalyptus Avenue to Dracaea Avenue)	49.1	47.1	-2.0	No
Redlands Boulevard (Ironwood Avenue to SR-60)	69.2	70.7	1.5	No

Table 4.12.I: Phase I (2022) Plus Project Traffic Noise Levels (dBA)

Roadway Segment	CNEL (dBA) at 100 feet			
	Without Project	With Project	Change	Substantial Increase?
Redlands Boulevard (Ironwood Avenue to San Timoteo Canyon Road)	69.1	70.5	1.4	No
Redlands Boulevard (SR-60 to Eucalyptus Avenue)	62.9	65.3	2.4	No
San Timoteo Canyon Road (Alessandro Road to Live Oak Canyon Road)	63.4	65.3	1.9	No
San Timoteo Canyon Road (Live Oak Canyon Road to Redlands Boulevard)	64.2	66.0	1.8	No
Street A (Eucalyptus Avenue to Street F)	52.5	72.1	19.6	Yes
Street D (Street E to Cactus Avenue)	0.0	68.0	68.0	Yes
Street E (north of Alessandro Boulevard)	0.0	65.9	65.9	Yes
Street F (east of Street A)	0.0	43.6	43.6	Yes
Sunset Drive (Alessandro Road to Cameo Drive)	55.3	56.3	1.0	No
Sunset Drive (Crown Street to Alessandro Road)	49.0	49.0	0.0	No
Theodore Street (SR-60 to Highland Boulevard)	60.7	63.8	3.1	Yes
Freeways				
SR-60 (Pigeon Pass Road/Frederick Street to Heacock Street)	67.2	67.9	0.7	No
SR-60 (Heacock Street to Perris Boulevard)	66.1	66.9	0.8	No
SR-60 (Perris Boulevard to Nason Street)	65.6	66.6	1.0	No
SR-60 (Nason Street to Moreno Beach Drive)	53.1	54.2	1.1	No
SR-60 (Moreno Beach Drive to Redlands Boulevard)	63.8	65.3	1.5	No
SR-60 (Redlands Boulevard to Theodore Street)	61.7	63.2	1.5	No

Source: Mestre Greve Associates, September 2014.

As identified in Table 4.12.I, implementation of the proposed WLC project would result in relatively minor changes in traffic noise levels in Year 2022 (Phase I). The largest project-related increase in traffic noise would be along Street D (Street E to Cactus Avenue) and Street E (north of Alessandro Boulevard), where increases of greater than 65 dBA are predicted for the 2022 With Project scenario over the Year 2022 without project scenario. The increase associated with these roadway segments is attributable in part to Streets D and E being new roads that will be constructed by the proposed project. A total of 7 road segments would result in a significant noise increase attributable to the project, resulting in a significant cumulative impact requiring mitigation.

*Note: Table 4.12.J has been deleted in its entirety. Please refer to Final EIR Volume IV for the original Table 4.12.J, which can be found in section 4.12.6.2.*Operation of the proposed project would generate traffic along roadways in the surrounding area during the buildout year (2035) scenario. Buildout Year (2035) with and without project scenarios projected daily traffic volumes on roadway segments in the project vicinity were used to conduct the traffic noise modeling. The projected daily traffic volumes in the area were taken from the TIA prepared for the proposed project. Table 4.12J identifies the Buildout Year (2035) without project and with project traffic noise levels.

Note: Table 4.12.K (now table 4.12.J) has been replaced in its entirety. Please refer to Final EIR Volume IV for the original Table 4.12.K, which can be found in section 4.12.6.2.

Table 4.12.J: Buildout Year (2035) Plus Project Traffic Noise Levels (dBA)

Roadway Segment	CNEL (dBA) at 100 feet			
	Without Project	With Project	Change	Substantial Increase?
Alessandro Road (Crescent Avenue to Sunset Drive)	64.6	65.4	0.9	No
Alessandro Road (Sunset Drive to San Timoteo Canyon Road)	65.0	66.0	1.0	No
Cactus Avenue (Oliver Street to Moreno Beach Drive)	60.5	62.0	1.5	No
Cactus Avenue (Redlands Boulevard to Street D)	55.1	69.2	14.1	Yes
Cactus Avenue (west of Redlands Boulevard.)	62.0	66.2	4.2	Yes
Crescent Avenue (west of Alessandro Boulevard)	58.9	60.1	1.2	No
Fir Avenue (Quincy Drive to Redlands Boulevard)	64.7	67.1	2.4	No
Gilman Springs Road (Bridge Street to Beaumont Avenue)	63.5	65.2	1.7	No
Gilman Springs Road (Bridge Street to SR-79 Southbound Ramps)	75.4	77.1	1.6	Yes
Gilman Springs Road (Eucalyptus Avenue to Street C)	55.2	57.6	2.4	No
Gilman Springs Road (Jack Rabbit Trail to Bridge Street)	65.8	67.6	1.8	Yes
Iris Avenue (Kitching Street to Lasselle Street)	63.2	64.1	0.9	No
Iris Avenue (Lasselle Street to Nason Street)	63.1	64.3	1.2	No
Iris Avenue (Nason Street to Oliver Street)	64.7	66.6	2.0	No
Ironwood Avenue (Redlands Boulevard to Highland Boulevard)	58.7	60.8	2.1	No
John F Kennedy Drive (south of Cactus Avenue)	64.5	67.5	3.0	Yes
Krameria Avenue (Perris Boulevard to Lasselle Street)	57.6	58.5	0.9	No
Lasselle Street (Krameria Avenue to Arroyo Park Drive)	60.0	61.0	0.9	No
Live Oak Canyon Road (North of San Timoteo Canyon Road)	64.9	65.9	1.0	No
Live Oak Canyon Road (San Timoteo Canyon Road to I-10)	57.5	59.0	1.5	No
Locust Avenue (Moreno Beach Drive to Smiley Boulevard)	65.4	66.9	1.5	Yes
Locust Avenue (Moreno Beach Drive to Redlands Boulevard)	60.9	62.9	2.0	No
Moreno Beach Drive (John F Kennedy to Oliver Street)	56.9	59.4	2.6	No
Moreno Beach Drive (Locust Avenue to Ironwood Avenue)	63.4	65.1	1.7	No
Oliver Street (Alessandro Boulevard to Cactus Avenue)	54.1	54.3	0.2	No
Redlands Boulevard (Eucalyptus Avenue to Dracaea Avenue)	46.5	48.1	1.6	No
Redlands Boulevard (Ironwood Avenue to SR-60)	69.5	71.0	1.5	Yes
Redlands Boulevard (Ironwood Avenue to San Timoteo Canyon Road)	68.8	70.9	2.1	Yes
Redlands Boulevard (SR-60 to Eucalyptus Avenue)	63.8	67.4	3.6	Yes
San Timoteo Canyon Road (Alessandro Road to Live Oak Canyon Road)	63.6	66.2	2.7	No
San Timoteo Canyon Road (Live Oak Canyon Road to Redlands Boulevard)	64.2	66.7	2.5	No
Street A (Eucalyptus Avenue to Street F)	57.2	73.1	16.0	Yes
Street D (Street E to Cactus Avenue)	0.0	70.6	70.6	Yes
Street E (north of Alessandro Boulevard)	0.0	65.7	65.7	Yes

Table 4.12.J: Buildout Year (2035) Plus Project Traffic Noise Levels (dBA)

Roadway Segment	CNEL (dBA) at 100 feet			
	Without Project	With Project	Change	Substantial Increase?
Street F (east of Street A)	0.0	69.1	69.1	Yes
Sunset Drive (Alessandro Road to Cameo Drive)	57.0	58.2	1.2	No
Sunset Drive (Crown Street to Alessandro Road)	50.7	51.3	0.6	No
Theodore Street (SR-60 to Highland Boulevard)	65.2	66.3	1.2	No
Freeways				
SR-60 (Pigeon Pass Road/Frederick Street to Heacock Street)	67.6	68.6	1.0	No
SR-60 (Heacock Street to Perris Boulevard)	66.6	67.7	1.1	No
SR-60 (Perris Boulevard to Nason Street)	66.5	67.8	1.3	No
SR-60 (Nason Street to Moreno Beach Drive)	54.3	55.6	1.3	No
SR-60 (Moreno Beach Drive to Redlands Boulevard)	65.5	67.1	1.6	Yes
SR-60 (Redlands Boulevard to Theodore Street)	63.7	65.1	1.4	No

Source: Mestre Greve Associates, September 2014.

Increases in noise levels associated with Buildout Year (2035) traffic conditions on area roadways range from 0.1 to 68.0 dBA. As identified in the Table 4.12.J, the greatest increase in noise levels would be along Street D (Street E to Cactus Avenue), Street E (north of Alessandro Boulevard), and Street F west (of Street A), where increases of greater than 65 dBA are predicted for the Buildout Year 2035 With Project scenario over the Buildout Year 2035 Without Project scenario. The increase associated with these roadway segments is attributable in part to Streets D, E, and F being new roads that will be constructed by the proposed project.

Note: A total of 14 road or freeway segments would result in a significant noise increase attributable to the project, resulting in a significant cumulative impact requiring mitigation. These 14 segments were included in the original noise study, and all other impacts identified in the original noise study are unchanged except as noted below.

Tables 4.12.H through 4.12.J identify the noise increases directly caused by the proposed project. These numbers represent the distance from the centerline of the road to the contour value shown. Note that the values given in Tables 4.12.H through 4.12.J do not take into account the effect of any existing noise attenuation in the form of barriers, soundwalls, or topography that may affect ambient noise levels.

For the reader's convenience, the significance threshold for a project-specific roadway noise impact as defined previously is:

- Project induced increase in noise levels by 5 dB or more where the no project noise level is less than 60 CNEL;
- Project induced increase in noise level by 3 dB or more where the no project noise level is 60 CNEL to 65 CNEL; or
- Project induced increase in noise levels by 1.5 dB or more where the no project noise level is greater than 65 CNEL.

For the reader's convenience, the significance threshold for a project's incremental contribution to a cumulative noise increase as defined previously is:

- A project increase of the ambient (cumulative without project) noise level by 1 dB or more, and the predicted future cumulative with project noise levels cause the following cumulative increases:
  - Increase noise levels by 5 dB or more where the existing noise level is less than 60 CNEL;
  - Increase noise levels by 3 dB or more where the existing noise level is 60 to 65 CNEL; or
  - Increase noise levels by 1.5 dB or more where the existing noise level is greater than 65 CNEL.

It should be noted that the same noise increase occurs at all locations along a roadway link. In addition, the noise contours cover a wider area around the local roadways than does the existing condition. State Route 60, however, continues to be the dominant noise source in the area.

In general, the project proposes logistics uses and will not be affected by these noise increases. However, there are a few scattered residences within the project area and adjacent to the WLCSP area that would be affected by the proposed logistics uses.

Within the Specific Plan Area. Existing noise-sensitive uses within the WLCSP area include three groups of residences that may remain with the implementation of the proposed project. The Specific Plan would rezone the properties as Light Logistics, but it is anticipated that the residences may remain for some time. The Light Logistics use is not sensitive to noise. However, the existing residences, as long as they remain, must be considered sensitive land uses.

- *Redlands Boulevard (north of Brodiaea Avenue).* The first group of homes is located east of Redlands Boulevard north of the intersection with Brodiaea Avenue. The traffic on Redlands Boulevard will not increase significantly as a result of the project. Future Street E is proposed to be constructed west of these existing residences. However, as stated in the Noise Study conducted for the Specific Plan, it is likely that there will be intervening buildings and that the distance from Street E will be so great that these homes will not experience significant noise from public roadways. Therefore, impacts are anticipated to be less than significant and no mitigation is required.
- *Street A/Theodore Street (Street B to Street F).* The second group of residences within the Specific Plan area is located on the east side of Street A (Theodore Street) midway between the future Street B and Street F. There are currently two residences in this area. These residences are anticipated to experience noise increases up to 16 dB due to the implementation of the Specific Plan. As a result, existing noise levels at these two residences will be changed significantly. The exact alignment of the roadway is yet to be determined, but the homes may be roughly 100 feet from the centerline on the roadway. As identified in Table 4.12.J, at this distance, the noise level by future year (2035) could be as high as 73.1 CNEL. This level of noise would be above the 65 CNEL threshold and would result in a greater than 1.5 dB noise increase when compared to without project conditions. This is a significant impact requiring mitigation.
- *Street F/Dracaea Avenue (east of Theodore Street).* The third area is a single residence located east of Theodore Street along what is currently Dracaea Avenue (future Street F). Existing conditions identify low levels of traffic noise on Dracaea Avenue. With build out of the project, noise levels would reach as high as 68.1 CNEL. This level of noise would be above the 65 CNEL threshold and result in a greater than 1.5 dB noise increase when compared to without project conditions. Therefore, this is a significant impact requiring mitigation.

Off-Site Areas Adjacent to the Specific Plan Area. For areas adjacent to the Specific Plan area, 18 segments would experience a noise increase that would be greater than significance criteria specified previously. These seven areas are described below.

- *Cactus Avenue (Redlands Boulevard to Street D).* This area is occupied by a small group of single-family homes along Cactus Avenue between the future Street D and Redlands Boulevard. A significant noise increase is projected for all time horizons. Currently, there is no soundwall along these homes. Therefore, this is a significant impact requiring mitigation.
- *Cactus Avenue (west of Redlands Boulevard).* As identified in the noise study, this area shows noise increases ranging from 0.7 dB to 4.2 dB depending on the time horizon. Only the 2035 case results in a significant noise increase.

  Existing residences are located along Redlands Boulevard with rear yards facing Cactus Avenue. Existing 6-foot high soundwalls are located along the residences and rear yard areas are approximately 60 feet from the centerline of the roadway. In buildout year (2035), the noise levels projected for the yard area including the effects of the soundwall are projected to be 66.2 CNEL. This is above the City criteria of 65 CNEL, resulting in a significant impact and mitigation is required.
- *Gilman Springs Road (between Eucalyptus Avenue and Street C, between Jack Rabbit Trail and Bridge Street, and between Bridge Street and SR-79 SB Ramps).* There are three single-family homes scattered along these roadway segments. All of the houses are set back from the roadway, but none has soundwalls. A significant noise increase is projected for at least one of these segments in all time horizons. Therefore, this is a significant impact requiring mitigation.
- *Ironwood Avenue (between Redlands Boulevard and Highland Boulevard).* There are two single-family homes that front onto Ironwood Avenue. There are also two churches along this roadway. A significant noise increase is projected for 2012 with full project build out. Therefore, this is a significant impact requiring mitigation.
- *John F. Kennedy Drive (south of Cactus Avenue).* The residences along John F. Kennedy Drive south of Cactus Avenue will experience significant noise increases in all four time horizons. Similar to the area along Cactus Avenue, this noise increase will be due to cars and light vehicles, and not heavy trucks. The residences along the west side of the roadway are generally depressed with respect to the road and have existing 6-foot soundwalls. Due to the presence of the existing soundwalls and slope conditions, noise levels would be reduced by 6 to 10 dB. This would result in noise levels being below the City threshold of 65 CNEL for residential uses. Therefore, residences on the west side of the street will not be affected. Impacts are considered to be less than significant and no mitigation is required.

  The residences on the east side of the roadway are elevated with respect to the roadway and do not have soundwalls. Rear yards areas on both sides of the street are approximately 60 to 90 feet from the centerline of the roadway and are bordered by wrought iron fencing. As identified in Tables 4.12.H through 4.12.J, the greatest noise levels that would be experienced at these residences would range up to 67.5 CNEL, which is above the City threshold of 65 CNEL. This is a significant impact requiring mitigation.
- *Locust Avenue (between Moreno Beach Drive and Smiley Boulevard).* There are three single-family homes along this roadway and they front onto the roadway. The 2035 time horizon results in a significant noise increase for this area. In 2035, the project will increase noise levels by 1.5 dB, bringing the noise level to 66.9 CNEL. This is a significant impact requiring mitigation.
- *Redlands Boulevard (from Eucalyptus Avenue to State Route 60).* There are scattered homes in this area that either face Redlands Boulevard (or Shubert Street) or are on Redlands Boulevard. The 2012 and 2035 time horizons result in a significant noise increase for this area. This is a significant impact requiring mitigation.
- *Redlands Boulevard (from Ironwood Avenue to State Route 60 and Ironwood Avenue to San Timoteo Canyon Road).* There are approximately 28 homes along this roadway that would be affected. The single-family homes are scattered and generally front the roadway. All time horizons result in a significant noise increase for this area. The increases in noise are around 2

dB with a resultant noise level in the 70 to 71 CNEL range. This is a significant impact requiring mitigation.

- *San Timoteo Canyon Road (from Alessandro Road to Live Oak Canyon Road to Redlands Boulevard).* There are about four scattered residences along this roadway that would be affected. The existing baseline plus project time horizon results in a significant noise increase for this area. The noise increases by up to 3.1 dB with resultant noise levels in the 65 to 66 CNEL range. This is a significant impact requiring mitigation.
- *Theodore Street (State Route 60 to Highland Boulevard).* There are four existing homes on Theodore Street that front onto the roadway. Implementation of the Specific Plan would result in a 7.1 dB increase over baseline conditions (2012), and a 3.1 dB increase in Opening Year (2022). By Buildout Year (2035), the noise increase associated with the proposed project is anticipated to be 1.2 dB, which would not be significant. These existing residences could experience noise levels of 65.0 CNEL in the baseline and 66.3 CNEL in the Year 2035 time horizons which is above the City threshold of 65 CNEL. This is a significant impact requiring mitigation.
- *Street A from Eucalyptus Avenue to Street F; Street E north of Alessandro Boulevard; and Street F east of Street A (2, 4, 19).* There are three groups of homes that may remain within the project area. The analysis shows significant noise increases for all four cases. The proposed Specific Plan designates these properties for Light Logistics uses, but the residences may remain indefinitely. The future Light Logistics use is not sensitive to noise. However, the existing residences, as long as they remain as a non-conforming use, must be considered as a sensitive land use. The first group of homes is east of Redlands Boulevard north of the intersection with Brodiaea Avenue. Street E will be constructed west of these homes. It is likely that there will be intervening buildings and that the distance from Street E will be so great that these homes will not experience significant noise from public roadways.

  The second group of homes is on the east side of Street A (Theodore Street) midway between the future Street B and Street F. There are two homes in this area. Their noise environment will be changed significantly. The exact alignment of the roadway is to be determined, but noise levels could exceed 70 CNEL at the residences. The noise levels at these homes would be unacceptable to the residents, and a significant impact would occur.

  The third area is a single home and lies east of Street A and along Street F. Currently there is essentially no traffic on this street. There is one residence in this area. Depending on the alignment for the street noise levels could exceed 70 CNEL. Since this home will experience a substantial noise increase, this is considered a significant impact.

  It should be noted these homes were evaluated in the original DEIR and their impacts were disclosed on DEIR page 4.12-47.
- *Cactus Avenue Extension (from Street E to Cactus Avenue).* Cactus Avenue Extension, as shown in the Specific Plan, will come down the western side of the project parallel to Merwin Street. It then merges with Cactus Avenue traveling to the west until Redlands Boulevard. A specific alignment has not been determined for this roadway. There are approximately 14 homes that side-on to Merwin Street that could be affected by traffic on Cactus Avenue Extension. There are no soundwalls along these homes. There would be limited or no heavy trucks using this roadway. The 65 CNEL contour will lie 114 feet from the centerline of Cactus Avenue Extension. If the centerline of Cactus Avenue Extension is located closer than 114 feet to the residences, then a significant impact would occur. Outdoor living spaces for homes along Merwin Street would experience noise levels greater than 65 CNEL, and this would not be consistent with City criteria. This is a significant impact requiring mitigation.
- *State Route 60 (from Pigeon Pass Road to Perris Boulevard).* All residential areas along this stretch of freeway have soundwalls in place. The 2012 time horizon results in a significant noise increase for this area. The noise levels are projected to increase by 1.5 to 1.7 dB in this area with

resultant noise levels in the 66.9 to 68.0 CNEL range. This is a significant impact requiring mitigation.

- *State Route 60 (from Moreno Beach Drive to Redlands Boulevard).* There are soundwalls in place for all residences in this area. The existing 2012 and 2035 time horizons result in a significant noise increase for this area, reaching 67.1 CNEL by 2035. This is a significant impact requiring mitigation.
- *State Route 60 (from Redlands Boulevard to Theodore Street).* No soundwalls are present in this area. The residential area is set back from the freeway and is clustered along Redlands Boulevard north of the freeway. The existing 2012 time horizon results in a significant noise increase for this area. The resultant noise level will be 63.5 CNEL with an increase due to the project of 3.4 dB. This is a significant impact requiring mitigation.

Specific Plan Design Features. The WLCSP indicates there will be a 250-foot setback from existing housing along Redlands Boulevard. No additional design features to attenuate noise impacts are planned as part of the WLCSP.

Note: Due to changes in the Specific Plan, Project Traffic Impact Assessment, Project Noise Study, and in response to comments in Letter C-4-2 and F-13-9 and F-13-84, the following mitigation measures have been revised.

Mitigation Measures. Construction of the proposed WLC project would result in noise levels at the closest residences within and adjacent to the WLCSP area exceeding the maximum noise level allowed under the City's Municipal Code. The following measures would reduce long-term traffic related noise impacts associated with the proposed project:

4.12.6.2A When processing future individual buildings under the World Logistics Center Specific Plan, as part of the City's approval process, the City shall require the Applicant to take the following three actions for each building prior to approval of discretionary permits for individual plot plans for the requested development:

Action 1: Perform a building-specific noise study to ensure that the assumptions set forth in the FEIR prepared for the programmatic level entitlement remain valid. These procedure used to conduct these noise analyses shall be consistent with the noise analysis conducted in the programmatic FEIR and shall be used to impose building-specific mitigation on the individually-proposed buildings.

Action 2: If the building-specific analyses identify that the proposed development triggers the need for mitigation from the proposed building, including all preceding developments in the specific plan area, the Applicant shall implement the mitigation identified in the WLC FEIR. Prior to implementing the mitigation, the Applicant shall send letters by registered mail to all property owners and non-owner occupants of properties that would benefit from the proposed mitigation asking them to provide a position either in favor of or in opposition to the proposed noise abatement mitigation within 45 days. Each property shall be entitled to one vote on behalf of owners and one vote per dwelling on behalf of non-owner occupants.

If more than 50% of the votes from responding benefited receptors oppose the abatement, the abatement will not be considered reasonable. Additionally, for noise abatement to be located on private property, 100% of owners of property upon which the abatement is to be placed must support the proposed abatement. In the case of proposed noise abatement on private property, no response from a property owner, after three attempts by registered mail, is considered a *no* vote.

At the completion of the vote at the end of the 45 day period, the Applicant shall provide the tentative results of the vote to all property owners by registered mail. During the next 15 calendar days following the date of the mailing, property owners may change their vote. Following the 15-day period, the results of the vote will be finalized and made public.

Action 3: Upon consent from benefited receptors and property owners, the Applicant shall post a bond for the cost of the construction of the necessary mitigation as estimated by the City Engineer to ensure completion of the mitigation. The certificate of occupancy permits shall be issued upon posting of the bond or demonstration that 50% of the votes from responding benefited receptors oppose the abatement or, if the abatement is located on private property, any property owners oppose the abatement (per Noise Study MM N-8, pg.53).

4.12.6.2B Prior to issuance/approval of any building permits, the centerline of Cactus Avenue Extension will be located no closer than 114 feet to the residential property lines along Merwin Street. An alternative is to locate the roadway closer to the residences and provide a soundwall along Cactus Avenue Extension. The soundwall location and height should be determined by a Registered Engineer, and the soundwall shall be designed to reduce noise levels to less than 65 CNEL at the residences. The Engineer shall provide calculations and supporting information in a report that will be required to be submitted to and approved by the City prior to issuing permits to construct the road (per Noise Study, pg. 51, Cactus Avenue Extension, ID #50).

4.12.6.2C Prior to the approval of any discretionary permits, cumulative impact areas shown in the WLC EIR Noise Study shall be included in the soundwall mitigation program outlined in Mitigation Measures 4.12.6.2A and 4.12.6.2D (per Noise Study MM N-9, pg. 62).

4.12.6.2D Prior to issuance of a building permit, the applicant shall demonstrate that the development maintains a buffer with soundwall for noise attenuation at residential/warehousing interface (i.e., western and southwestern boundaries of the project site). To keep the noise levels at nearby residential areas less than typical ambient conditions, the warehousing property line shall be located a minimum of 250 feet from the residential zone boundary , and a 12-foot noise barrier shall be located along the perimeter of the property that faces any residential areas. The 12 foot noise barrier may be a soundwall, berm, or combination of the two. The height shall be measured relative to the pad of the warehouse. This requirement shall be implemented anytime residential areas are within 600 feet of the warehousing property line to insure that a noise level of 45 dBA (Leq) will not be exceeded at the residential zone. This requirement is consistent with Item 10 of Municipal Code Section 9.16.160 Business park/industrial that states, “All manufacturing and industrial uses adjacent to residential land uses shall include a buffer zone and/or noise attenuation wall to reduce outside noise levels” (per Noise Study MM N-10, pg.62).

Level of Significance after Mitigation. *Within the WLC Specific Plan Area.* For areas within the WLCSP area, three groups of residences may exceed the noise standard with the implementation of the proposed project. The level of significance after mitigation is provided for each of the two areas for which a significant impact has been identified.

- *Redlands Boulevard (north of Brodiaea Avenue).* A group of homes is located east of Redlands Boulevard north of the intersection with Brodiaea Avenue. The traffic on Redlands Boulevard will not increase significantly as a result of the project. Future Street E is proposed to be constructed west of these existing residences. It is likely that there will be intervening buildings and that the distance from Street E will be so great that these homes will not experience significant noise from

public roadways. Therefore, impacts are anticipated to be less than significant and no mitigation is required.

- *Theodore Street/Street A (Street B to Street F).* There are two residences in this area. These residences are anticipated to experience noise increases up to 16 dB due to the implementation of the Specific Plan. As a result, existing noise levels at these two residences will be changed significantly. The exact alignment of the roadway is to be determined, but the homes may be roughly 100 feet from the centerline on the roadway. One residence fronts onto Street A (Theodore Street), and the driveway access would make a soundwall ineffective. The other residence is on to Street A. It is difficult to determine where an outdoor living area is for this residence. However, since it is a single residence, a soundwall would have a limited effectiveness. Since mitigation is not feasible, impacts remain significant and unavoidable.
- *Dracaea Avenue/Street F (east of Theodore Street).* There is one residence in this area fronting onto the future alignment of Street F (currently Dracaea Avenue). Existing conditions identify low levels of traffic noise on Dracaea Avenue. The 65 CNEL contour is projected to lie 84 feet from the centerline of Street F and it is likely that the one residence would lie within this zone. With build out of the project, noise levels would reach as high as 68.1 CNEL, which exceeds the City's 65 CNEL threshold. Installation of a soundwall would not be effective in reducing noise levels due to the opening for the driveway. Since mitigation is not feasible, impacts remain significant and unavoidable.

Off-Site Areas Adjacent to the Specific Plan Area. For areas adjacent to the WLCSP area, seven areas would experience noise increases that would be mitigated to a less than significant level with implementation of **Mitigation Measures 4.12.6.2A** and **4.12.6.2D**. These areas are as follows:

- Cactus Avenue west of Redlands Boulevard;
- Cactus Avenue from Redlands Boulevard to Street D;
- John F. Kennedy Drive, south of Cactus Avenue;
- Moreno Beach Drive between Locust Avenue and Ironwood Avenue (15 of 18 homes);
- State Route 60 from Redlands Boulevard to Theodore Street;
- Iris Avenue from Nason Street to Oliver Street; and
- Street D from Street E to Cactus Avenue (8).

- For the remaining noise impact locations adjacent to the WLCSP area for which significant noise impacts have been identified, mitigation measures are not feasible or will not fully reduce the impact to less than significant levels. Each location that will remain significant and unavoidable with *Gilman Springs Road (between Eucalyptus Avenue and Street C, and between Jack Rabbit Trail and Bridge Street).* There are three single-family homes scattered along these roadway segments. All of the houses are set back from the roadway, but none has soundwalls. A significant noise increase is projected for at least one of these segments in three of the four case years. Homes that are widely separated from other homes cannot be effectively mitigated with a soundwall. Therefore, the significant impact cannot be feasibly mitigated and it will remain significant and unavoidable.
- *Ironwood Avenue (between Redlands Boulevard and Highland Boulevard).* There are two single-family homes that front onto Ironwood Avenue. There are also two churches along this roadway. A significant noise increase is projected for the 2012 time horizon. In 2035, the project is projected to increase noise levels by2.1 dB, bringing the noise level to 60.8 CNEL. Land uses that are widely separated from one another cannot be effectively mitigated with a soundwall. Therefore, the significant impact cannot be feasibly mitigated and it will remain significant and unavoidable.

- *Locust Avenue (between Moreno Beach Drive and Smiley Boulevard).* There are three single-family homes along this roadway and they front onto the roadway. The 2035 time horizon results in a significant noise increase for this area. In 2035, the project will increase noise levels by 1.5 dB, bringing the noise level to 66.9 CNEL. As discussed above, homes that are scattered and front onto a street cannot be effectively mitigated with a soundwall. Therefore, the significant impact cannot be feasibly mitigated and it will remain significant and unavoidable.
- *Redlands Boulevard (Eucalyptus Avenue to State Route 60).* There are scattered homes in this area that either face Redlands Boulevard (or Shubert Street) or are on Redlands Boulevard. The 2012 and 2035 time horizons result in a significant noise increase for this area. Homes that are scattered and front onto a street cannot be effectively mitigated with a soundwall. Therefore, the significant impact cannot be feasibly mitigated and it will remain significant and unavoidable.
- *Redlands Boulevard (State Route 60 to San Timoteo Canyon Road).* There are approximately 28 homes along this roadway that would be affected. The single-family homes are scattered and generally front the roadway. The 2012, 2022, and 2035 time horizons result in a significant noise increase for this area. The increases in noise are around 2 dB with a resultant noise level in the 70 to 71 CNEL range. Homes that are scattered and front onto a street cannot be effectively mitigated with a soundwall. Therefore, the significant impact cannot be feasibly mitigated and it will remain significant and unavoidable.
- *San Timoteo Canyon Road (from Alessandro Road to Live Oak Canyon Road to Redlands Boulevard).* There are approximately four scattered residences along this roadway that would be affected. The existing baseline plus project time horizon results in a significant noise increase for this area. The noise increases by a little over 3.0 dB with resultant noise levels in the 65 to 66 CNEL range. Homes that are scattered and front onto a street cannot be effectively mitigated with a soundwall. Therefore, the significant impact cannot be feasibly mitigated and it will remain significant and unavoidable.
- *Theodore Street (State Route 60 to Highland Boulevard).* The noise analysis indicates that the project will cause a 1.2 dB increase in the year 2035 with a resulting noise level of 66.3 CNEL. There are four existing homes on Theodore Street that front onto the roadway. Homes that are scattered and front onto a street cannot be effectively mitigated with a soundwall. Therefore, the significant impact cannot be feasibly mitigated and it will remain significant and unavoidable.
- *Street A from Eucalyptus Avenue to Street F; Street E north of Alessandro Boulevard; and Street F east of Street A (2, 4, 19).* There are three groups of homes that may remain within the project area. The analysis shows significant noise increases for all four cases. The project would rezone these residences as Light Logistics, but the residences may remain for some time. The Light Logistics use is not sensitive to noise. However, the existing residences, as long as they remain, must be considered as a sensitive land use. The first homes are east of Redlands Boulevard north of the intersection with Brodiaea Avenue. Street E will be constructed west of these homes. It is likely that there will be intervening buildings and that the distance from Street E will be so great that these homes will not experience significant noise from public roadways.

  The second group of homes is on the east side of Street A (Theodore Street) midway between the future Street B and Street F. There are two homes in this area. Their noise environment will be changed significantly. The exact alignment of the roadway is to be determined. The noise levels at these homes would be unacceptable to the residents, and a significant impact would occur. As discussed above homes, that front onto a street or scattered homes cannot be effectively mitigated with a soundwall. Therefore, there is no feasible mitigation and this impact would remain significant and unavoidable.

  The third area is a single home and lies east of Street A and along Street F. Currently there is essentially no traffic on this street. There is one residence in this area. Since this home will experience a substantial noise increase, this is considered a significant impact. All of these homes will either front onto the roadway or are scattered. As discussed above homes, that front

onto a street or scattered homes cannot be effectively mitigated with a soundwall. Therefore, there is no feasible mitigation and this impact would remain significant and unavoidable.

- *Cactus Avenue Extension (Street D) from Street E to Cactus Avenue.* Cactus Avenue Extension, as shown in the Specific Plan, will come down the western side of the project parallel to Merwin Street and roughly 1,250 feet from Merwin Street. It then merges with Cactus Avenue traveling to the west until Redlands Boulevard. A specific alignment has not been determined for this roadway. There would be essentially no heavy trucks using this roadway. There are approximately 14 homes that side-on to Merwin Street that could be affected by traffic on Cactus Avenue Extension. There are no soundwalls along these homes. The noise forecast shows that the 65 CNEL contour will lie 114 feet from the centerline of Cactus Avenue Extension. If the centerline of Cactus Avenue Extension is located closer than 114 feet to the residences, then a significant impact would occur. Outdoor living spaces for homes along Merwin Street would experience noise levels greater than 65 CNEL, and this would not be consistent with City criteria. Due to the distance from the currently envisioned between Merwin Street and Cactus Avenue Extension, it is most likely that no soundwall will be needed. If a soundwall was needed, a preliminary estimate indicates that the soundwall along Cactus Avenue Extension would need to be roughly 2,000 feet.

4.12.6.3 Long-Term Operational Noise Impacts

Threshold	Would the project cause exposure of persons to or generation of noise levels in excess of standards established in the *City of Moreno Valley General Plan, Moreno Valley Municipal Code*, or applicable standards of other agencies?

Potential long-term stationary noise impacts would primarily be associated with operations at logistics facilities within the WLCSP area. Logistics facility uses would generate noise from truck delivery, loading/unloading activities at the loading areas, heating, ventilation, and air-conditioning (HVAC) equipment and other noise-producing activities within the parking lot (e.g., doors slamming, vehicle engine start-ups, and conversing in the parking lot). These activities are potential point sources of noise that could affect noise-sensitive receptors adjacent to the loading areas and parking lots. As noise spreads from a source, it loses energy; therefore, the farther away the noise receiver is from the noise source, the lower the perceived noise level would be.

Noise levels were measured at similar facilities to determine representative noise levels that might be generated by this type of activity. Noise measurements were made at two facilities; specifically, Lowes Distribution Center (3984 Indian Avenue, Perris, CA) and Ross Distribution Center (3404 Indian Avenue, Perris, CA). Based on these representative noise measurements, Table 4.12.K provides the noise levels for various distances from the warehouse property line with no noise barrier in place and with an assumed 12-foot noise barrier.

Table 4.12.K: Representative Noise Levels for Warehousing Activities

Distance from Facility (feet)	Noise Level (dBA L_{eq})	
	No Barrier	With 12-foot barrier
50	56.9	48.6
100	54.9	47.8
250	50.8	44.7
500	46.6	40.9

Source: Mestre Greve Associates, September 2014.

The City of Moreno Valley Noise Ordinance requires that noise levels remain below 55 dBA (L_{eq}) during nighttime hours. To achieve this noise level, the warehouse property line would only need to be 100 feet from the nearest residential property and no soundwall would need to be present.

Another consideration is whether the proposed activity levels will be substantially higher than current ambient conditions. No matter what is developed in the Specific Plan area, ambient conditions would be higher in future years due to higher levels of traffic and activity. Ambient noise levels were measured at seven sites that could border the World Logistics Center (i.e., Measurement Sites 3 through 9). The nighttime ambient noise levels (L_{eq}) ranged from 35.8 to 61.8 dBA with an average for the sites of 46.6 dBA. To keep the noise levels at nearby residential areas less than typical ambient conditions, the logistics property line should be located a minimum distance of 250 feet and a 12-foot soundwall should be located along the perimeter of the property that faces any residential areas. This would keep the logistic use noise to less than 45 dBA (L_{eq}) at the residences. The implementation of this buffer between logistics uses and noise sensitive uses has been included as **Mitigation Measure 4.1.6.1A**.

Specific Plan Design Features. The WLCSP indicates there will be a 250-foot building setback from residentially zoned property along Redlands Boulevard, Bay Avenue, and Merwin Street.

Level of Significance after Mitigation. Implementation of **Mitigation Measure 4.1.6.1A** would eliminate any noise impacts on residential areas due to the operation of logistic activities. Through the provision of a 250-foot buffer, berms, and/or soundwalls, noise levels at the nearest residences would be reduced to below the City's thresholds. Therefore, with adherence to the identified mitigation measure, impacts associated with this issue would be less than significant.

4.12.6.4 Long-Term Utility Noise Impacts

Threshold	Would the project cause exposure of persons to or generation of noise levels in excess of standards established in the *City of Moreno Valley General Plan, Moreno Valley Municipal Code*, or applicable standards of other agencies?

As illustrated in previously referenced Figure 4.12.3 and Figure 4.12.6, there is one existing SDG&E compressor station and two existing SCGC facilities located within the WLC Specific Plan area.

Based on preliminary calculations as illustrated in Figure 4.12.3, the worst-case compressor station operational characteristics will result in a maximum noise level just above 65 CNEL within the project area proposed for development (i.e., not open space). Typical commercial construction results in buildings that achieve at least a 20 dB reduction of outdoor noise levels. Therefore, an office use exposed to the highest noise level from the compressor station will be just above 45 CNEL and below the 50 CNEL limit prescribed by the City's General Plan, resulting in a less than significant impact and no mitigation is required.

As illustrated in previously referenced Figure 4.12.4, the L_{eq} noise level generated by the compressor station does not exceed 60 dBA L_{eq} beyond the property lines of the facility. Therefore, the compressor station is not considered a noise disturbance based on City criteria. Operation of the compressor station would not result in any interior noise levels exceeding the limits established by the City in the General Plan. Therefore, noise impacts associated with the operation of the compressor station would be less than significant and no mitigation is required.

As identified in previously referenced Figure 4.12.5, the maximum noise level from a blow-down at the SDG&E compressor station within the WLCSP area proposed for development (i.e., the Logistics

Development land use) is 100 dBA. A person would need to be exposed to this level for more than two hours in a day before permanent hearing loss would be expected. As discussed above, blow-down events at the SDG&E compressor station typically do not last longer than 90 seconds. Therefore, the SDG&E blow-down events will not result in a significant impact to the uses proposed within the WLCSP area, and no mitigation is required.

For SCGC blow-down events, noise generated could reach as high as 130 dBA just outside the fence line of the southern facility and in excess of 135 dB just outside the fence line of the northern facility. People within approximately 250 feet of the blow-down points would be exposed to noise levels greater than 115 dBA, which would likely cause permanent hearing damage regardless of the exposure time. The SCGC blow-downs could last as long as 90 minutes. It is anticipated that people exposed to noise levels greater than 102 dBA, within approximately 1,300 feet from the blow-down point could experience permanent hearing loss based on this event duration. Noise generated by SCGC blow-down events has the potential to cause permanent hearing loss in persons in the developed area of the project. This is a significant impact and mitigation is required.

SCGC blow-down events also have the potential to produce groundborne vibration. However, the effect of the blow-down groundborne vibration would be limited to within 100 feet of the equipment and would not be perceived beyond the facility fenceline, resulting in a less than significant impact and no mitigation is required.

Specific Plan Design Features. The WLCSP provides a setback of open space and a street between the SCGC facility and planned warehouse buildings in the WLCSP. However, the separation may not be sufficient to prevent significant noise impacts during blow-down events. According to the project noise assessment, a 40 dB reduction in existing noise levels from the blow-down facilities would be needed to ensure there would be no significant noise impacts on workers or other persons within 1,300 feet of the blow-down facilities (FEIR Volume 2 Appendix K).

Note: The changes to the following mitigation measure have been made in response to Comment C-4-2 in Letter C-4 from Semper Energy, and the revised noise study.

Mitigation Measures. Operation of the proposed WLC project could result in exposure of people to noise levels as high as 130 dBA or greater during SCGC blow-down events. The following measure would reduce long-term utility related noise impacts associated with the proposed WLC project:

4.12.6.4A Prior to the issuance of building permits for projects within 1,300 feet of the Southern California Gas Company (SCGC) and San Diego Gas and Electric (SDG&E) blow-down facilities, documentation shall be submitted to the City confirming that sound attenuation devices and/or improvements for the blow-down facilities providing at least a 40 dB reduction in noise levels during blow-down events are available and will be installed for all planned blow-down events. It shall be the responsibility of the developer to fund all sound attenuation improvements to the blow-down facilities required by this measure. It shall also be the responsibility of the developer to coordinate with San Diego Gas and Electric and/or Southern California Gas Company regarding the installation of any sound attenuation devices or improvements on the blow-down facilities at either the San Diego Gas and Electric compressor station or the Southern California Gas Company pipelines. This measure shall be implemented to the satisfaction of the City Land Management Division (per Noise Study MM N-11, pg.65).

Level of Significance after Mitigation. The SCGC blow-down equipment does not currently include a permanent silencer system. A review of the literature of a leading manufacturer of specialty silencer

systems (Industrial Acoustics Company) determined that a specialty silencer system added to the blow-down equipment could reduce noise levels by about 40 dB. With a silencer system providing 40 dB of noise reduction, blow-down noise levels would be less than 102 dBA approximately 30 feet from the blow-down point, which is within the property line of these facilities. 102 dBA is the noise level that could be experienced for up to 90 minutes without causing permanent hearing loss. Therefore, while occupants within the WLCSP in close proximity to the SCGC facilities would be subject to high noise levels during these infrequent noise events, they would not be subject to any permanent hearing damage. With implementation of **Mitigation Measure 4.12.6.4A**, SCGC blow-down events would not result in noise levels that could cause permanent hearing loss and the project would not be significantly affected by noise from the SCGC facilities, resulting in a less than significant impact.

4.12.7 Cumulative Impacts

The cumulative area for noise impacts is the City of Moreno Valley. Implementation of the Specific Plan would result in the introduction of new noise sources and levels from on-site activities and from increased traffic volumes on vicinity roadway and freeways.

Construction crew commutes and the transport of construction equipment, and materials to the WLCSP area would incrementally increase noise levels on access roads leading to the site. Secondary sources of noise would include noise generated during excavation, grading, and building erection on the project site. The net increase in project site noise levels generated by these activities and other sources has been quantitatively estimated and compared to the applicable noise standards and thresholds of significance. Although it is not possible to predict if contiguous properties may be constructed at the same time and create cumulative noise impacts that would be greater than if developed at separate times, it is unlikely that adjacent properties will be developed at the same time as the Specific Plan area. However, in the unlikely event that adjacent properties are developed at the same time as the proposed WLC project, adherence to the City's Municipal Code provisions that regulate construction activities and other development standards would render the cumulative impacts of the proposed project to less than significant levels.

The noise analysis contained in this section also provides an assessment of on-site operational noise level impacts on adjacent sensitive uses, both existing and future. Additionally, on-site operational noises are individual noise occurrences and are not typically additive in nature. It is extremely unlikely that adjacent properties will generate noises that would be additive in nature because of two important reasons. First, the noise sources would have to be adjacent or in close proximity to one another in order for the noises to intermingle. Second, the sensitive receptor or receptors would also have to be adjacent to or in close proximity to the noise generators. Although it is not possible to predict if contiguous or proximate properties may generate noise at the same time that would be additive in nature and thus create a significant cumulative noise impact at sensitive receptors, adherence to the City's Municipal Code provisions that regulate nuisance noise from land uses and other development standards would render the cumulative impacts of the proposed project to less than significant levels.

Cumulative traffic volumes contained in the TIA were developed for the Future Year 2022 and Buildout 2035 analysis time horizons. Traffic volumes for each time horizon were developed utilizing a combination of various future traffic growth methods as follows. For Future Year 2022, traffic volumes were developed by interpolating year 2035 traffic volume projections from the Riverside County Transportation and Analysis Model (RivTAM) to year 2022 plus traffic from a list of past, present, and reasonably foreseeable projects. For Buildout Year 2035, traffic volumes were developed by utilizing the year 2035 traffic volume projections from the RivTAM plus traffic from a list of past, present, and reasonably foreseeable projects.

Cumulative noise impacts associated with roadway noise have been addressed based on the cumulative traffic volumes. Previously referenced Table 4.12.J provides a comparison of Buildout Year (2035) without and with project noise levels, and if a significant impact (project-specific or cumulatively significant) occurs.

The project calls for improvements to several of the roadways around the project area in order to accommodate the projected increase in project traffic volumes. There are no new noise-sensitive land uses proposed to be constructed within the area of analysis. However the presence of residential uses occurs within the WLCSP project and nearby area. These roadway segments are analyzed against the thresholds for determining significant impacts defined previously in Section 4.12.6.2. As described previously in Section 4.12.4, the project's incremental contribution to a cumulative noise increase would be considered cumulatively considerable and significant when ambient noise levels affect noise-sensitive land uses and when the proposed project increases noise levels by 1 dB or more over pre-project conditions and the predicted future cumulative with project noise levels cause the following cumulative increases:

- Increase noise levels by 5 dB or more where the existing noise level is less than 60 CNEL;
- Increase noise levels by 3 dB or more where the existing noise level is 60 to 65 CNEL; or
- Increase noise levels by 1.5 dB or more where the existing noise level is greater than 65 CNEL.

Cumulative noise impacts associated with roadway noise have been addressed based on the 2022 and 2035 time horizons analyses contained in Section 4.12.6.2. As identified in the preceding analysis, Table 4.12.J shows the Buildout Year 2035 CNEL values without and with the proposed project and if a significant impact would be produced based on the project-specific significance criteria identified in Section 4.12.4 and the cumulatively significant significance criteria identified in Section 4.12.4 and repeated above. Traffic noise level increases from the existing baseline condition and the future (2022 and 2035) time horizons are attributable to the intermingled effects of both the cumulative (i.e., past, present, and reasonably foreseeable projects) development projects in the project vicinity and region as well as the proposed project. As indicated in Section 4.12.6.2, roadway noise impacts have been identified and **Mitigation Measures 4.12.6.2A** and **4.12.62D** have been presented to reduce roadway noise impacts to the greatest extent feasible. As disclosed in Section 4.12.6.2, there are numerous instances in which there is no feasible means to reduce roadway noise impacts because of the existing developed nature of the affected roadway segment and/or the scattered nature of the sensitive receptors (i.e., residences), which prohibits the effectiveness of a soundwall. Therefore, no significant cumulative noise impacts would occur after implementation of the proposed mitigation measures. For those segments at which there is a cumulatively considerable impact and there is no feasible means to provide mitigation, the significant cumulative impact will remain significant and unavoidable.

4.13 POPULATION, HOUSING, AND EMPLOYMENT: TABLE OF CONTENTS

TABLES

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Note to Reader: *The following Section 4.13 has been revised based on revisions to the Specific Plan project size. The section has also been revised to provide clarification in response to comments made about data consistency.*[1]

4.13 POPULATION, HOUSING, AND EMPLOYMENT

This section identifies population and housing conditions within the City of Moreno Valley and addresses potential impacts that may result from the construction and operation of the proposed WLC project. The analysis is based in part on population and housing projections identified by the California Department of Finance (DOF), Southern California Association of Governments (SCAG), as well as information contained in the City's General Plan.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 30 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.

The analysis contained in this section is based in part on the following reference documents:

- *Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California*, David Taussig & Associates, Inc., original dated January 2012, updated September, 2014.
- *Moreno Valley Economic Development Strategy,* John Husing, Ph.D., presentation to City Council January 18, 2012.

[1] Mainly *Letter G-95 from Thomas Thornsley.*

- *City of Moreno Valley Draft Housing Element 2008 – 2014,* City of Moreno Valley, February 2011.
- *Economic Impacts the World Logistics Center, PowerPoint presentation to the City Council,* Beacon Economics, January 2013.

4.13.1 Existing Setting

4.13.1.1 Population Characteristics

The U.S. Census as reported by the DOF estimates the City's current (2011) population at 194,451 persons.[1] SCAG projections estimate the population of the City, Riverside County, and southern California (SCAG) regions will continue to grow. The SCAG projects the City's population will grow to 213,700 persons by the year 2020 and 255,200 persons by the year 2035 (Table 4.13.A).

Table 4.13.A: Population, Housing, and Employment Forecasts

	2011	2020	2035
Population [2]			
City of Moreno Valley	194,451	213,700	255,200
Riverside County	2,205,731	2,592,000	3,324,000
SCAG	18,163,664	19,663,000	22,091,000
Housing Units [2]			
City of Moreno Valley	55,635	60,000	72,800
Riverside County	804,913	834,000	1,092,000
SCAG	6,348,741	6,458,000	7,325,000
Employment[1]			
City of Moreno Valley	25,120	48,000	64,400
Riverside County	551,492	939,000	1,243,000
SCAG	7,224,670	8,414,000	9,441,000

Sources:
1 2011 Employment data for the City and County is based on the *Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California*, September 2014.
2 *2011 Employment and Housing data for City and County based on the E-5 Population and Housing Estimates, for Cities, Counties, and the State, 2011–2013, with 2010 Benchmark, State of California Department of Finance, http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php, website accessed February 7, 2014. Draft 2012 RTP Growth Forecast*, Southern California Association of Governments, http://www.scag.ca.gov/forecast/index.htm, date accessed March 15, 2012

4.13.1.2 Housing Characteristics

The number of housing units in the City has increased to accommodate the City's growing population (Table 4.13.B). Currently, the DOF identifies that over three-quarters of the existing housing units in the City are single-family detached units (Table 4.13.C). Multiple-unit dwellings comprise approximately 15 percent of the City's current housing stock.

[1] E-5 Population and Housing Estimates, for Cities, Counties, and the State, 2011–2013, with 2010 Benchmark, State of California Department of Finance, http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php, May 2011, website accessed February 7, 2014.

Table 4.13.B: City of Moreno Valley Housing Units, 1990, 2000, and 2010

Year	Housing Units	Increase (%)
1990	37,945[1]	—
2000	41,462[2]	9.3
2010	55,559[3]	25.4

[1] City of Moreno Valley Draft Housing Element 2008 – 2014. City of Moreno Valley. February 2011.
[2] California Department of Finance: California State Data Center. Data derived from Housing Characteristics, 2000 Census of Population and Housing
[3] State of California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State, 2011–2013, with 2000 Benchmark. Sacramento, California, May 2013.

Table 4.13.C: Composition of the Housing Stock, 2010

Housing Type	City of Moreno Valley	
	Number of Units	Percentage
Single-Family, Detached	44,842	80.7%
Single-Family, Attached	1,127	2.0%
2- to 4-Unit Structure/ 5- or More Unit Structure	8,226	14.8%
Mobile Home	1,364	2.5%
Total	**55,559**	**100%**

Source: *State of California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State, 2011–2013, with 2000 Benchmark. Sacramento, California, May 2010*.

4.13.1.3 Employment Characteristics

As identified in Table 4.13.A, approximately 25,120 jobs were located within the City in 2011. Based on available data from 2012 (SCAG 2013), the largest share of Moreno Valley's jobs were in the education sector (41.5%). The top four employment sectors, education (41.5%), retail trade (17.8%), leisure/hospitality (10.8%), and professional and management (6.0%) accounted for three-fourths of jobs in the City. Table 4.13.D provides a breakdown of the percentage by job type for the most recent available data (2013). The Husing Report presented to the City Council in January 2012 also indicated that medical services and logistics were two of the few employment categories to show significant growth during the economic downturn starting in 2008 (Husing 2012).

NOTE: This table had been updated based upon the updated Profile of the City of Moreno Valley, by the Southern California Association of Governments 2013.

Table 4.13.D: City of Moreno Valley 2012 Employment Percentage by Sector

Job Sector	Percentage of Employees
Education	41.5%
Retail Trade	17.8%
Leisure/Hospitality	10.8%
Professional and Management	6.0%
Public Administration	5.0%
Manufacturing	3.7%
Finance/Insurance/Real Estate	3.2%
Other Services	3.6%
Construction	3.1%

Table 4.13.D: City of Moreno Valley 2012 Employment Percentage by Sector

Job Sector	Percentage of Employees
Transportation/Warehousing/Utilities	2.7%
Wholesale	1.6%
Information	0.8%
Agriculture	0.3%
TOTAL	100%

Source: *Profile of the City of Moreno Valley,* Southern California Association of Governments, *http://www.scag.ca.gov/Documents/MorenoValley.pdf,* date accessed February 7, 2014.

The jobs-to-housing ratio measures the extent to which job opportunities in a given geographic area are sufficient to meet the employment needs of area residents. This ratio identifies the number of jobs available in a given region compared to the number of housing units in the same region. For example, a region with a jobs-to-housing factor of 1.5 would indicate that 1.5 jobs exist for every housing unit within that region. The standard used for comparison is the jobs-to-housing ratio of the SCAG region, is currently 1.24 jobs for every household. This standard is used because most residents of the region are employed somewhere in the SCAG region. A City or sub-region with a jobs-to-housing ratio lower than the overall standard would be considered a "jobs poor" area, indicating that many of the residents must commute to places of employment outside the sub-area. Table 4.13.E shows the current and potential jobs/housing ratios for the City, Riverside County, and SCAG.

Table 4.13.E: Existing and Future Jobs/Housing Ratios1

	2011 Jobs/Housing Ratio	2035 Jobs/Housing Ratio
City	0.45	0.88
Riverside County	0.69	1.14
SCAG	1.14	1.29

[1] Ratios calculated from values listed in Table 4.13.A

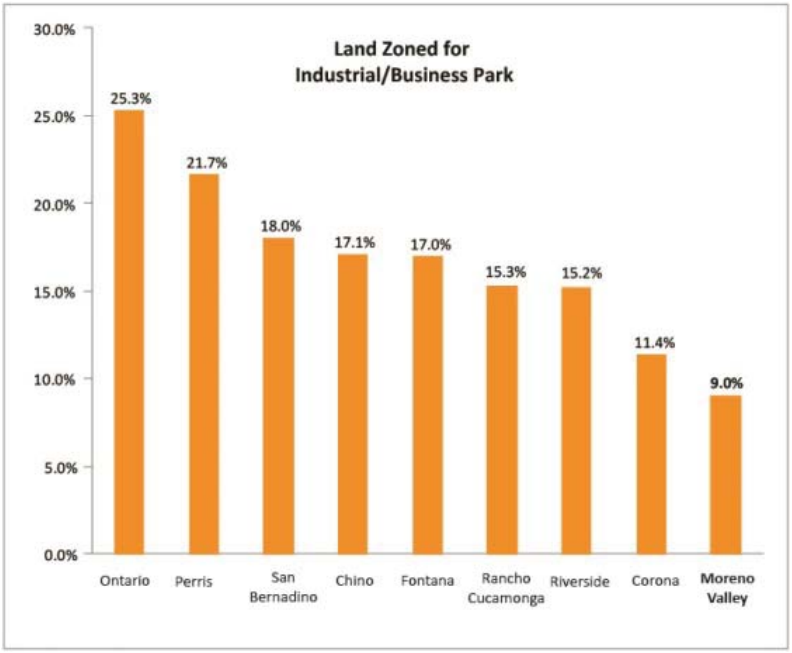
The 2011 estimated jobs-to-housing ratios for the City, County, and SCAG region are 0.45, 0.69, and 1.14, respectively. The 2035 future jobs-to-housing ratios for the City, County, and SCAG region are 0.88, 1.14, and 1.29, respectively. These ratios indicate that both Riverside County and the City of Moreno Valley are "jobs poor" because the jobs-to-housing ratios are below the Southern California region (as defined by SCAG). The Husing Report presented to the City Council in January 2012 indicated that the jobs to housing ratio for Southern California had actually declined from 1.25 to 1.04 from 2007 to 2010 as a result of the economic downturn (Slide 7, Husing 2012).

A low jobs/housing ratio results in longer distances that residents of Moreno Valley must drive to and from work. This factor may contribute to the City's property values which are currently about half of the regional average (Source: *Profile of the City of Moreno Valley*, SCAG, May 2013). For example, the median home sales price in Moreno Valley in 2010 was $155,000 compared to the regional average of $291,000. One result of a jobs/housing imbalance is a weaker or lower tax base with which to support public services. The City also experiences a large "leakage" of potential sales tax revenue due to the resident workers' absence during workdays, as well as the lack of business and industry taxes compared to other jurisdictions of similar size.

4.13.1.4 City Economic Conditions

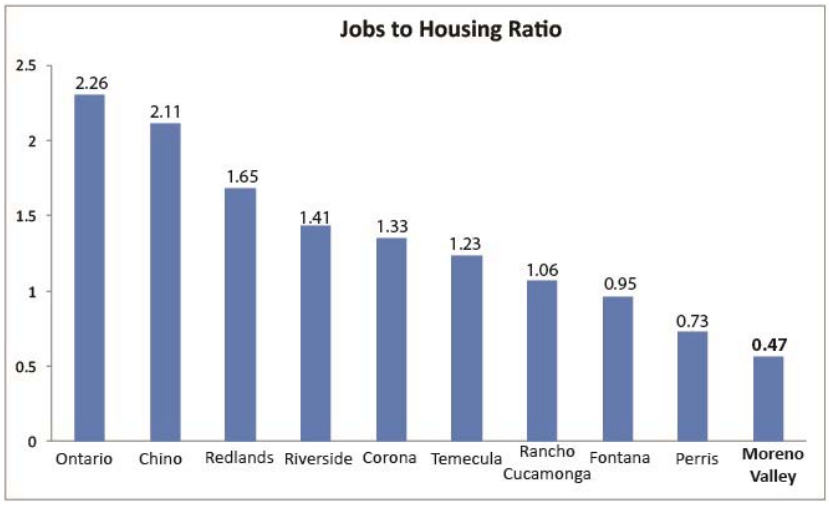
Moreno Valley is Riverside County's second largest city with a population of nearly 200,000 people (2012) and a land area of more than 50 square miles. The City incorporated in 1984. The majority of the land in the City was designated for residential development. Over the years, the plan for Moreno

Valley has remained overwhelmingly residential in character. Little of the City's area (approximately 9%) is allocated for job producing land uses today. More than 90 percent of the City is designated for non-commercial land uses such as residential, open space and parks[1]see figure below:



Comparison of Land Zoned for Industrial/Business Park
(Moreno Valley Economic Development Action Plan, 2011)

Moreno Valley has less than one job for every two homes (0.47), which is about one-third of Riverside's rate and about one-fifth of Ontario's, see figure below:[2]



Comparison of Jobs to Housing Ratios *(SCAG City Profiles, May 2013; Fiscal and Economic Impact Study, David Taussig & Associates, 2014)*

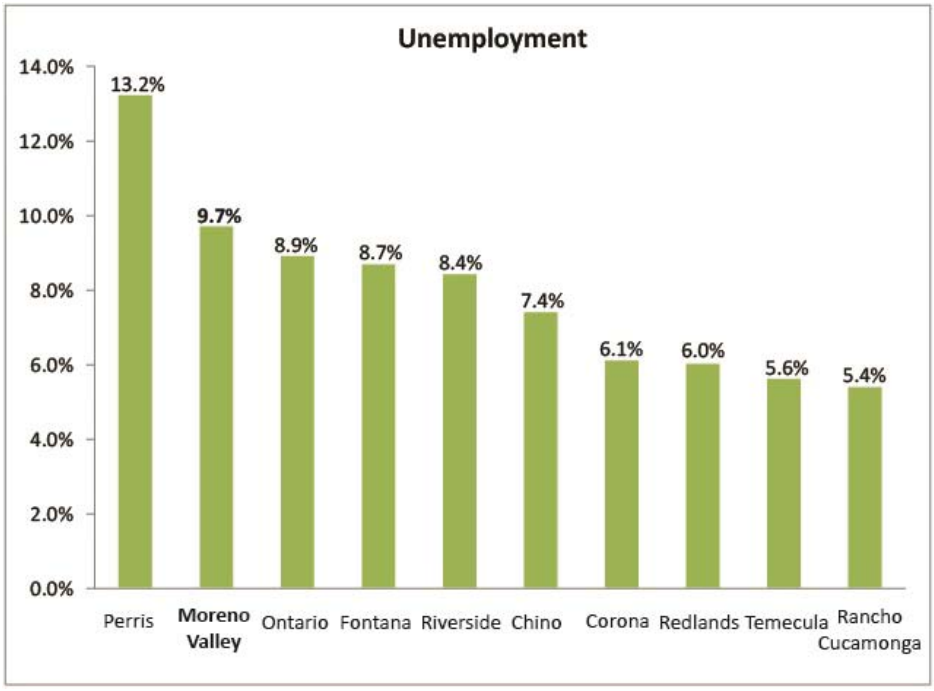
1 City of Moreno Valley Economic Development Action Plan, 2011
2 SCAG City Profiles, May 2013; Fiscal and Economic Impact Study, David Taussig & Associates, September 2014

This has created a significant jobs-housing imbalance which resulted in chronically difficult economic and social conditions. As a result, a large majority of Moreno Valley's workforce commutes to jobs outside the City, with an average daily commute of 76 minutes.[1] The City has a very limited tax base from which to generate tax dollars to fund expensive residential services. In 1996, the City enacted a utility tax to offset operational deficits resulting from the slowdown in residential development and the development fees which they provided.

> "The city became burdened with too much residential development, which does not generate enough property tax revenue to pay for the city services such development demands. Every new home constructed drained the city's coffers over time, and the city needed the more lucrative tax base of commerce and industry—which hasn't developed—to make up the difference." *Los Angeles Times*, October 28, 1996

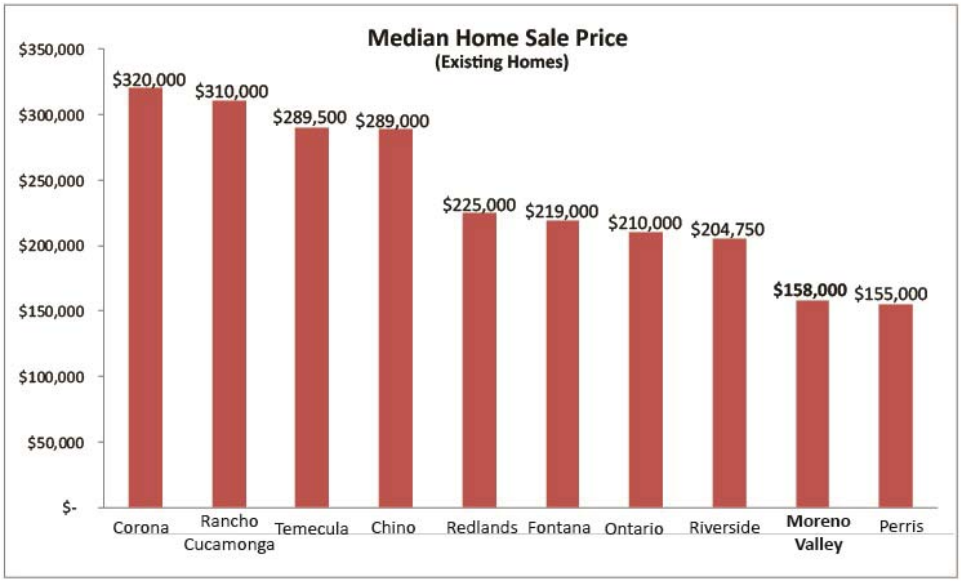
Average household income in Moreno Valley is $56,000, well below the Riverside County average. Nearly one person in five or 20 percent of Moreno Valley is living below the poverty level.[2] Fifty percent of the population has a high-school education or less and Moreno Valley has one of the highest high-school drop-out rate in the county.

Unemployment in Moreno Valley remains the highest in the region at 9.7 percent[3] and median house prices are among the lowest in the Inland Empire at $158,000.[4] See figures below:



Comparison of Unemployment Rates *(Monthly Labor Force Data for Cities, California Employment Development Department, April 2014)*

1 SCAG, Profile of the City of Moreno Valley, May 2013
2 Husing, Press Enterprise Letter to the Editor, May 15, 2014
3 California Employment Development Department, April 2014
4 *(SCAG City Profiles, May 2013)*



Comparison of Median Home Sale Prices
(SCAG City Profiles, May 2013)

In April of 2011, the City adopted a 2-year Economic Development Action Plan as a short-term and long-term approach to the difficult economic conditions facing the City. The logistics and healthcare industries were identified as the two primary areas of opportunity for the City. The Action Plan focused on five areas of opportunity in the City and established key initiatives for each one. In April 2013 the City conducted additional public hearings and adopted a 3-year Action Plan which established fourteen objections aimed at increasing the City's overall economic development efforts and expanded these efforts to nine areas in the City. The World Logistics Center project is identified as one of the Action Plan's goals for eastern Moreno Valley. The World Logistics Center project directly responds to the City's Action Plan, representing a major shift in the City's approach to long-range community planning and economic stability.

4.13.1.5 Economic Assessment Factors

The *Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California* (David Taussig & Associates, Inc. (DTA), 2014) prepared for the proposed WLC project evaluates the likely fiscal and economic impacts of the proposed WLC project within the City. The following information is from the Executive Summary of the DTA study:

> The purpose of the study is to estimate the net fiscal impacts of the proposed WLC project and construction of the project on the City's General Fund. The fiscal impacts identified in the study include recurring municipal revenues and costs to the City General Fund that result from the land use scenario analyzed. City General Fund revenues are generated from a variety of sources including property taxes, sales taxes, fees, and fines. Costs to the City's General Fund are associated with a variety of services, such as police protection, fire protection, public works maintenance, and general government services. While the City also expends revenues from a series of other special funds outside of the General Fund, these revenues include a Moreno Valley Library property tax, Community Services District and Community Facilities District assessments and special taxes, and various enterprise funds. As these revenues are generally equal to the cost of the services that they finance, they are essentially break-even and are not typically included in a fiscal analysis for a municipality. As a result, most fiscal analyses focus on

the General Fund, where any shortfalls or surpluses can be easily identified, and such is the case for this Study.

However, in preparing the World Logistics Center's (the Center) fiscal analysis, DTA did notice certain anomalies occurring related to the Moreno Valley Fire property tax, in that the revenues generated by this special fund appear to be greater than the fund's expenditures on fire services to be provided by the City to the Center. While the projected fiscal surplus generated by the Moreno Valley Fire property tax fund was not included in the General Fund analysis, DTA felt that a brief discussion of this revenue source within the text of the Study would better inform the public regarding the entire fiscal impact of the Center on the City.

The fiscal analysis focuses on the impacts of the Center on the General Fund if it were built during fiscal year 2012-13, based on cost and revenue criteria and assumptions existing during that fiscal year. As is the case for most General Fund fiscal analyses, it would be speculative to *Fiscal & Economic Impact Study May 21, 2014 World Logistics Center – City of Moreno Valley Page II* project future cost and revenue factors because there is no certainty regarding what those factors will be. For example, while the City will be increasing its annual costs as it eliminates a furlough program that it established during the Great Recession, the Center itself is expected to generate additional revenues in future fiscal years due to increases in logistics facilities property values above the $90 per square foot assumed in the Study. Based on a recent appraisal prepared by Coldwell Banker, the Center site's property valuation has already increased by more than 10%. Assumptions made regarding the relative levels of cost and revenue increases for factors such as these in future years would typically create a bias in the fiscal analysis that could in itself invalidate the results of the Study.

The DTA study also identifies the general economic impacts on the City that would occur and quantifies these impacts wherever possible. General economic impacts include additions to the City's employment, economic output, and earnings. The study also distinguishes between one-time impacts and permanent impacts. One-time impacts include benefits to the City that occur on a non-recurring basis as a result of construction activity, while permanent impacts refer to benefits that occur on a continuing basis, year after year. An examination of these conditions relative to potential population, housing and employment impacts is provided in Section 4.13.5.1, *Population Growth*.

4.13.1.6 NOP/Scoping Comments

A representative of a conservation group and several individuals said the EIR should address the loss or transfer of 7,700 housing units from the Moreno Highlands Specific Plan to other locations in the City. Some residents commented that fiscal commitments by the City on other local projects by this developer have resulted in expenditures of funds that could otherwise have been used for City services. It should be noted the analysis of this change was largely addressed in the updated (2011) Housing Element that recognized the Moreno Highlands Specific Plan would probably not be built.

4.13.2 Existing Policies and Regulations

4.13.2.1 Federal Regulations

The Federal Community Development Block Grant (CDBG) monies are part of Federal housing assistance programs at the local level. Housing and Urban Development (HUD) and CDGB monies are a function of the potential change in the jobs and housing mix (http://www.hud.gov/offices/cpd/about/conplan/). The HUD's Office of Community and Planning Development's (CPD's) Consolidated Plan is designed to help states and local jurisdictions to assess their affordable housing and community development needs and market conditions, and to make data-driven, place-based investment decisions. The consolidated planning process serves as the framework for a

communitywide dialogue to identify housing and community development priorities that align and focus funding from the four CPD formula block grant programs: the CDBG, the HOME Investment Partnership (HOME), the Emergency Solutions Grant (ESG) program, and the Housing Opportunities for Persons with AIDS (HOPWA) program.

CPD Maps is an online data mapping tool for place-based planning. Grantees and the public can use CPD Maps to analyze and compare housing and economic conditions across their jurisdictions. The CPD Maps tool is publicly available, giving all community stakeholders access to the same data. The Consolidated Plan template allows grantees to insert maps and data tables from CPD Maps with ease, throughout their plans.

4.13.2.2 State Regulations

The Regional Housing Needs Assessment (RHNA) is mandated by State Housing Law as part of the periodic process of updating local housing elements of the General Plan. The RHNA quantifies the need for housing within each jurisdiction during specified planning periods. The most recently completed RHNA planning period is January 1, 2006, to June 30, 2014. Due to the requirements of SB 375, SCAG is preparing the next RHNA planning cycle, which will cover October 1, 2013, to September 30, 2021.

4.13.2.3 Regional and Local Regulations

County of Riverside Housing and Land Use Policies. The Housing Element is one of the seven General Plan elements mandated by the State of California as articulated in Sections 65580 and 65589.8 of the Government Code. Each city and county is required to discuss how it will meet its fair share of the housing need in the State.

The County of Riverside has a relevant policy in the Land Use Element of the County General Plan. To support future growth of the population and housing stock in the County of Riverside, the Land Use Element contains policies to ensure adequate utilities for new development (County of Riverside 2003). Specifically the policy LU 1.6 states…"Coordinate with local agencies, such as the Local Agency Formation Commission (LAFCo), service providers, and utilities to ensure adequate service provision for new development."

City of Moreno Valley General Plan. The City's General Plan Chapter 9 (Goals and Objectives) establishes goals and objectives to guide the development, redevelopment, and preservation of a balanced housing inventory within the City. Specific policies relevant to the proposed WLC project include:

Objective 2.5 Promote a mix of industrial uses which provides a sound and diversified economic base and ample employment opportunities for the citizens of Moreno Valley with the establishment of industrial activities that have good access to the regional transportation system, accommodate the personal needs of workers and business visitors; and which meets the service needs of local businesses.

Goal 2.2 An organized, well-designed, high quality, and functional balance of urban and rural land uses that will meet the needs of a diverse population, and promote the optimum degree of health, safety, well-being, and beauty for all areas of the community, while maintaining a sound economic base.

Goal 2.4 A supply of housing in sufficient numbers suitable to meet the diverse needs of future residents and to support healthy economic development without creating an oversupply of any particular type of housing.

4.13.3 Methodology

To determine the potential for impacts related to population and housing, the current uses, overall condition of the project site, historic and current population and housing characteristics, and future projections for population, housing, and employment were identified. This analysis is based on data published by the DOF and SCAG, as well as information presented in the City's General Plan and the County of Riverside General Plan.

As identified in the study prepared by David Taussig & Associates, Inc. (DTA), fiscal impacts arising from a land development project can be broadly categorized as one of two types: one-time and recurring impacts. Each of these broad types can be divided into a revenue component and a cost component. The study assumes that one-time revenues would directly offset one-time costs; therefore, the fiscal impacts considered focus on ongoing, or recurring, fiscal impacts of the proposed WLC project on the City's General Fund. Revenues generated outside of the City's General Fund (e.g., special district revenue) or costs incurred by the City outside of the General Fund (e.g., costs financed through a special district) are not included in this analysis.

This methodology involves calculating the average citywide revenues/costs per Persons Served,[1] utilizing the fiscal year 2012–2013 City budget, and applying these revenue/cost factors to the specific number of Persons Served projected for the proposed WLC project. For analysis purposes, all recurring revenues and costs are stated in constant (uninflated) 2012 dollars based on the assumption that the relative impacts of inflation in future years will be the same for both of these fiscal impact categories.

Direct economic impacts reflect the initial or first-round increases in jobs, earnings, and output, all of which occur directly on site. Indirect/induced economic impacts are the secondary and other additional rounds of economic activity that occur as a consequence of the direct impacts, and can occur elsewhere within the City. The indirect impacts represent the economic activity (buying and selling of goods and services) of suppliers to the proposed land uses. The induced impacts represent the economic activity that results from household spending by employees of all companies directly and indirectly affected by the construction and operation of the proposed WLC project. The study estimated the number of direct employees in the proposed WLC project based upon an average employee per square foot ratio for similar land uses in the region. Additionally, all economic impacts are stated in constant (uninflated) 2012 dollars, based on the assumption that the relative impacts of inflation in future years may be difficult to gauge.

4.13.4 Thresholds of Significance

The following thresholds of significance regarding potential impacts related to population and housing are based on *CEQA Guidelines* (2011). A project would have a significant impact on population and housing if it would:

- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure);

[1] A service population comprising all residents and 50% of employees.

- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure) that may lead to fiscal or economic impacts;
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere; and/or
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

4.13.5 No Impact/Less than Significant Impacts

4.13.5.1 Population Growth

Threshold	Would the proposed WLC project induce substantial population growth in an area, either directly (e.g., new homes and businesses) or indirectly (e.g., extension of roads and infrastructure)? Would the proposed WLC project induce substantial population growth in an area, either directly (e.g., new homes and businesses) or indirectly (e.g., extension of roads and infrastructure) that may lead to fiscal or economic impacts?

Growth-Related Impacts. CEQA requires a discussion of ways in which the proposed WLC project could be growth inducing (see also Section 5.0, *Other CEQA Topics*). The *CEQA Guidelines* identify a project as growth inducing if it fosters economic or population growth, or the construction of additional housing either directly or indirectly in the surrounding environment (*CEQA Guidelines* Section 15126.2[d]). New employees from commercial or industrial development and new population from residential development represent direct forms of growth. These direct forms of growth have a secondary effect of expanding the size of local markets and inducing additional economic activity in the area.

A project could indirectly induce growth by reducing or removing barriers to growth, or by creating a condition that attracts additional population or new economic activity. However, a project's potential to induce growth does not automatically result in growth. Growth can only happen through capital investment in new economic opportunities by the private or public sectors. Under CEQA, growth inducement is not considered necessarily detrimental, beneficial, or of little significance to the environment. Typically, the growth-inducing potential of a project would be considered substantial if it fosters growth or a concentration of population in excess of what is assumed in pertinent master plans, land use plans, or in projections made by regional planning agencies (e.g., SCAG). Substantial growth impacts could also occur if a project provides infrastructure or service capacity to accommodate growth beyond the levels currently permitted by local or regional plans and policies. In general, growth induced by a project is considered a significant impact if it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth significantly affects the environment in some other way.

A project could indirectly induce growth at the local level by increasing the demand for additional goods and services associated with the increase in project population and thus reducing or removing the barriers to growth. This occurs in suburban or rural areas where population growth results in increased demand for service and commodity markets responding to the new population. This type of growth is, however, a regional phenomenon resulting from introduction of a major employment center or regionally significant housing project. Additional commercial uses may be drawn to the area by the increased number of residents in the area as a result of a project; however, it is expected that any such development would occur consistent with planned growth identified in the General Plan or applicable specific plans.

As shown in previously referenced Tables 4.13.A and 4.13.B, the City's population has grown steadily over the past decades. Population projections developed by SCAG estimate the City's population will reach approximately 213,700 persons by the year 2020 and approximately 255,200 persons by the year 2035.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

The extent to which the new jobs created by a project are filled by existing residents is a factor that tends to reduce the growth-inducing effect of a project. Construction of the proposed WLC project will create short-term construction jobs. These short-term positions are anticipated to be filled by workers who, for the most part, reside in the project area; therefore, construction of the proposed WLC project will not generate a permanent increase in population within the project area. Development envisioned under the proposed WLCSP consists of approximately 40.6 million square feet of logistics warehouse and general warehouse facilities (WLCSP, September 2014).

An economic study of the project prepared by DTA concluded that the proposed WLC project could directly generate up to 20,300 new jobs within the City.[1] In addition to the projected on-site job creation, the DTA study estimates the proposed WLC project could generate new off-site jobs (i.e., indirect/induced employment) in all industries of the economy. The DTA study also estimated that an additional 7,386 indirect/induced jobs could be created in the County, of which 3,693 jobs were projected to be within the City as a result of project implementation. This estimate is derived from the Impact Analysis for Planning (IMPLAN) Input/Output Modeling System, which is a quantitative economic model that provides an approximate measure of the "multiplier effect" of a firm's spending on payroll and purchase of goods and services. While the specific location of the potential additional indirect/induced jobs created within the County cannot be specifically determined, it is reasonable to assume that some percentage of these jobs will be support service jobs and are likely to be located in the proposed WLC project vicinity, and therefore the City.

The WLC project does not include a residential component. The proposed WLC project is located within an area that is currently largely vacant and planned for mix of residential, commercial, business park, and open space land uses in accordance with the General Plan Community Development Element. The proposed WLC project includes a General Plan Amendment to change the existing mix of land use designations to Logistics Development and Light Logistics.

If approved, the WLCSP would supplant the approved Moreno Highlands Specific Plan (MHSP) project that did have a residential component. The EIR for that project indicated it would have increased the City's population by 17,019 persons over 15 years (7,736 units × 2.2 persons/unit). However, because the City is considered housing rich (and jobs poor) by SCAG, the loss of that projected population growth is not considered a significant impact and, in fact, a number of State policies (e.g., SB 375) encourage the creation and development of jobs-producing development in areas with poor jobs/housing numbers such as that which exists in the City.

Most of the site has been used for dry farming since the early 1900s and much of the proposed WLC project site continues to be used for dry farming at the present time. Currently, there are seven single-family homes in various locations on the property along with associated ranch/farm buildings. Streets, water and sewer utilities, and municipal services would be extended to serve the proposed WLC project. The proposed WLC project may benefit other development projects in the project area by the installation of infrastructure (e.g., roads and utilities), but is not expected to induce substantial population growth into the area since there would be no large areas of vacant land left in the east end of the City (south of SR-60) that could be developed with residential uses.

[1] Table B, Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California (David Taussig & Associates, Inc., September 2014.

Development of high-cube logistics warehouse and general warehouse facilities will create jobs in the local economy. However, it is difficult to predict exactly how many new jobs would be generated by the proposed WLCSP. One concern expressed during the NOP/scoping period was the amount of new employment that would actually be generated by the WLC project. Table 4.13.F provides several sources for estimating potential new direct employment for the proposed project, which could range from 16,240 to 21,315 jobs, depending on what data source is selected to predict future employment within the WLCSP.

NOTE: The following changes to the table have been made due to revision to the Specific Plan project size and to clarify the discussion on projected jobs by the Skechers and HF Corporate Park.

Table 4.13.F: Comparison of Direct Employment Projections for Other High-Cube Logistics Projects

Source/Project (Jurisdiction)	Jobs / 1000 ft^2)	Square Feet/ Employee	Square Feet of Building	Projected Direct Jobs
World Logistics Center[1] Specific Plan (City of Moreno Valley)	0.5:1,000	2,000:1	40,600,000	20,300
Stratford Ranch[3] (City of Perris)	0.4:1,000	2,500:1	1,712,880	685
Skechers Only (City of Moreno Valley)	0.5:1,000	2,000:1	1,820,000	910[4]
Husing Logistics Report[5] (City of Moreno Valley)	0.525:1,000	1,906:1	NA	NA
Vogel Industrial Project[6] (City of Moreno Valley)	0.4:1,000	2,500:1	1,616,133	646

1 DTA Public Works Database; confirmed by "Employment Density Study," SCAG (2001), and "Logistics Trends and Specific Industries," NAIOP Research Foundation (March 20110).
3 Inland Empire Distribution Center Operations Profile, WCL Consulting, June 10, 2008. 2,500 square feet per employee is an average of the Inland Empire rates.
4 Total projected direct employment.
5 From Husing report to the City Council in January 2012 based on 2003 study by U.S. Energy Information Agency shipping and distribution centers increase by 5% making it 1 employee/ 2,000 square feet.
6 Inland Empire Distribution Center Operations Profile, WCL Consulting, June 10, 2008. 2,500 square feet per employee is an average of the Inland Empire rates.

It should be understood that the actual eventual number of employees generated by the project will vary depending on a variety of economic factors (e.g., actual companies that relocate and current hiring conditions). The projected employment estimate also does not take into account relocation of existing employees from other jurisdictions as a result of existing businesses relocating into the WLC project. However, these would be counted as "new" employees for the City of Moreno Valley. For the purposes of this analysis, the EIR will use 20,300 employees working at the WLC or one employee per 2,000 square feet as a conservative estimate (in terms of environmental impacts) for future employment growth from WLCSP development.

The new employment opportunities resulting from development of the proposed high-cube logistics warehouse and general warehouse uses will raise the City's current jobs-to-housing ratio by providing additional jobs to local residents. While the place of residence of the persons accepting employment provided by the proposed uses is uncertain, due to the City's projected jobs/housing ratio, it is reasonable to assume and therefore expect that some percentage of these jobs would be filled by persons already living within the City or project area. Therefore, no significant increase in population of the City would result from the development or operation of the proposed WLC project, resulting in a less than significant impact associated with growth inducement and no mitigation is required.

The second threshold for significance is "Would the proposed WLC project induce substantial population growth in an area, either directly (e.g., new homes and businesses) or indirectly (e.g., extension of roads and infrastructure) that may lead to fiscal or economic impacts?" In that regard, the following provides an analysis of the projected fiscal effects of the proposed WLCSP project.

Indirect City Population Impacts Related to Fiscal and Economic Changes. If the MHSP project is not built, it could be argued the City may experience a financial impact from the loss of property tax, sales tax, and other revenues related to growth and development. The following analysis demonstrates that the City will benefit financially by employment and development of logistics warehousing as a result of the WLCSP project.

As detailed in the DTA study, recurring municipal revenues available to the City include those listed in Table 4.13.G. Total recurring revenues available to the City are estimated at approximately $11,257,466 per year. As shown in Table 4.13.G, the greatest percentage of revenue is attributed to the Property Tax In-Lieu of Vehicle License Fee (40.2%), followed by Secured Property Tax (29.1%), and Business Receipts Tax and Licenses (10.8%).

Table 4.13.G: Recurring Fiscal Revenues City of Moreno Valley (City General Fund)

Source	Amount	Percent[1]
Property Tax In-Lieu of Vehicle License Fee	$ 4,522,818	40.2%
Secured Property Tax	$ 3,276,191	29.1%
Business Receipts Tax & Licenses	$ 1,210,847	10.8%
Tax Revenues	$ 607,657	5.4%
Indirect Sales Tax	$ 423,144	3.8%
Charges for Services	$ 386,032	3.4%
Unsecured Property Tax	$327,619	2.9%
Franchises	$ 251,896	2.2%
Property Transfer Tax	$ 100,495	0.9%
Intergovernmental Revenues	$ 60,918	0.5%
Licenses/Permits	$ 57,771	0.5%
Direct Sales Tax	6,000	0.1%
Other Revenues	$ 12,285	0.1%
Fines and Forfeitures	$ 6,498	0.1%
Transfers In	$ 3,757	0.0%
Use of Money & Property	$ 2,538	0.0%
Total	**$ 11,257,466**	**100.0%**

[1] Numbers may not sum correctly due to rounding to the nearest hundredth.
Source: Table 3A, Fiscal and Economic Impact Study World Logistics Center Moreno Valley, David Taussig and Associates, September 2014.

Recurring municipal services costs to the City include those listed in Table 4.13.H. Total recurring costs to the City are estimated at approximately $5,557,674 per year. As shown in Table 4.13.H, the greatest percentage of cost is attributed to the Police Services (35.8%), followed by Infrastructure and Parks Maintenance Costs (34.1%), and Fire Services (13.3%).

Table 4.13.H: Recurring Fiscal Costs City of Moreno Valley (City General Fund)

Source	Amount	Percent[1]
Police	$ 1,992,019	35.8%
Infrastructure & Parks Maintenance Costs	$ 1,895,474	34.1%
Fire Services	$ 739,545	13.3%
General Government	$ 391,715	7.0%
Development Services	$ 211,893	3.8%
Public Works	$ 109,551	2.0%
Transfers Out	$ 63,761	1.1%
Other Uses	$ 63,659	1.1%
Animal Services	$ 47,719	0.9%
Community Development	$ 42,338	0.8%
Total	**$ 5,557,674**	**100.00%**

[1] Numbers may not sum correctly due to rounding to the nearest hundredth.
Source: Table 3B, Fiscal and Economic Impact Study World Logistics Center Moreno Valley, David Taussig and Associates September, 2014.

Table 4.13.I provides an overall summary of the fiscal impact to the City based on projected revenues generated by the proposed WLC project. As shown in Table 4.13.I, project recurring annual fiscal surplus that would be available to the City is estimated at $5,699,792, which is equal to 2.03 times the project annual City General Fund costs.

Table 4.13.I: Net Fiscal Impact City of Moreno Valley (City General Fund)

Category	Amount
Total Recurring Revenues	$ 11,257,466
Total Recurring Costs	$ 5,557,674
Annual Recurring Surplus/(Deficit)	**$ 5,699,792**
Total Annual Revenue/Cost Ratio	2.03

Source: Table 3C, Fiscal and Economic Impact Study World Logistics Center Moreno Valley, David Taussig and Associates September 2014.

Table 4.13.J presents the project characteristics that are the basis for the fiscal impact assessment. The locations of the additional indirect jobs that will be created within the County cannot be specifically determined; however, some percentage of these jobs will be support service jobs and are likely to be located in the general project vicinity. Based on experience with similar types of projects, DTA estimated that half of these indirect jobs would be located within the City. The study also considers Total Output (i.e., total expenditures including sales or gross receipts, or other operating income) based on the different types of development projected to occur. For gross receipts, the study considers the initial or first-round increase in output (e.g., total spending/gross receipts, including payroll), all of which would occur directly on site. Indirect impacts represent the economic activity of supplier and/or supporting businesses. Induced impacts represent the economic activity that results from household spending by employees that may result from direct and direct employment generation of the proposed WLC project.

NOTE: The following changes to the table have been made due to revision to the Specific Plan project size.

Table 4.13.J: Project-Related Economic Characteristics

Land Use Assumptions	Square Feet
Logistics Development (LD)	40,397,000
Light Logistics (LL)	200,000
"logistics support" fueling station	3,000
Employment Assumptions[1]	**Employees Per 1,000 Square Feet**
Logistics (LD/LL)	0.50
Retail ("light logistics")	2.50
Wage Assumptions[2]	**Annual $**
Warehousing/Transportation (Logistics)[3]	$ 40,926
Construction	$ 48,825
Retail ("light logistics" fueling station)[4]	$22,885
Riverside County Average (2010)	$ 40,602

[1] Source: DTA Public Works Database; confirmed by "Employment Density Study," SCAG (2001), and "Logistics Trends and Specific Industries," NAIOP Research Foundation (March 20110).
[2] Source: U.S. Census Bureau, Longitudinal Employer-Household Dynamics Reports (California, 2010) for Riverside-San Bernardino-Ontario Metropolitan Area and Riverside County; confirmed by Bureau of Labor Statistics (May 2010).
[3] Standard Warehousing/Transportation Salary ($41,229) plus a small salary increase for 10% of employees to account for presence of high-level management and related office personnel.
[4] Reflects blended average by employee count of local "retail" and "food service/accommodation" salary codes
Source: Table 4A, Fiscal and Economic Impact Study World Logistics Center Moreno Valley, David Taussig and Associates September 2014.

As previously noted, potential economic impacts that may occur with project implementation include permanent employment (direct on site and indirect/induced), permanent output (gross receipts; total direct output plus output produced by suppliers and employee spending), and one-time construction impacts. Table 4.13.K summarizes the permanent (recurring) employment, wage, and gross receipts values associated with the proposed WLC project.

Table 4.13.K: Project Permanent (Recurring) Employment, Wages ,and Gross Receipts

Recurring Impact	Direct	Indirect/Induced	Total
Employees			
Countywide	20,307	7,387	27,693
Within City	20,307	3,693	24,000
Employee Wages			
Countywide	$831 Million	$ 300 Million	$ 1.13 Billion
Within City	$ 831 Million	$150 Million	$ 981 Million
Overall Output			
Countywide	$1.5 Billion	$ 870 Million	$2.37 Billion
Within City	$1.5 Billion	$435 Million	$1.94 Billion

Source: Tables 4B and 4C, Fiscal and Economic Impact Study World Logistics Center Moreno Valley, David Taussig and Associates September 2014.

The DTA study indicates that the creation of new jobs to the City will lead to more consumer spending by employees in existing retail establishments within the City, as well as new retail development that will be attracted to the City as a result of this spending. Job creation also results in increased tax revenues to the City through increased property taxes and sales taxes associated with development of the proposed WLC project. However, it is important to note that because of the difference in timing of the development of the various phases of the proposed WLC project, the number of employees summarized above will not be realized at the same time.

Table 4.13.L summarizes the construction (one-time) employment, wages, and gross receipts values associated with the proposed WLC project.

Table 4.13.L: Project Construction (One-Time) Employment and Wages and Gross Receipts

Recurring Impact	Direct	Indirect/Induced	Total
Construction Employees			
Countywide	12,807	7,426	20,233
Within City	12,807	3,714	16,521
Construction Wages			
Countywide	$625 Million	$301 Million	$ 927 Million
Within City	$625 Million	$151 Million	$776 Million
Total Output from Construction Jobs			
Countywide	$ 1.67 Billion	$ 932 Million	$ 2.6 Billion
Within City	$ 1.67 Billion	$ 466 Million	$ 2.14 Billion

Source: Tables 4D and 4E Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California, David Taussig and Associates, September 2013.

As summarized in Table 4.13.L, development of the proposed WLC project is projected to create approximately 16,521 construction-related full-time equivalent (FTE) jobs within the City. Similar to recurring employment (i.e., permanent), it is likely that some percentage of these jobs will be associated with support services and are likely to be located in the vicinity of the proposed WLC project and therefore within the City.

The proposed WLC project does not include a residential component, so it would not directly generate additional new housing. Employees of the project that choose to live in the City would likely utilize the existing supply of housing within the City.

Based on the potential increase in jobs (additional 20,307 direct jobs) within the City and no substantial increase in population as a result of the project, the City's jobs-to-housing ratio would improve from the existing (2011) ratio of 0.45 to 0.82, thus achieving a greater jobs-to-housing balance within the City. Similarly, the potential new County employees that may be generated by the proposed WLC project would increase the total County employment to 571,799 from 551,492 resulting in a ratio of 0.71 from 0.69.

As development of the proposed WLC project is expected to occur over the course of many years, the jobs-to-housing ratio will not significantly change immediately. The City's current jobs-to-housing ratio is exceptionally low when compared to SCAG standards; therefore, the need for employment is immediate. A balance between jobs and housing within the City would have a positive impact by decreasing costs associated with commuting and traffic congestion. It also provides savings to consumers in the operation and maintenance of automobiles, and saving to local public agencies in terms of the need to construct and maintain new road improvements.

Summary of Impacts. Based on the foregoing discussion and as evidenced in Tables 4.13.I, 4.13.K, and 4.13.L, implementation of the proposed WLC project would not result in a deficit in the City's General Fund. The estimated surplus is $5,699,792, which is equal to 2.03 times the projected annual City General Fund costs. Additionally, the proposed WLC project is expected to generate sizeable, substantial, and lasting employment, wages, output, and revenues for the City and region. Therefore, potential fiscal and economic changes that could affect the City's population or housing are considered to be less than significant, and no mitigation is required.

4.13.5.2 Displace Substantial Housing/People

Threshold	Would the proposed WLC project displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere?

Displace Existing People/Housing. The WLC project site currently contains seven rural residences. At the City Council meeting on May 22, 2012, some of the existing residents stated that they did not want to be included in the Specific Plan. After deliberation, the Council decided to include the rural properties in the Specific Plan in the interest of comprehensive land planning for the WLC property. Upon approval of the Specific Plan, these properties can continue as non-conforming uses, and the WLC Specific Plan designates these properties as "Light Logistics" (LL), which allows for future industrial-related uses (vehicle storage, light assembly, etc.). In this way, the WLCSP will not remove or displace any of the existing residents or residences from the project site. As large warehouse buildings are developed near or adjacent to these residences, it may become less desirable to reside within the WLCSP area; however, the project itself does not cause housing displacement.

Therefore, impacts to the seven on-site residences would not be considered a significant housing impact. For these reasons, the WLCSP will not have significant population or housing impacts related to displacing substantial numbers of people or existing housing.

Displace Potential Future People/Housing. The City of Moreno Valley has been housing "rich" for many years, with much more housing stock than jobs according to data available from the SCAG. In addition, the recent economic downturn and related foreclosure/short sale conditions have left Moreno Valley, as with many housing rich communities, with an overabundance of housing stock. Section 4.10, *Land Use and Planning*, examines the potential environmental impacts related to the "loss" of 388 affordable housing units from the MHSP, as outlined in the City's 2011 Housing Element. The Element acknowledges that the MHSP property may have to be used for employment-generating uses, and that "land use changes with the Moreno Highlands Specific Plan area will not hinder the City's ability to meet its RHNA obligations."[1] The 2011 Housing Element therefore documents that the City has an abundant supply of housing and can meet its RHNA requirements without relying on any units from the MHSP.

During the NOP/scoping process, several residents commented that development of the proposed WLCSP would result in the loss of 7,700 housing units from the project site that would have to be "made up" elsewhere in the City. The 2006 City Housing Element identified a potential for 5,240 units of the potential 7,700 housing units in the Moreno Highlands Specific Plan. However, an updated Housing Element adopted by the City in February 2011 indicated the Moreno Highlands area would be rezoned to support employment-generating uses rather than housing. It also concluded that "pursuing any land use changes with the Moreno Highlands Specific Plan area will not hinder the City's ability to meet its RHNA obligations." The term RHNA refers to the Regional Housing Needs Allocation (affordable housing allocations) from the SCAG.

Table 8-19.5 in the 2011 Housing Element states that after removing sites south of SR 60 and east of Redlands Boulevard, the Amended Inventory throughout the City west of Redlands accommodates:

- 4,100 Low and Very Low Income units, which is 1.3 times the RHNA number (3,045) (deleting sites south of SR-60 and east of Redlands Boulevard has no effect on low and very low income housing opportunities);
- 2,600 Moderate Income units, which is 2.1 times the RHNA number (1,239);

[1] Page 41, City of Moreno Valley Housing Element, February 2, 2011.

- 7,828 Above Moderate Income units, which is 2.5 times the RHNA number (3,068); and
- 14,528 total identified units, which is 1.94 times the total RHNA number (7,474).

Therefore, removal of the 388 affordable units originally identified in the MHSP (Table 8-19, page 40 of the Housing Element), including 233 "Very Low" and 155 "Low" units, will not have a significant impact on the City's Housing Element or its ability to achieve its RHNA allocation.

The State Housing and Community Development Department (HCD) certified the City's Housing Element as compliant with State law on May 31, 2011. This State HCD certification reinforces the conclusion that approval of the proposed project will not impede the City's housing goals as set forth in the City's Housing Element.

In April 2011, the City adopted its Economic Development Action Plan, which also identified the eastern part of the City as a potential area for major job-producing land uses. The *Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California* ("Study") prepared by DTA in 2014 concluded that the proposed WLC project would generate 20,307 direct jobs/employees to the City. Section 4.10.5.3 determined that the proposed WLC project is consistent with the 2011 Housing Element, and it will not displace substantial numbers of existing housing or necessitate the construction of replacement housing elsewhere. Therefore, no significant displacement impacts relative to people or housing are expected to occur, and no mitigation is required.

4.13.6 Significant Impacts

Based on the analysis in Section 4.13.5, the WLC project will not have any significant impacts relative to population, housing, or employment. Therefore, no mitigation is required. However, in response to Comment F-8-94 and other related comments, the Final EIR Volume 1 recommends the City add the following text to the WLCSP Development Agreement approval with the concurrence of the applicant:

> "*Highland Fairview will establish a WLC Local Hiring Program to actively encourage the hiring of Moreno Valley residents for job opportunities at the World Logistics Center. Highland Fairview will encourage its contractors, suppliers and tenants to be active participants in a Moreno Valley Employment Resource Center (ERC) job opportunity announcement program.*
>
> *World Logistics Center employers will be encouraged to submit all job announcements to the Moreno Valley Employment Resource Center at least one week prior to providing such announcements to other agencies or to the general public. Potential employers will be urged to provide information regarding job opportunities to the ERC including details regarding job titles, minimum qualifications, application processes, and employer contact information."*

4.13.7 Cumulative Impacts

The cumulative area for the discussion of population and housing impacts is the City of Moreno Valley. The proposed WLC project would require a General Plan Amendment and Zone Change to re-designate the site from a mix of land uses and zoning designations to Logistics Development and Public Utility land uses and a Specific Plan zoning designation. The project would not contribute to substantial population growth and therefore would not result in an increased demand on the current or future housing in the region. In addition, the Moreno Valley area is considered housing rich and jobs poor by SCAG, so the loss of population (and planned housing) would actually be a regional benefit according to the Regional Transportation Plan. The project may result in an influx of new workers who would need to locate temporarily or permanently in the area, but the City has an overabundance of existing housing stock due to current market conditions. Implementation of the

proposed WLC project would actually benefit population and housing conditions relative to employment and jobs/housing ratio and, therefore, not result in cumulatively adverse impacts to population or housing. The WLC project would also not significantly induce growth into areas where growth was not previously anticipated since the WLC project area represents the last largest remaining vacant land in the City of Moreno Valley.

4.14 PUBLIC SERVICES AND FACILITIES: TABLE OF CONTENTS

FIGURES

TABLES

NOTE TO READERS. *No major revisions have been made to this section in response to comments other than changes related to the revised Specific Plan.*

4.14 PUBLIC SERVICES AND FACILITIES

This EIR discussion includes an evaluation of police and fire services, as well as schools and parks. The analysis considers these public services in the proposed project vicinity and evaluates the impacts to service providers that would result from the construction and operation of the proposed uses as described in the Specific Plan. The analysis contained in this section is based on the following reference documents:

- City of Moreno Valley General Plan, City of Moreno Valley, July 11, 2006;
- City of Moreno Valley General Plan Final EIR, City of Moreno Valley, July 2006;
- Letter from Joel Ontiveros, Moreno Valley Police Department Chief, July 10, 2012;
- Letter from City Fire Chief Abdul R. Ahmad dated June 27, 2012;
- Moreno Valley School District website information on Developer Impact School Fees; and
- San Jacinto Unified School District website May 2012.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 30 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.

This section describes the existing public services within the City of Moreno Valley. The project site consists of the lands within the project boundaries and the project vicinity. The project vicinity consists of areas adjacent to the project site. This section differs slightly from other sections in that it is organized by the public service provider so continuity is maintained. Police Service is found in Section 4.14.1, Fire Protection is found in Section 4.14.2, Schools are found in Section 4.14.3, Parks are found in Section 4.14.4, and Cumulative Impacts are found in Section 4.14.5.

4.14.1 Police Protection

4.14.1.1 Existing Setting

The City of Moreno Valley contracts with the Riverside County Sheriff's Department (RCSD) for police services. Through this contract, the RCSD staffs the Moreno Valley Police Department (MVPD). The MVPD Chief provided a letter on July 10, 2012, that provided the following information on police service in the City. The MVPD has a service area of 51.5 square miles and a service population of 196,495 people. The main police station is located in the City Public Safety Building (PSB) at 22850 Calle San Juan De Los Lagos in Moreno Valley. In addition, the MVPD operates four storefront substations throughout the City. The MVPD occupies 44,800 square feet or 98 percent of the 45,900-square foot PSB with the remainder used by the City Fire Department. The MVPD also utilizes 405 parking spaces in the PSB secured lot. The MVPD Chief has indicted the PSB and parking lot are already at or near full capacity at this time. The MVPD maintains five operational divisions: Patrol, Detective, Special Enforcement, Traffic, and Administrative.

The MVPD handles a service demand of more than 130,000 calls for service (CFS) each year. The MVPD has a current demand of 657 CFS per year per sworn officer, and each deputy on patrol averages 8 CFS per 10-hour shift. There are no set response time goals, but the current response times average 6.15 minutes for Priority 1 calls (emergency), 13.8 minutes for Priority 2 (service need) calls, and 32.4 minutes for Priority 3 (business) calls.

Police services are paid for out of the City of Moreno Valley General Fund. There are currently 255 employees working at the MVPD and 198 of them are sworn peace officers. The MVPD maintains 166 vehicles to support its operations but does not have any commercial vehicle enforcement equipment or personnel at this time.

According to the Federal Bureau of Investigation, Uniform Crime Reporting Program, the national average for police department staffing is 2.3 officers per 1,000 residents. By comparison, the nationwide average for cities of comparable size to Moreno Valley is 1.8 officers per 1,000 residents, while the average for "west coast" area cities of comparable size is 1.2 officers per 1,000 residents. The police service ratio within the City is 1.0 officer per 1,000 citizens, and the City has indicated a commitment to maintain that ratio.

The PSB is approximately 6.5 miles from the project site and would be the closest station to service the proposed project site. The WLC site is located within City Beat 46 (MV46) but there are few calls from the project site at present.

NOP/Scoping Comments. Several residents asked during the scoping process what the impact of the project would be on existing and future public services like police and fire.

4.14.1.2 Existing Policies and Regulations

The City of Moreno Valley has developed policies and regulations in order to direct future activities and decisions in order to achieve the goals and objectives set forth in the City's General Plan and Municipal Code.

Community Design Element Policies

2.13.1 Limit the amount of development to that which can be adequately served by public services and facilities, based upon current information concerning the capability of public services and facilities.

2.14.3 Review development projects for their impacts on public services and facilities including, but not necessarily limited to, roadways, water, sewer, fire, police, parks, and libraries and require public services or facilities to be provided at the standards outlined in the Moreno Valley General Plan and the standards of applicable service agencies.

Safety Element Policies

6.8.1 Explore the most effective and economical means of providing responsive and adequate law enforcement protection in the future.

6.9.2 Require well-lighted entrances, walkways and parking lots, street lighting in all commercial, industrial areas and multiple-family residential areas to facilitate nighttime surveillance and discourage crime.

6.9.3 Incorporate "defensible space" concepts into the design of dwellings and nonresidential structures, including, but not limited to configuration of lots, buildings, fences, walls and other features that facilitate surveillance and reinforce a sense of territorial control.

6.11.1 Respond to any disaster situation in the City to provide necessary initial response and providing for key support to major incidents.

6.12.1 Support mutual aid agreements and communication links with the County of Riverside and other local participating jurisdictions.

NOTE: The following changes have been made in response to Comment F-13-32 in Letter F-13 from Johnson & Sedlack on Behalf of Sierra Club, Moreno Valley Group & Residents for a Livable Moreno Valley.

Ultimate Goals

VII Emphasizes public health and safety, including, but not limited to, police, fire, emergency and animal services and protection from floods and other hazards.

City of Moreno Valley Municipal Code. Pursuant to Moreno Valley Municipal Code Section 3.42.070, the proposed project is subject to Police Facilities Commercial and Industrial Development Impact Fees. These fees contribute to the police services facilities provided for in the Existing General Plan area and Capital Improvement Projects. The fees provide financing for the acquisition of land for police and fire facilities as well as design, construction, improvements, and maintenance to the extent permitted by law.

4.14.1.3 Methodology

Based on discussion with City staff and previous environmental documents prepared by the City, the evaluation of impacts associated with the proposed project on police services includes the following:

- Determine the existing police response time for the City based on RCSD goals;
- Determine the length of time for police services to arrive at the project site based on average travel time;
- Compare existing police response time and potential police response time; and
- Determine funding mechanism for future police services, staff, and facilities.

Police service funding impacts were evaluated by identifying compliance with local and RCSD goals and policies. Response time impacts were evaluated by comparing existing and anticipated average responses through RCSD response time goals.

4.14.1.4 Thresholds of Significance

Based on Appendix G of the *CEQA Guidelines,* police protection impacts would be considered significant if the following condition resulted from the construction or operation of the proposed project:

- Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services.

4.14.1.5 Less than Significant Impacts

Threshold	Would the proposed project result in substantial adverse physical impacts associated with the provision of new or physically altered law enforcement facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police services?

The development and operation of the proposed project would increase demand for police protection services. In addition, the MVPD Chief has indicated the department would not be able to maintain current service levels if the WLC project were built. Initially, crimes of grand theft and malicious mischief during construction would be the potential major crime issue. However, it is anticipated that private security would be utilized during the construction process, similar to other private security services that are utilized for other construction projects in the City. Typical operational police protection services involved with warehouse uses include after-hours patrol. Potential impacts would take the form of a need for expanded police protection services routinely associated with industrial growth, including routine patrols, responding to calls for service such as graffiti or vandalism, robbery, etc. In addition, commercial enforcement will be needed on surrounding streets. The number of additional service calls and call response times would slowly increase, and overall service levels would decrease incrementally as more warehouse buildings were built on the project site. The proposed warehouse uses would generate new employment opportunities. The new jobs that would be created by the proposed project would probably not induce substantial population growth within the City, because most of the new jobs would either be filled by residents of the City and surrounding areas or transfer from existing jobs to the project site for existing warehousing that relocates to the WLC project site.

In his July 10 letter, the City Police Chief concluded that buildout of the WLC project would create a need for 15 full-time sworn officers, 4 classified staff, 2,635 square feet of new police building area, 11 police vehicles, and 24 more secured parking spaces. The Chief also concluded buildout of the WLC project would generate a need for two additional commercial enforcement vehicles and all the

related equipment, the addition of two full-time sworn commercial enforcement police officers, and training for those officers.

According to the 2004 City of Moreno Valley Community and Economic Profile, a majority of funding for police protection services is funded through sales tax revenue. In addition, the project will be subject to all applicable impact fees at the time specific development is proposed.

The City collects fees from developers to offset police-related service impacts associated with new development. These development impact fees (DIFs) are one-time charges applied to new development and are imposed to raise revenue for the construction or expansion of capital facilities. DIFs enable the City to collect fair-share fees from new development projects to fund new infrastructure and services. In the City, developers are also required to pay development fees per square foot of development to offset impacts associated with increased demand on law enforcement services. DIFs are collected for specific infrastructure needs and are deposited into different accounts representing these requirements. The proposed project would be designed and operated per applicable standards required by the City for new development in regard to public safety. In addition, the project would be required to pay development fees used to fund capital costs associated with constructing new public safety structures and purchasing equipment for new public safety structures.

The proposed WLCSP project will result in an increased need for police services as the project builds out. Serving the WLCSP project would initially require additional patrol and service time from existing staff, but would require additional personnel and/or equipment as new development is added.

Building security is a critical component of contemporary logistics facility design. Site design features routinely include restricted vehicular and pedestrian access, perimeter fencing and walls, and full-coverage cameras and monitoring systems. Tenants typically employ full-time security personnel and sophisticated internal security and monitoring systems. Facilities that operate as “Free Trade Zones,” as established by the U.S. Customs Service, are required to install and maintain extensive internal and external security facilities and systems.

General Plan and Municipal Code Consistency. Table 4.14.A evaluates whether the proposed project is consistent with the City’s General Plan policies and Municipal Code requirements relative to police service

NOTE: The following analysis was added to the table in response to Comment F-13-32 in Letter F-13 from the Sierra Club et al.

Table 4.14.A: Project Consistency with General Plan Policies and Municipal Code Requirements for Police Service

General Plan Policies		Project Consistency
Ultimate Goals		
VII	Emphasizes public health and safety, including, but not limited to, police, fire, emergency and animal services and protection from floods and other hazards.	**Consistent.** The project will be consistent with this goal regarding public services by providing future sites and/or facilities for fire and police facilities as development occurs. The project will also protect onsite and offsite uses from flooding and other hazards. The revised air quality study indicates the project will not result in significant offsite health risks for adjacent land uses based on the SCAQMD ten in one million threshold for cancer risks.

Table 4.14.A: Project Consistency with General Plan Policies and Municipal Code Requirements for Police Service

General Plan Policies		Project Consistency
Community Design Element Policies		
2.13.1	Limit the amount of development to that which can be adequately served by public services and facilities, based upon current information concerning the capability of public services and facilities.	**Consistent.** Initial project construction can be accommodated by existing police service. As development continues, additional police facilities, equipment, and services will be needed within the project, and the project will provide DIF and property tax revenues to support these future needs.
2.14.3	Review development projects for their impacts on public services and facilities including, but not necessarily limited to, roadways, water, sewer, fire, police, parks, and libraries and require public services or facilities to be provided at the standards outlined in the Moreno Valley General Plan and the standards of applicable service agencies.	**Consistent.** This EIR provides information on the potential impacts of the project on City services and facilities, including police. As development occurs within the project, additional police facilities, equipment, and services will be needed within the project, and the project will provide DIF and property tax revenues to support these future needs.
Safety Element Policies		
6.8.1	Explore the most effective and economical means of providing responsive and adequate law enforcement protection in the future.	**Consistent.** This EIR provides information on the potential impacts of the project on City services and facilities, including police. As development occurs within the project, additional police facilities, equipment, and services will be needed within the project, and the project will provide DIF and property tax revenues to support these future needs.
6.9.2	Require well-lighted entrances, walkways and parking lots, street lighting in all commercial, industrial areas and multiple-family residential areas to facilitate nighttime surveillance and discourage crime.	**Consistent.** The Specific Plan provides site and building lighting guidelines for future development to discourage crime. In addition, many of the on-site uses will have gated access and private security, reducing the need for additional City police services.
6.9.3	Incorporate “defensible space” concepts into the design of dwellings and nonresidential structures, including, but not limited to configuration of lots, buildings, fences, walls and other features that facilitate surveillance and reinforce a sense of territorial control.	**Consistent.** The Specific Plan provides site and building design guidelines, including fencing and walls, lighting, security cameras, to discourage crime. In addition, many of the uses will have gated access and private security, reducing the need for additional City police services.
6.11.1	Respond to any disaster situation in the City to provide necessary initial response and providing for key support to major incidents.	**Consistent.** Development according to the Specific Plan will allow full emergency access to this portion of the City as new buildings are constructed.
6.12.1	Support mutual aid agreements and communication links with the County of Riverside and other local participating jurisdictions.	**Consistent.** Development according to the Specific Plan will allow regional emergency access to this portion of the City from SR-60 and Gilman Springs Road.

Table 4.14.A: Project Consistency with General Plan Policies and Municipal Code Requirements for Police Service

General Plan Policies	Project Consistency
City of Moreno Valley Municipal Code	
Pursuant to Moreno Valley Municipal Code Section 3.42.070, the proposed project is subject to Police Facilities Commercial and Industrial Development Impact Fees. These fees contribute to the police services facilities provided for in the Existing General Plan area and Capital Improvement Projects. The fees provide financing for the acquisition of land for police and fire facilities as well as design, construction, improvements, and maintenance to the extent permitted by law.	**Consistent.** All development within the Specific Plan will pay applicable Development Impact Fees to the City.

The proposed project is consistent with the City General Plan policies and Municipal Code requirements relative to police services.

The WLCSP requires building and site design characteristics that specifically support police services by encouraging buildings that are safe and can be secured by design, fencing, security services, etc. The proposed WLCSP design guidelines are consistent with the goals of the General Plan relative to police protection and site design, as outlined in Section 4.14.1.2. In addition, future development within the WLCSP will be required to comply with the City's Development Impact Fee (DIF) requirements as new development is constructed. It is anticipated that DIF revenues will help fund additional equipment needs and increased property taxes would help fund increased service or staffing needs. Therefore, the project will have less than significant impacts relative to police service, and no mitigation is required.

4.14.1.6 Significant Impacts

Based on the analysis in Section 4.14.1.5, the project will have no significant impacts relative to police protection.

4.14.2 Fire Protection

4.14.2.1 Existing Setting

The following information is based in part on a letter from the City Fire Chief dated June 27, 2012. The City of Moreno Valley Fire Department (MVFD) contracts with the Riverside County Fire Department (RCFD) to provide fire protection, fire prevention, and emergency services. The RCFD is administered and operated by the California Department of Forestry and Fire Protection (CalFire). Within the City, the objective of the MVFD is to have an engine company arrive on the scene of a fire or emergency medical aid situation within four minutes of a notification (i.e., dispatch) 90 percent of the time and a complete first alarm assignment within eight minutes[1] 90 percent of the time. Moreno Valley is served by six fire stations and a one-minute preparation time plus a four-minute travel time to fire incidents and emergency medical aid calls (90% of the time) is considered to be the maximum time standard for serving urban and suburban uses in accordance with the National Fire Protection Association (NFPA) 1710 standard. The City requires any new developments to provide adequate fire suppression water flows. The MVFD responds to medical aid calls with advance life support services.

[1] Station assigned to respond after first responder assesses situation.

The MVFD participates in the Regionalized Cooperative Fire Protection Delivery System of Riverside County Fire/CalFire. This system ensures that the closest and most appropriate resources are dispatched to all requests for fire department emergency services regardless of jurisdiction.

The MVFD main office is located in the City PSB at 22850 Calle San Juan De Los Lagos in Moreno Valley. The MVFD occupies 1,100 square feet or 2 percent of the 45,900-square foot PSB, plus parking in the PSB secured lot. The City Police Chief has indicted the PSB and parking lot are already at or near full capacity at this time, so it is assumed this conclusion also applies to the Fire Department as well.

The City of Moreno Valley has six existing fire stations and one proposed fire station within the City limits as summarized in Table 4.14.B. Fire Station 58, Moreno Beach Station, is located at 28040 Eucalyptus Avenue and is the closest station to the project site. This station is approximately 1.25 miles northwest of the western limits of project site. The station is staffed on a 24/7 basis by three firefighters, one engine, one reserve aerial ladder truck, and a rescue squad.

Municipal Code Section 3.42.060 provides for the collection of Fire Facilities Commercial and Industrial DIFs and states that these fees shall be paid by applicants for commercial and industrial projects prior to the issuance of applicable building or occupancy permits.

NOP/Scoping Comments. During the NOP period, a comment was made about a future fire station planned at Redlands Boulevard/Brodiaea Avenue. Fire Chief Abdul R. Ahmad's letter (June 27, 2012) cites potential fire danger from the proposed project being within both a high fire risk category and a non-fire high hazard risk category from building types, from emergency incidents (both fire and non-fire) during construction of the various phases of the proposed project, and from being partially within a State-designated Very High Fire Hazard Severity Zone.

Table 4.14.B: Moreno Valley Fire Stations

Fire Station	Address	Personnel	Equipment
Station 2 (Sunnymead)	24935 Hemlock Avenue	7 Firefighters	1 Engine 1 Aerial Ladder Truck (100 foot) 1 Urban Search and Rescue Trailer
Station 6 (Towngate)	22250 Eucalyptus Avenue	3 Firefighters	1 Engine 1 Reserve Engine
Station 48 (Sunnymead Ranch)	10511 Village Road	3 Firefighters	1 Engine 1 Reserve Engine
Station 65 (Kennedy Park)	15111 Indian Street	3 Firefighters	1 Engine 1 Reserve Engine
Station 58 (Moreno Beach)	28040 Eucalyptus Avenue	3 Firefighters	1 Engine 1 Reserve Aerial Ladder Truck 1 Rescue Squad
Station 91 (College Park)	16110 Lasselle Street	7 Firefighters	1 Engine 1 Rescue Squad 1 Aerial Ladder Truck (75 foot)
Station 99 (Morrison Park) *Opened October 2012*	13400 Morrison Street	3 Firefighters	1 Engine

Source: Table 5.13-1 City of Moreno Valley General Plan Final EIR, July 2006; Moreno Valley Fire Department, 2012.

4.14.2.2 Existing Policies and Regulations

The City of Moreno Valley has developed policies and regulations in order to direct future activities and decisions in order to achieve the goals and objectives set forth in the City's General Plan and Municipal Code.

Community Design Element Policies

2.13.1 Limit the amount of development to that which can be adequately served by public services and facilities, based upon current information concerning the capability of public services and facilities.

2.14.3 Review development projects for their impacts on public services and facilities including, but not necessarily limited to, roadways, water, sewer, fire, police, parks, and libraries and require public services or facilities to be provided at the standards outlined in the Moreno Valley General Plan and the standards of applicable service agencies.

Safety Element Policies

6.11.1 Respond to any disaster situation in the City to provide necessary initial response and providing for key support to major incidents.

6.12.1 Support mutual aid agreements and communication links with the County of Riverside and other local participating jurisdictions.

6.13.1 Provide fire safety education to residents of appropriate age.

6.14.2 Relate the timing of fire station construction to the rise of service demand in surrounding areas.

6.15.1 Encourage programs to minimize the fire hazard, including but not limited to the prevention of fuel build-up where wildland areas are adjacent to urban development.

6.15.2 Tailor fire prevention measures implemented in wildland areas to both the aesthetic and functional needs of the natural environment.

6.16.1 Ensure that ordinances, resolutions and policies relating to urban development are consistent with the requirements of acceptable fire safety, including requirements for smoke detectors, emergency water supply and automatic fire sprinkler systems.

6.16.2 Encourage the systematic mitigation of existing fire hazards related to urban land development or patterns of urban development as they are identified and as resources permit.

6.16.3 Ensure that adequate emergency ingress and egress is provided for each development.

City of Moreno Valley Municipal Code. Municipal Code Section 3.42.060 provides for the collection of Fire Facilities and Commercial and Industrial Development Impact Fees and states that fees shall be paid by applicants for commercial and industrial projects prior to the issuance of applicable building or occupancy permits.

4.14.2.3 Methodology

Based on discussion with City staff and previous environmental documents prepared by the City, the evaluation of fire service impacts associated with the proposed project includes the following:

- Determine the existing fire response time for the City based on Moreno Valley Fire Department goals identified in the Moreno Valley Fire Department Strategic Plan 2012–2022;[1]
- Determine the length of time for fire services to arrive at the project site based on average travel time;
- Compare existing fire response time and potential fire response time; and
- Determine the funding mechanism for future fire services and facilities.

Fire service funding impacts were evaluated by estimating compliance with local and RCFD goals and policies as indicated in the Moreno Valley Fire Department Strategic Plan 2012–2022. Response time impacts were evaluated by comparing existing and anticipated average responses with MVFD response time goals.

4.14.2.4 Threshold of Significance

Based on Appendix G of the *CEQA Guidelines*, impacts to fire protection services would be considered significant if the following condition resulted from the construction or operation of the proposed project:

- Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services.

4.14.2.5 Less than Significant Impacts

Threshold	Would the proposed project result in substantial adverse physical impacts associated with the provision of new or physically altered fire-fighting facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire services?

The majority of the project site is currently undeveloped. The development and operation of the proposed project would increase the demand for fire protection, prevention, and emergency medical services. Time is the critical component in fire/medical emergencies. Reductions in the emergency response time or the distance between fire/medical facilities and the site of an emergency would result in improved service and saved lives and property.

Construction materials for the proposed warehouse buildings would likely be reinforced concrete and steel. Although fire occurring during the construction period for such buildings is rare, when they do occur they tend to be catastrophic due to a lack of completed fire protection and detection systems and the presence of considerable amounts of combustible materials that are normally on site during the construction phases. California Fire Code Section 8704 establishes fire safety standards for sites during the construction phase. All on-site construction as well as the use and storage of construction materials is required to conform to fire prevention/protection standards established by the RCFD, MVFD, and/or the City, which mirror standards prescribed in the California Fire Code. Adherence to safety standards required for sites during the construction phase established by the MVFD and/or the City would ensure that potential impacts during construction remain less than significant. Since portions of the project site are located within a State-designated Very High Fire Hazard Severity Zone, development within these zones is required to implement special construction features set forth

[1] *Moreno Valley Fire Department Strategic Plan 2012–2022*, Moreno Valley Fire Department, December 2011.

in Chapter 7A of the California Building Code (CBC). Adherence to these specific requirements would ensure that potential impacts during construction remain less than significant.

All new development within the proposed project would be required to pay DIFs to the City. These fees are determined by the City Council, in consultation with the Fire Prevention Bureau, based on an assessment of the activity occurring within the City as well as the needs of the City. Such fees would be used to fund capital costs associated with land acquisition, construction, purchasing equipment, and providing for additional staff.

The proposed project will require that fire services be extended to the project site. In consultation with the MVFD through a letter dated June 27, 2012, submitted by Fire Chief Ahmad, the MVFD has identified that the estimated travel time from Fire Station 58 (the closest station to the project site) to the middle of the project site would exceed the NFPA 1710 standard for fire response time in the event of an emergency incident. Additionally, the MVFD identifies that buildings under construction are susceptible to fire and are likely to have a high rate of fire spread due to the absence of fire protection systems, fire detection systems, and fire protection features. Buildings under construction also lack compartmentalization of the interior to slow the rate of fire spread. The MVFD letter also notes that Fire Station 99 is expected to open in October of 2012;[1] however, the opening of an additional fire station would still result in service levels at the project site being below the NFPA 1710 standard.

The proposed project would increase the need for fire services and would potentially affect the MVFD's ability to maintain current service levels within the City. Additional service would be needed in the form of new facilities, personnel, and/or equipment. The City of Moreno Valley does not set a ratio of personnel per population, nor does it set equipment and staffing levels; rather, additional personnel and equipment are based on assessment of the activity occurring in the City, including but not limited to, calls for service and response times in order to meet or exceed the NFPA 1710 standard, the California Fire Code, and City Municipal Code Amendments. According to the 2004 City of Moreno Valley Community and Economic Profile, a majority of funding for fire protection services is from sales tax revenue. The project will be subject to all applicable development impact fees.

In his June 27, 2012, letter, the Fire Chief indicated the Fire Department would require "construction of a fire station during the first phase of this project. The fire station shall be located on 1.5 acres of land and the facility shall be approximately 11,000 square feet in size. This location shall be identified by the Fire Chief prior to the approval of the specific plan for the World Logistics Center. Initially, this station will require the purchase of an aerial ladder truck, which will be staffed daily by four Fire Department personnel for a total of twelve personnel to provide seven-day-a-week, twenty-four-hour-a-day coverage of the aerial ladder truck. During the final phase of construction, the Fire Department will require an additional fire apparatus to be purchased and staffed. This shall consist of a fire engine with a daily staffing of three Fire Department personnel for a total of nine personnel to provide seven-day-a-week, twenty-four-hour-a-day coverage."

As previously described, the proposed project would be designed, constructed, and operated per applicable fire prevention/protection standards established by the City. Such requirements include (but shall not be limited to) provisions for smoke alarms; sprinklers; building and emergency access; adequate emergency notification; and hydrant sizing, pressure, and siting. Due to the size and nature of the project and the potential for increased emergency incidents resulting from increased development and truck traffic will increase as development occurs, but payment of DIF fees and increased property taxes will offset increased service costs for this type of project. In addition, the Section 2.2.6 of the WLC Specific Plan indicates a future 1.5-acre urban fire station site will be dedicated to the City to help offset increased fire service needs. With these provisions, the proposed project will have a less than significant impact on fire services.

[1] Fire Station 99 (Morrison Park) opened in October 2012.

General Plan and Municipal Code Consistency. Table 4.14.C evaluates whether the proposed project is consistent with the City's General Plan policies and Municipal Code requirements relative to fire service.

Table 4.14.C: Project Consistency with General Plan Policies and Municipal Code Requirements for Fire Service

General Plan Policies		Project Consistency
Community Design Element Policies		
2.13.1	Limit the amount of development to that which can be adequately served by public services and facilities, based upon current information concerning the capability of public services and facilities.	**Consistent.** Initial project construction can be accommodated by existing fire protection service. As development continues, the WLCSP provides a future fire station site, and the project will provide DIF fees and increased property taxes to compensate for future fire service needs.
2.14.3	Review development projects for their impacts on public services and facilities including, but not necessarily limited to, roadways, water, sewer, fire, police, parks, and libraries and require public services or facilities to be provided at the standards outlined in the Moreno Valley General Plan and the standards of applicable service agencies.	**Consistent.** This EIR provides information on the potential impacts of the project on City services and facilities, including fire protection. As development occurs, the WLCSP provides a future fire station site, and the project will provide DIF fees and increased property taxes to compensate for future fire service needs.
Safety Element Policies		
6.11.1	Respond to any disaster situation in the City to provide necessary initial response and providing for key support to major incidents.	**Consistent.** Development according to the Specific Plan will allow emergency access to this portion of the City as new industrial warehouses are constructed.
6.12.1	Support mutual aid agreements and communication links with the County of Riverside and other local participating jurisdictions.	**Consistent.** Development according to the Specific Plan will allow regional emergency access to this portion of the City from SR-60 and Gilman Springs Road.
6.13.1	Provide fire safety education to residents of appropriate age.	**Consistent.** The project is for industrial warehouses and this policy generally applies to residential uses; however, warehouse operators will provide fire safety instruction and information to employees as encouraged by the Fire Department.
6.14.2	Relate the timing of fire station construction to the rise of service demand in surrounding areas.	**Consistent.** Initial project construction can be accommodated by existing fire protection service. As development continues, the WLCSP provides a future fire station site, and the project will provide DIF fees and increased property taxes to compensate for future fire service needs.
6.15.1	Encourage programs to minimize the fire hazard, including but not limited to the prevention of fuel build-up where wildland areas are adjacent to urban development.	**Consistent.** The Specific Plan provides site and building lighting guidelines for future development to discourage crime. Landscape palettes designed to reflect fuel modification criteria in wildland areas.
6.15.2	Tailor fire prevention measures implemented in wildland areas to both the aesthetic and functional needs of the natural environment.	**Consistent.** A portion of the project is in a High Fire Hazard Severity Zone and special construction features of the California Building Code will apply.

Table 4.14.C: Project Consistency with General Plan Policies and Municipal Code Requirements for Fire Service

General Plan Policies	Project Consistency
6.16.1 Ensure that ordinances, resolutions and policies relating to urban development are consistent with the requirements of acceptable fire safety, including requirements for smoke detectors, emergency water supply and automatic fire sprinkler systems.	**Consistent.** Future development will be required to comply with applicable fire protection requirements of the California Building Code.
6.16.2 Encourage the systematic mitigation of existing fire hazards related to urban land development or patterns of urban development as they are identified and as resources permit.	**Consistent.** Future warehouse development will have fire access lanes, building sprinkler systems and other fire suppression equipment and personnel to minimize fire-related risks.
6.16.3 Ensure that adequate emergency ingress and egress is provided for each development.	**Consistent.** Development according to the Specific Plan will allow emergency access to this portion of the City as new industrial warehouses and roadways are constructed.
City of Moreno Valley Municipal Code	
Pursuant to Moreno Valley Municipal Code section 3.42.060, Fire Facilities and Commercial and Industrial Development Impact Fees, states that fees shall be paid by applicants for commercial and industrial projects in the amounts adopted by the City Council by resolution from time to time. Neither building permit nor occupancy permit will be issued for any new commercial, industrial, or other non-residential building or structure unless the specified fees are paid.	**Consistent.** Future development within the Specific Plan will pay applicable Development Impact Fees to the City for fire-related services.

The proposed project is consistent with the City General Plan policies and Municipal Code requirements relative to fire protection services.

NOTE: The following information was added as a result of revisions to the WLC Specific Plan.

The WLCSP will dedicate a new 1.5-acre urban fire station site within its boundaries to allow for expansion of fire protection services as the project develops (see WLCSP Section 2.2.4). The revised WLCSP indicates the new fire station will be at the north end of Planning Area 11, and it is required to be built during Phase I. Placement of the fire station is subject to review and approval by the Fire Chief (WLCSP Section 2.2.4 First Station Site).The WLCSP also requires building and site design characteristics that specifically support fire services by encouraging buildings that are safe and can be secured by design, fencing, security services, etc. The proposed WLCSP design guidelines are consistent with the goals of the General Plan relative to fire protection and site design, as outlined in Section 4.14.2.2. Finally, future development within the WLCSP will be required to comply with the City's DIF requirements as new development is constructed. Therefore, the project will have less than significant impacts relative to fire protection service, and no mitigation is required.

4.14.2.6 Significant Impacts

Based on the analysis in Section 4.14.2.5, the project will have no significant impacts relative to fire protection.

4.14.3 Schools

4.14.3.1 Existing Setting

The project area is served by two school districts, the Moreno Valley Unified School District (MVUSD) and the San Jacinto Unified School District (SJUSD) and is home to the Moreno Valley campus of Riverside Community College (RCC). The MVUSD operates a total of 30 schools; 20 elementary, six middle, and four high schools. The SJUSD encompasses the far southeastern portion of the proposed project site (approximately 30 acres) and operates seven elementary schools, three middle schools, and two high schools.

NOP/Scoping Process. A number of residents were concerned about the WLC project only bringing in a small number of blue collar workers in a limited field (logistics warehousing), and that it would not help diversity or benefit to the workforce of the City (or their level of education) as a whole.

4.14.3.2 Existing Policies and Regulations

The City of Moreno Valley has developed policies and regulations in order to direct future activities and decisions in order to achieve the goals and objectives set forth in the City's General Plan and Municipal Code.

Community Design Element Policies

2.13.1 Limit the amount of development to that which can be adequately served by public services and facilities, based upon current information concerning the capability of public services and facilities.

2.14.3 Review development projects for their impacts on public services and facilities including, but not necessarily limited to, roadways, water, sewer, fire, police, parks, and libraries and require public services or facilities to be provided at the standards outlined in the Moreno Valley General Plan and the standards of applicable service agencies.

City of Moreno Valley Municipal Code. The proposed project will be located mainly within the MVUSD with a small part in SJUSD. These school districts currently impose fees of $0.51 and $0.47, respectively, per square foot on new industrial construction to offset the cost of providing new school facilities. The proposed project will be subject to these fees at the time of building permit issuance. However, no homes and no significant generation of school-aged children would be developed as part of the proposed project.

4.14.3.3 Methodology

Evaluation of school service impacts associated with the proposed project includes the following:

- Potential for student generation of the project in ways that would have direct or indirect impacts on local school districts;
- Cause other indirect educational impacts; and
- Cause negative impacts on existing or future school facilities or programs.

School impacts were evaluated by estimating compliance with local school district impact fee programs.

4.14.3.4 Thresholds of Significance

According to Appendix G of the *CEQA Guidelines*, a project would have a significant impact to schools if it would result in:

- Substantial adverse physical impacts associated with the provision of new or physically altered school facilities, need for new or physically altered school facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives.

4.14.3.5 Less than Significant Impacts

Threshold	Would the proposed project result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities, need for new or physically altered school facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

Section 4.13.5.1 indicates the project is expected to generate from 15,000 to 25,000 new jobs for the City and surrounding areas; however, it is speculative to estimate how many of those workers will actually live within the City and how many will commute from other areas. Although the exact number is speculative, any increase is not expected to be substantial and will not generate significant new demands related to need for new or altered school facilities. The project is an industrial project and not a residential project that would have a direct impact on school services by accommodating additional residents within the City. Construction of the proposed project will create short-term construction jobs. These short-term positions are anticipated to be filled by workers who, for the most part, reside in the project area; therefore, construction of the proposed project will not generate a permanent increase in population within the project area.

California Government Code (§65995[b]) establishes the base amount of allowable developer fees imposed by school districts. These base amounts are commonly referred to as “Level 1 fees” and are subject to inflation adjustment every two years. School districts are placed into a specific “level” based on school impact fee amounts that are imposed on the development.

Unlike residential development, where it is possible to ascertain impacts to a particular school or school district, because employees at a warehouse facility could reside in any number of school districts with their children attending a collection of schools, it is difficult to determine with any level of certainty what the potential impacts to a particular school or school district would be.

The project site is located within the jurisdictional boundaries of the MVUSD and SJUSD. The MVUSD imposes development fees of $0.51 per square foot of industrial development.[1] The SJUSD imposes development fees of $0.47 per square foot of industrial development. [2] These development fees are equal to the minimum fee established by the State (Level 1 fees). Per California Government Code (§ 65995[h]), “The payment or satisfaction of a fee, charge, or other requirement levied or imposed … are hereby deemed to be full and complete mitigation of the impacts … on the provision of adequate school facilities.”

It is anticipated that most of the new employment opportunities generated by the proposed project will be filled by persons already residing in the community and surrounding areas. Because employees of the proposed on-site uses would be drawn from the local area, no substantial increase in population

[1] *School Developer Impact Fees,* Moreno Unified School District, 2012. http://www.mvusd.net/apps/pages/index.jsp?uREC_ID=24969&type=d&pREC_ID=55535, accessed April 16, 2012.
[2] http://www.sanjacinto.k12.ca.us/districtPages/facilities/developerInfo.html, website accessed April 16, 2012.

or corresponding increase in students attending local schools will occur. In addition, the project proponent would be required to pay these development fees in accordance with Government Code 65995 and Education Code 17620.

The proposed project contains no residential development, so it would not cause a significant increase in the local population that would increase the number of students attending local schools (see Section 4.13, *Population and Housing*). Since payment of the school impact fees is required of all projects within MVUSD and SJUSD boundaries, impacts to school services and facilities would not occur. The WLC project is also consistent with the applicable General Plan policies in Section 4.13.3.2 as it will assist in the provision of adequate school facilities by providing legally required DIFs. Accordingly, impacts to the environment resulting from new or expanded school facilities would not occur, resulting in a less than significant impact and no mitigation is required.

General Plan and Municipal Code Consistency. Table 4.14.D evaluates whether the proposed project is consistent with the City's General Plan policies and Municipal Code requirements relative to school services.

Table 4.14.D: Project Consistency with General Plan Policies and Municipal Code Requirements for School Services

General Plan Policies		Project Consistency
Community Design Element Policies		
2.13.1	Limit the amount of development to that which can be adequately served by public services and facilities, based upon current information concerning the capability of public services and facilities.	**Consistent.** The proposed project consists of logistics warehousing and supporting uses and does not propose any residential uses that would add housing units or substantial numbers of new students to local schools.
2.14.3	Review development projects for their impacts on public services and facilities including, but not necessarily limited to, roadways, water, sewer, fire, police, parks, and libraries and require public services or facilities to be provided at the standards outlined in the Moreno Valley General Plan and the standards of applicable service agencies.	**Consistent.** This EIR provides information on the potential impacts of the project on City services and facilities, including schools.
City of Moreno Valley Municipal Code		
The proposed project will be located mainly within the MVUSD with a small part in SJUSD which currently impose fees of $0.51 and $0.47, respectively, per square foot on new industrial construction to offset the cost of providing new school facilities. The proposed project will be subject to these fees at the time of building permit issuance. However, no homes and no significant generation of school-aged children would be developed as part of the proposed project.		**Consistent.** Future development within the Specific Plan will pay applicable School Impact Fees for non-residential uses.

The proposed project is consistent with the City General Plan policies and Municipal Code requirements relative to school services. In addition, future development within the WLCSP will be required to comply with the City's DIF requirements as new development is constructed. Therefore, the project will have less than significant impacts relative to schools, and no mitigation is required.

4.14.3.6 Significant Impacts

Based on the analysis in Section 4.14.3.5, the proposed project will not produce any significant school-related impacts, so no mitigation is required.

4.14.4 Parks, Recreation, and Trails

4.14.4.1 Existing Setting

The Moreno Valley Parks and Community Services Department (Department) maintains over 358 acres of parks and park facilities, and 10 miles of trails. See Figure 4.14.1 for De Anza Trail in the surrounding area. The Department also maintains and operates 39 parks and facilities; including senior recreation centers and conference centers as well as 20 lighted sports fields and lighted sports fields at three schools. The nearest park to the project site is Ridgecrest Park located on John F. Kennedy Drive less than a mile southwest of the project site.

Open space land can be classified into lands for preservation of natural resources (e.g., wildlife habitat), production of resources (e.g., farming), public health and safety (e.g., floodplains), low-density residential development, and outdoor recreation (e.g., parks). Open space for outdoor recreation includes public and private outdoor recreation facilities. Public recreation facilities in Moreno Valley include State, County, and City parks as well as public golf courses. Private outdoor recreation facilities include private golf courses, driving ranges, and other private outdoor recreation facilities. Two private outdoor recreation facilities are owned and operated by homeowner's associations in Sunnymead Ranch and Moreno Valley Ranch.

A large amount of the City's open space lands is managed for the preservation of natural resources. These areas include the Box Springs Mountain Reserve, the San Timoteo Canyon Park property, the Lake Perris State Recreation Area, and the San Jacinto Wildlife Area. These areas are also used for hiking, horseback riding, fishing, boating, and other uses.

The Box Springs Mountain Reserve and the San Timoteo Canyon Park property are owned and operated by Riverside County Regional Park and Open Space District. They are primarily mountainous natural open space parks. The Box Springs Mountain Reserve is located at the northwest corner of Moreno Valley. The Reserve consists of three noncontiguous land areas, two of which are within the City's Sphere of Influence. San Timoteo Canyon Park property is located east of the City's Sphere of Influence along the north side of SR-60. Approximately 1,100 acres of the property, including the Badlands Landfill is jointly owned by the Regional Park and Open Space District and Riverside County Waste Management District.

Lake Perris State Recreation Area, located south of Moreno Valley, is approximately 8,000 acres. It contains a major reservoir, natural open space and facilities for boating and fishing, picnicking and camping. About 1,600 acres of the property were dedicated to the State of California as mitigation for loss of wildlife habitat due to development of the Moreno Valley Ranch Specific Plan. The Lake Perris State Recreation Area serves as one of several habitat reserves for the endangered Stephens' kangaroo rat (*Dipodomys stephensi*).

The San Jacinto Wildlife Area in the southeastern corner of the study area consists of gently sloping grasslands, sage scrub and natural and man-made wetlands that support migratory birds and resident wildlife. Bird watching and hunting are popular activities. Some of the adjoining property is owned by private organizations dedicated to hunting and wildlife conservation.

Several open space areas are located along soft-bottomed drainage courses within the planned communities of Sunnymead Ranch and Hidden Springs. The City also owns two natural open space areas. One open area is adjacent to the Moreno Valley Equestrian Center, located at the northeast corner of Redlands Boulevard and Locust Avenue. A second natural open space area is located north of Sunnymead Ranch Parkway, on the east side of Perris Boulevard.

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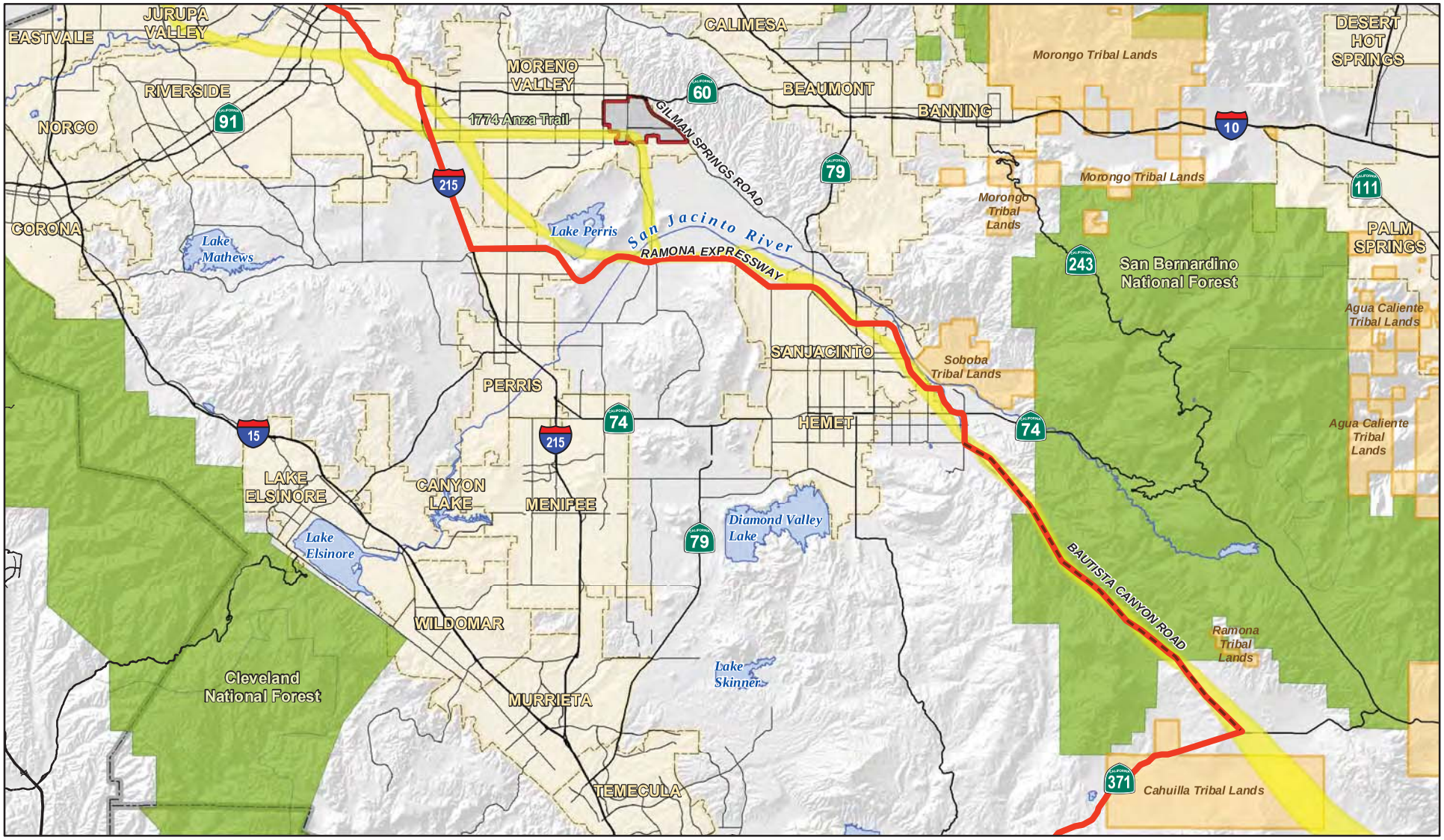

LSA

FIGURE 4.14.1

Project Location
Auto Tour Route
Recreational Trail
Historic Trail Corridor
Cities
Tribal Lands
National Forest

N

0 3 6
MILES

SOURCE: Riverside County, 2011; National Park Service; Thomas Bros, 2009.

I:\HFV1201\Reports\EIR\fig4-14-1_DeAnzaTrail.mxd (5/21/2014)

World Logistics Center Specific Plan Project
Environmental Impact Report

De Anza Trail

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Natural open space can also be found within the steeply sloping areas designated Rural Residential and Hillside Residential on the General Plan land use map. These areas contain wildlife habitat, watershed benefits and scenic values that can be conserved even as these areas are developed. Natural open space can be conserved because these areas are planned for low-density residential development. Low-density development requires a minimal amount of land disturbance.

The City's General Plan also discusses trail facilities. The City owns and maintains about 10 miles of developed trails. Multiuse trails are popular with the equestrian community. The Moreno Valley Equestrian Center, dedicated in 2003, provides additional facilities of interest to equestrians. This 45-acre park is located at the northeast corner of Redlands Boulevard and Locust Avenue. The park features equestrian facilities, including an arena, with bleachers, a water trough, night lighting and parking for horse trailers.

Multiuse trails should be designed with considerations for safety, accessibility, proper design and construction, signage and relative location. The City's trail network should also connect to the County and State regional trail systems.

There is one existing multiuse trail adjacent to the project limits, located along Redlands Boulevard and Cottonwood Avenue. There are several proposed trails shown on the current General Plan within the project area along Redlands Boulevard, Cottonwood Avenue, Brodiaea Avenue, Dracaea Avenue, Theodore Street, Fir Avenue, Sinclair Street, and Davis Road.

NOP/Scoping Comments. One written comment was received specifically about park impacts. The State requested that the WLCSP project not have any adverse impacts on the Lake Perris Recreational Area. In addition, at least one resident urged the City to provide an integrated network of trails that would connect to other trails planned in the region (e.g., Juan Bautista de Anza trail).

4.14.4.2 Policies and Regulations

a. State Regulations

Quimby Act (California Government Code 66477). This State policy requires the dedication of land and/or imposes a requirement of fees for park and recreational purposes as a condition of approval of tentative map or parcel map.

b. Local Regulations, City of Moreno Valley General Plan

Parks, Recreation and Open Space Element Policies

4.2.7 The City level of service standard is 3 acres of developed parkland for every 1,000 new residents. Exceptions from this ratio may be made in exchange for extraordinary amenities of comparable economic value. Land not suitable for active recreation purposes may not be counted toward fulfilling parkland dedication requirements.

4.2.8 Encourage the development of recreational facilities within private developments, with appropriate mechanisms to ensure that such facilities are properly maintained and that they remain available to residents in perpetuity.

4.2.17 Require new development to contribute to the park needs of the City.

4.3.1 The City's network of multiuse trails, including regional trails, community trails, and local feeder trails, shall (1) be integrated with recreational, residential and commercial areas, schools and equestrian centers; (2) provide access to community resources and facilities,

and (3) connect urban populations with passage to hillsides, ridgelines, and other scenic areas.

4.3.3 All new development approvals shall be contingent on trail right-of-way dedication and improvement in accordance with the Master Plan of Trails.

4.3.4 In conjunction with all development review, the City shall consider multiuse trail access and traditional travel routes through the property.

4.3.5 In conjunction with the review and approval of non-residential developments, the City should consider the use of multiuse trail amenities such as hitching posts, benches, rest areas, and drinking facilities.

4.3.7 Trail design and construction should take into consideration the safety and convenience of all trail users as the primary concern.

4.3.8 The City should facilitate the development of a multiuse regional trail system.

4.3.9 Unless otherwise specified due to fire department requirements, access or as established by a specific plan, city trails along roadways shall be ten (10) feet wide and shall be constructed with decomposed granite or equal material and shall provide appropriate fencing or other devices where needed to delineate trails from vehicular rights-of-way.

4.3.10 Where firefighting access is required, trails shall be 20’ wide to meet the needs of the Fire Department and its equipment. Fire Department requirements shall be met in all conditions where access is required.

4.3.11 In unusual situations where legal or topographical barriers exist (e.g., excessive slope, the configuration of right-of-way, existing vegetation, etc.), the City shall have the discretion to amend the trail requirement as needed to accomplish the goals of this General Plan.

4.3.14 Where feasible, use drainage courses, utility rights-of-way and other such opportunities to incorporate trail and open space elements in the design of major development projects.

4.14.4.3 Methodology

The potential impacts of the proposed project on recreation and park resources were evaluated based on whether implementation of the proposed project could result in increased use of existing recreation and park resources, or whether implementation of the proposed project could necessitate the construction or expansion of recreation and park facilities.

4.14.4.4 Thresholds of Significance

The following thresholds of significance regarding potential impacts to recreational facilities and resources are based on questions contained in Appendix G of the *CEQA Guidelines*. The proposed project would result in a significant impact on recreation resources if any of the following occurs:

- The project increases the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; and/or
- The project includes recreational facilities or requires the construction or expansion of recreational facilities that have an adverse physical effect on the environment.

4.14.4.5 Less than Significant Impacts

Threshold	Would the project result in increased use of existing neighborhood and regional parks or other recreational facilities (e.g., trails) where substantial physical deterioration would occur or be accelerated?

The WLC project proposes the development of a master-planned logistics center; no residential development is proposed. There is a potential for the proposed project to indirectly generate new residents in the City, although predicting the exact number would be too speculative. Increases in the City's population from future residential development will help fund new parks and trails through dedications of land and the payment of Development Impact Fees.

The WLCSP project proposes a General Plan Amendment to the Master Plan of Trails to reduce the extent of trail systems in the area to reflect the change from a residential neighborhood (Moreno Highlands) to a non-residential neighborhood (World Logistics Center). Trail linkages are provided in the WLC project to extend existing trail routes from the western edge of the project to the east, providing for future linkages to Gilman Springs Road, to the Lake Perris State Recreation Area, and to the San Jacinto Wildlife Area.

Implementation of these new trails and the General Plan Amendment (i.e., revised Master Plan of Trails) will allow the project to be consistent with the General Plan policies relative to trails (4.3.1 and 4.3.8).

General Plan and Municipal Code Consistency. Table 4.14.E evaluates whether the proposed project is consistent with the City's General Plan policies and Municipal Code requirements relative to parks, recreation, and open space:

Table 4.14.E: Project Consistency with General Plan Policies and Municipal Code Requirements for Parks, Recreation and Open Spaces

General Plan Policies		Project Consistency
Parks, Recreation and Open Space Element Policies		
4.2.7	The City level of service standard is 3 acres of developed parkland for every 1,000 new residents. Exceptions from this ratio may be made in exchange for extraordinary amenities of comparable economic value. Land not suitable for active recreation purposes may not be counted toward fulfilling parkland dedication requirements.	**Not Applicable.** The proposed project consists of logistics warehousing and supporting uses, and does not propose any residential uses that would add new housing units or residents who would use local parks.
4.2.8	Encourage the development of recreational facilities within private developments, with appropriate mechanisms to ensure that such facilities are properly maintained and that they remain available to residents in perpetuity.	*The following changes have been made due to revision to the Specific Plan project size.* **Not Applicable.** The proposed project does not generate a need for new active recreational facilities, so no maintenance costs will be involved. However, the project does provide 74.3 acres of Open Space in the southwestern corner of the site adjacent to Mount Russell to be dedicated to the City of Moreno Valley.

Table 4.14.E: Project Consistency with General Plan Policies and Municipal Code Requirements for Parks, Recreation and Open Spaces

General Plan Policies		Project Consistency
4.2.17	Require new development to contribute to the park needs of the City.	*The following changes have been made due to revision to the Specific Plan project size.* **Not Applicable.** The proposed project consists of logistics warehousing and supporting uses, and does not propose any residential uses that would add new housing units or residents who would use local parks. However, the project does provide 74.3 acres of Open Space in the southwestern corner of the site adjacent to Mount Russell.
4.3.1	The City's network of multiuse trails, including regional trails, community trails, and local feeder trails, shall (1) be integrated with recreational, residential and commercial areas, schools and equestrian centers; (2) provide access to community resources and facilities, and (3) connect urban populations with passage to hillsides, ridgelines, and other scenic areas.	**Consistent.** The Specific Plan proposes a trail along the southwestern portion of the site to tie into an existing trail along the west side of Redlands Boulevard and an existing trail west along Cactus Avenue. The project will also provide a trail connection from the southwest corner of the project around the Open Space area and a trailhead that will allow a future connection to the SJWA property that would be installed and maintained by the CDFW.
4.3.3	All new development approvals shall be contingent on trail right-of-way dedication and improvement in accordance with the Master Plan of Trails.	**Consistent.** The new trail and related improvements will be consistent with the City's requirements in this regard. The project entails a General Plan Amendment to modify the Master Plan of Trails consistent with the proposed Specific Plan trails.
4.3.4	In conjunction with all development review, the City shall consider multiuse trail access and traditional travel routes through the property.	**Consistent.** See discussion under Policy 4.3.1 above.
4.3.5	In conjunction with the review and approval of non-residential developments, the City should consider the use of multiuse trail amenities such as hitching posts, benches, rest areas, and drinking facilities.	**Consistent.** The new trail and related improvements will be consistent with the City's requirements in this regard.
4.3.7	Trail design and construction should take into consideration the safety and convenience of all trail users as the primary concern.	**Consistent.** The new trail and related improvements will be consistent with the City's requirements in this regard.
4.3.8	The City should facilitate the development of a multiuse regional trail system.	**Consistent.** The proposed trail connections within the Specific Plan would connect to existing regional trails to the west and future regional trails to the southeast through the SJWA property.
4.3.9	Unless otherwise specified due to fire department requirements, access or as established by a specific plan, city trails along roadways shall be ten (10) feet wide and shall be constructed with decomposed granite or equal material and shall provide appropriate fencing or other devices where needed to delineate trails from vehicular rights-of-way.	**Consistent.** The new trail and related improvements will be consistent with the City's requirements in this regard.
4.3.10	Where firefighting access is required, trails shall be 20' wide to meet the needs of the Fire Department and its equipment. Fire Department requirements shall be met in all conditions where access is required.	**Consistent.** The new trail and related improvements will be consistent with the City's requirements in this regard.

Table 4.14.E: Project Consistency with General Plan Policies and Municipal Code Requirements for Parks, Recreation and Open Spaces

General Plan Policies		Project Consistency
4.3.11	In unusual situations where legal or topographical barriers exist (e.g., excessive slope, the configuration of right-of-way, existing vegetation, etc.), the City shall have the discretion to amend the trail requirement as needed to accomplish the goals of this General Plan.	**Consistent.** The new trail and related improvements will be consistent with the City's requirements in this regard.
4.3.14	Where feasible, use drainage courses, utility rights-of-way and other such opportunities to incorporate trail and open space elements in the design of major development projects.	**Consistent.** The proposed trails will allow for connections to existing and future trails as outlined in Policy 4.3.1 above.

The proposed project is consistent with the City General Plan policies relative to parks, recreation, and trails.

The WLCSP will provide connections to existing trails to the west and southwest, and a connection to and trailhead for a future planned trail in the San Jacinto Wildlife Area south of the site, as outlined in Specific Plan Section 3.4.2, *Multi-Use Trails*, and as shown on Figure 3-11 of the Specific Plan. In addition, future development within the WLCSP will pay applicable DIFs to offset any potential impacts to parks or recreational services. Based on this, the proposed project will not create significant impacts on parks, recreation, or trails.

Threshold	Would the project result in construction or expansion of recreational facilities that would have an adverse physical effect on the environment?

NOTE: The following changes have been made due to revision to the Specific Plan project size.

The WLC project proposes development of up to approximately 40.6 million square feet of high-cube logistics warehouse facilities. It does not include the construction or expansion of a recreational facility since it would not create any substantial demands on recreational facilities. Section 4.13.5 concluded that the project would have a less than significant impact on population or housing; therefore, no new demand on existing park facilities would occur, and no expansion of existing parks or the construction of new parks would be required.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

As noted in the Specific Plan, the project includes an Open Space (OS) designation covering 74.3 acres on the lower elevations of Mount Russell in the southwestern portion of the WLCSP project site.

4.14.4.6 Significant Impacts

The analysis in Section 4.14.4.5 determined that all impacts of the WLC project relative to parks and recreation are less than significant, therefore, no mitigation is required.

4.14.5 Cumulative Impacts

The cumulative areas for police and fire protection services are the service areas for the RCSD and RCFD. The need for the public services and associated facilities is measured by service area population, or the number of residents and workers within the City's service area. Service population, as well as the type and density of development, determines the need for new or expanded police and services. Utilizing statistical information, local planning policies, and by interacting with other agencies, fire and police service providers can delineate past patterns, emerging trends, and future issues of concern. Once identified, service providers can redeploy resources to meet future needs.

Sections 4.14.1.6 and 4.14.2.6 identified the possible need for new fire station within the WLC project. Payment of DIFs and provision of a new fire station site within the WLCSP is expected to fully mitigate potential impacts of the WLC project relative to fire services. In addition, payment of DIFs is expected to fully mitigate potential impacts of the WLC project relative to police services.

As additional development occurs in the City of Moreno Valley and region, there may be an overall increase in the demand for law enforcement and fire protection services, including personnel, equipment, and/or facilities. Increases in demand are routinely assessed by these agencies as part of the annual monitoring and budgeting process. New development within the service areas of the RCSD and RCFD would be required to adhere to conditions established by fire and police service providers, and pay applicable DIFs to ensure adequate staffing and equipment levels. Therefore, there would be no cumulative impact on police and fire services in the City. Accordingly, cumulative impacts to the environment resulting from new or expanded police and fire protection facilities would not occur, resulting in a less than significant impact and no mitigation is required.

The cumulative area for school-related issues encompasses the two school district(s) that provide school services/facilities in the project area. While no significant population increase is anticipated to result from the construction and operation of the proposed project, future development (particularly residential development) forecast in the City's General Plan will increase the demand for school facilities and services. New school facilities are currently being constructed to accommodate the growth in the local student population. Additionally, school districts are engaged in planning new facilities in anticipation of future local and regional growth. Each district requires the payment of development fees to provide for new school services and/or facilities. As every new development is mandated to provide the fees applicable to the school district affected, there would be no cumulative impact on school services in the City. Accordingly, cumulative impacts to the environment resulting from new or expanded school facilities would not occur, resulting in a less than significant impact and no mitigation is required.

Implementation of the proposed project will not increase the use of existing parks and recreation facilities. As future residential development is proposed, the City will require developers to provide the appropriate amount of parkland or payment of in-lieu fees, which will contribute to future recreational facilities. Payment of these fees and/or implementation of facilities on a project-by-project basis would offset cumulative parkland impacts by providing funding for new and/or renovated parks equipment and facilities. As such, the cumulative impact of buildout associated with the implementation of the proposed project, when considered with cumulative projects in the area, would be less than significant with implementation of the WLC project.

4.15 TRAFFIC AND CIRCULATION: TABLE OF CONTENTS

FIGURES

TABLES

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NOTE TO READERS. *This section has been revised based on changes to the WLC Specific Plan, the project traffic study, and in response to comments on the original DEIR. Three street names have also changed (Street C now named Alessandro Boulevard, D now named Cactus Avenue, and E a portion of which is now named Alessandro Boulevard) and may still be referenced in the section. For correct street names see Circulation Master Plan Figure 3.10. In addition, Streets E and C have been realigned to follow the historical alignment of Alessandro Boulevard.*

Large amounts of text, tables, and/or graphics were removed or heavily modified from those in the original DEIR. The changed text is shown in underline/strikeout wherever possible. To maintain readability, however, some sections have notes that refer the reader to the original DEIR for the complete text, table, or graphic from the original DEIR.

4.15 TRAFFIC AND CIRCULATION

Revisions to this section have been made due to changes to the revised Traffic Impact Analysis (TIA) Report for the World Logistics Center prepared by Parsons Brinckerhoff and dated September 2014 (FEIR Volume 2, Appendix L-1). The vast majority of the changes to the TIA, and in turn replicated in the following Final EIR traffic section, are associated with:

1) *Project Reduction. A reduction in the project area in the amount of 100 acres that occurred between the Draft EIR and this Final EIR. The reduced project area would result in a reduction in the proposed quantity of high-cube warehouse development in the WLC by one million square feet and an increase in the quantity of background (i.e., non-project related) development in year 2035 by 220 dwelling units. The area of land that was eliminated is located in the southwest corner of the previous WLC site that was analyzed in the previous TIA and Draft EIR.*
2) *Baseline Plus Phase 1 Analysis. Added an Existing Plus Phase 1 (only) scenario that was added to the revised TIA and Final EIR, in order to provide a "baseline plus Phase 1 analysis."*
3) *Revised Project Schedule. A revision to the WLC implementation schedule so that Phase 1 is scheduled for completion in year 2022 as analyzed in the revised TIA and Final EIR, rather than in Year 2017 as analyzed in the previous TIA and Draft EIR. The scenarios for Year 2017 were revised to Year 2022 and include analysis of Phase 1 only and not full buildout of the WLC in the revised TIA and Final EIR, while the analysis of the previous Year 2022 scenarios were dropped from the revised TIA and Final EIR.*

Additional revisions to this section have been made due to comments received on the Draft EIR and previous TIA. In summary, these changes include:

4) *Truck Trips to Ports of Los Angeles and Long Beach. Analysis of freeway impacts from WLC trucks was extended to the Ports of Los Angeles and Long Beach. The extended analysis, covering more than 60 additional centerline miles of freeway, did not find any new impacts that were not already identified in the Draft TIA (see TIA Chapter 12, Section F) and replicated in this Final EIR traffic section (see Section 4.15.6.5 of this Final EIR). These changes have been made in response to: Comment F-1-49 in Letter F-1 from the Center for Biological Diversity/San Bernardino Valley Audubon Society; Comment F-3-4 in Letter F-3 from the California Clean Energy Committee; Appendix 78 in Letter F-3 from the California Clean Energy Committee; Comment F-9A-22 in Letter F-9A from the Sierra Club, Center for Community Action & Environmental Justice, and Natural Resources Defense Council; Comments F-9C-2, 4, 5, 6, and 7 in Letter F-9C from Sustainable Systems Research, LLC; Comment F-11-23 in Letter F-11 from the Sierra Club, San Gorgonio Chapter; Comment F-*

13-11 in Letter F-13 from the Sierra Club and Friends for a Livable Moreno Valley; and Comment G-51-45 in Letter G-51 from Michael McCoy.

5) *Rail Analysis. Analysis of the feasibility of shipping cargos between the WLC and the Ports of Los Angeles and Long Beach by rail instead of by truck was added. The analysis found that this was not feasible for a variety of reasons, including the cost and environmental impacts of a new rail alignment, the high fixed handling costs for rail cargo that makes short hauls uneconomical, and system constraints with the rail system itself. This analysis is provided in the revised TIA (see TIA Chapter 4, Section F) and replicated in this Final EIR traffic section (see end of Section 4.15.3.2 of this Final EIR). These changes have been made in response to: Comments F-3-5, 11, and Appendix 176 in Letter F-3 from the California Clean Energy Committee; Comments F-6-1, 2, and 3 in Letter F-6 from the Endangered Habitats League; Comment F-9A-45 in Letter F-9A from the Sierra Club, Center for Community Action & Environmental Justice, and Natural Resources Defense Council; Comment F-9B-45 in Letter F-9B from Tom Brohard and Associates; Comment F-11-29 in Letter F-11 from the Sierra Club, San Gorgonio Chapter; Comment G-2-7 in Letter G-2 from Perry Johnson; Comment G-17-2 in Letter G-17 from Joanne Lindgren; Comment G-18-1 in Letter G-18 from Sam Zaidy; Comment G-34-5 in Letter G-34 from Lindsay Robinson; Comment G-35-4 in Letter G-35 from Peggy Hadaway and John Neal; Comment G-49-18 in Letter G-49 from Karen Jakpor; Comment G-50-2 in Letter G-50 from Ann McKibben; Comment G-51-5 in Letter G-51 from Michael McCoy; Comments G-52-1 and 2 in Letter G-52 from Steve Jiannino; Comment G-53-4 in Letter G-53 from Deanna Reader and Kenny Bell; Comment G-57-1 in Letter G-57 from Tracy Hodge; Comment G-68-3 in Letter G-68 from Craig and Joan Givens; Comment G-96-3 in Letter G-96 from Margie Breikreuz; and Comment G-97-1 in Letter G-97 from Otana Jakpor.*

6) *Project Traffic Near Schools. Analysis of the potential safety impacts of WLC traffic on local schools was added, including the new proposed high school #5 located north of SR-60. The traffic analysis for this proposed school can be found in the Tech Memo on High school # 5 Appendix L. The analysis found that the project would pose little safety risk and that appropriate safety features were already present on roads near local schools. This analysis is provided in the revised TIA (see TIA Chapter 12, Section B) and replicated in this Final EIR traffic section (see Section 4.15.5.2 of this Final EIR). These changes have been made in response to: Comment E-3-13 in Letter E-3 from the Moreno Valley Unified School District; Comment F-11-36 in Letter F-11 from the Sierra Club, San Gorgonio Chapter; and Comment G-96-4 in Letter G-96 from Margie Breikreuz.*

7) *Additional Changes. Additional changes have been made to the revised TIA and replicated in the Final EIR traffic section based on comments received on analytical details contained in the Draft EIR and/or previous TIA. These changes have been made in response to: Comments B-2-2 through B-2-14 in Comment Letter B-2 from the California Department of Transportation District 8; Comment B-5-12 in Letter B-5 from the California Air Resources Board; Comment C-3-17 in Letter C-3 from the South Coast Air Quality Management District; Comments E-2A-2 through E-2A-12 in Comment Letter 2A from the City of Riverside; Comments E-2B-1 through E-2B-23 in Appendix 1 to Comment Letter 2-A from the City of Riverside; Comment E-3-5 in Letter E-3 from the Moreno Valley Unified School District; Comments E-5-1 through E-5-5 in Comment Letter E-5 from the City of Redlands; Comments F-3-3, F-3-4, and F-3-6 to F-3-10 in Letter F-3 from the California Clean Energy Committee; Comments F-8-68 and F-8-69 in Comment Letter F-8 from Shute, Mihaly & Weinberger LLP; Comments F-9A-3 and F-9A-7 through F-9A-22 in Letter F-9A from the Sierra Club, Center for Community Action & Environmental Justice, and Natural Resources Defense Council; Comments F-9B-1 and F-9B-2, F-9B-4 through F-9B-47 in Letter F-9B from Tom Brohard and Associates; Comments F-13-9, F-13-26, and F-13-89 through F-13-98 in Letter F-13 from the Sierra Club and Friends for a Livable Moreno Valley; Comment G-17-1 in Letter G-17 from*

Joanne Lindgren; Comments G-51-19, G-51-28 through G-51-30, G-51-47, and G-51-61 through G-51-65 in Letter G-51 from Michael McCoy; Comments G-57-5 through G-57-7 in Letter G-57 from Tracy Hodge; and Comments G-90-7 and G-90-14 in Letter G-90 from Mr. and Mrs. H.W. Wolterbeek.

Note: As a result of these various changes, the level of significance of traffic impacts has not changed in comparison to the Draft EIR. However, the following changes to individual roadway, intersection, and/or freeway impacts and the reason for these changes are as follows:

Intersections

Indian Street/Cactus Avenue (IN-64). Although this intersection exceeds the level of service standard in the Year 2035 Cumulative Plus Project analysis, the revised project does not increase the delay in comparison to the No Project condition. Consequently, no mitigation is required.

Ellsworth Street/Alessandro Boulevard (IN-71). Due to the reduction in the project size, this intersection does not exceed the level of service standard and therefore no longer requires mitigation.

Ellsworth Street/Cactus Avenue (IN-74). The Draft EIR TIA identified required mitigation for the Ellsworth Street/Cactus Avenue intersection (IN-74) in Table 69 (page 325). The mitigation included widening the northbound approach to provide three left-turn lanes, one through lane, and one right-turn lane, and adding a westbound left-turn lane and eastbound right-turn lane. This mitigation was inadvertently omitted from the mitigations chapter text and Table 80 in the Draft EIR TIA. This mitigation has been corrected in the Final EIR TIA and added to the mitigation discussion in the Final EIR.

Bridge Street/Ramona Expressway (IN-122). Mitigation for this intersection was included in the Draft EIR for project direct impacts (Existing Plus Project). Upon further review, it was determined that the mitigation was not warranted because the intersection will be eliminated and replaced by a grade separation. A discussion of this has been included in the Revised Draft EIR, however, the impact remains significant and unavoidable.

Roadway Segments

Theodore Street from SR-60 Westbound Ramps to Ironwood Avenue (S-1). Due to the reduction in the project size, this roadway segment does not exceed the level of service standard and therefore no longer requires mitigation.

Freeway Segments

Southbound I-215 from SR-74 to Ellis Avenue (F-71). In the Draft EIR, this freeway segment was listed as "I-215 SR-74/Case Road to Redlands Avenue" and shown as having an impact. In the Final EIR TIA, the segment where the level of service exceedance will occur (between SR-74 and Ellis Avenue) is listed as "I-215 SR-74 to Redlands Ave" in Table 76 for project direct impacts but as "I-215 SR-74 to Ellis Ave" in Table 79 for cumulative impacts. In each table, however, the same identification number (F-71) was used. In summary, this is not a new impact; as it was already identified in the Draft EIR. A footnote has been added to the Revised EIR as follows: "I-215 currently runs unbroken between SR-74 and Redlands Avenue. The RTP includes a project (3M0731) that would split this freeway mainline section by adding a new interchange at Ellis Avenue. For this reason, this freeway section is listed as "I-215 SR-74 to Redlands" on the tables in the TIA and EIR describing conditions prior to construction of the Ellis Avenue interchange."

Southbound I-215 from Baseline Road to Highland Avenue (F-83). This freeway segment was identified as a significant and unavoidable project direct impact (Existing Plus Project). Upon further review, it was determined that the significant and unavoidable impact will occur in the Year 2035

Cumulative Plus Project scenario. For this reason, the impact has been moved to the Year 2035 Cumulative Plus Project analysis. Regarding F-83, the WLC would have a direct impact which was identified in the analysis of the Existing Plus Project scenario. However, the identified mitigation for this is already under construction. As a result, the direct impact will never exist. In the Cumulative scenario, F-83 would be deficient with or without WLC, even with the new lane currently under construction. Since the WLC is adding to a deficient condition it would have a cumulative impact on this segment. The solution to this would be to add yet another lane, but this is not feasible given the constraints at the site.

This section of the EIR assesses traffic impacts by examining the proposed project's impacts on Existing Baseline 2012, Opening Year 2022, and Year 2035 Cumulative traffic analysis time horizons. The impact of the entire proposed project has been assessed in the Baseline 2012 and Buildout Year 2035 time horizons, while the Baseline 2012 and Future Year 2022 analyses assess impacts of Phase 1 of the proposed project.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements, which affect several separate, adjacent and related properties. The following information is summarized from Section 3.0, *Project Description*. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes the WLC Specific Plan Area (2,610 acres), the CDFW Conservation Buffer Area (910 acres), the Public Facilities Lands area (194 aces), plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

Note: The following changes have been made due to revision to the Specific Plan project size.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 30 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.

The analysis contained in this section is based on the following technical studies prepared for the proposed project:

- *Traffic Impact Analysis Report for the World Logistics Center*, Parsons Brinckerhoff, September 2014 (Appendix L-1 of this EIR).
- *Trip Generation Analysis for High-Cube Warehouse Distribution Center Land Use for the NAIOP Inland Empire*, Kunzman Associates, Inc., December 20, 2011 (Appendix L-2 of this EIR).
- *Assessment of Available High-Cube Trip Generation Rates*, Memorandum from Aric Evatt, Urban Crossroads, Inc., to Ahmad Ansari, City of Moreno Valley, February 1, 2012 (Appendix L-3 of this EIR).
- Letter from George Rhyner, Crain & Associates, to Mr. Robert Evans, NAIOP Inland Empire, regarding Response to the South Coast Air Quality Management District White Paper, dated December 1, 2011 (Appendix L-4 of this EIR).

In addition to these technical studies, the analysis contained in this section is also based on the following reference document:

- Moreno Valley General Plan Circulation Element, adopted July 2006.

The TIA for the proposed project has been prepared in accordance with accepted standards and practices of the traffic engineering industry as summarized in a scoping agreement with the City of Moreno Valley. The TIA analyzes roadway segments, intersections, freeway mainline segments, freeway weaving areas, and freeway ramp merge/diverge locations and complies with the TIA Guidelines of the City and Caltrans. Figures 4.15.1, 4.15.2, 4.15.3, and 4.15.4 illustrate the locations of analysis roadway segments, intersections, freeway mainline segments, freeway weaving segments, and freeway ramp merge/diverge locations.

The study area for roadway segments included the roadways that will be affected by the proposed General Plan Amendment. The study area for intersections in Moreno Valley covered all intersections between streets classified as collector or higher and another collector or higher classification street, at which the proposed project would add 50 or more peak hour trips. This study area criterion was also applied to the main routes between the project and the neighboring cities of Riverside, Perris, Beaumont, San Jacinto, and Redlands. The study area also extended west to the nearest ramps to State Route (SR-91) and as far south as the I-215 ramps at Redlands Avenue in Perris.

The study area for freeways included the freeway routes extending from the project site to the north, south, east, and west. The analysis covered SR-60 from I-10 in the east to SR-71 in the west, SR-91/ I-215 from I-210 in the east to I-15 in the west, I-215 from Redlands Avenue (4th Street) in the north to the Scott Road interchange in the south, and I-10 from SR-62 in the east to SR-60 in the west. In addition, the two main routes to the Ports of Los Angeles and Long Beach were assessed.

Any freeway ramp where the project added 100 or more peak-hour trips was also studied. These included:

- All ramps at the SR-60/Theodore Street Interchange;
- All ramps at the SR-60/Gilman Springs Road Interchange;

- All ramps at the SR-60/Redlands Boulevard Interchange;
- The westbound off- and eastbound on-ramps to the SR-60/Central Avenue Interchange; and
- The westbound off- and eastbound on-ramps to the SR-60/Martin Luther King Boulevard Interchange.

Note: The following figures (3 of which were in the original DEIR) were modified or added in this revised DEIR section - the reader is referred to the original DEIR for the original graphic.

Figure 4.15.1: Study Roadway Segment Locations (replaced)

Figure 4.15.2: Study Intersection Locations (replaced)

Figure 4.15.3: Freeway Segment Locations (remains the same)

Figure 4.15.4: Freeway Segment Locations to the Ports of Los Angeles & Long Beach (new graphic)

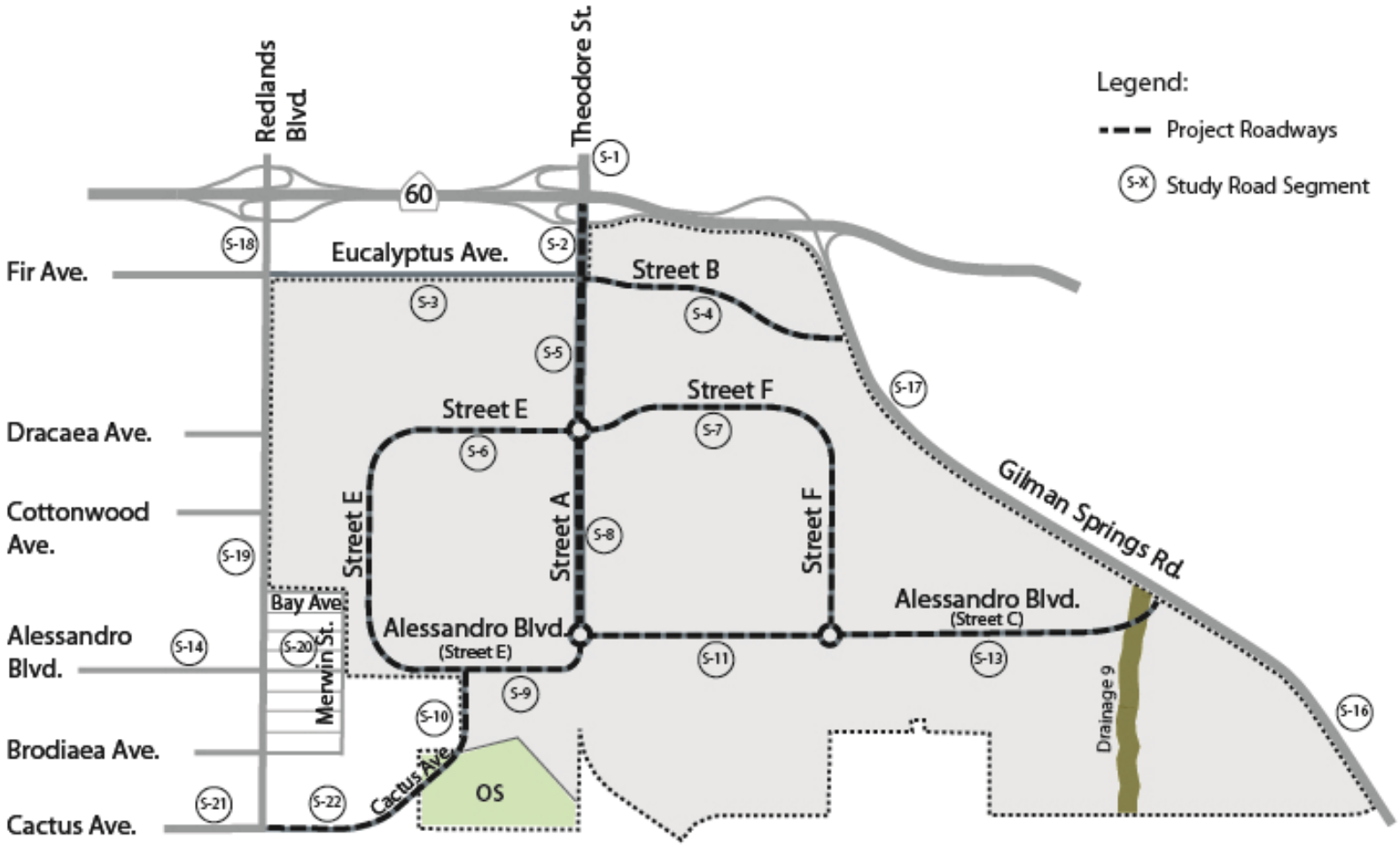

Figure 4.15.1: Study Roadway Segment Locations
Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

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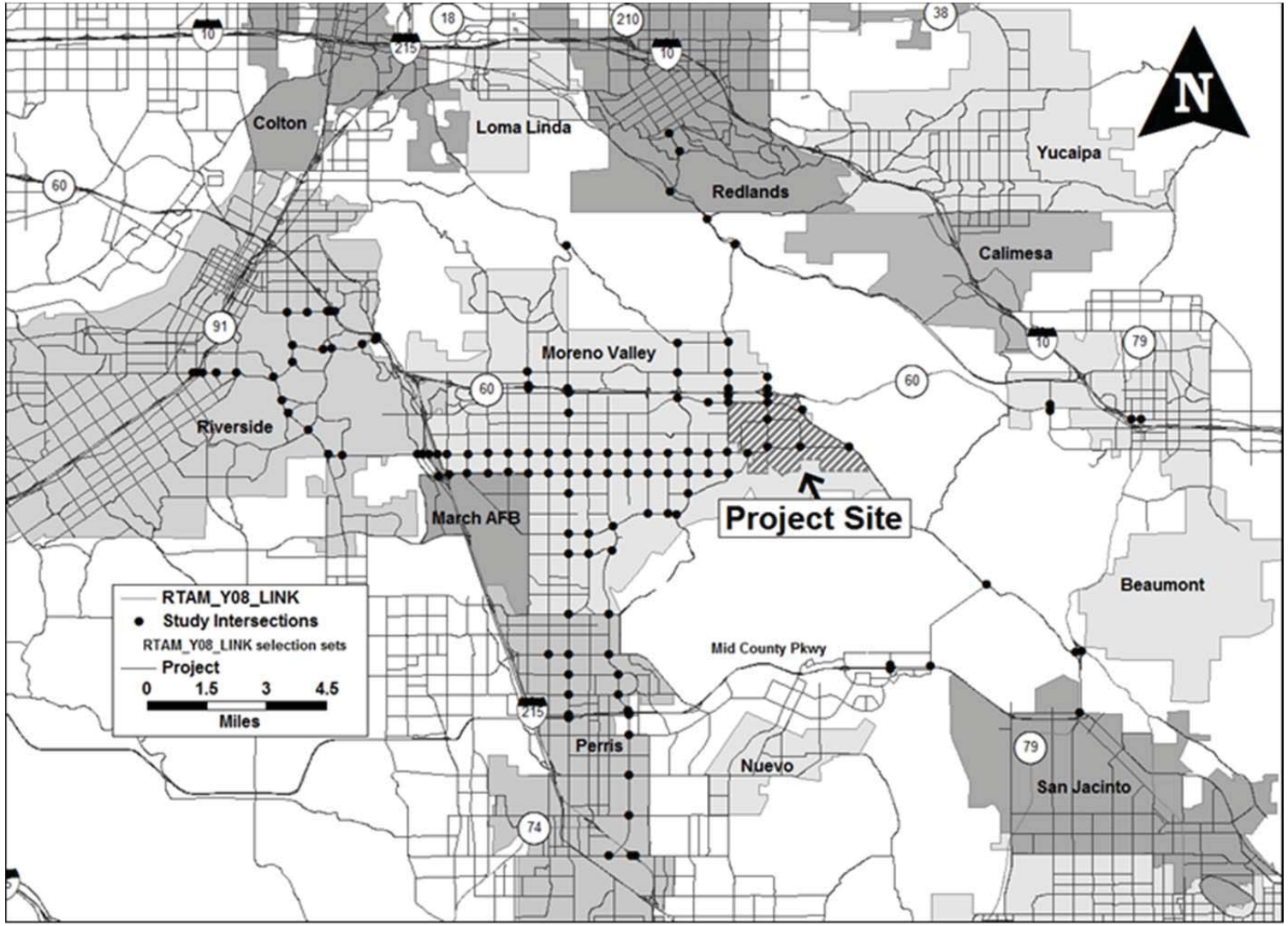

Figure 4.15.2: Study Intersection Locations
Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

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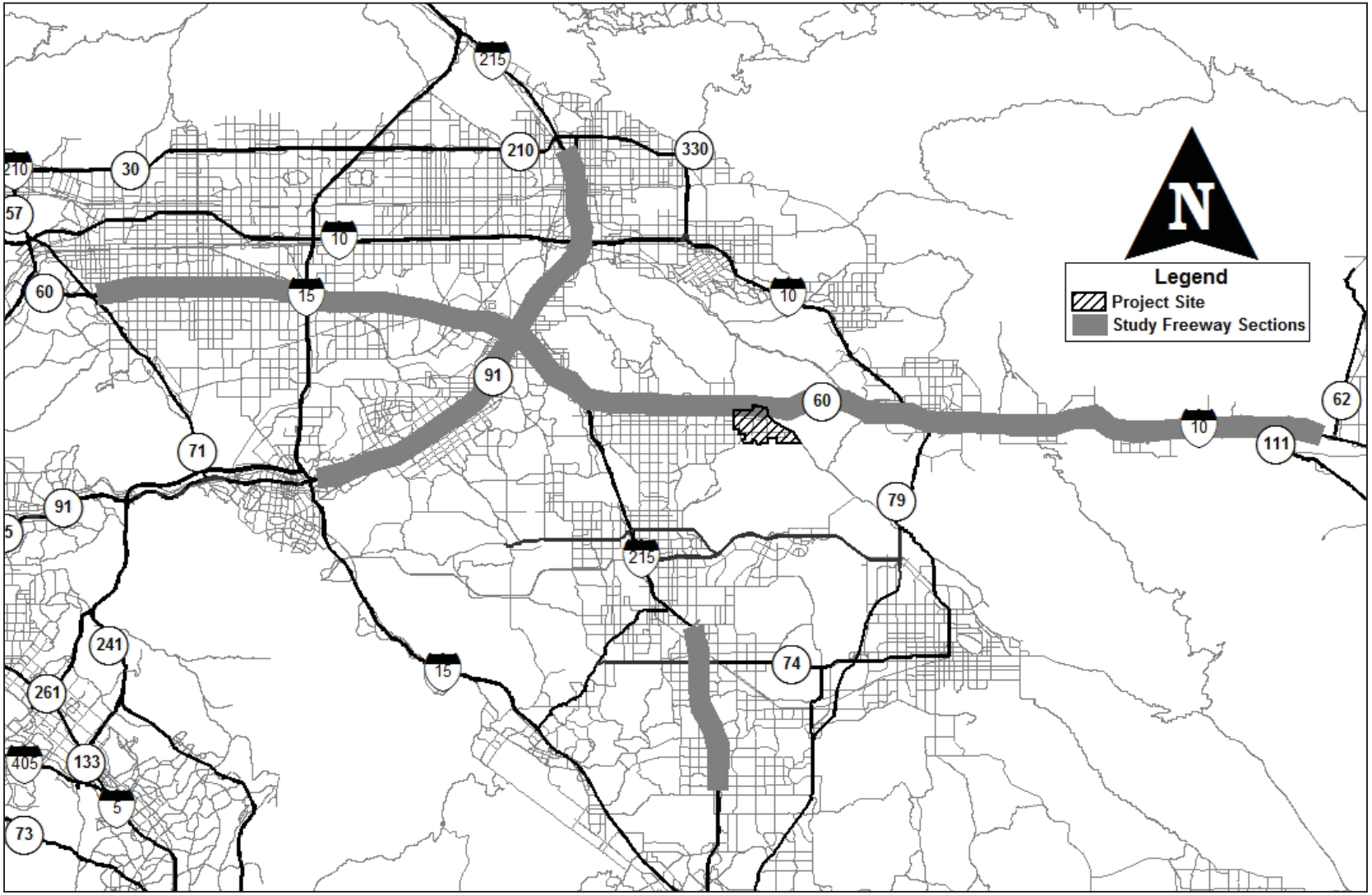

Figure 4.15.3: Freeway Segment Locations
Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

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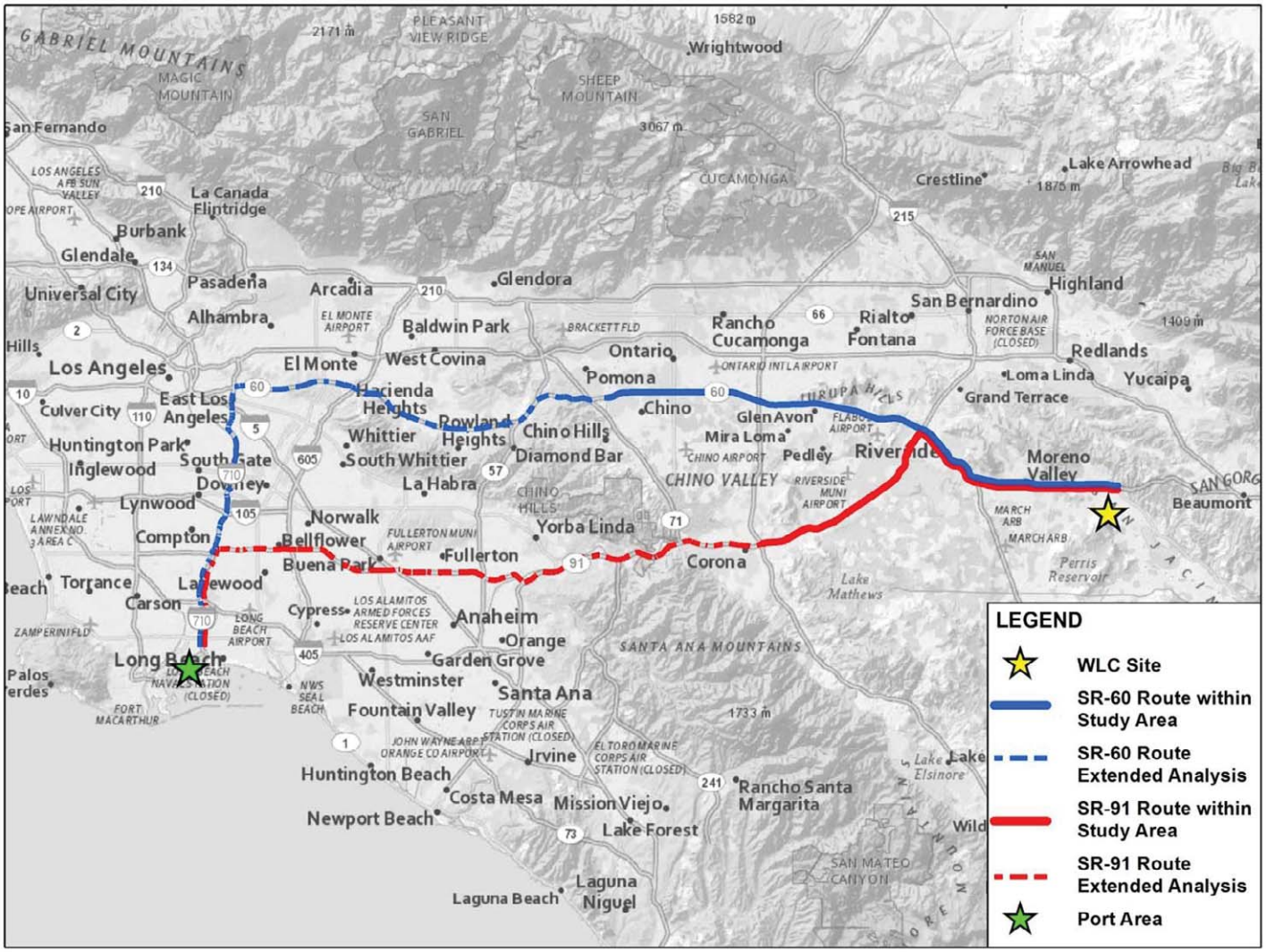

Figure 4.15.4: Freeway Segment Locations to the Ports of Los Angeles and Long Beach
Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

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4.15.1 Existing Setting

4.15.1.1 Traffic Level of Service Definitions

Level of Service (LOS) is an expression of a transportation facility's operations and is dictated by the relationship between capacity and traffic volumes. LOS is generally defined using the letter grades A through F (Table 4.15.A). These levels reflect the reality that conditions rapidly deteriorate as traffic approaches the absolute capacity of a thoroughfare.

Table 4.15.A: Traffic Level of Service Definitions

Level of Service	Description
A	No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.
B	This service level represents stable operation, where an occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles.
C	This level still represents stable operating conditions. Occasionally drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.
D	This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is seldom attained no matter how great the demand.
F	This level describes forced flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, both speed and volume can drop to zero.

Source: *Highway Capacity Manual, Special Report 209,* Transportation Research Board, Washington, D.C., 2000.

Roadway Segment Level of Service Methodology. Roadway segment operations have been evaluated using the City of Moreno Valley Daily Roadway Capacity Values provided in the City of Moreno Valley General Plan Circulation Element as shown in Table 4.15.B.

Table 4.15.B: City of Moreno Valley Level of Service Criteria for Roadway Segments

Roadway Classification	Level of Service*				
	A	B	C	D	E
6-Lane Divided Arterial	33,900	39,400	45,000	50,600	56,300
4-Lane Divided Arterial	22,500	26,300	30,000	33,800	37,500
4-Lane Undivided Arterial	15,000	17,500	20,000	22,500	25,000
2-Lane Industrial Collector	7,500	8,800	10,000	11,300	12,500
2-Lane Undivided Residential	N/A	N/A	N/A	N/A	2,000

*Maximum Average Daily Traffic (ADT)

Source: City of Moreno Valley *Traffic Impact Analysis Preparation Guide*, 2007.

Riverside County's LOS thresholds for surface streets were used for the assessment of impacts to Gilman Springs Road, as shown in Table 4.15.C.

Table 4.15.C: Riverside County LOS Thresholds for Surface Streets

Type of Roadway	Level of Service(1)		
	LOS C	LOS D	LOS E
8-Lane Urban Arterial	57,400	64,600	71,800
6-Lane Urban Arterial	43,100	48,500	53,900
4-Lane Urban Arterial	28,700	32,300	35,900
2-Lane Collector	10400	11700	13,000

Notes: All capacity figures are based on optimum conditions and are intended as guidelines for planning purpose only.
(1) Maximum two-way ADT values are based on the 1999 Modified Highway Capacity Manual Level of Service Tables as defined in the Riverside County Congestion Management Program.

Source: County of Riverside General Plan, Circulation Element, 2008

Intersection Level of Service Methodologies. LOS criteria for signalized intersections are identified in Table 4.15.D. Levels of service at signalized intersections were calculated using the methodology described in Chapter 16 of the *Highway Capacity Manual* (HCM) and generated by the Synchro analysis software. Signalized intersection LOS are based on an intersection's average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections, LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 4.15.D.

Table 4.15.D: Level of Service Criteria for Unsignalized and Signalized Intersections

Level of Service	Unsignalized Intersection and Roundabouts Average Delay per Vehicle (sec.)	Signalized Intersection Average Delay per Vehicle (sec.)
A	≤ 10	≤ 10
B	> 10 and ≤ 15	> 10 and ≤ 20
C	> 15 and ≤ 25	> 20 and ≤ 35
D	> 25 and ≤ 35	> 35 and ≤ 55
E	> 35 and ≤ 50	> 55 and ≤ 80
F	> 50	> 80

Source: *Highway Capacity Manual,* Transportation Research Board, Washington, DC, 2000.

LOS criteria for unsignalized intersections are also identified in Table 4.15.D. The City of Moreno Valley requires unsignalized intersection analysis based on the methodology described in Chapter 17 of the HCM.

Freeway Level of Service Methodology. Caltrans LOS criteria for freeway mainline segments, freeway weave segments, and freeway ramp merge/diverge locations are expressed in terms of density (passenger cars/mile/lane). Table 4.15.E shows the correlation between density and LOS for freeway segments and ramps.

Table 4.15.E: Level of Service Criteria for Freeway Segments

Level of Service	Freeway Segment Density (passenger cars/mile/lane)	Freeway Weaving Segment Density (pc/mi/lane)	Freeway Ramp Density (passenger cars/mile/lane)
A	0–11.0	≤ 10.0	≤ 10.0
B	11.0–18.0	> 10.0 and ≤ 20.0	> 10.0 and ≤ 20.0
C	18.0–26.0	> 20.0 and ≤ 28.0	> 20.0 and ≤ 28.0
D	26.0–35.0	> 28.0 and ≤ 35.0	> 28.0 and ≤ 35.0
E	35.0–45.0	>35.0 and ≤ 43.0	>35
F	> 45.0	>43.0	Exceeds Capacity

Source: (Table 11, PB 2013) *Highway Capacity Manual,* Transportation Research Board, Washington, DC, 2000.

4.15.1.2 Baseline Conditions

The project is located within the eastern portion of the City of Moreno Valley. The project site is located south of SR-60 and west of Gilman Springs Road. Tables 4.15.F and 4.15.G show existing intersection control types and roadway through lanes for the study area intersections and roadways, respectively. LOS and volumes are discussed below for existing (2012) without project conditions (otherwise known as the “baseline” condition).

Baseline Levels of Service. Existing (2012) traffic operations have been evaluated for study area intersections. The analysis was performed for the a.m. and p.m. peak hours. Existing traffic volumes at study area intersections are based on peak hour intersection turn movement counts. An intersection level of service analysis was conducted to determine current intersection performance for existing baseline conditions. The levels of service for existing baseline conditions at study area intersections are summarized in Table 4.15.F, which shows the following 12 study intersections currently operate at an unsatisfactory level of service during either the a.m. and p.m. peak hour:

- Redlands Boulevard/Locust Avenue (a.m. and p.m.);
- Redlands Boulevard/SR-60 Westbound ramps (a.m. and p.m.);
- Oliver Street/Alessandro Boulevard (a.m.);
- Moreno Beach Drive/SR-60 Eastbound Ramps (p.m.);
- Lasselle Street/Cactus Avenue (a.m. and p.m.);
- Alessandro Boulevard/Chicago Avenue. (p.m.);
- Gilman Springs Road/Bridge Street (a.m.);
- SR-79 (Sanderson Avenue) Northbound/Gilman Springs Road (a.m. and p.m.);
- SR-79 (Sanderson Avenue) Southbound/Gilman Springs Road (a.m. and p.m.);
- San Timoteo Canyon Road/Alessandro Road (a.m. and p.m.);
- San Timoteo Canyon Road/Live Oak Canyon Road (a.m. and p.m.); and
- Redlands Boulevard/San Timoteo Canyon Road (a.m. and p.m.).

A roadway segment analysis was conducted to determine current roadway system performance for existing baseline conditions for the roadway segments that would be affected by the proposed General Plan Amendment. Roadway segment operations have been evaluated using the City of

Moreno Valley Daily Roadway Capacity Values provided in the City of Moreno Valley General Plan Circulation Element and summarized in previously referenced Table 4.15.B. The roadway segment levels of service are summarized in Table 4.15.G. The following two roadway segments currently exceed the threshold of significance established in the General Plan.

Gilman Springs Road:

- Between Alessandro Boulevard and Bridge Street; and
- Between SR-60 and Alessandro Boulevard.

A freeway analysis was conducted for existing baseline conditions to determine current freeway performance on SR-60, SR-91, I-215, and I-10 basic freeway segments where the project would add 100 or more peak-hour trips and on the freeway routes to the Ports of Los Angeles and Long Beach. A freeway weaving analysis was conducted on freeway segments where an on-ramp is closely followed by an off-ramp, and the two are joined by an auxiliary lane. Existing baseline freeway mainline and weaving section levels of service are summarized in Tables 4.15.H and 4.15.I, respectively, which show the following 17 freeway mainline segments and six weaving segments are currently operating at an unsatisfactory level of service during either the a.m. or p.m. peak hour:

- SR-60, South Reservoir Street to Ramona Avenue (Westbound a.m.);
- SR-60, Ramona Avenue to Central Avenue (Westbound a.m., Eastbound p.m.);
- SR-60, Central Avenue to Mountain Avenue (Eastbound p.m.);
- SR-60, Euclid Avenue to Grove Avenue (Eastbound p.m.);
- SR-60, Grove Avenue to Vineyard Avenue (Eastbound p.m.);
- SR-60, Vineyard Avenue to Archibald Avenue (Eastbound p.m.);
- SR-60, Market Street to Main Street (Eastbound p.m.);
- SR-60, Martin Luther King Boulevard to Central Avenue (Eastbound p.m.);
- SR-60, I-215 to Day Street (Westbound a.m.);
- SR-91, I-15 to McKinley Street (Eastbound p.m.);
- SR-91, Pierce Street to Magnolia Avenue (Westbound p.m.);
- SR-91, Magnolia Avenue to La Sierra Avenue (Westbound p.m.);
- I-215, SR-74/Case Road to Redlands Boulevard (Westbound a.m., Eastbound p.m.);
- I-215, Barton Road to Mt. Vernon Avenue/Washington Street (Northbound a.m.);
- I-215, Baseline Road to Highland Avenue/SR-210 (Southbound a.m., Southbound p.m.);
- SR-60, SR-71/Garey Avenue to Reservoir Street (Eastbound p.m.);
- SR-60, SR-91 to Blaine Street/3rd Street (Eastbound p.m.);
- SR-60, Blaine Street/3rd Street to University Avenue (Eastbound p.m.);
- SR-60, Central Avenue to Fair Isle Drive/Box Springs Road (Westbound a.m.);
- SR-91, Arlington Avenue to Central Avenue (Eastbound a.m.); and
- SR-91, 14th Street to University Avenue (Westbound p.m.).

Table 4.15.F: Existing (2012) Intersection Levels of Service

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Theodore St/Street F	N/A	N/A	Non-Existent		Non-Existent	
2	Cactus Ave Extension/Street E	N/A	N/A	Non-Existent		Non-Existent	
3	Theodore St/Alessandro Blvd (Str A/Str C/Str E)	D	CSS	9.7	A	10.1	B
4	Street C/Street F	N/A	N/A	Non-Existent		Non-Existent	
6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	CSS	10.3	B	15.7	C
9	Gilman Springs Rd/Eucalyptus Ave	N/A	N/A	Non-Existent		Non-Existent	
10	Redlands Blvd/Locust Ave	C	CSS	26.7	**D**	42.8	**E**
11	Redlands Blvd/Ironwood Ave	D	SIGNAL	40.9	D	37.3	D
12	Theodore Street/Ironwood Avenue	D	CSS	9.7	A	9.8	A
13	Redlands Blvd/SR-60 WB ramps	D	CSS	42.2	**E**	54.0	**F**
14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	9.6	A	14.4	B
15	Theodore Str/SR-60 WB ramps	D	CSS	9.0	A	9.6	A
16	Theodore Str/SR-60 EB ramps	D	CSS	9.2	A	9.4	A
17	Quincy Str/Fir Ave	N/A	N/A	Non-Existent		Non-Existent	
18	Redlands Blvd/Eucalyptus Ave (Fir)	N/A	N/A	Non-Existent		Non-Existent	
19	Theodore St/Fir Ave (Eucalyptus)	D	CSS	9.2	A	9.8	A
20	Oliver Str/Alessandro Blvd	C	CSS	25.9	**D**	14.7	B
21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	24.0	C	28.2	C
22	Quincy Str/Alessandro Blvd	N/A	N/A	Non-Existent		Non-Existent	
23	Redlands Blvd/Alessandro Blvd	C	AWS	20.5	C	13.8	B
24	Oliver Str/Cactus Ave	D	SIGNAL	23.8	C	17.3	B
25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	16.0	B	17.0	B
26	Quincy Str/Cactus Ave	N/A	N/A	Non-Existent		Non-Existent	
27	Redlands Blvd/Cactus Ave	C	AWS	11.4	B	8.2	A
28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	16.2	B	13.8	B
29	Heacock Str/Ironwood Ave	D	SIGNAL	29.6	C	31.9	C
30	Heacock Str/SR-60 WB Ramps	D	SIGNAL	22.6	C	21.5	C
31	Heacock Str/SR-60 EB Ramps	D	SIGNAL	12.5	B	15.9	B
32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	29.4	C	36.0	D
33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	22.0	C	19.7	B
34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	22.8	C	23.4	C
35	Moreno Beach Dr/Locust Ave	C	CSS	8.6	A	8.6	A
36	Moreno Beach Drive/Ironwood Avenue	D	SIGNAL	50.3	D	40.0	D
37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	38.0	D	76.6	**E**
38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	37.0	D	31.2	C
39	Iris Ave/Perris Blvd	D	SIGNAL	41.5	D	36.5	D
40	Kitching Str/Iris Ave	C	SIGNAL	23.4	C	17.5	B
41	Lasselle Str/Iris Ave	D	SIGNAL	25.4	C	26.6	C
42	Nason Str/Iris Ave	N/A	N/A	Non-Existent		Non-Existent	

Table 4.15.F: Existing (2012) Intersection Levels of Service

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
43	Oliver Str/Iris Ave	D	SIGNAL	22.1	C	15.8	B
44	Via Dell Lago/Iris Ave	C	SIGNAL	6.7	A	6.5	A
45	Krameria Ave/Perris Blvd	D	SIGNAL	34.6	C	29.3	C
46	Kitching Str/Krameria Ave	D	SIGNAL	21.7	C	19.4	B
47	Lasselle Str/Krameria Ave	D	SIGNAL	37.9	D	13.5	B
48	Kitching Str/Alessandro Blvd	D	SIGNAL	28.8	C	24.7	C
49	Lasselle Str/Alessandro Blvd	D	SIGNAL	31.7	C	26.6	C
50	Morrison Str/Alessandro Blvd	D	SIGNAL	8.8	A	7.8	A
51	Nason Str/Alessandro Blvd	D	SIGNAL	20.5	C	16.9	B
52	Kitching Str/Cactus Ave	C	SIGNAL	33.3	C	22.6	C
53	Lasselle Str/Cactus Ave	C	SIGNAL	47.2	**D**	38.6	**D**
54	Morrison Str/Cactus Ave	N/A	N/A	Non-Existent		Non-Existent	
55	Nason Str/Cactus Ave	D	SIGNAL	22.5	C	21.0	C
56	Frederick Str/Alessandro Blvd	D	SIGNAL	19.5	B	25.6	C
57	Graham Str/Alessandro Blvd	D	SIGNAL	19.8	B	24.2	C
58	Heacock Str/Alessandro Blvd	D	SIGNAL	25.8	C	23.6	C
59	Indian Str/Alessandro Blvd	D	SIGNAL	17.6	B	27.9	C
60	Perris Blvd/Alessandro Blvd	D	SIGNAL	32.4	C	42.3	D
61	Frederick Str/Cactus Ave	D	SIGNAL	9.8	A	11.7	B
62	Graham Str/Cactus Ave	D	SIGNAL	12.9	B	17.4	B
63	Heacock Str/Cactus Ave	D	SIGNAL	30.1	C	20.3	C
64	Indian Str/Cactus Ave	C	SIGNAL	24.4	C	19.6	B
65	Perris Blvd/Cactus Ave	D	SIGNAL	26.9	C	30.7	C
66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	25.8	C	18.0	B
67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	6.4	A	12.6	B
68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	19.4	B	24.1	C
69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	18.2	B	18.6	B
70	Day Str/Alessandro Blvd	D	SIGNAL	4.6	A	8.2	A
71	Elsworth Str/Alessandro Blvd	D	SIGNAL	19.2	B	27.6	C
72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	12.1	B	19.7	B
73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	11.1	B	3.7	A
74	Elsworth Str/Cactus Ave	D	SIGNAL	26.7	C	29.5	C
75	Central Ave/Lochmoor Dr	D	SIGNAL	10.9	B	6.7	A
76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	22.2	C	17.6	B
77	SR-60 EB Ramps/Central Ave	D	SIGNAL	7.3	A	10.3	B
78	SR-60 WB Ramps/Central Ave	D	SIGNAL	6.8	A	8.2	A
79	Alessandro Blvd/Trautwein Rd	D	SIGNAL	28.4	C	14.8	B
80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	18.8	B	34.9	C
81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	43.2	D	36.5	D
82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	9.0	A	13.0	B
83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	43.2	D	28.0	C

Table 4.15.F: Existing (2012) Intersection Levels of Service

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	8.6	A	4.7	A
85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	24.3	C	12.2	B
86	Central Ave/Chicago Ave	D	SIGNAL	23.4	C	23.1	C
87	Central Ave/El Cerrito Dr	D	SIGNAL	11.7	B	12.0	B
88	Central Ave/Canyon Crest Dr	D	SIGNAL	27.8	C	35.2	D
89	Chicago Ave/Country Club Dr	D	SIGNAL	6.3	A	4.9	A
90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	31.3	C	30.7	C
91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	21.0	C	20.8	C
92	Arlington Ave/Maude Str	D	SIGNAL	13.8	B	11.1	B
93	Horace St/Arlington Ave	D	SIGNAL	12.3	B	7.2	A
94	Arlington Ave/Victoria Ave	D	SIGNAL	54.8	D	30.9	C
95	Alessandro Blvd/Chicago Ave	D	SIGNAL	40.7	D	65.9	**E**
96	Alessandro Blvd/Century Ave	D	SIGNAL	16.7	B	7.6	A
97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	30.7	C	18.9	B
98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	20.4	C	17.9	B
99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	15.4	B	15.1	B
100	Harley Knox Blvd/Evan Rd	N/A	N/A	Non-Existent		Non-Existent	
101	Ramona Expy/Indian Str	E	SIGNAL	3.3	A	8.5	A
102	Ramona Expy/Perris Blvd	E	SIGNAL	31.7	C	34.6	C
103	Ramona Expy/Evans Rd	E	SIGNAL	54.5	D	28.8	C
104	Perris Blvd/Morgan Str	D	SIGNAL	11.8	B	6.7	A
105	Evans Rd/Morgan Str	C	SIGNAL	32.5	C	20.6	C
106	Perris Blvd/Rider Str	C	SIGNAL	24.5	C	23.0	C
107	Evans Rd/Rider Str	C	SIGNAL	34.2	C	28.3	C
108	Perris Blvd/Mid County Pkwy WB Ramps	N/A	N/A	Non-Existent		Non-Existent	
109	Perris Blvd/Mid County Pkwy EB Ramps	N/A	N/A	Non-Existent		Non-Existent	
110	Evans Rd/Mid County Pkwy WB Ramps	N/A	N/A	Non-Existent		Non-Existent	
111	Evans Rd/Mid County Pkwy EB Ramps	N/A	N/A	Non-Existent		Non-Existent	
112	Placentia Ave/Perris Blvd	D	SIGNAL	30.1	C	14.0	B
113	Evans Rd/Placentia Ave	N/A	N/A	Non-Existent		Non-Existent	
114	Evans Rd/Orange Ave	C	AWS	12.5	B	10.1	B
115	Evans Rd/Nuevo Rd	C	SIGNAL	23.3	C	22.6	C
116	Evans Rd/Ellis Ave	N/A	N/A	Non-Existent		Non-Existent	
117	Ellis Ave/I-215 SB Ramps	N/A	N/A	Non-Existent		Non-Existent	
118	Ellis Ave/SR-215 NB Ramps	N/A	N/A	Non-Existent		Non-Existent	
119	Evans Rd/San Jacinto Ave	N/A	N/A	Non-Existent		Non-Existent	

Table 4.15.F: Existing (2012) Intersection Levels of Service

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
120	Park Center Blvd/Ramona Expy WB Ramps	N/A	N/A	Non-Existent		Non-Existent	
121	Park Center Blvd/Ramona Expy EB Ramps	N/A	N/A	Non-Existent		Non-Existent	
122	Bridge Str/Ramona Expy	C	CSS	22.4	C	20.6	C
123	Gilman Springs Rd/Bridge Str	C	CSS	26.6	**D**	20.8	C
124	SR-79 (Sanderson Ave) NB/Gilman Springs Rd	C	CSS	34.7	**D**	30.7	**D**
125	SR-79 (Sanderson Ave) SB/Gilman Springs Rd	C	CSS	29.2	**D**	48.2	**E**
126	Ramona Expy/Sanderson Ave	D	SIGNAL	27.1	C	20.8	C
127	Potrero Blvd/SR-60 WB Ramps	N/A	N/A	Non-Existent		Non-Existent	
128	Potrero Blvd/SR-60 EB Ramps	N/A	N/A	Non-Existent		Non-Existent	
129	W 6th Str/California Ave	C	AWS	16.6	C	18.0	C
130	W 6th Str/Beaumont Ave	C	SIGNAL	13.2	B	12.8	B
131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	18.9	B	6.3	A
132	San Timoteo Canyon Rd/ Alessandro Blvd	D	AWS	77.2	**F**	23.9	C
133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	50.9	**F**	60.2	**F**
134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	81.8	**F**	80.5	**F**
135	W Crescent Ave/Alessandro Blvd	C	CSS	14.0	B	11.5	B
136	W Sunset Dr/Alessandro Blvd	C	AWS	8.9	A	9.0	A

denotes LOS exceeding the target threshold

"CSS" means cross-street is stop-controlled
"AWS" means all-way stop
"RABT" means roundabout
"NB" and "SB" denote northbound and southbound, respectively
"EB" and "WB" denote eastbound and westbound, respectively
"LT" and "RT" denote left turn and right turn, respectively

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.G: Existing (2012) Roadway Segment Levels of Service

Roadway		From	To	Roadway Section*	LOS Standard	Daily Volume	LOS
S-1	Theodore Street (A)	SR-60 WB Ramps	Ironwood Avenue	2U	D	771	A
S-2	Theodore Street (A)	SR-60 EB Ramps	Fir (Eucalyptus) Ave	2U	D	2,046	A
S-3	Fir (Eucalyptus) Ave	Redlands Blvd	Theodore Street (A)	2U**	D	1,339	A
S-4	Eucalyptus Ave (B)	Theodore Street (A)	Gilman Springs Rd	Future Road			
S-5	Theodore Street (A)	Fir (Eucalyptus) Ave	Street E	2U	D	641	A
S-6	Street E	Theodore Street (A)	Cactus Ave Extension	Future Road			
S-7	Street F	Theodore Street (A)	Alessandro Blvd (Street C)	Future Road			
S-8	Theodore Street (A)	Fir (Eucalyptus) Ave	Alessandro Blvd (Street C)	2U	D	641	A
S-9	Alessandro Blvd (Street E)	Merwin Street	Theodore Street (A)	2U	D	2,537	A
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave	Future Road			
S-11	Alessandro Blvd (Street C)	Theodore Street (A)	Street F	2U	D	1,896	A
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	2U	D	1,896	A
S-14	Alessandro Blvd	Moreno Beach Drive	Redlands Blvd	2U	D	3,877	A
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge Street	2U	D	14,407	**F**
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	2U	D	11,973	**E**
S-18	Redlands Blvd	SR-60 EB Ramps	Fir (Eucalyptus) Ave.	2U	D	7,338	A
S-19	Redlands Blvd	Fir (Eucalyptus) Ave.	Alessandro Blvd	2U	C	6,786	A
S-20	Alessandro Blvd	Redlands Blvd	Merwin Street	2U	C	2,537	A
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave.	2U	C	6,786	A
S-22	Cactus Ave.	Redlands Blvd	Cactus Ave. Extension	2U**	C	472	A

* Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways

** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.

*** LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways

Indicates LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.H: Existing (2012) Freeway Segment Levels of Service

			Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	6,024	24.5	C	7,822	33.0	D	8,762	41.4	**E**	6,381	25.6	C
F-3	SR-60	Ramona Ave to Central Ave	5,687	22.8	C	9,400	47.3	**F**	8,283	37.1	**E**	5,925	23.4	C
F-4	SR-60	Central Ave to Mountain Ave	6,339	26.2	D	9,338	46.6	**F**	6,336	24.7	C	6,076	24.1	C
F-5	SR-60	Mountain Ave to Euclid Ave	6,205	25.4	C	6,664	26.1	D	6,259	24.4	C	6,495	26.3	D
F-6	SR-60	Euclid Ave to Grove Ave	7,650	34.7	D	9,091	43.8	**E**	6,461	25.4	C	6,302	25.2	C
F-7	SR-60	Grove Ave to Vineyard Ave	6,923	29.6	D	9,400	47.3	**F**	6,274	24.3	C	6,699	27.4	D
F-8	SR-60	Vineyard Ave to Archibald Ave	6,823	28.7	D	9,400	47.3	**F**	7,658	32.1	D	6,245	25.0	C
F-9	SR-60	Archibald Ave to Haven Ave	6,268	25.6	C	6,471	25.1	C	See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Milliken Ave	6,096	19.1	C	6,864	20.6	C	5,804	17.4	B	5,698	17.5	B
F-11	SR-60	Milliken Ave to I-15	4,234	16.5	B	4,529	16.9	B	5,456	20.5	C	5,111	19.5	C
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	2,593	10.2	A	2,910	10.8	A	4,490	13.4	B	4,275	13.0	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission Blvd/Country Village Rd	3,026	11.9	B	3,968	14.8	B	4,220	15.7	B	3,881	14.8	B
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	2,596	10.2	A	3,061	11.4	B	4,172	15.5	B	3,963	15.1	B
F-15	SR-60	Pedley Rd to Pyrite St	2,813	11.1	B	3,334	12.4	B	3,216	12.0	B	3,068	11.7	B

Table 4.15.H: Existing (2012) Freeway Segment Levels of Service

			Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-16	SR-60	Pyrite St to Valley Way	3,348	13.2	B	3,642	13.6	B	2,653	9.9	A	2,567	9.8	A
F-17	SR-60	Valley Way to Rubidoux Blvd	4,398	23.7	C	4,252	21.4	C	4,532	23.1	C	4,725	24.9	C
F-18	SR-60	Rubidoux Blvd to Market St	4,943	27.6	D	4,706	24.3	C	3,568	17.7	B	3,868	19.7	C
F-19	SR-60	Market St to Main St	4,498	24.4	C	7,050	47.8	**F**	5,631	30.9	D	5,109	27.6	D
F-20	SR-60	Main to SR-91	See Weaving Analysis			See Weaving Analysis			5,248	27.9	D	4,720	24.9	C
F-24	SR-60	Martin Luther King Blvd to Central Ave	5,865	24.6	C	8,976	45.7	**F**	7,050	30.6	D	5,800	24.1	C
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	4,332	16.9	B	6,795	26.6	D	7,461	31.1	D	6,376	25.6	C
F-27	SR-60	I-215 to Day St	See Weaving Analysis			See Weaving Analysis			7,050	47.9	**F**	3,093	15.9	B
F-29	SR-60	Pigeon Pass Rd to Heacock St	2,702	21.6	C	3,713	30.2	D	3,013	23.1	C	3,254	26.5	D
F-30	SR-60	Heacock St to Perris Blvd	2,349	18.6	C	3,355	26.1	D	2,638	19.9	C	2,671	20.8	C
F-31	SR-60	Perris Blvd to Nason St	1,812	14.3	B	2,344	17.4	B	1,910	14.3	B	2,045	15.8	B
F-32	SR-60	Nason St to Moreno Beach Dr	1,619	12.8	B	2,038	15.1	B	See Weaving Analysis			See Weaving Analysis		
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	1,326	10.5	A	1,397	10.4	A	988	7.4	A	1,336	10.3	A
F-34	SR-60	Redlands Blvd to Theodore St	1,614	12.7	B	1,920	14.2	B	1,193	8.9	A	1,498	11.6	B
F-35	SR-60	Theodore St to Gilman Springs Rd	1,521	12.0	B	1,915	14.2	B	1,183	8.9	A	1,393	10.8	A

Table 4.15.H: Existing (2012) Freeway Segment Levels of Service

			Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	1,213	11.2	B	1,484	12.3	B	837	7.0	A	1,002	9.1	A
F-37	SR-60	Jack Rabbit Trail to I-10	1,215	9.6	A	1,482	11.0	A	837	6.3	A	1,002	7.7	A
F-39	SR-91	I-15 to McKinley St	5,914	22.6	C	9,400	53.3	**F**	6,402	25.1	C	5,971	24.1	C
F-40	SR-91	McKinley St to Pierce St	5,382	29.1	D	5,427	31.4	D	4,788	25.0	C	5,183	29.3	D
F-41	SR-91	Pierce St to Magnolia Ave	4,888	25.5	C	4,922	27.2	D	4,629	23.9	C	7,050	53.3	**F**
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis			See Weaving Analysis			4,894	25.7	C	7,050	53.3	**F**
F-43	SR-91	La Sierra Ave to Tyler St	4,585	23.5	C	4,939	27.3	D	4,467	22.9	C	5,167	29.2	D
F-44	SR-91	Tyler St to Van Buren Blvd	5,704	21.7	C	5,851	23.5	C	5,769	22.1	C	6,661	27.8	D
F-45	SR-91	Van Buren Blvd to Adam St	5,841	22.3	C	4,999	19.6	C	5,342	20.2	C	6,401	26.3	D
F-46	SR-91	Adam St to Madison St	6,531	26.1	D	4,742	18.7	C	4,939	18.6	C	5,453	21.5	C
F-47	SR-91	Madison St to Arlington Ave	5,879	22.8	C	4,530	17.9	B	4,218	21.4	C	4,711	25.5	C
F-49	SR-91	Central Ave to 14th St	6,021	34.8	D	5,391	30.8	D	4,737	24.7	C	4,940	27.2	D
F-51	SR-91	University Ave to Spruce St	7,244	22.1	C	6,394	20.0	C	See Weaving Analysis			See Weaving Analysis		
F-52	I-10	SR-60 to Beaumont Ave	3,037	11.9	B	4,252	16.4	B	4,288	18.1	C	3,675	13.8	B
F-53	I-10	Beaumont Ave to Pennsylvania Ave	3,087	12.1	B	4,322	16.7	B	4,358	18.4	C	3,736	14.0	B

Table 4.15.H: Existing (2012) Freeway Segment Levels of Service

			Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	3,236	12.6	B	4,531	17.5	B	4,569	19.4	C	3,916	14.7	B
F-55	I-10	Highland Springs Ave to Sunset Ave	3,112	12.2	B	4,357	16.8	B	4,393	18.6	C	3,766	14.1	B
F-56	I-10	Sunset Ave to 22nd St	3,037	11.9	B	4,252	16.4	B	4,288	18.1	C	3,675	13.8	B
F-57	I-10	22nd St to 8th St	2,987	11.7	B	4,182	16.2	B	4,218	17.8	B	3,615	13.5	B
F-58	I-10	8th St to Hargrave St	2,987	11.7	B	4,182	16.2	B	4,218	17.8	B	3,615	13.5	B
F-59	I-10	Hargrave St to Field Rd	2,689	10.5	A	3,764	14.5	B	3,796	16.0	B	3,254	12.2	B
F-60	I-10	Field Rd to Morongo Trail	2,564	10.0	A	3,590	13.9	B	3,620	15.3	B	3,103	11.6	B
F-61	I-10	Morongo Trail to Main St	2,265	8.8	A	3,172	12.3	B	3,198	13.5	B	2,741	10.3	A
F-62	I-10	Main St to Haugen-Lehmann Way	2,265	8.8	A	3,172	12.3	B	3,198	13.5	B	2,741	10.3	A
F-64	I-10	SR-111 to Tipton Rd	1,967	7.7	A	2,753	10.6	A	2,777	11.7	B	2,380	8.9	A
F-65	I-10	Tipton Rd to SR-62	1,967	7.7	A	2,753	10.6	A	2,777	11.7	B	2,380	8.9	A
F-66	I-215	Scott Rd to Newport Rd	2,739	22.0	C	3,285	25.8	C	2,294	17.2	B	2,318	17.2	B
F-68	I-215	Newport Rd to McCall Blvd	1,900	15.0	B	2,047	15.3	B	2,528	19.0	C	3,111	23.7	C
F-69	I-215	McCall Blvd to Ethanac Rd	2,457	19.5	C	3,293	25.8	C	3,069	23.6	C	2,539	18.9	C
F-70	I-215	Ethanac Rd to SR-74	3,787	34.5	D	3,150	24.4	C	2,882	21.9	C	3,854	32.0	D

Table 4.15.H: Existing (2012) Freeway Segment Levels of Service

			Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-71	I-215	SR-74 to Redlands Blvd	3,350	28.5	D	4,181	37.4	**E**	4,539	44.2	**E**	3,710	30.1	D
F-74	I-215	Columbia Ave to Center St	5,587	33.5	D	5,150	27.3	D	5,191	27.6	D	4,917	25.4	C
F-75	I-215	Center St to La Cadena Dr	5,474	32.4	D	5,034	26.5	D	5,541	30.4	D	5,235	27.6	D
F-76	I-215	La Cadena Dr to Barton Rd	5,341	31.2	D	5,164	27.5	D	5,414	29.4	D	5,196	27.3	D
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,738	35.1	**E**	5,533	30.3	D	5,435	29.5	D	5,256	27.7	D
F-78	I-215	Mt. Vernon Ave to I-10	5,582	22.5	C	5,420	20.5	C	5,776	22.0	C	5,606	21.0	C
F-80	I-215	Auto Plaza Dr to Mill St	4,319	17.1	B	4,533	17.0	B	4,022	15.1	B	4,090	15.2	B
F-83	I-215	Baseline Rd to Highland Ave	3,023	24.8	C	3,355	26.5	D	4,537	44.1	**E**	4,700	46.7	**F**

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.I: Existing (2012) Freeway Weaving Segment Levels of Service

ID	Freeway	Weaving Segment	Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	5,985	24.0	C	8,616	35.7	**E**	6,125	21.4	C	5,892	20.8	C
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			6,288	23.5	C	6,071	23.5	C
W-20	SR-60	Main St to SR-91	5,418	25.8	C	7,050	33.6	D	See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	3,885	14.8	B	9,400	39.0	**E**	7,729	28.6	D	7,211	27.2	C
W-22	SR-60	Blaine St/3rd St to University Ave	3,919	18.7	B	7,050	37.4	**E**	5,714	20.1	C	6,204	23.0	C
W-23	SR-60	University Ave to Martin Luther King Blvd	4,528	20.4	C	5,932	25.7	C	5,601	28.0	C	5,876	28.0	C
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs Rd	3,856	14.5	B	7,840	32.4	D	7,050	37.0	**E**	6,026	29.3	D
W-27	SR-60	I-215 to Day St	2,988	10.6	B	4,704	18.8	B	See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	2,995	12.8	B	4,749	20.7	C	4,700	31.0	D	4,197	27.2	C
W-32	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			1,609	9.2	A	1,753	10.2	B
W-42	SR-91	Magnolia Ave to La Sierra Ave	5,445	24.6	C	5,684	27.4	C	See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	7,050	35.3	**E**	4,073	19.6	B	4,642	21.1	C	5,118	23.8	C
W-50	SR-91	14th St to University Ave	4,643	21.8	C	4,441	21.9	C	5,179	24.1	C	7,050	35.5	**E**
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			5,075	14.4	B	8,804	26.9	C
W-73	I-215	SR-60 to Columbia Ave	6,260	34.4	D	5,548	28.0	C	5,877	26.4	C	5,495	24.5	C
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	4,400	16.3	B	4,147	14.5	B	4,890	16.8	B	4,591	16.3	B
W-81	I-215	Mill St to 2nd St	5,044	23.0	C	5,095	22.5	C	4,442	19.6	B	4,380	19.4	B
W-82	I-215	5th St to Baseline Rd	3,754	16.5	B	3,590	14.9	B	3,607	15.6	B	3,481	15.1	B
W-63	I-10	Haugen-Lehmann Way to SR-111	2,265	7.5	A	3,172	10.5	B	3,198	11.8	B	2,741	10.3	B

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

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Freeway ramp merge and diverge operations were also evaluated for existing baseline conditions. The results of this analysis are presented in Table 4.15.J, which shows all ramp merge and diverge areas analyzed are currently operating at satisfactory LOS D or better with the exception of:

- SR-60 Eastbound On-Ramp from Central Avenue (p.m. peak hour).

4.15.1.3 Responses to NOP Comments

During the NOP comment period, the City received comments on the project. The comments pertaining to traffic and circulation and responses to those comments are provided below:

Caltrans Comment Letter Dated February 29, 2012 (DEIR Appendix B)

A Traffic Impact Study (TIS) is necessary to determine this proposed project's near-term and long-term impacts to the State facilities and to propose appropriate mitigation measures. The study should be based on Caltrans' *Guide for the Preparation of Traffic Impact Studies (TIS),* which is located at http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf. Minimum contents of the traffic impact study are listed in Appendix "A" of the TIS guide.

Response

1) A traffic impact assessment (TIA) has been performed for the project. The study has been prepared to cover the subjects required under Caltrans TIS guidelines.

   It should be noted that the project proposes to move the Alessandro Boulevard access from Gilman Springs Road, which could potentially improve the operation of Alessandro Boulevard/ Gilman Springs Road.

3) Any existing inadequacies of freeways and roads cannot be attributed to this proposed project, but are considered in the TIA. While it is true that a portion of the City near I-215 has been designated for industrial development, it is also true that much of the project site was designated for business park development in the current General Plan. Initial studies suggest that the traffic attributable to the proposed project will be substantially less than the traffic generated by the site under the uses proposed in the General Plan. The adequacy of the Theodore Street interchange to accommodate future traffic has been studied as part of the TIA.

4) Any existing inadequacies of freeways and roads cannot be attributed to this proposed project. The proposed project does not include any land north of SR-60, so the need for schools, fire stations, hospitals, and other public facilities north of SR-60 would need to be addressed through some mechanism other than this project. The need for the on-site road system to accommodate through traffic has been studied as part of the TIA.

5) One goal of the WLCSP Circulation Plan is to separate project-related trucks from passenger vehicle traffic on surrounding local streets. Much of the project traffic will access SR-60 via a new interchange at Theodore Street, and project truck traffic will be prohibited on Redlands Boulevard south of Eucalyptus Avenue and on Street D to Cactus Avenue southwest of the project.

6) The adequacy of the new proposed Theodore Street interchange to accommodate future (cumulative) traffic has been studied as part of the TIA.

7) The TIA takes into consideration known projects in neighboring jurisdictions to examine cumulative traffic impacts.

8) The TIA studied the number of lanes needed for the study roadways that are significantly affected by the project. The number of mid-block lanes and intersection approach geometry needed will depend on a combination of traffic volumes and anticipated turning movements, which will differ by location.

Table 4.15.J: Existing (2012) Freeway Ramp Levels of Service

ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	AM Peak Hour				PM Peak Hour			
				Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	4,110	242	16.9	B	5,678	906	26.5	C
R-2	SR-60 EB	On-Ramp from Central Ave	1	5,796	349	18.5	B	8,868	904	31.8	**F**
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	1	1,326	207	3.3	A	1,397	434	3.2	A
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	1	1,119	26	12.2	B	963	25	10.3	B
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario			
R-6	SR-60 EB	Off-Ramp to Theodore St	1	1,614	119	17.3	B	1,920	30	19.1	B
R-7	SR-60 EB	Loop On-Ramp from Theodore St	1	1,495	70	17.3	B	1,890	71	19.8	B
R-8	SR-60 EB	Direct On-Ramp from Theodore St	0	Does not Exist in this Scenario				Does not Exist in this Scenario			
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	1	1,521	330	16.4	B	1,915	385	19.0	B
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	1	1,191	7	14.2	B	1,530	8	16.3	B

Table 4.15.J: Existing (2012) Freeway Ramp Levels of Service

ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	AM Peak Hour				PM Peak Hour			
				Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	1	837	11	9.6	A	1,002	9	11.3	B
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	1	826	357	13.5	B	993	306	14.6	B
R-13	SR-60 WB	Off-Ramp to Theodore St	1	1,183	24	12.7	B	1,393	26	14.9	B
R-14	SR-60 WB	On-Ramp from Theodore St	1	1,159	34	12.1	B	1,367	131	14.8	B
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	1	1,193	49	12.8	B	1,498	38	15.9	B
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	1	1,144	329	14.3	B	1,460	361	17.4	B
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario			
R-18	SR-60 WB	Off-Ramp to Central Ave	2	7,050	384	32.6	D	6,026	439	28.5	D
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	1	7,050	474	21.0	C	5,800	337	15.9	B

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Bush Letter Dated March 13, 2012 (Scoping Meeting Cards 2, DEIR Appendix B)

1) The adequacy of Alessandro Boulevard and Gilman Springs Road to accommodate project-related traffic has been studied as part of the TIA.

2) Moreno Valley's current General Plan calls for a realignment of Alessandro Boulevard and the relocation of its intersection with Gilman Springs Road. This has been studied as part of the TIA.

4.15.2 Existing Policies and Regulations

The City of Moreno Valley's current General Plan was approved in July 2006, and the following goals and policies are extracted from the Circulation Element of the current General Plan.

Community Development

Policy 2.2.17 Discourage nonresidential uses on local residential streets that generate traffic, noise, or other characteristics that would adversely affect nearby residents.

Circulation Element

Objective 5.1 **Create a safe, efficient, and neighborhood-friendly street system.**

Policy 5.1.1 Plan access and circulation of each development project to accommodate vehicles (including emergency vehicles and trash trucks), pedestrians, and bicycles.

Policy 5.1.2 Plan the circulation system to reduce conflicts between vehicular, pedestrian and bicycle traffic.

Policy 5.1.3 Require adequate off-street parking for all developments.

Policy 5.1.4 Driveway placement shall be designed for safety and to enhance circulation wherever possible.

Policy 5.1.5 Incorporate American Disability Act (ADA) and Title 24 requirements in roadway improvements as appropriate.

Policy 5.1.6 Design new developments to provide opportunity for access and circulation to future adjacent developments.

Objective 5.2 **Implement access management policies.**

Policy 5.2.1 Locate residential units with access from local streets. Minimize direct residential access from collectors. Prohibit direct single-family driveway access on arterials and higher classification roadways.

Policy 5.2.2 Feed short local street into collectors.

Policy 5.2.3 Encourage the incorporation of traffic calming design into local and collector streets to promote safe vehicle speeds.

Policy 5.2.4 Design new subdivisions to minimize the disruptive impact of motor vehicles on local streets. Long, broad and linear streets should be avoided. Residential streets should be no wider than 40 feet, and should have an uninterrupted length of less than one half mile. Curvilinear streets and cul-de-sacs are preferred. Streets within the subdivision should be designed to facilitate access to residences and to discourage through traffic.

Objective 5.3 **Maintain Level of Service (LOS) "C" on roadway links, wherever possible, and LOS "D" in the vicinity of SR 60 and high employment centers.**

Policy 5.3.1 Obtain right-of-way and construct roadways in accordance with the designation shown on the General Plan Circulation Element Map and the City street improvement standards.

Policy 5.3.2 Wherever feasible, promote the development of roadways in accordance with the City standard roadway cross-sections, as shown in Figure 9-3. Cross-sections range from two-lane undivided roadways to 8-lane divided facilities.

Policy 5.3.3 Create new roadway classifications to accommodate future traffic demand, including; Divided Major Arterial – Reduced Cross-Section, and Divided Arterial – 6-lane. These cross-sections are shown on Figure 9-3.

Policy 5.3.4 For planning purposes, utilize LOS standards shown on Table 5 –1 to determine recommended roadway widths.

Policy 5.3.5 Ensure that new development pays a fair-share cost to provide local and regional transportation improvements and to mitigate cumulative traffic impacts. For this purpose, require new developments to participate in Transportation Uniform Mitigation Fee (TUMF), the Development Impact Fee Program (DIF), and any other applicable transportation fee programs and benefit assessment districts.

Policy 5.3.6 Where new developments would increase traffic flows beyond the LOS C (or LOS D, where applicable), require appropriate and feasible mitigation measures as a condition of approval. Such measures may include extra right-of-way and improvements to accommodate left-turn and right-turn lanes at intersections, or other improvements.

Policy 5.3.7 Provide consideration to projects that have overriding regional or local benefits that would be desirable even though the LOS standards cannot be met. These projects would be required to analyze traffic impacts and mitigate such impacts to the extent that it is deemed feasible.

Policy 5.3.8 Pursue arterial improvements that link and/or cross the State Route 60 (SR-60) Freeway, including an additional over-crossing at Graham Street.

Policy 5.3.9 Address additional widenings at arterials providing access to SR-60 at Day Street, Frederick Street/Pigeon Pass Road, and Perris Boulevard.

Objective 5.4 **Maximize efficiency of the regional circulation system through close coordination with State and regional agencies and implementation of regional transportation policies.**

Policy 5.4.1 Coordinate with Caltrans and the Riverside County Transportation Commission (RCTC) to identify and protect ultimate rights-of-way, including those for freeways, regional arterial projects, transit, bikeways, and interchange expansion.

Policy 5.4.2 Coordinate with Caltrans and RCTC regarding the integration of Intelligent Transportation Systems (ITS) consistent with the principles and recommendations of the Inland Empire Regional ITS Architecture Project.

Policy 5.4.3 Work with property owners, in cooperation with RCTC, to reserve rights-of-way for potential Community and Environmental Transportation Acceptability Process (CETAP) corridors through site design, dedication, and land acquisition, as appropriate.

Policy 5.4.4 The City Council will commit to establishing ongoing relationships with all agencies that play a role in the development of the City's transportation system. Council members who are appointed to these agencies as City representatives shall seek out leadership roles to maximize their effectiveness on behalf of the City. Council will strive to maintain continuity in their appointments of representatives.

Policy 5.4.5 Work with RCTC, WRCOG, and the TUMF Central Zone Committee to facilitate the expeditious construction of TUMF Network projects, especially projects that directly benefit Moreno Valley.

Policy 5.4.6 Cooperatively participate with SCAG, RCTC, and WRCOG in the planning for a transportation system that anticipates regional needs for the safe and efficient movement of goods and people.

Policy 5.4.7 Utilizing a combination of regional, state and federal funds, development impact fees, and other locally generated funds, provide needed improvements along SR 60 and the associated interchanges, including interchange and grade separation improvements.

Policy 5.4.8 Reserve rights-of-way to accomplish future improvements as specified in the Caltrans District 8 Route Concept Fact Sheet for SR-60. Specifically, SR-60 shall be built to six general purpose lanes and two High Occupancy Vehicle (HOV) lanes through Moreno Valley. Additional auxiliary lanes may be required between interchanges. The need for auxiliary lanes will be determined from future studies.

Policy 5.4.9 Lobby the State Legislature to keep triple trailer trucks off highways in developed areas of California.

Objective 5.5 **Maximize efficiency of the local circulation system by using appropriate policies and standards to design, locate, and size roadways.**

Policy 5.5.1 Space Collectors between higher classification roadways within development areas at appropriate one-quarter mile intervals.

Policy 5.5.2 Provide dedicated left-turn lanes at all major intersections on minor arterials and higher classification roadways.

Policy 5.5.3 Prohibit points of access from conflicting with other existing or planned access points. Require points of access to roadways to be separated sufficiently to maintain capacity, efficiency, and safety of the traffic flow.

Policy 5.5.4 Wherever possible, minimize the frequency of access points along streets by the consolidation of access points between adjacent properties on all circulation element streets, excluding collectors.

Policy 5.5.5 Design streets and intersections in accordance with the Moreno Valley Municipal Code.

Policy 5.5.6 Consider the overall safety, efficiency and capacity of street designs as more important than the location of on-street parking.

Policy 5.5.7 For developments fronting both sides of a street, require that streets be constructed to full width. Where new developments front only one side of a street, require that streets be constructed to half width plus an additional 12-foot lane for opposing traffic, whenever possible. Additional width may be needed for medians or left and/or right turn lanes.

Policy 5.5.8 Whenever possible, require private and public land developments to provide on-site and off-site improvements necessary to mitigate any development-generated circulation impacts. A review of each proposed land development project shall be undertaken to identify project impacts to the circulation system. The City may require developers to provide traffic impact studies prepared by qualified professionals to identify the impacts of a development.

Policy 5.5.9 Design curves and grades to permit safe movement of vehicular traffic per applicable Caltrans and Moreno Valley standards.

Policy 5.5.10 Provide adequate sight distances for safe vehicular movement at all intersections and driveways.

Policy 5.5.11 Implement National Pollutant Discharge Elimination System (NPDES) Best Management Practices (BMPs) relating to construction of roadways to control runoff contamination from affecting water resources.

Objective 5.6 **Support development of a ground access system to March Inland Port in accordance with its development plan as a major cargo airport.**

Policy 5.6.1 Ensure that City arterials that provide access to and from March Inland Port are properly designed to accommodate projected traffic volumes, including truck traffic.

Policy 5.6.2 Ensure that traffic routes to March Inland Port are planned to minimize impacts to City residential communities.

Objective 5.7 **Design roads to meet the needs of the residents of the community without detracting from the "rural" atmosphere in designated portions of Moreno Valley. (Designated "rural" areas include those encompassed by the Residential Agriculture 2, Residential 1, Rural Residential and Hillside Residential zoning districts. "Urban" areas encompass all other zoning districts.)**

Policy 5.7.1 Pursue development of modified sidewalk standards for local and collector roads within low density areas to reflect the rural character of those areas.

Policy 5.7.2 Provide sidewalks on arterials in designated low density areas that provide access to schools and bus stops.

Objective 5.8 **Encourage development of an efficient public transportation system for the entire community.**

Policy 5.8.1 Support the development of high-speed transit linkages, or express routes, that would benefit the citizens and employers of Moreno Valley.

Policy 5.8.2 Support the efforts of the March Joint Powers Authority in its pursuit of a Transit Center.

Policy 5.8.3 Encourage public transportation opportunities that address the particular needs of transit dependent individuals in the City such as senior citizens, the disabled and low-income residents.

Policy 5.8.4 Ensure that all new developments make adequate provision for bus stops and turnout areas for both public transit and school bus service.

Policy 5.8.5 Continue ongoing coordination with transit authorities toward the expansion of transit facilities into newly developed areas.

Objective 5.9 **Support and encourage development of safe, efficient and aesthetic pedestrian facilities.**

Policy 5.9.1 Encourage walking as an alternative to single occupancy vehicle travel, and help ensure the safety of the pedestrian as follows:

(a) All new developments shall provide sidewalks in conformance with the City's streets cross-section standards, and applicable policies for designated urban and rural areas.

(b) The City shall actively pursue funding for the infill of sidewalks in developed areas. The highest priority shall be to provide sidewalks on designated school routes.

Policy 5.9.2 Walkways shall be designed to minimize conflicts between vehicles and pedestrians.

Policy 5.9.3 Where appropriate, provide amenities such as, but not limited to, enhanced paving, seating, and landscaping to enhance the pedestrian experience.

Policy 5.9.4 Require the provision of convenient and safe pedestrian access to buildings from the public sidewalk.

Objective 5.10 **Encourage bicycling as an alternative to single occupant vehicle travel for the purpose of reducing fuel consumption, traffic congestion, and air pollution.**

Policy 5.10.1 Bikeways shall link residential neighborhood areas with parks, employment centers, civic and commercial areas, and schools.

Policy 5.10.2 Integrate bikeways, consistent with the Bikeway Plan, with the circulation system and maintain Class II and III bikeways as part of the City's street system.

Policy 5.10.3 Support bicycle safety programs, and active enforcement of laws relating to the safe operation of bicycles on City streets.

Policy 5.10.4 Link local bikeways with existing and planned regional bikeways.

Objective 5.11 **Eliminate obstructions that impede safe movement of vehicles, bicyclists, and pedestrians.**

Policy 5.11.1 Landscaping adjacent to City streets, sidewalks and bikeways shall be designed, installed and maintained so as not to physically or visually impede public use of these facilities.

(a) The removal or relocation of mature trees, street trees and landscaping may be necessary to construct safe pedestrian, bicycle and street facilities.

(b) New landscaping, especially street trees shall be planted in such a manner to avoid overhang into streets, obstruction of traffic control devices or sight distances, or creation of other safety hazards.

Policy 5.11.2 Driveways shall be designed to avoid conflicts with pedestrian and bicycle travel.

Objective 5.12 **Promote efficient circulation planning for all school sites that will maximize pedestrian safety, and minimize traffic congestion and neighborhood impacts.**

Policy 5.12.1 Coordinate with school districts to identify suggested pedestrian routes within existing and new subdivisions for school children to walk to and from schools and/or bus stops.

Program 5-1 Periodically review current traffic volumes, traffic collision data, and the pattern of urban development to coordinate, program, and as necessary revise the planning and prioritization of road improvements.

Program 5-2 Periodically reassess the goals, objectives and policies statements of the Circulation Element and propose amendments, as necessary.

Program 5-3 Develop a comprehensive strategy to ensure full funding of the circulation system. The strategy will include the DIF, TUMF, and other funding sources that may be available to the City. In addition, the creation of benefit assessment districts, and road and bridge fee districts may be considered where appropriate.

Program 5-4 Develop a multi-year transportation infrastructure improvement program that, to the extent feasible, phases the construction of new projects in advance of new development.

Program 5-5 The above-referenced program will prioritize circulation improvement projects to be funded from DIF, TUMF and other sources. Prioritization to consider the following factors: (a) Traffic safety; (b) Congestion relief; (c) Access to new development; and (d) Equitable benefit.

Program 5-6 Conduct studies of specified arterial segments to determine if any additional improvements will be needed to maintain an acceptable LOS at General Plan buildout. Generally, these segments will be studied as new developments are proposed in their vicinity. Measures will be identified that are consistent with the Circulation Element designation of these roadway segments, such as additional turn lanes at intersections, signal optimization by coordination and enhanced phasing, and travel demand management measures. The study of specified arterial segments will be required to identify measures to maintain an acceptable LOS at General Plan buildout for at least one of the reasons discussed below:

(a) Segments will need improvement, but their ultimate volumes slightly exceed design capabilities.

(b) Segments will need improvements but require inter-jurisdictional coordination.

(c) Segments would require significant encroachment on existing adjacent development if built out to their Circulation Element designations.

Program 5-7 Establish traffic study guidelines to deal with development projects in a consistent manner. The traffic study guidelines shall include criteria for projects that propose changes it the approved General Plan land uses.

Program 5-13 Implement Transportation demand management (TDM) strategies that reduce congestion in the peak travel hours. Examples include carpooling, telecommuting, and flexible work hours.

4.15.3 Methodology

This section summarizes: i) the traffic volume scenarios analyzed in this EIR and methods of traffic volume projection; ii) the proposed project's trip generation, distribution and assignment; and iii) opening year, 2022 background and Year 2035 Cumulative background levels of service.

4.15.3.1 Traffic Volume Scenarios

Existing Baseline, Existing Baseline Plus Phase 1, and Existing Baseline Plus Project Conditions. The existing year (2012) represents the baseline traffic conditions as they existed at the time the Notice of Preparation was issued to represent pre-project approval (existing physical conditions). The existing baseline plus project analysis determines direct project-related traffic impacts that would occur on the existing roadway system in a theoretical scenario in which the project is placed upon existing baseline conditions.

Within the project site, the proposed Phase 1 land uses were used for the "Plus Phase 1" scenarios, the proposed project buildout land uses were used for the "Plus Project" scenarios, while the existing land uses were used for the "No Project" scenarios. The Existing Plus Phase 1 and Existing plus Project analyses are intended to identify the project-specific impacts associated solely with the

development of the proposed project and the corresponding mitigation measures necessary to mitigate the project-related impacts.

Year 2017 and Year 2017 Plus Project Conditions. This analysis was removed from the revised TIA and DEIR sections – the reader is referred to Section 4.15.3.1 of the original DEIR for that text, tables, etc.

Year 2022 and Year 2022 Plus Phase 1 Conditions. The year 2022 analysis determines the project's cumulative contribution to near-term traffic impacts based on a comparison of year 2022 conditions to year 2022 plus Phase 1 of the project conditions. Within the site, the proposed Phase 1 land uses were used for the "Plus Phase 1" scenarios while the existing land uses were used for the "No Project" scenarios.

The opening year 2022 cumulative analysis has been utilized to determine if improvements funded through local and regional transportation mitigation fee programs, such as the Transportation Uniform Mitigation Fee (TUMF) program and the City of Moreno Valley Development Impact Fee (DIF) program, can accommodate the cumulative traffic at the target LOS identified in the City of Moreno Valley General Plan. If the regionally funded improvements can provide the target LOS, and the payment of such funds for such improvements is foreseeable, then the project's payment into the established fee programs will be considered as mitigation for cumulative impacts through the conditions of approval. Other improvements needed beyond the regionally funded improvements (such as localized improvements to non-TUMF, or non-DIF) are identified in the impacts section (Section 4.15.5).

The circulation system assumed in the analysis includes transportation improvement projects that are either under construction or are funded and planned for implementation in the short-term. These improvement projects are identified in SCAG's 2012-2035 Regional Transportation Plan (RTP). The RTP is a long-range transportation plan based on 20-year growth projections that is developed and updated by SCAG every four years. The Federal Transportation Improvement Program (FTIP) is a capital listing of all transportation improvement projects proposed over a six-year period for the SCAG region. The FTIP implements the transportation projects and programs listed in the RTP in compliance with state and federal requirements. For the 2022 scenarios, only the projects in the FTIP and the RTP's financially constrained[1] project list were assumed to be completed. The projects in the RTP's Strategic Plan were not included because funding for them is too uncertain. Also, the proposed East-West Freight Corridor included in the financially constrained plan was not included because the freight corridor is expected to be funded through tolls to be collected by a process that has not yet been established and whose future efficacy is unknown. If it is constructed, then traffic impacts would be less than those described in this EIR. The 2022 improvements are shown in Figure 4.15.5.

Note: Figure 4.15.5 was added to the revised DEIR section.

[1] These are the projects for which funds are committed or have reasonably available revenue sources, and are probable for implementation.

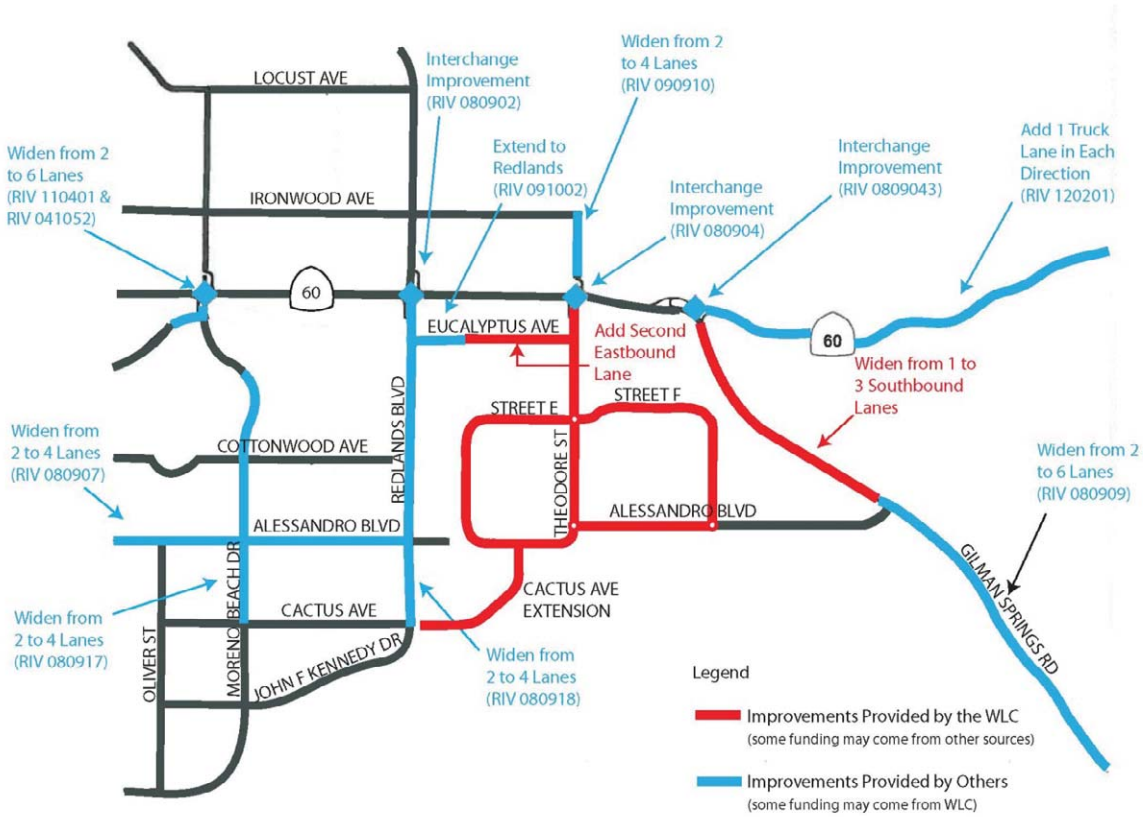

Figure 4.15.5: Roadway Improvements Assumed for 2022

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Phase 1 of the proposed project will be completed in 2022 and includes 21,450,000 square feet of logistics warehouse uses. This is approximately 52 percent of the total project building space. The internal road system will be partially built out, with east-west through traffic served by the Cactus Avenue extension and Streets C and E. Theodore Street would serve north-south traffic as it does today.

Traffic projections for year 2022 conditions were derived from the RivTAM using accepted procedures for model forecast refinement and smoothing. The traffic forecasts reflect the area-wide growth anticipated between existing (2012) baseline conditions and horizon year (2022) conditions. Specifically, traffic generated by other approved projects (cumulative projects) in the vicinity of the proposed project were included in the socioeconomic inputs for the year 2022 traffic volume scenario as shown on Figure 4 and Table 1 in the Traffic Impact Analysis Report, dated September 2014 (Appendix L-1). As noted previously, because some of the cumulative development projects may not be constructed at the anticipated time, or at all due to economic conditions, the cumulative impact analysis contained within the TIA is inherently conservative and would tend to overstate cumulative impacts. A detailed summary of the volume development methodology is included in the project Traffic Impact Analysis Report, dated September 2014 (Appendix L-1).

Project traffic volumes at study locations were the added to opening year cumulative volumes to develop opening year cumulative plus project traffic volumes.

Year 2035 Cumulative and Year 2035 Cumulative Plus Project Conditions. Year 2035 Cumulative conditions determine the project's cumulative contribution to long-term traffic impacts under year 2035 with buildout of the land uses and circulation system in the General Plan. Within the project site, the proposed project buildout land uses were used for the "Plus Project" scenarios while the existing land uses were used for the "No Project" scenarios. This analysis has also been utilized to determine if improvements funded through local and regional transportation mitigation fee programs, such as the TUMF program and the City of Moreno Valley DIF program, can accommodate the cumulative traffic at the target LOS identified in the City of Moreno Valley General Plan. If the regionally funded improvements can provide the target LOS, and the payment of such funds for such improvements is foreseeable, then the project's payment into the established fee programs will be considered as cumulative mitigation through the conditions of approval. Other improvements needed beyond the regionally funded improvements (such as localized improvements to non-TUMF, or non-DIF) are identified in the impacts section (Section 4.15.5).

For the 2035 scenarios, the roadway projects from the FTIP and RTP included in the year 2022 network were also included in the 2035 network. The future circulation network from the City of Moreno Valley General Plan was also incorporated into the year 2035 network. The General Plan identifies future circulation improvements that are funded through the City's DIF, Western Riverside Council of Governments' TUMF, and improvements made directly by developers. It is reasonable to assume that these improvements will be in place parallel with buildout of the General Plan land uses, because most of the improvements will be funded through fees on the new developments. If other sites do not fully build out per the General Plan, then the LOS on the study streets and intersection would likely be better than shown in the TIA. The 2035 improvements are shown in Figure 4.15.6.

Note: Figure 4.15.6 was added to the revised DEIR section.

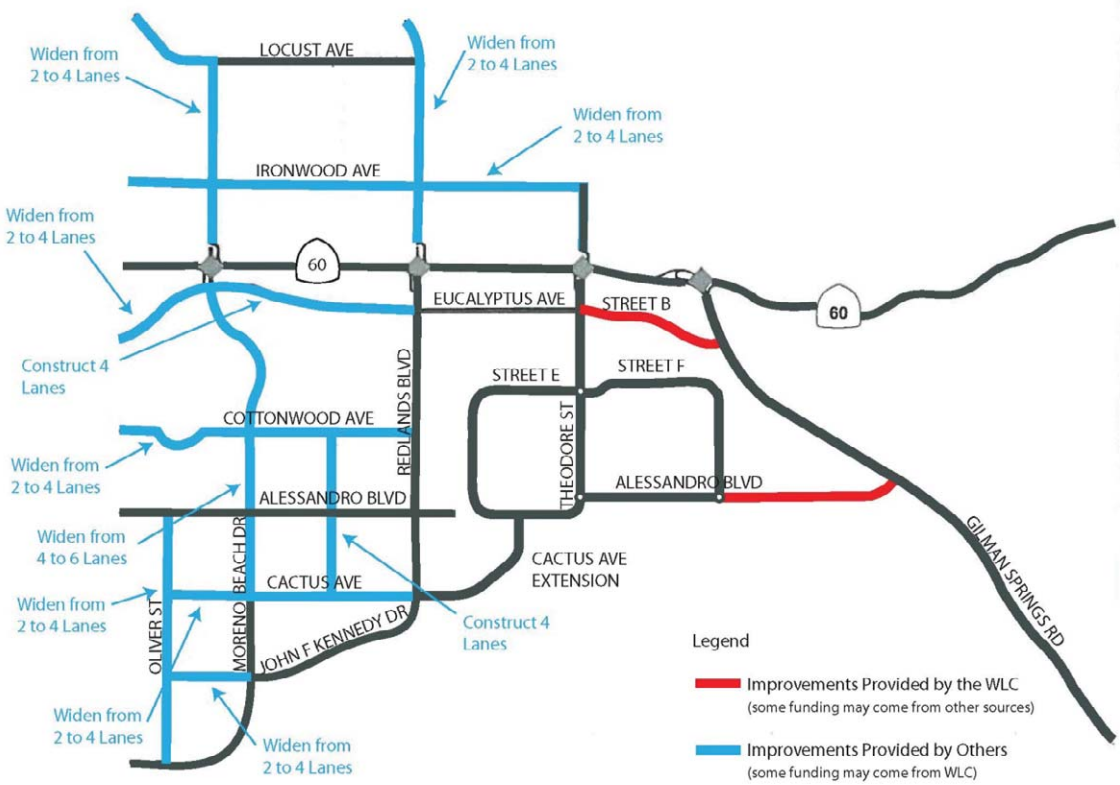

Figure 4.15.6: Roadway Improvements Assumed for 2035
Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Traffic projections for Year 2035 Cumulative conditions were derived from the RivTAM using accepted procedures for model forecast refinement and smoothing. The traffic forecasts reflect the area-wide growth anticipated between existing (2012) baseline conditions and horizon year (2035) conditions. Specifically, traffic generated by other approved projects (cumulative projects) in the vicinity of the proposed project were included in the socioeconomic inputs to the RIVTAM for the Year 2035 Cumulative traffic volume scenario as shown in Figure 4 and Tables 1 and 2 in the Traffic Impact Analysis Report, dated September 2014 (Appendix L-1). As noted above, because some of the developments contained within the cumulative analysis may not be constructed at the anticipated time, or at all due to economic conditions, the cumulative impact analysis contained within the TIA is inherently conservative and would tend to overstate cumulative impacts. A detailed summary of the volume development methodology is included in the project Traffic Impact Analysis Report, dated September 2014 (Appendix L-1).

Project traffic volumes at study locations were to added Year 2035 Cumulative traffic volumes to develop Year 2035 Cumulative plus project traffic volumes.

Table 4.15.K summarizes the forecast years as well as each development scenario analyzed.

Table 4.15.K: Analysis Scenarios

Forecast Year	Scenarios Analyzed
2012	• Existing (2012) Baseline Conditions. • Existing (2012) Baseline Plus Phase 1 Conditions Project (21,450,000 square feet). • Existing Baseline plus Project Conditions.
2022	• Year 2022 without Project Conditions Analysis based on data from the RivTAM plus cumulative projects. • Year (2022) plus Phase 1 Project (21,450,000 square feet).
2035	• Year 2035 Cumulative, without Project: Analysis based on data from the RivTAM plus cumulative projects. • Year 2035 Cumulative plus Project.

4.15.3.2 Project Trip Generation, Distribution, and Assignment

Note: The following changes have been made in response to: Comments F-3-5, 11, and Appendix 176 in Letter F-3 from the California Clean Energy Committee; Comments F-6-1, 2, and 3 in Letter F-6 from the Endangered Habitats League; Comment F-9A-45 in Letter F-9A from the Sierra Club, Center for Community Action & Environmental Justice, and Natural Resources Defense Council; Comment F-9B-45 in Letter F-9B from Tom Brohard and Associates; Comment F-11-29 in Letter F-11 from the Sierra Club, San Gorgonio Chapter; Comment G-2-7 in Letter G-2 from Perry Johnson; Comment G-17-2 in Letter G-17 from Joanne Lindgren; Comment G-18-1 in Letter G-18 from Sam Zaidy; Comment G-34-5 in Letter G-34 from Lindsay Robinson; Comment G-35-4 in Letter G-35 from Peggy Hadaway and John Neal; Comment G-49-18 in Letter G-49 from Karen Jakpor; Comment G-50-2 in Letter G-50 from Ann McKibben; Comment G-51-5 in Letter G-51 from Michael McCoy; Comments G-52-1 and 2 in Letter G-52 from Steve Jiannino; Comment G-53-4 in Letter G-53 from Deanna Reader and Kenny Bell; Comment G-57-1 in Letter G-57 from Tracy Hodge; Comment G-68-3 in Letter G-68 from Craig and Joan Givens; Comment G-96-3 in Letter G-96 from Margie Breikreuz; and Comment G-97-1 in Letter G-97 from Otana Jakpor.

Trip generation represents the amount of traffic that is attracted and produced by a development project. The amount of traffic generated by a specific project is based on the specific land uses being proposed. Traffic engineers utilize different yet similar methodologies to anticipate trip generations.

Many times, average trip generation rates as published by the Institute of Transportation Engineers (ITE) are used to forecast trip rates. In some circumstances, however, use of the ITE trip generation rates is not deemed to be the most accurate methodology of forecasting trip generation because more precise data are available. Therefore, in an effort to forecast the number of vehicle trips potentially generated by the proposed project accurately, the TIA examined and compared the results of four different trip generation sources: (1) the ITE *Trip Generation*, 9th Edition; (2) the Fontana Truck Trip Generation Study (2003); (3) the 2011 NAIOP trip generation study for high-cube logistics warehouses in Riverside and San Bernardino Counties; and (4) Skechers Trip Generation Study (2011). The City's TIA guidelines specify use of a combination of the first two sources, with the ITE Trip Generation Manual being the source of the trip generation rate and the City of Fontana Truck Trip Generation Study being the source of the vehicle mix percentages. Table 4.15.L summarizes the trip rates from each source.

Table 4.15.L: Trip Generation Rate Comparison *(Skechers Data Added)*

Source of Trip Generation Rates	A.M. Peak Hour			P.M. Peak Hour			Daily
	In	Out	Total	In	Out	Total	
ITE *Trip Generation Manual*	0.0759	0.0341	0.1100	0.0372	0.0828	0.1200	1.68
Fontana *Truck Trip Generation Study*	0.0357	0.0343	0.0700	0.0224	0.0506	0.0730	1.97
NAIOP 2011 *Trip Generation Study*	0.030	0.017	0.047	0.022	0.048	0.070	0.99
Skechers Traffic Counts	0.022	0.013	0.035	0.004	0.033	0.037	0.567

Source: Tables 3, 4 and 5, Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

The trip generation rates derived from existing driveway traffic counts collected at the Skechers Warehouse Facility in November 2011 showed that for all time periods the traffic generated by the Skechers building was only about one-third of what the ITE trip generation rates would have predicted. Furthermore, the actual truck traffic was less than half (41%) of what the methodology mandated in the City of Moreno Valley's traffic impact guidelines (ITE trip generation rates with the vehicle mix from the Fontana Truck Trip Generation Study) would predict.

Several comments received on the Draft EIR suggested that the trip generation for the proposed project use a combination of a very high overall trip generation rate with a high heavy truck percentage to estimate the number of project truck trips. The City has found that this approach produces unreasonable trip generation rates when compared to actual field conditions. For example, the EIR for the Skechers high-cube warehouse building used this unreasonable approach and found the forecasts to be three times the actual post-construction trip generation for car trips and nearly eight times the actual trip generation for trucks[1]. This approach could result in the construction of oversized and unnecessary roadway infrastructure with its own environmental consequences, creating an undue burden on development, and could ultimately discredit the City's project review process in the eyes of the business community and members of the public. For these reasons, this approach was not used to estimate trips for the proposed project and the City's Traffic Impact Guidelines was appropriately used instead.

The 2011 NAIOP provides the more accurate trip generation for the proposed project as the NAIOP study is the most comprehensive trip study performed for high-cube logistics warehouses. As shown in previously referenced Table 4.15.L, when using the NAIOP and derived trip generation rates, project trips are forecast to be lower than if the ITE trip generation rates where used. However, in order to be conservative, this EIR and the TIA utilize the ITE 9th Edition trip rates, which have the

[1] These figures are based on traffic counts taken at the Skechers building after it had been fully operational for over a year. See Technical Memorandum *Traffic Generated by the Skechers Warehouse*, Parsons Brinckerhoff to the City of Moreno Valley, November 14, 2012.

effect of overestimating project impacts because high-cube logistics warehousing would comprise 99.4 percent of the overall project building area. Therefore, as determined in the TIA, trip generation rates for high-cube warehouse uses (Land Use 152) as published in the 9th Edition of ITE's *Trip Generation* manual, and currently widely accepted throughout Riverside and San Bernardino Counties, are the trip rates being utilized to determine the project's traffic impacts. For this reason, the actual traffic impacts of the proposed project are expected to be much less than those identified in the TIA and by extension this EIR. The project trip generation rates for the proposed project and existing land uses on the site are shown in Table 4.15.M.

Table 4.15.M: Project Trip Generation Rates for Proposed and Existing Land Uses

Land Use Type	Unit	AM Peak Hour			PM Peak Hour			ADT
		In	Out	Total	In	Out	Total	
Proposed Land Uses								
High-Cube Logistics Center (ITE 152)	KSF	0.076	0.034	0.110	0.037	0.083	0.120	1.680
Light Logistics (ITE 150)	KSF	0.237	0.063	0.300	0.080	0.240	0.320	3.560
Utilities Servicing Station (ITE 170)*	KSF	0.720	0.080	0.800	0.342	0.418	0.760	8.000
Fire Station**	Site	20	8	28	10	20	29	137
Gas Station w Convenience Store (ITE 945)	Pumps	5.08	5.08	10.16	6.76	6.76	13.51	162.78
Convenience Store (ITE 851)	KSF	33.52	33.52	67.030	26.73	25.68	52.41	737.99
Existing Land Uses								
Single-Family Dwellings (ITE 210)	DU	0.188	0.563	0.750	0.630	0.370	1.000	9.520
Utilities Servicing Station (ITE 170)*	KSF	0.720	0.080	0.800	0.342	0.418	0.760	8.000

* Note: A.M. directionality taken from table for trips/employee. Daily is assumed to be ten time peak-hour rates
** Fire Station rate is based on the average of the following three traffic studies:
Fehr and Peers, *Loyola Marymount University Master Plan Project*, City of Los Angeles Department of Transportation, 2009, Table 5.
LLG Engineers, *Peaceful Valley Ranch*, County of San Diego, 2007, page 11.
McMahon, *Upper Dublin Fire House*, Montgomery County, Pennsylvania, 2010, page 15.
KSF = Thousand Square Feet DU = Dwelling Unit
ADT = Average Daily Trips
Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

The project trip generation for the proposed project and existing land uses on the site is shown in Table 4.15.N.

Table 4.15.N: Project Trip Generation for Proposed and Existing Land Uses

Land Use Type	Unit	Amount	AM Peak Hour			PM Peak Hour			ADT
			In	Out	Total	In	Out	Total	
Proposed Land Uses									
High-Cube Logistics Center (ITE 152) 40,400 KSF	KSF	40,400	3,066	1,378	4,444	1,503	3,345	4,848	67,872
Light Logistics (ITE 150) 200 KSF	KSF	200	47	13	60	16	48	64	712
SCG Valve/Metering Station (ITE 170) 0.15 KSF	KSF	0.15	0	0	0	0	0	0	1
SDG&E Gas Compression Station (ITE 170) 30.8 KSF	KSF	30.8	22	2	25	11	13	23	247
Fire Station 1 Site	Site	1	20	8	28	10	20	29	137
Gas Station w Convenience Store (ITE 945) 12 Pumps	Pumps	12	5	5	11	10	10	21	219
Convenience Store (ITE 851) 3 KSF	KSF	3	11	11	22	13	12	25	354
TOTAL PROPOSED			3,172	1,417	4,590	1,563	3,449	5,010	69,542

Table 4.15.N: Project Trip Generation for Proposed and Existing Land Uses

Land Use Type	Unit	Amount	AM Peak Hour			PM Peak Hour			ADT
			In	Out	Total	In	Out	Total	
Existing Land Uses									
Single-Family Dwellings (ITE 210) 7 DU	DU	7	1	4	5	4	3	7	67
SCG Valve/Metering Station (ITE 170) 0.15 KSF	KSF	0.15	0	0	0	0	0	0	1
SDG&E Gas Compression Station (ITE 170) 30.8 KSF	KSF	30.8	22	2	25	11	13	23	247
TOTAL EXISTING			24	6	30	15	16	31	314

* Note: A.M. directionality taken from table for trips/employee. Daily is assumed to be ten time peak-hour rates.
KSF = Thousand Square Feet DU = Dwelling Unit
ADT = Average Daily Trips
Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, March September 2014.

Figure 4.15.7 compares the trip generation estimate for the proposed project as used in this EIR to the trip generation assuming implementation of the NAIOP and Sketchers survey-derived rates. As shown in the figure, the trip generation estimate for the proposed project is much higher in comparison to the estimates using either the NAIOP or Sketchers rates, thus meeting CEQA's standard of substantial evidence.

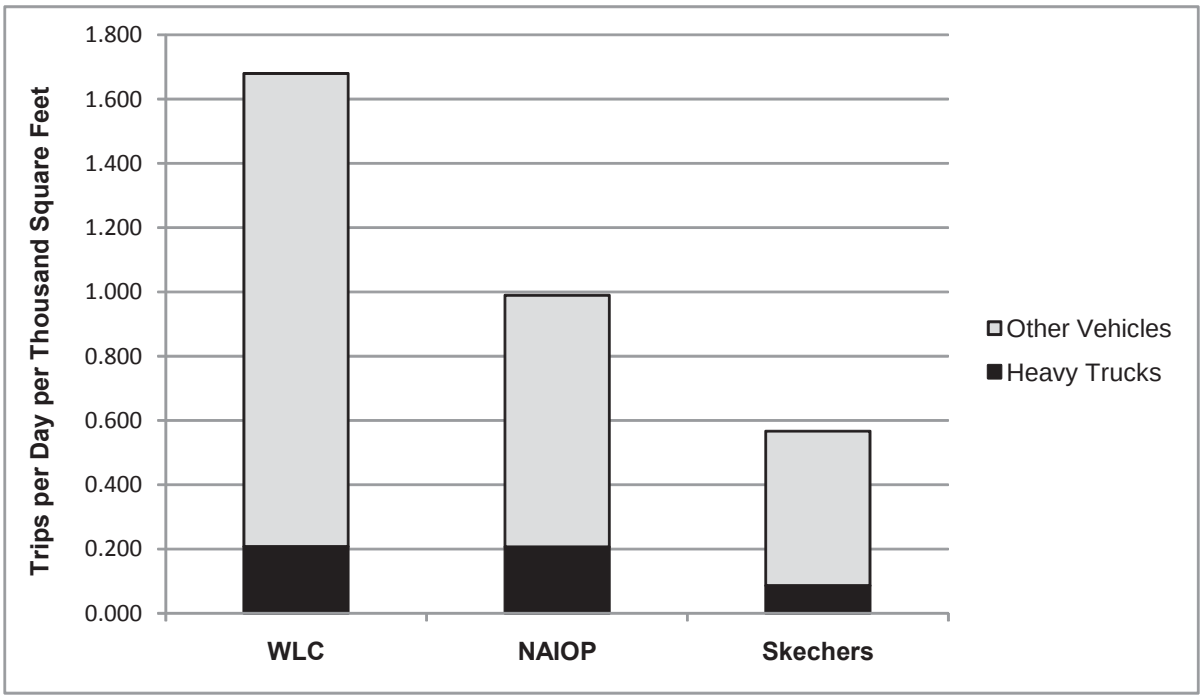

Figure 4.15.7: Comparison of Trip Generation from Southern California Sources
Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

As shown in previously referenced Table 4.15.N, the project is estimated to generate a net total of approximately 69,542 daily trips with approximately occurring during a.m. peak hour and 5,010 occurring during the p.m. peak hour. Daily and hourly trip counts take into account only the trips generated by the project. Refinements to raw trip generation estimated using the ITE rates have been made to provide a more detailed breakdown of trips by vehicle mix, similar to the existing baseline count

data. Per City of Moreno Valley standard practice, vehicle mix percentages were obtained from the City of Fontana Truck Trip Generation Study, which is the recognized source throughout the County of Riverside and the County of San Bernardino for estimating the vehicle mix associated with industrial and warehouse uses. For this reason, the vehicle-mix from the Fontana Truck Trip Generation Study has been applied to ITE trip generation rates in order to determine the proposed project's passenger car and truck trip generation mix. Table 4.15.O shows the project trips by vehicle type. The PCE project trips by vehicle type differ between the surface street and freeway analyses because the freeway analysis uses a PCE factor of 1.5 for medium and heavy trucks while the surface street analysis uses PCE factors of 2.0 and 3.0 for medium and heavy trucks, respectively.

Table 4.15.O: Project Trips by Vehicle Type

	AM Peak Hour			PM Peak Hour					
Vehicle Type	In	Out	Total	In	Out	Total	Vehicles	Surface Street PCEs	Freeway PCEs
PHASE 1									
Autos	1,197	466	1,663	412	1,396	1,807	30,879	30,879	30,879
Light Trucks	97	55	152	77	90	167	1,340	2,009	2,009
Medium Trucks	130	74	204	103	121	223	1,792	3,585	2,689
Heavy Trucks	345	197	542	273	320	594	4,760	14,279	7,140
Total	1,769	792	2,561	866	1,927	2,792	38,771	50,753	42,717
PHASE 2									
Autos	923	356	1,279	313	1,075	1,388	23,835	23,835	23,835
Light Trucks	75	43	118	60	70	130	1,046	1,569	1,569
Medium Trucks	100	57	157	79	93	173	1,389	2,778	2,083
Heavy Trucks	266	151	418	211	248	459	3,680	11,040	5,520
Total	1,365	606	1,971	663	1,486	2,149	29,950	39,222	33,007
FULL PROJECT BUILD-OUT									
Autos	2,120	821	2,941	726	2,471	3,195	54,714	54,714	54,714
Light Trucks	172	98	271	137	160	297	2,385	3,578	3,578
Medium Trucks	230	131	361	182	214	396	3,181	6,363	4,772
Heavy Trucks	611	348	959	484	568	1,052	8,440	25,319	12,660
Total	3,134	1,398	4,532	1,529	3,413	4,941	68,721	89,975	75,724

PCE = passenger car equivalent.
Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

The City of Moreno Valley Transportation Engineering Division performed their own survey of trip generation at six warehouses in the City to address concerns over unrealistically high trip generation forecasts for warehouse oriented projects. This study used counts collected in Fall 2013, after the Draft EIR for the proposed project had been sent out for public review in February 2013. The City study confirmed that the vehicle mix for the Heavy Warehouse category in the Fontana *Truck Trip Generation Study* (i.e. the data used for the WLC TIA) produces a good, but conservative (i.e. somewhat high), estimate of truck trips percentages for high-cube warehouses while the Fontana Truck Terminal category produces an obvious over-estimate of truck traffic (see Figure 4.15.8).

For comparative purposes, the trip generation estimate for the proposed project was compared to the trip generation for existing approved land uses for the project area as shown in the final traffic study for the Moreno Highlands Specific Plan. The Moreno Highlands Specific Plan would generate 178,608 average vehicle trips per day, or more than two-and-a-half times as many trips (256%) as are forecast for the WLC (69,542 average vehicle trips per day). The Moreno Highlands traffic studies did not distinguish between car and truck traffic, and so did not provide a forecast in terms of PCEs. However, even if the Moreno Highlands plan were to generate no truck trips at all (only auto trips), it

would still generate nearly twice as many PCEs trips as the WLC. Thus, the World Logistics Center would generate substantially less traffic than the existing approved land uses for the project area as envisioned in the existing Moreno Highlands Specific Plan.

Trip distribution represents the probable starting and ending locations of traffic generated by a project. Trip distribution is heavily influenced by the geographical location of a project site in relation to local and regional land uses (i.e., the starting and ending locations), and access to a project site from the local and regional transportation system. The proposed project's trip distribution was developed for both passenger cars and trucks.

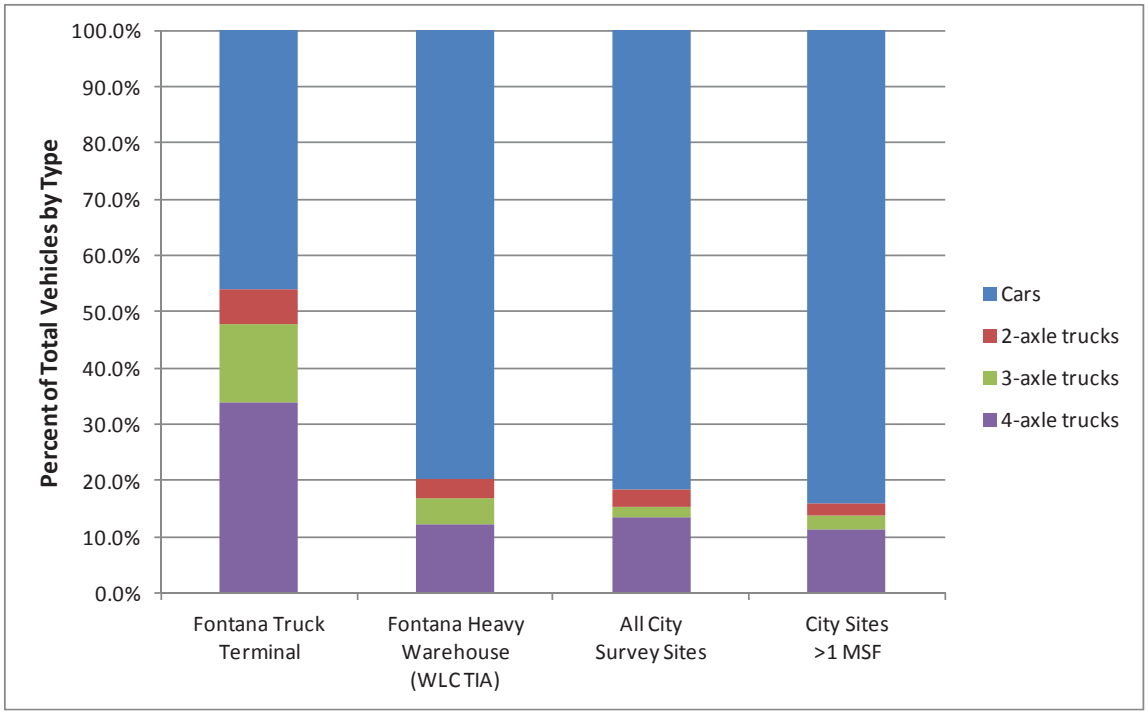

Figure 4.15.8: Comparison of Vehicle Mixes from the City Survey and the Fontana Study
Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

The Fontana Truck Trip Generation Study[1] found that 80 percent of the vehicles entering or leaving warehouse sites are passenger cars, nearly all of which are used for commute trips by employees of the warehouses. Most of these trips are local trips resulting from current and future residents of Moreno Valley who would be afforded the opportunity to work locally with very short commutes as wells as residents of neighboring cities who would access the project site using the local arterial network. Other passenger car trips would be generated by workers coming from more distant areas. In most cases, these trips would access the project site via SR-60 in the off-peak direction (i.e., commuters traveling to the project site from Los Angeles or Orange Counties).

Truck Distribution. The truck trip distribution patterns have been developed based on the anticipated travel patterns for the proposed project's high-cube logistics warehousing trucks. Since the internal trips, the port-related trips, and the majority of external trips (all but those on I-10) use routes west of the project site, it is anticipated that a large majority of the WLC truck traffic will be oriented to the west of the project, with a much smaller amount to and from the east. In addition, the majority of project truck traffic would use the freeway system to enter and leave the project area due

[1] Truck Trip Generation Study, City of Fontana, August 2003.

to truck routing restrictions. Based on these factors, truck trips generated by the proposed project would be oriented in the following manner:

- 82 percent to/from the west via one or more freeways;
- 6 percent to/from the north via surface streets;
- 9 percent to/from the east utilizing SR-60 and I-10; and
- 3 percent to/from the southeast via surface streets.

Auto Distribution. Figure 29 of the WLC TIA indicates that daily passenger vehicle traffic will distribute in the following directions:

- 44 percent to/from the west on SR-60;
- 9 percent to/from the east on SR-60 (east of Gilman Springs Road);
- 11 percent to/from the southeast on Gilman Springs Road;
- 29 percent to/from the south on Cactus Avenue; and
- 7 percent to/from the north along Theodore Street.

Moreno Valley currently has a jobs/housing imbalance that results in long westbound commutes for thousands of city residents every workday. The WLC would create approximately 25,000 new jobs; nearly doubling the number of jobs in Moreno Valley. This would have four effects on commute patterns. First, many current and future residents of Moreno Valley would be able to work locally with very short commute trips.

Second, residents of neighboring cities who work at the WLC would have short commutes and, importantly, be able to access the site using the arterial road network. This is consistent with the policies of the Western Riverside Council of Governments and the Riverside County Transportation Commission to promote use of the arterial road network as an alternative to freeways. Tests with the RIVTAM model (see Figure 29 of the WLC TIA) suggest that nearly half of auto traffic associated with the WLC would be on surface streets; i.e., not on freeways.

Third, workers coming from more distant locations would, in most cases, be traveling on freeways in the off-peak direction; i.e., commuters traveling to the WLC from Los Angeles or Orange Counties would be headed eastbound in the morning and westbound in the evening. This would enable them to take advantage of the existing unused off-peak capacity of freeways, since the freeways were sized for flows in the peak direction.

Fourth, because the RIVTAM model assumes that WLC employees would work elsewhere if the WLC project were not implemented, then the availability of jobs at the east end of Moreno Valley would reduce the number of workers driving long commutes to distant jobsites to the west and southwest. Although the project would increase freeway auto traffic eastbound in the morning, it would also decrease the traffic in the more congested westbound direction. In the evening the pattern would reverse, with the project relieving traffic in the congested eastbound direction. Therefore, the WLC project would have a net beneficial impact on the regional freeway auto traffic. This is consistent with the policies of SCAG, WRCOG, and other regional governments and agencies to encourage better jobs/housing balances as a way to reduce peak directional flows on the regional freeway system.

The assignment of traffic from the project area to the adjoining roadway system is based upon the project trip generation, trip distribution, and the arterial highway and local street system improvements

that would be in place by the time of initial occupancy of the project. For more information on project trip generation and distribution for both trucks and passenger vehicles over and above the summary above, see Sections 4.C, 4.D, and 4.E in the project TIA (PB 2013, EIR Appendix L). It is important to note that all trucks must use established truck routes within the City of Moreno Valley by the Municipal Code, while passenger vehicles will distribute onto the freeway and local streets depending on their destinations.

It should be noted that all technical studies based all or in part on traffic (i.e., air quality, greenhouse gases, and noise) have used these same assumptions regarding trip generation, trip length, etc. from the project TIA for their assessments of project impacts.

Passenger Car Equivalents. The analytical methods used to forecast traffic impacts must take into account the driving characteristics of different classes of vehicles. This is typically done through the use of passenger car equivalent (PCE) factors, which convert the number of heavy vehicles in the traffic stream into an equivalent number of passenger cars. The term PCE was first used in the 1965 *Highway Capacity Manual* (HCM), and was determined by comparing the relative number of passing of trucks by passenger cars in relation to number of passing of passenger car by passenger cars. According to the *HCM 2000*:

> *The entry of heavy vehicles-that is, vehicles other than passenger cars (a category that includes small trucks and vans)-into the traffic stream affects the number of vehicles that can be served. Heavy vehicles are vehicles that have more than four tires touching the pavement.*
>
> *Trucks, buses, and recreational vehicles (RVs) are the three groups of heavy vehicles addressed by the methods in this manual. Heavy vehicles adversely affect traffic in two ways:*
>
> - *They are larger than passenger cars and occupy more roadway space; and*
> - *They have poorer operating capabilities than passenger cars, particularly with respect to acceleration, deceleration, and the ability to maintain speed on upgrades.*
>
> *The second impact is more critical. The inability of heavy vehicles to keep pace with passenger cars in many situations creates large gaps in the traffic stream, which are difficult to fill by passing maneuvers. The resulting inefficiencies in the use of roadway space cannot be completely overcome. This effect is particularly harmful on sustained, steep upgrades, where the difference in operating capabilities is most pronounced, and on two-lane highways, where passing requires use of the opposing travel lane.*

Grade is by far the most important determinant in the PCE factor to be used. The HCM's recommended PCE for trucks ranges from 1.5 for places with slopes of less than 2 percent up to 7.0 for places with steep grades more than a mile long. HCM's recommended PCE factors were used for the freeway analysis.

For the analysis of surface streets, the City's TIA guidelines mandate the use of PCE factors taken from the San Bernardino County CMP, 2003 Update. These are somewhat higher than the HCM rates; for example, HCM recommends 2 PCEs per heavy truck while the San Bernardino County CMP uses 3. This means that use of the San Bernardino County CMP PCE rates represents a deliberately conservative approach in the sense that the analysis will tend to over-state the impact of trucks on traffic conditions.

4.15.3.3 Year 2017 Conditions

Note: Due to a change in project conditions and phasing, the Year 2017 analysis was eliminated from the revised TIA and DEIR section. *The reader is referred to the original DEIR section for that analysis and related tables and figures.*

Note: The following analysis of potential rail service to the project site was added in response to comments on the Draft EIR.

Potential Rail Alternative. This section describes why rail service is not considered a viable option for reducing the traffic impacts of the WLC. This conclusion is based on several factors, including the physical constraints to bringing rail service to the WLC site, the cost of cargo movement by rail relative to movement by truck, capacity constraints in the rail system that the WLC branch line would tie into, and the minimal effect that rail service would have even if all other factors could be overcome. These factors are discussed in turn below.

The Possible Alignments for Bringing Rail Service to the WLC Site. The WLC site is not currently served by rail. The rail lines nearest the site are the Union Pacific Yuma Line (single-track in this area), the Riverside County Transportation Commission's San Jacinto Branch Line (single-track, currently inactive), and the BNSF double-track line through the City of Riverside (see TIA Figure 36).

There are four general alignment possibilities for a branch line to the WLC. Each alignment is inherent with significant problems as follows:

- Western Alignment – Alignments running from the BNSF line in Riverside to the WLC, an approximate distance of 15 miles, would have to run through built-up areas of the Cities of Riverside and Moreno Valley. The cost of acquiring right-of-way through these areas, and the impacts to the community (noise, traffic disruption, safety, division of the community, etc.) render such alignments unviable. Moreover, trains using the at-grade rail crossings in the City of Riverside already impose substantial delays on road traffic. In fact, in recent years the City of Riverside has sued the ports over the issue of traffic impacts from additional trains passing through the city. Adding more crossings and more trains would exacerbate this problem.
- Southern Alignment – It would be possible to avoid densely populated and built-out areas by connecting to the San Jacinto Branch Line south of March Air Reserve Base. However, the only way to avoid established communities would be to pass along the northern portion of the Lake Perris State Recreation Area. The alignment, approximately 10 miles in length, would be a major impact as it would require constructing and operating a rail line along the slopes of the Lake Perris State Recreation Area and potentially the San Jacinto Wildlife Area. There would also be traffic impacts at road crossings, potential grade issues, and grade separated crossings needed for drainage channels and I-215. The impacts and costs of this approach would be disproportionate to the benefit of removing WLC trucks from the freeways (which will be discussed in a later section).
- Northern Alignment – The shortest alignment to an existing rail line is to the north in the vicinity of Redlands Boulevard and connecting to the UP Yuma line near the intersection of Redlands Boulevard and San Timoteo Canyon Road, approximately five miles from the project site. This alignment would require extensive ROW acquisition, encounter very serious grade issues that would increase the length of track needed, result in environmental impacts on the Badlands, and require a grade separated crossing of SR-60. The impacts and costs of this approach would be disproportionate to the benefit of removing WLC trucks from the freeways.

- Eastern Alignment – The final possibility would be to connect to the UP Yuma line along an alignment parallel to SR-60. This alignment would connect to the existing rail network near the Morongo Golf Club at Tukwet Canyon, approximately five miles to the east of the WLC site. The eastern alignment would be affected by the same drawbacks as the northern alignment, with the addition of the need to construct a bridge over San Timoteo Creek.

As can be seen from the discussion above, providing rail service to the WLC along any of the possible alignments would in itself create serious environmental impacts.

Relative Costs of Truck and Rail Service. The loading and unloading of rail cargos requires special equipment and handling and can only be performed at specialized places, which adds to the cost of shipping goods by rail. On the other hand, the actual movement of goods by rail is more energy-efficient and less expensive than movement by truck. This combination of relatively high fixed costs at each end of a trip with low variable costs for the distance traveled means rail can be a less expensive way to ship cargo than truck, but only if the shipping distance is sufficiently long.

The break-even distance between rail and truck shipping has been the subject of several studies. The industry rule-of-thumb is that the rail becomes economically viable when cargos are shipped more than 500 miles. For example, the National Rail Plan, a nationwide guiding document from the U.S. Department of Transportation Federal Railroad Administration, has set the freight rail goal to, "Develop strategies to attract 50 percent of all shipments 500 miles or greater to intermodal rail." In addition, the Plan highlights the importance that trucks have in conjunction with rail when moving freight, as trucks "excel in providing time-sensitive delivery services for high-value goods being transported over medium and short haul distances." A local example is the Ports of Long Beach/Los Angeles Rail Master Planning Study, which indicates that rail loaded with two levels of shipping containers, "traditionally competes well with trucks at distances greater than 500 miles." The San Pedro Bay Ports Rail Market Study shows the break-even point between truck and rail freight transport beginning east of Las Vegas and Phoenix, and north of the Bay Area. For shipments between the Ports of Los Angeles and Long Beach and the WLC, a distance of about 70 miles, shipping by rail would be far more expensive than by truck. Even if a rail line were built to the WLC, it would be uneconomical to use it for trips to and from the ports.

Capacity Constraints in the Rail System. If a rail line could be built to the WLC site and tenants could be induced to use it despite higher costs, this would only be helpful if the regional rail system had sufficient capacity to accommodate WLC freight without detriment to other users.

In fact, there are serious capacity constraints in the rail network in the Los Angeles Basin. Among other things, both BNSF and UP rail operations are already capacity-constrained on the lines between the ports and western Riverside County. Two studies, completed in the early 2000s and using the year 2000 as the existing condition, found that many of the rail lines were already operating near capacity. The studies evaluated 10 and 25 years of projected growth on the network and found that within 10 years (of the date of the study) the network would be over capacity. Without capacity increasing improvements, 10 years of train traffic growth was forecast to increase delay more than six-fold. This did not include additional delays that would be caused by trains serving the WLC.

The Los Angeles-Inland Empire Railroad Main Line Advanced Planning Study from October 2002 found that the "region's rail system is inadequate for forecast train traffic." The study presented other findings that illustrate the near-capacity state of the rail network, for example, "… just 25 percent of the forecast 2010 traffic is sufficient to roughly double the average delay per train, to 67.6 minutes for BNSF freight and 54.4 minutes for UP freight." This occurs because small increases in train traffic result in disproportionate delays as the network nears capacity.

Several minor improvements to the rail network have been made since the 2002 study. However, accommodating estimated future demand in the year 2025 by providing capacity improvements alone would be costly; to meet future demand without rerouting would require capacity of some segments to be increased from two to four tracks. Therefore, an approach has been developed to revise train routing on the existing rail network and make limited capacity-increasing improvements. Even the limited improvements are estimated to cost over $2 billion.

The fact that the rail system has limited capacity to accommodate additional traffic means that potential users have to be prioritized so that the capacity can be allocated efficiently. Highest priority would be for long-distance rail service direct from the ports. Short-distance cargo trips between the ports and the WLC would receive much lower priority than long-distance shipments. If regional passenger trains (e.g., Metrolink) share the tracks with freight trains, as is the case for some lines, then service to WLC would drop even further on the priority list. Based on existing capacity of the rail network and projected growth, the studies indicated that the rail network would be over capacity without further capital investments, which is beyond the scope of the WLC project.

Minimal Reduction in Traffic. Assuming that a rail line could be built to the WLC site and assuming that WLC freight could be accommodated by the rail network and that the costs for these things could be covered by subsidies or by increasing the prices on goods moved through the WLC, the question must be asked, “how much of a reduction in truck traffic impacts would be achieved?”

The answer is, “very little.” As was discussed earlier, the economics of freight shipment make rail viable only for trips of 500 miles or more. As is described in the TIA prepare for this EIR (Chapter 12, Section F), between 2 and 7 percent (depending on the year) of the truck trips beginning or ending in WLC go to the ports and these trips have no significant impact on freeway LOS for most of their lengths. So the effect of rail service on reducing truck impacts would be very small.

Conclusions About the Rail Alternative. This analysis of the rail alternative found that bringing rail service to the site would be very costly, result in serious environmental impacts, create major disruption to existing communities, and take many years to design, acquire right-of-way, and construct. Even if a line were built, both economics and system constraints would deter its use for cargos between the WLC and the ports. Even if built and used, rail service would have very little effect on reducing the traffic impacts of the WLC. Based on these considerations, rail service was not included in the design of the WLC and is not discussed further in this EIR.

4.15.3.4 Year 2022 Conditions

Note: The analysis of Year 2022 conditions in the original DEIR was based on different project characteristics (i.e., +1 million square feet of warehousing) and different phasing. Therefore, the previous Year 2022 has been removed in its entirety and replaced with the following updated analysis. The reader is referred to the original DEIR section for the previous Year 2022 analysis.

Levels of service are discussed below for year 2022. As noted above, Phase 1 of the proposed project will be completed in 2022 and includes 21,450,000 square feet of logistics warehouse uses. This is approximately 52 percent of the total project building space. The internal road system will be partially built out, with east-west through traffic served by the Cactus Avenue Extension and Streets C and E. Theodore Street would serve north-south traffic as it does today. As discussed previously, roadway projects that are either under construction or are funded and planned for implementation in the short-term (i.e., improvement projects on the FTIP and the RTP’s Financially Constrained Project list) and therefore reasonably assured of being constructed within the scenario timeframe were added.

Year 2022 Without Project Levels of Service. An intersection level of service analysis was conducted to determine intersection performance under opening year 2022 cumulative conditions. Table 4.15.P summarizes the levels of service for opening year cumulative conditions at study area intersections. As shown on Table 4.15.P, the same 12 intersections that exceeded the City's LOS standards under Existing No Project Conditions also exceed the LOS standards under 2022 No Project conditions. In addition, 20 other intersections were forecast to operate at LOS D or worse. The intersections that were forecast to exceed the City's LOS standards under opening year 2022 cumulative conditions were:

- Redlands Boulevard/Locust Avenue (a.m. and p.m.);
- Redlands Boulevard/SR-60 Westbound ramps (a.m. and p.m.);
- Theodore Avenue/Fir Avenue (p.m.);
- Oliver Street/Alessandro Boulevard (a.m. and p.m.);
- Redlands Boulevard/Alessandro Boulevard (a.m.);
- Moreno Beach Drive/Ironwood Avenue (a.m.);
- Moreno Beach Drive/SR-60 Eastbound ramps (a.m.);
- Lasselle Street/Iris Avenue (p.m.);
- Krameria Avenue; Perris Boulevard (a.m. and p.m.);
- Lasselle Street/Cactus Avenue (a.m. and p.m.);
- Frederick Street/Alessandro Boulevard (p.m.);
- Graham Street/Alessandro Boulevard (p.m.);
- Perris Boulevard/Alessandro Boulevard (p.m.);
- Graham Street/Cactus Avenue (a.m. and p.m.);
- Alessandro Boulevard/Sycamore Canyon Boulevard (p.m.);
- I-215 Southbound ramps/Cactus Avenue (p.m.);
- Elsworth Street/Cactus Avenue (p.m.);
- Martin Luther King Boulevard/Canyon Crest Drive (a.m.);
- Martin Luther King Boulevard/I-215 Northbound ramps (a.m.);
- Arlington Avenue/Victoria Avenue (a.m. and p.m.);
- Alessandro Boulevard/Chicago Avenue (a.m. and p.m.);
- Ramona Expressway/Evans Road (a.m.);
- Evans Road/Rider Street (a.m.);
- Placentia Avenue/Perris Boulevard (p.m.);
- Gilman Springs Road/Bridge Street (a.m.);
- SR-79 (Sanderson Avenue) Northbound/Gilman Springs Road (a.m. and p.m.);
- SR-79 (Sanderson Avenue) Southbound/Gilman Springs Road (a.m. and p.m.);
- W. 6th Street/California Avenue (a.m. and p.m.);
- San Timoteo Canyon Road/Alessandro Road (a.m. and p.m.);

- San Timoteo Canyon Road/Live Oak Canyon Road (a.m. and p.m.);
- Redlands Boulevard/San Timoteo Canyon Road (a.m. and p.m.); and
- W. Crescent Avenue/Alessandro Road (a.m. and p.m.).

Table 4.15.P: Year 2022 Without Project Intersection Levels of Service

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Theodore St/Street F	N/A	N/A	Non-Existent		Non-Existent	
2	Cactus Avenue Extension/Street E	N/A	N/A	Non-Existent		Non-Existent	
3	Theodore Str/Alessandro Blvd (Str A/Str C/Str E)	D	CSS	10.0	A	10.3	B
4	Alessandro Blvd (Street C)/Street F	N/A	N/A	Non-Existent		Non-Existent	
6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	SIGNAL	5.8	A	7.9	A
9	Gilman Springs Rd/Eucalyptus Ave	N/A	N/A	Non-Existent		Non-Existent	
10	Redlands Blvd/Locust Ave	C	CSS	> 180.0	**F**	> 180.0	**F**
11	Redlands Blvd/Ironwood Ave	D	SIGNAL	34.9	C	31.7	C
12	Theodore Street/Ironwood Avenue	D	CSS	13.0	B	17.8	C
13	Redlands Blvd/SR-60 WB ramps	D	CSS	> 180.0	**F**	> 180.0	**F**
14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	8.9	A	15.9	B
15	Theodore Str/SR-60 WB ramps	D	CSS	12.2	B	19.2	C
16	Theodore Str/SR-60 EB ramps	D	CSS	12.2	B	23.2	C
17	Quincy Str/Fir Ave	N/A	N/A	Non-Existent		Non-Existent	
18	Redlands Blvd/Eucalyptus Ave (Fir)	N/A	N/A	Non-Existent		Non-Existent	
19	Theodore St/Fir Ave (Eucalyptus)	D	CSS	9.8	A	41.7	**E**
20	Oliver Str/Alessandro Blvd	C	CSS	81.3	**F**	67.7	**F**
21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	17.6	B	18.5	B
22	Quincy Str/Alessandro Blvd	N/A	N/A	Non-Existent		Non-Existent	
23	Redlands Blvd/Alessandro Blvd	C	AWS	30.2	**D**	14.1	B
24	Oliver Str/Cactus Ave	D	SIGNAL	32.5	C	25.7	C
25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	18.5	B	18.9	B
26	Quincy Str/Cactus Ave	N/A	N/A	Non-Existent		Non-Existent	
27	Redlands Blvd/Cactus Ave	C	AWS	13.4	B	9.5	A
28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	19.8	B	18.9	B
29	Heacock Str/Ironwood Ave	D	SIGNAL	30.9	C	36.9	D
30	Heacock Str/SR-60 WB Ramps	D	SIGNAL	33.7	C	47.5	D
31	Heacock St/SR-60 EB Ramps	D	SIGNAL	21.1	C	24.7	C
32	Sunnymead Blvd & Perris Blvd	D	SIGNAL	29.9	C	39.2	D
33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	31.8	C	21.7	C
34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	27.7	C	33.4	C
35	Moreno Beach Dr/Locust Ave	C	CSS	9.2	A	9.6	A
36	Moreno Beach Drive & Ironwood Avenue	D	SIGNAL	90.2	**F**	51.0	D
37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	88.7	**F**	37.8	D
38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	50.8	D	53.5	D
39	Iris Ave/Perris Blvd	D	SIGNAL	54.0	D	38.6	D
40	Kitching St/Iris Ave	C	SIGNAL	28.9	C	23.9	C
41	Lasselle Str/Iris Ave	D	SIGNAL	32.8	C	68.7	**E**
42	Nason Str/Iris Ave	C	SIGNAL	8.2	A	11.7	B
43	Oliver Str/Iris Ave	D	SIGNAL	28.9	C	22.0	C
44	Via Dell Lago/Iris Ave	C	SIGNAL	8.8	A	8.3	A

Table 4.15.P: Year 2022 Without Project Intersection Levels of Service

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
45	Krameria Ave/Perris Blvd	D	SIGNAL	> 180.0	**F**	> 180.0	**F**
46	Kitching Str/Krameria Ave	D	SIGNAL	29.2	C	40.0	D
47	Lasselle Str/Krameria Ave	D	SIGNAL	32.9	C	15.3	B
48	Kitching Str/Alessandro Blvd	D	SIGNAL	28.5	C	25.7	C
49	Lasselle Str/Alessandro Blvd	D	SIGNAL	56.1	**E**	41.9	D
50	Morrison Str/Alessandro Blvd	D	SIGNAL	9.3	A	9.2	A
51	Nason Str/Alessandro Blvd	D	SIGNAL	31.5	C	29.5	C
52	Kitching Str/Cactus Ave	C	SIGNAL	32.2	C	26.2	C
53	Lasselle Str/Cactus Ave	C	SIGNAL	64.0	**E**	52.8	**D**
54	Morrison Str/Cactus Ave	N/A	N/A	Non-Existent		Non-Existent	
55	Nason Str/Cactus Ave	D	SIGNAL	30.6	C	32.8	C
56	Frederick Str/Alessandro Blvd	D	SIGNAL	30.4	C	61.7	**E**
57	Graham Str/Alessandro Blvd	D	SIGNAL	32.4	C	76.8	**E**
58	Heacock Str/Alessandro Blvd	D	SIGNAL	41.8	D	48.9	D
59	Indian Str/Alessandro Blvd	D	SIGNAL	24.7	C	33.5	C
60	Perris Blvd/Alessandro Blvd	D	SIGNAL	50.5	D	113.4	**F**
61	Frederick Str/Cactus Ave	D	SIGNAL	19.1	B	15.6	B
62	Graham Str/Cactus Ave	D	SIGNAL	148.3	**F**	66.6	**E**
63	Heacock Str/Cactus Ave	D	SIGNAL	42.5	D	32.9	C
64	Indian Str/Cactus Ave	C	SIGNAL	28.8	C	22.0	C
65	Perris Blvd/Cactus Ave	D	SIGNAL	35.7	D	32.7	C
66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	38.2	D	58.3	**E**
67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	10.9	B	8.9	A
68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	25.5	C	23.3	C
69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	17.3	B	35.4	D
70	Day Str/Alessandro Blvd	D	SIGNAL	10.7	B	43.0	D
71	Elsworth Str/Alessandro Blvd	D	SIGNAL	20.7	C	34.7	C
72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	30.5	C	89.5	**F**
73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	10.8	B	12.6	B
74	Elsworth Str/Cactus Ave	D	SIGNAL	31.3	C	175.7	**F**
75	Central Ave/Lochmoor Dr.	D	SIGNAL	19.6	B	30.3	C
76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	27.8	C	29.8	C
77	SR-60 EB Ramps/Central Ave	D	SIGNAL	10.9	B	11.7	B
78	SR-60 WB Ramps/Central Ave	D	SIGNAL	6.6	A	7.4	A
79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	29.8	C	15.5	B
80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	33.2	C	48.3	D
81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	34.6	C	48.4	D
82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	9.2	A	16.7	B
83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	100.0	**F**	41.2	D
84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	9.6	A	5.6	A
85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	27.4	D	15.0	C
86	Central Ave/Chicago Ave	D	SIGNAL	34.5	C	40.8	D
87	Central Ave/El Cerrito Dr	D	SIGNAL	13.2	B	17.3	B
88	Central Ave/Canyon Crest Dr	D	SIGNAL	36.3	D	51.2	D
89	Chicago Ave/Country Club Dr	D	SIGNAL	9.4	A	7.1	A
90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	36.9	D	35.4	D

Table 4.15.P: Year 2022 Without Project Intersection Levels of Service

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	22.1	C	31.3	C
92	Arlington Ave/Maude St	D	SIGNAL	14.3	B	13.5	B
93	Horace St/Arlington Ave	D	SIGNAL	19.7	B	10.1	B
94	Arlington Ave/Victoria Ave	D	SIGNAL	84.2	**F**	83.7	**F**
95	Alessandro Blvd/Chicago Ave	D	SIGNAL	64.5	**E**	114.7	**F**
96	Alessandro Blvd/Century Ave	D	SIGNAL	32.5	C	14.9	B
97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	29.5	C	20.5	C
98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	30.6	C	30.2	C
99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	33.3	C	25.5	C
100	Harley Knox Blvd/Evan Rd	N/A	N/A	Non-Existent		Non-Existent	
101	Ramona Expy/Indian St	E	SIGNAL	18.6	B	39.7	D
102	Ramona Expy/Perris Blvd	E	SIGNAL	34.3	C	31.2	C
103	Ramona Expy/Evans Rd	E	SIGNAL	139.7	**F**	41.6	D
104	Perris Blvd/Morgan St	D	SIGNAL	14.6	B	12.7	B
105	Evans Rd/Morgan St	C	SIGNAL	32.8	C	29.7	C
106	Perris Blvd/Rider St	C	SIGNAL	18.3	B	22.7	C
107	Evans Rd/Rider St	C	SIGNAL	34.4	C	30.3	C
108	Perris Blvd/Mid-County Pkwy WB Ramps	D	SIGNAL	29.2	C	20.8	C
109	Perris Blvd/Mid-County Pkwy EB Ramps	D	SIGNAL	19.2	B	32.4	C
110	Evans Rd/Mid-County Pkwy WB Ramps	D	SIGNAL	38.0	D	32.2	C
111	Evans Rd/Mid-County Pkwy EB Ramps	D	SIGNAL	14.6	B	25.9	C
112	Placentia Ave/Perris Blvd	D	SIGNAL	40.8	D	60.0	**E**
113	Evans Rd/Placentia Ave	N/A	N/A	Non-Existent		Non-Existent	
114	Evans Rd/Orange Ave	C	AWS	22.1	C	16.9	C
115	Evans Rd/Nuevo Rd	C	SIGNAL	32.0	C	32.2	C
116	Evans Rd/Ellis Ave	N/A	N/A	Non-Existent		Non-Existent	
117	Ellis Ave/I-215 SB Ramps	N/A	N/A	Non-Existent		Non-Existent	
118	Ellis Ave/SR-215 NB Ramps	N/A	N/A	Non-Existent		Non-Existent	
119	Evans Rd/San Jacinto Ave	N/A	N/A	Non-Existent		Non-Existent	
120	Park Center Blvd/Ramona Expy WB Ramps	N/A	N/A	Non-Existent		Non-Existent	
121	Park Center Blvd/Ramona Expy EB Ramps	N/A	N/A	Non-Existent		Non-Existent	
122	Bridge St/Ramona Expy	N/A	N/A	Non-Existent		Non-Existent	
123	Gilman Springs Rd/Bridge Str	C	CSS	22.3	C	25.7	**D**
124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	> 180.0	**F**	108.0	**F**
125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	> 180.0	**F**	123.3	**F**
126	Ramona Expy/Sanderson Ave	D	SIGNAL	35.7	D	24.4	C
127	Potrero Blvd/SR-60 WB Ramps	N/A	N/A	Non-Existent		Non-Existent	
128	Potrero Blvd/SR-60 EB Ramps	N/A	N/A	Non-Existent		Non-Existent	
129	W 6th St/California Ave	C	AWS	31.8	**D**	55.0	**F**
130	W 6th St/Beaumont Ave	C	SIGNAL	15.7	B	25.3	C
131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	13.7	B	6.3	A
132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	> 180.0	**F**	125.1	**F**
133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	169.8	**F**	> 180.0	**F**

Table 4.15.P: Year 2022 Without Project Intersection Levels of Service

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	> 180.0	**F**	> 180.0	**F**
135	W Crescent Ave/Alessandro Rd	C	CSS	27.7	**D**	16.2	C
136	W Sunset Dr/Alessandro Rd	C	AWS	10.9	B	11.1	B

Notes: "CSS" means cross-street is stop-controlled "AWS" means all-way stop
"Non-Existent" indicates that the intersection exists in some scenarios but not in the scenario being reported

denotes LOS exceeding the target threshold

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

The year 2022 without project roadway levels of service are based on daily V/C ratios for the study area roadway segments. Table 4.15.Q summarizes the results of this analysis and shows the following two study area roadway segments are projected to operate with unsatisfactory daily V/C ratios under year 2022 without project conditions. These same roadway segments also operate with unsatisfactory LOS in the existing condition:

- Gilman Springs Road:
  - Between Alessandro Boulevard and Bridge Street; and
  - Between SR-60 and Alessandro Boulevard.

A freeway segment level of service analysis was conducted to determine freeway performance under year 2022 conditions. Table 4.15.R summarizes the levels of service at study area segments under year 2022 no project conditions. As shown in Table 4.15.R, the following 33 study freeway segments are forecast to operate at an unsatisfactory level of service during either the a.m. or p.m. peak hour:

- Northbound or Eastbound:
  - SR-60 Reservoir Street to Ramona Avenue (p.m.);
  - SR-60 Ramona Avenue to Central Avenue (p.m.);
  - SR-60 Central Avenue to Mountain Avenue (p.m.);
  - SR-60 Euclid Avenue to Grove Avenue (p.m.);
  - SR-60 Grove Avenue to Vineyard Avenue (p.m.);
  - SR-60 Vineyard Avenue to Archibald Avenue (p.m.);
  - SR-60 Valley Way to Rubidoux Boulevard (p.m.);
  - SR-60 Rubidoux Boulevard to Market Street (a.m.);
  - SR-60 Market Street to Main Street (p.m.);
  - SR-60 Martin Luther King Boulevard to Central Avenue (a.m. and p.m.);
  - SR-60 Pigeon Pass Road/Frederick Street to Heacock Street (p.m.);
  - SR-60 Heacock Street to Perris Boulevard (p.m.);
  - SR-91 I-15 to McKinley Street (p.m.);
  - SR-91 Pierce Street to Magnolia Avenue (p.m.)
  - I-215 La Cadena Drive to Barton Road (p.m.); and
  - I-215 Barton Road to Mt. Vernon Avenue (a.m. and p.m.).

Table 4.15.Q: Year 2022 Without Project Roadway Levels of Service

Roadway		From	To	LOS Standard*	Roadway Section**	Daily Volume	LOS
S-1	Theodore Street (A)	SR-60 WB Ramps	Ironwood Avenue	D	2U	3,133	A
S-2	Theodore Street (A)	SR-60 EB Ramps	Fir (Eucalyptus) Ave.	D	2U	6,689	A
S-3	Fir (Eucalyptus) Ave.	Redlands Blvd	Theodore Street (A)	D	2U***	6,542	A
S-4	Eucalyptus Ave (B)	Theodore Street (A)	Gilman Springs Rd	Future Road			
S-5	Theodore Street (A)	Fir (Eucalyptus) Ave.	Street E	D	2U	1,116	A
S-6	Street E	Theodore Street (A)	Cactus Ave Extension	Future Road			
S-7	Street F	Theodore Street (A)	Alessandro Blvd (Street C)	Future Road			
S-8	Theodore Street (A)	Fir (Eucalyptus) Ave.	Alessandro Blvd (Street C)	D	2U	1,116	A
S-9	Alessandro Blvd (Street E)	Merwin Street	Theodore Street (A)	D	2U	3,778	A
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave.	Future Road			
S-11	Alessandro Blvd (Street C)	Theodore Street (A)	Street F	D	2U	2,321	A
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	2,321	A
S-14	Alessandro Blvd	Moreno Beach Dr	Redlands Blvd	D	2U	4,796	A
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge Street	D	2U	15,512	**F**
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	2U	12,819	**F**
S-18	Redlands Blvd	SR-60 EB Ramps	Fir (Eucalyptus) Ave.	D	2U	11,042	D
S-19	Redlands Blvd	Fir (Eucalyptus) Ave.	Alessandro Blvd	C	2U	8,416	B
S-20	Alessandro Blvd	Redlands Blvd	Merwin Street	C	2U	3,886	A
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave.	C	2U	8,583	B
S-22	Cactus Ave.	Redlands Blvd	Cactus Ave Extension	C	2U***	472	A

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways
** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways
*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.

Indicates LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.R: Year 2022 Without Project Freeway Mainline Levels of Service

			Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	7,210	30.5	D	7,830	35.1	**E**	8,770	43.3	**E**	7,150	30.1	D
F-3	SR-60	Ramona Ave to Central Ave	6,850	28.2	D	9,380	51.4	**F**	8,290	38.7	**E**	6,750	27.7	D
F-4	SR-60	Central Ave to Mountain Ave	7,590	33.0	D	9,350	51.0	**F**	6,340	25.4	C	6,990	29.1	D
F-5	SR-60	Mountain Ave to Euclid Ave	7,520	32.5	D	6,690	27.5	D	6,260	25.0	C	7,440	32.0	D
F-6	SR-60	Euclid Ave to Grove Ave	8,990	45.8	**F**	9,280	50.0	**F**	6,470	26.1	D	7,310	31.1	D
F-7	SR-60	Grove Ave to Vineyard Ave	8,170	37.6	**E**	9,530	53.6	**F**	6,330	25.4	C	7,920	35.5	**E**
F-8	SR-60	Vineyard Ave to Archibald Ave	8,080	36.5	**E**	9,470	52.7	**F**	7,670	33.6	D	7,550	32.8	D
F-9	SR-60	Archibald Ave to Haven Ave	7,590	32.8	D	6,630	27.2	D	See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Miliken Ave	7,400	23.2	C	7,040	22.1	C	5,850	18.0	B	7,110	22.3	C
F-11	SR-60	Miliken Ave to I-15	5,280	20.3	C	4,530	17.4	B	5,550	21.6	C	7,050	29.2	D
F-12	SR-60	I-15 to Etiwanda Ave	4,580	17.6	B	3,440	13.3	B	4,490	13.7	B	5,850	17.9	B
F-13	SR-60	Etiwanda Ave to Mission Blvd/Country Village Rd	5,070	19.6	C	4,460	17.2	B	4,220	16.2	B	5,830	22.8	C
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	4,600	17.7	B	3,560	13.8	B	4,240	16.3	B	5,850	22.9	C
F-15	SR-60	Pedley Rd to Pyrite St	4,620	17.8	B	3,710	14.4	B	3,290	12.6	B	5,010	19.2	C

Table 4.15.R: Year 2022 Without Project Freeway Mainline Levels of Service

			Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-16	SR-60	Pyrite St to Valley Way	5,190	20.1	C	3,990	15.5	B	2,740	10.6	A	4,510	17.2	B
F-17	SR-60	Valley Way to Rubidoux Blvd	6,280	39.4	**E**	4,530	24.1	C	4,630	24.4	C	6,530	42.2	**E**
F-18	SR-60	Rubidoux Blvd to Market St	6,920	48.7	**F**	4,950	27.2	D	3,630	18.6	C	5,660	32.5	D
F-19	SR-60	Market St to Main St	6,450	41.6	**E**	7,260	56.8	**F**	5,890	34.4	D	6,820	46.5	**F**
F-20	SR-60	Main to SR-91	See Weaving Analysis			See Weaving Analysis			5,450	30.6	D	6,610	42.9	**E**
F-24	SR-60	Martin Luther King Blvd to Central Ave	8,440	41.5	**E**	9,140	53.5	**F**	7,060	23.7	C	7,680	25.5	C
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	6,450	25.7	C	7,270	30.8	D	7,390	31.9	D	8,510	40.3	**E**
F-27	SR-60	I-215 to Day St.	See Weaving Analysis			See Weaving Analysis			7,250	54.3	**F**	3,880	20.0	C
F-29	SR-60	Pigeon Pass Rd/Frederick St to Heacock St	3,520	29.2	D	4,200	39.3	**E**	3,460	28.5	D	3,860	34.0	D
F-30	SR-60	Heacock St to Perris Blvd	3,160	25.0	C	4,050	36.7	**E**	3,300	26.6	D	3,360	27.5	D
F-31	SR-60	Perris Blvd to Nason St	2,590	19.8	C	3,070	24.3	C	2,790	21.6	C	2,550	19.6	C
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	1,910	14.5	B	2,370	18.0	C	1,810	13.8	B	1,750	13.4	B
F-34	SR-60	Redlands Blvd to Theodore St	2,460	18.8	C	3,240	25.8	C	2,280	17.3	B	2,200	16.8	B

Table 4.15.R: Year 2022 Without Project Freeway Mainline Levels of Service

			Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	2,310	19.2	C	2,770	23.6	C	2,180	18.0	C	1,850	15.3	B
F-37	SR-60	Jack Rabbit Trail to I-10/Potrero Blvd	2,070	15.8	B	2,820	21.8	C	2,190	16.7	B	1,690	12.9	B
F-39	SR-91	I-15 to McKinley St	7,190	22.3	C	10,400	38.6	**E**	7,280	30.9	D	7,330	31.0	D
F-40	SR-91	McKinley St to Pierce St	6,500	26.1	D	5,950	23.5	C	5,440	31.0	D	6,330	39.6	**E**
F-41	SR-91	Pierce St to Magnolia Ave	5,970	35.2	**E**	5,410	30.5	D	5,210	29.0	D	8,080	77.6	**F**
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis		See Weaving Analysis				5,450	31.1	D	8,040	76.1	**F**
F-43	SR-91	La Sierra Ave to Tyler St	5,490	30.9	D	5,230	29.0	D	4,800	25.9	C	5,980	35.6	**E**
F-44	SR-91	Tyler St to Van Buren Blvd	6,600	26.6	D	5,980	23.6	C	6,170	24.7	C	7,420	31.6	D
F-45	SR-91	Van Buren Blvd to Adam St	6,700	27.2	D	5,250	20.3	C	5,810	22.9	C	7,160	29.9	D
F-46	SR-91	Adam St to Madison St	7,310	31.4	D	4,970	19.4	C	5,420	21.2	C	6,210	24.5	C
F-47	SR-91	Madison St to Indiana Ave/ Arlington Ave	6,710	27.6	D	4,970	19.4	C	4,780	25.8	C	5,550	31.2	D
F-49	SR-91	Central Ave to 14th St	5,910	34.9	D	5,070	27.7	D	4,340	16.8	B	4,530	17.3	B
F-51	SR-91	University Ave to Spruce St (off-ramp)	8,270	26.6	D	7,700	24.2	C	See Weaving Analysis			See Weaving Analysis		

Table 4.15.R: Year 2022 Without Project Freeway Mainline Levels of Service

			Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-52	I-10	SR-60 to Beaumont Ave	4,390	16.8	B	6,080	24.1	C	5,610	21.9	C	5,370	20.7	C
F-53	I-10	Beaumont Ave to Pennsylvania Ave	4,450	17.1	B	6,240	24.9	C	5,470	21.3	C	5,270	20.3	C
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	4,640	17.8	B	6,480	26.2	D	5,920	23.3	C	5,480	21.2	C
F-55	I-10	Highland Springs Ave to Sunset Ave	4,560	17.5	B	6,210	24.8	C	5,690	22.3	C	5,200	20.1	C
F-56	I-10	Sunset Ave to 22nd St	4,470	17.2	B	5,960	23.5	C	5,450	21.2	C	5,090	19.7	C
F-57	I-10	22nd St to 8th St	4,380	16.8	B	5,800	22.8	C	5,320	20.6	C	5,110	19.6	C
F-58	I-10	8th St to Hargrave St	4,370	16.8	B	5,730	22.4	C	5,250	20.3	C	5,250	20.2	C
F-59	I-10	Hargrave St to Fields Rd	4,100	15.8	B	5,350	20.8	C	4,810	18.5	C	5,020	19.3	C
F-60	I-10	Fields Rd to Morongo Trail	3,770	14.5	B	5,080	19.6	C	4,600	17.7	B	4,830	18.6	C
F-61	I-10	Morongo Trail to Main St	3,410	13.1	B	4,670	18.0	B	4,110	15.8	B	4,240	16.3	B
F-62	I-10	Main St to Haugen-Lehmann Way	3,280	12.6	B	4,720	18.1	C	4,230	16.3	C	4,300	16.5	B
F-64	I-10	SR-111 to Tipton Rd	2,950	11.3	B	4,140	15.9	B	3,680	14.1	B	3760	14.4	B
F-65	I-10	Tipton Rd to SR-62	2,810	10.8	A	4,170	16.0	B	3,700	14.2	B	3,770	14.4	B
F-66	I-215	Scott Rd to Newport Rd	2,850	14.5	B	4,330	22.4	C	3,670	18.6	C	2,500	12.7	B

Table 4.15.R: Year 2022 Without Project Freeway Mainline Levels of Service

			Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-68	I-215	Newport Rd to MacCall Blvd	2,100	10.8	A	3,140	15.9	B	3,820	19.6	C	3,520	18.0	B
F-69	I-215	MacCall Blvd to Ethanac Rd	2,750	14.0	B	4,380	22.7	C	4,380	22.8	C	2,950	15.0	B
F-70	I-215	Ethanac Rd to SR-74	4,200	21.7	C	4,100	21.0	C	4,110	21.2	C	4,250	21.9	C
F-71	I-215	SR-74/Case Rd to Redlands Blvd	3,490	17.7	B	4,800	25.4	C	5,730	33.1	D	3,860	19.7	C
F-74	I-215	Columbia Ave to Center St	6,090	36.8	**E**	6,030	36.2	**E**	6,390	40.0	**E**	5,330	29.6	D
F-75	I-215	Center St to Iowa Ave/La Cadena Dr	5,830	34.1	D	5,800	33.8	D	6,880	46.9	**F**	5,560	31.6	D
F-76	I-215	Iowa Ave/La Cadena Dr to Barton Rd	5,690	32.7	D	6,130	37.3	**E**	6,700	44.2	**E**	5,570	31.7	D
F-77	I-215	Barton Rd to Mt Vernon Ave	5,980	35.6	**E**	6,550	42.5	**E**	6,720	44.4	**E**	5,610	32.0	D
F-78	I-215	Mt Vernon Ave/Washingt on St to I-10	5,770	22.5	C	6,660	27.0	D	7,080	29.2	D	5,890	23.1	C
F-80	I-215	Auto Plaza Dr/ Orange Show Rd to Mill St	4,490	17.2	B	5,500	21.2	C	4,790	18.2	C	4,140	15.8	B
F-83	I-215	Baseline Rd to Highland Ave/SR-210	3,030	15.4	B	4,060	20.8	C	5,280	29.0	D	4,700	24.9	C

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

- Southbound and Westbound:
  - SR-60 Reservoir Street to Ramona Avenue (a.m.);
  - SR-60 Ramona Avenue to Central Avenue (a.m.);
  - SR-60 Grove Avenue to Vineyard Avenue (p.m.);
  - SR-60 Valley Way to Rubidoux Boulevard (p.m.);
  - SR-60 Market Street to Main Street (a.m. and p.m.);
  - SR-60 Main Street to SR-91 (p.m.);
  - SR-60 Fair Isle Drive/Box Springs Road to I-215 (a.m. and p.m.);
  - SR-60 I-215 to Day Street (a.m.);
  - SR-91 McKinley Street to Pierce Street (p.m.);
  - SR-91 Pierce Street to Magnolia Avenue (p.m.);
  - SR-91 Magnolia Avenue to La Sierra Avenue (p.m.);
  - SR-91 La Sierra Avenue to Tyler Street (p.m.);
  - I-215 Columbia Avenue to Center Street (a.m.);
  - I-215 Center Street to Iowa Avenue/La Cadena Drive (a.m.);
  - I-215 Iowa Avenue/La Cadena Drive to Barton Road (a.m.); and
  - I-215 Barton Road to Mt. Vernon Avenue (a.m.).

A freeway weaving analysis was conducted on freeway segments where an on-ramp is closely followed by an off-ramp, and the two are joined by an auxiliary lane. Table 4.15.S summarizes the levels of service at weaving segments under opening year cumulative conditions. As shown on Table 4.15.S, the following six northbound or eastbound sections and one southbound or westbound sections are forecast to operate at unsatisfactory levels of service in either the a.m. peak or p.m. peak hour:

- Northbound or Eastbound:
  - SR-60 SR-71/ Garey Avenue to Reservoir Street (p.m.);
  - SR-60 Main Street to SR-91 (a.m. and p.m.);
  - SR-60 SR-91 to Blaine Street/3rd Street (p.m.);
  - SR-60 Central Avenue to Fair Isle Drive/Box Springs Road (p.m.);
  - SR-91 Arlington Avenue to Central Avenue (a.m.); and
  - I-215 SR-60 to Columbia Avenue (a.m. and p.m.).
- Southbound or Westbound:
  - SR-60 SR-91 to Blaine Street/3rd Street (p.m.).

Freeway ramp merge and diverge operations have been evaluated for year 2022 conditions. Table 4.15.T summarizes the levels of service under year 2022 no project conditions and shows the following three freeway ramp junction is forecast to operate at unsatisfactory levels of service in either the a.m. peak or p.m. peak hour:

- SR-60 eastbound On-Ramp from Central Avenue (p.m.).

4.15.3.5 Year 2035 Cumulative without the Project

Note: Due to a change in project conditions and phasing, the Year 2035 analysis was completely revised in the updated TIA and this DEIR section. The reader is referred to the original DEIR section for that analysis and related tables and figures.

An intersection level of service analysis was conducted to determine intersection performance under Year 2035 Cumulative without project conditions. For the 2035 scenarios, the roadway projects from the FTIP and RTP included in the year 2022 network were also included in the 2035 network. The future circulation network from the City of Moreno Valley General Plan was also incorporated into the year 2035 network that are funded through the City's Development Impact Fee (DIF), Western Riverside Council of Governments' Transportation Uniform Mitigation Fee (TUMF), and improvements made directly by developers. It is reasonable to assume that these improvements will be in place parallel with buildout of the General Plan land uses, because most of the improvements will be funded through fees on the new developments. If other sites do not fully build out per the General Plan, then the LOS on the study streets and intersection would likely be better than shown in the TIA. Table 4.15.U summarizes the levels of service at study intersections under Year 2035 Cumulative without project conditions.

Table 4.15.U summarizes the levels of service at study intersections under Year 2035 Cumulative without project conditions and shows the following 36 study intersections are forecast to operate at an unsatisfactory level of service during either the a.m. or p.m. peak hour:

- Theodore Street/Ironwood Avenue (p.m.);
- Theodore Street/SR-60 Westbound ramps (a.m. and p.m.);
- Theodore Street/SR-60 Eastbound ramps (p.m.);
- Theodore Avenue/Fir (Eucalyptus) Avenue (p.m.);
- Redlands Boulevard/Alessandro Boulevard (a.m. and p.m.);
- Moreno Beach Drive/Locust Avenue (a.m. and p.m.);
- Moreno Beach Drive/SR-60 Eastbound Ramps (a.m. and p.m.);
- Iris Avenue/Perris Boulevard (a.m. and p.m.);
- Kitching Street/Iris Avenue (a.m. and p.m.);
- Lasselle Street/Iris Avenue (p.m.);
- Lasselle Street/Cactus Avenue (a.m.);
- Graham Street/Alessandro Boulevard (p.m.);
- Indian Street/Cactus Avenue (p.m.);
- Alessandro Boulevard/Sycamore Canyon Boulevard (p.m.);
- I-215 Southbound Ramps/Cactus Avenue (p.m.);
- I-215 Northbound Ramps/Cactus Avenue (a.m. and p.m.);
- Elsworth Street/Cactus Avenue (a.m. and p.m.);
- Central Avenue/Lochmoor Drive (p.m.);
- Alessandro Boulevard/Mission Grove Parkway (p.m.);
- Martin Luther King Boulevard/I-215 Northbound Ramps (a.m.);

Table 4.15.S: Year 2022 Without Project Weaving Segment Levels of Service

ID	Freeway	Weaving Segment	Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	7,150	29.2	D	8,640	37.6	**E**	6,130	21.9	C	6,720	24.3	C
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			6,330	24.4	C	7,330	29.3	D
W-20	SR-60	Main St to SR-91	7,350	36.6	**E**	7,370	38.0	**E**	See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	6,010	24.2	C	9,760	42.3	**E**	7,720	29.4	D	9,290	36.9	**E**
W-22	SR-60	Blaine St/3rd St to University Ave	5,710	21.6	C	7,210	31.3	D	5,700	21.1	C	8,280	32.0	D
W-23	SR-60	University Ave to Martin Luther King	6,620	23.8	C	6,060	21.4	C	5,600	22.6	C	7,620	30.7	D
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	6,580	27.3	C	8,400	38.9	**E**	7,110	30.7	D	7,890	32.7	D
W-27	SR-60	I-215 to Day St	4,000	14.6	B	5,280	19.9	B	See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	3,890	16.6	B	5,130	23.2	C	4,970	34.3	D	4,860	32.7	D
W-32	SR-60	Moreno Beach Dr to Nason St	2,330	14.2	B	2,880	18.1	B	2,410	14.5	B	2,190	13.2	B
W-35	SR-60	Theodore St to Gilman Springs Rd	2,320	12.7	B	3,370	19.3	B	2,360	13.6	B	2,030	11.4	B
W-42	SR-91	Magnolia Ave to La Sierra Ave	6,400	30.3	D	5,950	28.5	D	See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	7,220	39.0	**E**	3,680	17.9	B	4,510	21.2	C	5,050	24.1	C
W-50	SR-91	14th St to University Ave	5,030	25.1	C	4,810	24.6	C	5,090	19.6	B	7,020	27.9	C
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			5,020	14.7	B	8,850	26.7	C
W-73	I-215	SR-60 to Columbia Ave	6,840	37.8	**E**	6,540	35.8	**E**	7,040	33.4	D	6,110	28.8	D
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	4,610	16.8	B	5,210	19.0	B	5,830	20.8	C	4,870	18.0	B
W-81	I-215	Mill St to 2nd St	5,090	17.8	B	5,910	21.1	C	5,300	19.0	B	4,410	15.9	B
W-82	I-215	5th St to Baseline Rd	3,760	12.7	B	4,450	15.2	B	4,540	16.0	B	3,490	12.3	B
W-63	I-10	Haugen-Lehmann Way to SR-111	3,300	11.0	B	4,710	15.9	B	4,210	14.8	B	4,310	17.2	B

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.T: Year 2022 Without Project Freeway Ramp Levels of Service

ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	AM Peak Hour				PM Peak Hour			
				Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	6,190	710	27.4	C	5,780	1,320	30.9	D
R-2	SR-60 EB	On-Ramp from Central Ave	1	8,170	710	28.8	D	9,010	1,120	35.1	F
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	1	1,910	220	8.3	A	2,370	520	12.5	B
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	1	1,690	90	17.1	B	1,850	210	19.4	B
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	0	Does not exist in this Scenario				Does not exist in this Scenario			
R-6	SR-60 EB	Off-Ramp to Theodore St	1	2,460	250	24.5	C	3,240	150	31.7	D
R-7	SR-60 EB	Loop On-Ramp from Theodore St	1	2,210	110	23.1	C	3,090	270	31.7	D
R-8	SR-60 EB	Direct On-Ramp from Theodore St	0	Does not exist in this Scenario				Does not exist in this Scenario			
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	2	2,320	330	14.5	B	3,370	650	21.0	C
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	1	1,990	270	14.7	B	2,720	140	19.8	B
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	2	2,210	230	13.8	B	1,880	190	11.8	B
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	1	1,980	380	15.5	B	1,690	310	12.6	B
R-13	SR-60 WB	Off-Ramp to Theodore St	1	2,360	180	12.4	B	2,030	120	9.3	A
R-14	SR-60 WB	On-Ramp from Theodore St	1	2,180	100	21.0	C	1,910	290	20.2	C
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	1	2,280	170	22.9	C	2,200	100	22.3	C
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	1	2,110	440	23.3	C	2,100	380	22.8	C
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	0	Does not exist in this Scenario				Does not exist in this Scenario			
R-18	SR-60 WB	Off-Ramp to Central Ave	2	7,110	410	26.5	C	7,890	530	29.8	D
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	1	7,060	510	16.3	B	7,680	430	17.6	B

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014

Table 4.15.U: Year 2035 Cumulative Without Project Intersection Levels of Service

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
IN-1	Theodore St/Street F	N/A	N/A	Non-Existent		Non-Existent	
IN-2	Street D/Street E	N/A	N/A	Non-Existent		Non-Existent	
IN-3	Theodore Ave/Alessandro Blvd (Str A/Str C/Str E)	D	CSS	20.9	C	19.6	C
IN-4	Alessandro Blvd (Street C)/Street F	N/A	N/A	Non-Existent		Non-Existent	
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	SIGNAL	11.7	B	37.7	D
IN-9	Gilman Springs Rd/Eucalyptus Ave	NA	N/A	Non-Existent		Non-Existent	
IN-10	Redlands Blvd/Locust Ave	C	SIGNAL	5.4	A	16.6	B
IN-11	Redlands Blvd/Ironwood Ave	D	SIGNAL	45.0	D	48.2	D
IN-12	Theodore Street/Ironwood Avenue	D	CSS	22.9	C	> 180.0	**F**
IN-13	Redlands Blvd/SR-60 WB ramps	D	SIGNAL	5.7	A	7.5	A
IN-14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	5.1	A	7.3	A
IN-15	Theodore Str/SR-60 WB ramps	D	CSS	62.2	**F**	173.7	**F**
IN-16	Theodore Str/SR-60 EB ramps	D	CSS	13.5	B	> 180.0	**F**
IN-17	Quincy Str/Fir Ave	D	CSS	9.6	A	12.6	B
IN-18	Redlands Blvd/Eucalyptus Ave (Fir)	D	SIGNAL	7.2	A	15.6	B
IN-19	Theodore Ave/Fir Ave (Eucalyptus)	D	CSS	10.5	B	68.9	**F**
IN-20	Oliver Str/Alessandro Blvd	C	CSS	20.0	C	21.6	C
IN-21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	17.3	B	20.2	C
IN-22	Quincy Str/Alessandro Blvd	C	SIGNAL	4.2	A	3.7	A
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	137.4	**F**	74.7	**F**
IN-24	Oliver Str/Cactus Ave	D	SIGNAL	22.3	C	20.2	C
IN-25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	20.3	C	29.7	C
IN-26	Quincy Str/Cactus Ave	C	SIGNAL	3.9	A	3.7	A
IN-27	Redlands Blvd/Cactus Ave	C	AWS	14.3	B	13.5	B
IN-28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	23.5	C	16.6	B
IN-29	Heacock Str/Ironwood Ave	D	SIGNAL	31.6	C	35.2	D
IN-30	Heacock Str/SR-60 WB Ramps	D	SIGNAL	30.5	C	23.1	C
IN-31	Heacock St/SR-60 EB Ramps	D	SIGNAL	12.3	B	19.4	B
IN-32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	31.8	C	39.7	D
IN-33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	22.5	C	17.1	B
IN-34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	21.8	C	24.7	C
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	29.4	**D**	37.9	**E**
IN-36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	46.6	D	50.4	D
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	113.9	**F**	155.8	**F**
IN-38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	28.8	C	31.6	C
IN-39	Iris Ave/Perris Blvd	D	SIGNAL	58.6	**E**	63.8	**E**
IN-40	Kitching St/Iris Ave	C	SIGNAL	65.8	**E**	126.3	**F**
IN-41	Lasselle Str/Iris Ave	D	SIGNAL	35.0	C	79.2	**E**
IN-42	Nason Str/Iris Ave	C	SIGNAL	18.5	B	21.7	C
IN-43	Oliver Str/Iris Ave	D	SIGNAL	24.5	C	25.1	C
IN-44	Via Dell Lago/Iris Ave	C	SIGNAL	7.0	A	7.2	A
IN-45	Krameria Ave/Perris Blvd	D	SIGNAL	27.8	C	52.6	D

Table 4.15.U: Year 2035 Cumulative Without Project Intersection Levels of Service

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
IN-46	Kitching Str/Krameria Ave	D	SIGNAL	35.3	D	41.7	D
IN-47	Lasselle Str/Krameria Ave	D	SIGNAL	32.2	C	14.5	B
IN-48	Kitching Str/Alessandro Blvd	D	SIGNAL	26.5	C	28.1	C
IN-49	Lasselle Str/Alessandro Blvd	D	SIGNAL	19.8	B	23.7	C
IN-50	Morrison Str/Alessandro Blvd	D	SIGNAL	25.5	C	26.2	C
IN-51	Nason Str/Alessandro Blvd	D	SIGNAL	31.1	C	28.3	C
IN-52	Kitching Str/Cactus Ave	C	SIGNAL	30.7	C	28.5	C
IN-53	Lasselle Str/Cactus Ave	C	SIGNAL	38.5	**D**	34.8	C
IN-54	Morrison Str/Cactus Ave	D	SIGNAL	6.1	A	8.6	A
IN-55	Nason Str/Cactus Ave	D	SIGNAL	36.1	D	47.6	D
IN-56	Frederick Str/Alessandro Blvd	D	SIGNAL	19.2	B	34.5	C
IN-57	Graham Str/Alessandro Blvd	D	SIGNAL	35.6	D	88.9	**F**
IN-58	Heacock Str/Alessandro Blvd	D	SIGNAL	29.6	C	29.5	C
IN-59	Indian Str/Alessandro Blvd	D	SIGNAL	21.7	C	37.1	D
IN-60	Perris Blvd/Alessandro Blvd	D	SIGNAL	32.8	C	41.4	D
IN-61	Frederick Str/Cactus Ave	D	SIGNAL	9.7	A	12.5	B
IN-62	Graham Str/Cactus Ave	D	SIGNAL	22.7	C	42.1	D
IN-63	Heacock Str/Cactus Ave	D	SIGNAL	31.6	C	27.2	C
IN-64	Indian Str/Cactus Ave	C	SIGNAL	32.6	C	36.3	**D**
IN-65	Perris Blvd/Cactus Ave	D	SIGNAL	39.2	D	32.5	C
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	37.5	D	81.2	**F**
IN-67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	6.6	A	11.5	B
IN-68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	21.9	C	32.8	C
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	15.1	B	16.4	B
IN-70	Day Str/Alessandro Blvd	D	SIGNAL	22.6	C	28.2	C
IN-71	Elsworth Str/Alessandro Blvd	D	SIGNAL	28.4	C	52.4	D
IN-72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	37.6	D	144.8	**F**
IN-73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	71.1	**E**	122.6	**F**
IN-74	Elsworth Str/Cactus Ave	D	SIGNAL	> 180.0	**F**	> 180.0	**F**
IN-75	Central Ave/Lochmoor Dr.	D	SIGNAL	16.2	B	77.5	**E**
IN-76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	28.6	C	26.8	C
IN-77	SR-60 EB Ramps/Central Ave	D	SIGNAL	18.1	B	12.4	B
IN-78	SR-60 WB Ramps/Central Ave	D	SIGNAL	6.7	A	7.0	A
IN-79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	32.2	C	16.1	B
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	28.0	C	73.7	**E**
IN-81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	27.0	C	41.5	D
IN-82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	11.3	B	14.8	B
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	40.2	D	52.4	D
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	11.2	B	12.2	B
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	45.1	**E**	20.7	C
IN-86	Central Ave/Chicago Ave	D	SIGNAL	46.8	D	79.0	**E**
IN-87	Central Ave/El Cerrito Dr	D	SIGNAL	17.6	B	20.0	B
IN-88	Central Ave/Canyon Crest Dr	D	SIGNAL	45.4	D	106.3	**F**
IN-89	Chicago Ave/Country Club Dr	D	SIGNAL	11.2	B	12.9	B

Table 4.15.U: Year 2035 Cumulative Without Project Intersection Levels of Service

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	38.4	D	68.0	**E**
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	20.5	C	26.8	C
IN-92	Arlington Ave/Maude St	D	SIGNAL	14.1	B	10.7	B
IN-93	Horace St/Arlington Ave	D	SIGNAL	37.4	D	25.5	C
IN-94	Arlington Ave/Victoria Ave	D	SIGNAL	124.5	**F**	87.2	**E**
IN-95	Alessandro Blvd/Chicago Ave	D	SIGNAL	57.4	**E**	111.2	**F**
IN-96	Alessandro Blvd/Century Ave	D	SIGNAL	19.2	B	11.8	B
IN-97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	17.9	B	22.2	C
IN-98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	56.6	**E**	131.0	**F**
IN-99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	33.5	C	48.0	D
IN-100	Harley Knox Blvd/Evan Rd	D	SIGNAL	16.1	B	23.8	C
IN-101	Ramona Expy/Indian St	E	SIGNAL	110.4	**F**	> 180.0	**F**
IN-102	Ramona Expy/Perris Blvd	E	SIGNAL	49.2	D	58.5	E
IN-103	Ramona Expy/Evans Rd	E	SIGNAL	60.6	E	46.2	D
IN-104	Perris Blvd/Morgan St	D	SIGNAL	11.9	B	9.9	A
IN-105	Evans Rd/Morgan St	C	SIGNAL	28.1	C	21.8	C
IN-106	Perris Blvd/Rider St	C	SIGNAL	23.4	C	30.1	C
IN-107	Evans Rd/Rider St	C	SIGNAL	36.3	**D**	34.5	C
IN-108	Perris Blvd/Mid County Pkwy WB Ramps	D	SIGNAL	32.7	C	22.6	C
IN-109	Perris Blvd/Mid County Pkwy EB Ramps	D	SIGNAL	28.3	C	36.2	D
IN-110	Evans Rd/Mid County Pkwy WB Ramps	D	SIGNAL	25.7	C	21.3	C
IN-111	Evans Rd/Mid County Pkwy EB Ramps	D	SIGNAL	18.1	B	24.9	C
IN-112	Placentia Ave/Perris Blvd	D	SIGNAL	29.3	C	34.2	C
IN-113	Evans Rd/Placentia Ave	D	SIGNAL	7.3	A	7.4	A
IN-114	Evans Rd/Orange Ave	C	SIGNAL	25.5	C	25.3	C
IN-115	Evans Rd/Nuevo Rd	C	SIGNAL	31.8	C	31.2	C
IN-116	Evans Rd/Ellis Ave	D	SIGNAL	12.7	B	13.6	B
IN-117	Ellis Ave/I-215 SB Ramps	E	SIGNAL	26.5	C	28.3	C
IN-118	Ellis Ave/SR-215 NB Ramps	E	SIGNAL	22.2	C	34.3	C
IN-119	Evans Rd/San Jacinto Ave	D	SIGNAL	21.1	C	22.7	C
IN-120	Park Center Blvd/Ramona Expy WB Ramps	D	CSS	11.8	B	15.3	C
IN-121	Park Center Blvd/Ramona Expy EB Ramps	D	CSS	11.6	B	23.1	C
IN-122	Bridge St/Ramona Expy	N/A	N/A	Non-Existent		Non-Existent	
IN-123	Gilman Springs Rd/Bridge Str	C	CSS	> 180.0	**F**	> 180.0	**F**
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	> 180.0	**F**	> 180.0	**F**
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	> 180.0	**F**	> 180.0	**F**
IN-126	Ramona Expy/Sanderson Ave	D	SIGNAL	43.9	D	39.9	D
IN-127	Potrero Blvd/SR-60 WB Ramps	D	SIGNAL	21.3	C	15.3	B
IN-128	Potrero Blvd/SR-60 EB Ramps	D	SIGNAL	20.3	C	31.3	C
IN-129	W 6th St/California Ave	C	AWS	146.4	**F**	178.3	**F**

Table 4.15.U: Year 2035 Cumulative Without Project Intersection Levels of Service

ID	Study Intersection	LOS Standard	Traffic Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
IN-130	W 6th St/Beaumont Ave	C	SIGNAL	35.5	**D**	94.4	**F**
IN-131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	42.2	**D**	100.9	**F**
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	26.4	D	22.2	C
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	127.6	**F**	127.7	**F**
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	140.5	**F**	> 180.0	**F**
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	17.6	C	14.7	B
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	10.2	B	10.4	B

Notes: "NB" and "SB" denote northbound and southbound, respectively
"EB" and "WB" denote eastbound and westbound, respectively "CSS" means cross-street is stop-controlled
Indicates LOS exceeds the target level "AWS" means all-way stop
Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

- Central Avenue/Chicago Avenue (p.m.);
- Central Avenue/Canyon Crest Drive (p.m.);
- Arlington Avenue/Riverside Avenue/SR-91 Southbound Ramps (p.m.);
- Arlington Avenue/Victoria Avenue (a.m. and p.m.);
- Alessandro Boulevard/Chicago Avenue (a.m. and p.m.);
- Alessandro Boulevard/Canyon Crest Drive (a.m. and p.m.);
- Ramona Expressway/Indian Street (a.m. and p.m.);
- Evans Road/Rider Street (a.m.);
- Gilman Springs Road/Bridge Street (a.m. and p.m.);
- SR-79 (Sanderson Avenue) Northbound/Gilman Springs Road (a.m. and p.m.);
- SR-79 (Sanderson Avenue) Southbound/Gilman Springs Road (a.m. and p.m.);
- W. 6th Street/California Avenue (a.m. and p.m.);
- W 6th Street/Beaumont Avenue (a.m. and p.m.);
- Reche Canyon Road/Reche Vista Drive (a.m. and p.m.);
- San Timoteo Canyon Road/Live Oak Canyon Road (a.m. and p.m.); and
- Redlands Boulevard/San Timoteo Canyon Road (a.m. and p.m.).

Year 2035 Cumulative without project roadway levels of service are based on daily V/C ratios for the study area roadway segments. Table 4.15.V summarizes the results of this analysis. In this scenario, Gilman Springs Road and Redlands Boulevard are assumed to have been widened in accordance with General Plan policy to six and four lanes, respectively. As shown in Table 4.15.V, all study area roadway segments are projected to operate at acceptable daily V/C ratios under Year 2035 Cumulative without project conditions.

A freeway segment level of service analysis was conducted to determine freeway performance under Year 2035 Cumulative without project conditions. Table 4.15.W summarizes the levels of service at study area freeway mainline segments under Year 2035 Cumulative without project conditions and

shows the following 56 study segments are forecast to operate at an unsatisfactory level of service during either the a.m. or p.m. peak hour:

- Northbound or Eastbound:
  - SR-60 Reservoir Street to Ramona Avenue (a.m. and p.m.);
  - SR-60 Ramona Avenue to Central Avenue (a.m. and p.m.);
  - SR-60 Central Avenue to Mountain Avenue (a.m. and p.m.);
  - SR-60 Mountain Avenue to Euclid Avenue (a.m.);
  - SR-60 Euclid Avenue to Grove Avenue (a.m. and p.m.);
  - SR-60 Grove Avenue to Vineyard Avenue (a.m. and p.m.);
  - SR-60 Vineyard Avenue to Archibald Avenue (a.m. and p.m.);
  - SR-60 Archibald Avenue to Haven Avenue (a.m.);
  - SR-60 Valley Way to Rubidoux Boulevard (a.m.);
  - SR-60 Rubidoux Boulevard to Market Street (a.m.);
  - SR-60 Market Street to Main Street (a.m. and p.m.);
  - SR-60 Martin Luther King Boulevard to Central Avenue (a.m. and p.m.);
  - SR-60 Pigeon Pass Road/Frederick Street to Heacock Street (p.m.);
  - SR-60 Heacock Street to Perris Boulevard (p.m.);
  - SR-60 Redlands Boulevard to Theodore Street (p.m.);
  - SR-60 Gilman Springs Road to Jack Rabbit Trail (p.m.);
  - SR-91 I-15 to McKinley Street (p.m.);
  - SR-91 Pierce Street to Magnolia Avenue (a.m. and p.m.);
  - SR-91 La Sierra Avenue to Tyler Street (a.m. and p.m.);
  - SR-91 Adam Street to Madison Street (a.m.);
  - SR-91 Central Avenue to 14th Street (a.m.);
  - I-10 SR-60 to Beaumont Avenue (p.m.);
  - I-10 Beaumont Avenue to Pennsylvania Avenue (p.m.);
  - I-10 Pennsylvania Avenue to Highland Springs (p.m.);
  - I-10 Highland Springs Avenue to Sunset Avenue (p.m.);
  - I-10 S. Hargrave Street to Field Road (p.m.);
  - I-10 Morongo Trail to Main Street (p.m.);
  - I-215 Scott Road to Newport Road (p.m.);
  - I-215 SR-74 to Redlands Boulevard (p.m.); and
  - I-215 Ellis Avenue to Redlands Boulevard (p.m.);

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Table 4.15.V: Year 2035 Cumulative Without Project Roadway Levels of Service

Roadway	From	To	LOS Standard*	Roadway Section**	Daily Volume	LOS
Theodore Street (A)	SR-60 WB Ramps	Ironwood Avenue	D	2U	9,774	C
Theodore Street (A)	SR-60 EB Ramps	Fir (Eucalyptus) Ave.	D	2U	8,726	B
Fir (Eucalyptus) Ave.	Redlands Blvd	Theodore Street (A)	D	2U	6,847	A
Eucalyptus Ave (B)	Theodore Street (A)	Gilman Springs Rd	N/A	Future Road		
Theodore Street (A)	Fir (Eucalyptus) Ave.	Street E	D	2U	3,295	A
Street E	Theodore Street (A)	Cactus Ave Extension	N/A	Future Road		
Street F	Theodore Street (A)	Alessandro Blvd (Street C)	N/A	Future Road		
Theodore Street (A)	Fir (Eucalyptus) Ave.	Alessandro Blvd (Street C)	D	2U	3,437	A
Alessandro Blvd (Street E)	Merwin Street	Theodore Street (A)	D	2U	10,854	D
Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave.	N/A	Future Road		
Alessandro Blvd (Street C)	Theodore Street (A)	Street F	D	2U	7,437	A
Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	7,437	A
Alessandro Blvd	Moreno Beach Drive	Redlands Blvd	D	4U	6,373	A
Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge Street	D	6D	49,434	D
Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	6D	41,537	C
Redlands Blvd	SR-60 EB Ramps	Fir (Eucalyptus) Ave.	D	4U	13,411	A
Redlands Blvd	Fir (Eucalyptus) Ave.	Alessandro Blvd	C	4U	7,665	A
Alessandro Blvd	Redlands Blvd	Merwin Street	C	4U	11,038	A
Redlands Blvd	Alessandro Blvd	Cactus Ave.	C	4U	11,511	A
Cactus Ave.	Redlands Blvd	Cactus Ave Extension	C	4U	1,144	A

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways

** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways

Indicates volume-to-capcity (V/C) ratio greater than 1.00

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.W: Year 2035 Cumulative Without Project Freeway Mainline Levels of Service

			Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	S Reservoir St to Ramona Ave	8,560	41.2	**E**	8,750	43.6	**E**	8,770	43.3	**E**	7,840	34.6	D
F-3	SR-60	Ramona Ave to Central Ave	8,190	37.8	**E**	10,230	66.5	**F**	8,080	37.2	**E**	7,720	33.7	D
F-4	SR-60	Central Ave to Mountain Ave	8,900	44.8	**E**	10,210	66.0	**F**	6,340	25.4	C	7,580	32.7	D
F-5	SR-60	Mountain Ave to Euclid Ave	8,780	43.4	**E**	7,590	33.3	D	6,230	25.2	C	8,250	37.9	**E**
F-6	SR-60	Euclid Ave to Grove Ave	9,920	59.3	**F**	9,680	56.0	**F**	6,470	26.1	D	7,950	35.5	**E**
F-7	SR-60	Grove Ave to Vineyard Ave	9,210	48.5	**F**	10,050	62.7	**F**	6,280	25.0	C	8,150	37.1	**E**
F-8	SR-60	Vineyard Ave to Archibald Ave	9,080	46.3	**F**	10,210	66.0	**F**	7,660	33.3	D	7,640	33.1	D
F-9	SR-60	Archibald Ave to Haven Ave	8,430	39.5	**E**	7,330	31.5	D	See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Miliken Ave	8,430	27.5	D	8,110	26.4	D	6,510	20.3	C	7,970	25.6	C
F-11	SR-60	Miliken Ave to I-15	5,160	19.8	C	4,530	17.4	B	5,460	21.0	C	7,180	29.8	D
F-12	SR-60	I-15 to Etiwanda Ave	4,140	15.9	B	2,740	10.6	A	4,840	14.9	B	6,360	19.4	C
F-13	SR-60	Etiwanda Ave to Mission Blvd/ Country Village Rd	4,950	19.1	C	4,170	16.1	B	4,220	16.1	B	5,620	21.6	C
F-14	SR-60	Mission Blvd/ Country Village Rd to Pedley Rd	4,380	16.8	B	3,150	12.2	B	4,140	15.9	B	5,660	21.8	C
F-15	SR-60	Pedley Rd to Pyrite St	4,620	17.8	B	3,610	13.9	B	3,260	12.5	B	4,820	18.3	C
F-16	SR-60	Pyrite St to Valley Way	5,060	19.5	C	3,880	15.0	B	2,470	9.5	A	3,930	14.9	B

Table 4.15.W: Year 2035 Cumulative Without Project Freeway Mainline Levels of Service

			Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-17	SR-60	Valley Way to Rubidoux Blvd	6,160	38.0	**E**	3,850	19.9	C	4,560	24.1	C	6,360	39.6	**E**
F-18	SR-60	Rubidoux Blvd to Market St	6,490	42.1	**E**	4,210	22.2	C	3,410	17.5	B	5,120	27.7	D
F-19	SR-60	Market St to Main St	6,020	36.4	**E**	6,620	44.9	**E**	5,530	31.5	D	6,280	38.7	**E**
F-20	SR-60	Main to SR-91	See Weaving Analysis			See Weaving Analysis			5,320	29.7	D	6,310	39.0	**E**
F-24	SR-60	Martin Luther King Blvd to Central Ave	9,500	59.8	**F**	9,860	70.8	**F**	8,330	30.8	D	8,980	33.0	**D**
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	6,090	24.2	C	5,790	22.9	C	7,500	33.2	D	8,970	46.6	**F**
F-27	SR-60	I-215 to Day St.	See Weaving Analysis			See Weaving Analysis			7,050	50.4	**F**	3,590	18.6	C
F-29	SR-60	Pigeon Pass Rd/Frederick St to Heacock St	3,330	27.3	D	4,120	38.2	**E**	3,650	31.3	D	3,910	35.0	**E**
F-30	SR-60	Heacock St to Perris Blvd	3,020	24.1	C	4,200	39.6	**E**	3,560	30.1	D	3,410	28.3	D
F-31	SR-60	Perris Blvd to Nason St	2,670	20.9	C	3,520	29.4	D	3,330	27.3	D	2,780	21.9	C
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	2,480	19.2	C	3,130	25.0	C	3,150	25.2	C	2,680	20.9	C
F-34	SR-60	Redlands Blvd to Theodore St	3,200	25.9	C	4,500	45.4	**F**	4,010	36.3	**E**	3,530	29.7	D
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	2,420	20.1	C	4,430	53.0	**F**	3,350	30.5	D	2,920	25.2	C
F-37	SR-60	Jack Rabbit Trail to I-10/Potrero Blvd	2,500	19.5	C	4,750	51.8	F	3,690	31.6	D	3,010	24.0	C
F-38	SR-60	Potrero Blvd to I-10	2,300	17.8	B	3,620	30.6	D	2,360	18.2	C	1,930	15.0	B

Table 4.15.W: Year 2035 Cumulative Without Project Freeway Mainline Levels of Service

			Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-39	SR-91	I-15 to McKinley St	8,140	26.3	D	11,870	52.4	**F**	8,590	28.6	D	8,630	28.6	D
F-40	SR-91	McKinley St to Pierce St	6,990	29.1	D	6,910	29.0	D	6,550	26.9	D	7,440	32.0	D
F-41	SR-91	Pierce St to Magnolia Ave	6,430	41.3	**E**	6,360	41.2	**E**	6,260	39.9	**E**	9,000	144.5	**F**
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis			See Weaving Analysis			6,130	38.3	**E**	8,600	107.0	**F**
F-43	SR-91	La Sierra Ave to Tyler St	6,170	38.1	**E**	6,250	39.8	**E**	5,460	31.4	D	6,390	40.8	**E**
F-44	SR-91	Tyler St to Van Buren Blvd	7,250	30.7	D	6,950	29.2	D	6,880	28.8	D	7,970	35.9	**E**
F-45	SR-91	Van Buren Blvd to Adam St	7,270	30.8	D	6,290	25.5	C	6,590	27.1	D	7,720	34.0	D
F-46	SR-91	Adam St to Madison St	7,980	36.6	**E**	6,030	24.3	C	6,270	25.4	C	6,970	29.0	D
F-47	SR-91	Madison St to Indiana Ave	7,000	29.6	D	5,390	21.4	C	5,540	32.1	D	6,290	39.5	**E**
F-49	SR-91	Central Ave to 14th St	6,400	40.9	**E**	5,730	33.4	D	5,290	20.8	C	5,460	21.2	C
F-51	SR-91	University Ave to Spruce St (off-ramp)	8,160	26.4	D	7,420	23.4	C	See Weaving Analysis			See Weaving Analysis		
F-66	I-215	Scott Rd to Garbani Rd	3,350	17.2	B	6,010	36.0	**E**	5,470	30.8	D	4,160	21.5	C
F-84	I-215	Garbani Rd to Newport Rd	3,150	16.1	B	5,680	32.9	D	4,950	26.6	D	4,040	20.9	C
F-68	I-215	Newport Rd to MacCall Blvd	2,910	15.0	B	4,610	24.4	C	5,020	27.2	D	5,240	28.9	D
F-69	I-215	MacCall Blvd to Ethanac Rd	3,530	18.1	C	5,570	31.9	D	5,400	30.4	D	4,800	25.6	C
F-70	I-215	Ethanac Rd to SR-74	5,240	29.1	D	5,650	32.6	D	5,390	30.3	D	6,220	38.3	**E**

Table 4.15.W: Year 2035 Cumulative Without Project Freeway Mainline Levels of Service

			Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-71	I-215	SR-74/Ellis Ave	5,200	28.7	D	6,760	46.1	**F**	7,170	53.3	**F**	5,980	35.6	**E**
F-85	I-215	Ellis Ave to Redlands Ave	4,820	25.9	C	6,200	38.4	**E**	6,560	43.1	**E**	5,490	31.2	D
F-74	I-215	Columbia Ave to Center St	4,110	21.6	C	3,350	17.5	B	5,000	27.4	D	3,680	19.1	C
F-75	I-215	Center St to La Cadena Dr	4,940	26.9	D	4,270	22.7	C	5,970	35.8	**E**	4,690	25.1	C
F-76	I-215	La Cadena Dr to Barton Rd	4,880	26.5	D	4,310	22.8	C	5,060	27.8	D	3,780	19.7	C
F-77	I-215	Barton Rd to Mt Vernon Ave	5,320	29.9	D	4,700	25.4	C	5,540	31.6	D	4,210	22.2	C
F-78	I-215	Mt Vernon Ave to I-10	5,110	19.8	C	5,720	22.5	C	6,480	26.2	D	5,210	20.3	C
F-80	I-215	Auto Plaza Dr to Mill St	4,680	18.0	B	5,980	23.6	C	5,600	21.7	C	4,540	17.4	B
F-83	I-215	Baseline Rd to Highland Ave	3,260	16.8	B	4,890	26.4	D	6,910	48.0	**F**	5,450	30.8	D
F-52	I-10	SR-60 to Beaumont Ave	5,030	19.7	C	8,170	38.3	**E**	7,820	35.3	**E**	6,060	24.5	C
F-53	I-10	Beaumont Ave to Pennsylvania Ave	5,100	20.1	C	8,030	37.1	**E**	7,660	34.1	D	5,840	23.5	C
F-54	I-10	Pennsylvania Ave to Highland Springs	5,240	20.7	C	8,170	38.3	**E**	8,180	38.4	**E**	5,920	23.9	C
F-55	I-10	Highland Springs Ave to Sunset Ave	5,350	21.2	C	8,240	38.9	**E**	7,990	36.7	**E**	5,590	22.3	C
F-56	I-10	Sunset Ave to 22nd St	4,970	19.6	C	7,670	34.5	D	7,620	33.8	D	5,420	21.5	C
F-57	I-10	22nd St to 8th St	4,880	19.3	C	7,480	33.0	D	7,680	34.5	D	5,130	20.3	C
F-58	I-10	8th St to S Hargrave St	5,000	19.7	C	7,770	34.9	D	7,790	35.4	**E**	5,370	21.4	C
F-59	I-10	S Hargrave St to Fields Rd	4,770	18.8	C	7,970	36.9	**E**	7,610	34.0	D	5,000	19.8	C

Table 4.15.W: Year 2035 Cumulative Without Project Freeway Mainline Levels of Service

			Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-60	I-10	Fields Rd to Morongo Tr	3,990	15.8	B	7,490	33.1	D	7,150	30.7	D	4,620	18.3	C
F-61	I-10	Morongo Tr to Main St	4,320	17.1	B	7,800	35.2	**E**	7,040	30.0	D	5,040	20.0	C
F-62	I-10	Main St to Haugen-Lehmann Way	4,080	16.1	B	7,530	33.1	D	7,070	30.2	D	4,410	17.4	B
F-64	I-10	SR-111 to Tipton Rd	3,660	14.5	B	7,320	31.7	D	6,420	26.2	D	4,860	19.2	C
F-65	I-10	Tipton Rd to SR-62	3,700	14.6	B	7,330	31.7	D	6,430	26.2	D	4,870	19.2	C

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

- Southbound or Westbound:
  - SR-60 Reservoir Street to Ramona Avenue (a.m.);
  - SR-60 Ramona Avenue to Central Avenue (a.m.);
  - SR-60 Mountain Avenue to Euclid Avenue (p.m.);
  - SR-60 Euclid Avenue to Grove Avenue (p.m.);
  - SR-60 Grove Avenue to Vineyard Avenue (p.m.);
  - SR-60 Valley Way to Rubidoux Boulevard (p.m.);
  - SR-60 Market Street to Main Street (p.m.);
  - SR-60 Main Street to SR-91 (p.m.);
  - SR-60 Fair Isle Drive/Box Springs Road to I-215 (p.m.);
  - SR-60 I-215 to Day Street (a.m.);
  - SR-60 Pigeon Pass Road to Heacock Street (p.m.)
  - SR-60 Redlands Boulevard to Theodore Street (a.m.);
  - SR-91 Pierce Street to Magnolia Avenue (a.m. and p.m.);
  - SR-91 Magnolia Avenue to La Sierra Avenue (a.m. and p.m.);
  - SR-91 La Sierra Avenue to Tyler Street (p.m.);
  - SR-91 Tyler Street to Van Buren Boulevard (p.m.);
  - SR-91 Madison Street to Indiana Avenue (p.m.);
  - I-10 SR-60 to Beaumont Avenue (a.m.);
  - I-10 Pennsylvania Avenue to Highland Springs Avenue (a.m.);
  - I-10 Highland Springs Avenue to Sunset Avenue (a.m.);
  - I-10 8th Street to S. Hargrave Street (a.m.);
  - I-215 Ethanac Road to SR-74 (p.m.);
  - I-215 SR-74 to Ellis Avenue (a.m. and p.m.);
  - I-215 Ellis Avenue to Redlands Boulevard (a.m.);
  - I-215 Center Street to Iowa Avenue/La Cadena Drive (a.m.); and
  - I-215 Baseline Road to Highland Avenue (a.m.).

A freeway weaving analysis was conducted on freeway segments where an on-ramp is closely followed by an off-ramp, and the two are joined by an auxiliary lane. Table 4.15.X summarizes the levels of service at weaving segments under Year 2035 Cumulative without project conditions and shows the following seven northbound or eastbound and six southbound or westbound freeway weaving segments are forecast to operate at unsatisfactory levels of service in either the a.m. peak or p.m. peak hour:

- Northbound or Eastbound:
  - SR-60 SR-71/Garey Avenue to Reservoir Street (a.m. and p.m.);
  - SR-60 Main Street to SR-91 (p.m.);

  - SR-60 SR-91 to W. Blaine Street/3rd Street (p.m.);
  - SR-60 W. Blaine Street/3rd Street to University Avenue (a.m. and p.m.);
  - SR-60 Central Avenue to Fair Isle Drive/Box Springs Road (a.m. and p.m.);
  - SR-60 Theodore Street to Gilman Springs Road (p.m.); and
  - SR-91 Arlington Avenue to Central Avenue (a.m.).
- Southbound or Westbound:
  - SR-60 Haven Avenue to Archibald Avenue (p.m.);
  - SR-60 SR-91 to W. Blaine Street/3rd Street (p.m.);
  - SR-60 W. Blaine Street/3rd Street to University Avenue (p.m.);
  - SR-60 University Avenue to Martin Luther King Boulevard (a.m. and p.m.);
  - SR-60 Central Avenue to Fair Isle Drive/Box Springs Road (a.m. and p.m.); and
  - I-10 Haugen-Lehmann Way to SR-111 (p.m.).

Freeway ramp merge and diverge operations have been evaluated for Year 2035 Cumulative without project conditions. Table 4.15.Y summarizes the levels of service at under Year 2035 Cumulative without project conditions and shows the following 9 freeway ramp junctions are forecast to operate at unsatisfactory levels of service in either the a.m. peak or p.m. peak hour:

- SR-60 Eastbound On-Ramp from Central Avenue (a.m. and p.m.);
- SR-60 Eastbound Off-Ramp to Theodore Street (p.m.);
- SR-60 Eastbound Loop On-Ramp from Theodore Street (p.m.);
- SR-60 Eastbound Off-Ramp to Gilman Springs Road (p.m.);
- SR-60 Eastbound On-Ramp from Gilman Springs Road (p.m.);
- SR-60 Westbound On-Ramp from Gilman Springs Road (a.m.);
- SR-60 Westbound Off-Ramp to Theodore Street (a.m.);
- SR-60 Westbound On-Ramp from Theodore Street (a.m.); and
- SR-60 Westbound Loop On-Ramp from Redlands Boulevard (a.m.).

Table 4.15.X: Year 2035 Cumulative Without Project Weaving Segment Levels of Service

ID	Freeway	Weaving Segment	Northbound / Eastbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	8,630	39.7	**E**	9,700	46.8	**E**	6,130	22.0	C	7,510	27.6	C
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			6,910	28.7	D	8,180	36.4	**E**
W-20	SR-60	Main St to SR-91	7,060	34.1	D	7,110	35.1	**E**	See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	7,280	32.4	D	10,640	>Capacity	**F**	8,490	33.7	D	9,970	40.9	**E**
W-22	SR-60	Blaine St/3rd St to University Ave	7,120	28.9	D	8,460	38.7	**E**	6,320	24.3	C	8,890	35.8	**E**
W-23	SR-60	University Ave to Martin Luther King	7,960	30.0	D	7,040	26.4	C	6,750	28.2	D	8,830	36.9	**E**
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	7,890	37.0	**E**	8,640	40.5	**E**	8,340	38.1	**E**	9,200	39.2	**E**
W-27	SR-60	I-215 to Day St	3,980	16.3	B	6,210	27.7	C	See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	3,760	16.2	B	5,660	26.5	C	4,790	33.5	D	4,790	32.4	D
W-32	SR-60	Moreno Beach Dr to Nason St	2,640	16.5	B	3,480	22.6	C	3,310	20.5	C	2,680	16.2	B
W-35	SR-60	Theodore St to Gilman Springs Rd	3,070	17.5	B	5,710	37.9	**E**	4,560	32.0	D	3,680	24.2	C
W-42	SR-91	Magnolia Ave to La Sierra Ave	6,970	33.7	D	6,930	34.2	D	See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	7,620	41.0	**E**	4,370	21.3	C	5,160	24.9	C	5,760	27.4	C
W-50	SR-91	14th St to University Ave	5,310	26.4	C	5,060	26.1	C	6,070	23.7	C	8,010	33.0	D
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			6,500	20.6	C	10,130	32.5	D
W-73	I-215	SR-60 to Columbia Ave	5,330	28.4	D	4,610	24.6	C	6,660	33.8	D	5,570	28.2	D
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	4,590	16.9	B	5,640	20.9	C	6,200	22.5	C	4,950	18.8	B
W-81	I-215	Mill St to 2nd St	5,190	18.3	B	6,460	23.5	C	6,360	23.4	C	4,980	18.3	B
W-82	I-215	5th St to Baseline Rd	3,900	13.5	B	4,980	17.7	B	5,610	20.3	C	4,060	14.6	B
W-63	I-10	Haugen-Lehmann Way to SR-111	4,170	14.4	B	8,420	33.1	D	7,270	29.0	D	5,500	>Capacity	**F**

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.Y: Year 2035 Cumulative Without Project Freeway Ramp Levels of Service

				AM Peak Hour				PM Peak Hour			
ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	7,410	580	30.6	D	6,430	1,400	33.8	D
R-2	SR-60 EB	On-Ramp from Central Ave	1	7,890	1,220	32.2	**F**	8,630	970	32.9	**F**
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	1	2,480	220	13.8	B	3,130	440	19.7	B
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	1	2,260	90	22.1	C	2,690	60	25.4	C
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	1	2,350	110	19.9	B	2,750	480	26.0	C
R-6	SR-60 EB	Off-Ramp to Theodore St	1	3,200	270	25.0	C	4,500	150	36.7	**F**
R-7	SR-60 EB	Loop On-Ramp from Theodore St	1	2,930	150	22.0	C	4,350	1,350	42.9	**F**
R-8	SR-60 EB	Direct On-Ramp from Theodore St	0	Does not exist in this Scenario				Does not exist in this Scenario			
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	2	3,070	840	19.4	B	5,710	1,570	35.8	**E**
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	1	2,230	260	16.9	B	4,140	470	34.3	**F**
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	2	3,350	240	20.9	C	2,920	560	18.2	B
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	1	3,110	1,330	32.2	D	2,360	1,140	24.6	C
R-13	SR-60 WB	Off-Ramp to Theodore St	1	4,560	640	32.7	**F**	3,680	380	24.8	C
R-14	SR-60 WB	On-Ramp from Theodore St	1	3,920	90	35.5	**E**	3,300	230	31.5	D
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	1	4,010	310	32.4	D	3,530	370	28.1	D
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	1	3,700	200	36.5	E	3,160	110	31.4	D
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	1	3,900	350	34.7	D	3,270	280	29.0	D
R-18	SR-60 WB	Off-Ramp to Central Ave	2	8,340	480	32.0	D	9,200	540	35.0	**D**
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	1	8,330	710	32.5	D	8,980	660	34.1	**D**

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

4.15.4 Thresholds of Significance

Based on Appendix G of the *CEQA Guidelines*, the proposed project would create potentially significant traffic impacts if it would:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit.
- Cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the without project condition. The adopted LOS standards are as follows:
    - Roadway segments and intersections: LOS C; and LOS D as outlined in previously referenced Table 4.15.E.
    - Freeway mainline: LOS D.
    - Freeway Ramp Merge/Diverge: LOS D.
- Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location, which results in substantial safety risks.
- Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

The Moreno Valley General Plan Circulation Element, adopted July 2006, defines a preferred performance standard of LOS C (where feasible) for City roads (including intersections). However, the circulation element also allows peak hour levels of service in the LOS D range at certain locations. These locations include areas of high employment concentration or north/south roads in the vicinity of the SR-60. Therefore, if a roadway segment or intersection is projected to operate at an acceptable level of service (i.e., LOS C/D or better) without the project, and the project is expected to cause the intersection to operate at an unacceptable level of service, the project impact is considered significant.

The study area includes intersections and roadways in six cities besides Moreno Valley. Table 4.15.Z shows the various level of service standards for intersections within each jurisdiction. A project's impact on an intersection is considered significant if it causes the LOS to exceed the target level set by the jurisdiction or, if the LOS in the no project condition already exceeds the LOS level, if the project causes an increase in traffic delay beyond the no project condition.

Table 4.15.Z: Intersection LOS Standards by Jurisdiction

Jurisdiction	Type of Facility	# of Study Intersections	LOS Standard
Moreno Valley	Intersections adjacent to freeways or employment centers	57	D
	All other intersections	14	C
Beaumont	Most intersections	2	C
	Intersections with major highways	2	D
Perris	Intersections with SR-74, Ramona Expr, or I-215	5	E
	Expressway/arterial intersections	10	D
	All other intersections	6	C
Redlands	Intersections currently operating at "D" or worse	1	Existing LOS
	All other intersections	2	C
Riverside (County)	Most intersections*	7	C
	Intersections with Ramona Expressway	2	D
Riverside (City)	Intersections of collectors or higher roads	27	D
San Jacinto	Arterial intersections	1	D
Caltrans	State highway facilities currently operating at LOS "E" or "F"		Existing Density
	State highway facilities		D

* Intersections between arterials, highways, expressways, and freeway ramps within community development areas are allowed LOS "D" as an exception.
Source: Table 12, Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

All freeway mainline segments and freeway ramps are under the jurisdiction of Caltrans. LOS D has been established by Caltrans as the operating standard for freeway mainline segments and freeway ramps. Therefore, if a freeway segment is projected to operate at an acceptable level of service (i.e., LOS D or better) without the project, and the project is expected to cause the facility to operate at an unacceptable level of service (i.e., LOS E or F), the impact is considered significant. Previously referenced Table 4.15.E shows level of service criteria for freeway segments and ramps.

4.15.5 Less than Significant Impacts

Air traffic patterns, design hazard features, emergency access, and alternative transportation policies, plans, or programs are considered to have either no impact or less than significant impacts.

4.15.5.1 Air Traffic Patterns

Threshold	Would the proposed project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

Airport facilities within the vicinity of the project site include the March Air Field, which is part of the March Air Reserve Base (MARB). The MARB encompasses approximately 6,500 acres of the Air Force Reserve's 452nd Air Mobility Wing, which provides host base support for numerous tenant active military units. It is also the home of 4th Air Force and multiple units of the California Air National

Guard. When March Air Force Base (March AFB) was converted from an active duty base to a Reserve Base in 1996, the decision resulted in approximately 4,400 acres of property and facilities being declared surplus and available for disposal actions, as well as joint use of the airfield. With the realignment of March AFB, the MARB Redevelopment Project Area was established. The MARB Redevelopment Project Area includes the entire 6,500-acre former active duty base area, and approximately 450 acres adjacent to the base in the industrial area of the City of Moreno Valley.

To implement the MARB Redevelopment Project Area and to facilitate the transition of a portion of the MARB from military to civilian uses, the March Joint Powers Authority, (March JPA) consisting of the County of Riverside and the Cities of Moreno Valley, Perris, and Riverside, was formed. The March JPA along with the U.S. Air Force pursued the establishment of March Air Field as a joint use airport.

The Air Force defines a "joint use airport" as one where the facilities which are owned and operated by the Air Force are made available for use by civil aviation. A joint use agreement between these parties was executed May 7, 1997, along with land leases for over 300 acres as the civilian airport name MIP. Under the agreement, the civilian (March JPA) and the military (AFRC) entities share essential aviation facilities such as the control towers and runways, as well as maintenance of facilities, under this joint use arrangement. Under the provisions of the Joint Use Agreement, the MIP is the civilian facility that is managed and operated by the MIP Airport Authority (MIPAA). The MIP includes air cargo operations such as the March Global Port, a 350-acre commercial air cargo and distribution center.

The Department of the Defense (Air Force) completed an Air Installation Compatible Use Zone (AICUZ) study for MARB in 1998. The AICUZ study was designed and is intended to aid in the development of compatible land uses in non-government areas surrounding military airfields to protect public safety and health. The study established three zones based on potential crash patterns: a Clear Zone and two Accident Potential Zones (APZs). The Clear Zone reaches from along the extended runway centerline to a distance of 3,000 feet, APZ 1 extends from 3,000 feet to 8,000 feet, and APZ II extends from 8,000 feet to 15,000 feet. According to the AICUZ, outside of the Clear Zone and APZs “the risk of aircraft accidents is not significant enough to warrant special consideration in land use planning.” The proposed project site is not located within a Clear Zone, APZ 1, or APZ 2 for MARB as designated by the Air Force 2005 AICUZ Study. In addition to the AICUZ, Airport Influence Area boundaries around MARB have been adopted by County of Riverside Airport Land Use Commission (ALUC) in its Airport Land Use Plan (ALUP). The proposed project site is located within Influence Area III.

The project site is approximately 1.5 miles east of the March Air Field and is entirely within Airport Influence Area III of the MIP. As part of the standard process for development within Airport Influence Areas for MARB, proposed projects are required to be reviewed by the ALUC for consistency with the ALUP. As a standard condition imposed during ALUC reviews, development located within the boundaries of Influence Area III is required to provide navigation easements. Development that is allowed to occur within Airport Influence III of the MIP would not include any features that would alter air traffic patterns or the level of air traffic at the MIP; therefore, a less than significant air safety impact would occur and no mitigation is required.

4.15.5.2 Design Hazard Features

NOTE: The following changes have been made in response to: Comment E-3-13 in Letter E-3 from the Moreno Valley Unified School District; Comment F-11-36 in Letter F-11 from the Sierra Club, San Gorgonio Chapter; and Comment G-96-4 in Letter G-96 from Margie Breikreuz.

Threshold	Would the proposed project substantially increase hazards due to a design feature or incompatible use?

The design of roadways must provide adequate sight distance and traffic control measures. This provision is normally realized through roadway design to facilitate roadway traffic flows. Roadway improvements in and around the project site would be designed and constructed to satisfy all City and Caltrans requirements for street widths, corner radii, intersection control as well as incorporate design standards tailored specifically to project access requirements. Adherence to applicable City requirements would ensure the proposed project would not include any sharp curves or dangerous intersections.

During the project review process, City staff expressed a concern about the intersection of D Street and the eastern end of Cactus Avenue, east of Redlands Boulevard. Early designs showed it as a skewed “T” intersection, but the Specific Plan now shows it extending further west through the Open Space area, then turning north and connecting to Alessandro Boulevard. With this design change, no significant road design hazards are expected.

Temporary impacts associated with the construction of infrastructure improvements included as a part this project may temporarily restrict vehicular traffic or cause temporary hazards. The construction of infrastructure would coincide with roadway improvements, which would include road or lane closures as well as the presence of construction workers and equipment on public roads. Construction operations would be required to implement adequate measures to facilitate the passage of people and vehicles through/around any required road or lane closures. Site-specific activities, such as temporary construction activities, are finalized on a project-by-project basis by the City and are required to ensure adequate traffic flow. At the time of approval of any site-specific plans required for the construction of infrastructure as a part of typical conditions of approval, the project would be required to implement measures that would maintain traffic flow and access. In the absence of a roadway design hazard, no impact would occur; therefore, no mitigation is required.

An analysis of safety impacts resulting from potential conflicts between project traffic and local schools was performed for this EIR. As identified in the project TIA (Appendix L-1 of this EIR), the project would not produce a significant safety risk and appropriate safety features are already present on roads near local schools. Other than Perris Boulevard, which would experience a small number of project trucks (22 and 25 medium and heavy duty trucks in the a.m. and p.m. peak hours, respectively), none of the other truck routes would result in project trucks traveling near local schools. The safety impact of project-related passenger cars along streets near local schools was also evaluated by reviewing existing pedestrian facilities and collecting pedestrian counts at the intersections along project truck routes. All pedestrian crossings at signalized intersections near schools are protected. Crosswalks near schools are striped in yellow (per the California Manual on Traffic Control Devices page 1,282). In most cases, sidewalks exist along roadways and lead to the striped, protected crosswalks at the intersections. Intersection and roadway features along project truck routes were reviewed and it was determined that adequate pedestrian amenities already exist in the form of protected crossings, crosswalks, curb ramps, and pedestrian signals. For these reasons, project passenger cars and trucks would not create unsafe conflicts with pedestrians.

In addition, the new proposed high school #5 was analyzed in a technical memorandum (Tech Memo on High School #5, July 2014, Revised DEIR Appendix L). It was determined that if both the proposed school and the proposed WLCSP were approved the mitigation measures proposed in the DEIR would reduce all potential impacts to less than significant levels.

4.15.5.3 Emergency Access

Threshold	Would the proposed project result in inadequate emergency access?

Construction activities that may temporarily restrict vehicular traffic would be required to implement adequate measures to facilitate the passage of people and vehicles through/around any required road closures. Site-specific activities such as temporary construction activities are finalized on a project-by-project basis by the City and are required to ensure adequate emergency access.

The roadway improvements that will take place as a part of this project will improve the traffic circulation in the area. For example, emergency vehicles that currently pass through the site using either Theodore Street or Alessandro Boulevard would continue to have those routes available to them, and these roads will be upgraded to arterial standards within the proposed project limits. Access to Alessandro Boulevard would be provided by a connection to Redlands Boulevard at Cactus Avenue instead, of a direct extension to Alessandro Boulevard. The change would not lengthen the distance between Gilman Springs Road and the Riverside Community Regional Medical Center on Cactus Avenue or the route to and from the Kaiser Moreno Valley Community Hospital on Iris Avenue. The extension of Eucalyptus Avenue through the project area would improve access between the project site and the nearest existing fire station (the Moreno Beach fire station). As a condition of approval, the proposed project will also be required to construct a fire station on site.

These improvements would enhance the ability of emergency vehicles to access the project as well as the surrounding properties. Access to the project site is designed to accommodate large trucks with trailers used for the distribution of goods to and from the warehouses. This would provide ample vehicular access for emergency vehicles. During the operational phase of the proposed project, on-site access would be required to comply with standards established by the City Public Works Department. The size and location of fire suppression facilities (e.g., hydrants) and fire access routes would be required to conform to Fire Department standards. As required of all development in the City, the operation of the proposed project would conform to applicable Uniform Fire Code standards. The submittal of such plans would be considered a condition of approval, which would be part of the permitting process initiated by the applicant and approved by the City in accordance with City standards. As with any development, access to and through the project would be required to comply with the required street widths, as determined in the California Building Code (CBC), Master Plan of Streets, and the Uniform Fire Code. Therefore, implementation of the proposed project would not significantly impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; therefore, no mitigation is required.

4.15.5.4 Alternative Transportation Policies, Plans, or Programs

Threshold	Would the proposed project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

The proposed project would result in the development of employment opportunities and would therefore reduce vehicle miles traveled. Currently, approximately 70 percent of workers residing in the City of Moreno Valley commute to jobs outside the City. According to the U.S. Census Bureau, 21.7 percent of Moreno Valley workers commute more than 50 miles one-way to work, and another 20.8 percent drive 25 to 50 miles one way. Nearly four out of five Moreno Valley workers drive to work alone. The City is in need of employment opportunities to serve City and regional residents. A better jobs/housing balance results in shorter commute times, reduced vehicle miles traveled, and reduced traffic congestion. Locating jobs in areas such as the City is a public policy prerogative of the City, regional governmental entities such as SCAG, and the State of California as manifested by recent legislation such as SB 375. The project is consistent with these policies because it will provide

approximately 20,000[1] new jobs; nearly doubling the number of jobs in Moreno Valley. As a result, the percentage of Moreno Valley residents that need to commute regionally would be reduced.

An updated Housing Element, adopted by the City in February 2011, identified the Moreno Highlands area as a potential location for future jobs-producing land uses. In April 2011, the City adopted its Economic Development Action Plan, which identified eastern Moreno Valley as a potential area for major job-producing land uses. The proposed World Logistics Center project is consistent with this planning objective, as it provides a comprehensive plan for jobs-producing land uses.

The WLC Specific Plan provides for Class II bicycle lanes on all project streets (see WLCSP Section 3.4.3 and WLCSP Figure 3-18). In addition, WLCSP Section 6.0, Sustainability, Item 2 indicates showers and changing rooms will be available which will facilitate people using bicycles to get to and from work.

As stated previously, the proposed project would generate jobs for approximately 20,000 employees working in the eastern portion of the City that would help reduce the number of workers driving long commutes to distant jobsites, primarily to the west and southwest. This finding is supported by the results of the RivTAM traffic model projections used in the TIA. The provision of additional employment options in proximity to existing residential development in the City will help reduce local vehicle miles traveled as the employment generated by the project slowly improves the City's job/ housing ratio, and more local jobs are created for City residents. Therefore, the proposed project is consistent with City policies encouraging alternative transportation. Since the project will not create any significant impacts related to non-vehicular transportation, no mitigation is required.

Although there is currently no transit service in the project area, the proposed project would be designed to accommodate bus access on all project streets. Bus turnouts and shelters would be provided at all active bus stops. It is expected that transit service would be provided once the project reaches a transit-supportable level of operations. Candidate streets for future bus routes within the project limits are Eucalyptus Avenue, Street C, Street E, and Street F as shown in WLCSP Figure 3-14.

The WLCSP provides for connections to existing trails to the west along Redlands Boulevard, and to the southwest along Cactus Avenue. In addition, the plan provides for a new trail connection from the southwest corner of the site around the land designated as open space under the WLCSP, to connect to a future planned "trailhead" at the northwest corner of the state-owned property to the south. The WLCSP also includes a "loop" trail segment through the WLCSP along Street F to Eucalyptus Avenue and back to Redlands Boulevard (see EIR Figure 3-12, *Non-Vehicular Circulation*). In addition, the project will be conditioned to provide sidewalks and landscaping treatments to allow for pedestrian access throughout the site. With these planned improvements, the WLCSP will have less than significant impacts regarding non-vehicular circulation and no mitigation is required.

4.15.6 Significant Impacts

The following potential impacts were determined to be significant, either because the project would contribute to an intersection, roadway segment or freeway facility already exceeding the LOS threshold, or because the project would cause the intersection, roadway segment or freeway to exceed the LOS threshold. The project would be required to make required on-site and adjacent off-site improvements, contribute to local and regional circulation improvement through the payment of the DIFs and TUMFs, and would therefore contribute to improvements that may mitigate the direct

[1] Based on a ratio of 0.5 employees per 1000 square feet of logistics. This ratio is taken from: *DTA Public Works Database; confirmed by "Employment Density Study," SCAG (2001), and "Logistics Trends and Specific Industries," NAIOP Research Foundation (March 2010).San Bernardino Planning Department.*

project impact or cumulative impact of the project. Mitigation of direct project impacts can be in the form of improvements to the intersection, or payment of the fees if projects funded by the fee would mitigate the project impact to a less than significant level.

Planned Improvements. As part of the analysis of project traffic impacts, it is important to note that development within the WLCSP will make a number of roadway and intersection improvements that are within or adjacent to project property (i.e., on-site improvements). These improvements include:

- Gilman Springs/Alessandro Boulevard Intersection;
- Gilman Springs/Eucalyptus Avenue Intersection;
- SR-60 Westbound Ramp/Theodore Street Intersection;
- SR-60 Eastbound Ramp/Theodore Street Intersection;
- Redlands Boulevard/Eucalyptus Avenue Intersection;
- Theodore Street/Eucalyptus Avenue Intersection;
- Theodore Street (Street A)/Alessandro Boulevard (Streets C and E) Roundabout;
- Theodore Street (Street A)/Streets E and F Roundabout;
- Street F/Street C Roundabout;
- Eucalyptus Avenue from Redlands Boulevard to Theodore Street (south side); and
- Cactus Avenue Extension from the existing Redlands Boulevard/Cactus Avenue intersection to internal loop Street "E".
- Internal Streets A, B, C, E, and F shown on WLCSP Circulation Plan (EIR Figure 3-10).

4.15.6.1 Existing (2012) With Phase 1 Conditions Traffic and Level of Service

Threshold:	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit. A significant project-specific traffic impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the pre-project condition. The adopted LOS standards are as follows: • Roadway segments: LOS C and LOS D as outlined in previously referenced Tables 4.15.B and 4.15.C. • Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.Z. • Freeway mainline: LOS D. • Freeway Ramp Merge/Diverge: LOS D.

Impacts

Intersection Analysis. Existing baseline (year 2012) with Phase 1 intersection levels of service for the study area intersections are summarized in Tables 4.15.AA-1 and 4.15.AA-2, which shows there are 15 study intersections where Phase 1 of the project would have a significant impact. Twelve of these intersections already exceed the threshold of significance under existing conditions and would therefore be considered cumulative impacts and mitigation is required. Phase 1 of the project would cause a direct project impact at the other three intersections and mitigation is required.

Phase 1 of the project would worsen the existing LOS deficiency at the following 12 intersections under existing with Phase 1 conditions:

- Redlands Boulevard/Locust Avenue;
- Redlands Boulevard/SR-60 Westbound Ramps;
- Oliver Street/Alessandro Boulevard;
- Lasselle Street/Cactus Avenue;
- Gilman Springs Road/Bridge Street;
- SR-79 (Sanderson Avenue) Northbound/Gilman Springs Road;
- SR-79 (Sanderson Avenue) Southbound/Gilman Springs Road;
- San Timoteo Canyon Road/Alessandro Boulevard;
- San Timoteo Canyon Road/Live Oak Canyon Road;
- Redlands Boulevard/San Timoteo Canyon Road;
- Moreno Beach Drive/SR-60 EB Ramps; and
- Alessandro Boulevard/Chicago Avenue.

A project-specific significant impact would occur at the following three intersections under existing with Phase 1 conditions:

- Redlands Boulevard/Cactus Avenue;
- Arlington Avenue/Victoria Avenue; and
- Moreno Beach Drive/John Kennedy Drive.

Table 4.15.AA-1: Existing (2012) plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
1	Theodore St/Street F	D	N/A	Non-Existent		RABT	9.5	A
2	Cactus Avenue Extension/Street E	D	N/A	Non-Existent		AWS	12.3	B
3	Theodore Str/Alessandro Blvd (Str A/Str C/Str E)	D	CSS	9.7	A	RABT	10.4	B
4	Street C/Street F	D	N/A	Non-Existent		AWS	9.5	A
6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	CSS	10.3	B	SIGNAL	20.9	C
9	Gilman Springs Rd/Eucalyptus Ave	—	N/A	Non-Existent		N/A	Non-Existent	
10	Redlands Blvd/Locust Ave	C	CSS	26.7	**D**	CSS	44.8	**E**
11	Redlands Blvd/Ironwood Ave	D	SIGNAL	40.9	D	SIGNAL	37.5	D
12	Theodore Street/Ironwood Avenue	D	CSS	9.7	A	CSS	12.6	B
13	Redlands Blvd/SR-60 WB ramps	D	CSS	42.2	**E**	CSS	70.5	**F**
14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	9.6	A	SIGNAL	12.9	B
15	Theodore Str/SR-60 WB ramps	D	CSS	9.0	A	CSS	13.3	B
16	Theodore Str/SR-60 EB ramps	D	CSS	9.2	A	CSS	2.4	A
17	Quincy Str/Fir Ave	—	N/A	Non-Existent		N/A	Non-Existent	
18	Redlands Blvd/Eucalyptus Ave (Fir)	D	N/A	Non-Existent		SIGNAL	12.9	B
19	Theodore Str/Fir Ave (Eucalyptus)	D	CSS	9.2	A	SIGNAL	12.4	B
20	Oliver Str/Alessandro Blvd	C	CSS	25.9	**D**	CSS	40.5	**E**
21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	24.0	C	SIGNAL	27.9	C
22	Quincy Str/Alessandro Blvd	—	N/A	Non-Existent		N/A	Non-Existent	
23	Redlands Blvd/Alessandro Blvd	C	AWS	20.5	C	AWS	17.6	C
24	Oliver Str/Cactus Ave	D	SIGNAL	23.8	C	SIGNAL	26.2	C
25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	16.0	B	SIGNAL	17.9	B
26	Quincy Str/Cactus Ave	—	N/A	Non-Existent		N/A	Non-Existent	
27	Redlands Blvd/Cactus Ave	C	AWS	11.4	B	AWS	37.9	**E**
28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	16.2	B	SIGNAL	17.0	B
29	Heacock Str/Ironwood Ave	D	SIGNAL	29.6	C	SIGNAL	29.9	C
30	Heacock Str/SR-60 WB Ramps	D	SIGNAL	22.6	C	SIGNAL	23.4	C
31	Heacock St/SR-60 EB Ramps	D	SIGNAL	12.5	B	SIGNAL	13.9	B
32	Sunnymead Blvd & Perris Blvd	D	SIGNAL	29.4	C	SIGNAL	30.7	C

Table 4.15.AA-1: Existing (2012) plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	22.0	C	SIGNAL	24.6	C
34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	22.8	C	SIGNAL	23.8	C
35	Moreno Beach Dr/Locust Ave	C	CSS	8.6	A	CSS	8.8	A
36	Moreno Beach Drive & Ironwood Avenue	D	SIGNAL	50.3	D	SIGNAL	51.8	D
37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	38.0	D	SIGNAL	42.0	D
38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	37.0	D	SIGNAL	37.6	D
39	Iris Ave/Perris Blvd	D	SIGNAL	41.5	D	SIGNAL	43.0	D
40	Kitching St/Iris Ave	C	SIGNAL	23.4	C	SIGNAL	25.0	C
41	Lasselle Str/Iris Ave	D	SIGNAL	25.4	C	SIGNAL	28.5	C
42	Nason Str/Iris Ave	—	N/A	Non-Existent		N/A	Non-Existent	
43	Oliver Str/Iris Ave	D	SIGNAL	22.1	C	SIGNAL	25.6	C
44	Via Dell Lago/Iris Ave	C	SIGNAL	6.7	A	SIGNAL	8.0	A
45	Krameria Ave/Perris Blvd	D	SIGNAL	34.6	C	SIGNAL	35.1	D
46	Kitching Str/Krameria Ave	D	SIGNAL	21.7	C	SIGNAL	23.9	C
47	Lasselle Str/Krameria Ave	D	SIGNAL	37.9	D	SIGNAL	40.8	D
48	Kitching Str/Alessandro Blvd	D	SIGNAL	28.8	C	SIGNAL	29.6	C
49	Lasselle Str/Alessandro Blvd	D	SIGNAL	31.7	C	SIGNAL	32.2	C
50	Morrison Str/Alessandro Blvd	D	SIGNAL	8.8	A	SIGNAL	8.8	A
51	Nason Str/Alessandro Blvd	D	SIGNAL	20.5	C	SIGNAL	20.7	C
52	Kitching Str/Cactus Ave	C	SIGNAL	33.3	C	SIGNAL	34.3	C
53	Lasselle Str/Cactus Ave	C	SIGNAL	47.2	**D**	SIGNAL	47.3	**D**
54	Morrison Str/Cactus Ave	—	N/A	Non-Existent		N/A	Non-Existent	
55	Nason Str/Cactus Ave	D	SIGNAL	22.5	C	SIGNAL	22.6	C
56	Frederick Str/Alessandro Blvd	D	SIGNAL	19.5	B	SIGNAL	19.5	B
57	Graham Str/Alessandro Blvd	D	SIGNAL	19.8	B	SIGNAL	20.4	C
58	Heacock Str/Alessandro Blvd	D	SIGNAL	25.8	C	SIGNAL	26.3	C
59	Indian Str/Alessandro Blvd	D	SIGNAL	17.6	B	SIGNAL	19.2	B
60	Perris Blvd/Alessandro Blvd	D	SIGNAL	32.4	C	SIGNAL	32.7	C
61	Frederick Str/Cactus Ave	D	SIGNAL	9.8	A	SIGNAL	10.3	B
62	Graham Str/Cactus Ave	D	SIGNAL	12.9	B	SIGNAL	13.7	B

Table 4.15.AA-1: Existing (2012) plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
63	Heacock Str/Cactus Ave	D	SIGNAL	30.1	C	SIGNAL	30.9	C
64	Indian Str/Cactus Ave	C	SIGNAL	24.4	C	SIGNAL	25.3	C
65	Perris Blvd/Cactus Ave	D	SIGNAL	26.9	C	SIGNAL	26.8	C
66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	25.8	C	SIGNAL	26.1	C
67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	6.4	A	SIGNAL	6.7	A
68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	19.4	B	SIGNAL	19.9	B
69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	18.2	B	SIGNAL	18.4	B
70	Day Str/Alessandro Blvd	D	SIGNAL	4.6	A	SIGNAL	6.2	A
71	Elsworth Str/Alessandro Blvd	D	SIGNAL	19.2	B	SIGNAL	19.6	B
72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	12.1	B	SIGNAL	18.7	B
73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	11.1	B	SIGNAL	10.3	B
74	Elsworth Str/Cactus Ave	D	SIGNAL	26.7	C	SIGNAL	30.6	C
75	Central Ave/Lochmoor Dr.	D	SIGNAL	10.9	B	SIGNAL	11.4	B
76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	22.2	C	SIGNAL	23.9	C
77	SR-60 EB Ramps/Central Ave	D	SIGNAL	7.3	A	SIGNAL	8.3	A
78	SR-60 WB Ramps/Central Ave	D	SIGNAL	6.8	A	SIGNAL	6.9	A
79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	28.4	C	SIGNAL	28.4	C
80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	18.8	B	SIGNAL	20.7	C
81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	43.2	D	SIGNAL	43.8	D
82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	9.0	A	SIGNAL	9.2	A
83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	43.2	D	SIGNAL	47.8	D
84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	8.6	A	SIGNAL	8.8	A
85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	24.3	C	AWS	26.9	D
86	Central Ave/Chicago Ave	D	SIGNAL	23.4	C	SIGNAL	23.7	C
87	Central Ave/El Cerrito Dr	D	SIGNAL	11.7	B	SIGNAL	12.9	B
88	Central Ave/Canyon Crest Dr	D	SIGNAL	27.8	C	SIGNAL	28.6	C
89	Chicago Ave/Country Club Dr	D	SIGNAL	6.3	A	SIGNAL	6.7	A
90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	31.3	C	SIGNAL	31.6	C
91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	21.0	C	SIGNAL	21.1	C
92	Arlington Ave/Maude St	D	SIGNAL	13.8	B	SIGNAL	14.1	B

Table 4.15.AA-1: Existing (2012) plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
93	Horace St/Arlington Ave	D	SIGNAL	12.3	B	SIGNAL	13.0	B
94	Arlington Ave/Victoria Ave	D	SIGNAL	54.8	D	SIGNAL	55.8	**E**
95	Alessandro Blvd/Chicago Ave	D	SIGNAL	40.7	D	SIGNAL	42.9	D
96	Alessandro Blvd/Century Ave	D	SIGNAL	16.7	B	SIGNAL	17.8	B
97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	30.7	C	SIGNAL	30.6	C
98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	20.4	C	SIGNAL	25.3	C
99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	15.4	B	SIGNAL	16.5	B
100	Harley Knox Blvd/Evan Rd	—	N/A	Non-Existent		N/A	Non-Existent	
101	Ramona Expy/Indian St	E	SIGNAL	3.3	A	SIGNAL	4.5	A
102	Ramona Expy/Perris Blvd	E	SIGNAL	31.7	C	SIGNAL	32.5	C
103	Ramona Expy/Evans Rd	E	SIGNAL	54.5	D	SIGNAL	58.1	E
104	Perris Blvd/Morgan St	D	SIGNAL	11.8	B	SIGNAL	13.6	B
105	Evans Rd/Morgan St	C	SIGNAL	32.5	C	SIGNAL	32.5	C
106	Perris Blvd/Rider St	C	SIGNAL	24.5	C	SIGNAL	24.5	C
107	Evans Rd/Rider St	C	SIGNAL	34.2	C	SIGNAL	34.4	C
108	Perris Blvd/Mid County Pkwy WB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
109	Perris Blvd/Mid County Pkwy EB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
110	Evans Rd/Mid County Pkwy WB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
111	Evans Rd/Mid County Pkwy EB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
112	Placentia Ave/Perris Blvd	D	SIGNAL	30.1	C	SIGNAL	29.9	C
113	Evans Rd/Placentia Ave	—	N/A	Non-Existent		N/A	Non-Existent	
114	Evans Rd/Orange Ave	C	AWS	12.5	B	AWS	13.6	B
115	Evans Rd/Nuevo Rd	C	SIGNAL	23.3	C	SIGNAL	23.5	C
116	Evans Rd/Ellis Ave	—	N/A	Non-Existent		N/A	Non-Existent	
117	Ellis Ave/I-215 SB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
118	Ellis Ave/SR-215 NB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
119	Evans Rd/San Jacinto Ave	—	N/A	Non-Existent		N/A	Non-Existent	
120	Park Center Blvd/Ramona Expy WB Ramps		N/A	Non-Existent		N/A	Non-Existent	
121	Park Center Blvd/Ramona Expy EB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
122	Bridge St/Ramona Expy	C	CSS	22.4	C	CSS	26.2	C

Table 4.15.AA-1: Existing (2012) plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
123	Gilman Springs Rd/Bridge Str	C	CSS	26.6	**D**	CSS	37.9	**E**
124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	34.7	**D**	CSS	56.8	**F**
125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	29.2	**D**	CSS	36.6	**E**
126	Ramona Expy/Sanderson Ave	D	SIGNAL	27.1	C	SIGNAL	28.2	C
127	Potrero Blvd/SR-60 WB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
128	Potrero Blvd/SR-60 EB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
129	W 6th St/California Ave	C	AWS	16.6	C	AWS	20.2	C
130	W 6th St/Beaumont Ave	C	SIGNAL	13.2	B	SIGNAL	12.7	B
131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	18.9	B	SIGNAL	21.5	C
132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	77.2	**F**	AWS	145.4	**F**
133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	50.9	**F**	AWS	110.2	**F**
134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	81.8	**F**	AWS	142.8	**F**
135	W Crescent Ave/Alessandro Rd	C	CSS	14.0	B	CSS	16.9	C
136	W Sunset Dr/Alessandro Rd	C	AWS	8.9	A	AWS	9.7	A

denotes LOS exceeding the target threshold

Notes: "CSS" means cross-street is stop-controlled
"AWS" means all-way stop
"NB" and "SB" denote northbound and southbound respectively
"EB" and "WB" denote eastbound and westbound respectively
"RABT" means roundabout

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.AA-2: Existing (2012) plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
1	Theodore St/Street F	D	N/A	Non-Existent		RABT	12.1	B
2	Street D/Street E	D	N/A	Non-Existent		AWS	13.2	B
3	Theodore Ave/Alessandro Blvd (Str A/Str C/Str E)	D	CSS	10.1	B	RABT	10.5	B
4	Street C/Street F	D	N/A	Non-Existent		AWS	8.4	A
6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	CSS	15.7	C	SIGNAL	31.2	C
9	Gilman Springs Rd/Eucalyptus Ave	—	N/A	Non-Existent		N/A	Non-Existent	

Table 4.15.AA-2: Existing (2012) plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
10	Redlands Blvd/Locust Ave	C	CSS	42.8	**E**	CSS	> 180.0	**F**
11	Redlands Blvd/Ironwood Ave	D	SIGNAL	37.3	D	SIGNAL	35.2	D
12	Theodore Street/Ironwood Avenue	D	CSS	9.8	A	CSS	15.9	C
13	Redlands Blvd/SR-60 WB ramps	D	CSS	54.0	**F**	CSS	> 180.0	**F**
14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	14.4	B	SIGNAL	20.3	C
15	Theodore Str/SR-60 WB ramps	D	CSS	9.6	A	CSS	13.7	B
16	Theodore Str/SR-60 EB ramps	D	CSS	9.4	A	CSS	1.5	A
17	Quincy Str/Fir Ave	—	N/A	Non-Existent		N/A	Non-Existent	
18	Redlands Blvd/Eucalyptus Ave (Fir)	D	N/A	Non-Existent		SIGNAL	10.6	B
19	Theodore Ave/Fir Ave (Eucalyptus)	D	CSS	9.8	A	SIGNAL	27.1	C
20	Oliver Str/Alessandro Blvd	C	CSS	14.7	B	CSS	18.6	C
21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	28.2	C	SIGNAL	38.6	D
22	Quincy Str/Alessandro Blvd	—	N/A	Non-Existent		N/A	Non-Existent	
23	Redlands Blvd/Alessandro Blvd	C	AWS	13.8	B	AWS	14.9	B
24	Oliver Str/Cactus Ave	D	SIGNAL	17.3	B	SIGNAL	18.1	B
25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	17.0	B	SIGNAL	18.9	B
26	Quincy Str/Cactus Ave	—	N/A	Non-Existent		N/A	Non-Existent	
27	Redlands Blvd/Cactus Ave	C	AWS	8.2	A	AWS	103.0	**F**
28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	13.8	B	SIGNAL	66.5	**E**
29	Heacock Str/Ironwood Ave	D	SIGNAL	31.9	C	SIGNAL	32.0	C
30	Heacock Str/SR-60 WB Ramps	D	SIGNAL	21.5	C	SIGNAL	21.7	C
31	Heacock St/SR-60 EB Ramps	D	SIGNAL	15.9	B	SIGNAL	16.8	B
32	Sunnymead Blvd & Perris Blvd	D	SIGNAL	36.0	D	SIGNAL	36.4	D
33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	19.7	B	SIGNAL	21.5	C
34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	23.4	C	SIGNAL	23.9	C
35	Moreno Beach Dr/Locust Ave	C	CSS	8.6	A	CSS	8.9	A
36	Moreno Beach Drive & Ironwood Avenue	D	SIGNAL	40.0	D	SIGNAL	41.6	D
37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	76.6	**E**	SIGNAL	98.0	**F**
38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	31.2	C	SIGNAL	31.8	C
39	Iris Ave/Perris Blvd	D	SIGNAL	36.5	D	SIGNAL	37.0	D

Table 4.15.AA-2: Existing (2012) plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
40	Kitching St/Iris Ave	C	SIGNAL	17.5	B	SIGNAL	20.1	C
41	Lasselle Str/Iris Ave	D	SIGNAL	26.6	C	SIGNAL	28.4	C
42	Nason Str/Iris Ave	—	N/A	Non-Existent		N/A	Non-Existent	
43	Oliver Str/Iris Ave	D	SIGNAL	15.8	B	SIGNAL	18.3	B
44	Via Dell Lago/Iris Ave	C	SIGNAL	6.5	A	SIGNAL	7.3	A
45	Krameria Ave/Perris Blvd	D	SIGNAL	29.3	C	SIGNAL	33.7	C
46	Kitching Str/Krameria Ave	D	SIGNAL	19.4	B	SIGNAL	20.2	C
47	Lasselle Str/Krameria Ave	D	SIGNAL	13.5	B	SIGNAL	13.7	B
48	Kitching Str/Alessandro Blvd	D	SIGNAL	24.7	C	SIGNAL	25.4	C
49	Lasselle Str/Alessandro Blvd	D	SIGNAL	26.6	C	SIGNAL	29.5	C
50	Morrison Str/Alessandro Blvd	D	SIGNAL	7.8	A	SIGNAL	8.1	A
51	Nason Str/Alessandro Blvd	D	SIGNAL	16.9	B	SIGNAL	18.2	B
52	Kitching Str/Cactus Ave	C	SIGNAL	22.6	C	SIGNAL	22.7	C
53	Lasselle Str/Cactus Ave	C	SIGNAL	38.6	**D**	SIGNAL	38.6	**D**
54	Morrison Str/Cactus Ave	—	N/A	Non-Existent		N/A	Non-Existent	
55	Nason Str/Cactus Ave	D	SIGNAL	21.0	C	SIGNAL	21.8	C
56	Frederick Str/Alessandro Blvd	D	SIGNAL	25.6	C	SIGNAL	26.5	C
57	Graham Str/Alessandro Blvd	D	SIGNAL	24.2	C	SIGNAL	26.0	C
58	Heacock Str/Alessandro Blvd	D	SIGNAL	23.6	C	SIGNAL	24.1	C
59	Indian Str/Alessandro Blvd	D	SIGNAL	27.9	C	SIGNAL	28.7	C
60	Perris Blvd/Alessandro Blvd	D	SIGNAL	42.3	D	SIGNAL	44.2	D
61	Frederick Str/Cactus Ave	D	SIGNAL	11.7	B	SIGNAL	13.8	B
62	Graham Str/Cactus Ave	D	SIGNAL	17.4	B	SIGNAL	17.9	B
63	Heacock Str/Cactus Ave	D	SIGNAL	20.3	C	SIGNAL	22.9	C
64	Indian Str/Cactus Ave	C	SIGNAL	19.6	B	SIGNAL	19.3	B
65	Perris Blvd/Cactus Ave	D	SIGNAL	30.7	C	SIGNAL	30.6	C
66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	18.0	B	SIGNAL	18.1	B
67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	12.6	B	SIGNAL	12.7	B
68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	24.1	C	SIGNAL	25.0	C
69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	18.6	B	SIGNAL	20.0	B

Table 4.15.AA-2: Existing (2012) plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
70	Day Str/Alessandro Blvd	D	SIGNAL	8.2	A	SIGNAL	9.9	A
71	Elsworth Str/Alessandro Blvd	D	SIGNAL	27.6	C	SIGNAL	29.0	C
72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	19.7	B	SIGNAL	40.1	D
73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	3.7	A	SIGNAL	4.1	A
74	Elsworth Str/Cactus Ave	D	SIGNAL	29.5	C	SIGNAL	29.2	C
75	Central Ave/Lochmoor Dr.	D	SIGNAL	6.7	A	SIGNAL	7.7	A
76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	17.6	B	SIGNAL	18.6	B
77	SR-60 EB Ramps/Central Ave	D	SIGNAL	10.3	B	SIGNAL	10.6	B
78	SR-60 WB Ramps/Central Ave	D	SIGNAL	8.2	A	SIGNAL	8.3	A
79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	14.8	B	SIGNAL	14.8	B
80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	34.9	C	SIGNAL	36.9	D
81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	36.5	D	SIGNAL	38.3	D
82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	13.0	B	SIGNAL	13.4	B
83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	28.0	C	SIGNAL	28.9	C
84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	4.7	A	SIGNAL	5.5	A
85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	12.2	B	AWS	13.0	B
86	Central Ave/Chicago Ave	D	SIGNAL	23.1	C	SIGNAL	26.7	C
87	Central Ave/El Cerrito Dr	D	SIGNAL	12.0	B	SIGNAL	12.6	B
88	Central Ave/Canyon Crest Dr	D	SIGNAL	35.2	D	SIGNAL	36.5	D
89	Chicago Ave/Country Club Dr	D	SIGNAL	4.9	A	SIGNAL	4.9	A
90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	30.7	C	SIGNAL	30.9	C
91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	20.8	C	SIGNAL	20.9	C
92	Arlington Ave/Maude St	D	SIGNAL	11.1	B	SIGNAL	11.6	B
93	Horace St/Arlington Ave	D	SIGNAL	7.2	A	SIGNAL	7.6	A
94	Arlington Ave/Victoria Ave	D	SIGNAL	30.9	C	SIGNAL	32.5	C
95	Alessandro Blvd/Chicago Ave	D	SIGNAL	65.9	**E**	SIGNAL	70.0	**E**
96	Alessandro Blvd/Century Ave	D	SIGNAL	7.6	A	SIGNAL	8.7	A
97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	18.9	B	SIGNAL	18.7	B
98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	17.9	B	SIGNAL	17.7	B
99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	15.1	B	SIGNAL	15.5	B

Table 4.15.AA-2: Existing (2012) plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
100	Harley Knox Blvd/Evan Rd	—	N/A	Non-Existent		N/A	Non-Existent	
101	Ramona Expy/Indian St	E	SIGNAL	8.5	A	SIGNAL	11.1	B
102	Ramona Expy/Perris Blvd	E	SIGNAL	34.6	C	SIGNAL	34.8	C
103	Ramona Expy/Evans Rd	E	SIGNAL	28.8	C	SIGNAL	28.7	C
104	Perris Blvd/Morgan St	D	SIGNAL	6.7	A	SIGNAL	8.7	A
105	Evans Rd/Morgan St	C	SIGNAL	20.6	C	SIGNAL	20.4	C
106	Perris Blvd/Rider St	C	SIGNAL	22.9	C	SIGNAL	26.8	C
107	Evans Rd/Rider St	C	SIGNAL	28.3	C	SIGNAL	27.8	C
108	Perris Blvd/Mid-County Pkwy WB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
109	Perris Blvd/Mid-County Pkwy EB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
110	Evans Rd/Mid-County Pkwy WB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
111	Evans Rd/Mid-County Pkwy EB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
112	Placentia Ave/Perris Blvd	D	SIGNAL	14.0	B	SIGNAL	15.1	B
113	Evans Rd/Placentia Ave	—	N/A	Non-Existent		N/A	Non-Existent	
114	Evans Rd/Orange Ave	C	AWS	10.1	B	AWS	10.7	B
115	Evans Rd/Nuevo Rd	C	SIGNAL	22.6	C	SIGNAL	22.5	C
116	Evans Rd/Ellis Ave	—	N/A	Non-Existent		N/A	Non-Existent	
117	Ellis Ave/I-215 SB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
118	Ellis Ave/SR-215 NB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
119	Evans Rd/San Jacinto Ave	—	N/A	Non-Existent		N/A	Non-Existent	
120	Park Center Blvd/Ramona Expy WB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
121	Park Center Blvd/Ramona Expy EB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
122	Bridge St/Ramona Expy	C	CSS	20.6	C	CSS	25.5	C
123	Gilman Springs Rd/Bridge Str	C	CSS	20.8	C	CSS	23.7	C
124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	30.7	**D**	CSS	41.0	**E**
125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	48.2	**E**	CSS	63.6	**F**
126	Ramona Expy/Sanderson Ave	D	SIGNAL	20.8	C	SIGNAL	21.0	C
127	Potrero Blvd/SR-60 WB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
128	Potrero Blvd/SR-60 EB Ramps	—	N/A	Non-Existent		N/A	Non-Existent	
129	W 6th St/California Ave	C	AWS	18.0	C	AWS	20.9	C

Table 4.15.AA-2: Existing (2012) plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
130	W 6th St/Beaumont Ave	C	SIGNAL	12.8	B	SIGNAL	11.9	B
131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	6.3	A	SIGNAL	6.5	A
132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	23.9	C	AWS	68.8	**F**
133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	60.2	**F**	AWS	135.8	**F**
134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	80.5	**F**	AWS	170.0	**F**
135	W Crescent Ave/Alessandro Rd	C	CSS	11.5	B	CSS	13.5	B
136	W Sunset Dr/Alessandro Rd	C	AWS	9.0	A	AWS	9.8	A

denotes LOS exceeding the target threshold

Notes: "CSS" means cross-street is stop-controlled
"AWS" means all-way stop
"RABT" means roundabout
"NB" and "SB" denote northbound and southbound, respectively
"EB" and "WB" denote eastbound and westbound, respectively

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Roadway Analysis. Existing baseline (year 2012) with Phase 1 roadway segment levels of service for the study area are summarized in Table 4.15.AB, which shows two roadway segments would operate at unsatisfactory levels of service. Phase 1 of the project would contribute toward the worsening of an already unsatisfactory LOS at the two roadway segments and, therefore, have a significant cumulative impact at these locations.

Phase 1 of the project would worsen the existing LOS deficiency at the following two roadway segments under existing with Phase 1 conditions:

- Gilman Springs Road between Alessandro Boulevard and Bridge Street; and
- Gilman Springs Road between SR-60 and Alessandro Boulevard.

Freeway Segment Analysis. Existing (2012) with Phase 1 freeway segment levels of service for the study area are summarized in Tables 4.15.AC-1 and 4.15.AC-2, which show seventeen freeway segments already operate at unsatisfactory levels of service. Phase 1 of the project would contribute toward the worsening of an already unsatisfactory LOS at sixteen locations and, therefore, have a cumulative impact at these locations and mitigation is required. Phase 1 of the project would create a significant impact and mitigation is required at the other location, since the project would decrease the LOS from satisfactory to unsatisfactory.

Phase 1 of the project would worsen the existing LOS deficiency at the following sixteen freeway segments under existing with Phase 1 conditions:

Northbound or Eastbound Sections (Table 4.15.AC-1):

- SR-60 Ramona Avenue to Central Avenue;
- SR-60 Central Avenue to Mountain Avenue;
- SR-60 Euclid Avenue to Grove Avenue;
- SR-60 Grove Avenue to Vineyard Avenue;
- SR-60 Vineyard Avenue to Archibald Avenue;
- SR-60 Market Street to Main Street;
- SR-60 Martin Luther King Boulevard to Central Avenue;
- SR-91 I-15 to McKinley Street;
- I-215 SR-74 to Redlands Avenue.

- Southbound or Westbound Sections (Table 4.15.AC-2):
  - SR-60 Reservoir Street to Ramona Avenue;
  - SR-60 Ramona Avenue to Central Avenue
  - SR-60 I-215 to Day Street;
  - SR-91 Pierce Street to Magnolia Avenue;
  - SR-91 Magnolia Avenue to La Sierra Avenue;
  - I-215 SR-74 to Redlands Avenue; and
  - I-215 Baseline Road to Highland Avenue.

A direct significant project impact would occur at the following one freeway segment under existing with Phase 1 conditions (Table 4.15.AC-1):

- Northbound or Eastbound Sections:
  - SR-91 Central Avenue to 14th Street.

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Table 4.15.AB: Existing (2012) Plus Phase 1 Roadway Segment Levels of Service

					Existing Conditions			Existing Plus Phase 1 Conditions					
Roadway		From	To	LOS Standard*	Roadway Section**	Daily Volume	LOS	Roadway Section*	Daily Volume	LOS	Project Significant Impact?	Mitigation Measures Required to Reduce Project Impacts to Less-Than-Significant	LOS After Mitigation
S-1	Theodore Street (A)	SR-60 WB Ramps	Ironwood Avenue	D	2U	771	A	2U	2,709	A			
S-2	Theodore Street (A)	SR-60 EB Ramps	Fir (Eucalyptus) Ave.	D	2U	2,046	A	6D	26,532	A			
S-3	Fir (Eucalyptus) Ave.	Redlands Blvd	Theodore Street (A)	D	2U***	1,339	A	4D	2,102	A			
S-4	Eucalyptus Ave (B)	Theodore Street (A)	Gilman Springs Rd	N/A	Future Road			Future Road					
S-5	Theodore Street (A)	Fir (Eucalyptus) Ave.	Street E	D	2U	641	A	6D	27,883	A			
S-6	Street E	Theodore Street (A)	Cactus Ave Extension	D	Future Road			4U	14,240	A			
S-7	Street F	Theodore Street (A)	Alessandro Blvd (Street C)	D	Future Road			2U	2,242	A			
S-8	Theodore Street (A)	Fir (Eucalyptus) Ave.	Alessandro Blvd (Street C)	D	2U	641	A	4D	10,443	A			
S-9	Alessandro Blvd (Street E)	Merwin Street	Theodore Street (A)	D	2U	2,537	A	4U	5,761	A			
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave.	D	Future Road			4U	9,250	A			
S-11	Alessandro Blvd (Street C)	Theodore Street (A)	Street F	D	2U	1,896	A	4U	4,006	A			
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	1,896	A	4U	3,799	A			
S-14	Alessandro Blvd	Moreno Beach Drive	Redlands Blvd	D	2U	3,877	A	2U	3,367	A			
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge Street	D	2U	14,407	**F**	2U	14,970	**F**	Yes	Widen to 4 lanes	C
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	2U	11,973	**E**	2U	11,973	**E**	Yes	Widen to 4 lanes	C
S-18	Redlands Blvd	SR-60 EB Ramps	Fir (Eucalyptus) Ave.	D	2U	7,338	A	2U	9,634	C			
S-19	Redlands Blvd	Fir (Eucalyptus) Ave.	Alessandro Blvd	C	2U	6,786	A	2U	4,146	A			
S-20	Alessandro Blvd	Redlands Blvd	Merwin Street	C	2U	2,537	A	2U	565	A			
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave.	C	2U	6,786	A	2U	3,415	A			
S-22	Cactus Ave.	Redlands Blvd	Cactus Ave Extension	C	2U***	472	A	2U	9,250	C			

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.
** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways.
*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.
Indicates LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

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Table 4.15.AC-1: Existing (2012) Plus Phase 1 Freeway Mainline Levels of Service (Northbound/Eastbound Directions)

			Existing Conditions						Existing Plus Phase 1 Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	6,024	24.5	C	7,822	33.0	D	6,200	25.7	C	7,770	32.9	D
F-3	SR-60	Ramona Ave to Central Ave	5,687	22.8	C	9,400	47.3	F	5,880	24.0	C	9,330	47.0	F
F-4	SR-60	Central Ave to Mountain Ave	6,339	26.2	D	9,338	46.6	F	6,540	27.6	D	9,280	46.4	F
F-5	SR-60	Mountain Ave to Euclid Ave	6,205	25.4	C	6,664	26.1	D	6,410	26.9	D	6,590	26.0	D
F-6	SR-60	Euclid Ave to Grove Ave	7,650	34.7	D	9,091	43.8	E	7,860	36.7	E	9,010	43.4	E
F-7	SR-60	Grove Ave to Vineyard Ave	6,923	29.6	D	9,400	47.3	F	7,130	31.2	D	9,320	46.9	F
F-8	SR-60	Vineyard Ave to Archibald Ave	6,823	28.7	D	9,400	47.3	F	7,030	30.3	D	9,310	46.7	F
F-9	SR-60	Archibald Ave to Haven Ave	6,268	25.6	C	6,471	25.1	C	6,480	27.1	D	6,370	24.9	C
F-10	SR-60	Haven Ave to Milliken Ave	6,096	19.1	C	6,864	20.6	C	6,310	20.0	C	6,750	20.5	C
F-11	SR-60	Milliken Ave to I-15	4,234	16.5	B	4,529	16.9	B	4,430	17.6	B	4,430	16.7	B
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	2,593	10.2	A	2,910	10.8	A	2,840	11.4	B	2,770	10.5	A
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission	3,026	11.9	B	3,968	14.8	B	3,290	13.2	B	3,850	14.5	B
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	2,596	10.2	A	3,061	11.4	B	2,860	11.6	B	2,950	11.2	B
F-15	SR-60	Pedley Rd to Pyrite St	2,813	11.1	B	3,334	12.4	B	3,100	12.5	B	3,160	12.0	B
F-16	SR-60	Pyrite St to Valley Way	3,348	13.2	B	3,642	13.6	B	3,640	14.6	B	3,460	13.1	B
F-17	SR-60	Valley Way to Rubidoux Blvd	4,398	23.7	C	4,252	21.4	C	4,690	26.2	D	4,080	20.8	C
F-18	SR-60	Rubidoux Blvd to Market St	4,943	27.6	D	4,706	24.3	C	5,250	30.7	D	4,600	24.0	C
F-19	SR-60	Market St to Main St	4,498	24.4	C	7,050	47.8	F	4,800	27.0	D	6,940	47.1	F
F-20	SR-60	Main to SR-91	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-24	SR-60	Martin Luther King Blvd to Central Ave	5,865	24.6	C	8,976	45.7	F	6,280	29.7	D	8,860	48.9	F
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	4,332	16.9	B	6,795	26.6	D	4,680	18.9	C	6,750	26.9	D
F-27	SR-60	I-215 to Day St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-29	SR-60	Pigeon Pass Rd to Heacock St	2,702	21.6	C	3,713	30.2	D	3,050	26.8	D	3,770	32.6	D
F-30	SR-60	Heacock St to Perris Blvd	2,349	18.6	C	3,355	26.1	D	2,840	24.6	C	3,420	28.3	D
F-31	SR-60	Perris Blvd to Nason St	1,812	14.3	B	2,344	17.4	B	2,340	19.8	C	2,460	19.4	C
F-32	SR-60	Nason St to Moreno Beach Dr	1,619	12.8	B	2,038	15.1	B	2,070	17.7	B	2,160	17.0	B
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	1,326	10.5	A	1,397	10.4	A	1,930	16.7	B	1,660	13.5	B
F-34	SR-60	Redlands Blvd to Theodore St	1,614	12.7	B	1,920	14.2	B	2,310	19.7	C	2,260	18.0	B
F-35	SR-60	Theodore St to Gilman Springs Rd	1,521	12.0	B	1,915	14.2	B	1,480	11.8	B	1,900	14.3	B
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	1,213	11.2	B	1,484	12.3	B	1,190	11.7	B	1,590	14.4	B
F-37	SR-60	Jack Rabbit Trail to I-10	1,215	9.6	A	1,482	11.0	A	1,200	9.6	A	1,590	12.0	B
F-39	SR-91	I-15 to McKinley St	5,914	22.6	C	9,400	53.3	F	6,030	23.3	C	9,350	52.5	F
F-40	SR-91	McKinley St to Pierce St	5,382	29.1	D	5,427	31.4	D	5,510	30.4	D	5,370	31.1	D
F-41	SR-91	Pierce St to Magnolia Ave	4,888	25.5	C	4,922	27.2	D	5,020	26.8	D	4,860	26.9	D
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-43	SR-91	La Sierra Ave to Tyler St	4,585	23.5	C	4,939	27.3	D	4,700	24.6	C	4,890	27.2	D
F-44	SR-91	Tyler St to Van Buren Blvd	5,704	21.7	C	5,851	23.5	C	5,810	22.3	C	5,810	23.4	C

Table 4.15.AC-1: Existing (2012) Plus Phase 1 Freeway Mainline Levels of Service (Northbound/Eastbound Directions)

ID	Freeway	Segment	Existing Conditions						Existing Plus Phase 1 Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-45	SR-91	Van Buren Blvd to Adam St	5,841	22.3	C	4,999	19.6	C	5,930	22.8	C	4,970	19.6	C
F-46	SR-91	Adam St to Madison St	6,531	26.1	D	4,742	18.7	C	6,620	26.7	D	4,720	18.7	C
F-47	SR-91	Madison St to Arlington Ave	5,879	22.8	C	4,530	17.9	B	5,960	23.4	C	4,510	17.9	B
F-49	SR-91	Central Ave to 14th St	6,021	34.8	D	5,391	30.8	D	6,070	35.6	E	5,400	31.2	D
F-51	SR-91	University Ave to Spruce St	7,244	22.1	C	6,394	20.0	C	7,280	22.3	C	6,410	20.2	C
F-66	I-215	Scott Rd to Newport Rd	2,739	22.0	C	3,285	25.8	C	2,700	21.8	C	3,280	25.7	C
F-68	I-215	Newport Rd to McCall Blvd	1,900	15.0	B	2,047	15.3	B	1,860	14.8	B	2,050	15.4	B
F-69	I-215	McCall Blvd to Ethanac Rd	2,457	19.5	C	3,293	25.8	C	2,400	19.1	C	3,290	25.8	C
F-70	I-215	Ethanac Rd to SR-74	3,787	34.5	D	3,150	24.4	C	3,730	33.9	D	3,160	24.5	C
F-71	I-215	SR-74 to Redlands Ave	3,350	28.5	D	4,181	37.4	E	3,290	27.9	D	4,210	37.9	E
F-74	I-215	Columbia Ave to Center St	5,587	33.5	D	5,150	27.3	D	5,550	33.1	D	5,230	27.9	D
F-75	I-215	Center St to La Cadena Dr	5,474	32.4	D	5,034	26.5	D	5,440	32.1	D	5,100	27.0	D
F-76	I-215	La Cadena Dr to Barton Rd	5,341	31.2	D	5,164	27.5	D	5,300	30.8	D	5,230	27.9	D
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,738	35.1	E	5,533	30.3	D	5,680	34.5	D	5,620	31.1	D
F-78	I-215	Mt. Vernon Ave to I-10	5,582	22.5	C	5,420	20.5	C	5,510	22.1	C	5,510	20.8	C
F-80	I-215	Auto Plaza Dr to Mill St	4,319	17.1	B	4,533	17.0	B	4,240	16.7	B	4,580	17.1	B
F-83	I-215	Baseline Rd to Highland Ave	3,023	24.8	C	3,355	26.5	D	2,970	24.2	C	3,400	27.0	D
F-52	I-10	SR-60 to Beaumont Ave	3,037	11.9	B	4,252	16.4	B	3,040	11.9	B	4,320	16.8	B
F-53	I-10	Beaumont Ave to Pennsylvania Ave	3,087	12.1	B	4,322	16.7	B	3,080	12.1	B	4,370	17.0	B
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	3,236	12.6	B	4,531	17.5	B	3,220	12.6	B	4,580	17.8	B
F-55	I-10	Highland Springs Ave to Sunset Ave	3,112	12.2	B	4,357	16.8	B	3,080	12.1	B	4,390	17.0	B
F-56	I-10	Sunset Ave to 22nd St	3,037	11.9	B	4,252	16.4	B	3,000	11.8	B	4,290	16.7	B
F-57	I-10	22nd St to 8th St	2,987	11.7	B	4,182	16.2	B	2,950	11.6	B	4,220	16.4	B
F-58	I-10	8th St to Hargrave St	2,987	11.7	B	4,182	16.2	B	2,940	11.5	B	4,210	16.3	B
F-59	I-10	Hargrave St to Fields Rd	2,689	10.5	A	3,764	14.5	B	2,640	10.4	A	3,800	14.8	B
F-60	I-10	Fields Rd to Morongo Trail	2,564	10.0	A	3,590	13.9	B	2,510	9.9	A	3,620	14.1	B
F-61	I-10	Morongo Trail to Main St	2,265	8.8	A	3,172	12.3	B	2,220	8.7	A	3,210	12.5	B
F-62	I-10	Main St to Haugen-Lehmann Way	2,265	8.8	A	3,172	12.3	B	2,220	8.7	A	3,210	12.5	B
F-64	I-10	SR-111 to Tipton Rd	1,967	7.7	A	2,753	10.6	A	1,920	7.5	A	2,780	10.8	A
F-65	I-10	Tipton Rd to SR-62	1,967	7.7	A	2,753	10.6	A	1,940	7.6	A	2,780	10.8	A

Indicates that the LOS exceeds the target level

Table 4.15.AC-2: Existing (2012) Plus Phase 1 Freeway Mainline Levels of Service (Southbound/Westbound Directions)

			Existing Conditions						Existing Plus Phase 1 Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	8,762	41.4	E	6,381	25.6	C	8,670	40.9	E	6,490	26.4	D
F-3	SR-60	Ramona Ave to Central Ave	8,283	37.1	E	5,925	23.4	C	8,170	36.5	E	6,040	24.1	C
F-4	SR-60	Central Ave to Mountain Ave	6,336	24.7	C	6,076	24.1	C	6,220	24.3	C	6,200	24.9	C
F-5	SR-60	Mountain Ave to Euclid Ave	6,259	24.4	C	6,495	26.3	D	6,150	24.0	C	6,620	27.1	D
F-6	SR-60	Euclid Ave to Grove Ave	6,461	25.4	C	6,302	25.2	C	6,350	25.0	C	6,430	26.1	D
F-7	SR-60	Grove Ave to Vineyard Ave	6,274	24.3	C	6,699	27.4	D	6,150	23.8	C	6,830	28.3	D
F-8	SR-60	Vineyard Ave to Archibald Ave	7,658	32.1	D	6,245	25.0	C	7,510	31.4	D	6,380	26.0	C
F-9	SR-60	Archibald Ave to Haven Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Milliken Ave	5,804	17.4	B	5,698	17.5	B	5,640	17.0	B	5,850	18.2	C
F-11	SR-60	Milliken Ave to I-15	5,456	20.5	C	5,111	19.5	C	5,240	19.7	C	5,270	20.4	C
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	4,490	13.4	B	4,275	13.0	B	4,300	12.9	B	4,460	13.8	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission	4,220	15.7	B	3,881	14.8	B	4,010	15.1	B	4,110	15.9	B
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	4,172	15.5	B	3,963	15.1	B	3,970	14.9	B	4,190	16.2	B
F-15	SR-60	Pedley Rd to Pyrite St	3,216	12.0	B	3,068	11.7	B	3,010	11.4	B	3,280	12.7	B
F-16	SR-60	Pyrite St to Valley Way	2,653	9.9	A	2,567	9.8	A	2,460	9.3	A	2,790	10.9	A
F-17	SR-60	Valley Way to Rubidoux Blvd	4,532	23.1	C	4,725	24.9	C	4,320	22.0	C	4,950	27.0	D
F-18	SR-60	Rubidoux Blvd to Market St	3,568	17.7	B	3,868	19.7	C	3,390	17.1	B	4,120	21.5	C
F-19	SR-60	Market St to Main St	5,631	30.9	D	5,109	27.6	D	5,440	29.8	D	5,350	30.2	D
F-20	SR-60	Main to SR-91	5,248	27.9	D	4,720	24.9	C	5,100	27.2	D	4,920	26.8	D
F-24	SR-60	Martin Luther King Blvd to Central Ave	7,050	30.6	D	5,800	24.1	C	6,910	30.9	D	6,150	28.0	D
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	7,461	31.1	D	6,376	25.6	C	7,280	30.4	D	6,740	28.4	D
F-27	SR-60	I-215 to Day St	7,050	47.9	F	3,093	15.9	B	7,020	49.1	F	3,340	18.0	B
F-29	SR-60	Pigeon Pass Rd to Heacock St	3,013	23.1	C	3,254	26.5	D	2,990	23.7	C	3,550	31.8	D
F-30	SR-60	Heacock St to Perris Blvd	2,638	19.9	C	2,671	20.8	C	2,680	21.0	C	3,040	25.8	C
F-31	SR-60	Perris Blvd to Nason St	1,910	14.3	B	2,045	15.8	B	2,030	15.9	B	2,490	20.5	C
F-32	SR-60	Nason St to Moreno Beach Dr	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	988	7.4	A	1,336	10.3	A	1,270	10.4	A	1,900	16.0	B
F-34	SR-60	Redlands Blvd to Theodore St	1,193	8.9	A	1,498	11.6	B	1,560	12.5	B	2,110	17.3	B
F-35	SR-60	Theodore St to Gilman Springs Rd	1,183	8.9	A	1,393	10.8	A	1,170	9.0	A	1,350	10.6	A
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	837	7.0	A	1,002	9.1	A	970	9.4	A	990	10.0	A
F-37	SR-60	Jack Rabbit Trail to I-10	837	6.3	A	1,002	7.7	A	970	7.4	A	990	7.8	A
F-39	SR-91	I-15 to McKinley St	6,402	25.1	C	5,971	24.1	C	6,310	24.8	C	6,080	24.8	C
F-40	SR-91	McKinley St to Pierce St	4,788	25.0	C	5,183	29.3	D	4,690	24.5	C	5,290	30.4	D
F-41	SR-91	Pierce St to Magnolia Ave	4,629	23.9	C	7,050	53.3	F	4,540	23.5	C	7,150	56.2	F
F-42	SR-91	Magnolia Ave to La Sierra Ave	4,894	25.7	C	7,050	53.3	F	4,800	25.2	C	7,140	55.9	F
F-43	SR-91	La Sierra Ave to Tyler St	4,467	22.9	C	5,167	29.2	D	4,370	22.5	C	5,260	30.2	D
F-44	SR-91	Tyler St to Van Buren Blvd	5,769	22.1	C	6,661	27.8	D	5,690	21.9	C	6,740	28.5	D

Table 4.15.AC-2: Existing (2012) Plus Phase 1 Freeway Mainline Levels of Service (Southbound/Westbound Directions)

ID	Freeway	Segment	Existing Conditions						Existing Plus Phase 1 Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-45	SR-91	Van Buren Blvd to Adam St	5,342	20.2	C	6,401	26.3	D	5,280	20.1	C	6,490	27.0	D
F-46	SR-91	Adam St to Madison St	4,939	18.6	C	5,453	21.5	C	4,890	18.5	C	5,530	22.0	C
F-47	SR-91	Madison St to Arlington Ave	4,218	21.4	C	4,711	25.5	C	4,170	21.3	C	4,780	26.3	D
F-49	SR-91	Central Ave to 14th St	4,737	24.7	C	4,940	27.2	D	4,720	24.7	C	4,990	27.7	D
F-51	SR-91	University Ave to Spruce St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-66	I-215	Scott Rd to Newport Rd	2,294	17.2	B	2,318	17.2	B	2,280	17.1	B	2,280	17.0	B
F-68	I-215	Newport Rd to McCall Blvd	2,528	19.0	C	3,111	23.7	C	2,530	19.0	C	3,070	23.4	C
F-69	I-215	McCall Blvd to Ethanac Rd	3,069	23.6	C	2,539	18.9	C	3,070	23.6	C	2,510	18.7	C
F-70	I-215	Ethanac Rd to SR-74	2,882	21.9	C	3,854	32.0	D	2,890	22.0	C	3,850	31.9	D
F-71	I-215	SR-74 to Redlands Ave	4,539	44.2	**E**	3,710	30.1	D	4,570	44.9	**E**	3,680	29.7	D
F-74	I-215	Columbia Ave to Center St	5,191	27.6	D	4,917	25.4	C	5,260	28.4	D	4,890	25.2	C
F-75	I-215	Center St to La Cadena Dr	5,541	30.4	D	5,235	27.6	D	5,630	31.4	D	5,210	27.4	D
F-76	I-215	La Cadena Dr to Barton Rd	5,414	29.4	D	5,196	27.3	D	5,480	29.9	D	5,170	27.1	D
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,435	29.5	D	5,256	27.7	D	5,500	30.1	D	5,230	27.5	D
F-78	I-215	Mt. Vernon Ave to I-10	5,776	22.0	C	5,606	21.0	C	5,850	22.3	C	5,580	20.9	C
F-80	I-215	Auto Plaza Dr to Mill St	4,022	15.1	B	4,090	15.2	B	4,080	15.4	B	4,040	15.0	B
F-83	I-215	Baseline Rd to Highland Ave	4,537	44.1	**E**	4,700	46.7	**F**	4,590	45.3	**F**	4,650	45.6	**F**
F-52	I-10	SR-60 to Beaumont Ave	4,288	18.1	C	3,675	13.8	B	4,320	18.3	C	3,710	14.0	B
F-53	I-10	Beaumont Ave to Pennsylvania Ave	4,358	18.4	C	3,736	14.0	B	4,400	18.7	C	3,740	14.1	B
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	4,569	19.4	C	3,916	14.7	B	4,610	19.7	C	3,910	14.7	B
F-55	I-10	Highland Springs Ave to Sunset Ave	4,393	18.6	C	3,766	14.1	B	4,430	18.8	C	3,750	14.1	B
F-56	I-10	Sunset Ave to 22nd St	4,288	18.1	C	3,675	13.8	B	4,330	18.4	C	3,660	13.8	B
F-57	I-10	22nd St to 8th St	4,218	17.8	B	3,615	13.5	B	4,260	18.1	C	3,600	13.5	B
F-58	I-10	8th St to Hargrave St	4,218	17.8	B	3,615	13.5	B	4,250	18.1	C	3,590	13.5	B
F-59	I-10	Hargrave St to Fields Rd	3,796	16.0	B	3,254	12.2	B	3,830	16.3	B	3,220	12.1	B
F-60	I-10	Fields Rd to Morongo Trail	3,620	15.3	B	3,103	11.6	B	3,660	15.5	B	3,070	11.6	B
F-61	I-10	Morongo Trail to Main St	3,198	13.5	B	2,741	10.3	A	3,240	13.8	B	2,710	10.2	A
F-62	I-10	Main St to Haugen-Lehmann Way	3,198	13.5	B	2,741	10.3	A	3,240	13.8	B	2,710	10.2	A
F-64	I-10	SR-111 to Tipton Rd	2,777	11.7	B	2,380	8.9	A	2,810	11.9	B	2,360	8.9	A
F-65	I-10	Tipton Rd to SR-62	2,777	11.7	B	2,380	8.9	A	2,810	11.9	B	2,360	8.9	A

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Freeway Weaving Analysis. Existing (2012) with Phase 1 freeway weaving segment levels of service for the study area are summarized in Table 4.15.AD, which shows that sixfreeway weaving segments would operate at unsatisfactory levels of service. Phase 1 of the project would contribute toward the worsening of an already unsatisfactory LOS at these six freeway weaving segments and, therefore, would have a cumulative impact at these locations.

Phase 1 of the project would worsen the existing LOS deficiency at the following six freeway weaving segments under existing with Phase 1 conditions:

- Northbound or Eastbound:
  - SR-60 SR-71/S. Garey Avenue to S. Reservoir Road;SR-60 SR-91 to W. Blaine St/3rd Street;
  - SR-60 Blaine Street/3rd Street to University Avenue; and
  - SR-91 Arlington Avenue to Central Avenue.
- Southbound or Westbound:
  - SR-60 Central Avenue to Fair Isle Drive/Box Springs Road; and
  - SR-91 14th Street to University Avenue.

Table 4.15.AD: Existing (2012) Plus Phase 1 Freeway Weaving Segments Levels of Service

			Existing Conditions						Existing Plus Phase 1 Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Weaving Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	5,985	24.0	C	8,616	35.7	**E**	6,160	25.1	C	8,550	35.5	**E**
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-20	SR-60	Main St to SR-91	5,418	25.8	C	7,050	33.6	D	5,690	27.7	C	6,970	33.6	D
W-21	SR-60	SR-91 to Blaine St/3rd St	3,885	14.8	B	9,400	39.0	**E**	4,280	16.9	B	9,330	39.0	**E**
W-22	SR-60	Blaine St/3rd St to University Ave	3,919	18.7	B	7,050	37.4	**E**	4,260	22.5	C	6,980	38.4	**E**
W-23	SR-60	University Ave to Martin Luther King	4,528	20.4	C	5,932	25.7	C	4,890	22.9	C	5,830	25.7	C
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	3,856	14.5	B	7,840	32.4	D	4,330	18.0	B	7,830	33.8	D
W-27	SR-60	I-215 to Day St	2,988	10.6	B	4,704	18.8	B	3,480	14.9	B	4,770	19.8	B
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	2,995	12.8	B	4,749	20.7	C	3,400	15.1	B	4,740	21.1	C
W-32	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-42	SR-91	Magnolia Ave to La Sierra Ave	5,445	24.6	C	5,684	27.4	C	5,560	25.3	C	5,630	27.2	C
W-48	SR-91	Arlington Ave to Central Ave	7,050	35.3	**E**	4,073	19.6	B	7,150	36.2	**E**	4,080	19.8	B
W-50	SR-91	14th St to University Ave	4,643	21.8	C	4,441	21.9	C	4,670	22.1	C	4,450	22.1	C
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-73	I-215	SR-60 to Columbia Ave	6,260	34.4	D	5,548	28.0	C	6,240	34.3	D	5,610	28.5	D
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	4,400	16.3	B	4,147	14.5	B	4,320	16.1	B	4,200	15.0	B
W-81	I-215	Mill St to 2nd St	5,044	23.0	C	5,095	22.5	C	4,970	22.6	C	5,140	22.7	C
W-82	I-215	5th St to Baseline Rd	3,754	16.5	B	3,590	14.9	B	3,700	16.2	B	3,640	15.2	B
W-63	I-10	Haugen-Lehmann Way to SR-111	2,265	7.5	A	3,172	10.5	B	2,220	7.4	A	3,210	10.7	B

Indicates that the LOS exceeds the target level

ID	Freeway	Weaving Segment	Existing Conditions						Existing Plus Phase 1 Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	6,125	21.4	C	5,892	20.8	C	6,020	21.1	C	6,000	21.4	C
W-9	SR-60	Haven Ave to Archibald Ave	6,288	23.5	C	6,071	23.5	C	6,130	23.0	C	6,210	24.4	C
W-20	SR-60	Main St to SR-91	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	7,729	28.6	D	7,211	27.2	C	7,520	28.1	D	7,530	29.2	D
W-22	SR-60	Blaine St/3rd St to University Ave	5,714	20.1	C	6,204	23.0	C	5,520	20.2	C	6,550	25.9	C
W-23	SR-60	University Ave to Martin Luther King	5,601	28.0	C	5,876	28.0	C	5,430	27.4	C	6,200	31.0	D
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	7,050	37.0	**E**	6,026	29.3	D	6,940	37.7	**E**	6,300	32.6	D
W-27	SR-60	I-215 to Day St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	4,700	31.0	D	4,197	27.2	C	4,630	30.2	D	4,520	30.6	D
W-32	SR-60	Moreno Beach Dr to Nason St	1,609	9.2	A	1,753	10.2	B	1,780	10.7	B	2,170	13.5	B
W-42	SR-91	Magnolia Ave to La Sierra Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	4,642	21.1	C	5,118	23.8	C	4,570	20.8	C	5,190	24.4	C
W-50	SR-91	14th St to University Ave	5,179	24.1	C	7,050	35.5	**E**	5,210	24.4	C	7,070	35.9	**E**
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	5,075	14.4	B	8,804	26.9	C	5,100	14.6	B	8,820	27.1	C
W-73	I-215	SR-60 to Columbia Ave	5,877	26.4	C	5,495	24.5	C	5,950	26.9	C	5,460	24.4	C
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	4,890	16.8	B	4,591	16.3	B	4,940	17.0	B	4,530	16.2	B
W-81	I-215	Mill St to 2nd St	4,442	19.6	B	4,380	19.4	B	4,500	19.9	B	4,330	19.1	B
W-82	I-215	5th St to Baseline Rd	3,607	15.6	B	3,481	15.1	B	3,660	15.9	B	3,440	14.9	B
W-63	I-10	Haugen-Lehmann Way to SR-111	3,198	11.8	B	2,741	10.3	B	3,240	12.0	B	2,710	10.1	B

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Freeway Ramp Analysis. Existing (2012) with Phase 1 freeway ramp levels of service for the study area are summarized in Table 4.15.AE, which shows the SR-60 eastbound on-ramp from Central Avenue currently operates at LOS F in the p.m. peak hour and would also operate at LOS F under Existing Plus Phase 1 conditions, but with a higher traffic density. This would be considered a significant cumulative impact.

4.15.6.2 Year 2017 With Project Conditions Traffic and Level of Service Impacts

Note: This scenario was evaluated in the original Draft EIR but project phasing has changed since that time, so it is not included in this version of the Draft EIR. The reader is referred to the original Draft EIR to review this previous analysis.

The following analysis was added in response to comments based on revisions to the project Traffic Impact Assessment (TIA) and the phasing of the proposed WLC Specific Plan. It has been prepared to address issues raised by other CEQA court cases that required an EIR to show the traffic impacts of developing the entire proposed project at the time of baseline or existing conditions. The following provides that analysis.

Table 4.15.AE: Existing (2012) Plus Phase 1 Freeway Ramp Levels of Service

				Existing Conditions								Existing Plus Phase 1 Conditions							
				AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	4,110	242	16.9	B	5,678	906	26.5	C	4,460	290	19.1	B	5,560	1,290	29.6	D
R-2	SR-60 EB	On-Ramp from Central Ave	1	5,796	349	18.5	B	8,868	904	31.8	F	6,190	440	21.1	C	8,740	930	32.0	F
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	1	1,326	119	3.3	A	1,397	30	3.2	A	1,930	350	10.8	B	1,660	440	6.9	A
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	1	1,207	26	12.9	B	1,367	25	13.6	B	1,580	80	17.9	B	1,220	90	13.9	B
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario			
R-6	SR-60 EB	Off-Ramp to Theodore St	1	1,614	207	17.3	B	1,920	434	19.1	B	2,310	940	16.1	B	2,260	580	14.8	B
R-7	SR-60 EB	Loop On-Ramp from Theodore St	1	1,407	70	16.5	B	1,486	71	16.5	B	1,370	10	16.7	B	1,680	20	18.6	B
R-8	SR-60 EB	Direct On-Ramp from Theodore St	1	Does not Exist in this Scenario				Does not Exist in this Scenario				1,360	90	17.3	B	1,660	200	20.1	C
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	1	1,521	330	16.4	B	1,915	385	19.0	B	1,480	380	16.1	B	1,900	410	19.2	B
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	1	1,191	7	14.2	B	1,530	8	16.3	B	1,100	20	13.6	B	1,490	37	16.4	B
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	1	837	11	9.6	A	1,002	9	11.3	B	970	59	11.0	B	990	21	11.4	B
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	1	826	357	13.5	B	993	306	14.6	B	911	384	14.7	B	969	397	15.6	B
R-13	SR-60 WB	Off-Ramp to Theodore St	1	1,183	24	12.7	B	1,393	26	14.9	B	1,170	190	7.4	A	1,350	70	8.7	A
R-14	SR-60 WB	On-Ramp from Theodore St	1	1,159	34	12.1	B	1,367	131	14.8	B	980	560	15.9	B	1,280	800	20.7	C
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	1	1,193	49	12.8	B	1,498	38	15.9	B	1,560	90	17.1	B	2,110	50	22.8	C
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	1	1,144	329	14.3	B	1,460	361	17.4	B	1,470	340	18.0	B	2,060	550	25.3	C
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario			
R-18	SR-60 WB	Off-Ramp to Central Ave	2	7,050	384	32.6	D	6,026	439	28.5	D	6,940	390	32.6	D	6,300	440	30.4	D
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	1	7,050	474	21.0	C	5,800	337	15.9	B	6,910	490	20.9	C	6,150	350	17.9	B

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

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4.15.6.2 Existing (2012) With Project (Buildout) Conditions Traffic and Level of Service

Threshold:	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit. A significant project-specific traffic impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the pre-project condition. The adopted LOS standards are as follows: • Roadway segments: LOS C and LOS D as outlined in previously referenced Tables 4.15.B and 4.15.C. • Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.Z. • Freeway mainline: LOS D. • Freeway Ramp Merge/Diverge: LOS D.

Impacts

Intersection Analysis. Existing baseline (2012) with project buildout intersection levels of service for the study area intersections are summarized in Table 4.15.AF-1 and 4.15.AF-2, which shows there are 17 study intersections where the project would contribute to a significant impact and mitigation is required. Twelve of these intersections already exceed the threshold of significance under existing conditions and would therefore be considered cumulative impacts. The project would cause a direct project impact at another five intersections.

The project would worsen the existing LOS deficiency at the following 12 intersections under existing with project conditions:

- Redlands Boulevard/Locust Avenue;
- Redlands Boulevard/SR-60 Westbound Ramps;
- Oliver Street/Alessandro Boulevard;
- Moreno Beach Drive/SR-60 Eastbound Ramps;
- Lasselle Street/Cactus Avenue;
- Alessandro Boulevard/Chicago Avenue;
- Gilman Springs Road/Bridge Street;
- SR-79 (Sanderson Avenue) Northbound/Gilman Springs Road;
- SR-79 (Sanderson Avenue) Southbound/Gilman Springs Road;
- San Timoteo Canyon Road/Alessandro Road;
- San Timoteo Canyon Road/Live Oak Canyon Road; and
- Redlands Boulevard/San Timoteo Canyon Road.

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Table 4.15.AF-1: Existing (2012) plus Project Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
1	Theodore St/Street F	D	N/A	Non-Existent		RABT	26.3	C
2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		SIGNAL	10.3	B
3	Theodore St/Alessandro Blvd (Str A/Str C/Str E)	D	CSS	9.7	A	RABT	11.3	B
4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		RABT	7.2	A
6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	CSS	10.3	B	SIGNAL	17.9	B
9	Gilman Springs Rd/ Eucalyptus Ave	D	N/A	Non-Existent		SIGNAL	6.4	A
10	Redlands Blvd/Locust Ave	C	CSS	26.7	**D**	CSS	92.2	**F**
11	Redlands Blvd/Ironwood Ave	D	SIGNAL	40.9	D	SIGNAL	36.0	D
12	Theodore Street/Ironwood Avenue	D	CSS	9.7	A	CSS	16.4	C
13	Redlands Blvd/SR-60 WB ramps	D	CSS	42.2	**E**	CSS	48.0	**E**
14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	9.6	A	SIGNAL	18.0	B
15	Theodore Str/SR-60 WB ramps	D	CSS	9.0	A	SIGNAL	15.2	B
16	Theodore Str/SR-60 EB ramps	D	CSS	9.2	A	SIGNAL	2.3	A
17	Quincy Str/Fir Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
18	Redlands Blvd/Eucalyptus Ave (Fir)	D	N/A	Non-Existent		SIGNAL	18.3	B
19	Theodore St/Fir Ave (Eucalyptus)	D	CSS	9.2	A	SIGNAL	14.7	B
20	Oliver Str/Alessandro Blvd	C	CSS	25.9	**D**	CSS	69.7	**F**
21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	24.0	C	SIGNAL	30.0	C
22	Quincy Str/Alessandro Blvd	N/A	N/A	Non-Existent		N/A	Non-Existent	
23	Redlands Blvd/Alessandro Blvd	C	AWS	20.5	C	AWS	21.7	C
24	Oliver Str/Cactus Ave	D	SIGNAL	23.8	C	SIGNAL	28.2	C
25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	16.0	B	SIGNAL	18.2	B
26	Quincy Str/Cactus Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
27	Redlands Blvd/Cactus Ave	C	AWS	11.4	B	AWS	106.3	**F**
28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	16.2	B	SIGNAL	22.1	C
29	Heacock Str/Ironwood Ave	D	SIGNAL	29.6	C	SIGNAL	29.9	C
30	Heacock Str/SR-60 WB Ramps	D	SIGNAL	22.6	C	SIGNAL	23.8	C
31	Heacock St/SR-60 EB Ramps	D	SIGNAL	12.5	B	SIGNAL	13.9	B
32	Sunnymead Blvd & Perris Blvd	D	SIGNAL	29.4	C	SIGNAL	30.7	C
33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	22.0	C	SIGNAL	25.1	C

Table 4.15.AF-1: Existing (2012) plus Project Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	22.8	C	SIGNAL	23.7	C
35	Moreno Beach Dr/Locust Ave	C	CSS	8.6	A	CSS	8.9	A
36	Moreno Beach Drive & Ironwood Avenue	D	SIGNAL	50.3	D	SIGNAL	55.8	**E**
37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	38.0	D	SIGNAL	46.0	D
38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	37.0	D	SIGNAL	37.8	D
39	Iris Ave/Perris Blvd	D	SIGNAL	41.5	D	SIGNAL	45.3	D
40	Kitching St/Iris Ave	C	SIGNAL	23.4	C	SIGNAL	25.1	C
41	Lasselle Str/Iris Ave	D	SIGNAL	25.4	C	SIGNAL	30.9	C
42	Nason Str/Iris Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
43	Oliver Str/Iris Ave	D	SIGNAL	22.1	C	SIGNAL	25.7	C
44	Via Dell Lago/Iris Ave	C	SIGNAL	6.7	A	SIGNAL	8.7	A
45	Krameria Ave/Perris Blvd	D	SIGNAL	34.6	C	SIGNAL	36.0	D
46	Kitching Str/Krameria Ave	D	SIGNAL	21.7	C	SIGNAL	48.5	D
47	Lasselle Str/Krameria Ave	D	SIGNAL	37.9	D	SIGNAL	42.8	D
48	Kitching Str/Alessandro Blvd	D	SIGNAL	28.8	C	SIGNAL	29.7	C
49	Lasselle Str/Alessandro Blvd	D	SIGNAL	31.7	C	SIGNAL	32.4	C
50	Morrison Str/Alessandro Blvd	D	SIGNAL	8.8	A	SIGNAL	8.7	A
51	Nason Str/Alessandro Blvd	D	SIGNAL	20.5	C	SIGNAL	21.4	C
52	Kitching Str/Cactus Ave	C	SIGNAL	33.3	C	SIGNAL	34.2	C
53	Lasselle Str/Cactus Ave	C	SIGNAL	47.2	**D**	SIGNAL	49.2	**D**
54	Morrison Str/Cactus Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
55	Nason Str/Cactus Ave	D	SIGNAL	22.5	C	SIGNAL	22.4	C
56	Frederick Str/Alessandro Blvd	D	SIGNAL	19.5	B	SIGNAL	19.5	B
57	Graham Str/Alessandro Blvd	D	SIGNAL	19.8	B	SIGNAL	20.2	C
58	Heacock Str/Alessandro Blvd	D	SIGNAL	25.8	C	SIGNAL	26.5	C
59	Indian Str/Alessandro Blvd	D	SIGNAL	17.6	B	SIGNAL	19.2	B
60	Perris Blvd/Alessandro Blvd	D	SIGNAL	32.4	C	SIGNAL	33.9	C
61	Frederick Str/Cactus Ave	D	SIGNAL	9.8	A	SIGNAL	10.3	B
62	Graham Str/Cactus Ave	D	SIGNAL	12.9	B	SIGNAL	13.6	B
63	Heacock Str/Cactus Ave	D	SIGNAL	30.1	C	SIGNAL	30.8	C

Table 4.15.AF-1: Existing (2012) plus Project Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
64	Indian Str/Cactus Ave	C	SIGNAL	24.4	C	SIGNAL	25.4	C
65	Perris Blvd/Cactus Ave	D	SIGNAL	26.9	C	SIGNAL	26.6	C
66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	25.8	C	SIGNAL	25.9	C
67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	6.4	A	SIGNAL	6.7	A
68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	19.4	B	SIGNAL	19.7	B
69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	18.2	B	SIGNAL	18.2	B
70	Day Str/Alessandro Blvd	D	SIGNAL	4.6	A	SIGNAL	6.1	A
71	Elsworth Str/Alessandro Blvd	D	SIGNAL	19.2	B	SIGNAL	19.5	B
72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	12.1	B	SIGNAL	18.8	B
73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	11.1	B	SIGNAL	10.2	B
74	Elsworth Str/Cactus Ave	D	SIGNAL	26.7	C	SIGNAL	30.5	C
75	Central Ave/Lochmoor Dr.	D	SIGNAL	10.9	B	SIGNAL	11.6	B
76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	22.2	C	SIGNAL	24.3	C
77	SR-60 EB Ramps/Central Ave	D	SIGNAL	7.3	A	SIGNAL	8.3	A
78	SR-60 WB Ramps/Central Ave	D	SIGNAL	6.8	A	SIGNAL	7.3	A
79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	28.4	C	SIGNAL	29.1	C
80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	18.8	B	SIGNAL	20.8	C
81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	43.2	D	SIGNAL	43.6	D
82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	9.0	A	SIGNAL	9.2	A
83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	43.2	D	SIGNAL	47.5	D
84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	8.6	A	SIGNAL	8.9	A
85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	24.3	C	AWS	27.4	D
86	Central Ave/Chicago Ave	D	SIGNAL	23.4	C	SIGNAL	25.0	C
87	Central Ave/El Cerrito Dr	D	SIGNAL	11.7	B	SIGNAL	12.8	B
88	Central Ave/Canyon Crest Dr	D	SIGNAL	27.8	C	SIGNAL	28.9	C
89	Chicago Ave/Country Club Dr	D	SIGNAL	6.3	A	SIGNAL	6.8	A
90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	31.3	C	SIGNAL	31.9	C
91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	21.0	C	SIGNAL	21.1	C
92	Arlington Ave/Maude St	D	SIGNAL	13.8	B	SIGNAL	14.1	B
93	Horace St/Arlington Ave	D	SIGNAL	12.3	B	SIGNAL	13.0	B

Table 4.15.AF-1: Existing (2012) plus Project Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
94	Arlington Ave/Victoria Ave	D	SIGNAL	54.8	D	SIGNAL	56.2	**E**
95	Alessandro Blvd/Chicago Ave	D	SIGNAL	40.7	D	SIGNAL	45.0	D
96	Alessandro Blvd/Century Ave	D	SIGNAL	16.7	B	SIGNAL	17.8	B
97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	30.7	C	SIGNAL	30.5	C
98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	20.4	C	SIGNAL	25.2	C
99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	15.4	B	SIGNAL	16.6	B
100	Harley Knox Blvd/Evan Rd	N/A	N/A	Non-Existent		N/A	Non-Existent	
101	Ramona Expy/Indian St	E	SIGNAL	3.9	A	SIGNAL	5.0	A
102	Ramona Expy/Perris Blvd	E	SIGNAL	31.7	C	SIGNAL	33.1	C
103	Ramona Expy/Evans Rd	E	SIGNAL	54.5	D	SIGNAL	63.5	E
104	Perris Blvd/Morgan St	D	SIGNAL	11.9	B	SIGNAL	13.4	B
105	Evans Rd/Morgan St	C	SIGNAL	32.5	C	SIGNAL	32.5	C
106	Perris Blvd/Rider St	C	SIGNAL	24.5	C	SIGNAL	24.3	C
107	Evans Rd/Rider St	C	SIGNAL	34.2	C	SIGNAL	34.2	C
108	Perris Blvd/Mid-County Pkwy WB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
109	Perris Blvd/Mid-County Pkwy EB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
110	Evans Rd/Mid-County Pkwy WB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
111	Evans Rd/Mid-County Pkwy EB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
112	Placentia Ave/Perris Blvd	D	SIGNAL	30.1	C	SIGNAL	29.6	C
113	Evans Rd/Placentia Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
114	Evans Rd/Orange Ave	C	AWS	12.5	B	AWS	13.6	B
115	Evans Rd/Nuevo Rd	C	SIGNAL	23.3	C	SIGNAL	23.5	C
116	Evans Rd/Ellis Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
117	Ellis Ave/I-215 SB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
118	Ellis Ave/SR-215 NB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
119	Evans Rd/San Jacinto Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
120	Park Center Blvd/Ramona Expy WB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
121	Park Center Blvd/Ramona Expy EB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
122	Bridge St/Ramona Expy	C	CSS	22.4	C	CSS	29.5	**D**
123	Gilman Springs Rd/Bridge Str	C	CSS	26.6	**D**	CSS	49.6	**E**

Table 4.15.AF-1: Existing (2012) plus Project Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	34.7	**D**	CSS	65.5	**F**
125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	29.2	**D**	CSS	40.6	**E**
126	Ramona Expy/Sanderson Ave	D	SIGNAL	27.1	C	SIGNAL	28.6	C
127	Potrero Blvd/SR-60 WB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
128	Potrero Blvd/SR-60 EB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
129	W 6th St/California Ave	C	AWS	13.5	B	AWS	20.9	C
130	W 6th St/Beaumont Ave	C	SIGNAL	13.2	B	SIGNAL	12.7	B
131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	9.4	A	SIGNAL	21.2	C
132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	77.2	**F**	AWS	> 180.0	**F**
133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	50.9	**F**	AWS	135.6	**F**
134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	81.8	**F**	AWS	174.1	**F**
135	W Crescent Ave/Alessandro Rd	C	CSS	14.0	B	CSS	18.5	C
136	W Sunset Dr/Alessandro Rd	C	AWS	8.9	A	AWS	10.1	B

denotes LOS exceeding the target threshold

Notes: "CSS" means cross-street is stop-controlled "NB" and "SB" denote northbound and southbound respectively "RABT" means roundabout
"AWS" means all-way stop "EB" and "WB" denote eastbound and westbound respectively
"LT" and "RT" denote left turn and right turn respectively

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.AF-2: Existing (2012) plus Project Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
1	Theodore St/Street F	D	N/A	Non-Existent		RABT	53.5	D
2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		SIGNAL	14.2	B
3	Theodore St/Alessandro Blvd (Str A/Str C/Str E)	D	CSS	10.1	B	RABT	11.0	B
4	Street C/Street F	D	N/A	Non-Existent		RABT	6.9	A
6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	CSS	15.7	C	SIGNAL	28.4	C
9	Gilman Springs Rd/ Eucalyptus Ave	D	N/A	Non-Existent		SIGNAL	6.3	A
10	Redlands Blvd/Locust Ave	C	CSS	42.8	**E**	CSS	> 180.0	**F**
11	Redlands Blvd/Ironwood Ave	D	SIGNAL	37.3	D	SIGNAL	34.8	C

Table 4.15.AF-2: Existing (2012) plus Project Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
12	Theodore Street/Ironwood Avenue	D	CSS	9.8	A	CSS	28.7	D
13	Redlands Blvd/SR-60 WB ramps	D	CSS	54.0	**F**	CSS	> 180.0	**F**
14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	14.4	B	SIGNAL	49.0	D
15	Theodore Str/SR-60 WB ramps	D	CSS	9.6	A	SIGNAL	13.0	B
16	Theodore Str/SR-60 EB ramps	D	CSS	9.4	A	SIGNAL	1.4	A
17	Quincy Str/Fir Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
18	Redlands Blvd/Eucalyptus Ave (Fir)	D	N/A	Non-Existent		SIGNAL	14.4	B
19	Theodore St/Fir Ave (Eucalyptus)	D	CSS	9.8	A	SIGNAL	18.5	B
20	Oliver Str/Alessandro Blvd	C	CSS	14.7	B	CSS	20.2	C
21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	28.2	C	SIGNAL	41.6	D
22	Quincy Str/Alessandro Blvd	N/A	N/A	Non-Existent		N/A	Non-Existent	
23	Redlands Blvd/Alessandro Blvd	C	AWS	13.8	B	AWS	19.3	C
24	Oliver Str/Cactus Ave	D	SIGNAL	17.3	B	SIGNAL	18.3	B
25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	17.0	B	SIGNAL	19.5	B
26	Quincy Str/Cactus Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
27	Redlands Blvd/Cactus Ave	C	AWS	8.2	A	AWS	102.7	**F**
28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	13.8	B	SIGNAL	105.1	**F**
29	Heacock Str/Ironwood Ave	D	SIGNAL	31.9	C	SIGNAL	32.3	C
30	Heacock Str/SR-60 WB Ramps	D	SIGNAL	21.5	C	SIGNAL	22.1	C
31	Heacock St/SR-60 EB Ramps	D	SIGNAL	15.9	B	SIGNAL	16.2	B
32	Sunnymead Blvd & Perris Blvd	D	SIGNAL	36.0	D	SIGNAL	36.3	D
33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	19.7	B	SIGNAL	22.3	C
34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	23.4	C	SIGNAL	23.8	C
35	Moreno Beach Dr/Locust Ave	C	CSS	8.6	A	CSS	9.1	A
36	Moreno Beach Drive & Ironwood Avenue	D	SIGNAL	40.0	D	SIGNAL	43.8	D
37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	76.6	**E**	SIGNAL	98.8	**F**
38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	31.2	C	SIGNAL	32.3	C
39	Iris Ave/Perris Blvd	D	SIGNAL	36.5	D	SIGNAL	37.1	D
40	Kitching St/Iris Ave	C	SIGNAL	17.5	B	SIGNAL	27.9	C
41	Lasselle Str/Iris Ave	D	SIGNAL	26.6	C	SIGNAL	31.3	C

Table 4.15.AF-2: Existing (2012) plus Project Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
42	Nason Str/Iris Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
43	Oliver Str/Iris Ave	D	SIGNAL	15.8	B	SIGNAL	18.1	B
44	Via Dell Lago/Iris Ave	C	SIGNAL	6.5	A	SIGNAL	7.3	A
45	Krameria Ave/Perris Blvd	D	SIGNAL	29.3	C	SIGNAL	35.4	D
46	Kitching Str/Krameria Ave	D	SIGNAL	19.4	B	SIGNAL	22.5	C
47	Lasselle Str/Krameria Ave	D	SIGNAL	13.5	B	SIGNAL	13.7	B
48	Kitching Str/Alessandro Blvd	D	SIGNAL	24.7	C	SIGNAL	25.6	C
49	Lasselle Str/Alessandro Blvd	D	SIGNAL	26.6	C	SIGNAL	29.5	C
50	Morrison Str/Alessandro Blvd	D	SIGNAL	7.8	A	SIGNAL	8.2	A
51	Nason Str/Alessandro Blvd	D	SIGNAL	16.9	B	SIGNAL	18.7	B
52	Kitching Str/Cactus Ave	C	SIGNAL	22.6	C	SIGNAL	22.4	C
53	Lasselle Str/Cactus Ave	C	SIGNAL	38.6	**D**	SIGNAL	38.5	**D**
54	Morrison Str/Cactus Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
55	Nason Str/Cactus Ave	D	SIGNAL	21.0	C	SIGNAL	22.7	C
56	Frederick Str/Alessandro Blvd	D	SIGNAL	25.6	C	SIGNAL	25.9	C
57	Graham Str/Alessandro Blvd	D	SIGNAL	24.2	C	SIGNAL	26.2	C
58	Heacock Str/Alessandro Blvd	D	SIGNAL	23.6	C	SIGNAL	23.8	C
59	Indian Str/Alessandro Blvd	D	SIGNAL	27.9	C	SIGNAL	28.2	C
60	Perris Blvd/Alessandro Blvd	D	SIGNAL	42.3	D	SIGNAL	45.9	D
61	Frederick Str/Cactus Ave	D	SIGNAL	11.7	B	SIGNAL	13.7	B
62	Graham Str/Cactus Ave	D	SIGNAL	17.4	B	SIGNAL	18.3	B
63	Heacock Str/Cactus Ave	D	SIGNAL	20.3	C	SIGNAL	22.5	C
64	Indian Str/Cactus Ave	C	SIGNAL	19.6	B	SIGNAL	19.6	B
65	Perris Blvd/Cactus Ave	D	SIGNAL	30.7	C	SIGNAL	30.7	C
66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	18.0	B	SIGNAL	18.2	B
67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	12.6	B	SIGNAL	12.6	B
68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	24.1	C	SIGNAL	25.2	C
69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	18.6	B	SIGNAL	21.2	C
70	Day Str/Alessandro Blvd	D	SIGNAL	8.2	A	SIGNAL	10.3	B
71	Elsworth Str/Alessandro Blvd	D	SIGNAL	27.6	C	SIGNAL	29.3	C

Table 4.15.AF-2: Existing (2012) plus Project Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	19.7	B	SIGNAL	39.0	D
73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	3.7	A	SIGNAL	4.2	A
74	Elsworth Str/Cactus Ave	D	SIGNAL	29.5	C	SIGNAL	29.6	C
75	Central Ave/Lochmoor Dr.	D	SIGNAL	6.7	A	SIGNAL	7.9	A
76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	17.6	B	SIGNAL	19.0	B
77	SR-60 EB Ramps/Central Ave	D	SIGNAL	10.3	B	SIGNAL	10.9	B
78	SR-60 WB Ramps/Central Ave	D	SIGNAL	8.2	A	SIGNAL	8.3	A
79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	14.8	B	SIGNAL	14.7	B
80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	34.9	C	SIGNAL	40.5	D
81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	36.5	D	SIGNAL	38.7	D
82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	13.0	B	SIGNAL	13.5	B
83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	28.0	C	SIGNAL	29.2	C
84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	4.7	A	SIGNAL	5.6	A
85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	12.2	B	AWS	13.4	B
86	Central Ave/Chicago Ave	D	SIGNAL	23.1	C	SIGNAL	27.5	C
87	Central Ave/El Cerrito Dr	D	SIGNAL	12.0	B	SIGNAL	12.6	B
88	Central Ave/Canyon Crest Dr	D	SIGNAL	35.2	D	SIGNAL	36.7	D
89	Chicago Ave/Country Club Dr	D	SIGNAL	4.9	A	SIGNAL	4.9	A
90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	30.7	C	SIGNAL	30.8	C
91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	20.8	C	SIGNAL	20.9	C
92	Arlington Ave/Maude St	D	SIGNAL	11.1	B	SIGNAL	11.6	B
93	Horace St/Arlington Ave	D	SIGNAL	7.2	A	SIGNAL	7.6	A
94	Arlington Ave/Victoria Ave	D	SIGNAL	30.9	C	SIGNAL	33.2	C
95	Alessandro Blvd/Chicago Ave	D	SIGNAL	65.9	**E**	SIGNAL	70.0	**E**
96	Alessandro Blvd/Century Ave	D	SIGNAL	7.6	A	SIGNAL	8.7	A
97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	18.9	B	SIGNAL	18.6	B
98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	17.9	B	SIGNAL	17.7	B
99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	15.1	B	SIGNAL	15.4	B
100	Harley Knox Blvd/Evan Rd	N/A	N/A	Non-Existent		N/A	Non-Existent	
101	Ramona Expy/Indian St	E	SIGNAL	7.8	A	SIGNAL	12.5	B

Table 4.15.AF-2: Existing (2012) plus Project Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
102	Ramona Expy/Perris Blvd	E	SIGNAL	34.6	C	SIGNAL	35.0	D
103	Ramona Expy/Evans Rd	E	SIGNAL	28.8	C	SIGNAL	28.8	C
104	Perris Blvd/Morgan St	D	SIGNAL	6.7	A	SIGNAL	8.6	A
105	Evans Rd/Morgan St	C	SIGNAL	20.6	C	SIGNAL	20.2	C
106	Perris Blvd/Rider St	C	SIGNAL	23.0	C	SIGNAL	26.5	C
107	Evans Rd/Rider St	C	SIGNAL	28.3	C	SIGNAL	27.6	C
108	Perris Blvd/Mid-County Pkwy WB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
109	Perris Blvd/Mid-County Pkwy EB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
110	Evans Rd/Mid-County Pkwy WB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
111	Evans Rd/Mid-County Pkwy EB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
112	Placentia Ave/Perris Blvd	D	SIGNAL	14.0	B	SIGNAL	14.9	B
113	Evans Rd/Placentia Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
114	Evans Rd/Orange Ave	C	AWS	10.1	B	AWS	10.7	B
115	Evans Rd/Nuevo Rd	C	SIGNAL	22.6	C	SIGNAL	22.6	C
116	Evans Rd/Ellis Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
117	Ellis Ave/I-215 SB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
118	Ellis Ave/SR-215 NB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
119	Evans Rd/San Jacinto Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
120	Park Center Blvd/Ramona Expy WB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
121	Park Center Blvd/Ramona Expy EB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
122	Bridge St/Ramona Expy	C	CSS	20.6	C	CSS	27.3	**D**
123	Gilman Springs Rd/Bridge Str	C	CSS	20.8	C	CSS	25.1	**D**
124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	30.7	**D**	CSS	48.8	**E**
125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	48.2	**E**	CSS	70.4	**F**
126	Ramona Expy/Sanderson Ave	D	SIGNAL	20.8	C	SIGNAL	21.1	C
127	Potrero Blvd/SR-60 WB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
128	Potrero Blvd/SR-60 EB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
129	W 6th St/California Ave	C	AWS	18.0	C	AWS	20.9	C
130	W 6th St/Beaumont Ave	C	SIGNAL	12.8	B	SIGNAL	11.9	B
131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	5.6	A	SIGNAL	6.4	A

Table 4.15.AF-2: Existing (2012) plus Project Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2012 No Project			2012 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	23.9	C	AWS	98.1	**F**
133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	60.2	**F**	AWS	> 180.0	**F**
134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	80.5	**F**	AWS	> 180.0	**F**
135	W Crescent Ave/Alessandro Rd	C	CSS	11.5	B	CSS	14.6	B
136	W Sunset Dr/Alessandro Rd	C	AWS	9.0	A	AWS	10.1	B

denotes LOS exceeding the target threshold

Notes: "CSS" means cross-street is stop-controlled
"AWS" means all-way stop
"RABT" means roundabout
"NB" and "SB" denote northbound and southbound respectively
"EB" and "WB" denote eastbound and westbound respectively
"LT" and "RT" denote left turn and right turn respectively

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

A project-specific significant impact would occur at the following 5 intersections under existing with project conditions:

- Redlands Boulevard/Cactus Avenue;
- Moreno Beach Drive/John Kennedy Drive;
- Moreno Beach Drive/Ironwood Avenue;
- Arlington Avenue/Victoria Avenue; and
- Bridge Street/Ramona Expressway.

Roadway Analysis. Existing baseline (year 2012) with project roadway segment levels of service for the study area are summarized in Table 4.15.AG, which shows three roadway segments would operate at unsatisfactory levels of service. The project would contribute toward the worsening of an already unsatisfactory LOS at two roadway segments and, therefore, have a significant cumulative impact at these locations and mitigation is required. At one roadway segment, the project would create a significant impact since the project would decrease the LOS from satisfactory to unsatisfactory conditions and mitigation is required.

The project would worsen the existing LOS deficiency at the following two roadway segments under existing with project conditions:

- Gilman Springs Road between Alessandro Boulevard and Bridge Street; and
- Gilman Springs Road between SR-60 and Alessandro Boulevard.

A project-specific significant impact would occur at the following roadway segment under existing with project conditions:

- Cactus Avenue Redlands Boulevard to Street D.

Freeway Segment Analysis. Existing (2012) with project freeway segment levels of service for the study area are summarized in Table 4.15.AH, which shows 10 freeway segments would operate at unsatisfactory levels of service. The project would contribute toward the worsening of an already unsatisfactory LOS at eight locations and, therefore, have a cumulative impact at these locations. At two freeway segments, the project would create a significant impact since the project would decrease the LOS from satisfactory to unsatisfactory.

The project would worsen the existing LOS deficiency at the following eight freeway segments under existing with project conditions:

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Table 4.15.AG: Existing (2012) plus Project Roadway Segment Levels of Service

	Roadway	From	To	LOS Standard*	Existing Conditions			Existing Plus Build-out Conditions			Project Significant Impact?	Mitigation Measures Required to Reduce Project Impacts to Less-Than-Significant	LOS After Mitigation
					Roadway Section**	Daily Volume	LOS	Roadway Section*	Daily Volume	LOS			
S-1	Theodore Street (A)	SR-60 WB Ramps	Ironwood Avenue	D	2U	771	A	2U	4,017	A			
S-2	Theodore Street (A)	SR-60 EB Ramps	Fir (Eucalyptus) Ave.	D	2U	2,046	A	6D	35,138	B			
S-3	Fir (Eucalyptus) Ave.	Redlands Blvd	Theodore Street (A)	D	2U***	1,339	A	4D	3,136	A			
S-4	Eucalyptus Ave (B)	Theodore Street (A)	Gilman Springs Rd	N/A	Future Road			4D	2,413	A			
S-5	Theodore Street (A)	Fir (Eucalyptus) Ave.	Street E	D	2U	641	A	6D	36,806	B			
S-6	Street E	Theodore Street (A)	Cactus Ave Extension	D	Future Road			4U	13,319	A			
S-7	Street F	Theodore Street (A)	Alessandro Blvd (Street C)	D	Future Road			2U	4,587	A			
S-8	Theodore Street (A)	Fir (Eucalyptus) Ave.	Alessandro Blvd (Street C)	D	2U	641	A	4D	16,641	A			
S-9	Alessandro Blvd (Street E)	Merwin Street	Theodore Street (A)	D	2U	2,537	A	4U	10,660	A			
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave.	D	Future Road			4U	14,426	A			
S-11	Alessandro Blvd (Street C)	Theodore Street (A)	Street F	D	2U	1,896	A	4U	15,216	B			
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	1,896	A	4U	10,395	A			
S-14	Alessandro Blvd	Moreno Beach Drive	Redlands Blvd	D	2U	3,877	A	2U	4,242	A			
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge Street	D	2U	14,407	**F**	2U	15,180	**F**	Yes	Widen to 4 lanes	C
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	2U	11,973	**E**	2U	14,125	**F**	Yes	Widen to 4 lanes	C
S-18	Redlands Blvd	SR-60 EB Ramps	Fir (Eucalyptus) Ave.	D	2U	7,338	A	2U	10,407	D			
S-19	Redlands Blvd	Fir (Eucalyptus) Ave.	Alessandro Blvd	C	2U	6,786	A	2U	4,037	A			
S-20	Alessandro Blvd	Redlands Blvd	Merwin Street	C	2U	2,537	A	2U	565	A			
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave.	C	2U	6,786	A	2U	3,210	A			
S-22	Cactus Ave.	Redlands Blvd	Cactus Ave Extension	C	2U***	472	A	2U	14,381	**E**	Yes	Widen to 4 lanes	A

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.
** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways.
*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.
Indicates LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

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Table 4.15.AH-1: Existing (2012) plus Project Freeway Mainline Levels of Service

ID	Freeway	Segment	Existing Conditions						Existing Plus Build-out Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	6,024	24.5	C	7,822	33.0	D	6,340	26.7	D	7,720	32.8	D
F-3	SR-60	Ramona Ave to Central Ave	5,687	22.8	C	9,400	47.3	F	6,020	24.9	C	9,280	46.9	F
F-4	SR-60	Central Ave to Mountain Ave	6,339	26.2	D	9,338	46.6	F	6,690	28.7	D	9,230	46.3	F
F-5	SR-60	Mountain Ave to Euclid Ave	6,205	25.4	C	6,664	26.1	D	6,560	28.0	D	6,540	25.9	C
F-6	SR-60	Euclid Ave to Grove Ave	7,650	34.7	D	9,091	43.8	E	8,010	38.4	E	8,950	43.2	E
F-7	SR-60	Grove Ave to Vineyard Ave	6,923	29.6	D	9,400	47.3	F	7,290	32.5	D	9,260	46.7	F
F-8	SR-60	Vineyard Ave to Archibald Ave	6,823	28.7	D	9,400	47.3	F	7,180	31.8	D	9,240	46.5	F
F-9	SR-60	Archibald Ave to Haven Ave	6,268	25.6	C	6,471	25.1	C	6,650	28.3	D	6,290	24.7	C
F-10	SR-60	Haven Ave to Milliken Ave	6,096	19.1	C	6,864	20.6	C	6,480	20.7	C	6,670	20.3	C
F-11	SR-60	Milliken Ave to I-15	4,234	16.5	B	4,529	16.9	B	4,580	18.3	C	4,350	16.5	B
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	2,593	10.2	A	2,910	10.8	A	3,030	12.4	B	2,670	10.3	A
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission	3,026	11.9	B	3,968	14.8	B	3,490	14.2	B	3,770	14.5	B
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	2,596	10.2	A	3,061	11.4	B	3,060	12.5	B	2,870	11.1	B
F-15	SR-60	Pedley Rd to Pyrite St	2,813	11.1	B	3,334	12.4	B	3,320	13.5	B	3,030	11.7	B
F-16	SR-60	Pyrite St to Valley Way	3,348	13.2	B	3,642	13.6	B	3,860	15.7	B	3,320	12.8	B
F-17	SR-60	Valley Way to Rubidoux Blvd	4,398	23.7	C	4,252	21.4	C	4,920	28.3	D	3,950	20.3	C
F-18	SR-60	Rubidoux Blvd to Market St	4,943	27.6	D	4,706	24.3	C	5,490	33.5	D	4,510	23.7	C
F-19	SR-60	Market St to Main St	4,498	24.4	C	7,050	47.8	F	5,040	29.3	D	6,850	46.7	F
F-20	SR-60	Main to SR-91	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-24	SR-60	Martin Luther King Blvd to Central Ave	5,865	24.6	C	8,976	45.7	F	6,600	34.2	D	8,760	50.9	F
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	4,332	16.9	B	6,795	26.6	D	4,950	20.4	C	6,710	27.2	D
F-27	SR-60	I-215 to Day St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-29	SR-60	Pigeon Pass Rd to Heacock St	2,702	21.6	C	3,713	30.2	D	3,330	32.0	D	3,820	34.6	D
F-30	SR-60	Heacock St to Perris Blvd	2,349	18.6	C	3,355	26.1	D	3,220	30.3	D	3,480	30.2	D
F-31	SR-60	Perris Blvd to Nason St	1,812	14.3	B	2,344	17.4	B	2,750	25.0	C	2,540	20.9	C
F-32	SR-60	Nason St to Moreno Beach Dr	1,619	12.8	B	2,038	15.1	B	2,420	21.7	C	2,260	18.6	C
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	1,326	10.5	A	1,397	10.4	A	2,140	19.3	C	1,750	14.8	B
F-34	SR-60	Redlands Blvd to Theodore St	1,614	12.7	B	1,920	14.2	B	2,590	23.1	C	2,380	19.6	C
F-35	SR-60	Theodore St to Gilman Springs Rd	1,521	12.0	B	1,915	14.2	B	1,550	12.7	B	1,830	14.0	B
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	1,213	11.2	B	1,484	12.3	B	1,180	12.2	B	1,680	15.6	B
F-37	SR-60	Jack Rabbit Trail to I-10	1,215	9.6	A	1,482	11.0	A	1,180	9.5	A	1,680	12.7	B
F-39	SR-91	I-15 to McKinley St	5,914	22.6	C	9,400	53.3	F	6,120	23.8	C	9,310	52.6	F
F-40	SR-91	McKinley St to Pierce St	5,382	29.1	D	5,427	31.4	D	5,610	31.5	D	5,320	30.9	D
F-41	SR-91	Pierce St to Magnolia Ave	4,888	25.5	C	4,922	27.2	D	5,110	27.6	D	4,820	26.8	D
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-43	SR-91	La Sierra Ave to Tyler St	4,585	23.5	C	4,939	27.3	D	4,790	25.3	C	4,860	27.1	D
F-44	SR-91	Tyler St to Van Buren Blvd	5,704	21.7	C	5,851	23.5	C	5,890	22.8	C	5,780	23.4	C

ID	Freeway	Segment	Existing Conditions						Existing Plus Build-out Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-45	SR-91	Van Buren Blvd to Adam St	5,841	22.3	C	4,999	19.6	C	6,010	23.3	C	4,940	19.6	C
F-46	SR-91	Adam St to Madison St	6,531	26.1	D	4,742	18.7	C	6,690	27.3	D	4,700	18.8	C
F-47	SR-91	Madison St to Arlington Ave	5,879	22.8	C	4,530	17.9	B	6,020	23.8	C	4,500	17.9	B
F-49	SR-91	Central Ave to 14th St	6,021	34.8	D	5,391	30.8	D	6,100	36.2	E	5,410	31.5	D
F-51	SR-91	University Ave to Spruce St	7,244	22.1	C	6,394	20.0	C	7,300	22.5	C	6,420	20.2	C
F-66	I-215	Scott Rd to Newport Rd	2,739	22.0	C	3,285	25.8	C	2,660	21.4	C	3,280	25.9	C
F-68	I-215	Newport Rd to McCall Blvd	1,900	15.0	B	2,047	15.3	B	1,840	14.7	B	2,040	15.4	B
F-69	I-215	McCall Blvd to Ethanac Rd	2,457	19.5	C	3,293	25.8	C	2,360	18.8	C	3,290	26.0	C
F-70	I-215	Ethanac Rd to SR-74	3,787	34.5	D	3,150	24.4	C	3,690	33.3	D	3,160	24.7	C
F-71	I-215	SR-74 to Redlands Ave	3,350	28.5	D	4,181	37.4	E	3,240	27.3	D	4,230	38.6	E
F-74	I-215	Columbia Ave to Center St	5,587	33.5	D	5,150	27.3	D	5,520	33.1	D	5,290	28.6	D
F-75	I-215	Center St to La Cadena Dr	5,474	32.4	D	5,034	26.5	D	5,410	32.0	D	5,160	27.6	D
F-76	I-215	La Cadena Dr to Barton Rd	5,341	31.2	D	5,164	27.5	D	5,260	30.7	D	5,290	28.6	D
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,738	35.1	E	5,533	30.3	D	5,640	34.0	D	5,680	31.8	D
F-78	I-215	Mt. Vernon Ave to I-10	5,582	22.5	C	5,420	20.5	C	5,450	21.9	C	5,580	21.3	C
F-80	I-215	Auto Plaza Dr to Mill St	4,319	17.1	B	4,533	17.0	B	4,190	16.6	B	4,620	17.4	B
F-83	I-215	Baseline Rd to Highland Ave	3,023	24.8	C	3,355	26.5	D	2,920	23.9	C	3,440	27.6	D
F-52	I-10	SR-60 to Beaumont Ave	3,037	11.9	B	4,252	16.4	B	3,050	12.0	B	4,380	17.0	B
F-53	I-10	Beaumont Ave to Pennsylvania Ave	3,087	12.1	B	4,322	16.7	B	3,070	12.0	B	4,400	17.1	B
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	3,236	12.6	B	4,531	17.5	B	3,200	12.6	B	4,610	17.9	B
F-55	I-10	Highland Springs Ave to Sunset Ave	3,112	12.2	B	4,357	16.8	B	3,060	12.0	B	4,420	17.2	B
F-56	I-10	Sunset Ave to 22nd St	3,037	11.9	B	4,252	16.4	B	2,970	11.7	B	4,310	16.7	B
F-57	I-10	22nd St to 8th St	2,987	11.7	B	4,182	16.2	B	2,920	11.5	B	4,240	16.5	B
F-58	I-10	8th St to Hargrave St	2,987	11.7	B	4,182	16.2	B	2,910	11.4	B	4,240	16.5	B
F-59	I-10	Hargrave St to Fields Rd	2,689	10.5	A	3,764	14.5	B	2,600	10.2	A	3,820	14.8	B
F-60	I-10	Fields Rd to Morongo Trail	2,564	10.0	A	3,590	13.9	B	2,480	9.7	A	3,650	14.2	B
F-61	I-10	Morongo Trail to Main St	2,265	8.8	A	3,172	12.3	B	2,190	8.6	A	3,230	12.5	B
F-62	I-10	Main St to Haugen-Lehmann Way	2,265	8.8	A	3,172	12.3	B	2,180	8.6	A	3,230	12.5	B
F-64	I-10	SR-111 to Tipton Rd	1,967	7.7	A	2,753	10.6	A	1,890	7.4	A	2,810	10.9	A
F-65	I-10	Tipton Rd to SR-62	1,967	7.7	A	2,753	10.6	A	1,920	7.5	A	2,810	10.9	A

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.AH-2: Existing (2012) plus Project Freeway Mainline Levels of Service

ID	Freeway	Segment	Existing Conditions						Existing Plus Build-out Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	8,762	41.4	E	6,381	25.6	C	8,590	40.2	E	6,580	27.1	D
F-3	SR-60	Ramona Ave to Central Ave	8,283	37.1	E	5,925	23.4	C	8,080	35.8	E	6,140	24.9	C
F-4	SR-60	Central Ave to Mountain Ave	6,336	24.7	C	6,076	24.1	C	6,120	24.0	C	6,300	25.7	C
F-5	SR-60	Mountain Ave to Euclid Ave	6,259	24.4	C	6,495	26.3	D	6,060	23.7	C	6,710	27.8	D
F-6	SR-60	Euclid Ave to Grove Ave	6,461	25.4	C	6,302	25.2	C	6,260	24.7	C	6,520	26.9	D
F-7	SR-60	Grove Ave to Vineyard Ave	6,274	24.3	C	6,699	27.4	D	6,050	23.5	C	6,930	29.1	D
F-8	SR-60	Vineyard Ave to Archibald Ave	7,658	32.1	D	6,245	25.0	C	7,400	30.9	D	6,490	26.7	D
F-9	SR-60	Archibald Ave to Haven Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Milliken Ave	5,804	17.4	B	5,698	17.5	B	5,510	16.7	B	5,960	18.6	C
F-11	SR-60	Milliken Ave to I-15	5,456	20.5	C	5,111	19.5	C	5,070	19.2	C	5,390	21.2	C
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	4,490	13.4	B	4,275	13.0	B	4,160	12.6	B	4,600	14.3	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission	4,220	15.7	B	3,881	14.8	B	3,850	14.6	B	4,290	16.7	B
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	4,172	15.5	B	3,963	15.1	B	3,820	14.5	B	4,360	17.0	B
F-15	SR-60	Pedley Rd to Pyrite St	3,216	12.0	B	3,068	11.7	B	2,860	10.9	A	3,440	13.5	B
F-16	SR-60	Pyrite St to Valley Way	2,653	9.9	A	2,567	9.8	A	2,310	8.9	A	2,960	11.7	B
F-17	SR-60	Valley Way to Rubidoux Blvd	4,532	23.1	C	4,725	24.9	C	4,150	21.3	C	5,120	28.7	D
F-18	SR-60	Rubidoux Blvd to Market St	3,568	17.7	B	3,868	19.7	C	3,260	16.6	B	4,320	23.1	C
F-19	SR-60	Market St to Main St	5,631	30.9	D	5,109	27.6	D	5,290	28.8	D	5,540	32.4	D
F-20	SR-60	Main to SR-91	5,248	27.9	D	4,720	24.9	C	4,990	26.7	D	5,070	28.3	D
F-24	SR-60	Martin Luther King Blvd to Central Ave	7,050	30.6	D	5,800	24.1	C	6,800	31.5	D	6,420	31.6	D
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	7,461	31.1	D	6,376	25.6	C	7,140	29.9	D	7,030	30.8	D
F-27	SR-60	I-215 to Day St	7,050	47.9	F	3,093	15.9	B	7,000	50.0	F	3,530	19.5	C
F-29	SR-60	Pigeon Pass Rd to Heacock St	3,013	23.1	C	3,254	26.5	D	2,980	24.3	C	3,770	36.9	E
F-30	SR-60	Heacock St to Perris Blvd	2,638	19.9	C	2,671	20.8	C	2,710	21.9	C	3,320	30.3	D
F-31	SR-60	Perris Blvd to Nason St	1,910	14.3	B	2,045	15.8	B	2,120	17.2	B	2,830	24.8	C
F-32	SR-60	Nason St to Moreno Beach Dr	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	988	7.4	A	1,336	10.3	A	1,330	11.3	B	2,070	18.1	C
F-34	SR-60	Redlands Blvd to Theodore St	1,193	8.9	A	1,498	11.6	B	1,660	13.8	B	2,300	19.4	C
F-35	SR-60	Theodore St to Gilman Springs Rd	1,183	8.9	A	1,393	10.8	A	1,100	8.6	A	1,510	12.3	B
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	837	7.0	A	1,002	9.1	A	1,070	10.9	A	980	10.7	A
F-37	SR-60	Jack Rabbit Trail to I-10	837	6.3	A	1,002	7.7	A	1,070	8.3	A	980	7.8	A
F-39	SR-91	I-15 to McKinley St	6,402	25.1	C	5,971	24.1	C	6,240	24.4	C	6,170	25.4	C
F-40	SR-91	McKinley St to Pierce St	4,788	25.0	C	5,183	29.3	D	4,620	24.2	C	5,370	31.4	D
F-41	SR-91	Pierce St to Magnolia Ave	4,629	23.9	C	7,050	53.3	F	4,470	23.2	C	7,230	58.8	F
F-42	SR-91	Magnolia Ave to La Sierra Ave	4,894	25.7	C	7,050	53.3	F	4,740	25.0	C	7,210	58.4	F
F-43	SR-91	La Sierra Ave to Tyler St	4,467	22.9	C	5,167	29.2	D	4,290	22.1	C	5,330	31.0	D
F-44	SR-91	Tyler St to Van Buren Blvd	5,769	22.1	C	6,661	27.8	D	5,630	21.7	C	6,810	29.1	D

ID	Freeway	Segment	Existing Conditions						Existing Plus Build-out Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-45	SR-91	Van Buren Blvd to Adam St	5,342	20.2	C	6,401	26.3	D	5,230	20.0	C	6,560	27.6	D
F-46	SR-91	Adam St to Madison St	4,939	18.6	C	5,453	21.5	C	4,840	18.4	C	5,590	22.4	C
F-47	SR-91	Madison St to Arlington Ave	4,218	21.4	C	4,711	25.5	C	4,140	21.2	C	4,830	26.9	D
F-49	SR-91	Central Ave to 14th St	4,737	24.7	C	4,940	27.2	D	4,700	24.7	C	5,030	28.5	D
F-51	SR-91	University Ave to Spruce St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-66	I-215	Scott Rd to Newport Rd	2,294	17.2	B	2,318	17.2	B	2,270	17.1	B	2,240	16.7	B
F-68	I-215	Newport Rd to McCall Blvd	2,528	19.0	C	3,111	23.7	C	2,530	19.1	C	3,040	23.2	C
F-69	I-215	McCall Blvd to Ethanac Rd	3,069	23.6	C	2,539	18.9	C	3,080	23.9	C	2,490	18.6	C
F-70	I-215	Ethanac Rd to SR-74	2,882	21.9	C	3,854	32.0	D	2,900	22.2	C	3,840	32.0	D
F-71	I-215	SR-74 to Redlands Ave	4,539	44.2	**E**	3,710	30.1	D	4,600	45.5	**F**	3,650	29.6	D
F-74	I-215	Columbia Ave to Center St	5,191	27.6	D	4,917	25.4	C	5,320	28.8	D	4,870	25.2	C
F-75	I-215	Center St to La Cadena Dr	5,541	30.4	D	5,235	27.6	D	5,690	31.9	D	5,180	27.4	D
F-76	I-215	La Cadena Dr to Barton Rd	5,414	29.4	D	5,196	27.3	D	5,530	30.5	D	5,160	27.2	D
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,435	29.5	D	5,256	27.7	D	5,550	30.7	D	5,210	27.6	D
F-78	I-215	Mt. Vernon Ave to I-10	5,776	22.0	C	5,606	21.0	C	5,900	22.7	C	5,550	20.8	C
F-80	I-215	Auto Plaza Dr to Mill St	4,022	15.1	B	4,090	15.2	B	4,120	15.5	B	4,000	14.9	B
F-83	I-215	Baseline Rd to Highland Ave	4,537	44.1	**E**	4,700	46.7	**F**	4,630	46.7	**F**	4,610	45.2	**F**
F-52	I-10	SR-60 to Beaumont Ave	4,288	18.1	C	3,675	13.8	B	4,340	18.5	C	3,730	14.0	B
F-53	I-10	Beaumont Ave to Pennsylvania Ave	4,358	18.4	C	3,736	14.0	B	4,430	18.8	C	3,750	14.1	B
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	4,569	19.4	C	3,916	14.7	B	4,630	19.8	C	3,910	14.7	B
F-55	I-10	Highland Springs Ave to Sunset Ave	4,393	18.6	C	3,766	14.1	B	4,460	19.0	C	3,750	14.1	B
F-56	I-10	Sunset Ave to 22nd St	4,288	18.1	C	3,675	13.8	B	4,350	18.5	C	3,640	13.7	B
F-57	I-10	22nd St to 8th St	4,218	17.8	B	3,615	13.5	B	4,280	18.2	C	3,580	13.5	B
F-58	I-10	8th St to Hargrave St	4,218	17.8	B	3,615	13.5	B	4,280	18.2	C	3,570	13.4	B
F-59	I-10	Hargrave St to Fields Rd	3,796	16.0	B	3,254	12.2	B	3,860	16.4	B	3,190	12.0	B
F-60	I-10	Fields Rd to Morongo Trail	3,620	15.3	B	3,103	11.6	B	3,680	15.6	B	3,040	11.4	B
F-61	I-10	Morongo Trail to Main St	3,198	13.5	B	2,741	10.3	A	3,260	13.8	B	2,680	10.1	A
F-62	I-10	Main St to Haugen-Lehmann Way	3,198	13.5	B	2,741	10.3	A	3,270	13.9	B	2,680	10.1	A
F-64	I-10	SR-111 to Tipton Rd	2,777	11.7	B	2,380	8.9	A	2,840	12.1	B	2,340	8.8	A
F-65	I-10	Tipton Rd to SR-62	2,777	11.7	B	2,380	8.9	A	2,840	12.1	B	2,340	8.8	A

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Northbound or Eastbound Sections:

- SR-60 Euclid Avenue to Grove Avenue;
- SR-60 Martin Luther King Boulevard to Central Avenue; and
- I-215 SR-74/Case Road to Redlands Avenue;

- Southbound or Westbound Sections:
  - SR-60 I-215 to Day Street;
  - SR-91 Pierce Street to Magnolia Avenue;
  - SR-91 Magnolia Avenue to La Sierra Avenue;
  - I-215 SR-74/Case Road to Redlands Avenue; and
  - I-215 Baseline Road to Highland Avenue/SR-210.

A significant direct project impact would occur at the following two freeway segments under existing with project conditions:

- Northbound or Eastbound Sections:
  - SR-91 Central Avenue to 14th Street.
- Southbound and Westbound Sections:
  - SR-60 Pigeon Pass Road/Frederick Street to Heacock Street.

Freeway Weaving Analysis. Existing (2012) with project freeway weaving segment levels of service for the study area are summarized in Table 4.15.AI, which shows six freeway weaving segments would operate at unsatisfactory levels of service. The project would contribute toward the worsening of an already unsatisfactory LOS at five freeway weaving segments and, therefore, have a cumulative impact at these locations. At the other freeway weaving segment, the project would create a significant impact since the project would decrease the LOS from satisfactory to unsatisfactory.

The project would worsen the existing LOS deficiency at the following five freeway weaving segments under existing with project conditions:

- Northbound or Eastbound:
  - SR-60 SR-91 to Blaine St/3rd Street;
  - SR-60 W Blaine Street/3rd Street to University Avenue; and
  - SR-91 Arlington Avenue to Central Avenue.
- Southbound or Westbound:
  - SR-60 Central Avenue to Fair Isle Drive/Box Springs Road; and
  - SR-91 14th Street to University Avenue.

A project-specific significant impact would occur at the following freeway weaving segment under existing with project conditions:

- Northbound or Eastbound:
  - SR-60 from Central Avenue to Fair Isle Drive/Box Springs Road.

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Table 4.15.AI: Existing (2012) plus Project Freeway Weaving Segments Levels of Service

ID	Freeway	Weaving Segment	Existing Conditions						Existing Plus Build-out Conditions					
			Northbound / Eastbound						Northbound / Eastbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	5,985	24.0	C	8,616	35.7	**E**	6,300	26.0	C	8,500	35.6	**E**
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-20	SR-60	Main St to SR-91	5,418	25.8	C	7,050	33.6	D	5,890	29.0	D	6,910	33.6	D
W-21	SR-60	SR-91 to Blaine St/3rd St	3,885	14.8	B	9,400	39.0	**E**	4,590	18.8	B	9,270	39.4	**E**
W-22	SR-60	Blaine St/3rd St to University Ave	3,919	18.7	B	7,050	37.4	**E**	4,520	25.4	C	6,930	39.3	**E**
W-23	SR-60	University Ave to Martin Luther King	4,528	20.4	C	5,932	25.7	C	5,170	24.8	C	5,760	25.6	C
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	3,856	14.5	B	7,840	32.4	D	4,700	20.8	C	7,820	35.0	**E**
W-27	SR-60	I-215 to Day St	2,988	10.6	B	4,704	18.8	B	3,870	17.7	B	4,810	19.5	B
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	2,995	12.8	B	4,749	20.7	C	3,710	16.9	B	4,730	21.3	C
W-32	SR-60	Moreno Beach Dr to Nason St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-42	SR-91	Magnolia Ave to La Sierra Ave	5,445	24.6	C	5,684	27.4	C	5,640	25.8	C	5,590	27.1	C
W-48	SR-91	Arlington Ave to Central Ave	7,050	35.3	**E**	4,073	19.6	B	7,220	36.9	**E**	4,080	19.9	B
W-50	SR-91	14th St to University Ave	4,643	21.8	C	4,441	21.9	C	4,690	22.3	C	4,460	22.1	C
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-73	I-215	SR-60 to Columbia Ave	6,260	34.4	D	5,548	28.0	C	6,230	34.7	D	5,670	29.4	D
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	4,400	16.3	B	4,147	14.5	B	4,270	15.9	B	4,240	15.1	B
W-81	I-215	Mill St to 2nd St	5,044	23.0	C	5,095	22.5	C	4,920	22.5	C	5,180	23.0	C
W-82	I-215	5th St to Baseline Rd	3,754	16.5	B	3,590	14.9	B	3,660	16.1	B	3,670	15.4	B
W-63	I-10	Haugen-Lehmann Way to SR-111	2,265	7.5	A	3,172	10.5	B	2,180	7.2	A	3,230	10.8	B

Indicates that the LOS exceeds the target level

ID	Freeway	Weaving Segment	Existing Conditions						Existing Plus Build-out Conditions					
			Southbound / Westbound						Southbound / Westbound					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	6,125	21.4	C	5,892	20.8	C	5,950	21.0	C	6,090	21.9	C
W-9	SR-60	Haven Ave to Archibald Ave	6,288	23.5	C	6,071	23.5	C	6,010	22.6	C	6,320	25.0	C
W-20	SR-60	Main St to SR-91	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	7,729	28.6	D	7,211	27.2	C	7,360	27.7	C	7,770	30.7	D
W-22	SR-60	Blaine St/3rd St to University Ave	5,714	20.1	C	6,204	23.0	C	5,360	20.3	C	6,820	27.9	C
W-23	SR-60	University Ave to Martin Luther King	5,601	28.0	C	5,876	28.0	C	5,300	26.9	C	6,440	32.9	D
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs	7,050	37.0	**E**	6,026	29.3	D	6,860	38.1	**E**	6,500	35.2	**E**
W-27	SR-60	I-215 to Day St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	4,700	31.0	D	4,197	27.2	C	4,580	30.9	D	4,760	33.4	D
W-32	SR-60	Moreno Beach Dr to Nason St	1,609	9.2	A	1,753	10.2	B	1,910	11.7	B	2,480	16.0	B
W-42	SR-91	Magnolia Ave to La Sierra Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	4,642	21.1	C	5,118	23.8	C	4,520	20.7	C	5,250	25.0	C
W-50	SR-91	14th St to University Ave	5,179	24.1	C	7,050	35.5	**E**	5,230	24.6	C	7,080	36.2	**E**
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	5,075	14.4	B	8,804	26.9	C	5,120	14.8	B	8,840	27.3	C
W-73	I-215	SR-60 to Columbia Ave	5,877	26.4	C	5,495	24.5	C	6,000	27.3	C	5,440	24.5	C
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	4,890	16.8	B	4,591	16.3	B	4,970	17.2	B	4,490	16.1	B
W-81	I-215	Mill St to 2nd St	4,442	19.6	B	4,380	19.4	B	4,540	20.1	C	4,290	19.0	B
W-82	I-215	5th St to Baseline Rd	3,607	15.6	B	3,481	15.1	B	3,710	16.2	B	3,400	14.8	B
W-63	I-10	Haugen-Lehmann Way to SR-111	3,198	11.8	B	2,741	10.3	B	3,270	12.2	B	2,680	10.1	B

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Freeway Ramp Analysis. Existing (2012) with project freeway ramp levels of service for the study area are summarized in Table 4.15.AJ, which shows the SR-60 eastbound on-ramp from Central Avenue currently operates at LOS F in the p.m. peak hour and would also operate at LOS F under Existing Plus Project conditions, but with a higher traffic density. This would be considered a significant cumulative impact.

4.15.6.3 Year 2022 With Phase 1 Conditions Traffic and Level of Service Impacts

Threshold:	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit. Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? A significant project-specific traffic impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the pre-project condition. The adopted LOS standards are as follows: • Roadway segments: LOS C and LOS D as outlined in previously referenced Tables 4.15.B and 4.15.C. • Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.Z. • Freeway mainline: LOS D. • Freeway Ramp Merge/Diverge: LOS D.

Intersection Analysis. Year 2022 with Phase 1 intersection levels of service for the study area intersections are summarized in Tables 4.15.AK-1 and 4.15.AK-2, which shows 34 study intersections would operate at unsatisfactory LOS in the 2022 with Phase 1 condition. Twenty-eight of these intersections would exceed the threshold of significance under 2022 No Project conditions and would therefore be considered significant cumulative impacts requiring mitigation. At six of these intersections the level of service would drop from satisfactory to unsatisfactory with the addition of Phase 1 traffic, which would also be considered a significant cumulative impact requiring mitigation.

Phase 1 of the project would have a significant cumulative impact at the following 28 intersections under year 2022 with Phase 1 conditions:

- Redlands Boulevard/Locust Avenue;
- Redlands Boulevard/SR-60 Westbound Ramps;
- Oliver Street/Alessandro Boulevard;
- Moreno Beach Drive/Ironwood Avenue;

- Moreno Beach Drive/SR-60 Eastbound Ramps;
- Lasselle Street/Iris Avenue;
- Krameria Avenue/Perris Boulevard;
- Lasselle Street/Alessandro Boulevard;
- Lasselle Street/Cactus Avenue;
- Frederick Street/Alessandro Boulevard;
- Graham Street/Alessandro Boulevard;
- Martin Luther King Boulevard/Canyon Crest Drive;
- Perris Boulevard/Alessandro Boulevard;
- Graham Street/Cactus Avenue;
- Alessandro Boulevard/Sycamore Canyon Boulevard;
- Elsworth Street/Cactus Avenue;
- Arlington Avenue/Victoria Avenue;
- Alessandro Boulevard/Chicago Avenue;
- Ramona Expressway/Evans Road;
- Placentia Avenue/Perris Boulevard;
- Gilman Springs Road/Bridge Street;
- SR-79 (Sanderson Avenue) Northbound/Gilman Springs Road;
- SR-79 (Sanderson Avenue) Southbound/Gilman Springs Road;
- W. 6th Street/California Avenue;
- Ramona Expressway/Sanderson Avenue;
- San Timoteo Canyon Road/Alessandro Road;
- San Timoteo Canyon Road/Live Oak Canyon Road;
- Redlands Boulevard/San Timoteo Canyon Road; and
- W. Crescent Avenue/Alessandro Boulevard.

A significant cumulative impact would also occur at the following six intersections under year 2022 with Phase 1 conditions:

- Redlands Boulevard/Cactus Avenue;
- Kitching Street/Iris Avenue;
- Perris Boulevard/John F. Kennedy Drive;
- Iris Avenue/Perris Boulevard;
- Heacock Street/Alessandro Boulevard; and
- Day Street/Alessandro Boulevard.

Table 4.15.AJ: Existing (2012) plus Project Freeway Ramp Levels of Service

				Existing Conditions								Existing Plus Build-out Conditions							
				AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	4,110	242	16.9	B	5,678	906	26.5	C	4,740	350	20.9	C	5,480	1,300	29.6	D
R-2	SR-60 EB	On-Ramp from Central Ave	1	5,796	349	18.5	B	8,868	904	31.8	F	6,510	480	22.9	C	8,630	1,000	32.5	F
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	1	1,326	119	3.3	A	1,397	30	3.2	A	2,140	390	13.9	B	1,750	450	8.6	A
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	1	1,207	26	12.9	B	1,367	25	13.6	B	1,750	80	20.1	C	1,300	110	15.3	B
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario			
R-6	SR-60 EB	Off-Ramp to Theodore St	1	1,614	207	17.3	B	1,920	434	19.1	B	2,590	1,160	18.5	B	2,380	810	16.0	B
R-7	SR-60 EB	Loop On-Ramp from Theodore St	1	1,407	70	16.5	B	1,486	71	16.5	B	1,430	10	17.5	B	1,570	10	18.0	B
R-8	SR-60 EB	Direct On-Ramp from Theodore St	1	Does not Exist in this Scenario				Does not Exist in this Scenario				1,420	120	18.4	B	1,560	250	20.1	C
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	1	1,521	330	16.4	B	1,915	385	19.0	B	1,550	419	17.2	B	1,830	431	18.8	B
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	1	1,191	7	14.2	B	1,530	8	16.3	B	1,131	30	14.2	B	1,399	59	16.1	B
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	1	837	11	9.6	A	1,002	9	11.3	B	1,070	97	12.0	B	980	30	11.4	B
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	1	826	357	13.5	B	993	306	14.6	B	973	405	15.5	B	950	466	16.2	B
R-13	SR-60 WB	Off-Ramp to Theodore St	1	1,183	24	12.7	B	1,393	26	14.9	B	1,100	210	7.1	A	1,510	90	10.1	A
R-14	SR-60 WB	On-Ramp from Theodore St	1	1,159	34	12.1	B	1,367	131	14.8	B	890	740	17.1	B	1,420	850	22.8	C
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	1	1,193	49	12.8	B	1,498	38	15.9	B	1,660	100	18.7	B	2,300	60	25.2	C
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	1	1,144	329	14.3	B	1,460	361	17.4	B	1,560	350	19.3	B	2,240	590	28.0	C
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario			
R-18	SR-60 WB	Off-Ramp to Central Ave	2	7,050	384	32.6	D	6,026	439	28.5	D	6,860	400	32.5	D	6,500	450	31.8	D
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	1	7,050	474	21.0	C	5,800	337	15.9	B	6,800	510	20.8	C	6,420	370	19.5	B

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.AK-1: Year 2022 plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2022 No Project			2022 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
1	Theodore St/Street F	D	N/A	Non-Existent		RABT	9.8	A
2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		CSS	12.7	B
3	Theodore St/Alessandro Blvd (Str A/Str C/Str E)	D	CSS	10.0	A	RABT	10.5	B
4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		CSS	9.9	A
6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	SIGNAL	5.8	A	SIGNAL	7.9	A
9	Gilman Springs Rd/Eucalyptus Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
10	Redlands Blvd/Locust Ave	C	CSS	> 180.0	**F**	CSS	> 180.0	**F**
11	Redlands Blvd/Ironwood Ave	D	SIGNAL	34.9	C	SIGNAL	31.9	C
12	Theodore Street/Ironwood Avenue	D	CSS	13.0	B	CSS	17.9	C
13	Redlands Blvd/SR-60 WB ramps	D	CSS	> 180.0	**F**	CSS	> 180.0	**F**
14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	8.9	A	SIGNAL	12.6	B
15	Theodore Str/SR-60 WB ramps	D	CSS	12.2	B	SIGNAL	14.0	B
16	Theodore Str/SR-60 EB ramps	D	CSS	12.2	B	SIGNAL	2.6	A
17	Quincy Str/Fir Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
18	Redlands Blvd/Eucalyptus Ave (Fir)	D	N/A	Non-Existent		SIGNAL	10.9	B
19	Theodore St/Fir Ave (Eucalyptus)	D	CSS	9.8	A	SIGNAL	13.6	B
20	Oliver Str/Alessandro Blvd	C	CSS	81.3	**F**	CSS	129.7	**F**
21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	17.6	B	SIGNAL	17.5	C
22	Quincy Str/Alessandro Blvd	N/A	N/A	Non-Existent		N/A	Non-Existent	
23	Redlands Blvd/Alessandro Blvd	C	AWS	30.2	**D**	AWS	18.7	C
24	Oliver Str/Cactus Ave	D	SIGNAL	32.5	C	SIGNAL	37.0	D
25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	18.5	B	SIGNAL	18.9	B
26	Quincy Str/Cactus Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
27	Redlands Blvd/Cactus Ave	C	AWS	13.4	B	AWS	52.8	**F**
28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	19.8	B	SIGNAL	29.0	C
29	Heacock Str/Ironwood Ave	D	SIGNAL	30.9	C	SIGNAL	31.1	C
30	Heacock Str/SR-60 WB Ramps	D	SIGNAL	33.7	C	SIGNAL	34.7	C
31	Heacock St/SR-60 EB Ramps	D	SIGNAL	21.1	C	SIGNAL	21.6	C
32	Sunnymead Blvd & Perris Blvd	D	SIGNAL	29.9	C	SIGNAL	30.2	C

Table 4.15.AK-1: Year 2022 plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2022 No Project			2022 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	31.8	C	SIGNAL	33.7	C
34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	27.7	C	SIGNAL	28.8	C
35	Moreno Beach Dr/Locust Ave	C	CSS	9.2	A	CSS	9.3	A
36	Moreno Beach Drive & Ironwood Avenue	D	SIGNAL	90.2	**F**	SIGNAL	97.5	**F**
37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	88.7	**F**	SIGNAL	102.3	**F**
38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	50.8	D	SIGNAL	55.7	**E**
39	Iris Ave/Perris Blvd	D	SIGNAL	54.0	D	SIGNAL	55.5	**E**
40	Kitching St/Iris Ave	C	SIGNAL	28.9	C	SIGNAL	30.5	C
41	Lasselle Str/Iris Ave	D	SIGNAL	32.8	C	SIGNAL	42.1	D
42	Nason Str/Iris Ave	C	SIGNAL	8.2	A	SIGNAL	7.7	A
43	Oliver Str/Iris Ave	D	SIGNAL	28.9	C	SIGNAL	28.2	C
44	Via Dell Lago/Iris Ave	C	SIGNAL	8.8	A	SIGNAL	9.6	A
45	Krameria Ave/Perris Blvd	D	SIGNAL	> 180.0	**F**	SIGNAL	> 180.0	**F**
46	Kitching Str/Krameria Ave	D	SIGNAL	29.2	C	SIGNAL	41.2	D
47	Lasselle Str/Krameria Ave	D	SIGNAL	32.9	C	SIGNAL	33.6	C
48	Kitching Str/Alessandro Blvd	D	SIGNAL	28.5	C	SIGNAL	28.5	C
49	Lasselle Str/Alessandro Blvd	D	SIGNAL	56.1	**E**	SIGNAL	57.6	**E**
50	Morrison Str/Alessandro Blvd	D	SIGNAL	9.3	A	SIGNAL	9.3	A
51	Nason Str/Alessandro Blvd	D	SIGNAL	31.5	C	SIGNAL	32.3	C
52	Kitching Str/Cactus Ave	C	SIGNAL	32.2	C	SIGNAL	32.8	C
53	Lasselle Str/Cactus Ave	C	SIGNAL	64.0	**E**	SIGNAL	69.7	**E**
54	Morrison Str/Cactus Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
55	Nason Str/Cactus Ave	D	SIGNAL	30.6	C	SIGNAL	31.1	C
56	Frederick Str/Alessandro Blvd	D	SIGNAL	30.4	C	SIGNAL	30.7	C
57	Graham Str/Alessandro Blvd	D	SIGNAL	32.4	C	SIGNAL	32.7	C
58	Heacock Str/Alessandro Blvd	D	SIGNAL	41.8	D	SIGNAL	43.3	D
59	Indian Str/Alessandro Blvd	D	SIGNAL	24.7	C	SIGNAL	24.4	C
60	Perris Blvd/Alessandro Blvd	D	SIGNAL	50.5	D	SIGNAL	51.5	D
61	Frederick Str/Cactus Ave	D	SIGNAL	19.1	B	SIGNAL	19.9	B

Table 4.15.AK-1: Year 2022 plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2022 No Project			2022 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
62	Graham Str/Cactus Ave	D	SIGNAL	148.3	**F**	SIGNAL	154.7	**F**
63	Heacock Str/Cactus Ave	D	SIGNAL	42.5	D	SIGNAL	41.2	D
64	Indian Str/Cactus Ave	C	SIGNAL	28.8	C	SIGNAL	28.9	C
65	Perris Blvd/Cactus Ave	D	SIGNAL	35.7	D	SIGNAL	35.6	D
66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	38.2	D	SIGNAL	36.8	D
67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	10.9	B	SIGNAL	11.0	B
68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	25.5	C	SIGNAL	25.7	C
69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	17.3	B	SIGNAL	17.5	B
70	Day Str/Alessandro Blvd	D	SIGNAL	10.7	B	SIGNAL	10.7	B
71	Elsworth Str/Alessandro Blvd	D	SIGNAL	20.7	C	SIGNAL	20.9	C
72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	30.5	C	SIGNAL	31.8	C
73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	10.8	B	SIGNAL	12.7	B
74	Elsworth Str/Cactus Ave	D	SIGNAL	31.3	C	SIGNAL	31.2	C
75	Central Ave/Lochmoor Dr.	D	SIGNAL	19.6	B	SIGNAL	20.7	C
76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	27.6	C	SIGNAL	32.6	C
77	SR-60 EB Ramps/Central Ave	D	SIGNAL	10.9	B	SIGNAL	10.8	B
78	SR-60 WB Ramps/Central Ave	D	SIGNAL	6.6	A	SIGNAL	7.1	A
79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	29.8	C	SIGNAL	30.2	C
80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	33.2	C	SIGNAL	36.0	D
81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	34.6	C	SIGNAL	36.7	D
82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	9.2	A	SIGNAL	9.3	A
83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	100.0	**F**	SIGNAL	102.2	**F**
84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	9.6	A	SIGNAL	9.8	A
85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	27.4	D	AWS	28.0	D
86	Central Ave/Chicago Ave	D	SIGNAL	34.5	C	SIGNAL	39.0	D
87	Central Ave/El Cerrito Dr	D	SIGNAL	13.2	B	SIGNAL	13.2	B
88	Central Ave/Canyon Crest Dr	D	SIGNAL	36.3	D	SIGNAL	37.6	D
89	Chicago Ave/Country Club Dr	D	SIGNAL	9.4	A	SIGNAL	9.8	A
90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	36.9	D	SIGNAL	37.3	D

Table 4.15.AK-1: Year 2022 plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2022 No Project			2022 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	22.1	C	SIGNAL	22.1	C
92	Arlington Ave/Maude St	D	SIGNAL	14.3	B	SIGNAL	14.3	B
93	Horace St/Arlington Ave	D	SIGNAL	19.7	B	SIGNAL	21.6	C
94	Arlington Ave/Victoria Ave	D	SIGNAL	84.2	**F**	SIGNAL	88.4	**F**
95	Alessandro Blvd/Chicago Ave	D	SIGNAL	64.5	**E**	SIGNAL	69.8	**E**
96	Alessandro Blvd/Century Ave	D	SIGNAL	32.5	C	SIGNAL	32.9	C
97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	29.5	C	SIGNAL	29.9	C
98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	30.6	C	SIGNAL	30.9	C
99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	33.3	C	SIGNAL	43.8	D
100	Harley Knox Blvd/Evan Rd	N/A	N/A	Non-Existent		N/A	Non-Existent	
101	Ramona Expy/Indian St	E	SIGNAL	18.6	B	SIGNAL	21.4	C
102	Ramona Expy/Perris Blvd	E	SIGNAL	34.3	C	SIGNAL	36.0	D
103	Ramona Expy/Evans Rd	E	SIGNAL	139.7	**F**	SIGNAL	145.0	**F**
104	Perris Blvd/Morgan St	D	SIGNAL	14.6	B	SIGNAL	14.4	B
105	Evans Rd/Morgan St	C	SIGNAL	32.8	C	SIGNAL	32.4	C
106	Perris Blvd/Rider St	C	SIGNAL	17.6	B	SIGNAL	18.4	B
107	Evans Rd/Rider St	C	SIGNAL	34.4	C	SIGNAL	34.7	C
108	Perris Blvd/Mid-County Pkwy WB Ramps	D	SIGNAL	29.2	C	SIGNAL	30.1	C
109	Perris Blvd/Mid-County Pkwy EB Ramps	D	SIGNAL	19.2	B	SIGNAL	30.8	C
110	Evans Rd/Mid-County Pkwy WB Ramps	D	SIGNAL	38.0	D	SIGNAL	37.9	D
111	Evans Rd/Mid-County Pkwy EB Ramps	D	SIGNAL	14.6	B	SIGNAL	14.9	B
112	Placentia Ave/Perris Blvd	D	SIGNAL	40.8	D	SIGNAL	41.7	D
113	Evans Rd/Placentia Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
114	Evans Rd/Orange Ave	C	AWS	22.1	C	AWS	22.1	C
115	Evans Rd/Nuevo Rd	C	SIGNAL	32.0	C	SIGNAL	32.0	C
116	Evans Rd/Ellis Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
117	Ellis Ave/I-215 SB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
118	Ellis Ave/SR-215 NB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
119	Evans Rd/San Jacinto Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	

Table 4.15.AK-1: Year 2022 plus Phase 1 Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2022 No Project			2022 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
120	Park Center Blvd/Ramona Expy WB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
121	Park Center Blvd/Ramona Expy EB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
122	Bridge St/Ramona Expy	N/A	N/A	Non-Existent		N/A	Non-Existent	
123	Gilman Springs Rd/Bridge Str	C	CSS	22.3	C	CSS	25.4	D
124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	> 180.0	**F**	CSS	> 180.0	**F**
125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	> 180.0	**F**	CSS	> 180.0	**F**
126	Ramona Expy/Sanderson Ave	D	SIGNAL	35.7	D	SIGNAL	40.6	D
127	Potrero Blvd/SR-60 WB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
128	Potrero Blvd/SR-60 EB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
129	W 6th St/California Ave	C	AWS	31.8	**D**	AWS	40.9	**E**
130	W 6th St/Beaumont Ave	C	SIGNAL	15.7	B	SIGNAL	16.0	B
131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	13.7	B	SIGNAL	13.2	B
132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	> 180.0	**F**	AWS	> 180.0	**F**
133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	169.8	**F**	AWS	> 180.0	**F**
134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	> 180.0	**F**	AWS	> 180.0	**F**
135	W Crescent Ave/Alessandro Blvd	C	CSS	27.7	**D**	CSS	40.9	**E**
136	W Sunset Dr/Alessandro Blvd	C	AWS	10.9	B	AWS	11.9	B

Notes: "CSS" means cross-street is stop-controlled "AWS" means all-way stop "RABT" means roundabout

"Non-Existent" indicates that the intersection exists in some scenarios but not in the scenario being reported

denotes LOS exceeding the target threshold

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.AK-2: Year 2022 plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2022 No Project			2022 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
1	Theodore St/Street F	D	N/A	Non-Existent		RABT	12.8	B
2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		CSS	13.9	B
3	Theodore St/Alessandro Blvd (Str A/Str C/Str E)	D	CSS	10.3	B	RABT	10.6	B
4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		CSS	9.4	A
6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	SIGNAL	7.9	A	SIGNAL	10.9	B
9	Gilman Springs Rd/Eucalyptus Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
10	Redlands Blvd/Locust Ave	C	CSS	> 180.0	**F**	CSS	> 180.0	**F**
11	Redlands Blvd/Ironwood Ave	D	SIGNAL	31.7	C	SIGNAL	26.1	C
12	Theodore Street/Ironwood Avenue	D	CSS	17.8	C	CSS	25.5	D
13	Redlands Blvd/SR-60 WB ramps	D	CSS	> 180.0	**F**	CSS	> 180.0	**F**
14	Redlands Blvd/SR-60 EB ramps	D	SIGNAL	15.9	B	SIGNAL	18.5	B
15	Theodore Str/SR-60 WB ramps	D	CSS	19.2	C	SIGNAL	17.4	B
16	Theodore Str/SR-60 EB ramps	D	CSS	23.2	C	SIGNAL	2.6	A
17	Quincy Str/Fir Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
18	Redlands Blvd/Eucalyptus Ave (Fir)	D	N/A	Non-Existent		SIGNAL	17.0	B
19	Theodore St/Fir Ave (Eucalyptus)	D	CSS	41.7	**E**	SIGNAL	37.9	D
20	Oliver Str/Alessandro Blvd	C	CSS	67.7	**F**	CSS	98.9	**F**
21	Moreno Beach Dr/Alessandro Blvd	D	SIGNAL	18.5	B	SIGNAL	20.8	C
22	Quincy Str/Alessandro Blvd	N/A	N/A	Non-Existent		N/A	Non-Existent	
23	Redlands Blvd/Alessandro Blvd	C	AWS	14.1	B	AWS	15.8	C
24	Oliver Str/Cactus Ave	D	SIGNAL	25.7	C	SIGNAL	27.2	C
25	Moreno Beach Dr/Cactus Ave	C	SIGNAL	18.9	B	SIGNAL	19.7	B
26	Quincy Str/Cactus Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
27	Redlands Blvd/Cactus Ave	C	AWS	9.5	A	AWS	105.0	**F**
28	Moreno Beach Dr/John Kennedy Dr	D	SIGNAL	18.9	B	SIGNAL	44.7	D
29	Heacock Str/Ironwood Ave	D	SIGNAL	36.9	D	SIGNAL	38.0	D
30	Heacock Str/SR-60 WB Ramps	D	SIGNAL	47.5	D	SIGNAL	49.5	D
31	Heacock St/SR-60 EB Ramps	D	SIGNAL	24.7	C	SIGNAL	25.4	C
32	Sunnymead Blvd/Perris Blvd	D	SIGNAL	39.2	D	SIGNAL	39.3	D
33	Perris Blvd/SR-60 WB Ramps	D	SIGNAL	21.7	C	SIGNAL	23.7	C
34	Perris Blvd/Eucalyptus Ave	D	SIGNAL	33.4	C	SIGNAL	34.1	C
35	Moreno Beach Dr/Locust Ave	C	CSS	9.6	A	CSS	9.8	A

Table 4.15.AK-2: Year 2022 plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2022 No Project			2022 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
36	Moreno Beach Dr/Ironwood Ave	D	SIGNAL	51.0	D	SIGNAL	54.9	D
37	Moreno Beach Dr/SR-60 EB Ramps	D	SIGNAL	37.8	D	SIGNAL	45.5	D
38	Perris Blvd/John F. Kennedy Dr	D	SIGNAL	53.5	D	SIGNAL	55.9	**E**
39	Iris Ave/Perris Blvd	D	SIGNAL	38.6	D	SIGNAL	38.4	D
40	Kitching St/Iris Ave	C	SIGNAL	23.9	C	SIGNAL	49.8	D
41	Lasselle Str/Iris Ave	D	SIGNAL	68.7	**E**	SIGNAL	89.5	**F**
42	Nason Str/Iris Ave	C	SIGNAL	11.7	B	SIGNAL	12.9	B
43	Oliver Str/Iris Ave	D	SIGNAL	22.0	C	SIGNAL	23.0	C
44	Via Dell Lago/Iris Ave	C	SIGNAL	8.3	A	SIGNAL	8.1	A
45	Krameria Ave/Perris Blvd	D	SIGNAL	> 180.0	**F**	SIGNAL	> 180.0	**F**
46	Kitching Str/Krameria Ave	D	SIGNAL	40.0	D	SIGNAL	47.6	D
47	Lasselle Str/Krameria Ave	D	SIGNAL	15.3	B	SIGNAL	15.7	B
48	Kitching Str/Alessandro Blvd	D	SIGNAL	25.7	C	SIGNAL	26.0	C
49	Lasselle Str/Alessandro Blvd	D	SIGNAL	41.9	D	SIGNAL	42.9	D
50	Morrison Str/Alessandro Blvd	D	SIGNAL	9.2	A	SIGNAL	9.3	A
51	Nason Str/Alessandro Blvd	D	SIGNAL	29.5	C	SIGNAL	31.5	C
52	Kitching Str/Cactus Ave	C	SIGNAL	26.2	C	SIGNAL	26.5	C
53	Lasselle Str/Cactus Ave	C	SIGNAL	52.8	**D**	SIGNAL	56.6	**E**
54	Morrison Str/Cactus Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
55	Nason Str/Cactus Ave	D	SIGNAL	32.8	C	SIGNAL	35.3	D
56	Frederick Str/Alessandro Blvd	D	SIGNAL	61.7	**E**	SIGNAL	74.8	**E**
57	Graham Str/Alessandro Blvd	D	SIGNAL	76.8	**E**	SIGNAL	77.6	**E**
58	Heacock Str/Alessandro Blvd	D	SIGNAL	48.9	D	SIGNAL	59.7	**E**
59	Indian Str/Alessandro Blvd	D	SIGNAL	33.5	C	SIGNAL	39.6	D
60	Perris Blvd/Alessandro Blvd	D	SIGNAL	113.4	**F**	SIGNAL	120.7	**F**
61	Frederick Str/Cactus Ave	D	SIGNAL	15.6	B	SIGNAL	16.3	B
62	Graham Str/Cactus Ave	D	SIGNAL	66.6	**E**	SIGNAL	69.9	**E**
63	Heacock Str/Cactus Ave	D	SIGNAL	32.9	C	SIGNAL	33.6	C
64	Indian Str/Cactus Ave	C	SIGNAL	22.0	C	SIGNAL	22.1	C
65	Perris Blvd/Cactus Ave	D	SIGNAL	32.7	C	SIGNAL	33.5	C
66	Alessandro Blvd/Sycamore Canyon Blvd	D	SIGNAL	58.3	**E**	SIGNAL	76.7	**E**
67	I-215 SB Ramps/Alessandro Blvd	D	SIGNAL	8.9	A	SIGNAL	8.6	A

Table 4.15.AK-2: Year 2022 plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2022 No Project			2022 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
68	I-215 NB Ramps/Alessandro Blvd	D	SIGNAL	23.3	C	SIGNAL	33.5	C
69	Old 215 Frontage Rd/Alessandro Blvd	D	SIGNAL	35.4	D	SIGNAL	42.1	D
70	Day Str/Alessandro Blvd	D	SIGNAL	43.0	D	SIGNAL	76.5	**E**
71	Elsworth Str/Alessandro Blvd	D	SIGNAL	34.7	C	SIGNAL	36.3	D
72	I-215 SB Ramps/Cactus Ave	D	SIGNAL	89.5	**F**	SIGNAL	89.5	**F**
73	I-215 NB Ramps/Cactus Ave	D	SIGNAL	12.6	B	SIGNAL	40.4	D
74	Elsworth Str/Cactus Ave	D	SIGNAL	175.7	**F**	SIGNAL	> 180.0	**F**
75	Central Ave/Lochmoor Dr.	D	SIGNAL	30.3	C	SIGNAL	52.8	D
76	Sycamore Canyon Blvd/Central Ave	D	SIGNAL	29.8	C	SIGNAL	31.1	C
77	SR-60 EB Ramps/Central Ave	D	SIGNAL	11.7	B	SIGNAL	11.9	B
78	SR-60 WB Ramps/Central Ave	D	SIGNAL	7.4	A	SIGNAL	7.8	A
79	Alessandro Blvd/Trautwein Rd.	D	SIGNAL	15.5	B	SIGNAL	15.5	B
80	Alessandro Blvd/Mission Grove Pkwy	D	SIGNAL	48.3	D	SIGNAL	50.0	D
81	Martin Luther King Blvd/Chicago Ave	D	SIGNAL	48.4	D	SIGNAL	51.7	D
82	Martin Luther King Blvd/Iowa Ave	D	SIGNAL	16.7	B	SIGNAL	17.5	B
83	Martin Luther King Blvd/Canyon Crest Dr	D	SIGNAL	41.2	D	SIGNAL	42.7	D
84	Martin Luther King Blvd/I-215 SB Ramps	D	SIGNAL	5.6	A	SIGNAL	5.7	A
85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	15.0	C	AWS	15.6	C
86	Central Ave/Chicago Ave	D	SIGNAL	40.8	D	SIGNAL	43.4	D
87	Central Ave/El Cerrito Dr	D	SIGNAL	17.3	B	SIGNAL	17.6	B
88	Central Ave/Canyon Crest Dr	D	SIGNAL	51.2	D	SIGNAL	53.0	D
89	Chicago Ave/Country Club Dr	D	SIGNAL	7.1	A	SIGNAL	7.0	A
90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	SIGNAL	35.4	D	SIGNAL	36.6	D
91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	SIGNAL	31.3	C	SIGNAL	31.3	C
92	Arlington Ave/Maude St	D	SIGNAL	13.5	B	SIGNAL	13.6	B
93	Horace St/Arlington Ave	D	SIGNAL	10.1	B	SIGNAL	10.3	B
94	Arlington Ave/Victoria Ave	D	SIGNAL	83.7	**F**	SIGNAL	92.9	**F**
95	Alessandro Blvd/Chicago Ave	D	SIGNAL	114.7	**F**	SIGNAL	121.2	**F**
96	Alessandro Blvd/Century Ave	D	SIGNAL	14.9	B	SIGNAL	15.0	B
97	Alessandro Blvd/Via Vista Dr	D	SIGNAL	20.5	C	SIGNAL	20.9	C
98	Alessandro Blvd/Canyon Crest Dr	D	SIGNAL	30.2	C	SIGNAL	30.2	C
99	Harley Knox Blvd/Perris Blvd	D	SIGNAL	25.5	C	SIGNAL	28.4	C

Table 4.15.AK-2: Year 2022 plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2022 No Project			2022 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
100	Harley Knox Blvd/Evan Rd	N/A	N/A	Non-Existent		N/A	Non-Existent	
101	Ramona Expy/Indian St	E	SIGNAL	39.7	D	SIGNAL	41.8	D
102	Ramona Expy/Perris Blvd	E	SIGNAL	31.2	C	SIGNAL	31.5	C
103	Ramona Expy/Evans Rd	E	SIGNAL	41.6	D	SIGNAL	45.1	D
104	Perris Blvd/Morgan St	D	SIGNAL	12.7	B	SIGNAL	12.6	B
105	Evans Rd/Morgan St	C	SIGNAL	29.7	C	SIGNAL	29.0	C
106	Perris Blvd/Rider St	C	SIGNAL	22.7	C	SIGNAL	23.4	C
107	Evans Rd/Rider St	C	SIGNAL	30.3	C	SIGNAL	30.0	C
108	Perris Blvd/Mid-County Pkwy WB Ramps	D	SIGNAL	20.8	C	SIGNAL	21.2	C
109	Perris Blvd/Mid-County Pkwy EB Ramps	D	SIGNAL	32.4	C	SIGNAL	34.6	C
110	Evans Rd/Mid-County Pkwy WB Ramps	D	SIGNAL	32.2	C	SIGNAL	32.1	C
111	Evans Rd/Mid-County Pkwy EB Ramps	D	SIGNAL	25.9	C	SIGNAL	26.3	C
112	Placentia Ave/Perris Blvd	D	SIGNAL	60.0	**E**	SIGNAL	61.4	**E**
113	Evans Rd/Placentia Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
114	Evans Rd/Orange Ave	C	AWS	16.9	C	AWS	17.7	C
115	Evans Rd/Nuevo Rd	C	SIGNAL	32.2	C	SIGNAL	32.2	C
116	Evans Rd/Ellis Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
117	Ellis Ave/I-215 SB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
118	Ellis Ave/SR-215 NB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
119	Evans Rd/San Jacinto Ave	N/A	N/A	Non-Existent		N/A	Non-Existent	
120	Park Center Blvd/Ramona Expy WB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
121	Park Center Blvd/Ramona Expy EB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
122	Bridge St/Ramona Expy	N/A	N/A	Non-Existent		N/A	Non-Existent	
123	Gilman Springs Rd/Bridge Str	C	CSS	25.7	**D**	CSS	26.7	**D**
124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	108.0	**F**	CSS	> 180.0	**F**
125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	123.3	**F**	CSS	145.4	**F**
126	Ramona Expy/Sanderson Ave	D	SIGNAL	24.4	C	SIGNAL	24.8	C
127	Potrero Blvd/SR-60 WB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
128	Potrero Blvd/SR-60 EB Ramps	N/A	N/A	Non-Existent		N/A	Non-Existent	
129	W 6th St/California Ave	C	AWS	55.0	**F**	AWS	64.0	**F**
130	W 6th St/Beaumont Ave	C	SIGNAL	25.3	C	SIGNAL	28.0	C
131	Reche Canyon Rd/Reche Vista Dr	C	SIGNAL	6.3	A	SIGNAL	6.2	A

Table 4.15.AK-2: Year 2022 plus Phase 1 Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2022 No Project			2022 With Phase 1		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	125.1	**F**	AWS	> 180.0	**F**
133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	> 180.0	**F**	AWS	> 180.0	**F**
134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	> 180.0	**F**	AWS	> 180.0	**F**
135	W Crescent Ave/Alessandro Blvd	C	CSS	16.2	C	CSS	18.5	C
136	W Sunset Dr/Alessandro Blvd	C	AWS	11.1	B	AWS	11.5	B

Notes "CSS" means cross-street is stop-controlled "AWS" means all-way stop "RABT" means roundabout

"Non-Existent" indicates that the intersection exists in some scenarios but not in the scenario being reported

denotes LOS exceeding the target threshold

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

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Roadway Analysis. Year 2022 with Phase 1 roadway segment levels of service for the study area intersections are summarized in Table 4.15.AL, which shows three roadway segments would operate at unsatisfactory levels of service. Phase 1 of the project would contribute toward the worsening of an already unsatisfactory LOS at two roadway segments and, therefore, have a significant cumulative impact at these locations and mitigation is required. One roadway segment would drop from satisfactory to unsatisfactory level of service with the addition of Phase 1 traffic, which would also be considered a significant cumulative impact and mitigation is required.

Phase 1 of the project would have a significant cumulative impact at the following roadway segments under year 2022 with Phase 1 conditions:

- Gilman Springs Road between Alessandro Boulevard to Bridge Street; and
- Gilman Springs Road between SR-60 and Alessandro Boulevard.

Phase 1 of the project would also create a significant cumulative impact at the following roadway segment under year 2022 with Phase 1 conditions:

- Redlands Boulevard from Fir (future Eucalyptus) Avenue to the SR-60 Eastbound Ramps.

Freeway Segment Analysis. Year 2022 with Phase 1 freeway segment levels of service for the study area are summarized in Table 4.15.AM, which shows 33 freeway segments would operate at unsatisfactory levels of service in the year 2022 with Phase 1 condition. Phase 1 of the project would contribute toward the worsening of an already unsatisfactory LOS at 29 freeway segments and, therefore, have a significant cumulative impact at these locations. At four freeway segments, Phase 1 of the project would create a decrease in the LOS from satisfactory to unsatisfactory, resulting in a significant cumulative impact.

Phase 1 of the project would have a significant cumulative impact at the following 29 freeway segments under year 2022 with Phase 1 conditions:

- Northbound or Eastbound Sections:
    - SR-60 S. Reservoir Street to Ramona Avenue;
    - SR-60 Central Avenue to Mountain Avenue;
    - SR-60 Euclid Avenue to Grove Avenue;
    - SR-60 Grove Avenue to Vineyard Avenue;
    - SR-60 Vineyard Avenue to Archibald Avenue;
    - SR-60 Valley Way to Rubidoux Boulevard;
    - SR-60 Rubidoux Boulevard to Market Street;
    - SR-60 Market Street to Main Street;
    - SR-60 Martin Luther King Boulevard to Central Avenue;
    - SR-60 Pigeon Pass Road/Frederick Street to Heacock Street;
    - SR-60 Heacock Street to Perris Boulevard;
    - SR-91 Pierce Street to Magnolia Avenue;
    - I-215 Columbia Avenue to Center Street;

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Table 4.15.AL: Year 2022 plus Phase 1 Roadway Levels of Service

Roadway		From	To	LOS Standard*	2022 No-Project Conditions			2022 Phase 1 Conditions			Project Significant Impact?	Mitigation Measures Required to Reduce Impacts to Less-Than-Significant	LOS after Mitigation
					Roadway Section**	Daily Volume	LOS	Roadway Section**	Daily Volume	LOS			
S-1	Theodore Street (A)	SR-60 WB Ramps	Ironwood Ave	D	2U	3,133	A	2U	4,243	A	No		
S-2	Theodore Street (A)	SR-60 EB Ramps	Fir (Eucalyptus) Ave	D	2U	6,689	A	6D	29,448	A	No		
S-3	Fir (Eucalyptus) Ave	Redlands Blvd	Theodore Street (A)	D	2U***	6,542	A	4D	7,234	A	No		
S-4	Eucalyptus Ave (B)	Theodore Street (A)	Gilman Springs Rd	N/A	Future Road			Future Road			No		
S-5	Theodore Street (A)	Fir (Eucalyptus) Ave	Street E	D	2U	1,116	A	6D	30,318	A	No		
S-6	Street E	Theodore Street (A)	Cactus Ave Extension	D	Future Road			4U	14,908	A	No		
S-7	Street F	Theodore Street (A)	Alessandro Blvd (Street C)	D	Future Road			2U	2,242	A	No		
S-8	Theodore Street (A)	Fir (Eucalyptus) Ave	Alessandro Blvd (Street C)	D	2U	1,116	A	4D	11,017	A	No		
S-9	Alessandro Blvd (Street E)	Merwin Street	Theodore Street (A)	D	2U	3,778	A	4U	7,226	A	No		
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave	D	Future Road			4U	9,699	A	No		
S-11	Alessandro Blvd (Street C)	Theodore Street (A)	Street F	D	2U	2,321	A	4U	4,768	A	No		
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	2,321	A	4U	4,347	A	No		
S-14	Alessandro Blvd	Moreno Beach Drive	Redlands Blvd	D	4U	4,796	A	4U	4,675	A	No	****	
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge Street	D	2U	15,512	**F**	2U	16,492	**F**	Yes	Widen to 4 lanes	C
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	2U	12,819	**F**	2U	12,829	**F**	Yes	Widen to 4 lanes	C
S-18	Redlands Blvd	SR-60 EB Ramps	Fir (Eucalyptus) Ave	D	2U	11,042	D	2U	15,071	**E**	Yes	Widen to 4 lanes	A
S-19	Redlands Blvd	Fir (Eucalyptus) Ave	Alessandro Blvd	C	2U	8,416	B	2U	6,575	A	No		
S-20	Alessandro Blvd	Redlands Blvd	Merwin Street	C	2U	3,886	A	2U	772	A	No		
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave	C	2U	8,583	A	2U	4,755	A	No		
S-22	Cactus Ave	Redlands Blvd	Cactus Ave Extension	C	2U***	472	A	2U	9,699	C	No		

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.

** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways.

*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.

**** Due to the severing of Alessandro Blvd and the diversion of traffic to other routes, there is no need to widen this section beyond the current 2U configuration.

Indicates LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.AM-1: Year 2022 plus Phase 1 Freeway Mainline Levels of Service (Northbound/Eastbound)

			2022 No Project						2022 Plus Phase 1					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	7,210	30.5	D	7,830	35.1	E	7,400	32.0	D	7,810	35.3	E
F-3	SR-60	Ramona Ave to Central Ave	6,850	28.2	D	9,380	51.4	F	7,010	29.4	D	9,340	50.8	F
F-4	SR-60	Central Ave to Mountain Ave	7,590	33.0	D	9,350	51.0	F	7,750	34.5	D	9,320	51.2	F
F-5	SR-60	Mountain Ave to Euclid Ave	7,520	32.5	D	6,690	27.5	D	7,690	34.0	D	6,640	27.4	D
F-6	SR-60	Euclid Ave to Grove Ave	8,990	45.8	F	9,280	50.0	F	9,190	48.8	F	9,240	50.1	F
F-7	SR-60	Grove Ave to Vineyard Ave	8,170	37.6	E	9,530	53.6	F	8,370	39.7	E	9,480	52.8	F
F-8	SR-60	Vineyard Ave to Archibald Ave	8,080	36.5	E	9,470	52.7	F	8,280	38.6	E	9,410	52.5	F
F-9	SR-60	Archibald Ave to Haven Ave	7,590	32.8	D	6,630	27.2	D	7,810	34.7	D	6,560	27.0	D
F-10	SR-60	Haven Ave to Milliken Ave	7,400	23.2	C	7,040	22.1	C	7,630	24.2	C	6,950	21.9	C
F-11	SR-60	Milliken Ave to I-15	5,280	20.3	C	4,530	17.4	B	5,500	21.5	C	4,440	17.2	B
F-12	SR-60	Etiwanda Ave to Van Buren Blvd	4,580	17.6	B	3,440	13.3	B	4,840	18.8	C	3,380	13.3	B
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission Blvd/ Country Village Rd	5,070	19.6	C	4,460	17.2	B	5,300	20.8	C	4,380	17.2	B
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	4,600	17.7	B	3,560	13.8	B	4,850	19.0	C	3,480	13.7	B
F-15	SR-60	Pedley Rd to Pyrite St	4,620	17.8	B	3,710	14.4	B	4,880	19.1	C	3,640	14.3	B
F-16	SR-60	Pyrite St to Valley Way	5,190	20.1	C	3,990	15.5	B	5,460	21.5	C	3,910	15.3	B
F-17	SR-60	Valley Way to Rubidoux Blvd	6,280	39.4	E	4,530	24.1	C	6,530	43.6	E	4,450	24.0	C
F-18	SR-60	Rubidoux Blvd to Market St	6,920	48.7	F	4,950	27.2	D	7,180	54.3	F	4,860	26.9	D
F-19	SR-60	Market St to Main St	6,450	41.6	E	7,260	56.8	F	6,810	48.0	F	7,230	56.9	F
F-20	SR-60	Main to SR-91	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-24	SR-60	Martin Luther King Blvd to Central Ave	8,440	41.5	E	9,140	53.5	F	8,980	53.0	F	9,210	59.2	F
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	6,450	25.7	C	7,270	30.8	D	6,900	29.0	D	7,320	31.7	D
F-27	SR-60	I-215 to Day St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-29	SR-60	Pigeon Pass Rd to Heacock St	3,520	29.2	D	4,200	39.3	E	3,930	37.2	E	4,170	41.0	E
F-30	SR-60	Heacock St to Perris Blvd	3,160	25.0	C	4,050	36.7	E	3,780	35.0	E	4,070	39.1	E
F-31	SR-60	Perris Blvd to Nason St	2,590	19.8	C	3,070	24.3	C	3,270	28.1	C	3,140	26.3	D
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	1,910	14.5	B	2,370	18.0	C	2,780	23.4	C	2,540	20.7	C
F-34	SR-60	Redlands Blvd to Theodore St	2,460	18.8	C	3,240	25.8	C	3,300	28.9	D	3,350	28.7	D
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	2,310	19.2	C	2,770	23.6	C	2,240	18.6	C	2,780	23.6	C
F-37	SR-60	Jack Rabbit Trail to I-10	2,070	15.8	B	2,820	21.8	C	2,040	15.7	B	2,850	22.3	C
F-39	SR-91	I-15 to McKinley St	7,190	22.3	C	10,400	38.6	E	7,330	22.9	C	10,350	38.6	E
F-40	SR-91	McKinley St to Pierce St	6,500	26.1	D	5,950	23.5	C	6,620	26.8	D	5,900	23.4	C
F-41	SR-91	Pierce St to Magnolia Ave	5,970	35.2	E	5,410	30.5	D	6,070	36.6	E	5,350	30.2	D
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-43	SR-91	La Sierra Ave to Tyler St	5,490	30.9	D	5,230	29.0	D	5,600	32.2	D	5,200	29.0	D

Table 4.15.AM-1: Year 2022 plus Phase 1 Freeway Mainline Levels of Service (Northbound/Eastbound)

			2022 No Project						2022 Plus Phase 1					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-44	SR-91	Tyler St to Van Buren Blvd	6,600	26.6	D	5,980	23.6	C	6,700	27.4	D	5,950	23.6	C
F-45	SR-91	Van Buren Blvd to Adam St	6,700	27.2	D	5,250	20.3	C	6,780	27.8	D	5,220	20.3	C
F-46	SR-91	Adam St to Madison St	7,310	31.4	D	4,970	19.4	C	7,380	32.1	D	4,940	19.3	C
F-47	SR-91	Madison St to Arlington Ave	6,710	27.6	D	4,970	19.4	C	6,770	28.2	D	4,950	19.4	C
F-49	SR-91	Central Ave to 14th St	5,910	34.9	D	5,070	27.7	D	5,940	35.5	E	5,070	27.7	D
F-51	SR-91	University Ave to Spruce St	8,270	26.6	D	7,700	24.2	C	8,350	27.1	D	7,700	24.4	C
F-52	I-10	SR-60 to Beaumont Ave	4,390	16.8	B	6,080	24.1	C	4,360	16.8	B	6,080	24.1	C
F-53	I-10	Beaumont Ave to Pennsylvania Ave	4,450	17.1	B	6,240	24.9	C	4,430	17.0	B	6,260	25.0	C
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	4,640	17.8	B	6,480	26.2	D	4,620	17.8	B	6,510	26.3	D
F-55	I-10	Highland Springs Ave to Sunset Ave	4,560	17.5	B	6,210	24.8	C	4,530	17.4	B	6,240	24.9	C
F-56	I-10	Sunset Ave to 22nd St	4,470	17.2	B	5,960	23.5	C	4,430	17.0	B	5,990	23.7	C
F-57	I-10	22nd St to 8th St	4,380	16.6	B	5,800	22.8	C	4,340	16.7	B	5,840	23.0	C
F-58	I-10	8th St to Hargrave St	4,370	16.8	B	5,730	22.4	C	4,330	16.6	B	5,770	22.6	C
F-59	I-10	Hargrave St to Fields Rd	4,100	15.8	B	5,350	20.8	C	4,040	15.5	B	5,390	20.9	C
F-60	I-10	Fields Rd to Morongo Tr	3,770	14.5	B	5,080	19.6	C	3,720	14.3	B	5,130	19.8	C
F-61	I-10	Morongo Tr to Main St	3,410	13.1	B	4,670	18.0	B	3,360	12.9	B	4,710	18.1	C
F-62	I-10	Main St to Haugen-Lehmann Way	3,280	12.6	B	4,720	18.1	C	3,230	12.4	B	4,770	18.3	C
F-64	I-10	SR-111 to Tipton Rd	2,950	11.3	B	4,140	15.9	B	2,900	11.1	B	4,180	16.1	B
F-65	I-10	Tipton Rd to SR-62	2,810	10.8	A	4,170	16.0	B	2,780	10.7	A	4,220	16.2	B
F-66	I-215	Scott Rd to Newport Rd	2,850	14.5	B	4,330	22.4	C	2,830	14.5	B	4,330	22.4	C
F-68	I-215	Newport Rd to McCall Blvd	2,100	10.8	A	3,140	15.9	B	2,090	10.7	A	3,120	15.8	B
F-69	I-215	McCall Blvd to Ethanac Rd	2,750	14.0	B	4,380	22.7	C	2,730	14.0	B	4,360	22.7	C
F-70	I-215	Ethanac Rd to SR-74	4,200	21.7	C	4,100	21.0	C	4,170	21.6	C	4,080	21.0	C
F-71	I-215	SR-74 to Redlands Ave	3,490	17.7	B	4,800	25.4	C	3,470	17.7	B	4,780	25.5	C
F-74	I-215	Columbia Ave to Center St	6,090	36.8	E	6,030	36.2	E	6,060	36.5	E	6,060	36.5	E
F-75	I-215	Center St to La Cadena Dr	5,830	34.1	D	5,800	33.8	D	5,810	33.9	D	5,840	34.2	D
F-76	I-215	La Cadena Dr to Barton Rd	5,690	32.7	D	6,130	37.3	E	5,680	32.7	D	6,190	38.0	E
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,980	35.6	E	6,550	42.5	E	5,960	35.4	E	6,610	43.3	E
F-78	I-215	Mt. Vernon Ave to I-10	5,770	22.5	C	6,660	27.0	D	5,740	22.4	C	6,750	27.5	D
F-80	I-215	Auto Plaza Dr to Mill St	4,490	17.2	B	5,500	21.2	C	4,440	17.0	B	5,530	21.4	C
F-83	I-215	Baseline Rd to Highland Ave	3,030	15.4	B	4,060	20.8	C	3,020	15.4	B	4,110	21.2	C

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.AM-2: Year 2022 plus Phase 1 Freeway Mainline Levels of Service (Southbound/Westbound)

			2022 No Project						2022 Plus Phase 1					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	8,770	43.3	E	7,150	30.1	D	8,690	43.0	E	7,260	31.0	D
F-3	SR-60	Ramona Ave to Central Ave	8,290	38.7	E	6,750	27.7	D	8,210	38.3	E	6,860	28.5	D
F-4	SR-60	Central Ave to Mountain Ave	6,340	25.4	C	6,990	29.1	D	6,260	25.2	C	7,100	30.0	D
F-5	SR-60	Mountain Ave to Euclid Ave	6,260	25.0	C	7,440	32.0	D	6,190	24.8	C	7,560	33.1	D
F-6	SR-60	Euclid Ave to Grove Ave	6,470	26.1	D	7,310	31.1	D	6,390	25.9	C	7,420	32.1	D
F-7	SR-60	Grove Ave to Vineyard Ave	6,330	25.4	C	7,920	35.5	E	6,250	25.1	C	8,060	37.0	E
F-8	SR-60	Vineyard Ave to Archibald Ave	7,670	33.6	D	7,550	32.8	D	7,580	33.2	D	7,680	34.0	D
F-9	SR-60	Archibald Ave to Haven Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Milliken Ave	5,850	18.0	B	7,110	22.3	C	5,740	17.7	B	7,270	23.0	C
F-11	SR-60	Milliken Ave to I-15	5,550	21.6	C	7,050	29.2	D	5,430	21.2	C	7,230	30.6	D
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	4,490	13.7	B	5,850	17.9	B	4,360	13.4	B	6,080	18.7	C
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission Blvd/Country Village Rd	4,220	16.2	B	5,830	22.8	C	4,110	15.9	B	6,050	24.0	C
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	4,240	16.3	B	5,850	22.9	C	4,130	15.9	B	6,130	24.4	C
F-15	SR-60	Pedley Rd to Pyrite St	3,290	12.6	B	5,010	19.2	C	3,150	12.2	B	5,260	20.5	C
F-16	SR-60	Pyrite St to Valley Way	2,740	10.6	A	4,510	17.2	B	2,620	10.2	A	4,740	18.3	C
F-17	SR-60	Valley Way to Rubidoux Blvd	4,630	24.4	C	6,530	42.2	E	4,510	23.9	C	6,810	46.9	F
F-18	SR-60	Rubidoux Blvd to Market St	3,630	18.6	C	5,660	32.5	D	3,520	18.2	C	5,940	35.5	E
F-19	SR-60	Market St to Main St	5,860	34.4	D	6,820	46.5	F	5,680	32.9	D	7,090	51.8	F
F-20	SR-60	Main St to SR-91	5,450	30.6	D	6,610	42.9	E	5,290	29.7	D	6,880	48.0	F
F-24	SR-60	Martin Luther King Blvd to Central Ave	7,060	23.7	C	7,680	25.5	C	7,000	24.3	C	8,050	28.7	D
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	7,390	31.9	D	8,510	40.3	E	7,310	31.8	D	8,900	45.8	F
F-27	SR-60	I-215 to Day St	7,250	54.3	F	3,880	20.0	C	7,210	55.7	F	4,210	22.8	C
F-29	SR-60	Pigeon Pass Rd to Heacock St	3,460	28.5	D	3,860	34.0	D	3,460	29.5	D	4,320	45.2	F
F-30	SR-60	Heacock St to Perris Blvd	3,300	26.6	D	3,360	27.5	D	3,370	28.4	D	3,900	36.7	D
F-31	SR-60	Perris Blvd to Nason St	2,790	21.6	C	2,550	19.6	C	2,900	23.4	C	3,210	27.4	D
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	1,810	13.8	B	1,750	13.4	B	2,060	16.5	B	2,620	21.7	C
F-34	SR-60	Redlands Blvd to Theodore St	2,280	17.3	B	2,200	16.8	B	2,580	20.7	C	2,920	24.2	C
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	2,180	18.0	C	1,850	15.3	B	2,250	20.6	C	1,770	14.6	B
F-37	SR-60	Jack Rabbit Trail to I-10	2,190	16.7	B	1,690	12.9	B	2,290	17.6	B	1,660	12.9	B
F-39	SR-91	I-15 to McKinley St	7,280	30.9	D	7,330	31.0	D	7,230	30.8	D	7,400	31.5	D
F-40	SR-91	McKinley St to Pierce St	5,440	31.0	D	6,330	39.6	E	5,400	30.6	D	6,400	40.9	E
F-41	SR-91	Pierce St to Magnolia Ave	5,210	29.0	D	8,080	77.6	F	5,180	28.8	D	8,150	80.4	F
F-42	SR-91	Magnolia Ave to La Sierra Ave	5,450	31.1	D	8,040	76.1	F	5,410	30.7	D	8,120	80.9	F
F-43	SR-91	La Sierra Ave to Tyler St	4,800	25.9	C	5,980	35.6	E	4,760	25.8	C	6,050	36.7	E
F-44	SR-91	Tyler St to Van Buren Blvd	6,170	24.7	C	7,420	31.6	D	6,170	24.7	C	7,490	32.3	D
F-45	SR-91	Van Buren Blvd to Adam St	5,810	22.9	C	7,160	29.9	D	5,810	22.9	C	7,230	30.6	D
F-46	SR-91	Adam St to Madison St	5,420	21.2	C	6,210	24.5	C	5,420	21.2	C	6,280	25.0	C
F-47	SR-91	Madison St to Arlington Ave	4,780	25.8	C	5,550	31.2	D	4,790	26.0	D	5,610	32.0	D
F-49	SR-91	Central Ave to 14th St	4,340	16.8	B	4,530	17.3	B	4,310	16.7	B	4,570	17.6	B
F-51	SR-91	University Ave to Spruce St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-52	I-10	SR-60 to Beaumont Ave	5,610	21.9	C	5,370	20.7	C	5,620	21.9	C	5,380	20.9	C
F-53	I-10	Beaumont Ave to Pennsylvania Ave	5,470	21.3	C	5,270	20.3	C	5,510	21.5	C	5,260	20.4	C

Table 4.15.AM-2: Year 2022 plus Phase 1 Freeway Mainline Levels of Service (Southbound/Westbound)

			2022 No Project						2022 Plus Phase 1					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	5,920	23.3	C	5,480	21.2	C	5,960	23.5	C	5,430	21.1	C
F-55	I-10	Highland Springs Ave to Sunset Ave	5,690	22.3	C	5,200	20.1	C	5,740	22.6	C	5,180	20.0	C
F-56	I-10	Sunset Ave to 22nd St	5,450	21.2	C	5,090	19.7	C	5,490	21.5	C	5,080	19.6	C
F-57	I-10	22nd St to 8th St	5,320	20.6	C	5,110	19.6	C	5,370	20.9	C	5,110	19.7	C
F-58	I-10	8th St to S Hargrave St	5,250	20.3	C	5,250	20.2	C	5,300	20.6	C	5,230	20.2	C
F-59	I-10	Hargrave St to Field Rd	4,810	18.5	C	5,020	19.3	C	4,860	18.8	C	4,980	19.2	C
F-60	I-10	Fields Rd to Morongo Tr	4,600	17.7	B	4,830	18.6	C	4,650	18.0	B	4,790	18.4	C
F-61	I-10	Morongo Tr to Main St	4,110	15.8	B	4,240	16.3	B	4,170	16.1	B	4,210	16.2	B
F-62	I-10	Main St to Haugen-Lehmann Way	4,230	16.3	B	4,300	16.5	B	4,290	16.6	B	4,270	16.4	B
F-64	I-10	SR-111 to Tipton Rd	3,680	14.1	B	3,760	14.4	B	3,740	14.4	B	3,750	14.4	B
F-65	I-10	Tipton Rd to SR-62	3,700	14.2	B	3,770	14.4	B	3,760	14.5	B	3,750	14.4	B
F-66	I-215	Scott Rd to Newport Rd	3,670	18.6	C	2,500	12.7	B	3,640	18.5	C	2,520	12.8	B
F-68	I-215	Newport Rd to McCall Blvd	3,820	19.6	C	3,520	18.0	B	3,790	19.4	C	3,520	18.0	B
F-69	I-215	McCall Blvd to Ethanac Rd	4,380	22.8	C	2,950	15.0	B	4,360	22.7	C	2,940	15.0	B
F-70	I-215	Ethanac Rd to SR-74	4,110	21.2	C	4,250	21.9	C	4,100	21.1	C	4,250	22.0	C
F-71	I-215	SR-74 to Redlands Ave	5,730	33.1	D	3,860	19.7	C	5,730	33.1	D	3,870	19.8	C
F-74	I-215	Columbia Ave to Center St	6,390	40.0	E	5,330	29.6	D	6,420	40.8	E	5,310	29.4	D
F-75	I-215	Center St to La Cadena Dr	6,880	46.9	F	5,560	31.6	D	6,920	48.1	F	5,540	31.4	D
F-76	I-215	La Cadena Dr to Barton Rd	6,700	44.2	E	5,570	31.7	D	6,750	45.4	F	5,550	31.5	D
F-77	I-215	Barton Rd to Mt. Vernon Ave	6,720	44.4	E	5,610	32.0	D	6,770	45.7	F	5,580	31.7	D
F-78	I-215	Mt. Vernon Ave to I-10	7,080	29.2	D	5,890	23.1	C	7,150	29.9	D	5,870	23.0	C
F-80	I-215	Auto Plaza Dr to Mill St	4,790	18.2	C	4,140	15.8	B	4,810	18.4	C	4,120	15.8	B
F-83	I-215	Baseline Rd to Highland Ave	5,280	29.0	D	4,700	24.9	C	5,330	29.6	D	4,700	24.9	C

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

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  - I-215 Iowa Avenue/La Cadena Drive to Barton Road; and
  - I-215 Barton Road to Mt. Vernon Avenue.
- Southbound or Westbound Sections:
  - SR-60 Grove Avenue to Vineyard Avenue;
  - SR-60 Valley Way to Rubidoux Boulevard;
  - SR-60 Market Street to Main Street;
  - SR-60 Main Street to SR-91;
  - SR-60 Fair Isle Drive/Box Springs Road to I-215;
  - SR-60 I-215 to Day Street;
  - SR-91 McKinley Street to Pierce Street;
  - SR-91 Pierce Street to Magnolia Avenue;
  - SR-91 Magnolia Avenue to La Sierra Avenue;
  - SR-91 La Sierra Avenue to Tyler Street;
  - I-215 Columbia Avenue to Center Street;
  - I-215 Center Street to Iowa Avenue/La Cadena Drive;
  - I-215 Iowa Avenue/La Cadena Drive to Barton Road; and
  - I-215 Barton Road to Mt. Vernon Avenue.

Phase 1 of the project would create a significant cumulative impact at the following four freeway segments under year 2022 with Phase 1 conditions:

- Northbound or Eastbound Section:
  - SR-91 Central Avenue to 14th Street.
- Southbound or Westbound Sections:
  - SR-60 Rubidoux Boulevard to Market Street;
  - SR-60 Pigeon Pass Road/Frederick Street to Heacock Street; and
  - SR-60 Heacock Street to Perris Boulevard.

Freeway Weaving Analysis. Year 2022 with Phase 1 freeway weaving segment levels of service for the study area intersections are summarized in Table 4.15.AN-1 and 4.15.AN-2, which shows 10 freeway weaving segments would operate at unsatisfactory levels of service. Phase 1 of the project would contribute toward the worsening of an already unsatisfactory LOS at seven of the freeway weaving segments and, therefore, would have a cumulative impact at these locations. Phase 1 of the project would have a significant direct project impact at three freeway weaving segments under year 2022 with Phase 1 conditions.

Phase 1 of the project would have a cumulative impact at the following seven freeway weaving segments under year 2022 with Phase 1 conditions:

- Northbound or Eastbound:

- SR-60 SR-71/S. Garey Avenue to Reservoir Street;
- SR-60 Main Street to SR-91;
- SR-60 SR-91 to W. Blaine Street/3rd Street;
- SR-60 Central Avenue to Fair Isle Drive/Box Springs Road;
- SR-91 Arlington Avenue to Central Avenue; and
- I-215 SR-60 to Columbia Avenue.

- Southbound or Westbound:
  - SR-60 SR-91 to W. Blaine Street/3rd Street;

Phase 1 of the project would also create a significant cumulative impact at the following three freeway weaving segments under year 2022 with Phase 1 conditions:

- Southbound or Westbound:
  - SR-60 Blaine Street/3rd Street to University Avenue;
  - SR-60 Central Avenue to Fair Isle Drive/Box Springs Road.
  - SR-60 Day Street to Pigeon Pass Road/Frederick Street.

Freeway Ramp Analysis: Year 2022 with Phase 1 freeway ramp merge/diverge levels of service are summarized in Table 4.15.AO, which shows one freeway ramp that would operate at unsatisfactory level of service. Phase 1 of the project would contribute toward the worsening of an unsatisfactory LOS at this freeway ramp and, therefore, would have a significant cumulative impact on the following ramp:

- SR-60 Eastbound On-Ramp from Central Avenue.

Phase 1 of the project would not create a significant cumulative impact to any freeway ramps in the year 2022 plus Phase 1 condition.

Table 4.15.AN-1: Year 2022 plus Phase 1 Weaving Segment Levels of Service (Northbound/Eastbound)

			2022 No-Project Conditions						2022 Plus Phase 1 Conditions					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Weaving Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	7,150	29.2	D	8,640	37.6	E	7,340	30.5	D	8,620	37.7	E
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-20	SR-60	Main St to SR-91	7,350	36.6	E	7,370	38.0	E	7,620	38.5	E	7,380	38.2	E
W-21	SR-60	SR-91 to Blaine St/3rd St	6,010	24.2	C	9,760	42.3	E	6,440	26.7	C	9,720	42.6	E
W-22	SR-60	Blaine St/3rd St to University Ave	5,710	21.6	C	7,210	31.3	D	6,140	25.0	C	7,250	32.5	D
W-23	SR-60	University Ave to Martin Luther King Blvd	6,620	23.8	C	6,060	21.4	C	7,140	26.3	C	6,130	22.0	C
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs Rd	6,580	27.3	C	8,400	38.9	E	7,240	32.8	D	8,360	39.7	E
W-27	SR-60	I-215 to Day St	4,000	14.6	B	5,280	19.9	B	4,650	19.0	B	5,320	21.1	C
W-28	SR-60	Pigeon Pass Rd/Frederick St	3,890	16.6	B	5,130	23.2	C	4,350	19.3	B	5,120	23.6	C
W-32	SR-60	Moreno Beach Dr to Nason St	2,330	14.2	B	2,880	18.1	B	2,960	19.1	B	2,940	19.0	B
W-35	SR-60	Theodore St to Gilman Springs Rd	2,320	12.7	B	3,370	19.3	B	2,350	13.5	B	3,280	19.4	B
W-42	SR-91	Magnolia Ave to La Sierra Ave	6,400	30.3	D	5,950	28.5	D	6,550	31.1	D	5,920	28.5	D
W-48	SR-91	Arlington Ave to Central Ave	7,220	39.0	E	3,680	17.9	B	7,300	39.9	E	3,660	17.8	B
W-50	SR-91	14th St to University Ave	5,030	25.1	C	4,810	24.6	C	5,100	25.7	C	4,840	24.9	C
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-63	I-10	Haugen-Lehmann Way to SR-111	3,300	11.0	B	4,710	15.9	B	3,260	10.9	B	4,760	16.1	B
W-73	I-215	SR-60 to Columbia Ave	6,840	37.8	E	6,540	35.8	E	6,810	37.7	E	6,580	36.4	E
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	4,610	16.8	B	5,210	19.0	B	4,590	16.8	B	5,250	19.3	B
W-81	I-215	Mill St to 2nd St	5,090	17.8	B	5,910	21.1	C	5,070	17.7	B	5,940	21.3	C
W-82	I-215	5th St to Baseline Rd	3,760	12.7	B	4,450	15.2	B	3,750	12.7	B	4,490	15.4	B

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.AN-2: Year 2022 plus Phase 1 Weaving Segment Levels of Service (Southbound/Westbound)

			2022 No-Project Conditions						2022 Plus Phase 1 Conditions					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Weaving Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/Garey Ave to Reservoir St	6,130	21.9	C	6,720	24.3	C	6,060	21.7	C	6,850	25.0	C
W-9	SR-60	Haven Ave to Archibald Ave	6,330	24.4	C	7,330	29.3	C	6,230	24.1	C	7,480	30.1	D
W-20	SR-60	Main St to SR-91	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	7,720	29.4	D	9,290	36.9	E	7,640	29.4	D	9,670	39.1	E
W-22	SR-60	Blaine St/3rd St to University Ave	5,700	21.1	C	8,280	32.0	D	5,620	21.3	C	8,670	35.2	E
W-23	SR-60	University Ave to Martin Luther King Blvd	5,600	22.6	C	7,620	30.7	D	5,500	22.3	C	7,980	32.8	D
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs Rd	7,110	30.7	D	7,890	32.7	D	7,120	31.3	D	8,330	36.1	E
W-27	SR-60	I-215 to Day St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-28	SR-60	Pigeon Pass Rd/Frederick St	4,970	34.3	D	4,860	32.7	D	4,950	34.7	D	5,270	37.1	E
W-32	SR-60	Moreno Beach Dr to Nason St	2,410	14.5	B	2,190	13.2	B	2,560	15.8	B	2,840	18.2	B
W-35	SR-60	Theodore St to Gilman Springs Rd	2,360	13.6	B	2,030	11.4	B	2,310	13.5	B	1,980	11.8	B
W-42	SR-91	Magnolia Ave to La Sierra Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	4,510	21.2	C	5,050	24.1	C	4,510	21.3	C	5,120	24.6	C

Table 4.15.AN-2: Year 2022 plus Phase 1 Weaving Segment Levels of Service (Southbound/Westbound)

			2022 No-Project Conditions						2022 Plus Phase 1 Conditions					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Weaving Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-50	SR-91	14th St to University Ave	5,090	19.6	B	7,020	27.9	C	5,070	19.5	B	7,010	28.1	D
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	5,020	14.7	B	8,850	26.7	C	5,010	14.7	B	8,850	26.9	C
W-63	I-10	Haugen-Lehmann Way to SR-111	4,210	14.8	B	4,310	17.2	B	4,280	15.2	B	4,280	17.1	B
W-73	I-215	SR-60 to Columbia Ave	7,040	33.4	D	6,110	28.8	D	7,070	33.7	D	6,070	28.6	D
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	5,830	20.8	C	4,870	18.0	B	5,850	20.9	C	4,830	17.9	B
W-81	I-215	Mill St to 2nd St	5,300	19.0	B	4,410	15.9	B	5,330	19.2	B	4,390	15.8	B
W-82	I-215	5th St to Baseline Rd	4,540	16.0	B	3,490	12.3	B	4,570	16.1	B	3,470	12.2	B

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.AO: Year 2022 plus Phase 1 Freeway Ramp Levels of Service

					2022 No-Project Conditions								2022 Plus Phase 1 Conditions							
					AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
ID	Freeway / Direction	Ramp Segment		Ramp No. of Lanes	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	EB SR-60 On-Ramp from Martin Luther King Blvd	1	6,190	710	27.4	C	5,780	1,320	30.9	D	6,710	740	29.7	D	5,840	1,340	31.5	D
R-2	SR-60 EB	On-Ramp from Central Ave	EB SR-60 On-Ramp from Central Ave	1	8,170	710	28.8	D	9,010	1,120	35.1	F	8,700	820	31.9	F	9,080	1,120	35.6	F
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	EB SR-60 Off-Ramp to Redlands Blvd	1	1,910	220	8.3	A	2,370	520	12.5	B	2,780	430	18.2	B	2,540	560	15.4	B
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	EB SR-60 Loop On-Ramp from Redlands Blvd	1	1,690	90	17.1	B	1,850	210	19.4	B	2,350	90	24.1	C	1,980	250	21.7	C
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	EB SR-60 Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario			
R-6	SR-60 EB	Off-Ramp to Theodore St	EB SR-60 Off-Ramp to Theodore St	2	2,460	250	24.5	C	3,240	150	31.7	D	3,300	910	21.9	C	3,350	540	21.8	C
R-7	SR-60 EB	Loop On-Ramp from Theodore St	EB SR-60 Loop On-Ramp from Theodore St	1	2,210	110	23.1	C	3,090	270	31.7	D	2,390	40	25.4	C	2,810	70	28.8	D
R-8	SR-60 EB	Direct On-Ramp from Theodore St	EB SR-60 Direct On-Ramp from Theodore St	1	Does not Exist in this Scenario				Does not Exist in this Scenario				2,350	200	18.6	B	2,740	410	23.3	C
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	EB SR-60 Off-Ramp to Gilman Springs Rd	2	2,320	330	14.5	B	3,370	650	21.0	C	2,350	432	14.9	B	3,280	537	20.7	C
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	EB SR-60 On-Ramp from Gilman Springs Rd	1	1,990	270	14.7	B	2,720	140	19.8	B	1,918	288	14.5	B	2,743	211	20.8	C
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	WB SR-60 Off-Ramp to Gilman Springs Rd	2	2,210	230	13.8	B	1,880	190	11.8	B	2,250	326	14.7	B	1,770	233	11.7	B
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	WB SR-60 On-Ramp from Gilman Springs Rd	1	1,980	380	15.5	B	1,690	310	12.6	B	1,924	406	16.2	B	1,537	452	13.5	B

Table 4.15.AO: Year 2022 plus Phase 1 Freeway Ramp Levels of Service

ID	Freeway / Direction	Ramp Segment		Ramp No. of Lanes	2022 No-Project Conditions								2022 Plus Phase 1 Conditions							
					AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
					Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-13	SR-60 WB	Off-Ramp to Theodore St	WB SR-60 Off-Ramp to Theodore St	2	2,360	180	12.4	B	2,030	120	9.3	A	2,310	310	14.6	B	1,980	170	12.6	B
R-14	SR-60 WB	On-Ramp from Theodore St	WB SR-60 On-Ramp from Theodore St	1	2,180	100	21.0	C	1,910	290	20.2	C	2,000	560	24.1	C	1,810	790	24.7	C
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	WB SR-60 Off-Ramp to Redlands Blvd	1	2,280	170	22.9	C	2,200	100	22.3	C	2,580	250	26.7	C	2,920	160	30.2	D
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	WB SR-60 Loop On-Ramp from Redlands Blvd	1	2,110	440	23.3	C	2,100	380	22.8	C	2,330	470	26.3	C	2,760	700	32.3	D
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	WB SR-60 Direct On-Ramp from Redlands Blvd	0	Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario				Does not Exist in this Scenario			
R-18	SR-60 WB	Off-Ramp to Central Ave	WB SR-60 Off-Ramp to Central Ave	2	7,110	410	26.5	C	7,890	530	29.8	D	7,120	480	27.3	C	8,330	540	31.8	D
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	WB SR-60 Off-Ramp to Martin Luther King Blvd	1	7,060	510	16.3	B	7,680	430	17.6	B	7,000	520	16.4	B	8,050	430	19.2	B

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

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4.15.6.4 Year 2035 Cumulative With Project Conditions Traffic and Level of Service Impacts

Threshold:	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit. Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? A significant project-specific traffic impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the pre-project condition. The adopted LOS standards are as follows: • Roadway segments: LOS C and LOS D as outlined in previously referenced Tables 4.15.B and 4.15.C. • Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.Z. • Freeway mainline: LOS D. • Freeway Ramp Merge/Diverge: LOS D.

Intersection Analysis. Year 2035 Cumulative with project (buildout) intersection levels of service for the study area intersections are summarized in Tables 4.15.AP-1 and 4.15.AP-2, which shows 35 intersections that would operate at unsatisfactory levels of service. The project would contribute toward the worsening of an already unsatisfactory LOS at 30 intersections and, therefore, have a significant cumulative impact. At five intersections, the project would create a significant cumulative impact since the project would cause a decrease in the LOS from satisfactory to unsatisfactory.

The project would contribute to a significant cumulative impact at the following 30 intersections under Year 2035 with project conditions:

- Theodore Street/Ironwood Avenue;
- Moreno Beach Drive/Locust Avenue;
- Moreno Beach Drive/SR-60 Eastbound Ramps;
- Iris Avenue/Perris Boulevard;
- Kitching Street/Iris Avenue;
- Lasselle Street/Iris Avenue;
- Lasselle Street/Cactus Avenue;
- Graham Street/Alessandro Boulevard;
- Alessandro Boulevard/Sycamore Canyon Boulevard;I-215 Southbound Ramps/Cactus Avenue;
- Central Avenue/Lochmoor Drive;

Table 4.15.AP-1: Year 2035 Cumulative plus Project Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2035 No Project			2035 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
IN-1	Theodore St/Street F	D	N/A	Non-Existent		RABT	10.2	B
IN-2	Cactus Avenue Extension/Street E	D	N/A	Non-Existent		Signal	12.3	B
IN-3	Theodore Ave/Alessandro Blvd (Str A/Str C/Str E)	D	CSS	20.9	C	RABT	11.0	B
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		RABT	7.9	A
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	Signal	11.7	B	Signal	44.3	D
IN-9	Gilman Springs Rd/Eucalyptus Ave	D	N/A	Non-Existent		Signal	10.5	B
IN-10	Redlands Blvd/Locust Ave	C	Signal	5.4	A	Signal	10.7	B
IN-11	Redlands Blvd/Ironwood Ave	D	Signal	45.0	D	Signal	46.4	D
IN-12	Theodore Street/Ironwood Avenue	D	CSS	22.9	C	CSS	44.3	**E**
IN-13	Redlands Blvd/SR-60 WB ramps	D	Signal	5.7	A	Signal	6.7	A
IN-14	Redlands Blvd/SR-60 EB ramps	D	Signal	5.1	A	Signal	5.4	A
IN-15	Theodore Str/SR-60 WB ramps	D	CSS	62.2	**F**	Signal	14.1	B
IN-16	Theodore Str/SR-60 EB ramps	D	CSS	13.5	B	Signal	2.2	A
IN-17	Quincy Str/Fir Ave	D	CSS	9.6	A	CSS	10.6	B
IN-18	Redlands Blvd/Eucalyptus Ave (Fir)	D	Signal	7.2	A	Signal	21.8	C
IN-19	Theodore St/Fir Ave (Eucalyptus)	D	CSS	10.5	B	Signal	18.5	B
IN-20	Oliver Str/Alessandro Blvd	C	CSS	20.0	C	CSS	21.0	C
IN-21	Moreno Beach Dr/Alessandro Blvd	D	Signal	17.3	B	Signal	17.4	B
IN-22	Quincy Str/Alessandro Blvd	C	Signal	4.2	A	Signal	4.2	A
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	137.4	**F**	AWS	13.4	B
IN-24	Oliver Str/Cactus Ave	D	Signal	22.3	C	Signal	23.9	C
IN-25	Moreno Beach Dr/Cactus Ave	C	Signal	20.3	C	Signal	22.0	C
IN-26	Quincy Str/Cactus Ave	C	Signal	3.9	A	Signal	3.5	A
IN-27	Redlands Blvd/Cactus Ave	C	AWS	14.3	B	AWS	128.4	**F**
IN-28	Moreno Beach Dr/John Kennedy Dr	D	Signal	23.5	C	Signal	29.1	C
IN-29	Heacock Str/Ironwood Ave	D	Signal	31.6	C	Signal	31.6	C
IN-30	Heacock Str/SR-60 WB Ramps	D	Signal	30.5	C	Signal	31.4	C
IN-31	Heacock St/SR-60 EB Ramps	D	Signal	12.3	B	Signal	12.7	B
IN-32	Sunnymead Blvd & Perris Blvd	D	Signal	31.8	C	Signal	32.1	C
IN-33	Perris Blvd/SR-60 WB Ramps	D	Signal	22.5	C	Signal	24.0	C
IN-34	Perris Blvd/Eucalyptus Ave	D	Signal	21.8	C	Signal	21.5	C
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	29.4	**D**	CSS	31.0	**D**
IN-36	Moreno Beach Drive & Ironwood Avenue	D	Signal	46.6	D	Signal	52.9	D
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	Signal	113.9	**F**	Signal	147.6	**F**
IN-38	Perris Blvd/John F. Kennedy Dr	D	Signal	28.8	C	Signal	33.5	C
IN-39	Iris Ave/Perris Blvd	D	Signal	58.6	**E**	Signal	65.7	**E**
IN-40	Kitching St/Iris Ave	C	Signal	65.8	**E**	Signal	78.3	**E**
IN-41	Lasselle Str/Iris Ave	D	Signal	35.0	C	Signal	38.7	D
IN-42	Nason Str/Iris Ave	C	Signal	18.5	B	Signal	17.1	B
IN-43	Oliver Str/Iris Ave	D	Signal	24.5	C	Signal	23.7	C

Table 4.15.AP-1: Year 2035 Cumulative plus Project Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2035 No Project			2035 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
IN-44	Via Dell Lago/Iris Ave	C	Signal	7.0	A	Signal	6.8	A
IN-45	Krameria Ave/Perris Blvd	D	Signal	27.8	C	Signal	29.1	C
IN-46	Kitching Str/Krameria Ave	D	Signal	35.3	D	Signal	37.4	D
IN-47	Lasselle Str/Krameria Ave	D	Signal	32.2	C	Signal	34.4	C
IN-48	Kitching Str/Alessandro Blvd	D	Signal	26.5	C	Signal	26.7	C
IN-49	Lasselle Str/Alessandro Blvd	D	Signal	19.8	B	Signal	20.5	C
IN-50	Morrison Str/Alessandro Blvd	D	Signal	25.5	C	Signal	25.6	C
IN-51	Nason Str/Alessandro Blvd	D	Signal	31.1	C	Signal	31.3	C
IN-52	Kitching Str/Cactus Ave	C	Signal	30.7	C	Signal	30.5	C
IN-53	Lasselle Str/Cactus Ave	C	Signal	38.5	**D**	Signal	38.8	**D**
IN-54	Morrison Str/Cactus Ave	D	Signal	6.1	A	Signal	6.4	A
IN-55	Nason Str/Cactus Ave	D	Signal	36.1	D	Signal	36.6	D
IN-56	Frederick Str/Alessandro Blvd	D	Signal	19.2	B	Signal	19.3	B
IN-57	Graham Str/Alessandro Blvd	D	Signal	35.6	D	Signal	35.6	D
IN-58	Heacock Str/Alessandro Blvd	D	Signal	29.6	D	Signal	29.2	C
IN-59	Indian Str/Alessandro Blvd	D	Signal	21.7	C	Signal	21.3	C
IN-60	Perris Blvd/Alessandro Blvd	D	Signal	32.8	C	Signal	33.6	C
IN-61	Frederick Str/Cactus Ave	D	Signal	9.7	A	Signal	9.6	A
IN-62	Graham Str/Cactus Ave	D	Signal	22.7	C	Signal	23.4	C
IN-63	Heacock Str/Cactus Ave	D	Signal	31.6	C	Signal	31.9	C
IN-64	Indian Str/Cactus Ave	C	Signal	32.6	C	Signal	32.6	C
IN-65	Perris Blvd/Cactus Ave	D	Signal	39.2	D	Signal	38.8	D
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	Signal	37.5	D	Signal	39.7	D
IN-67	I-215 SB Ramps/Alessandro Blvd	D	Signal	6.6	A	Signal	6.7	A
IN-68	I-215 NB Ramps/Alessandro Blvd	D	Signal	21.9	C	Signal	21.8	C
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	Signal	15.1	B	Signal	15.0	B
IN-70	Day Str/Alessandro Blvd	D	Signal	22.6	C	Signal	23.4	C
IN-71	Elsworth Str/Alessandro Blvd	D	Signal	28.4	C	Signal	29.5	C
IN-72	I-215 SB Ramps/Cactus Ave	D	Signal	37.6	D	Signal	41.6	D
IN-73	I-215 NB Ramps/Cactus Ave	D	Signal	71.1	**E**	Signal	75.5	**E**
IN-74	Elsworth Str/Cactus Ave	D	Signal	> 180.0	**F**	Signal	> 180.0	**F**
IN-75	Central Ave/Lochmoor Dr.	D	Signal	16.2	B	Signal	18.5	B
IN-76	Sycamore Canyon Blvd/Central Ave	D	Signal	28.6	C	Signal	29.9	C
IN-77	SR-60 EB Ramps/Central Ave	D	Signal	18.1	B	Signal	23.1	C
IN-78	SR-60 WB Ramps/Central Ave	D	Signal	6.7	A	Signal	6.7	A
IN-79	Alessandro Blvd/Trautwein Rd.	D	Signal	32.2	C	Signal	34.3	C
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	Signal	28.0	C	Signal	29.6	C
IN-81	Martin Luther King Blvd/Chicago Ave	D	Signal	27.0	C	Signal	28.2	C
IN-82	Martin Luther King Blvd/Iowa Ave	D	Signal	11.3	B	Signal	11.3	B
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	Signal	40.2	D	Signal	43.2	D

Table 4.15.AP-1: Year 2035 Cumulative plus Project Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2035 No Project			2035 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	Signal	11.2	B	Signal	11.6	B
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	45.1	**E**	AWS	48.5	**E**
IN-86	Central Ave/Chicago Ave	D	Signal	46.8	D	Signal	60.7	**E**
IN-87	Central Ave/El Cerrito Dr	D	Signal	17.6	B	Signal	17.8	B
IN-88	Central Ave/Canyon Crest Dr	D	Signal	45.4	D	Signal	49.7	D
IN-89	Chicago Ave/Country Club Dr	D	Signal	11.2	B	Signal	11.7	B
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	Signal	38.4	D	Signal	39.4	D
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	Signal	20.5	C	Signal	20.8	C
IN-92	Arlington Ave/Maude St	D	Signal	14.1	B	Signal	14.3	B
IN-93	Horace St/Arlington Ave	D	Signal	37.4	D	Signal	38.8	D
IN-94	Arlington Ave/Victoria Ave	D	Signal	124.5	**F**	Signal	138.7	**F**
IN-95	Alessandro Blvd/Chicago Ave	D	Signal	57.4	**E**	Signal	64.9	**E**
IN-96	Alessandro Blvd/Century Ave	D	Signal	19.2	B	Signal	19.1	B
IN-97	Alessandro Blvd/Via Vista Dr	D	Signal	17.9	B	Signal	17.9	B
IN-98	Alessandro Blvd/Canyon Crest Dr	D	Signal	56.6	**E**	Signal	60.6	**E**
IN-99	Harley Knox Blvd/Perris Blvd	D	Signal	33.5	C	Signal	35.4	D
IN-100	Harley Knox Blvd/Evan Rd	D	Signal	16.1	B	Signal	16.6	B
IN-101	Ramona Expy/Indian St	E	Signal	110.4	**F**	Signal	112.0	**F**
IN-102	Ramona Expy/Perris Blvd	E	Signal	49.2	D	Signal	52.3	D
IN-103	Ramona Expy/Evans Rd	E	Signal	60.6	**E**	Signal	66.1	**E**
IN-104	Perris Blvd/Morgan St	D	Signal	11.9	B	Signal	11.9	B
IN-105	Evans Rd/Morgan St	C	Signal	28.1	C	Signal	28.1	C
IN-106	Perris Blvd/Rider St	C	Signal	23.4	C	Signal	23.1	C
IN-107	Evans Rd/Rider St	C	Signal	36.3	**D**	Signal	36.5	**D**
IN-108	Perris Blvd/Mid-County Pkwy WB Ramps	D	Signal	32.7	C	Signal	33.7	C
IN-109	Perris Blvd/Mid-County Pkwy EB Ramps	D	Signal	28.3	C	Signal	29.8	C
IN-110	Evans Rd/Mid-County Pkwy WB Ramps	D	Signal	25.7	C	Signal	25.6	C
IN-111	Evans Rd/Mid-County Pkwy EB Ramps	D	Signal	18.1	B	Signal	18.1	B
IN-112	Placentia Ave/Perris Blvd	D	Signal	29.3	C	Signal	29.3	C
IN-113	Evans Rd/Placentia Ave	D	Signal	7.3	A	Signal	7.2	A
IN-114	Evans Rd/Orange Ave	C	Signal	25.5	C	Signal	25.4	C
IN-115	Evans Rd/Nuevo Rd	C	Signal	31.8	C	Signal	31.9	C
IN-116	Evans Rd/Ellis Ave	D	Signal	12.7	B	Signal	13.5	B
IN-117	Ellis Ave/I-215 SB Ramps	E	Signal	26.5	C	Signal	26.2	C
IN-118	Ellis Ave/SR-215 NB Ramps	E	Signal	22.2	C	Signal	21.9	C
IN-119	Evans Rd/San Jacinto Ave	D	Signal	21.1	C	Signal	21.5	C

Table 4.15.AP-1: Year 2035 Cumulative plus Project Intersection Levels of Service (A.M. Peak Hour)

ID	Study Intersection	LOS Standard	2035 No Project			2035 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
IN-120	Park Center Blvd/Ramona Expy WB Ramps	D	CSS	11.8	B	CSS	13.3	B
IN-121	Park Center Blvd/Ramona Expy EB Ramps	D	CSS	11.6	B	CSS	13.5	B
IN-122	Bridge St/Ramona Expy	N/A	N/A	Non-Existent		N/A	Non-Existent	
IN-123	Gilman Springs Rd/Bridge Str	C	CSS	> 180.0	**F**	CSS	> 180.0	**F**
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	> 180.0	**F**	CSS	> 180.0	**F**
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	> 180.0	**F**	CSS	> 180.0	**F**
IN-126	Ramona Expy/Sanderson Ave	D	Signal	43.9	D	Signal	48.4	D
IN-127	Potrero Blvd/SR-60 WB Ramps	D	Signal	21.3	C	Signal	27.0	C
IN-128	Potrero Blvd/SR-60 EB Ramps	D	Signal	20.3	C	Signal	21.1	C
IN-129	W 6th St/California Ave	C	AWS	146.4	**F**	AWS	148.1	**F**
IN-130	W 6th St/Beaumont Ave	C	Signal	35.5	**D**	Signal	36.7	**D**
IN-131	Reche Canyon Rd/Reche Vista Dr	C	Signal	42.2	**D**	Signal	47.0	**D**
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	26.4	D	AWS	40.8	**E**
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	127.6	**F**	AWS	> 180.0	**F**
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	140.5	**F**	AWS	> 180.0	**F**
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	17.6	C	CSS	19.9	C
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	10.2	B	AWS	10.7	B

Notes:
"NB" and "SB" denote northbound and southbound respectively
"EB" and "WB" denote eastbound and westbound respectively
"LT" and "RT" denote left turn and right turn respectively
Indicates LOS exceeds the target level
"CSS" means cross-street is stop-controlled
"AWS" means all-way stop
"RABT" means roundabout
Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.AP-2: Year 2035 Cumulative plus Project Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2035 No Project			2035 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
IN-1	Theodore St/Street F	D	N/A	Non-Existent		RABT	53.0	D
IN-2	Cactus Ave Extension/Street E	D	N/A	Non-Existent		Signal	15.2	B
IN-3	Theodore St/Alessandro Blvd (Str A/Str C/Str E)	D	CSS	19.6	C	RABT	11.3	B
IN-4	Alessandro Blvd (Street C)/Street F	D	N/A	Non-Existent		RABT	8.0	A
IN-6	Alessandro Blvd (Street C)/Gilman Springs Rd	D	Signal	37.7	D	Signal	36.7	D
IN-9	Gilman Springs Rd/Eucalyptus Ave	D	N/A	Non-Existent		Signal	14.3	B
IN-10	Redlands Blvd/Locust Ave	C	Signal	16.6	B	Signal	20.3	C
IN-11	Redlands Blvd/Ironwood Ave	D	Signal	48.2	D	Signal	72.3	**E**

Table 4.15.AP-2: Year 2035 Cumulative plus Project Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2035 No Project			2035 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
IN-12	Theodore Street/Ironwood Avenue	D	CSS	> 180.0	**F**	CSS	> 180.0	**F**
IN-13	Redlands Blvd/SR-60 WB ramps	D	Signal	7.5	A	Signal	10.9	B
IN-14	Redlands Blvd/SR-60 EB ramps	D	Signal	7.3	A	Signal	10.0	A
IN-15	Theodore Str/SR-60 WB ramps	D	CSS	173.7	**F**	Signal	17.0	B
IN-16	Theodore Str/SR-60 EB ramps	D	CSS	> 180.0	**F**	Signal	31.2	C
IN-17	Quincy Str/Fir Ave	D	CSS	12.6	B	CSS	15.7	C
IN-18	Redlands Blvd/Eucalyptus Ave (Fir)	D	Signal	15.6	B	Signal	52.3	D
IN-19	Theodore St/Fir Ave (Eucalyptus)	D	CSS	68.9	**F**	Signal	54.5	D
IN-20	Oliver Str/Alessandro Blvd	C	CSS	21.6	C	CSS	23.5	C
IN-21	Moreno Beach Dr/Alessandro Blvd	D	Signal	20.2	C	Signal	22.7	C
IN-22	Quincy Str/Alessandro Blvd	C	Signal	3.7	A	Signal	3.7	A
IN-23	Redlands Blvd/Alessandro Blvd	C	AWS	74.7	**F**	AWS	24.1	C
IN-24	Oliver Str/Cactus Ave	D	Signal	20.2	C	Signal	21.5	C
IN-25	Moreno Beach Dr/Cactus Ave	C	Signal	29.7	C	Signal	37.1	**D**
IN-26	Quincy Str/Cactus Ave	C	Signal	3.7	A	Signal	3.6	A
IN-27	Redlands Blvd/Cactus Ave	C	AWS	13.5	B	AWS	> 180.0	**F**
IN-28	Moreno Beach Dr/John Kennedy Dr	D	Signal	16.6	B	Signal	18.5	B
IN-29	Heacock Str/Ironwood Ave	D	Signal	35.2	D	Signal	35.5	D
IN-30	Heacock Str/SR-60 WB Ramps	D	Signal	23.1	C	Signal	24.0	C
IN-31	Heacock St/SR-60 EB Ramps	D	Signal	19.4	B	Signal	20.0	B
IN-32	Sunnymead Blvd & Perris Blvd	D	Signal	39.7	D	Signal	45.3	D
IN-33	Perris Blvd/SR-60 WB Ramps	D	Signal	17.1	B	Signal	19.5	B
IN-34	Perris Blvd/Eucalyptus Ave	D	Signal	24.7	C	Signal	24.6	C
IN-35	Moreno Beach Dr/Locust Ave	C	CSS	37.9	**E**	CSS	> 180.0	**F**
IN-36	Moreno Beach Drive & Ironwood Avenue	D	Signal	50.4	D	Signal	61.9	**E**
IN-37	Moreno Beach Dr/SR-60 EB Ramps	D	Signal	155.8	**F**	Signal	> 180.0	**F**
IN-38	Perris Blvd/John F. Kennedy Dr	D	Signal	31.6	C	Signal	37.3	D
IN-39	Iris Ave/Perris Blvd	D	Signal	63.8	**E**	Signal	80.4	**F**
IN-40	Kitching St/Iris Ave	C	Signal	126.3	**F**	Signal	169.8	**F**
IN-41	Lasselle Str/Iris Ave	D	Signal	79.2	**E**	Signal	89.5	**F**
IN-42	Nason Str/Iris Ave	C	Signal	21.7	C	Signal	32.8	C
IN-43	Oliver Str/Iris Ave	D	Signal	25.1	C	Signal	24.9	C
IN-44	Via Dell Lago/Iris Ave	C	Signal	7.2	A	Signal	6.6	A
IN-45	Krameria Ave/Perris Blvd	D	Signal	52.6	D	Signal	53.2	D
IN-46	Kitching Str/Krameria Ave	D	Signal	41.7	D	Signal	52.4	D
IN-47	Lasselle Str/Krameria Ave	D	Signal	14.5	B	Signal	15.8	B
IN-48	Kitching Str/Alessandro Blvd	D	Signal	28.1	C	Signal	29.3	C
IN-49	Lasselle Str/Alessandro Blvd	D	Signal	23.7	C	Signal	24.3	C
IN-50	Morrison Str/Alessandro Blvd	D	Signal	26.2	C	Signal	26.8	C
IN-51	Nason Str/Alessandro Blvd	D	Signal	28.3	C	Signal	29.1	C
IN-52	Kitching Str/Cactus Ave	C	Signal	28.5	C	Signal	28.3	C
IN-53	Lasselle Str/Cactus Ave	C	Signal	34.8	C	Signal	38.2	**D**
IN-54	Morrison Str/Cactus Ave	D	Signal	8.6	A	Signal	9.7	A
IN-55	Nason Str/Cactus Ave	D	Signal	47.6	D	Signal	51.1	D
IN-56	Frederick Str/Alessandro Blvd	D	Signal	34.5	C	Signal	36.7	D

Table 4.15.AP-2: Year 2035 Cumulative plus Project Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2035 No Project			2035 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
IN-57	Graham Str/Alessandro Blvd	D	Signal	88.9	**F**	Signal	93.7	**F**
IN-58	Heacock Str/Alessandro Blvd	D	Signal	29.5	C	Signal	30.5	C
IN-59	Indian Str/Alessandro Blvd	D	Signal	37.1	D	Signal	36.7	D
IN-60	Perris Blvd/Alessandro Blvd	D	Signal	41.4	D	Signal	44.5	D
IN-61	Frederick Str/Cactus Ave	D	Signal	12.5	B	Signal	13.0	B
IN-62	Graham Str/Cactus Ave	D	Signal	42.1	D	Signal	43.3	D
IN-63	Heacock Str/Cactus Ave	D	Signal	27.2	C	Signal	27.5	C
IN-64	Indian Str/Cactus Ave	C	Signal	36.3	**D**	Signal	36.3	**D**
IN-65	Perris Blvd/Cactus Ave	D	Signal	32.5	C	Signal	36.1	D
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	D	Signal	81.2	**F**	Signal	94.9	**F**
IN-67	I-215 SB Ramps/Alessandro Blvd	D	Signal	11.5	B	Signal	11.6	B
IN-68	I-215 NB Ramps/Alessandro Blvd	D	Signal	32.8	C	Signal	35.6	D
IN-69	Old 215 Frontage Rd/Alessandro Blvd	D	Signal	16.4	B	Signal	16.5	B
IN-70	Day Str/Alessandro Blvd	D	Signal	28.2	C	Signal	27.8	C
IN-71	Elsworth Str/Alessandro Blvd	D	Signal	52.4	D	Signal	53.6	D
IN-72	I-215 SB Ramps/Cactus Ave	D	Signal	144.8	**F**	Signal	144.8	**F**
IN-73	I-215 NB Ramps/Cactus Ave	D	Signal	122.6	**F**	Signal	133.6	**F**
IN-74	Elsworth Str/Cactus Ave	D	Signal	> 180	**F**	Signal	> 180	**F**
IN-75	Central Ave/Lochmoor Dr.	D	Signal	77.5	**E**	Signal	104.9	**F**
IN-76	Sycamore Canyon Blvd/Central Ave	D	Signal	26.8	C	Signal	29.7	C
IN-77	SR-60 EB Ramps/Central Ave	D	Signal	12.4	B	Signal	13.2	B
IN-78	SR-60 WB Ramps/Central Ave	D	Signal	7.0	A	Signal	6.9	A
IN-79	Alessandro Blvd/Trautwein Rd.	D	Signal	16.1	B	Signal	16.2	B
IN-80	Alessandro Blvd/Mission Grove Pkwy	D	Signal	73.7	**E**	Signal	84.3	**F**
IN-81	Martin Luther King Blvd/Chicago Ave	D	Signal	41.5	D	Signal	43.5	D
IN-82	Martin Luther King Blvd/Iowa Ave	D	Signal	14.8	B	Signal	15.1	B
IN-83	Martin Luther King Blvd/Canyon Crest Dr	D	Signal	52.4	D	Signal	53.3	D
IN-84	Martin Luther King Blvd/I-215 SB Ramps	D	Signal	12.2	B	Signal	12.5	B
IN-85	Martin Luther King Blvd/I-215 NB Ramps	D	AWS	20.7	C	AWS	22.0	C
IN-86	Central Ave/Chicago Ave	D	Signal	79.0	**E**	Signal	102.9	**F**
IN-87	Central Ave/El Cerrito Dr	D	Signal	20.0	B	Signal	20.8	C
IN-88	Central Ave/Canyon Crest Dr	D	Signal	106.3	**F**	Signal	118.0	**F**
IN-89	Chicago Ave/Country Club Dr	D	Signal	12.9	B	Signal	14.4	B
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	D	Signal	68.0	**E**	Signal	69.8	**E**
IN-91	Arlington Ave/Indiana Ave/SR-91 NB Ramps	D	Signal	26.8	C	Signal	29.8	C
IN-92	Arlington Ave/Maude St	D	Signal	10.7	B	Signal	11.2	B
IN-93	Horace St/Arlington Ave	D	Signal	25.5	C	Signal	33.7	C
IN-94	Arlington Ave/Victoria Ave	D	Signal	87.2	**E**	Signal	97.9	**F**
IN-95	Alessandro Blvd/Chicago Ave	D	Signal	111.2	**F**	Signal	123.3	**F**
IN-96	Alessandro Blvd/Century Ave	D	Signal	11.8	B	Signal	12.3	B

Table 4.15.AP-2: Year 2035 Cumulative plus Project Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2035 No Project			2035 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
IN-97	Alessandro Blvd/Via Vista Dr	D	Signal	22.2	C	Signal	22.0	C
IN-98	Alessandro Blvd/Canyon Crest Dr	D	Signal	131.0	**F**	Signal	142.1	**F**
IN-99	Harley Knox Blvd/Perris Blvd	D	Signal	48.0	D	Signal	51.9	D
IN-100	Harley Knox Blvd/Evan Rd	D	Signal	23.8	C	Signal	24.3	C
IN-101	Ramona Expy/Indian St	E	Signal	> 180.0	**F**	Signal	> 180.0	**F**
IN-102	Ramona Expy/Perris Blvd	E	Signal	58.5	E	Signal	60.9	E
IN-103	Ramona Expy/Evans Rd	E	Signal	46.2	D	Signal	49.2	D
IN-104	Perris Blvd/Morgan St	D	Signal	9.9	A	Signal	11.0	B
IN-105	Evans Rd/Morgan St	C	Signal	21.8	C	Signal	21.8	C
IN-106	Perris Blvd/Rider St	C	Signal	30.1	C	Signal	30.6	C
IN-107	Evans Rd/Rider St	C	Signal	34.5	C	Signal	34.6	C
IN-108	Perris Blvd/Mid-County Pkwy WB Ramps	D	Signal	22.6	C	Signal	25.3	C
IN-109	Perris Blvd/Mid-County Pkwy EB Ramps	D	Signal	36.2	D	Signal	38.4	D
IN-110	Evans Rd/Mid-County Pkwy WB Ramps	D	Signal	21.3	C	Signal	22.0	C
IN-111	Evans Rd/Mid-County Pkwy EB Ramps	D	Signal	24.9	C	Signal	24.9	C
IN-112	Placentia Ave/Perris Blvd	D	Signal	34.2	C	Signal	34.6	C
IN-113	Evans Rd/Placentia Ave	D	Signal	7.4	A	Signal	7.4	A
IN-114	Evans Rd/Orange Ave	C	Signal	25.3	C	Signal	25.2	C
IN-115	Evans Rd/Nuevo Rd	C	Signal	31.2	C	Signal	31.1	C
IN-116	Evans Rd/Ellis Ave	D	Signal	13.6	B	Signal	14.3	B
IN-117	Ellis Ave/I-215 SB Ramps	E	Signal	28.3	C	Signal	28.0	C
IN-118	Ellis Ave/SR-215 NB Ramps	E	Signal	34.3	C	Signal	35.0	C
IN-119	Evans Rd/San Jacinto Ave	D	Signal	22.7	C	Signal	22.6	C
IN-120	Park Center Blvd/Ramona Expy WB Ramps	D	CSS	15.3	C	CSS	16.9	C
IN-121	Park Center Blvd/Ramona Expy EB Ramps	D	CSS	23.1	C	CSS	34.9	D
IN-122	Bridge St/Ramona Expy	N/A	N/A	Non-Existent		N/A	Non-Existent	
IN-123	Gilman Springs Rd/Bridge Str	C	CSS	> 180.0	**F**	CSS	> 180.0	**F**
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	C	CSS	> 180.0	**F**	CSS	> 180.0	**F**
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	C	CSS	> 180.0	**F**	CSS	> 180.0	**F**
IN-126	Ramona Expy/Sanderson Ave	D	Signal	39.9	D	Signal	41.9	D
IN-127	Potrero Blvd/SR-60 WB Ramps	D	Signal	15.3	B	Signal	16.4	B
IN-128	Potrero Blvd/SR-60 EB Ramps	D	Signal	31.3	C	Signal	33.5	C
IN-129	W 6th St/California Ave	C	AWS	178.3	**F**	AWS	> 180.0	**F**
IN-130	W 6th St/Beaumont Ave	C	Signal	94.4	**F**	Signal	106.8	**F**
IN-131	Reche Canyon Rd/Reche Vista Dr	C	Signal	100.9	**F**	Signal	109.5	**F**
IN-132	San Timoteo Canyon Rd/Alessandro Rd	D	AWS	22.2	C	AWS	38.3	**E**
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	C	AWS	127.7	**F**	AWS	> 180.0	**F**

Table 4.15.AP-2: Year 2035 Cumulative plus Project Intersection Levels of Service (P.M. Peak Hour)

ID	Study Intersection	LOS Standard	2035 No Project			2035 With Project		
			Traffic Control	Delay	LOS	Traffic Control	Delay	LOS
IN-134	Redlands Blvd/San Timoteo Canyon Rd	C	AWS	> 180.0	**F**	AWS	> 180.0	**F**
IN-135	W Crescent Ave/Alessandro Rd	C	CSS	14.7	B	CSS	15.1	C
IN-136	W Sunset Dr/Alessandro Rd	C	AWS	10.4	B	AWS	10.8	B

Notes:
"NB" and "SB" denote northbound and southbound respectively
"EB" and "WB" denote eastbound and westbound respectively
"LT" and "RT" denote left turn and right turn respectively
Indicates LOS exceeds the target level
"CSS" means cross-street is stop-controlled
"AWS" means all-way stop
"RABT" means roundabout
Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

- Elsworth Street/Cactus Avenue;
- I-215 Northbound Ramps/Cactus Avenue;
- Martin Luther King Boulevard/I-215 Northbound Ramps;
- Central Avenue/Chicago Avenue;
- Central Avenue/Canyon Crest Drive;
- Arlington Avenue/Riverside Avenue/SR-91 Southbound Ramps;
- Arlington Avenue/Victoria Avenue;
- Alessandro Boulevard/Chicago Avenue;
- Alessandro Boulevard/Canyon Crest Drive;
- Ramona Expressway/Indian Street;
- Evans Road/Rider Street;
- Gilman Springs Road/Bridge Street;
- SR-79 (Sanderson Avenue) Northbound/Gilman Springs Road;
- SR-79 (Sanderson Avenue) Southbound/Gilman Springs Road;
- W. 6th Street/California Avenue;
- W. 6th Street/Beaumont Avenue;
- Reche Canyon Road/Reche Vista Drive;
- San Timoteo Canyon Road/Live Oak Canyon Road; and
- Redlands Boulevard/San Timoteo Canyon Road.

The project would create a significant cumulative impact at the following five intersections under Year 2035 Cumulative with project conditions since the project would cause a decrease in the LOS from satisfactory to unsatisfactory:

- Redlands Boulevard/Ironwood Avenue;
- Moreno Beach Drive/Cactus Avenue;

- Redlands Boulevard/Cactus Avenue;
- Moreno Beach Drive/Ironwood Avenue; and
- San Timoteo Canyon Road/Alessandro Road.

Roadway Segment Analysis. 2035 Cumulative plus project roadway segment levels of service for the study area roadway segments are summarized in Table 4.15.AQ, which shows the project would create a significant cumulative impact on the following roadway segment:

- Gilman Springs Road between Alessandro Boulevard and Bridge Street.

Freeway Segment Analysis. Year 2035 Cumulative with project freeway segment levels of service for the study area intersections are summarized in Tables 4.15.AR-1 and 4.15.AR-2, which shows 52 freeway mainline segments would operate at unsatisfactory levels of service. The project would contribute toward the worsening of an already unsatisfactory LOS at 48 of the freeway segments and, therefore, have a significant cumulative impact at these locations. At four freeway segments, a significant cumulative impact would occur since the project would cause a decrease in the LOS from satisfactory to unsatisfactory.

The project would have a significant cumulative impact at the following 48 freeway segments under Year 2035 Cumulative with project conditions:

- Northbound or Eastbound Sections:
    - SR-60 Reservoir Street to Ramona Avenue;
    - SR-60 Ramona Avenue to Central Avenue;
    - SR-60 Central Avenue to Mountain Avenue;
    - SR-60 Mountain Avenue to Euclid Avenue;
    - SR-60 Euclid Avenue to Grove Avenue;
    - SR-60 Grove Avenue to Vineyard Avenue;
    - SR-60 Vineyard Avenue to Archibald Avenue;
    - SR-60 Archibald Avenue to Haven Avenue;
    - SR-60 Valley Way to Rubidoux Boulevard;
    - SR-60 Rubidoux Boulevard to Market Street;
    - SR-60 Market Street to Main Street;
    - SR-60 Martin Luther King Boulevard to Central Avenue;
    - SR-60 Pigeon Pass Road/Frederick Street to Heacock Street;
    - SR-60 Heacock Street to Perris Boulevard;
    - SR-60 Gilman Springs Road to Jack Rabbit Trail;
    - SR-60 Jack Rabbit Trail to I-10/Potrero Boulevard;
    - SR-91 Pierce Street to Magnolia Avenue;
    - SR-91 La Sierra Avenue to Tyler Street;
    - SR-91 Adam Street to Madison Street;

Table 4.15.AQ: Year 2035 Cumulative plus Project Roadway Levels of Service

Roadway		From	To	LOS Standard*	2035 No-Project Conditions			2035 Plus Build-out Conditions			Project Significant Impact?	Mitigation Measures Required to Reduce Impacts to Less-Than-Significant	LOS after Mitigation
					Roadway Section**	Daily Volume	LOS	Roadway Section**	Daily Volume	LOS			
S-1	Theodore Street (A)	SR-60 WB Ramps	Ironwood Ave	D	2U	9,774	C	2U	10,267	D	No		
S-2	Theodore Street (A)	SR-60 EB Ramps	Fir (Eucalyptus) Ave	D	2U	8,726	B	6D	33,082	A	No		
S-3	Fir (Eucalyptus) Ave	Redlands Blvd	Theodore Street (A)	D	2U	6,847	A	4D	10,513	A	No		
S-4	Eucalyptus Ave (B)	Theodore Street (A)	Gilman Springs Rd	N/A	Future Road			4D	6,565	A	No		
S-5	Theodore Street (A)	Fir (Eucalyptus) Ave	Street E	D	2U	3,295	A	6D	35,374	B	No		
S-6	Street E	Theodore Street (A)	Cactus Ave Extension	D	Future Road			4U	13,862	A	No		
S-7	Street F	Theodore Street (A)	Alessandro Blvd (Street C)	D	Future Road			2U	5,009	A	No		
S-8	Theodore Street (A)	Fir (Eucalyptus) Ave	Alessandro Blvd (Street C)	D	2U	3,437	A	4D	13,001	A	No		
S-9	Alessandro Blvd (Street E)	Merwin Street	Theodore Street (A)	D	2U	10,854	D	4U	13,486	A	No		
S-10	Cactus Ave Extension	Alessandro Blvd (Street E)	Cactus Ave	D	Future Road			4U	17,423	B	No		
S-11	Alessandro Blvd (Street C)	Theodore Street (A)	Street F	D	2U	7,437	A	4U	14,680	A	No		
S-13	Alessandro Blvd (Street C)	Street F	Gilman Springs Rd	D	2U	7,437	A	4U	21,164	D	No		
S-14	Alessandro Blvd	Moreno Beach Drive	Redlands Blvd	D	4U	6,373	A	4U	5,416	A	No		
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge Street	D	6D	49,434	D	6D	54,288	F	Yes	Widen to 8 lanes	C
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	D	6D	41,537	C	6D	47,958	D	No		
S-18	Redlands Blvd	SR-60 EB Ramps	Fir (Eucalyptus) Ave	D	4U	13,411	A	4U	17,626	C	No		
S-19	Redlands Blvd	Fir (Eucalyptus) Ave	Alessandro Blvd	C	4U	7,665	A	4U	5,037	A	No		
S-20	Alessandro Blvd	Redlands Blvd	Merwin Street	C	4U	11,038	A	4U	1,677	A	No		
S-21	Redlands Blvd	Alessandro Blvd	Cactus Ave	C	4U	11,511	A	4U	5,653	A	No		
S-22	Cactus Ave	Redlands Blvd	Cactus Ave Extension	C	4U	1,144	A	4U	16,916	B	No		

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.

** Section is the number of lanes, with "U" for "undivided" and "D" for "Divided" roadways.

*** Road currently has 2 lanes in one direction and 1 lane in the other. The capacity shown is based on the narrower direction.

Indicates LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.AR-1: Year 2035 Cumulative plus Project Freeway Mainline Levels of Service (Northbound/Eastbound)

ID	Freeway	Segment	2035 No Project						2035 Plus Buildout					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	8,560	41.2	E	8,750	43.6	E	8,740	43.5	E	8,640	42.8	E
F-3	SR-60	Ramona Ave to Central Ave	8,190	37.8	E	10,230	66.5	F	8,370	39.7	E	10,140	65.6	F
F-4	SR-60	Central Ave to Mountain Ave	8,900	44.8	E	10,210	66.0	F	9,100	47.6	F	10,110	65.0	F
F-5	SR-60	Mountain Ave to Euclid Ave	8,780	43.4	E	7,590	33.3	D	8,990	46.3	F	7,480	33.0	D
F-6	SR-60	Euclid Ave to Grove Ave	9,920	59.3	F	9,680	56.0	F	10,120	64.1	F	9,580	55.1	F
F-7	SR-60	Grove Ave to Vineyard Ave	9,210	48.5	F	10,050	62.7	F	9,410	51.8	F	9,960	61.9	F
F-8	SR-60	Vineyard Ave to Archibald Ave	9,080	46.3	F	10,210	66.0	F	9,290	49.6	F	10,100	64.7	F
F-9	SR-60	Archibald Ave to Haven Ave	8,430	39.5	E	7,330	31.5	D	8,650	42.5	E	7,220	31.2	D
F-10	SR-60	Haven Ave to Milliken Ave	8,430	27.5	D	8,110	26.4	D	8,690	29.1	D	7,980	26.2	D
F-11	SR-60	Milliken Ave to I-15	5,160	19.8	C	4,530	17.4	B	5,420	21.3	C	4,460	17.4	B
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	4,140	15.9	B	2,740	10.6	A	4,380	17.1	B	2,640	10.5	A
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission Blvd/Country Village Rd	4,950	19.1	C	4,170	16.1	B	5,190	20.4	C	3,990	15.7	B
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	4,380	16.8	B	3,150	12.2	B	4,650	18.2	C	2,970	11.7	B

Table 4.15.AR-1: Year 2035 Cumulative plus Project Freeway Mainline Levels of Service (Northbound/Eastbound)

			2035 No Project						2035 Plus Buildout					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-15	SR-60	Pedley Rd to Pyrite St	4,620	17.8	B	3,610	13.9	B	4,870	19.0	C	3,400	13.4	B
F-16	SR-60	Pyrite St to Valley Way	5,060	19.5	C	3,880	15.0	B	5,310	20.9	C	3,650	14.4	B
F-17	SR-60	Valley Way to Rubidoux Blvd	6,160	38.0	E	3,850	19.9	C	6,410	42.3	E	3,790	20.1	C
F-18	SR-60	Rubidoux Blvd to Market St	6,490	42.1	E	4,210	22.2	C	6,710	46.8	F	4,140	22.2	C
F-19	SR-60	Market St to Main St	6,020	36.4	E	6,620	44.9	E	6,240	40.0	E	6,610	46.2	F
F-20	SR-60	Main to SR-91	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-24	SR-60	Martin Luther King Blvd to Central Ave	9,500	59.8	F	9,860	70.8	F	9,980	82.8	F	10,060	91.4	F
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	6,090	24.2	C	5,790	22.9	C	6,540	27.2	D	6,010	24.4	C
F-27	SR-60	I-215 to Day St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-29	SR-60	Pigeon Pass Rd to Heacock St	3,330	27.3	D	4,120	38.2	E	3,590	33.6	D	4,110	41.4	E
F-30	SR-60	Heacock St to Perris Blvd	3,020	24.1	C	4,200	39.6	E	3,540	32.9	D	4,240	44.2	E
F-31	SR-60	Perris Blvd to Nason St	2,670	20.9	C	3,520	29.4	D	3,210	28.9	D	3,610	33.4	D
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	2,480	19.2	C	3,130	25.0	C	2,910	25.4	C	3,240	28.5	D
F-34	SR-60	Redlands Blvd to Theodore St	3,200	25.9	C	4,500	45.4	F	3,630	34.0	D	4,280	43.8	E
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	2,420	20.1	C	4,430	53.0	F	2,320	19.3	C	4,580	58.2	F
F-37	SR-60	Jack Rabbit Trail to Potrero Blvd	2,500	19.5	C	4,750	51.8	F	2,400	18.7	C	4,950	59.8	F
F-38	SR-60	Potrero Blvd to I-10	2,300	17.8	B	3,620	30.6	D	2,190	16.9	B	3,810	33.8	D
F-39	SR-91	I-15 to McKinley St	8,140	26.3	D	11,870	52.4	F	8,300	27.2	D	11,740	51.6	F
F-40	SR-91	McKinley St to Pierce St	6,990	29.1	D	6,910	29.0	D	7,110	30.1	D	6,870	29.0	D
F-41	SR-91	Pierce St to Magnolia Ave	6,430	41.3	E	6,360	41.2	E	6,550	43.9	E	6,310	41.0	E
F-42	SR-91	Magnolia Ave to La Sierra Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-43	SR-91	La Sierra Ave to Tyler St	6,170	38.1	E	6,250	39.8	E	6,250	39.8	E	6,210	39.7	E
F-44	SR-91	Tyler St to Van Buren Blvd	7,250	30.7	D	6,950	29.2	D	7,350	31.6	D	6,920	29.3	D
F-45	SR-91	Van Buren Blvd to Adam St	7,270	30.8	D	6,290	25.5	C	7,360	31.7	D	6,260	25.5	C
F-46	SR-91	Adam St to Madison St	7,980	36.6	E	6,030	24.3	C	8,060	38.0	E	6,000	24.4	C
F-47	SR-91	Madison St to Arlington Ave	7,000	29.6	D	5,390	21.4	C	7,030	30.2	D	5,370	21.4	C
F-49	SR-91	Central Ave to 14th St	6,400	40.9	E	5,730	33.4	D	6,410	41.5	E	5,580	32.2	D
F-51	SR-91	University Ave to Spruce St	8,160	26.4	D	7,420	23.4	C	8,110	26.2	D	7,290	22.9	C
F-52	I-10	SR-60 to Beaumont Ave	5,030	19.7	C	8,170	38.3	E	5,060	19.9	C	8,230	39.2	E
F-53	I-10	Beaumont Ave to Pennsylvania Ave	5,100	20.1	C	8,030	37.1	E	5,130	20.3	C	7,990	37.0	E
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	5,240	20.7	C	8,170	38.3	E	5,260	20.8	C	8,200	38.9	E
F-55	I-10	Highland Springs Ave to Sunset Ave	5,350	21.2	C	8,240	38.9	E	5,340	21.3	C	8,230	39.2	E
F-56	I-10	Sunset Ave to 22nd St	4,970	19.6	C	7,670	34.5	D	4,950	19.6	C	7,680	34.5	D
F-57	I-10	22nd St to 8th St	4,880	19.3	C	7,480	33.0	D	4,870	19.2	C	7,500	33.2	D
F-58	I-10	8th St to S Hargrave St	5,000	19.7	C	7,770	34.9	D	4,970	19.7	C	7,810	35.5	E
F-59	I-10	Hargrave St to Fields Rd	4,770	18.8	C	7,970	36.9	E	4,730	18.6	C	8,020	37.3	E
F-60	I-10	Fields Rd to Morongo Tr	3,990	15.8	B	7,490	33.1	D	3,950	15.7	B	7,520	33.3	D
F-61	I-10	Morongo Tr to Main St	4,320	17.1	B	7,800	35.2	E	4,310	17.0	B	7,850	35.9	E
F-62	I-10	Main St to Haugen-Lehmann Way	4,080	16.1	B	7,530	33.1	D	4,060	16.1	B	7,600	33.9	D
F-64	I-10	SR-111 to Tipton Rd	3,660	14.5	B	7,320	31.7	D	3,640	14.4	B	7,420	32.6	D
F-65	I-10	Tipton Rd to SR-62	3,700	14.6	B	7,330	31.7	D	3,680	14.6	B	7,440	32.7	D
F-66	I-215	Scott Rd to Garbani Rd	3,350	17.2	B	6,010	36.0	E	3,370	17.3	B	5,980	35.6	E
F-84	I-215	Garbani Rd to Newport Rd	3,150	16.1	B	5,680	32.9	D	3,200	16.5	B	5,650	32.6	D
F-68	I-215	Newport Rd to McCall Blvd	2,910	15.0	B	4,610	24.4	C	2,980	15.3	B	4,580	24.2	C
F-69	I-215	McCall Blvd to Ethanac Rd	3,530	18.1	C	5,570	31.9	D	3,600	18.5	C	5,540	31.6	D
F-70	I-215	Ethanac Rd to SR-74	5,240	29.1	D	5,650	32.6	D	5,290	29.5	D	5,610	32.3	D

Table 4.15.AR-1: Year 2035 Cumulative plus Project Freeway Mainline Levels of Service (Northbound/Eastbound)

			2035 No Project						2035 Plus Buildout					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-71	I-215	SR-74 to Ellis Ave	5,200	28.7	D	6,760	46.1	F	5,200	28.7	D	6,740	45.8	F
F-85	I-215	Ellis Ave to Redlands Ave	4,820	25.9	C	6,200	38.4	E	4,840	26.0	D	6,170	38.1	E
F-74	I-215	Columbia Ave to Center St	4,110	21.6	C	3,350	17.5	B	4,090	21.4	C	3,410	17.8	B
F-75	I-215	Center St to La Cadena Dr	4,940	26.9	D	4,270	22.7	C	4,930	27.0	D	4,350	23.2	C
F-76	I-215	La Cadena Dr to Barton Rd	4,880	26.5	D	4,310	22.8	C	4,900	26.6	D	4,400	23.5	C
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,320	29.9	D	4,700	25.4	C	5,280	29.6	D	4,760	25.8	C
F-78	I-215	Mt. Vernon Ave to I-10	5,110	19.8	C	5,720	22.5	C	5,070	19.7	C	5,870	23.4	C
F-80	I-215	Auto Plaza Dr to Mill St	4,680	18.0	B	5,980	23.6	C	4,600	17.8	B	6,030	24.0	C
F-83	I-215	Baseline Rd to Highland Ave	3,260	16.8	B	4,890	26.4	D	3,250	16.7	B	5,000	27.4	D

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.AR-2: Year 2035 Cumulative plus Project Freeway Mainline Levels of Service (Southbound/Westbound)

			2035 No-Project						2035 Plus Buildout					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-2	SR-60	Reservoir St to Ramona Ave	8,770	43.3	E	7,840	34.6	D	8,670	42.7	E	7,920	35.8	E
F-3	SR-60	Ramona Ave to Central Ave	8,080	37.2	E	7,720	33.7	D	7,970	36.5	E	7,790	34.8	D
F-4	SR-60	Central Ave to Mountain Ave	6,340	25.4	C	7,580	32.7	D	6,260	25.2	C	7,630	33.6	D
F-5	SR-60	Mountain Ave to Euclid Ave	6,230	25.2	C	8,250	37.9	E	6,120	24.8	C	8,310	39.2	E
F-6	SR-60	Euclid Ave to Grove Ave	6,470	26.1	D	7,950	35.5	E	6,390	25.9	C	8,050	36.9	E
F-7	SR-60	Grove Ave to Vineyard Ave	6,280	25.0	C	8,150	37.1	E	6,200	24.7	C	8,240	38.6	E
F-8	SR-60	Vineyard Ave to Archibald Ave	7,660	33.3	D	7,640	33.1	D	7,570	32.9	D	7,720	34.3	D
F-9	SR-60	Archibald Ave to Haven Ave	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-10	SR-60	Haven Ave to Milliken Ave	6,510	20.3	C	7,970	25.6	C	6,380	19.9	C	8,100	26.3	D
F-11	SR-60	Milliken Ave to I-15	5,460	21.0	C	7,180	29.8	D	5,350	20.8	C	7,320	31.2	D
F-12	SR-60	I-15 to Etiwanda Ave/Van Buren Blvd	4,840	14.9	B	6,360	19.4	C	4,690	14.6	B	6,520	20.2	C
F-13	SR-60	Etiwanda Ave/Van Buren Blvd to Mission Blvd/Country Village Rd	4,220	16.1	B	5,620	21.6	C	4,080	15.8	B	5,790	22.9	C
F-14	SR-60	Mission Blvd/Country Village Rd to Pedley Rd	4,140	15.9	B	5,660	21.8	C	4,010	15.6	B	5,750	22.7	C
F-15	SR-60	Pedley Rd to Pyrite St	3,260	12.5	B	4,820	18.3	C	3,110	12.1	B	4,860	18.8	C
F-16	SR-60	Pyrite St to Valley Way	2,470	9.5	A	3,930	14.9	B	2,330	9.2	A	4,000	15.5	B
F-17	SR-60	Valley Way to Rubidoux Blvd	4,560	24.1	C	6,360	39.6	E	4,420	23.5	C	6,390	41.2	E
F-18	SR-60	Rubidoux Blvd to Market St	3,410	17.5	B	5,120	27.7	D	3,280	17.1	B	5,420	31.0	D
F-19	SR-60	Market St to Main St	5,530	31.5	D	6,280	38.7	E	5,400	30.8	D	6,430	41.7	E
F-20	SR-60	Main to SR-91	5,320	29.7	D	6,310	39.0	E	5,300	30.0	D	6,480	42.4	E
F-24	SR-60	Martin Luther King Blvd to Central Ave	8,330	30.8	D	8,980	33.3	D	8,240	31.6	D	9,380	39.7	E
F-26	SR-60	Fair Isle Dr/Box Springs Rd to I-215	7,500	33.2	D	8,970	46.6	F	7,420	33.6	D	9,250	52.1	F
F-27	SR-60	I-215 to Day St	7,050	50.4	F	3,590	18.6	C	7,080	53.6	F	3,810	20.8	C
F-29	SR-60	Pigeon Pass Rd to Heacock St	3,650	31.3	D	3,910	35.0	E	3,590	32.1	D	4,120	42.4	E
F-30	SR-60	Heacock St to Perris Blvd	3,560	30.1	D	3,410	28.3	D	3,610	32.4	D	3,730	35.3	E
F-31	SR-60	Perris Blvd to Nason St	3,330	27.3	D	2,780	21.9	C	3,430	30.1	D	3,140	27.6	D
F-33	SR-60	Moreno Beach Dr to Redlands Blvd	3,150	25.2	C	2,680	20.9	C	3,270	28.1	D	3,010	26.1	D
F-34	SR-60	Redlands Blvd to Theodore St	4,010	36.3	E	3,530	29.7	D	4,290	44.0	E	3,780	35.0	E
F-36	SR-60	Gilman Springs Rd to Jack Rabbit Trail	3,350	30.5	D	2,920	25.2	C	3,450	31.9	D	2,680	23.5	C
F-37	SR-60	Jack Rabbit Trail to Potrero Blvd	3,690	31.6	D	3,010	24.0	C	3,840	34.3	D	2,820	22.4	C

Table 4.15.AR-2: Year 2035 Cumulative plus Project Freeway Mainline Levels of Service (Southbound/Westbound)

			2035 No-Project						2035 Plus Buildout					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
ID	Freeway	Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
F-38	SR-60	Potrero Blvd to I-10	2,360	18.2	C	1,930	15.0	B	2,450	19.3	C	1,810	14.1	B
F-39	SR-91	I-15 to McKinley St	8,590	28.6	D	8,630	28.6	D	8,430	28.0	D	8,850	29.8	D
F-40	SR-91	McKinley St to Pierce St	6,550	26.9	D	7,440	32.0	D	6,430	26.4	D	7,630	33.6	D
F-41	SR-91	Pierce St to Magnolia Ave	6,260	39.9	E	9,000	144.5	F	6,160	39.0	E	9,170	177.2	F
F-42	SR-91	Magnolia Ave to La Sierra Ave	6,130	38.3	E	8,600	107.0	F	6,050	37.7	E	8,720	119.7	F
F-43	SR-91	La Sierra Ave to Tyler St	5,460	31.4	D	6,390	40.8	E	5,380	30.9	D	6,510	43.3	E
F-44	SR-91	Tyler St to Van Buren Blvd	6,880	28.8	D	7,970	35.9	E	6,810	28.6	D	8,080	37.2	E
F-45	SR-91	Van Buren Blvd to Adam St	6,590	27.1	D	7,720	34.0	D	6,540	27.0	D	7,830	35.1	E
F-46	SR-91	Adam St to Madison St	6,270	25.4	C	6,970	29.0	D	6,250	25.5	C	7,080	29.8	D
F-47	SR-91	Madison St to Arlington Ave	5,540	32.1	D	6,290	39.5	E	5,560	32.6	D	6,360	40.8	E
F-49	SR-91	Central Ave to 14th St	5,290	20.8	C	5,460	21.2	C	5,270	20.9	C	5,580	22.0	C
F-51	SR-91	University Ave to Spruce St	See Weaving Analysis			See Weaving Analysis			See Weaving Analysis			See Weaving Analysis		
F-52	I-10	SR-60 to Beaumont Ave	7,820	35.3	E	6,060	24.5	C	7,880	36.1	E	6,040	24.5	C
F-53	I-10	Beaumont Ave to Pennsylvania Ave	7,660	34.1	D	5,840	23.5	C	7,680	34.3	D	5,820	23.4	C
F-54	I-10	Pennsylvania Ave to Highland Springs Ave	8,180	38.4	E	5,920	23.9	C	8,250	39.4	E	5,860	23.7	C
F-55	I-10	Highland Springs Ave to Sunset Ave	7,990	36.7	E	5,590	22.3	C	8,060	37.7	E	5,550	22.2	C
F-56	I-10	Sunset Ave to 22nd St	7,620	33.8	D	5,420	21.5	C	7,720	34.9	D	5,430	21.7	C
F-57	I-10	22nd St to 8th St	7,680	34.5	D	5,130	20.3	C	7,680	34.5	D	5,120	20.4	C
F-58	I-10	8th St to S Hargrave St	7,790	35.4	E	5,370	21.4	C	7,860	36.0	E	5,350	21.4	C
F-59	I-10	Hargrave St to Fields Rd	7,610	34.0	D	5,000	19.8	C	7,720	34.9	D	4,980	19.8	C
F-60	I-10	Fields Rd to Morongo Tr	7,150	30.7	D	4,620	18.3	C	7,270	31.6	D	4,590	18.3	C
F-61	I-10	Main St (Cabazon) to Main St	7,040	30.0	D	5,040	20.0	C	7,190	31.0	D	5,010	19.9	C
F-62	I-10	Main St to Haugen-Lehmann Way	7,070	30.2	D	4,410	17.4	B	7,230	31.3	D	4,560	18.0	C
F-64	I-10	SR-111 to Tipton Rd	6,420	26.2	D	4,860	19.2	C	6,560	27.1	D	4,830	19.1	C
F-65	I-10	Tipton Rd to SR-62	6,430	26.2	D	4,870	19.2	C	6,570	27.2	D	4,840	19.1	C
F-66	I-215	Scott Rd to Garbani Rd	5,470	30.8	D	4,160	21.5	C	5,380	29.8	D	4,170	21.7	C
F-84	I-215	Garbani Rd to Newport Rd	4,950	26.6	D	4,040	20.9	C	4,880	26.1	D	4,030	20.9	C
F-68	I-215	Newport Rd to McCall Blvd	5,020	27.2	D	5,240	28.9	D	4,930	26.5	D	5,230	29.0	D
F-69	I-215	McCall Blvd to Ethanac Rd	5,400	30.4	D	4,800	25.6	C	5,300	29.6	D	4,790	25.7	C
F-70	I-215	Ethanac Rd to SR-74	5,390	30.3	D	6,220	38.3	E	5,320	29.5	D	6,220	38.3	E
F-71	I-215	SR-74 to Ellis Ave	7,170	53.3	F	5,980	35.6	E	7,110	51.5	F	6,000	35.8	E
F-85	I-215	Ellis Ave to Redlands Ave	6,560	43.1	E	5,490	31.2	D	6,510	42.0	E	5,510	31.4	D
F-74	I-215	Columbia Ave to Center St	5,000	27.4	D	3,680	19.1	C	4,970	27.2	D	3,680	19.2	C
F-75	I-215	Center St to La Cadena Dr	5,970	35.8	E	4,690	25.1	C	6,010	36.6	E	4,740	25.6	C
F-76	I-215	La Cadena Dr to Barton Rd	5,060	27.8	D	3,780	19.7	C	5,100	28.2	D	3,790	19.8	C
F-77	I-215	Barton Rd to Mt. Vernon Ave	5,540	31.6	D	4,210	22.2	C	5,590	32.3	D	4,220	22.2	C
F-78	I-215	Mt. Vernon Ave to I-10	6,480	26.2	D	5,210	20.3	C	6,570	26.7	D	5,190	20.3	C
F-80	I-215	Auto Plaza Dr to Mill St	5,600	21.7	C	4,540	17.4	B	5,500	21.4	C	4,570	17.6	B
F-83	I-215	Baseline Rd to Highland Ave	6,910	48.0	F	5,450	30.8	D	6,930	48.3	F	5,490	31.4	D

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

  - SR-91 Central Avenue to 14th Street;
  - I-10 SR-60 to Beaumont Avenue;
  - I-10 Pennsylvania Avenue to Highland Springs Avenue;
  - I-10 Highland Springs Avenue to Sunset Avenue;
  - I-10 S. Hargrave Street to Field Road; and
  - I-10 Main Street (Cabazon) to Main Street.
- Southbound or Westbound Sections:
  - SR-60 Reservoir Street to Ramona Avenue;
  - SR-60 Mountain Avenue to Euclid Avenue;
  - SR-60 Euclid Avenue to Grove Avenue;
  - SR-60 Grove Avenue to Vineyard Avenue;
  - SR-60 Valley Way to Rubidoux Boulevard;
  - SR-60 Market Street to Main Street;
  - SR-60 Main Street to SR-91;
  - SR-60 Martin Luther King Boulevard to Central Avenue;
  - SR-60 Fair Isle Drive/Box Springs Road to I-215;
  - SR-60 I-215 to Day Street;
  - SR-60 Redlands Boulevard to Theodore Street;
  - SR-91 Pierce Street to Magnolia Avenue;
  - SR-91 Magnolia Avenue to La Sierra Avenue;
  - SR-91 La Sierra Avenue to Tyler Street;
  - SR-91 Tyler Street to Van Buren Boulevard;
  - SR-91 Madison Street to Arlington Avenue;
  - I-10 SR-60 to Beaumont Avenue;
  - I-10 Pennsylvania Avenue to Highland Springs Avenue;
  - I-10 Highland Springs Avenue to Sunset Avenue;
  - I-10 8th Street to S. Hargrave Street;
  - I-215 SR-74 to Ellis Avenue;
  - I-215 Center Street to Iowa Avenue/La Cadena Drive; and
  - I-215 Baseline Road to Highland Avenue.

The project would create a significant cumulative impact at the following four freeway segments under Year 2035 Cumulative with project conditions:

- Northbound or Eastbound Sections:
  - I-10 8th Street to S. Hargrave Street.
- Southbound or Westbound Sections:

- SR-60 from Martin Luther King Boulevard to Central Avenue;
- SR-60 from Heacock Street to Perris Boulevard; and
- SR-91 from Van Buren Boulevard to Adam Street.

Freeway Weaving Analysis. Year 2035 Cumulative with project freeway weaving segment levels of service are summarized in Tables 4.15.AS-1 and 4.15.AS-2, which shows 14 freeway weaving segments would operate at unsatisfactory levels of service. The project would contribute toward the worsening of an already unsatisfactory LOS at 10 of the freeway weaving segments and, therefore, would have a cumulative impact at these locations. The project would create a significant cumulative impact at one freeway weaving segment since the project would cause a decrease in the LOS from satisfactory to unsatisfactory. The project would have a cumulative impact at the following 14 freeway weaving segments under Year 2035 Cumulative with project conditions:

- Northbound or Eastbound:
  - SR-60 SR-71/S. Garey Avenue to Reservoir Street;
  - SR-60 Main Street to SR-91;
  - SR-60 SR-91 to W. Blaine Street/3rd Street;
  - SR-60 W. Blaine Street/3rd Street to University Avenue;
  - SR-60 Central Avenue to Fair Isle Drive/Box Springs Road; and
  - SR-91 Arlington Avenue to Central Avenue.
- Southbound or Westbound:
  - SR-60 Haven Avenue to Archibald Avenue;
  - SR-60 SR-91 to W. Blaine Street/3rd Street;
  - SR-60 W. Blaine Street/3rd Street to University Avenue;
  - SR-60 University Avenue to Martin Luther King Boulevard;
  - SR-60 Central Avenue to Fair Isle Drive/Box Springs Road;
  - SR-60 Day Street to Pigeon Pass Road/Frederick Street;
  - SR-91 14th Street to University Avenue; and
  - I-10 Haugen-Lehmann Way to SR-111.

The project would create a significant cumulative impact at the following freeway weaving segment under Year 2035 Cumulative with project conditions:

- Southbound or Westbound Sections:
  - SR-60 Day Street to Pigeon Pass Road/Frederick Street.

Freeway Ramp Analysis. Year 2035 Cumulative with project freeway ramp merge/diverge levels of service are summarized in Table 4.15.AT, which shows ten freeway ramps would operate at unsatisfactory levels of service. The project would contribute toward the worsening of an already unsatisfactory LOS at three freeway ramps and, therefore, have a significant cumulative impact at

Table 4.15.AS-1: Year 2035 Cumulative plus Project Freeway Weaving Segment Levels of Service (Northbound/Eastbound)

			2035 No–Project Conditions						2035 Plus Buildout Conditions					
			A.M. Peak Hour			P.M. Peak Hour			A.M. Peak Hour			P.M. Peak Hour		
ID	Freeway	Weaving Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/S Garey Ave to Reservoir St	8,630	39.7	E	9,700	46.8	E	8,820	41.2	E	9,570	46.5	E
W-9	SR-60	Haven Ave to Archibald Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-20	SR-60	Main St to SR-91	7,060	34.1	D	7,110	35.1	E	7,280	35.8	E	7,040	35.2	E
W-21	SR-60	SR-91 to Blaine St/3rd St	7,280	32.4	D	10,640	>Capacity	F	7,540	34.3	D	10,640	>Capacity	F
W-22	SR-60	Blaine St/3rd St to University Ave	7,120	28.9	D	8,460	38.7	E	7,460	31.9	D	8,570	40.9	E
W-23	SR-60	University Ave to Martin Luther King Blvd	7,960	30.0	D	7,040	26.4	C	8,310	32.0	D	7,160	27.4	C
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs Rd	7,890	37.0	E	8,640	40.5	E	8,370	43.9	E	8,760	44.5	E
W-27	SR-60	I-215 to Day St	3,980	16.3	B	6,210	27.7	C	4,460	21.4	C	6,200	30.8	D
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	3,760	16.2	B	5,660	26.5	C	4,190	18.9	B	5,690	27.2	C
W-32	SR-60	Moreno Beach Dr to Nason St	2,640	16.5	B	3,480	22.6	C	3,150	21.0	C	3,650	24.9	C
W-35	SR-60	Theodore St to Gilman Springs Rd	3,070	17.5	B	5,710	37.9	E	3,080	18.3	B	5,360	36.2	E
W-42	SR-91	Magnolia Ave to La Sierra Ave	6,970	33.7	D	6,930	34.2	D	7,080	34.4	D	6,900	34.2	D
W-48	SR-91	Arlington Ave to Central Ave	7,620	41.0	E	4,370	21.3	C	7,660	41.6	E	4,220	20.6	C
W-50	SR-91	14th St to University Ave	5,310	26.4	C	5,060	26.1	C	5,260	26.2	C	4,930	25.4	C
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-63	I-10	Haugen-Lehmann Way to SR-111	4,170	14.4	B	8,420	33.1	D	4,140	14.3	B	8,550	34.1	D
W-73	I-215	SR-60 to Columbia Ave	5,330	28.4	D	4,610	24.6	C	5,300	28.3	D	4,670	25.0	C
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	4,590	16.9	B	5,640	20.9	C	4,570	16.8	B	5,730	21.3	C
W-81	I-215	Mill St to 2nd St	5,190	18.3	B	6,460	23.5	C	5,160	18.2	B	6,560	23.9	C
W-82	I-215	5th St to Baseline Rd	3,900	13.5	B	4,980	17.7	B	3,880	13.4	B	5,050	18.0	B

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.AS-2: Year 2035 Cumulative plus Project Freeway Weaving Segment Levels of Service (Southbound/Westbound)

			2035 No-Project Conditions						2035 Plus Buildout Conditions					
			A.M. Peak Hour			P.M. Peak Hour			A.M. Peak Hour			P.M. Peak Hour		
ID	Freeway	Weaving Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-1	SR-60	SR-71/S Garey Ave to Reservoir St	6,130	22.0	C	7,510	27.6	C	6,040	21.8	C	7,620	28.4	D
W-9	SR-60	Haven Ave to Archibald Ave	6,190	28.7	D	8,180	36.4	E	6,800	28.5	D	8,270	37.1	E
W-20	SR-60	Main St to SR-91	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-21	SR-60	SR-91 to Blaine St/3rd St	8,490	33.7	D	9,970	40.9	E	8,380	33.5	D	10,290	>Capacity	F
W-22	SR-60	Blaine St/3rd St to University Ave	6,320	24.3	C	8,890	35.8	E	6,320	25.3	C	9,220	39.6	E
W-23	SR-60	University Ave to Martin Luther King Blvd	6,750	28.2	D	8,830	36.9	E	6,670	28.3	D	9,130	39.2	E
W-25	SR-60	Central Ave to Fair Isle Dr/Box Springs Rd	8,340	38.1	E	9,200	39.2	E	8,170	38.5	E	9,560	43.8	E
W-27	SR-60	I-215 to Day St	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-28	SR-60	Day St to Pigeon Pass Rd/Frederick St	4,790	33.5	D	4,790	32.4	D	4,820	34.5	D	5,100	36.1	E
W-32	SR-60	Moreno Beach Dr to Nason St	3,310	20.5	C	2,680	16.2	B	3,460	22.2	C	3,040	19.5	B
W-35	SR-60	Theodore St to Gilman Springs Rd	4,560	32.0	D	3,680	24.2	C	4,220	27.3	C	3,470	22.5	C
W-42	SR-91	Magnolia Ave to La Sierra Ave	See Basic Analysis			See Basic Analysis			See Basic Analysis			See Basic Analysis		
W-48	SR-91	Arlington Ave to Central Ave	5,160	24.9	C	5,760	27.4	C	5,140	24.9	C	5,830	28.0	D
W-50	SR-91	14th St to University Ave	6,070	23.7	C	8,010	33.0	D	6,020	23.6	C	8,050	33.3	D
W-51	SR-91	SR-60 to Mission Inn Ave/University Ave	6,500	20.6	C	10,130	32.5	D	6,460	20.7	C	10,140	32.7	D
W-63	I-10	Haugen-Lehmann Way to SR-111	7,270	29.0	D	5,500	>Capacity	F	7,440	30.0	D	5,460	>Capacity	F
W-73	I-215	SR-60 to Columbia Ave	6,660	33.8	D	5,570	28.2	D	6,640	33.8	D	5,580	28.3	D
W-79	I-215	I-10 to Auto Plaza Dr/Orange Show Rd	6,200	22.5	C	4,950	18.8	B	6,240	22.7	C	4,970	18.9	B

Table 4.15.AS-2: Year 2035 Cumulative plus Project Freeway Weaving Segment Levels of Service (Southbound/Westbound)

			2035 No-Project Conditions						2035 Plus Buildout Conditions					
			A.M. Peak Hour			P.M. Peak Hour			A.M. Peak Hour			P.M. Peak Hour		
ID	Freeway	Weaving Segment	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS	Freeway Volume	Density (pc/mi/ln)	LOS
W-81	I-215	Mill St to 2nd St	6,360	23.4	C	4,980	18.3	B	6,370	23.5	C	5,020	18.5	B
W-82	I-215	5th St to Baseline Rd	5,610	20.3	C	4,060	14.6	B	5,620	20.3	C	4,060	14.6	B

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.AT: Year 2035 Cumulative plus Project Freeway Ramp Levels of Service

				2035 No-Project Conditions								2035 Plus Buildout Conditions							
				AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
ID	Freeway / Direction	Ramp Segment	Ramp No. of Lanes	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS	Mainline Volume	Ramp Volume	Density (pc/mi/ln)	LOS
R-1	SR-60 EB	On-Ramp from Martin Luther King Blvd	1	7,410	580	30.6	D	6,430	1,400	33.8	D	7,760	680	33.0	D	6,530	1,460	35.1	E
R-2	SR-60 EB	On-Ramp from Central Ave	1	7,890	1,220	32.2	F	8,630	970	32.9	F	8,370	1,360	35.5	F	8,760	970	33.9	F
R-3	SR-60 EB	Off-Ramp to Redlands Blvd	1	2,480	220	13.8	B	3,130	440	19.7	B	2,910	280	20.0	C	3,240	680	22.6	C
R-4	SR-60 EB	Loop On-Ramp from Redlands Blvd	1	2,260	90	22.1	C	2,690	60	25.4	C	2,630	110	27.2	C	2,560	70	25.8	C
R-5	SR-60 EB	Direct On-Ramp from Redlands Blvd	1	2,350	110	19.9	B	2,750	480	26.0	C	2,740	140	25.3	C	2,630	480	26.4	C
R-6	SR-60 EB	Off-Ramp to Theodore St	2	3,200	270	25.0	C	4,500	150	36.7	F	3,630	850	24.3	C	4,280	410	27.8	C
R-7	SR-60 EB	Loop On-Ramp from Theodore St	1	2,930	150	22.0	C	4,350	1,350	42.9	F	2,780	50	27.6	C	3,870	350	38.5	E
R-8	SR-60 EB	Direct On-Ramp from Theodore St	1	Does not Exist in this Scenario				Does not Exist in this Scenario				2,830	260	23.5	C	4,220	1,400	43.6	F
R-9	SR-60 EB	Off-Ramp to Gilman Springs Rd	2	3,070	840	19.4	B	5,710	1,570	35.8	E	3,080	980	19.8	B	5,360	1,240	34.0	D
R-10	SR-60 EB	On-Ramp from Gilman Springs Rd	1	2,230	260	16.9	B	4,140	470	34.3	F	2,100	300	16.5	B	4,120	690	36.4	F
R-11	SR-60 WB	Off-Ramp to Gilman Springs Rd	2	3,350	240	20.9	C	2,920	560	18.2	B	3,450	450	21.5	C	2,680	530	16.8	B
R-12	SR-60 WB	On-Ramp from Gilman Springs Rd	1	3,110	1,330	32.2	D	2,360	1,140	24.6	C	3,000	1,050	29.3	D	2,150	1,130	23.2	C
R-13	SR-60 WB	Off-Ramp to Theodore St	2	4,560	640	32.7	F	3,680	380	24.8	C	4,220	710	26.9	C	3,470	420	22.2	C
R-14	SR-60 WB	On-Ramp from Theodore St	1	3,920	90	35.5	E	3,300	230	31.5	D	3,510	520	36.8	E	3,050	640	34.1	D
R-15	SR-60 WB	Off-Ramp to Redlands Blvd	1	4,010	310	32.4	D	3,530	370	28.1	D	4,290	420	36.1	E	3,780	540	31.6	D
R-16	SR-60 WB	Loop On-Ramp from Redlands Blvd	1	3,700	200	31.8	E	3,160	110	26.7	D	3,870	210	34.3	E	3,240	150	28.6	D
R-17	SR-60 WB	Direct On-Ramp from Redlands Blvd	1	3,900	350	34.7	D	3,270	280	29.0	D	4,080	390	37.6	F	3,390	630	34.2	D
R-18	SR-60 WB	Off-Ramp to Central Ave	2	8,340	480	32.0	D	9,200	540	35.0	D	8,170	480	31.8	D	9,560	540	37.0	E
R-19	SR-60 WB	Off-Ramp to Martin Luther King Blvd	1	8,330	710	32.5	D	8,980	660	34.1	D	8,240	720	32.5	D	9,380	670	36.0	E

Indicates that the LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

these locations. The project would create a significant cumulative impact at five freeway ramp locations under Year 2035 Cumulative with project conditions since the project would cause a decrease in the LOS from satisfactory to unsatisfactory.

The project would have a significant impact at the following three freeway ramps under Year 2035 Cumulative with project conditions:

- SR-60 Eastbound On-Ramp from Central Avenue;
- SR-60 Eastbound On-Ramp from Gilman Springs Road;
- SR-60 Westbound On-Ramp from Theodore Street;

Westbound SR-60 Loop On-Ramp from Redlands Boulevard (R-16) will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

The project would also create a significant cumulative impact at the following five freeway ramps under Year 2035 Cumulative with project conditions:

- SR-60 Eastbound On-Ramp from Martin Luther King Boulevard;
- SR-60 Westbound Off-Ramp to Redlands Boulevard;
- SR-60 Westbound Direct On-Ramp from Redlands Boulevard;
- SR-60 Westbound Off-Ramp to Central Ave; and
- SR-60 Westbound Off-Ramp to Martin Luther King Boulevard.

Note: Section 4.15.6.5 has been added to this Final EIR in response to: Comment F-1-49 in Letter F-1 from the Center for Biological Diversity/San Bernardino Valley Audubon Society; Comment F-3-4 in Letter F-3 from the California Clean Energy Committee; Appendix 78 in Letter F-3 from the California Clean Energy Committee; Comment F-9A-22 in Letter F-9A from the Sierra Club, Center for Community Action & Environmental Justice, and Natural Resources Defense Council; Comments F-9C-2, 4, 5, 6, and 7 in Letter F-9C from Sustainable Systems Research, LLC; Comment F-11-23 in Letter F-11 from the Sierra Club, San Gorgonio Chapter; Comment F-13-11 in Letter F-13 from the Sierra Club and Friends for a Livable Moreno Valley; and Comment G-51-45 in Letter G-51 from Michael McCoy.

4.15.6.5 Freeway Impacts from Truck Trips to the Ports of Los Angeles and Long Beach

Threshold:	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit. Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

A significant project-specific traffic impact would occur if the project would cause a decrease from satisfactory LOS (based on local agency adopted standards) to an unsatisfactory LOS on a study area intersection, roadway segment, freeway mainline lane, freeway weaving segment or freeway ramp. A significant cumulative traffic impact would occur if the project contributes traffic toward those facilities operating at unsatisfactory LOS in the pre-project condition. The adopted LOS standards are as follows:

- Roadway segments: LOS C and LOS D as outlined in previously referenced Tables 4.15.B and 4.15.C.
- Intersections: LOS C and LOS D as outlined in previously referenced Table 4.15.Z.
- Freeway mainline: LOS D.
- Freeway Ramp Merge/Diverge: LOS D.

Several comments received on the Draft EIR indicated confusion regarding the volume of truck traffic between the WLC and the Ports of Los Angeles and Long Beach. In general, the DEIR commenters seemed to believe that the truck traffic between the WLC and the ports will be much higher than will actually occur. This section responds to these comments by 1) describing the current share of port-related use of warehouse space, 2) estimating the truck traffic between the WLC and the ports using three different methods, 3) estimating the growth in WLC truck traffic to the port over time, and 4) determining whether WLC trucks would impose significant impacts on the freeways to the ports beyond those identified in previous chapters.

Current Share of Port-Related Warehouse Space. The DEIR commenters referred to SCAG's study titled *Industrial Space in Southern California: Future Supply and Demand for Warehousing and Intermodal Facilities*. This study states that 13 percent of the occupied warehouse space in the SCAG region in 2009 was port-related. This indicates that while the ports are important sources of demand for warehouse space, the great majority of warehouse space serves other demands. In a large regional economy such as southern California this other demand amounted to 578 million square feet in 2009, and is growing over time.

The SCAG study also shows wide differentiation in the markets served. Riverside County serves only a small percentage of port-related demand while playing a much more important role in serving non-port demand. This differentiation reflects the tendency of warehouse tenants whose operations rely on the ports to self-select locations close to the port.

The information provided in the report indicates that only 5 percent of the warehouse space in Riverside County serves port-related demand, which suggests that the volume of truck traffic between the ports and warehouses in Riverside County, including those in WLC, will be relatively small.

The study also reached two conclusions regarding the regional supply of warehouse space, taken from the report's Executive Summary (pages ES-1 and ES-2):

> *"According to assumed growth rates, the region will run out of suitably zoned vacant land in about the year 2028. At that time, forecasts show that the demand for warehousing space will be approximately 1,023 million square feet.*
>
> *During the year 2035, there will be a projected shortfall of space of about 228 million square feet, unless other land not currently zoned for warehousing becomes available."*

In other words, according to the SCAG study cited by the commenters, even if all of the land currently zoned for warehouse space were developed, there would still be a massive shortfall of warehouse space by 2035 unless projects like the WLC are approved and built.

Estimating Truck Trips between WLC and the Ports. In order to ensure that a reasonable worst-case scenario was used for the impact analysis, the number of truck trips between the WLC and the ports was forecast using three different methods, all based on data provided by regional planning agencies, with the highest of the three forecasts used for the analysis. The three methods were as follows:

- *Method 1: RivTAM Model.* The first method for estimating truck trips to the port was to use the RivTAM model. As described in Chapter 2, RivTAM is the standard traffic forecasting tool used by agencies in Riverside County to analyze the regional effects of proposed projects. Like most other traffic models, RivTAM assigns trips to destinations using a gravity model where the number of trips between each origin/destination pair increases in proportion to the number of trips generated at each end, but decreases in proportion to the distance between the origin and destination. The effect of distance on the likelihood of travel between origin-destination pairs is determined by the trip length distribution which in turn is based on survey data.

  The WLC's proposed land uses were input into the RivTAM model as described in Chapter 2, the model was run, and the outputs were checked to find how many truck trips were assigned between the ports TAZs and the WLC. Using the RivTAM model to estimate truck trips yields 82 truck trips per day between the ports and the WLC if the WLC were built today (i.e., the 2012 Plus Full Build-Out scenario).

- *Method 2: Based on Port Truck Study.* The best information currently available on truck trips from the ports comes from the Ports of Los Angeles and Long Beach Year 2010 Marine Terminal Gate Surveys. These surveys found that 1.5 percent of truck trips entering the ports came from Riverside County and 1.7 percent of trucks leaving the ports went to Riverside County. These finding are consistent with an earlier study that found 1 percent of truck trips entering the ports came from Riverside County and 2 percent of truck trips leaving the ports went to Riverside County (the numbers are rounded in the study). Applying the percentages from the 2010 survey to the approximately 50,000 truck trips per day generated by the ports yields a total of approximately 800 trucks per day between the ports and Riverside County.

  If we make the conservative assumption that every one of these 800 truck trips goes to a warehouse rather than to a factory, store, or some other destination, and divide these trips among the 136 million square feet of occupied warehouse space in Riverside County, we find an average of 5.9 truck trips to or from the ports per million square feet of warehouse space per day. Applying this rate to the 40.6 million square feet of warehouse space proposed for the WLC yields 240 truck trips per day between the ports and the WLC if the WLC were built today (the 2012 Plus Full Build-Out scenario).

- *Method 3: Based on Truck Flows from Riverside County.* The best information currently available on regional truck traffic patterns comes from SCAG's Goods Movement Study that was done in preparation for the 2012 RTP/SCS.

  Applying the ports' 1.5 percent share of Riverside County truck trips applies to WLC's 11,600 medium and heavy truck trips per day yields 174 truck trips per day between the ports and the WLC if the WLC were built today (the 2012 Plus Full Build-Out scenario).

  This analysis shows that a reasonable estimate of truck traffic between WLC and the ports would be in the range of 84 to 240 truck trips per day. The higher figure of 240 truck trips per day was used as a reasonable worst-case scenario.

***Growth in Truck Trips to the Port*.** Some comments suggested that the analysis should consider the possibility that the share of warehouse space in the Inland Empire, and by extension the WLC, may grow over time. This section addresses those comments.

As discussed previously, currently only 1.5 percent of the truck trips in Riverside County are to or from the ports. In the future, port-related uses are anticipated to require a greater share of warehouse space. For Riverside County, SCAG estimates that the percentage of warehouse space devoted to port uses would more than triple between 2012 and 2035, from 5.0 percent to 16.3 percent.

The SCAG estimates show that the percentage of warehouse space devoted to port-related cargo will always be larger than the percentage of trucks going to and from the port. That is because the cargo that has come from the port to the warehouse then leaves the warehouse in trucks going to non-port destinations. There may also be inbound truck trips to warehouses from places other than the ports, delivering shipments of packaging material and other items which might be combined with port-related cargo, thus further reducing the proportion of trucks that come from the ports.

The estimated percentage of WLC trucks going to the ports is 2.07 for the Year 2012 scenario, 3.86 for the Year 2022 scenario, and 6.76 for the Year 2035 scenario. These estimates are based on 240 project truck trips per day to the port compared to 11,621 total medium and heavy truck trips to and from the WLC in the year 2012 scenario.

These percentages were then applied to the trip generation rates to obtain the number of WLC trucks to and from the port for each analysis period. The estimated quantity of WLC trucks going to the ports per day is 242 for the Year 2012 scenario, 254 for the Year 2022 scenario, and 786 for the Year 2035 scenario. Tests with the SCAG traffic model showed that these trips would split approximately evenly between SR-60 and SR-91 routes.

***Determination of Whether Impacts are Significant*.** The potential for traffic impacts along the SR-60 and SR-91 corridors was assessed by manually adding the forecasts for WLC trucks to and from the port to the No-Project condition from the SCAG model. Because the ports and the freeways leading to them are in Los Angeles County, the threshold of significance for the analysis was taken from the Los Angeles County Congestion Management Program (CMP). The CMP states that a significant impact would be deemed to occur if the project increased demand on a highway by at least 2 percent causing LOS F or, if the highway facility already operates at LOS F, then a significant impact would be deemed to occur if the project increases traffic demand by 2 percent or more of capacity.

Analysis of the project's impacts to each section of the SR-60 and SR-91 corridors and in each direction, for both the a.m. and p.m. peak periods, was conducted for the 2012, 2022, and 2035 scenarios. The addition of the WLC traffic would increase freeway traffic volume ranging from 0.05 percent to 1.17 percent of non-project traffic, would not cause a significant impact on any segment of these freeways.

4.15.7 Mitigation of Significant Impacts

As described in detail in Section 4.15.4, the level of service performance standards used in this EIR are as follows:

- Roadway segments and intersections: LOS C, LOS D, or LOS E as outlined in previously referenced Tables 4.15.B, 4.15.C, and 4.15.D.

- Freeway mainline: LOS D (or existing density if currently operating at LOS E or F).
- Freeway Ramp Merge/Diverge: LOS D.

The methodology used to identify mitigation measures included:

1) Determining whether the LOS exceeded the target threshold in the Plus Project condition.
2) If so, then determining whether the appropriate measure of effectiveness under Plus Project conditions was below that under No Project conditions. Some study freeway segments were found to exceed the threshold of significance under Plus Project conditions but the traffic density was lower under Plus Project conditions than No Project conditions. This could happen because the project would cause some commuters to switch from the peak direction to the off-peak direction, thus reducing congestion at some locations. The project's impacts (both project direct and cumulative impacts) were considered significant only when the Plus Project condition was worse than the No-Project condition.
3) If the project had a significant impact, capacity-increasing improvements were then added incrementally until the LOS was within the target threshold of significance.
4) For cumulative impacts, determining whether the mitigations could be funded as part of an established fee program such as TUMF or DIF. If so, then payment into the TUMF or DIF program constitutes mitigation of impacts to the TUMF and DIF facilities.
5) For improvements that would not be funded from an established fee program the project's fair-share contribution was computed using the formula in Caltrans' *Guide for the Preparation of Traffic Impact Studies - Appendix "B"*. This formula defines the project's fair-share as the project-related traffic's percentage share of overall traffic growth, not including new traffic attributable to projects that have already been approved. Where there were significant impacts in both the a.m. and p.m. peak periods, the period with the higher share of project traffic was used to determine the fair-share contribution.

Potential mitigation measures were analyzed to determine whether they were feasible or not. Improvements were deemed to be infeasible if they would require the acquisition of existing homes or businesses, if they would result in excessive air, noise, or vibration impacts on existing homes, businesses, or sensitive natural environments, or would create safety impacts that could be considered less acceptable than a reduced traffic LOS. In cases where feasibility is uncertain, the recommended improvement was treated as feasible in order to produce a conservative estimate of project responsibilities (i.e. "conservative" in the sense that the project's responsibilities would not be under-estimated).

In cases where a proposed modification to an existing intersection would result in the elimination of an existing bus stop or bicycle lane the proposed mitigation would include the replacement of the bicycle lane or bus stop even if not explicitly stated. This is also true of the replacement of existing curbs, gutters, sidewalks, lights, and other existing design features.

Timing of Improvements. It is important to note that the specific timing of installation of the various identified improvements will occur as indicated by subsequent traffic studies when specific development is proposed in the future, as outlined in Mitigation Measure 4.15.7.4A. It is therefore not possible at this time, in this programmatic document, to identify the specific timing of roadway or other circulation improvements identified in this document.

4.15.7.1 The TUMF Program

In 1988, the voters of Riverside County approved Measure A, a half-cent sales tax to fund transportation projects. In 2002, voters approved a 20-year extension of Measure A, this time including a Transportation Uniform Mitigation Fee or TUMF. The rationale behind TUMF was that having a single uniform fee program to mitigate the cumulative regional impacts of new development on the area's arterial highway system would be more effective than having multiple and potentially uncoordinated fee programs with varying policies, fee amounts, and project lists. Under the TUMF, developers of residential, industrial, and commercial property pay a development fee to fund transportation projects that will be required as a result of the growth the projects create. The program is recognition by voters that residents and employees in all of Western Riverside County's jurisdictions benefit from arterials located not just in their own city, but also in nearby cities as well.

The TUMF program is designed to provide a network of roads, bridges, interchanges, and railroad grade separations, known as the Regional System of Highways and Arterials (RSHA), needed to accommodate future growth in the area through 2035. The RSHA was developed by the Public Works Directors of the Western Riverside Council of Governments (WRCOG) member jurisdiction. A "Nexus Study" was then prepared in accordance with the California Mitigation Fee Act, which requires that a reasonable relationship exist between the impact fee collected and the proposed improvements for which a fee is used. The study determined the proportion of the cost of the improvements should be borne by different types of development based on the trip generating characteristics of each land use type. The Nexus Study was updated in 2010 and the RSHA was revised to reflect the most current transportation needs and costs for Western Riverside County. The new network reflected several changes due to completed projects and recommendations from the WRCOG Public Works Committee (PWC) to better represent the transportation needs of Western Riverside County.

TUMF is administered by the WRCOG. As administrator, WRCOG receives all fees generated from the TUMF as collected by the local jurisdictions. TUMF funds are programmed by WRCOG's partner agencies, which are responsible for prioritizing projects and overseeing their development.

The TUMF program uses six categories of land uses: two residential categories and four non-residential categories. The two residential types are single-family residential and multifamily residential. Non-residential uses are industrial, retail, service commercial, and high-cube warehouse, with fees assessed at different rates depending on the category. The high-cube warehouses in the WLC would fall into the "high-cube" category of non-residential development. As this fee level, if the WLC builds out completely, it would potentially pay more than $70 million in TUMFs.

TUMF revenues are collected when a development reaches the Building Permit stage. Once collected and administrative costs and a mitigation allocation made to the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), TUMF revenues are allocated as follows:

- 46.39 percent is allocated for regional improvements. These revenues are programmed by the RCTC pursuant to an agreement with WRCOG.
- 46.39 percent is allocated to the geographic zone from which the fees are collected. Project prioritization and programming are undertaken by the jurisdictions in each of the five zones.
- 1.64 percent is allocated for regional transit projects. WRCOG administers the funds on behalf of the RTA which prioritizes and programs capital transit projects.
- 1.59 percent is allocated to the Multiple Species Habitat Conservation Plan.
- 4.0 percent is used for program administration.

Since its inception, TUMF has collected more than $554 million in revenues, making it the largest multi-jurisdictional fee program in the nation. It has completed 46 projects with several dozen more under development. The projects successfully funded by the program include a variety of road widening, intersection improvements, and freeway interchanges, including:

- Widening Pigeon Pass Road from 2 lanes to 4 lanes from Climbing Rose Drive to Hidden Springs Drive;
- Widening the Ramona Expressway from 2 lanes to 6 lanes from I-215 to Evans Road;
- Improvements to the Ironwood Avenue/Moreno Beach Drive intersection;
- Improvements to the Ironwood Avenue/Nason Street intersection;
- Adding a northbound lane to Lasselle Street from John F Kennedy Drive to Alessandro Boulevard;
- Widening Oleander Avenue from Perris Boulevard to Indian Avenue;
- The Van Buren Boulevard/SR-91 Interchange Project;
- Widening State Street in Hemet from 2 to 4 lanes with a center turn lane; and
- Widening Sanderson Avenue from Menlo Avenue to Ramona Expressway.

This track record of success is a key reason why the TUMF projects have a good probability of being implemented. Between now and 2035, when the program is scheduled for completion, the TUMF program is forecast to provide nearly $1.9 billion towards a total of $4.2 billion in arterial road, bridge, intersection, and interchange improvements in Western Riverside County. Those components of infrastructure that are subject to and included in the TUMF program are identified in the TIA and this Traffic and Circulation section of the EIR.

4.15.7.2 The City of Moreno Valley Development Impact Fee Program

The City of Moreno Valley's Development Impact Fee (DIF) program is used to fund road and intersection improvements needed to accommodate new residential, commercial, and industrial development. The program collects fees from three categories of residential development (single-family, multifamily, and mobile homes) and five categories of commercial development (general commercial, regional commercial, general industrial, high-cube warehouse, and office) based on their respective trip generating characteristics. In many cases, developers dedicate right-of-way and/or construct improvements that are part of the TUMF or DIF programs in lieu of paying the fees. These facilities are typically part of a project's direct frontage or are necessary to accommodate traffic capacities in the immediate area of the project. DIF fees on high-cube warehouses are currently set at $0.9955 per square foot, which means that the WLC would potentially pay more than $40 million in DIF fees if the project builds out completely as planned. Like the TUMF Program, the City's DIF Program is a bona-fide Mitigation Fee Program that has been created in accordance with AB 1600. All development is required to pay into the DIF Program; funds raised pursuant to the DIF Program are held in a separate interest-bearing account; an infrastructure capital improvement program is adopted that funds transportation improvements as they are needed to maintain targeted levels of service; and the capital improvement program is implemented as development occurs and DIF fees are collected.

DIF funds are overseen by the City's Public Works Department. Department staff monitors traffic volumes and periodically develops a capital improvement program designed to ensure that improvements are installed to help maintain the City's target LOS threshold. The CIP is reviewed and approved by the city council. Examples of projects successfully completed using DIF funds include:

- Iris Ave. from Indian St. to Perris Blvd.
- Lasselle St./Bay Ave. traffic signal
- Lasselle St./Cottonwood Ave. traffic signal
- Cactus Ave. eastbound improvements from I-215 to Veterans Way

Similar to the TUMF, this track record of success is a key reason why the DIF projects have a good probability of being implemented. The DIF program supplements the TUMF program by funding elements of the City's General Plan Circulation Element not covered by TUMF and, in some projects, by providing funds for additional capacity beyond what the TUMF project will provide. The DIF program has been updated several times, most recently in January 2013, to reflect changes in priorities as development occurs in different parts of the City.

Table 4.15.AU shows a sample of transportation improvement projects from the City's Capital Improvement Program that used DIF and/or TUMF funds in combination with other funding sources.

Table 4.15.AU: Projects Using DIF and TUMF in Combination with Other Funding Sources

Project	DIF Funds	TUMF Funds	Other Funds	Sources of Other Funds
Iron Avenue / Heacock Street to Perris Boulevard	$1,509,420	$72,413	$57,358	2005 Lease Revenue Bonds
Nason Street / Cactus Avenue Street Improvements	$9,272,000		$15,910,845	Measure "A"; State-Local Partnership Program; General Fund; General City C.P.; Successor Agency Tax Revenue; Redevelopment Agency Cap. Proj.; Eastern Municipal Water District; Riverside County Flood Control; 2007 Taxable Lease Revenue Bonds
SR-60 / Moreno Beach Drive South Side of Interchange (Phase 1)		$3,500,000	$6,110,735	Successor Agency; Redevelopment Agency
SR-60 / Nason Street Interchange	$740,000		$13,285,777	Measure "A"; Federal Demonstration Funds; Demo Toll Credit - Const.; Surface Transportation Program Local (construction); Surface Transportation Program Local Toll Credit - Const.
Heacock Street South Extension		$300,000	$564,172	Measure "A"
Emergency Vehicle Pre-emption at 117 Traffic Signals	$93,534		$840,000	Highway Safety Improvement Program
Nason Street / Riverside County Regional Medical Center Main Driveway Traffic Signal	$250,000		$50,000	Measure "A"
Transportation Management Center	$316,578		$214,646	Air Quality Management
Lasselle Street / John F. Kennedy Drive to Alessandro Boulevard		$2,757,886	$1,058,143	2005 Lease Revenue Bonds
Kitching Street / Alessandro Boulevard to Gentian Avenue	$11,903		$1,639,854	2005 Lease Revenue Bonds
Pigeon Pass Road Widening / Climbing Rose Drive to North City Limits	$462,239	$679,953	$22,664	Measure "A"
Total	$12,655,674	$7,310,252	$39,754,194	
Percentage of Total	21%	12%	67%	

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

4.15.7.3 Required Improvements

Existing plus Project Direct and Cumulative Project Impacts. As individual projects within the WLC are processed, the City will require that each project do a traffic impact assessment in accordance with City guidelines. These project-level assessments will determine the timing of each transportation improvement measure and will ensure that the impact assumptions made in this programmatic EIR document are consistent with the analysis of potential impacts at the project-specific implementation stage.

This section is devoted to disclosing project impacts and identifying required improvements to improve the impacted location to within the applicable level of service standard. Each impacted facility is discussed in the text and the results are summarized in Tables AV through AY. These tables all follow a similar format which includes the following data fields (columns):

(A) This field identifies the location of the impact.

(B) This field identifies which agency has jurisdiction over the facility in question.

(C) This field shows the agency's target LOS for the facility in question.

(D) This field shows the LOS under Existing conditions. This is used to determine whether or not there is an existing deficiency.

(E) This field shows the LOS under Existing Plus Project conditions. This is used to determine whether or not the project has a significant impact.

(F) This field shows whether there is a significant impact. It is based on the thresholds of significance described in Chapter 4.

(G) This field describes what improvements would be required to achieve the target LOS under Existing Plus Project conditions.

(H) This field states whether the measure described in Column G is feasible or not. In some cases the needed improvements may not be feasible. For example, it may be infeasible to widen a road because doing so would cause major negative impacts to an adjacent neighborhood.

(I) This field shows the LOS after all feasible mitigations have been implemented. If mitigation is infeasible then Column I will be the same as Column E.

(J) This field states whether the impact would still be significant after all feasible mitigation measures have been implemented. For those facilities under the jurisdiction of the City of Moreno Valley (see Column B) a "No" in Column J indicates that the impact will be mitigated to a less than significant level. For those facilities outside the jurisdiction of the City of Moreno Valley, Column J indicates what would happen if the jurisdiction that controls the facility implements the recommended feasible mitigations. However, because the City of Moreno Valley cannot guarantee that the other agency will implement the needed improvement the City cannot guarantee that the impact will be mitigated to a less than significant level.

(K) This field shows whether or not there is an existing deficiency. Generally speaking, under state law a developer is responsible for mitigating the impacts of their project but is not responsible for rectifying existing deficiencies that are the result of earlier projects. They need only pay a fair-share representing the portion of the deficiency that is attributable to their own project.

(L) This field reports the action that the developers of the WLC will be required to take as a condition of approval.

PROJECT DIRECT IMPACTS (SHORT-TERM)

The direct impacts of the WLC project were determined by comparing the LOS of study facilities under Existing and Existing Plus Project conditions. The direct impacts of the project and the associated improvements necessary to obtain the target LOS are as follows.

Road Section Direct Impacts. The project's direct impacts on road sections are summarized in Table 4.15.AV. These impacts and the associated improvements necessary to obtain the target LOS would be:

- ***Cactus Avenue from Redlands Boulevard to Street D (S-22)*** currently has one westbound lane and two eastbound lanes. The WLC would involve the reconstruction of Alessandro Boulevard along a new alignment that ends Cactus Avenue Extension, which would connect Cactus Avenue and Alessandro Boulevard (Street E) as the main route for east-west through traffic. Cactus Avenue would need to be widened to four lanes in conjunction with this change. The City will require the developer to pay a fair share for this improvement as a condition of approval.
- ***Gilman Springs Road from Alessandro Boulevard to Bridge Street (S-16)*** is already deficient and needs to be widened to four lanes and will need to be widened to six lanes in the future. In accordance with General Plan Policy 5.5.7, the City will require the developer to widen Gilman Springs Road to provide three southbound lanes and one northbound lane along the frontage of the WLC project. The developer will receive a TUMF credit for the portion of the cost of this improvement that exceeds the project's fair share contribution.

  However, because Gilman Springs Road is partially a Riverside County facility and is thus partially outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made outside of its jurisdiction. Moreover, there are right-of-way constraints involving sensitive environmental areas that may limit widening to four lanes between Alessandro Boulevard and Bridge Street, or even preclude any widening at all. The project's impacts in the Existing Plus Project scenario on Gilman Springs Road must therefore be considered significant and unavoidable. The City will work with Riverside County find funding for improvements that would provide an acceptable LOS on this road to the extent feasible.

- ***Gilman Springs Road from SR-60 to Alessandro Boulevard (S-17)*** is already deficient and needs to be widened to four lanes. In accordance with General Plan Policy 5.5.7, the City will require the developer to widen Gilman Springs Road to provide three southbound lanes and one northbound lane along the frontage of the WLC project. The developer will receive a TUMF credit for the portion of the cost of this improvement that exceeds the project's fair share contribution.

  However, because Gilman Springs Road is partially a Riverside County facility and is thus partially outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made outside of its jurisdiction. The project's impacts in the Existing Plus Project scenario on Gilman Springs Road must therefore be considered significant and unavoidable. The City will work with Riverside County to find funding for improvements that would provide an acceptable LOS on this road to the extent feasible.

Intersection Direct Impacts. The project's direct impacts on study intersections are summarized in Table 4.15.AW. These impacts and the associated improvements necessary to obtain the target LOS would be:

- ***Redlands Boulevard/Locust Avenue Intersection (IN-10)*** already exceeds the LOS threshold in both the a.m. and p.m. peak hours and traffic using the intersection would experience longer delays resulting in an impact in the Existing Plus Project scenario. Signalizing the intersection and adding left turn lanes on the eastbound and westbound approaches to the intersection would reduce project impacts to a less than significant level. The City will require the developer to pay a fair share contribution towards this improvement as a condition of approval.

Table 4.15.AV: Existing plus Project Direct Impacts and Mitigation Measures on Roadway Segments

Study Roadway		From	To	Jurisdiction	LOS Standard*	Existing LOS	Existing Plus Project LOS	Does the Project Have a Significant Impact?	Mitigation Measures Required to Reduce Project Impacts to Less than significant	Is Mitigation Feasible?	LOS After Feasible Mitigations are Implemented	Impact Significant After Mitigation?	Is There an ExistingDeficiency?	Developer Action Required
(A)				(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)
Road Section Direct Impacts that can be Mitigated to a Less than significant Level														
S-22	Cactus Ave.	Redlands Blvd	Cactus Avenue Extension	Moreno Valley	C	A	**E**	Yes	Widen to 4 lanes	Yes	A	No	No	Pay fair share (95.9%)
Road Section Cumulative Impacts that are Considered Significant and Unavoidable (because they are not under the control of the City of Moreno Valley)														
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge Street	Riverside County	D	**F**	**E**	Yes	Widen to 4 lanes	Yes	C	No	Yes	Pay fair share (12.2%)
S-17	Gilman Springs Rd	SR-60	Alessandro Blvd (Street C)	Riverside County	D	**E**	**E**	Yes	Widen to 4 lanes	Yes	C	No	Yes	Pay fair share (17.8%)

* LOS standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.

Indicates LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

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- ***Redlands Boulevard/SR-60 Westbound Ramps Intersection (IN-13)*** already exceeds the LOS threshold in both the a.m. and p.m. peak hours and traffic using the intersection would experience longer delays resulting in an impact in the Existing Plus Project scenario. Signalizing the intersection and adding a right turn lane on the northbound approach to the intersection would reduce project impacts to a less than significant level. It should be noted that the National Bridge Inventory 2012 Inspection Database[5] indicates that the Redlands Boulevard bridge over SR-60 was designed for MS18/HS20 design loads and has a sufficiency rating for 94.5. The City will require the developer to pay a fair share contribution towards this improvement as a condition of approval.
- ***Oliver Street/Alessandro Boulevard Intersection (IN-20)*** already exceeds the LOS threshold in the a.m. peak hour and traffic using the intersection would experience longer delays resulting in an impact in the Existing Plus Project scenario. Changing from side-street stop control to all-way stop control would reduce project impacts to a less than significant level. The City will require the developer to pay a fair share contribution towards this improvement as a condition of approval.
- ***Redlands Boulevard/Cactus Avenue Intersection (IN-27)*** currently operates within the LOS threshold but would exceed the threshold in both the a.m. and p.m. peak hour under Existing Plus Project conditions. Signalizing the intersection and adding left turn lanes on the eastbound and westbound approaches to the intersection would reduce direct project impacts to a less than significant level. The City will require the developer to pay a fair share contribution towards this improvement as a condition of approval.
- ***Moreno Beach Drive/John Kennedy Drive Intersection (IN-28)*** currently operates within the LOS threshold but would exceed the threshold in the p.m. peak hour under Existing Plus Project conditions. Adding a westbound left-turn lane would reduce direct project impacts to a less than significant level. The City will require the developer to pay a fair share contribution towards this improvement as a condition of approval.
- ***Moreno Beach Drive/Ironwood Avenue Intersection (IN-36)*** currently operates within the LOS threshold but would exceed the threshold in the a.m. peak hour under Existing Plus Project conditions. Adding a northbound right-turn lane would reduce direct project impacts to a less than significant level. The City will require the developer to pay a fair share contribution towards this improvement as a condition of approval.
- ***Moreno Beach Drive/SR-60 Eastbound Ramps Intersection (IN-37)*** already exceeds the LOS threshold in the p.m. peak hour and traffic using the intersection would experience longer delays resulting in an impact in the Existing Plus Project scenario. Adding an eastbound right-turn lane would reduce project impacts to a less than significant level. At the time of publication, improvements were already being made to the intersection.
- ***Lasselle Street/Cactus Avenue Intersection (IN-53)*** already exceeds the LOS threshold in both the a.m. and p.m. peak hours and traffic using the intersection would experience longer delays resulting in an impact in the Existing Plus Project scenario. Constructing an additional lane for the westbound left turn, northbound left turn, and southbound left turn, and modifying the traffic signal to provide overlap phasing for northbound right turns and eastbound right turns would reduce cumulative project impacts to a less than significant level. The City will require the developer to pay a fair share contribution towards this improvement as a condition of approval.
- ***Arlington Avenue/Victoria Avenue Intersection (IN-94)*** currently operates within the LOS threshold but would exceed the threshold in the a.m. peak hour under Existing Plus Project conditions. Adding an additional westbound left-turn lane would reduce direct project impacts to a less than significant level.

[5] http://nationalbridges.com/ Federal Highway Administration, searchable database last updated 2012

This intersection is under the jurisdiction of the City of Riverside. The City of Moreno Valley will require the developer to pay a fair share contribution towards this improvement as a condition of approval. However, because the intersection is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- ***Alessandro Boulevard/Chicago Avenue intersection (IN-95)*** is already built out to near the practical limit before grade separation is required (it has five lanes for each approach). Despite this, it already operates at LOS "E" in the p.m. peak period and traffic using the intersection would experience longer delays resulting in an impact in the Existing Plus Project scenario. To achieve the target LOS under Existing Plus Project conditions, the addition of another northbound left-turn lane (with adjusted signal timing) would be required.

  This intersection is under the jurisdiction of the City of Riverside. The City of Moreno Valley will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. However, because this intersection is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- ***Bridge Street/Ramona Expressway Intersection (IN-122)*** currently operates within the LOS threshold but would exceed the threshold in the a.m. and p.m. peak hours under Existing Plus Project conditions. Signalizing the intersection would reduce direct project impacts to a less than significant level. However, there is a plan to close this intersection in the future and replace it with a grade-separated crossing west of the current location as part of the Villages of Lakeview project. It may not be worthwhile to signalize this intersection for only a few years before closing it.

  This intersection is under the jurisdiction of the Riverside County. However, because the intersection is outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with Riverside County to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- ***Gilman Springs Road/Bridge Street Intersection (IN-123)*** already exceeds the LOS threshold in a.m. peak hour and traffic using the intersection would experience longer delays resulting in an impact in the Existing Plus Project scenario. Signalizing this intersection would reduce project impacts to a less than significant level.

  This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair share contribution towards this improvement as a condition of approval. However, because the intersection is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with Riverside County to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

Table 4.15.AW: Existing plus Project Direct Impacts and Mitigation Measures on Intersections

Study Intersection		Jurisdiction	LOS Standard	Existing Conditions		Existing Plus Build-out		Does the Project Have a Significant Impact?	Mitigation Measures Required to Reduce Impact to Less-Than-Significant	Is Mitigation Feasible?	LOS After Feasible Mitigations are Implemented		Impact Significant After Feasible Mitigations are Implemented?	Is There an Existing Deficiency?	Developer Action Required
				AM	PM	AM	PM				AM LOS	PM LOS			
(A)		(B)	(C)	(D)		(E)		(F)	(G)	(H)	(I)		(J)	(K)	(L)
Intersection Direct Impacts that can be Mitigated to a Less-Than-Significant Level															
IN-10	Redlands Blvd/Locust Ave	Moreno Valley	C	D	E	F	F	Yes	Signalize. Add 1 EB LT and 1 WB LT.	Yes	A	A	No	Yes	Implement improvement, with reimbursement agreement based on fair share contribution (34.8%)
IN-13	Redlands Blvd/SR-60 WB ramps	Moreno Valley	D	E	F	E	F	Yes	Signalize. Add 1 NB RT.	Yes	B	B	No	Yes	Implement improvement, with reimbursement agreement based on fair share contribution (49.6%)
IN-20	Oliver Str/Alessandro Blvd	Moreno Valley	C	D	B	F	C	Yes	Change to AWS.	Yes	C	B	No	Yes	Implement improvement, with reimbursement agreement based on fair share contribution (11.5%)
IN-27	Redlands Blvd/Cactus Ave	Moreno Valley	C	B	A	F	F	Yes	Signalize. Add 1 EB LT, 1 WB LT.	Yes	B	B	No	No	Implement improvement, with reimbursement agreement based on fair share contribution (60.7%)
IN-28	Moreno Beach Dr/John Kennedy Dr	Moreno Valley	D	B	B	C	F	Yes	Add 1 WB LT Lane.	Yes	B	B	No	No	Implement improvement, with reimbursement agreement based on fair share contribution (36.3%)
IN-36	Moreno Beach Dr/Ironwood Ave	Moreno Valley	D	D	D	E	D	Yes	Add 1 NB RT lane.	Yes	D	D	No	No	Implement improvement, with reimbursement agreement based on fair share contribution (14.9%)
IN-37	Moreno Beach Dr/SR-60 EB Ramps	Moreno Valley	D	D	E	D	F	Yes	Add 1 EB RT lane.	Yes	C	C	No	Yes	N/A*
IN-53	Lasselle Str/Cactus Ave	Moreno Valley	C	D	D	D	D	Yes	Add 1 WB LT, 1 NB LT, 1 SB LT, Add overlap phase for NB and EB RT.	Yes	D	C	No	Yes	Implement improvement, with reimbursement agreement based on fair share contribution (46.2%)
Intersection Direct Impacts that are Considered Significant and Unavoidable (either because they are not under the control of the City of Moreno Valley or because mitigation is infeasible)															
IN-94	Arlington Ave/Victoria Ave	City of Riverside	D	D	C	E	C	Yes	Add WB LT lane	Yes	D	C	No	No	Pay fair share (7.5%)
IN-95	Alessandro Blvd/Chicago Ave	City of Riverside	D	D	E	D	E	Yes	Add NB LT lane; adjust signal timings.	Yes	D	D	No	Yes	Pay fair share (10.3%)
IN-122	Bridge St/Ramona Expy	Riverside County	C	C	C	D	D	This intersection is due to be closed in the near future and replaced by a grade separated intersection further west. No improvements are warranted							
IN-123	Gilman Springs Rd/Bridge Str	Riverside County	C	D	C	E	D	Yes	Signalize.	Yes	A	A	No	Yes	Pay fair share (25.7%)
IN-124	SR-79(Sanderson Ave) NB/Gilman Springs Rd	Riverside County	C	D	D	F	E	Yes	Signalize.	Yes	A	A	No	Yes	Pay fair share (13.6%)
IN-125	SR-79(Sanderson Ave) SB/Gilman Springs Rd	Riverside County	C	D	E	E	F	Yes	Signalize.	Yes	A	A	No	Yes	Pay fair share (20.7%)
IN-132	San Timoteo Canyon Rd/Alessandro Rd	Redlands	D	F	C	F	F	Yes	Signalize.	Yes	D	B	No	Yes	Pay fair share (33.6%)
IN-133	San Timoteo Canyon Rd/Live Oak Canyon Rd	Riverside County	C	F	F	F	F	Yes	Signalize.	Yes	B	B	No	Yes	Pay fair share (32.1%)
IN-134	Redlands Blvd/San Timoteo Canyon Rd	Riverside County	C	F	F	F	F	Yes	Signalize. Add 1 EB RT. Also add EB RT overlap phase.	Yes	A	A	No	Yes	Pay fair share (34.1%)

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

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- ***SR-79 (Sanderson Avenue) Northbound/Gilman Springs Road Intersection (IN-124)*** already exceeds the LOS threshold in both the a.m. and p.m. peak hours and traffic using the intersection would experience longer delays resulting in an impact in the Existing Plus Project scenario. Signalizing this intersection would reduce project impacts to a less than significant level.

  This intersection is under the jurisdiction of the Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval. However, because intersection is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the County of Riverside to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- ***SR-79 (Sanderson Avenue) Southbound/Gilman Springs Road Intersection (IN-125)*** already exceeds the LOS threshold in both the a.m. and p.m. peak hours and traffic using the intersection would experience longer delays resulting in an impact in the Existing Plus Project scenario. Signalizing this intersection would reduce project impacts to a less than significant level.

  This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval. However, because intersection is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable.

- ***San Timoteo Canyon Road/Alessandro Road Intersection (IN-132)*** already exceeds the LOS threshold in the a.m. peak hour and traffic using the intersection would experience longer delays resulting in an impact in the Existing Plus Project scenario. Signalizing this intersection would reduce project impacts to a less than significant level.

  This intersection is under the jurisdiction of the City of Redlands. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval. However, because the intersection is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Redlands to develop a mechanism for implementing improvements that would provide an acceptable LOS at this intersection.

- ***San Timoteo Canyon Road/Live Oak Canyon Road Intersection (IN-133)*** already exceeds the LOS threshold in both the a.m. and p.m. peak hours and traffic using the intersection would experience longer delays resulting in an impact in the Existing Plus Project scenario. Signalizing this intersection would reduce project impacts to a less than significant level.

  This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval. However, because intersection is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable.

- ***Redlands Boulevard/San Timoteo Canyon Road Intersection (IN-134)*** already exceeds the LOS threshold in both the a.m. and p.m. peak hours and traffic using the intersection would experience longer delays resulting in an impact in the Existing Plus Project scenario. Signalizing this intersection and adding an eastbound right-turn storage lane with an overlap phase would reduce project impacts to a less than significant level.

This intersection is under the jurisdiction of Riverside County. The City will require the developer to pay a fair-share contribution towards improvement of this intersection as a condition of approval. However, because intersection is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable.

Freeway Direct Impacts. Unlike the surface streets, where intersection improvements are generally both feasible and desirable, the strategic situation for freeways in western Riverside County is such that major freeway improvements are becoming increasingly problematic over time. A key problem is that the rights-of way are essentially built out in many locations and cannot be expanded without severe impacts to existing communities (loss of homes and businesses, visual intrusion, increased noise and air quality impacts, etc.) and high costs to replace overcrossing structures. Moreover, there is a growing consensus that over-provision of freeway capacity facilitates long-distance commuting by car and leads to more auto-oriented residential development on the urban fringe, which in turn increases greenhouse gas emissions. This has resulted in a policy shift away from continued expansion of the freeway system, as reflected, for example, in the Riverside County Transportation Commission Ordinance No. 02-001 which reads in part:

> *"State Routes 91 and 60 and Interstate Routes 15 and 215 cannot cost effectively be widened enough to provide for the traffic expected as Riverside County continues to grow. In addition to the specific highway improvements listed in Section 1 above, congestion relief for these highways will require that new north–south and east-west transportation corridors will have to be developed to provide mobility within Riverside County and between Riverside County and its neighboring Orange and San Bernardino Counties."*

In other words, as a matter of policy, with the exception of spot improvements in some specific locations, the overall strategy to relieve congestion on SR-60 and SR-91 is to improve the capacity of surface streets that could serve as alternate routes to freeways. The policy to forego further widening of some sections of SR-60 and SR-91 is also noted in the Riverside County Congestion Management Program (CMP) which permits LOS F for some of the study freeway sections because those sections already operated at LOS F when the CMP was established in 1991. For these reasons, some of the identified mitigation measures may not be pursued even if they are deemed feasible in an engineering sense. In such cases, the project's payment into the TUMF and DIF programs and funding for the surface street improvements would constitute their mitigation because they help create viable alternative routes that would substitute for freeway travel for some trips. For the purposes of this EIR, however, impacts to freeways were treated as significant and unavoidable.

The project's direct impacts on the regional freeway system are summarized in Table 4.15.AX. These impacts and the associated improvements necessary to obtain the target LOS would be:

- ***Direct Impacts on Freeway Mainline Basic Sections***
  - *Eastbound SR-60 from Euclid Avenue to Grove Avenue (F-6)* already exceeds the LOS threshold in the p.m. peak hour and traffic density would increase resulting in an impact in the Existing Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.[6]

    SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City

[6] A transportation concept report is Caltrans' analysis of long-range demand for a highway.

of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- *Eastbound SR-60 from Martin Luther King Boulevard to Central Avenue (F-24)* already exceeds the LOS threshold in the p.m. peak hour and traffic density would increase resulting in an impact in the Existing Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The Transportation Concept Report does not call for further widening of this section, because further widening could only be accomplished by eliminating the existing shoulder resulting in no space for disabled vehicles to pull over. Since this would create safety problems that would be less acceptable than a low LOS, mitigating this impact is infeasible. This impact is therefore significant and unavoidable.
- *Westbound SR-60 from I-215 to Day Street (F-27)* already exceeds the LOS threshold in the a.m. peak hour and traffic density would increase resulting in an impact in the Existing Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

  Westbound SR-60 from Pigeon Pass Road/Frederick Street to Heacock Street (F-29) currently operates at an acceptable LOS but would exceed the LOS threshold in the p.m. peak hour under Existing Plus Project conditions. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.

  SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.
- *Westbound SR-91 from Pierce Street to Magnolia Avenue (F-41)* already exceeds the LOS threshold in the p.m. peak hour and traffic density would increase resulting in an impact in the Existing Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.
- *Westbound SR-91 from Magnolia Avenue to La Sierra Avenue (F-42)* already exceeds the LOS threshold in the p.m. peak hour and traffic density would increase resulting in an impact in the Existing Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within

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Table 4.15.AX: Existing Plus Project Freeway Impacts and Mitigations (note: this is a completely new table to replace previous Tables 4.15.AW, 4.15.AX, and 4.15.AY)

Study Facility		Juris-diction	LOS Standard	Determination of Impact: Existing AM	Existing PM	Existing Plus Build-out AM	Existing Plus Build-out PM	Does the Project Have a Significant Impact?	Mitigation Measures Required to Reduce Impact to Less-Than-Significant	Is Mitigation Feasible?	LOS After Feasible Mitigations are Implemented: AM LOS	PM LOS	Impact Significant After Feasible Mitigations are Implemented?	Is There an Existing Deficiency?	Developer Action Required
(A)		(B)	(C)	(D)		(E)		(F)	(G)	(H)	(I)		(J)	(K)	(L)
Freeway Mainline Basic Sections - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
F-6	EB SR-60 Euclid Ave to Grove Ave	Caltrans	D	D	**E**	**E**	**E**	Yes	Add one mixed flow lane.	Yes	D	D	No	Yes	Pay fair share (11.6%)
F-24	EB SR-60 Martin Luther King Blvd to Central Ave	Caltrans	D	C	**F**	D	**F**	Yes	Add one mixed flow lane.	No	D	**F**	Yes	Yes	N/A*
F-27	WB SR-60 I-215 to Day St	Caltrans	D	**F**	B	**F**	C	Yes	Add one mixed flow lane.	Yes	D	B	No	Yes	Pay fair share (52.7%)
F-29	WB SR-60 Pigeon Pass Rd/Frederick St to Heacock St	Caltrans	D	C	D	C	**E**	Yes	Add one mixed flow lane.	Yes	B	C	No	No	Pay fair share (36.8%)
F-41	WB SR-91 Pierce St to Magnolia Ave	Caltrans	D	C	**F**	C	**F**	Yes	Add one mixed flow lane.	Yes	B	D	No	Yes	Pay fair share (9.4%)
F-42	WB SR-91 Magnolia Ave to La Sierra Ave	Caltrans	D	C	**F**	C	**F**	Yes	Add one mixed flow lane.	No	C	**F**	Yes	Yes	N/A*
F-49	EB SR-91 Central Ave to 14th St	Caltrans	D	D	D	**E**	D	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (3.3%)
F-71	NB I-215 SR-74 to Redlands Ave	Caltrans	D	D	**E**	D	**E**	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	N/A**
F-71	SB I-215 SR-74 to Redlands Ave	Caltrans	D	**E**	D	**F**	D	Yes	Add one mixed flow lane.	Yes	C	C	No	Yes	N/A**
F-83	SB I-215 Baseline Rd to Highland Ave	Caltrans	D	**E**	**F**	**F**	**F**	Yes	Add one mixed flow lane.	Yes	C	C	No	Yes	N/A**
Freeway Weaving Sections - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
W-21	EB SR-60 SR-91 to Blaine St/3rd St	Caltrans	D	B	**E**	B	**E**	Yes	Add one mixed flow lane.	No	B	**E**	Yes	Yes	N/A*
W-22	EB SR-60 Blaine St/3rd St to University Ave	Caltrans	D	B	**E**	C	**E**	Yes	Add a second off-ramp lane.	Yes	B	D	No	Yes	Pay fair share (10.1%)
W-25	EB SR-60 Central Ave to Fair Isle Dr/Box Springs Rd	Caltrans	D	B	D	C	**E**	Yes	Add one mixed flow lane.	No	C	**E**	Yes	No	N/A*
W-25	WB SR-60 Central Ave to Fair Isle Dr/Box Springs Rd	Caltrans	D	**E**	D	**E**	**E**	Yes	Add one mixed flow lane.	Yes	D	C	No	Yes	N/A**
W-48	EB SR-91 Arlington Ave to Central Ave	Caltrans	D	**E**	B	**E**	B	Yes	Add a second off-ramp lane.	Yes	D	B	No	Yes	Pay fair share (6.3%)
W-50	WB SR-91 14th to University Ave	Caltrans	D	C	**E**	C	**E**	Yes	Add a second off-ramp lane.	Yes	C	D	No	Yes	Pay fair share (6.0%)
Freeway Ramps - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
R-2	SR-60 EB On-Ramp from Central Ave	Caltrans	D	B	**F**	C	**F**	Yes	Add one mixed flow lane.	No	C	**F**	Yes	Yes	N/A*

Indicates LOS exceeds the target level

** Improvement identified in the current RTP and planned to be completed independent of the WLC project

* Not applicable because mitigation is infeasible

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

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the target threshold. However, this could only be accomplished by eliminating the existing shoulder resulting in no space for disabled vehicles to pull over. Since this would create safety problems that would be less acceptable than a low LOS, mitigating this impact is infeasible. This impact is therefore significant and unavoidable.

- *Eastbound SR-91 from Central Avenue to 14th Street (F-49)* currently operates at an acceptable LOS but would exceed the LOS threshold in the a.m. peak hour under Existing Plus Project conditions. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution toward improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- *Northbound I-215 from SR-74/Case Road to Redlands Boulevard (F-71)* already exceeds the LOS threshold in the p.m. peak hour and traffic density would increase resulting in an impact in the Existing Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The improvement is identified in the current SCAG RTP and planned to be completed by 2022 independent of the WLC project.

- *Southbound I-215 from SR-74/Case Road to Redlands Boulevard (F-71)* already exceeds the LOS threshold in the a.m. peak hour and traffic density would increase resulting in an impact in the Existing Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The improvement is identified in the current SCAG RTP and planned to be completed by 2022 independent of the WLC project.

- *Southbound I-215 from Baseline Road to Highland Avenue (F-83)* already exceeds the LOS threshold in both the a.m. and p.m. peak hours and traffic density would increase resulting in an impact in the Existing Plus Project scenario. Adding a mixed-flow lane would reduce the impact to a less than significant level. The improvement is identified in the current SCAG RTP and planned to be completed by 2022 independent of the WLC project.

- ***Direct Impacts on Freeway Weaving Sections***

  - *Eastbound SR-60 from SR-91 to W. Blaine Street/3rd Street (W-21)* already exceeds the LOS threshold in the p.m. peak hour and traffic density would increase resulting in an impact in the Existing Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without impacting the adjacent residential community. Since widening the freeway is infeasible, this impact is significant and unavoidable.

  - *Eastbound SR-60 from W Blaine Street/3rd Street to University Avenue (W-22)* already exceeds the LOS threshold in the p.m. peak hour and traffic density would increase resulting in an impact in the Existing Plus Project scenario. Adding a second off-ramp lane would bring the LOS to within the target threshold.

    SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified

improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- *Eastbound SR-60 from Central Avenue to Fair Isle Drive/Box Springs Road (W-25)* currently operates near capacity and the addition of the project would increase traffic above the target LOS threshold. Adding a mixed-flow lane would reduce the impact to a less than significant level. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without eliminating the adjacent frontage road. Since widening the freeway is infeasible, this impact is significant and unavoidable.

  Westbound SR-60 from Central Avenue to Fair Isle Drive/Box Springs Road (W-25) already exceeds the LOS threshold in the a.m. peak hour and traffic density would increase resulting in an impact in the Existing Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level and bring the LOS to within the target threshold. The improvement is identified in the current SCAG RTP and planned to be completed by 2022 independent of the WLC project.

- *Eastbound SR-91: Arlington Avenue to Central Avenue (W-48)* already exceeds the LOS threshold in the a.m. peak hour and traffic density would increase, resulting in an impact in the Existing Plus Project scenario. Adding a second off-ramp lane would bring the LOS to within the target threshold.

  SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- *Westbound SR-91 from 14th Street to University Avenue (W-50)* already exceeds the LOS threshold in the p.m. peak hour and traffic density would increase resulting in an impact in the Existing Plus Project scenario. Adding a second off-ramp lane would reduce the impact to a less than significant level.

  SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impacts on this section must therefore be considered significant and unavoidable.

- ***Direct Impacts on Freeway Ramps***

  - *Eastbound SR-60 from On-Ramp from Central Avenue (R-2)* already exceeds the LOS threshold in the p.m. peak hour and traffic density would increase resulting in an impact in the Existing Plus Project scenario. Adding a mixed-flow lane would reduce the impact to a less than significant level. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without eliminating the adjacent frontage road. Since widening the freeway is infeasible, this impact is significant and unavoidable.

PROJECT CUMULATIVE IMPACTS (LONG-TERM)

The long-term cumulative impacts of the WLC project were determined by comparing the LOS of study facilities under 2035 No Project and 2035 Plus Project conditions.

The long-term cumulative impacts of the project and the associated improvement measures necessary to obtain the target LOS are described below. In cases where the facility had mitigation measures identified for direct (Existing Plus Project) impacts and requires additional improvements under cumulative conditions, the improvements described below are the improvements required beyond those described in the previous section on direct impacts.

Cumulative Impacts on Road Sections. The project's direct impacts on road sections are summarized in Table 4.15.AY. These impacts would be:

- ***Gilman Springs Road from Alessandro Boulevard to Bridge Street (S-16)*** should be widened from 2 lanes to 4 lanes in the short term (see previous section on direct impacts) and may need to be further widened from 4 lanes to 8 lanes sometime in the 2022–2035 timeframe. Gilman Springs Road is a TUMF facility. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because Gilman Springs Road is partially a Riverside County facility and is thus partially outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made outside of its jurisdiction. Moreover, there are right-of-way constraints involving sensitive environmental areas that may limit widening to six lanes between Alessandro Boulevard and Bridge Street, or even preclude any widening at all. The project's impacts on Gilman Springs Road must therefore be considered significant and unavoidable. The City will work with Riverside County and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS on this road to the extent feasible.

Cumulative Impacts on Study Intersections. The WLC project's cumulative impacts on study intersections are summarized in Table 4.15.AZ, and described in detail below:

- ***Redlands Boulevard/Ironwood Avenue Intersection (IN-11)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a second southbound left-turn lane would reduce cumulative impacts to a less than significant level. This intersection is eligible for funds under the DIF program. The City will collect DIF funds in accordance with City Municipal Code 3.42.030 and 3.42.040, and use these fees to improve this intersection when the need for the improvement becomes warranted.
- ***Theodore Street/Ironwood Avenue Intersection (IN-12)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Signalizing the intersection would reduce cumulative impacts to a less than significant level. This intersection is eligible for funds under the DIF program. The City will collect DIF funds in accordance with City Municipal Code 3.42.030 and 3.42.040, and use these fees to improve this intersection when the need for the improvement becomes warranted.
- ***Moreno Beach Drive/Cactus Avenue Intersection (IN-25)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a second eastbound left-turn lane would reduce cumulative impacts to a less than significant level. This intersection is eligible for funds under the DIF program. The City will collect DIF funds in accordance with City Municipal Code 3.42.030 and 3.42.040, and use these fees to improve this intersection when the need for the improvement becomes warranted.
- ***Redlands Boulevard/Cactus Avenue intersection (IN-27)*** requires signalization and the installation of eastbound and westbound left-turn lanes in the short term (see previous section on direct impacts) and may exceed the target LOS threshold at some point in the 2022-to 2035 period. Constructing a westbound left-turn lane would reduce project impacts to a less-than-significant level. The City will require the developer to pay a fair-share contribution towards this improvement as a condition of approval.

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Table 4.15.AY: Year 2035 Cumulative Impacts and Mitigation Measures on Roadway Segments (note: this is a completely new table to replace previous Tables 4.15.AZ)

Roadway		From	To	Jurisdiction	LOS Standard*	2035 No-Project LOS	2035 Plus Build-out LOS	Does the Project have a Significant Impact?	Mitigation Measures Required to Reduce Project Impacts to Less-Than-Significant	Is the Mitigation Feasible?	LOS After Feasible Mitigations are Implemented	Impact Significant After Feasible Mitigations are Implemented?	Is There an Existing Deficiency?	Developer Action Required
(A)				(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)
Road Section Cumulative Impacts that are Considered Significant and Unavoidable (because they are not under the control of the City of Moreno Valley)														
S-16	Gilman Springs Rd	Alessandro Blvd (Street C)	Bridge Street	Riverside County	D	D	**F**	Yes	Widen to 8 lanes	Partially (to 6 lanes)	**F**	**Yes**	**Yes**	Pay Fair Share (12.2%)

* LOS Standard is "C" in residential areas and "D" for roads in employment-generating areas or near freeways.
** WLC's impacts would already be mitigated with the measures identified for direct impacts.
Indicates LOS exceeds the target level

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

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Table 4.15.AZ: Year 2035 Cumulative Intersection Impacts and Mitigation

Study Intersection		Jurisdiction	LOS Standard	2035 No-Project		2035 Plus Build-out		Does the Project Have a Significant Impact?	Mitigation Measures Required to Reduce Impact to Less-Than-Significant	Is Mitigation Feasible?	LOS After Feasible Mitigations are Implemented		Impact Significant After Feasible Mitigations are Implemented?	TUMF Facility?	DIF Facility?	Developer Action Required
				AM	PM	AM	PM				AM LOS	PM LOS				
(A)		(B)	(C)	(D)		(E)		(F)	(G)	(H)	(I)		(J)	(K)	(L)	(M)
Intersection Cumulative Impacts that can be Mitigated to a Less-Than-Significant Level																
IN-11	Redlands Blvd/Ironwood Ave	Moreno Valley	D	D	D	D	E	Yes	Add 1 SB LT lane.	Yes	D	D	No	Yes	Yes	Pay DIF
IN-12	Theodore Street/Ironwood Avenue	Moreno Valley	D	C	F	E	F	Yes	Signalize.	Yes	A	A	No	No	Yes	Pay DIF
IN-25	Moreno Beach Dr/Cactus Ave	Moreno Valley	C	C	C	C	D	Yes	Add 1 EB LT lane.	Yes	B	C	No	No	Yes	Pay DIF
IN-27	Redlands Blvd/Cactus Ave	Moreno Valley	C	B	B	F	F	Yes	Add 1 WB LT lane.	Yes	B	C	No	No	No	Pay fair share (60.7%)
IN-35	Moreno Beach Dr/Locust Ave	Moreno Valley	C	D	E	D	F	Yes	Signalize. Add 1 WB LT lane.	Yes	A	B	No	Yes	Yes	Pay DIF
IN-36	Moreno Beach Drive & Ironwood Avenue	Moreno Valley	D	D	D	D	E	Yes	Change N/S from split to protected LT phase. Add NB and SB LT lanes.	Yes	D	D	No	Yes	Yes	Pay DIF
IN-37	Moreno Beach Dr/SR-60 EB Ramps	Moreno Valley	D	F	F	F	F	Yes	Change EB from 1 shared LT/TH to 1 LT and 1 TH. Add 1 SB LT lane. Change split phasing on E/W movement to protected LT phasing.	Yes	C	D	No	Yes	Yes	Pay DIF
IN-39	Iris Ave/Perris Blvd	Moreno Valley	D	E	E	E	F	Yes	Add 1 WB LT and 1 SB LT lane.	Yes	D	D	No	Yes	Yes	Pay DIF
IN-40	Kitching St/Iris Ave	Moreno Valley	C	E	F	E	F	Yes	Add 1 WB LT and change NB shared TH/RT to RT lane and add another RT lane. Provide overlap phase for NB RT. Add 1 EB TH lane.	Yes	C	C	No	No	No	Pay fair share (16%)
IN-41	Lasselle Str/Iris Ave	Moreno Valley	D	C	E	D	F	Yes	Add 1 WB LT lane (resulting 3 turn lanes), and 1 EB RT Need to widen Lasselle in the SB to have 3 receiving lanes.	Yes	C	D	No	Yes	No	Pay TUMF
IN-57	Graham Str/Alessandro Blvd	Moreno Valley	D	D	F	D	F	Yes	Add 1 NB LT and 1 WB LT lanes.	Yes	C	D	No	Yes	Yes	Pay DIF
IN-74	Elsworth Str/Cactus Ave	Moreno Valley	D	F	F	F	F	Yes	Widen NB approach and change NB lane geometry from: 1 LT and 1 shared LT/TH/RT lanes to 3 LTs and 1 TH and 1 RT. Add 1 WB LT and EB RT lanes.	Yes	D	D	No	Yes	Yes	Pay DIF
Intersection Cumulative Impacts that are Considered Significant and Unavoidable (because they are not feasible, not under the control of the City of Moreno Valley, or are not part of an existing fee program)																
IN-66	Alessandro Blvd/Sycamore Canyon Blvd	City of Riverside	D	D	F	D	F	Yes	Add SB RT overlap.	Yes	C	D	No	Yes	No	Pay TUMF
IN-73	I-215 NB Ramps/Cactus Ave	March AFB	D	E	F	E	F	Yes	Add 1 EB RT, 1 WB RT, 1 NB LT, and 1 SB LT lanes.	Yes	B	D	No	Yes	No	Pay TUMF
IN-75	Central Ave/Lochmoor Dr.	City of Riverside	D	B	E	B	F	Yes	Change NB approach to 1 LT and 1 shared LT/RT lane.	Yes	B	D	No	Yes	No	Pay TUMF
IN-80	Alessandro Blvd/Mission Grove Pkwy	City of Riverside	D	C	E	C	F	Yes	Add EB LT lane. Add WB LT lane. Add NB TH lane.	Yes	C	D	No	Yes	No	Pay TUMF
IN-85	Martin Luther King Blvd/I-215 NB Ramps	City of Riverside	D	E	C	E	C	Yes	Signalize.	Yes	B	A	No	No	No	Pay fair share (6.2%)
IN-86	Central Ave/Chicago Ave	City of Riverside	D	D	E	E	F	Yes	Add NB RT overlap.	Yes	C	D	No	Yes	No	Pay TUMF
IN-88	Central Ave/Canyon Crest Dr	City of Riverside	D	D	F	D	F	Yes	Change EB approach to 1 LT, 2 THs and 1 RT. Add WB LT lane. Add NB LT lane. Change SB approach to 2 LTs, 2 THs and 1 RT lane. Adjust splits.	Yes	D	D	No	Yes	No	Pay TUMF
IN-90	Arlington Ave/Riverside Ave/SR-91 SB Ramps	City of Riverside	D	D	E	D	E	Yes	Add SB LT lane.	Yes	C	D	No	Yes	No	Pay TUMF
IN-94	Arlington Ave/Victoria Ave	City of Riverside	D	F	F	F	F	Yes	Add EB TH lane. Add WB LT and RT. Adjust timings.	Yes	D	D	No	Yes	No	Pay TUMF
IN-95	Alessandro Blvd/Chicago Ave	City of Riverside	D	E	F	E	F	Yes	Add EB TH lane. Add WB LT lane. Add WB TH lane. Add NB LT lane. Reconfigure SB approach to 3 LTs, 3 THs and 1 RT.	No	E	F	**Yes**	Yes	Yes	N/A*
IN-98	Alessandro Blvd/Canyon Crest Dr	City of Riverside	D	E	F	E	F	Yes	Reconfigure EB approach to 1 LT, 1 TH and 2 RTs. Add WB TH lane. Add NB LT and NB RT lane. Reconfigure SB approach to 1 LT, 3 THs and 1 shared TH/RT lane.	Yes	D	D	No	Yes	No	Pay TUMF

Table 4.15.AZ: Year 2035 Cumulative Intersection Impacts and Mitigation

Study Intersection		Jurisdiction	LOS Standard	2035 No-Project		2035 Plus Build-out		Does the Project Have a Significant Impact?	Mitigation Measures Required to Reduce Impact to Less-Than-Significant	Is Mitigation Feasible?	LOS After Feasible Mitigations are Implemented		Impact Significant After Feasible Mitigations are Implemented?	TUMF Facility?	DIF Facility?	Developer Action Required
				AM	PM	AM	PM				AM LOS	PM LOS				
(A)		(B)	(C)	(D)		(E)		(F)	(G)	(H)	(I)		(J)	(K)	(L)	(M)
IN-101	Ramona Expy/Indian St	Perris	E	F	F	F	F	Yes	Add 1 EB RT lane. Add 2nd NB LT and 1 NB RT. Provide signal phase overlap for all RTs.	Yes	E	E	No**	Yes	No	Pay TUMF
IN-107	Evans Rd/Rider St	Perris	C	D	C	D	C	Yes	Reconfigure SB approach to include 1 LT, 2 THs and 1 RT.	Yes	C	C	No	Yes	No	Pay TUMF
IN-129	W 6th St/California Ave	Beaumont	C	F	F	F	F	Yes	Signalize.	Yes	B	C	No	Yes	No	Pay TUMF
IN-130	W 6th St/Beaumont Ave	Beaumont	C	D	F	D	F	Yes	Reconfigure EB approach to 2 LTs, 2 THs and 1 RT. Make EB/WB LT protected phasing. Add 1 WB LT and 1 WB TH lane. Reconfigure NB approach to 1 LT, 2 THs and 1 RT. Add SB LT.	Yes	C	C	No	Yes	No	Pay TUMF
IN-131	Reche Canyon Rd/Reche Vista Dr	Riverside County	C	D	F	D	F	Yes	Adjusted NB approach to a dedicated LT and a shared LT/RT lane.	Yes	B	C	No	Yes	No	Pay TUMF

Notes: "CSS" means cross-street is stop-controlled "RABT" means roundabout "NB" and "SB" denote northbound and southbound respectively "LT" and "RT" denote left turn and right turn respectively

"AWS" means all-way stop * Not applicable because mitigation is infeasible "EB" and "WB" denote eastbound and westbound respectively "TH" denotes through lanes

Indicates LOS exceeds the target level ** The "Plus Build-out and Mitigations" condition is better than the "No-Project" condition

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Moreno Beach Drive/Locust Avenue Intersection (IN-35) will exceed the target LOS threshold at some point in the 2022–2035 period. Signalizing the intersection and constructing a westbound left-turn lane would reduce cumulative impacts to a less than significant level. This intersection is eligible for funds under the DIF program. The City will collect DIF funds in accordance with City Municipal Code 3.42.030 and 3.42.040, and use these fees to improve this intersection when the need for the improvement becomes warranted.

- ***Moreno Beach Drive/Ironwood Avenue Intersection (IN-36)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Adding northbound and southbound left-turn lanes and changing north/south lefts from split to protected left-turn phase would reduce cumulative impacts to a less-than-significant level. This intersection is eligible for funds under the DIF program. The City will collect DIF fees in accordance with City Municipal Code 3.42.030 and 3.42.040, and use these fees to improve this intersection when the need for the improvement becomes warranted.
- ***Moreno Beach Drive/SR-60 EB Ramps Intersection (IN-37)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a southbound left-turn lane and changing the eastbound approach to one left-turn lane and one through lane would reduce cumulative impacts to a less than significant level. This intersection is eligible for funds under the DIF program. The City will collect DIF funds in accordance with City Municipal Code 3.42.030 and 3.42.040, and use these fees to improve this intersection when the need for the improvement becomes warranted.
- ***Iris Avenue/Perris Boulevard Intersection (IN-39)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a second westbound left-turn lane and a second southbound left-turn lane would reduce cumulative impacts to a less than significant level. This intersection is eligible for funds under the DIF program. The City will collect DIF funds in accordance with City Municipal Code 3.42.030 and 3.42.040, and use these fees to improve this intersection when the need for the improvement becomes warranted.
- ***Kitching Street/Iris Avenue Intersection (IN-40)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a third eastbound through lane, a second westbound left-turn lane, widening and reconfiguring the northbound approach to provide one left-turn lane, one through lanes, and two right-turn lanes, and modifying the traffic signal to provide overlap phasing for the northbound right-turn movement would reduce cumulative impacts to a less than significant level. The City will impose as a condition of approval that the WLC will provide fair-share funds to cover the cost of this improvement, which the City will use to construct the needed improvements.
- ***Lasselle Street/Iris Avenue Intersection (IN-41)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Adding a third westbound left-turn lane and an eastbound right-turn lane would reduce cumulative impacts to a less than significant level. This improvement is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact.
- ***Graham Street/Alessandro Boulevard Intersection (IN-57)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a northbound left-turn lane and a westbound left-turn lane would reduce cumulative impacts to a less than significant level. This intersection is eligible for funds under the DIF program. The City will collect DIF funds in accordance with City Municipal Code 3.42.030 and 3.42.040, and use these fees to improve this intersection when the need for the improvement becomes warranted.
- ***Alessandro Boulevard/Sycamore Canyon Boulevard Intersection (IN-66)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Providing a southbound right-turn overlap phase at the signal would reduce cumulative impacts to a less than significant level.

This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.

- ***I-215 NB Ramps/Cactus Avenue Intersection (IN-73)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing an eastbound right-turn lane, a westbound right-turn lane, a second northbound left-turn lane, and a second southbound left-turn lane would reduce cumulative impacts to a less than significant level.

  This intersection is under the jurisdiction of the March AFB Joint Powers Authority. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the March AFB Joint Powers Authority and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.

- ***Elsworth Street/Cactus Avenue Intersection (IN-74)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Widening the northbound approach to provide three left-turn lanes, one through lane, and one right-turn lane, and adding a westbound left-turn lane and eastbound right-turn lane would reduce cumulative impacts to a less than significant level. This intersection is eligible for funds under the DIF program. The City will collect DIF funds in accordance with City Municipal Code 3.42.030 and 3.42.040, and use these fees to improve this intersection when the need for the improvement becomes warranted.

- ***Central Avenue/Lochmoor Drive Intersection (IN-75)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Converting the northbound approach to one left-turn lane and a shared left-right-turn lane would reduce cumulative impacts to a less than significant level.

  This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.

- ***Alessandro Boulevard/Mission Grove Parkway Intersection (IN-80)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Modifying the traffic signal to provide an additional eastbound left-turn, westbound left-turn, and northbound through lane would reduce cumulative impacts to a less than significant level.

  This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the

City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.

- ***Martin Luther King Boulevard/I-215 Northbound Ramps Intersection (IN-85)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Signalizing the intersection would reduce cumulative impacts to a less than significant level.

  This intersection is under the jurisdiction of the City of Riverside. It is not eligible for TUMF funding. The City will work with the City of Riverside to establish a mechanism for collecting and distributing payments from developers for inter-jurisdictional impacts not covered by the TUMF program. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable.

- ***Central Avenue/Chicago Avenue. Intersection (IN-86)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Modifying the traffic signal to provide overlap phasing for the northbound right-turn movement would reduce cumulative impacts to a less than significant level.

  This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.

- ***Central Avenue/Canyon Crest Drive Intersection (IN-88)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a southbound right-turn lane (and adjust signal timings), an eastbound right-turn lane, a second westbound left-turn lane, and a second northbound left-turn lane would reduce cumulative impacts to a less than significant level.

  This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.

- ***Arlington Avenue/Riverside Avenue/SR-91 Southbound Ramps Intersection (IN-90)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a third southbound left-turn lane would reduce cumulative impacts to a less than significant level.

  This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.

- ***Arlington Avenue/Victoria Avenue Intersection (IN-94)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a fourth eastbound through lane, a second

westbound left-turn lane, and a second westbound right-turn lane would reduce cumulative impacts to a less than significant level.

This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.

- ***Alessandro Boulevard/Chicago Avenue Intersection (IN-95).*** This intersection is already built out to near the practical limit before grade separation is required (it has five lanes for each approach). Despite this, it already operates at LOS F in the p.m. peak period. To achieve the target LOS in 2035 would require the addition of lanes to the eastbound through, westbound left-turn, westbound though, northbound left-turn, southbound left-turn, and southbound right-turn movements. There are established residential communities on each corner that would be impacted by such a widening or by grade separation. These mitigation measures are thus likely to be infeasible, and the project impact at this location is therefore considered to be a significant and unavoidable.
- ***Alessandro Boulevard/Canyon Crest Drive Intersection (IN-98)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Widening and reconfiguring the eastbound approach to provide one left-turn lane, one through lane, and two right-turn lanes; adding an additional westbound through lane; adding an additional northbound left-turn and northbound right-turn lane; and reconfiguring the southbound approach to one left-turn lane, three through lanes, and one shared through-right-turn lane would reduce cumulative impacts to a less than significant level.

  This intersection is under the jurisdiction of the City of Riverside. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Riverside and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.
- ***Ramona Expressway/Indian Street Intersection (IN-101)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing one eastbound right-turn lane, a second northbound left-turn lane, and one northbound right-turn lane, and modifying the traffic signal to provide overlap phasing for all right-turn movements would reduce cumulative impacts to a less than significant level.

  This intersection is under the jurisdiction of the City of Perris. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Perris and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.

- ***Evans Road/Rider Street Intersection (IN-107)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing an exclusive right-turn lane on the southbound approach would reduce cumulative impacts to a less than significant level.

  This intersection is under the jurisdiction of the City of Perris. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the City of Perris and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.

- ***W. 6th Street/California Avenue Intersection (IN-129)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Signalizing this intersection would reduce cumulative impacts to a less than significant level.

  This intersection is under the jurisdiction of the City of Beaumont. Although it is a TUMF facility, signalization is not currently eligible for TUMF funding. The City will work with the City of Beaumont to establish a mechanism for collecting and distributing payments from developers for inter-jurisdictional impacts not covered by the TUMF program. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable.

- ***W. 6th Street/Beaumont Avenue Intersection (IN-130)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Constructing a northbound right-turn lane, an eastbound right-turn lane, a second southbound left-turn lane, a second westbound left-turn lane, removing on-street parking and restriping to provide a second westbound through lane, modifying the traffic signal to provide protected phasing for eastbound and westbound left-turn movements, and overlap phasing for northbound and eastbound right-turn movements would reduce cumulative impacts to a less than significant level.

  There are established commercial buildings on the corners on the northern part of the intersection that would be impacted by such a widening. These mitigation measures are thus infeasible, and the project impact at this location is therefore considered to be significant and unavoidable.

- ***Reche Canyon Road/Reche Vista Drive Intersection (IN-131)*** will exceed the target LOS threshold at some point in the 2022–2035 period. Converting the existing right-turn lane into a shared left-turn-and-right-turn lane would reduce cumulative impacts to a less than significant level.

  This intersection is under the jurisdiction of the Riverside County. It is eligible for TUMF funding. The City will collect TUMF payments in accordance with Municipal Code Chapter 3.44, and payment of these fees will constitute the mitigation for this impact. However, because both the intersection and the funding source are outside the jurisdiction of the City of Moreno Valley, the City cannot ensure that the identified improvements would be made. The project's impacts on this intersection must therefore be considered significant and unavoidable. The City will work with the Riverside County and WRCOG to direct TUMF funding for improvements that would provide an acceptable LOS at this intersection when the need for the improvement becomes warranted.

Cumulative Freeway Mainline Mitigations. The WLC's cumulative impacts on the freeways system are summarized in Table 4.15.BA, and described in detail below:

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Table 4.15.BA: Year 2035 Cumulative Impacts and Mitigation Measures on Freeway Facilities

Study Facility		Juris-diction	LOS Standard	Determination of Impact: 2035 No-Project AM	2035 No-Project PM	2035 Plus Build-out AM	2035 Plus Build-out PM	Does the Project Have a Significant Impact?	Mitigation Measures Required to Reduce Impact to Less-Than-Significant	Is Mitigation Feasible?	LOS After Feasible Mitigations are Implemented: AM LOS	PM LOS	Impact Significant After Feasible Mitigations are Implemented?	Is There an Existing Deficiency?	Developer Action Required
(A)		(B)	(C)	(D)		(E)		(F)	(G)	(H)	(I)		(J)	(K)	(L)
Freeway Mainline Basic Sections - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
F-2	EB SR-60 Reservoir St to Ramona Ave	Caltrans	D	E	E	E	E	Yes	Add one mixed flow lane.	Yes	D	D	No	No	Pay fair share (9.5%)
F-2	WB SR-60 Reservoir St to Ramona Ave	Caltrans	D	E	D	E	E	Yes	Add one mixed flow lane.	Yes	D	C	No	Yes	Pay fair share (7.9%)
F-3	EB SR-60 Ramona Ave to Central Ave	Caltrans	D	E	F	E	F	Yes	Add one mixed flow lane.	Yes	D	D	No	Yes	Pay fair share (9.5%)
F-4	EB SR-60 Central Ave to Mountain Ave	Caltrans	D	E	F	F	F	Yes	Add one mixed flow lane.	Yes	D	E	No**	Yes	Pay fair share (10.1%)
F-5	EB SR-60 Mountain Ave to Euclid Ave	Caltrans	D	E	D	F	D	Yes	Add one mixed flow lane.	Yes	D	C	No	No	Pay fair share (10.6%)
F-5	WB SR-60 Mountain Ave to Euclid Ave	Caltrans	D	C	E	C	E	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (6.9%)
F-6	WB SR-60 Euclid Ave to Grove Ave	Caltrans	D	D	E	C	E	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (8.0%)
F-7	EB SR-60 Grove Ave to Vineyard Ave	Caltrans	D	F	F	F	F	Yes	Add one mixed flow lane.	Yes	D	E	No**	Yes	Pay fair share (11.3%)
F-7	WB SR-60 Grove Ave to Vineyard Ave	Caltrans	D	C	E	C	E	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (8.5%)
F-8	EB SR-60 Vineyard Ave to Archibald Ave	Caltrans	D	F	F	F	F	Yes	Add one mixed flow lane.	Yes	D	E	No**	Yes	Pay fair share (11.9%)
F-9	EB SR-60 Archibald Ave to Haven Ave	Caltrans	D	E	D	E	D	Yes	Add one mixed flow lane.	Yes	D	C	No	No	Pay fair share (14.2%)
F-17	EB SR-60 Valley Way to Rubidoux Blvd	Caltrans	D	E	C	E	C	Yes	Add one mixed flow lane.	Yes	D	B	No	No	Pay fair share (19.1%)
F-17	WB SR-60 Valley Way to Rubidoux Blvd	Caltrans	D	C	E	C	E	Yes	Add one mixed flow lane.	Yes	B	C	No	No	Pay fair share (9.42%)
F-18	EB SR-60 Rubidoux Blvd to Market St	Caltrans	D	E	C	F	C	Yes	Add one mixed flow lane.	Yes	D	B	No	No	Pay fair share (22.7%)
F-19	EB SR-60 Market St to Main St	Caltrans	D	E	E	E	F	Yes	Add one mixed flow lane.	Yes	C	D	No	Yes	Pay fair share (20.9%)
F-19	WB SR-60 Market St to Main St	Caltrans	D	D	E	D	E	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (8.7%)
F-20	WB SR-60 Main to SR-91	Caltrans	D	D	E	D	E	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (8.9%)
F-24	WB SR-60 Martin Luther King Blvd to Central Ave	Caltrans	D	D	D	D	E	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (18.3%)
F-26	WB SR-60 Fair Isle Dr/Box Springs Rd to I-215	Caltrans	D	D	F	D	F	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (9.0%)
F-29	EB SR-60 Pigeon Pass Rd/Frederick St to Heacock St	Caltrans	D	D	E	D	E	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (19.5%)
F-30	EB SR-60 Heacock St to Perris Blvd	Caltrans	D	C	E	D	E	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (13.1%)
F-30	WB SR-60 Heacock St to Perris Blvd	Caltrans	D	D	D	D	E	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (37.2%)
F-34	WB SR-60 Redlands Blvd to Theodore St	Caltrans	D	E	D	E	E	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (12.5%)
F-36	EB SR-60 Gilman Springs Rd to Jack Rabbit Trail	Caltrans	D	C	F	C	F	Yes	Add one mixed flow lane.	Yes	B	D	No	No	Pay fair share (4.9%)
F-37	EB SR-60 Jack Rabbit Trail to Potrero Blvd	Caltrans	D	C	F	C	F	Yes	Add one mixed flow lane.	Yes	B	D	No	No	Pay fair share (7.0%)
F-41	EB SR-91 Pierce St to Magnolia Ave	Caltrans	D	E	E	E	E	Yes	Add one mixed flow lane.	Yes	D	C	No	No	Pay fair share (12.4%)
F-43	EB SR-91 La Sierra Ave to Tyler St	Caltrans	D	E	E	E	E	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (10.0%)
F-43	WB SR-91 La Sierra Ave to Tyler St	Caltrans	D	D	E	D	E	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (10.9%)
F-44	WB SR-91 Tyler St to Van Buren Blvd	Caltrans	D	D	E	D	E	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (8.7%)

Indicates LOS exceeds the target level

** Although the target LOS is not met, conditions with the project and the mitigation measure would be better than No-Project conditions

* Not applicable because mitigation is infeasible

*** The mitigation measures are in addition to the mitigation measure needed for direct Project impacts (see Table 76)

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

Table 4.15.BA: Year 2035 Cumulative Impacts and Mitigation Measures on Freeway Facilities (continued)

Study Facility		Juris-diction	LOS Standard	Determination of Impact: 2035 No-Project AM	2035 No-Project PM	2035 Plus Build-out AM	2035 Plus Build-out PM	Does the Project Have a Significant Impact?	Mitigation Measures Required to Reduce Impact to Less-Than-Significant	Is Mitigation Feasible?	LOS After Feasible Mitigations are Implemented: AM LOS	PM LOS	Impact Significant After Feasible Mitigations are Implemented?	Is There an Existing Deficiency?	Developer Action Required
(A)		(B)	(C)	(D)		(E)		(F)	(G)	(H)	(I)		(J)	(K)	(L)
F-45	WB SR-91 Van Buren Blvd to Adam St	Caltrans	D	D	D	D	E	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (8.2%)
F-46	EB SR-91 Adam St to Madison St	Caltrans	D	E	C	E	C	Yes	Add one mixed flow lane.	No	E	C	Yes	No	N/A*
F-47	WB SR-91 Madison St to Arlington Ave	Caltrans	D	D	E	D	E	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (4.9%)
F-75	SB I-215 Center St to La Cadena Dr	Caltrans	D	E	C	E	C	Yes	Add one mixed flow lane.	No	E	C	Yes	No	N/A*
F-52	EB I-10 SR-60 to Beaumont Ave	Caltrans	D	C	E	C	E	Yes	Add one mixed flow lane.	Yes	B	D	No	No	Pay fair share (2.5%)
F-52	WB I-10 SR-60 to Beaumont Ave	Caltrans	D	E	C	E	C	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (2.9%)
F-54	EB I-10 Pennsylvania Ave to Highland Springs Ave	Caltrans	D	C	E	C	E	Yes	Add one mixed flow lane.	Yes	B	D	No	No	Pay fair share (1.9%)
F-54	WB I-10 Pennsylvania Ave to Highland Springs Ave	Caltrans	D	E	C	E	C	Yes	Add one mixed flow lane.	Yes	D	C	No	No	Pay fair share (3.2%)
F-55	EB I-10 Highland Springs Ave to Sunset Ave	Caltrans	D	C	E	C	E	Yes	Add one mixed flow lane.	Yes	B	D	No	No	Pay fair share (0.7%)
F-55	WB I-10 Highland Springs Ave to Sunset Ave	Caltrans	D	E	C	E	C	Yes	Add one mixed flow lane.	Yes	D	B	No	No	Pay fair share (3.3%)
F-58	EB I-10 8th St to Hargrave St	Caltrans	D	C	D	C	E	Yes	Add one mixed flow lane.	Yes	B	C	No	No	Pay fair share (2.1%)
F-58	WB I-10 8th St to Hargrave St	Caltrans	D	E	C	E	C	Yes	Add one mixed flow lane.	Yes	C	B	No	No	Pay fair share (2.1%)
F-59	EB I-10 Hargrave St to Fields Rd	Caltrans	D	C	E	C	E	Yes	Add one mixed flow lane.	Yes	B	D	No	No	Pay fair share (1.2%)
F-61	EB I-10 Morongo Trail to Main St	Caltrans	D	B	E	B	E	Yes	Add one mixed flow lane.	Yes	B	C	No	No	Pay fair share (1.9%)
F-71	SB I-215 SR-74 to Ellis Ave	Caltrans	D	F	E	F	E	Yes	Add one mixed flow lane.***	Yes	D	C	No	Yes	Pay fair share (0.8%)
F-83	SB I-215 Baseline Rd to Highland Ave	Caltrans	D	F	D	F	D	Yes	Add one mixed flow lane.***	No	F	D	Yes	Yes	N/A*
Freeway Weaving Sections - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
W-1	EB SR-60 SR-71/Garey Ave to Reservoir St	Caltrans	D	E	E	E	E	Yes	Add one mixed flow lane.	Yes	D	E	No**	Yes	Pay fair share (8.3%)
W-9	WB SR-60 Haven Ave to Archibald Ave	Caltrans	D	D	E	D	E	Yes	Add one mixed flow lane.	Yes	C	D	No	No	Pay fair share (6.1%)
W-20	EB SR-60 Main St to SR-91	Caltrans	D	D	E	E	E	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (19.1%)
W-21	WB SR-60 SR-91 to Blaine St/3rd St	Caltrans	D	D	E	D	F	Yes	Add one mixed flow lane.	No	D	F	Yes	No	N/A*
W-22	WB SR-60 Blaine St/3rd St to University Ave	Caltrans	D	C	E	C	E	Yes	Add one mixed flow lane.	No	C	E	Yes	No	N/A*
W-23	WB SR-60 University Ave to Martin Luther King Blvd	Caltrans	D	D	E	D	E	Yes	Add a second off-ramp lane.	Yes	C	E	No**	No	Pay fair share (10.4%)
W-25	WB SR-60 Central Ave to Fair Isle Dr/Box Springs Rd	Caltrans	D	E	E	E	E	Yes	Add one mixed flow lane.***	Yes	D	E	No**	Yes	Pay fair share (16.6%)
W-28	WB SR-60 Day St to Pigeon Pass Rd/Frederick St	Caltrans	D	D	D	D	E	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (35.6%)
Freeway Ramps - All Impacts are Considered Significant and Unavoidable (because they are not feasible, not part of an existing fee program, and/or not under the control of the City of Moreno Valley)															
R-1	SR-60 EB On-Ramp from Martin Luther King Blvd	Caltrans	D	D	D	D	E	Yes	Add one mixed flow lane.	No	D	E	Yes	No	N/A*
R-10	SR-60 EB On-Ramp from Gilman Springs Rd	Caltrans	D	B	F	B	F	Yes	Add one mixed flow lane.	Yes	A	C	No	No	See F-36
R-14	SR-60 WB On-Ramp from Theodore St	Caltrans	D	E	D	E	D	Yes	Add one mixed flow lane.	Yes	C	C	No	No	See F-34
R-15	SR-60 WB Off-Ramp to Redlands Blvd	Caltrans	D	D	D	E	D	Yes	Add one mixed flow lane.	Yes	C	B	No	No	See F-34
R-16	WB SR-60 Loop On-Ramp from Redlands Blvd	Caltrans	D	E	D	E	D	Yes	Add one mixed flow lane.	Yes	C	C	No	No	Pay fair share (14.0%)
R-17	SR-60 WB Direct On-Ramp from Redlands Blvd	Caltrans	D	D	D	F	D	Yes	Add one mixed flow lane.****	Yes	C	C	No	No	Pay fair share (14.0%)
R-18	SR-60 WB Off-Ramp to Central Ave	Caltrans	D	D	D	D	E	Yes	Add one mixed flow lane.	Yes	C	D	No	No	See W-25 (Table 74)
R-19	SR-60 WB Off-Ramp to Martin Luther King Blvd	Caltrans	D	D	D	D	E	Yes	Add one mixed flow lane.	Yes	C	D	No	No	See F-24

Indicates LOS exceeds the target level

** Although the target LOS is not met, conditions with the project and the mitigation measure would be better than No-Project conditions

* Not applicable because mitigation is infeasible

*** The mitigation measures are in addition to the mitigation measure needed for direct Project impacts (see Table 76)

**** The additional lane needed between Redlands Blvd. and Moreno Beach Dr. as mitigation for R-16 is the same lane that is needed to mitigate impacts to R-17. Only one lane is needed; not one for R-16 and a second for R-17.

Source: Traffic Impact Analysis Report for the World Logistics Center, Parsons Brinckerhoff, September 2014.

- ***Eastbound SR-60 from Reservoir Street to Ramona Avenue (F-2)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  The state freeway system is owned and operated by Caltrans and is thus outside the jurisdiction of the City of Moreno Valley. The City will work with Caltrans to establish a mechanism for collecting funds from developers for use in funding needed freeway improvements. However, since at the present time no such mechanism exists that would ensure that WLC funds contributed to Caltrans or any other state agency would be used to implement specific improvements that mitigate WLC impacts, and there is no mechanism by which the City can construct or guarantee the construction of any improvements to the freeway system by itself, this and all other freeway impacts must be considered as significant and unavoidable.

- ***Westbound SR-60 from Reservoir Street to Ramona Avenue (F-2)*** already exceeds the target LOS threshold and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold, resulting in a less than significant impact.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-60 from Ramona Avenue to Central Avenue (F-3)*** already exceeds the LOS threshold and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-60 from Central Avenue to Mountain Avenue (F-4)*** already exceeds the LOS threshold and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-60 from Mountain Avenue to Euclid Avenue (F-5)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-60 from Mountain Avenue to Euclid Avenue (F-5)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level.

The existing freeway right-of-way in this section cannot accommodate additional lanes and the right-of-way cannot be expanded without severe impacts to the adjacent residential community. Since widening the freeway is infeasible, this impact is significant and unavoidable.

- ***Westbound SR-60 from Euclid Avenue to Grove Avenue (F-6)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level.

  The existing freeway right-of-way in this section cannot accommodate additional lanes and the right-of-way cannot be expanded without severe impacts to the adjacent residential community. Since widening the freeway is infeasible, this impact is significant and unavoidable.

- ***Eastbound SR-60 from Grove Avenue to Vineyard Avenue (F-7)*** already exceeds the LOS threshold and traffic density would increase and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-60 from Grove Avenue to Vineyard Avenue (F-7)*** will exceed the target LOS threshold at some point in the 2022–2035 period this intersection. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-60 from Vineyard Avenue to Archibald Avenue (F-8)*** already exceeds the LOS threshold and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less-than-significant level.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-60 from Archibald Avenue to Haven Avenue (F-9)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-60 from Valley Way to Rubidoux Boulevard (F-17)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level. The addition of a lane is identified in the Transportation Concept Report.

As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-60 from Valley Way to Rubidoux Boulevard (F-17)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level. The addition of a lane is identified in the Transportation Concept Report.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means to either widen the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-60 from Rubidoux Boulevard to Market Street (F-18)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level. The addition of a lane is identified in the Transportation Concept Report.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-60 from Market Street to Main Street (F-19)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-60 from Market Street to Main Street (F-19)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-60 from Main Street to SR-91 (F-20)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce bring the LOS to within the target threshold.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-60 from Martin Luther King Boulevard to Central Avenue (F-24)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-60 from Fair Isle Drive/Box Springs Road to I-215 (F-26)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-60 from Pigeon Pass Road/Frederick Street to Heacock Street (F-29)*** currently operates at an acceptable LOS but will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. The addition of a lane is identified in the Transportation Concept Report.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-60 from Heacock Street to Perris Boulevard (F-30)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-60 from Heacock Street to Perris Boulevard (F-30)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-60 from Redlands Boulevard to Theodore Street (F-34)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing

that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-60 from Gilman Springs Road to Jack Rabbit Trail (F-36)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  Caltrans already has plans to build a truck climbing lane in this area. However, as explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-60 from Jack Rabbit Trail to Potrero Road (F-37)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less-than-significant level.

  Caltrans already has plans to build a truck climbing lane in this area. However, as explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-91 from Pierce Street to Magnolia Avenue (F-41)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-91 from La Sierra Avenue to Tyler Street (F-43)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-91 from La Sierra Avenue to Tyler Street (F-43)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-91 from Tyler Street to Van Buren Boulevard (F-44)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting

in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

As explained above, because SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-91 from Van Buren Boulevard to Adam Street (F-45)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-91 from Adam Street to Madison Street (F-46)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without impacting the adjacent residential community. Since widening the freeway is infeasible, this impact is significant and unavoidable.

- ***Westbound SR-91 from Madison Street to Indiana Avenue (F-47)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-91 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound I-10 from SR-60 to Beaumont Avenue (F-52)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound I-10 from SR-60 to Beaumont Avenue (F-52)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound I-10 from Pennsylvania Avenue to Highland Springs Avenue (F-54)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would

increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound I-10 from Pennsylvania Avenue to Highland Springs Avenue (F-54)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound I-10 from Highland Springs Avenue to Sunset Avenue (F-55)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound I-10 from Highland Springs Avenue to Sunset Avenue (F-55)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound I-10 from 8th Street to S. Hargrave Street (F-58)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound I-10 from 8th Street to S. Hargrave Street (F-58)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound I-10 from S. Hargrave Street to Field Road (F-59)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound I-10 from Main Street (Cabazon) to Main Street (F-61)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because I-10 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Southbound I-215 from SR-74 to Ellis Avenue (F-71[1])*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because I-215 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Southbound I-215 from Center Street to Iowa Avenue/La Cadena Drive (F-75)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without impacting the adjacent frontage road. Since widening the freeway is infeasible, this impact is significant and unavoidable.

- ***Southbound I-215 from Baseline Road to Highland Avenue (F-83)*** will exceed the target LOS threshold at some point in the 2022-to-2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than-significant level. The freeway right-of-way in this section cannot accommodate an additional lane (beyond the lane already identified in the current SCAG RTP) and cannot be widened without impacting the adjacent railroad. Since widening the freeway is infeasible, this impact is significant and unavoidable.

Cumulative Freeway Weaving Mitigations

- ***Eastbound SR-60 from SR-71/Garey Avenue to Reservoir Street (W-1)*** already exceeds the target LOS threshold and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level.

[1] I-215 currently runs unbroken between SR-74 and Redlands Avenue. The RTP includes a project (3M0731) that would split this freeway mainline section by adding a new interchange at Ellis Avenue. For this reason, this freeway section is listed as “I-215 SR-74 to Redlands” on tables describing conditions prior to construction of the Ellis Avenue interchange.

SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley. The City will require the developer to pay a fair-share contribution towards improvement of this section as a condition of approval. However, because the freeway is outside the jurisdiction of the City of Moreno Valley and because no mechanism is in place for ensuring the availability of the non-project portion of the needed funds, the City cannot ensure that the identified improvements would be made. The project's impact on this section must therefore be considered significant and unavoidable.

- **Westbound SR-60 from Haven Avenue to Archibald Avenue (W-9)** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Eastbound SR-60 from Main Street to SR-91 (W-20)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-60 from SR-91 to W. Blaine Street/3rd Street (W-21)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without impacting the adjacent residential community. Since widening the freeway is infeasible, this impact is significant and unavoidable.

- ***Westbound SR-60 from W Blaine Street/3rd Street to University Avenue (W-22)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level. The existing freeway right-of-way in this section cannot accommodate an additional lane and cannot be widened without impacting the adjacent residential community. Since widening the freeway is infeasible, this impact is significant and unavoidable.

- ***Westbound SR-60 from University Avenue to Martin Luther King Boulevard (W-23)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a second on-ramp lane would reduce the cumulative impact to a less than significant level.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-60 from Central Avenue to Faire Isle Drive/Box Springs Road (W-25)*** already exceeds the LOS threshold and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level.

As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-60 from Day Street to Pigeon Pass Road/Frederick Street (W-28)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

Cumulative Freeway Ramp Mitigations

- ***Eastbound SR-60 from On-Ramp from Martin Luther King Boulevard (R-1)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would reduce the cumulative impact to a less than significant level. The Transportation Concept Report does not call for further widening of this section, which could only be accomplished by eliminating the existing shoulder and thus leaving no space for disabled vehicles to pull over. Since this would create safety problems that would be less acceptable than a low LOS, mitigating this impact is infeasible. This impact is therefore significant and unavoidable.
- ***Eastbound SR-60 from On-Ramp from Gilman Springs Road (R-10)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. (This improvement is already identified as the mitigation for freeway mainline segment F-36.)

  Caltrans has plans to re-configure the SR-60/Gilman Springs Road interchange in the future. However, as explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.
- ***Westbound SR-60 from On-Ramp from Theodore Street (R-14)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. (This improvement is already identified as the mitigation for freeway mainline segment F-34.)

  The City has a study underway to develop alternative designs for this interchange. The City will collect a fair-share contribution from the developer to implement this improvement in conjunction with the reconfiguration of the SR-60/Theodore Street Interchange. It should be noted the National Bridge Inventory 2012 Inspection Database[1] indicates that the Theodore Street `bridge over SR-60 was designed for MS18 design loads and has a sufficiency rating for 97.9.
- ***Westbound SR-60 from Off-Ramp to Redlands Boulevard (R-15)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring

[1] http://nationalbridges.com/ Federal Highway Administration, searchable database last updated 2012

the LOS to within the target threshold, resulting in a less than significant impact. (This improvement is already identified as the mitigation for freeway mainline segment F-34.)

As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-60 from Direct On-Ramp from Redlands Boulevard (R-17)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold.

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-60 from Off-Ramp to Central Avenue (R-18)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. (This improvement is already identified as the mitigation for freeway weaving segment W-25 in the direct impacts and mitigation list, Table 4.15.AX.)

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

- ***Westbound SR-60 from Off-Ramp to Martin Luther King Boulevard (R-19)*** will exceed the target LOS threshold at some point in the 2022–2035 period and traffic density would increase resulting in a cumulative impact in the Year 2035 Plus Project scenario. Adding a mixed-flow lane would bring the LOS to within the target threshold. (This improvement is already identified as the mitigation for freeway mainline segment F-24.)

  As explained above, because SR-60 is a state facility outside the jurisdiction of the City of Moreno Valley, the City has no means for either widening the freeway itself or for guaranteeing that some other agency will widen the freeway. This impact must therefore be considered significant and unavoidable.

4.15.7.4 Mitigation Measures

4.15.7.4A A traffic impact analysis ("TIA") conforming to the guidelines for traffic impact analysis adopted by the City shall be submitted in conjunction with each Plot Plan application within the World Logistics Center Specific Plan. Prior to the approval of the Plot Plan, the City shall review the traffic impact analysis to determine if any of the traffic improvements listed in Final EIR Volume 2 Tables 4.15.AV through 4.15.BA (TIA Tables 74 through 79) of the traffic impact analysis prepared for the Program Environmental Impact Report are required to be completed prior to the issuance of a certificate of occupancy for each building. If the City determines that any of the improvements within Moreno Valley are required to be constructed in order to ensure that the traffic impacts which will result from the construction and operation of the building will be mitigated into insignificance, then the completion of construction of the improvements prior to the issuance of a Certificate of Occupancy for the building shall be made a Condition of Approval of the Plot Plan. Construction of improvements within the City shall be subject to credit/reimbursement agreement for those DIF and/or TUMF eligible costs. If the City determines that any of

the improvements outside Moreno Valley are required to be constructed in order to ensure that the traffic impacts which will result from the construction and operation of the building will be mitigated to a less than significant level, then the payment of any necessary fair share contribution as prescribed in Mitigation Measure 4.15.7.4G prior to the issuance of a Certificate of Occupancy for the building shall be made a Condition of Approval of the Plot Plan. If the City determines that the traffic impacts which will result from the construction or operation of a building will be significantly more adverse than those shown in the Program Environmental Impact Report, further environmental review shall be conducted prior to the approval of the Plot Plan pursuant to Public Resources Code § 21166 and CEQA Guidelines § 15162 to determine what additional mitigation measures, if any, will be required in order to maintain the appropriate levels of service.

4.15.7.4B As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require the dedication of appropriate right-of-way consistent with the Subdivision Map Act for frontage street improvements contained within the World Logistics Center Specific Plan Circulation Map, as shown in this Program EIR Figure 3-10 (or Figure 22 in the TIA prepared for this Program EIR). Required dedications shall be made prior to the issuance of occupancy permits for the requested development.

4.15.7.4C As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require each project to pay the Development Impact Fee (DIF) as set forth in Municipal Code Chapter 3.42. Required DIF payments shall be made prior to the issuance of occupancy permits for the requested development.

4.15.7.4D As a condition of approval for individual development permits processed in the future under the World Logistics Center Specific Plan, the City shall require each project to pay the requisite Transportation Uniform Mitigation Fee (TUMF) as set forth in Municipal Code Sections 3.55.050 and 3.55.060. Required TUMF payments shall be made prior to the issuance of occupancy permits for the requested development.

4.15.7.4E In order to ensure that all of the Project's traffic impacts are mitigated to the greatest extent feasible, the Applicant shall contribute its fair share of the cost of the needed traffic improvements that are not within the City as identified in the World Logistic Center Specific Plan Traffic Impact Analysis (i.e., under the jurisdiction of other cities, the County of Riverside or Caltrans, pursuant to Mitigation Measure 4.15.7.4F). As used in this mitigation measure, the Applicant's "fair share" has been determined in compliance with the requirements of the Fee Mitigation Act, Government Code § 66000 et seq., and, pursuant to § 66001(g), does not require that the Applicant be responsible for making up for any existing deficiencies.

For example, the intersection of Martin Luther King Blvd. and the I-215 northbound ramps (Intersection 85) in the City of Riverside was identified as a place where the World Logistic Center contributes to cumulatively significant impacts, and where the fair share contribution of the World Logistic Center project as a whole was computed to be 6.2%. If the City of Riverside establishes a fair share contribution program consistent with this Mitigation Measure 4.15.7.4F to improve that intersection, then when a certificate of occupancy is to be issued for a 2-million square feet high-cube warehouse in the World Logistic Center (approximately 5% of the entire World Logistic Center project) the amount of the fair share payment due from the Applicant to the City of Riverside would be computed as follows:

Amount Due	=	Total cost of Improvement	×	Total World Logistics Center fair share (6.2%) as determined by Traffic Impact Analysis	×	% attributable to the building that is subject to the certificate of occupancy (5%)

A × B × C = D
A= % attributable to the building that is subject to the certificate of occupancy (5%) B= Total World Logistics Center fair share (6.2%) as determined by Traffic Impact Analysis C= Total cost of Improvement D= Amount Due

A similar calculation would be done for each subsequent building, with payments for each due at the time of issuance of the certificate of occupancy. As a result, while each building individually would not produce a significant impact, and therefore would not be required to pay any mitigation fees if considered by itself, the total amount of the payments for all of the buildings would be equal to the fair share payment for the entire World Logistic Center to the extent that the responsible jurisdiction has chosen to adopt a fair share contribution funding program consistent with Mitigation Measure 4.15.7.4F.

4.15.7.4F The Applicant shall pay a portion of the fair share of the cost of traffic improvements identified in the Transportation Impact Analysis for those significantly impacted road segments and intersections for each warehouse building within the World Logistics Center if the impacted jurisdiction has established a fair share contribution program prior to the approval of a building-specific plot plan. The City shall determine whether a fair share program exists in the impacted jurisdiction and, if one does exist, require that the appropriate fees are paid by the Applicant, consistent with the requirements below, prior to the issuance of a certificate of occupancy for the building in question. If no fair share program exists or if the existing programs are not consistent with the requirements below, then no payment of fees shall be required. The impacts are to be determined on a road segment or intersection basis. Nothing in this condition requires the payment of a traffic impact fee imposed by another jurisdiction which covers improvement to facilities where the project does not have a significant impact. Fair-share contributions will be determined on a building-by-building basis as a share of the impact of the Project as a whole (for each segment or intersection where the World Logistics Center project as a whole has a significant impact identified in the Programmatic Environmental Impact Report) as determined by the Traffic Impact Analysis and will be due as each certificate of occupancy is issued. The fair share payments for the significantly impacted road segments and intersections identified in the Programmatic Environmental Impact Report will be required even though the impact resulting from a specific building does not, by itself, cause a significant impact.

4.15.7.4G City shall work directly with Western Riverside Council of Governments to request that Transportation Uniform Mitigation Fee funding priorities be shifted to align with the needs of the City, including improvements identified in the World Logistics Center Specific Plan traffic impact analysis. Toward this end, City shall meet regularly with Western Riverside Council of Governments.

Congestion Management

In addition to and in concert with the mitigation measures defined above for or traffic impacts, the World Logistics Center would incorporate a number of measures that reduce single occupancy vehicle trips as part of design features and required mitigation measures to reduce air quality impacts. These design features and measures, described in more detail in Section 4.3 Air Quality, would create alternatives to single occupancy vehicle trips for those individuals that would be employed at the World Logistics Center. These measures include:

- Participation in Riverside County's Rideshare Program
- Class II bike lanes for all project streets
- Pedestrian pathways throughout the project site
- Pedestrian connections to nearby residential areas
- Provision of bicycle storage space
- Preferential carpool/vanpool parking

In addition, the World Logistics Center Specific Plan requires that mass transit features, such as bus stops, be incorporated into the project, based on consultation with the Riverside Transit Agency.

4.15.7.5 Level of Significance after Mitigation

Even with implementation of **Mitigation Measures 4.15.7.4.A through 4.15.7.4.G**, and implementation of all the improvements identified in Tables 4.15.AV through 4.15.BA, direct and cumulative impacts on study area roadway segments, intersections, and freeway facilities would not be reduced to less than significant levels, including all improvement locations not under the control of the lead agency (i.e., outside of the City of Moreno Valley). This is because the primary determinant of the level of significance after mitigation is the agency responsible for the transportation facility in question. The City has no means for controlling when transportation improvements are made outside of its jurisdiction, and therefore, cannot guarantee when such improvements would be made. These roadways, intersections, and freeway facilities are grouped into four categories based on the jurisdiction the transportation facility is located and are summaries as follows.

On-Site Improvements. These are improvements and changes to the road system within the WLC project site that are being undertaken as part of the WLC project. The developer shall be responsible for constructing the improvements described in the TIA (Chapter 4, "Proposed Road Network") in accordance with City standards for roadway construction and the roadway cross-sections in the proposed Specific Plan. Completion of these improvements shall constitute the developer's mitigation of the project's on-site impacts. When these improvements are completed, the project's impacts on the roadway system within the WLC project site will be mitigated to a less-than-significant level.

Off-Site Improvements for Non-TUMF Roads Under the Jurisdiction of the City of Moreno Valley. These are improvements and changes to public streets in Moreno Valley that are outside the area covered by the proposed WLC Specific Plan Amendment. The developer shall be responsible for paying the DIF as set forth in Municipal Code Chapter 3.42 which the City shall use to implement the mitigation measures identified in Tables 4.15.AV, 4.15.AW, 4.15.AY, and 4.15.AZ (TIA Tables 74, 75, 77, and 78) pertaining to DIF facilities. The developer shall also be required to pay its fair share of the improvements to City streets that are not in the DIF program where there are significant project impacts. These payments shall constitute the developer's mitigation of project impacts on this

category of roads. When these improvements are completed, the project's impacts on the City roadway and intersection system will be mitigated to a less-than-significant level.

Off-Site Improvements to TUMF Facilities. These are improvements and changes to roads and intersections that are part of the TUMF Regional System of Highways and Arterials, some of which are under the jurisdiction of Moreno Valley and others are located in other jurisdictions. The developer shall be responsible for paying the TUMF fees in effect at the time of approval. These payments shall constitute the developer's mitigation of project impacts to this category of roads and intersections.

The City shall implement the mitigation measures identified in Tables 4.15.AV, 4.15.AW, 4.15.AY, and 4.15.AZ pertaining to TUMF facilities under the City's jurisdiction. When these improvements are completed, the project's impacts on the roadway and intersection system within the WLC project site will be mitigated to a less than-significant level.

The City shall work with the other member agencies of WRCOG to program TUMF funds to implement the mitigation measures identified in 4.15.AV, 4.15.AW, 4.15.AY, and 4.15.AZ pertaining to TUMF facilities outside the jurisdiction of the City of Moreno Valley. To the extent that TUMF fees provided by the developer are used to implement the recommended improvements the project's impacts would be less-than-significant. However, because the City does not have direct control over TUMF funding the City cannot ensure that the identified improvements would be made. The project's impacts on these facilities must be considered significant and unavoidable.

Off-Site Improvements to Roads Outside the Jurisdiction of the City and Not Part of the TUMF Program. This category includes all of the recommended mitigation measures that are under the jurisdiction of Riverside County, Caltrans, and other municipalities and that are not included in the TUMF Regional System of Highways and Arterials.

At this time, the City does not have cooperative agreements with neighboring jurisdictions that would serve as a mechanism for collecting and distributing developer funds to cover the cost of cross-jurisdictions mitigation measures, other than the TUMF program. The City shall therefore work with the City of Redlands and Riverside County to collect funds from the developer and to implement the signalization of the San Timoteo Road/Alessandro Road intersection and the San Timoteo Road/Live Oak Canyon intersection (respectively). The City shall also work with the City of Riverside to collect a fair-share contribution from the developer to signalize the Martin Luther King Boulevard/I-215 northbound ramp intersection. To the extent that the City is able to establish such a mechanism (as described in Mitigation Measure 4.15.7.4F) and the other jurisdiction constructs the recommended improvement, the project's impacts would be less-than-significant. However, because the City cannot guarantee that such a mechanism will be established and does not have direct control over facilities outside of its jurisdiction the City cannot ensure that the identified improvements would be made. Thus, at this point the project's impacts on these facilities must be considered significant and unavoidable.

Similarly, the City has not entered into an agreement with Caltrans for the collection of developer payments for improvements to the state highway system other than freeway interchange improvements funded through the TUMF program. Nor has Caltrans established a program to collect fair-share contributions to freeway improvements such as those identified in Tables 4.15.AX and 4.15.BA. Instead, Caltrans has traditionally relied on other means to fund freeway improvements; means involving multiple stages of review and input from other agencies, with priorities and constraints applied at each stage, that preclude a direct connection between developer-provided fair-share funds and specific highway improvements.

Decisions on funding for improvements to the state highway system are made by four bodies, namely:

- **Legislature:** Establishes overall policies, including determining funding sources and distribution, and spending priorities through state statutes such as Revenue and Taxation Code, Streets and Highways Code, and Government Code. The Legislature appropriates funds through the annual budget for transportation projects and has authority to designate transportation projects statutorily.
- **California Transportation Commission (CTC):** The nine-member CTC, appointed by the Governor, reviews and adopts the state transportation programs and approves projects nominated by Caltrans and regional agencies for funding. The CTC recommends policy and funding priorities to the Legislature and is also responsible for project delivery oversight.
- **California Department of Transportation (Caltrans):** Caltrans owns, operates and maintains the state highway system. Caltrans plans, designs, and nominates interregional capital improvement projects on the state highway system and also manages the intercity rail operation.
- **Metropolitan Planning Organizations (MPOs) and Regional Transportation Planning Agencies (RTPAs):** MPOs and RTPAs are responsible for planning, coordinating and administering funds for regional transportation systems. In California, 17 MPOs and 48 RTPAs develop 20-year Regional Transportation Plans (RTPs) as well as 5-year Regional Transportation Improvement Program (RTIP), which identify projects for the regional portion of the State Transportation Improvement Program (STIP). SCAG is the MPO for Riverside County.

Most funds for improvements to the state highway system come through the State Highway Account (SHA), which receives funding from a variety of sources including:

- Motor vehicle fuel taxes, part of which goes into the Highway Users Tax Account, a portion of which goes to the SHA and the rest goes to cities and counties according to a statutory formula.
- The fuel tax swap, enacted in 2011 (Fuel Tax Swap Fix), reenacted the provisions of the Fuel Tax Swap of 2010 addressing issues raised by the passage of Propositions 22 and 26. The Fuel Tax Swap eliminated the state sales tax on gasoline and instead imposed an additional excise tax on gasoline of 17.3¢ (July 2010). The increase in the excise tax would generate revenues equivalent to what would have been collected from the state sales tax on gasoline. These revenues are intended for new road construction (STIP), highway maintenance and operations (SHOPP), and local roadways.
- The federal fuel tax, which goes into the Highway Trust fund for use on the portions of the system that are designated ad federal aid highways.

In addition, local sales tax measures, such as Measure A in Riverside County, and the proceeds of Proposition 1B provide funding for improvements to certain portions of the state highway system.

The key feature of this system pertaining to the recommended freeway mitigation measures is that this system is outside the control of the City of Moreno Valley. The City shall work with Caltrans to establish a mechanism for collecting funds from developers for use in funding needed freeway improvements. However, since at the present time no such mechanism exists that would ensure that WLC funds contributed to Caltrans or any other state agency would be used to implement specific improvements that mitigate WLC impacts, and there is no mechanism by which the City can construct or guarantee the construction of any improvements to the freeway system by itself, the project's impacts on the state highway system must be considered significant and unavoidable.

4.15.8 Summary of Project-Related Traffic Impacts

Based on the preceding analyses in Sections 4.15.5.1 through 4.15.6.4, the WLC project will have the following direct and cumulative air quality impacts:

Table 4.15.BB: Summary of Project-Related Traffic Impacts

Impact	Traffic and Circulation Topic/Issue	Impact Conclusion
4.15.5.1	Air Traffic Patterns	Less than Significant No Mitigation Required
4.15.5.2	Design Hazard Features	Less than Significant No Mitigation Required
4.15.5.3	Emergency Access	Less than Significant No Mitigation Required
4.15.5.4	Alternative Transportation Policies, Plans, or Programs	Less than Significant No Mitigation Required
4.15.6.1	Existing (2012) With Phase 1 Conditions Traffic and Level of Service	Less than Significant with Mitigation (on-site roads and intersections) Less than Significant with Mitigation (roads and intersections included in DIF within City) Less than Significant with Mitigation (roads and intersections included in TUMF within City) Significant and Unavoidable with Mitigation (roads and intersections included in TUMF outside City) Significant and Unavoidable with Mitigation (roads and intersections not in TUMF outside City) Significant and Unavoidable with Mitigation (all freeway mainline, weaving, and ramp facilities)
4.15.6.2	Existing (2012) With Project (Buildout) Conditions Traffic and Level of Service	Less than Significant with Mitigation (on-site roads and intersections) Less than Significant with Mitigation (roads and intersections included in DIF within City) Less than Significant with Mitigation (roads and intersections included in TUMF within City) Significant and Unavoidable with Mitigation (roads and intersections included in TUMF outside City) Significant and Unavoidable with Mitigation (roads and intersections not in TUMF outside City) Significant and Unavoidable with Mitigation (all freeway mainline, weaving, and ramp facilities)

Table 4.15.BB: Summary of Project-Related Traffic Impacts

Impact	Traffic and Circulation Topic/Issue	Impact Conclusion
4.15.6.3	Year 2022 With Phase 1 Conditions Traffic and Level of Service Impacts	Less than Significant with Mitigation (on-site roads and intersections) Less than Significant with Mitigation (roads and intersections included in DIF within City) Less than Significant with Mitigation (roads and intersections included in TUMF within City) Significant and Unavoidable with Mitigation (roads and intersections included in TUMF outside City) Significant and Unavoidable with Mitigation (roads and intersections not in TUMF outside City) Significant and Unavoidable with Mitigation (all freeway mainline, weaving, and ramp facilities)
4.15.6.4	Year 2035 Cumulative With Project Conditions Traffic and Level of Service Impacts	Less than Significant with Mitigation (on-site roads and intersections) Less than Significant with Mitigation (roads and intersections included in DIF within City) Less than Significant with Mitigation (roads and intersections included in TUMF within City) Significant and Unavoidable with Mitigation (roads and intersections included in TUMF outside City) Significant and Unavoidable with Mitigation (roads and intersections not in TUMF outside City) Significant and Unavoidable with Mitigation (all freeway mainline, weaving, and ramp facilities)

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FIGURES

TABLES

NOTE TO READERS. *Revisions have been made to this section to address changes in the Specific Plan, revisions to the project hydrology study, and in response to comments regarding drainage and mitigation.*

4.16 UTILITIES AND SERVICE SYSTEMS

This section analyzes the existing and planned water supply, wastewater facilities, drainage or storm water facilities (as they relate to water), solid waste facilities, and natural gas and electrical facilities for the project site and the surrounding area, and evaluates the impacts to utility providers that could result from the construction and operation of the proposed on-site uses.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

For the reader's reference, this EIR and each of the technical reports and analyses contained herein have been written to address a series of planning entitlements that affect several separate, adjacent and related properties. The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 30 percent (1,104 acres) for permanent open space and public facilities. The following elements of the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.

This section is based on information obtained from utility providers serving the proposed WLC project site, most of which are included in Appendix J of this EIR:

- *City of Moreno Valley General Plan;*[1]
- Eastern Municipal Water District's *2010 Urban Water Management Plan;*[2]
- *Water Supply Assessment* (WSA) approved by the Eastern Municipal Water District Board of Directors on March 21, 2012);

[1] *City of Moreno Valley General Plan*, City of Moreno Valley, adopted by City Council Resolution No. 2006-83, July 11, 2006.
[2] *EMWD 2010 Urban Water Management Plan,* Eastern Municipal Water District*,* June 2011.

- *Technical Memorandum – Dry Utilities World Logistics Center, Moreno Valley, CA*, Utilities Specialists, October 24, 2013; and
- *Sanitary Sewer Analysis Memorandum,* CH2MHill, October 18, 2013.

This section differs slightly from other sections in that it is organized by utility/service system type so continuity is maintained. Water Supply is found in Section 4.16.1, Wastewater Services are discussed in Section 4.16.2, Solid Waste Services are found in Section 4.16.3, and Energy Consumption is addressed in Section 4.16.4.

4.16.1 Water Supply

4.16.1.1 Existing Setting

The project site is located within the service area of the Eastern Municipal Water District (EMWD),[1] which owns, operates, and maintains the water system within the limits of the City and will be the purveyor of water to the proposed WLC project site. As illustrated in Figure 4.16.1, the EMWD's service area encompasses approximately 555 square miles. The water supply available to the EMWD in 2010 totals approximately 154,700 acre-feet (AF).[2] Water sources for the EMWD include imported water purchased from the Metropolitan Water District of Southern California (Metropolitan), groundwater sources, desalted groundwater, and recycled water from the EMWD's five regional water reclamation facilities. Imported water from Metropolitan is delivered to EMWD in several ways: directly as potable water; as raw water and treated at two local EMWD filtration plants; or as raw water for non-potable use. Approximately 80 percent of the EMWD's water is imported from Metropolitan and the remaining 20 percent is supplied by groundwater wells. Approximately 33 percent of the water produced by EMWD is recycled water. Groundwater supplies are drawn from the EMWD wells located in the Hemet, San Jacinto, Moreno Valley, Perris Valley, and Murrieta areas.

The following information was added at the request of the Metropolitan Water District of Southern California (Letter C-2) regarding their Inland Feeder facility. The figure showing the location of the Inland Feeder can be found at the end of comment Letter C-2 from the Metropolitan Water District of Southern California.

> "Metropolitan owns property and owns and operates facilities on and adjacent to the site of the proposed project. As shown on the attached map, Metropolitan's irregularly shaped fee-owned property (APN 422-040-009 and 422-040-015), Inland Feeder Tunnel, and appurtenant tunnel access structure are located within the proposed specific plan area. In addition, Metropolitan's 145-inch-inside-diameter Inland Feeder pipeline and appurtenant structures extend through the specific plan area in the street rights-of-way for Eucalyptus Avenue, Theodore Street, and Davis Road. Metropolitan also has a 110-foot-wide easement along Davis Road."

In June of 2011, the EMWD adopted its *2010 Urban Water Management Plan* (UWMP), which details the EMWD's current and future water supply. The document found that with all of its existing and planned supplies, the EMWD can meet 100 percent of projected supplemental demand through 2035, even with a repeat of a severe drought. In addition, the UWMP addresses conservation, local supplies and reliability of imported supplies. Table 4.16.A identifies the EMWD's projected water supplies and demand.

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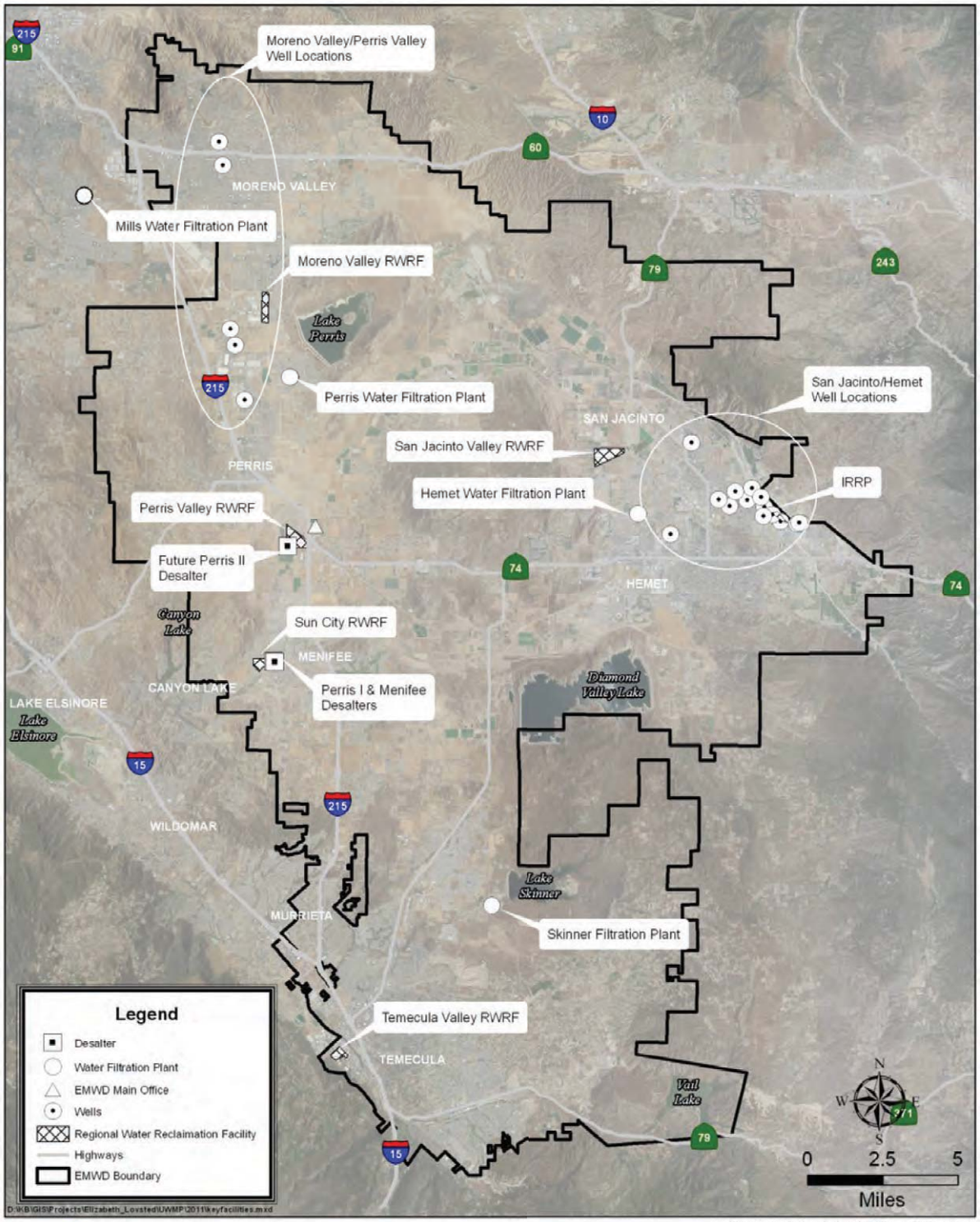
1 *Eastern Municipal Water District Service Area,* Eastern Municipal Water District, http://www.emwd.org/.aspx?page=59, website accessed April 2, 2012.

2 An acre-foot covers one acre to a depth of one foot. An acre-foot is approximately 326,000 gallons which is enough to meet the needs of two average southern California households a year.



LSA

FIGURE 4.16.1

World Logistics Center Specific Plan Project
Environmental Impact Report

Location of Eastern Municipal Water District Supplies

SOURCE: Eastern Municipal Water District 2010 Urban Water Management Plan, 2011

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Table 4.16.A: EMWD Water Supplies and Demand for Average Year Hydrology

		2015	2020	2025	2030	2035
EMWD Water Supplies						
Supply Type	**Supply Source**	**acre-feet per year**				
Imported	Metropolitan Water District	149,300	170,700	190,700	210,000	226,200
Imported-Locally Treated	Metropolitan Water District					
Groundwater	West San Jacinto Management Area	13,200	13,200	13,200	13,200	13,200
Desalination	West San Jacinto Management Area	7,500	7,500	7,500	7,500	7,500
Recycled	EMWD Regional Water Reclamation Facilities	43,900	50,000	53,900	54,900	55,300
	Supply Total	**213,900**	**241,400**	**265,300**	**285,600**	**302,200**
EMWD Water Demands						
Demand Source		**acre-feet per year**				
Retail Potable Water Sales		113,800	120,700	136,100	150,300	162,200
Water Sales to Other Agencies		47,600	61,600	65,000	69,000	72,400
Other Water Uses/Losses		52,500	59,100	64,200	66,300	67,600
	Demand Total	**213,900**	**241,400**	**265,300**	**285,600**	**302,200**

Source: *EMWD 2010 Urban Water Management Plan*, Eastern Municipal Water District, June 2011 (Tables 3 and 9, WSA 2012).

The proposed WLC project site is located within EMWD Pressure Zones (PZ) 1764 and 1900. Water is supplied to the project area via a pump station (1900 PZ pump station) located north of the intersection of Redlands Boulevard and Cottonwood Avenue. This pump station also delivers water to areas north of State Route 60 (SR-60). A 20-inch transmission main underlying Redlands Boulevard (Redlands Transmission Pipeline) delivers the pumped water from the 1900 PZ pump station to the 2080 PZ pump station located at Redlands Boulevard and Ironwood Avenue. The nearest recycled water line is a 24-inch transmission main located approximately 0.25 mile southwest of the project site, at the intersection of Redlands Boulevard and Cactus Avenue. Although there are no active recycled water lines adjacent to the project site, in the future, it may be possible to serve this project site with recycled water.

Water imported by the EMWD is treated at two facilities owned and operated by Metropolitan, the Mills and Skinner Filtration Plants, which serve the northwest and southern areas of the EMWD service area. Treated water is supplied north of the EMWD service area by the Mills Metropolitan Water Treatment Facility and in the southeastern portion of the EMWD service area by the Lake Skinner Water Treatment Facility. The City is located within the area served by the Mills Filtration Plant, which has a treatment capacity of 326 million gallons per day (mgd). The EMWD also utilizes untreated water delivered by Metropolitan from the State Water Project (SWP) pipeline running through the EMWD's jurisdiction. The EMWD currently treats the raw water for potable use or uses it raw for agriculture and for recharge. Treatment of raw water occurs at water filtration plants in Perris and in Hemet. The Hemet microfiltration plant has a capacity to filter 8,800 acre-feet per year (AFY) and the Perris microfiltration plant has the capacity to filter 17,600 AFY.

The EMWD constructed the Menifee Desalter and Perris Desalter facilities to recover high total dissolved solids (TDS) groundwater for potable use. In addition to being a source of water, the desalter facilities play a part in managing the groundwater subbasins by addressing the migration of brackish groundwater into areas of good quality groundwater. Additionally, the EMWD is currently in

the process of constructing a third desalter facility, the Perris II Desalter.[1] This additional facility will increase the production of desalinated water to approximately 12,000 AFY.

Based on the Water Allocation analysis released by the California Department of Water Resources (DWR) on March 22, 2010, export restriction could reduce Metropolitan deliveries by 150 to 200 thousand acre-feet (TAF) under mean hydrologic conditions, and operations could remain restricted until a long-term solution is found to improve the stability of the Bay-Delta region.

The SWP and Central Valley Project (CVP) are the responsible partners for operation of the DWR and Bureau of Reclamation (Reclamation), respectively. In November 1986, DWR and Reclamation signed the Coordinated Operations Agreement (COA). The COA was subsequently authorized and approved by the California State Legislature and Congress. Under COA, DWR and Reclamation agree to operate the SWP and CVP in a balanced manner to coordinate releases from upstream reservoirs and unregulated flows to meet Sacramento Valley in-basin and in-Delta uses, including water quality standards established by the State Water Resources Control Board (SWRCB).

Reclamation, as a Federal agency is required to consult with National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS) under Section 7 of the Federal Endangered Species Act (FESA) to determine if a Federal action that it authorizes, funds, or implements could jeopardize the continued existence of a listed species in the wild, or destroy or modify the species' critical habitat. Because the SWP and CVP are operated in a balanced manner, the findings under Section 7 of the FESA affect operations of both the SWP and CVP.

The initial biological opinions related to long-term operations of the SWP and CVP were issued in 1993 by NMFS for protection of the winter-run Chinook salmon and by USFWS for protection of delta smelt. Operations of the SWP and CVP were modified to reduce potential adverse impacts to these species primarily through:

- Increased storage volumes of water in upstream reservoirs to provide adequate flows with appropriate temperatures for the winter-run Chinook salmon and adequate flows in the Delta for both species;
- Flows released from upstream reservoirs to provide adequate in-Delta flows and Delta outflows for these species; and
- Modification of periods of time when water can be diverted at the SWP and CVP south Delta intakes to reduce the potential for reverse flows, reduce the potential for high salinity in the south Delta, and reduce the potential for entrainment and entrapment of fish in the SWP and CVP south Delta intake facilities.

The biological opinions were modified as DWR and Reclamation modified operations of the SWP and CVP and new information related to aquatic resources became available. During this period, NMFS redesignated the Sacramento River winter-run Chinook salmon as "endangered" and designated two species as "threatened" (i.e., Central Valley spring-run Chinook salmon and Central Valley steelhead). Therefore, the consultations under Section 7 of the FESA were modified and new biological opinions were issued between 2000 and 2004. In 2005, the Department of the Interior was sued with respect to 2004 biological opinion issued by USFWS. Subsequently, USFWS re-issued the biological opinion in 2005; however, the Department of the Interior was sued in 2005 with respect to the re-issued biological opinion. The 2005 USFWS biological opinion was invalidated and United States District Court for the Eastern District of California (the Court) ordered a new biological opinion and issued interim operations orders to protect delta smelt until a new biological opinion could be

[1] *Water Supply Desalination Infrastructure South Perris Project, Perris II Desalter,* http://www.emwd.org/modules/ .aspx?documentid=90, website accessed April 2, 2012.

issued in 2008. The interim operations criteria included limitations for operation of the SWP and CVP south Delta intakes to protect delta smelt.

In response to these actions, Reclamation requested consultation with USFWS and NMFS in August 2008 with respect to the coordinated long-term operation of the SWP and CVP. In December 2008, the USFWS issued a new biological opinion on the coordinated long-term operation of the SWP and CVP on the effects to delta smelt. In June 2009, the NMFS issued a new biological opinion on the coordinated long-term operation of the SWP and CVP on the effects to currently listed species (e.g., Central Valley spring-run Chinook salmon, Central Valley steelhead, Southern District Population Segment of North American green sturgeon, and Southern Resident killer whale). Reclamation provisionally accepted and then implemented the Reasonable and Prudent Alternatives included in these biological opinions. The operational criteria included in the Reasonable and Prudent Alternatives resulted in changes to operations of upstream reservoirs, stream flows, Delta outflow, and SWP and CVP south Delta intakes.

Several lawsuits were filed in the Court related to various aspects of the USFWS and NMFS biological opinions, and to the acceptance and implementation of the associated Reasonable and Prudent Alternatives by Reclamation. Between 2009 and 2010, the Court ruled that Reclamation failed to conduct an environmental analysis under the National Environmental Policy Act (NEPA) of potential impacts to the human environment before provisionally accepting and implementing the Biological Opinion Reasonable and Prudent Alternatives. In 2010, the Court found certain portions of the USFWS biological opinion to be arbitrary and capricious, and remanded those portions of the biological opinion to USFWS. The Court ordered Reclamation to review the biological opinion and Reasonable and Prudent Alternative in accordance with NEPA. In 2011, the Court remanded the biological opinion to NMFS.

Reclamation has continued the consultation with USFWS and NMFS for modification of the biological opinions, and has initiated the NEPA process through publication of the Notice of Intent on March 28, 2012. The Court order required completion by Reclamation of the Environmental Impact Statement (EIS) and the USFWS biological opinion related to delta smelt by December 1, 2013. The Court order also required completion by Reclamation of the EIS and the NMFS biological opinion related to Central Valley spring-run Chinook salmon, Central Valley steelhead, Southern District Population Segment of North American green sturgeon, and Southern Resident killer whale by February 1, 2016. The Court did not vacate the biological opinions and, therefore, SWP and CVP operations are analyzed each year with respect to the Reasonable and Prudent Alternatives.

The most recent Metropolitan Regional Urban Water Management Plan (RUWMP) (Metropolitan November 2010, page 1-18) indicates that operational constraints similar to the most recent biological opinions and associated Reasonable and Prudent Alternatives would likely be continued until future long-term plans, such as the Bay Delta Conservation Plan (BDCP), would be implemented. A similar discussion was included in the EMWD Urban Water Management Plan (UWMP) (2010, page 38).

To address potential constraints on the SWP, Metropolitan is working with stakeholders throughout the State to develop and implement long-term solutions to the problem in the Bay Delta. The BDCP developed by State and Federal resource agencies, addresses ecosystem needs and securing long-term operating permits for the SWP. A working draft of the BDCP was released in November 2010 and reflects significant progress toward consensus on a plan to restoring the Bay-Delta ecosystem and associated sensitive species and provide for improved water supply and reliability.

The Metropolitan RUWMP also indicates that the SWP supplies with these considerations plus other water supplies (e.g., conservation, local and regional supplies, and Colorado River) would be adequate to meet Metropolitan water demands during dry years when water supplies generally are

restricted (Metropolitan November 2010, page 1-34, Figure 1-9). A similar discussion was included in the EMWD UWMP (2010, page 30, Table 3.3).

In evaluating the supply reliability for the 2010 RUWMP, Metropolitan assumed a new Delta conveyance would be fully operational by 2022, bringing supply reliability close to 2005 levels prior to supply restrictions imposed due to the Biological Opinions. This assumption is consistent with Metropolitan's long-term Delta action plan approved in 2007, and supported by recently passed legislation that included a roadmap for establishing governance structures and financing approaches to implement and manage a Delta solution. In response to the recent developments in the Delta, Metropolitan is engaged in planning processes that will identify solutions that, when combined with the rest of its supply portfolio, it will ensure a reliable long-term water supply for its member agencies. In the near term, Metropolitan will continue to rely on the plans and policies outlined in its RUWMP and Integrated Resources Plan (IRP) to address water supply shortages and interruptions (including potential shut downs of SWP pumps) to meet water demands. An aggressive campaign for voluntary conservation and recycled water usage, curtailment of groundwater replenishment water and agricultural water delivery are some of the actions outlined in the RUWMP. Metropolitan is maximizing supplies from existing agreements for water supply from its Palo Verde Crop Management and Water Supply Program and working with the State of Arizona in withdrawing water previously stored in that state's groundwater basin.

Imported sources of water will be supplemented by an increase in desalination of brackish groundwater, recycled water use, and water use efficiency. Metropolitan has analyzed the reliability of water delivery through the SWP and the Colorado River Aqueduct. Metropolitan's IRP and 2010 RUWMP conclude that, with the storage and transfer programs developed by Metropolitan, there will be a reliable source of water to serve its member agencies' needs through 2035.[1]

NOP/Scoping Comments. A few residents asked how much water the project would use and if there was enough if we had another drought.

4.16.1.2 Existing Policies and Regulations

Policies and regulations for water sources include the following:

- Federal Water Pollution Control Act;
- Water Conservation in Landscaping Act;
- Water Recycling in Landscaping Act;
- Sections 13550–13556 of the State Water Code;
- Urban Water Management Planning Act;
- Senate Bill 901;
- Senate Bill 610; and
- City of Moreno Valley General Plan.

Federal Water Pollution Control Act. The Federal Water Pollution Control Act requires discharges (from point and non-point sources) into navigable water to meet stringent National Pollutant Discharge Elimination System (NPDES) permit standards. The U.S. Environmental Protection Agency

[1] *Eastern Municipal Water District 2010 Urban Water Management Plan,* Eastern Municipal Water District, June 2011.

(EPA) has published regulations establishing requirements for application of storm water permits for specified categories of industries, municipalities, and certain construction activities. The regulations require that discharges of storm water from construction activity of 1.0 acre or more must be regulated and covered by an NPDES permit. When a construction area exceeds 1.0 acre in size, the applicant must develop and implement a Storm Water Pollution Prevention Plan (SWPPP). Additional analysis and information regarding NPDES requirements and regulations is provided in Section 4.9, *Hydrology and Water Quality*, of this EIR.

Water Conservation in Landscaping Act. To ensure adequate supplies are available for future uses and to promote the conservation and efficient use of water, local agencies are required to adopt water-efficient landscape ordinances. When such an ordinance has not been adopted, a finding as to why (based on the climatic, geologic, or topographical conditions) such an ordinance is not necessary must be adopted. In the absence of such, an ordinance drafted by the State of California applies within the affected jurisdiction. The City of Moreno Valley implements landscape and irrigation design standards (Chapter 9.17 of the City's Municipal Code), which address the proper maintenance of landscaping or irrigation systems.[1]

Water Recycling in Landscaping Act. The Water Recycling in Landscaping Act requires that a water producer capable of providing recycled water that meets certain conditions notify local agencies eligible to receive the recycled water. It also requires necessary infrastructure be provided to support the delivery of recycled water. The EMWD enforces Ordinance No. 68.2 *Amended Rules and Regulations Governing the Provision of Recycled Water System Facilities and Service,* to promote the conservation and reuse of water resources and to ensure maximum public benefit from the use of the EMWD's recycled water supply by regulating its use in accordance with applicable Federal, State, and local regulations. Upon the determination that the EMWD is capable of providing recycled water services to the proposed site, the project applicant must submit an application form for the EMWD to review. The EMWD may prescribe requirements in writing to the applicant as to the off-site or on-site facilities necessary to be constructed, the manner of connection, the financial responsibility, and the use of the recycled water. Prior to receiving recycled water service, the proposed use shall be approved by the DHS. The EMWD will inspect on-site recycled water facilities to ensure initial and future continued compliance with the EMWD's regulations and other applicable requirements.

Sections 13550–13556 of the State Water Code. These sections of the State Water Code state that local, regional, or state agencies shall not use water from any quality source of potable water for non-potable uses if suitable recycled water is available as provided in Section 13550 of the Water Code.

Urban Water Management Planning Act (Cal. Water Code Section 10631). Since 1984, the Urban Water Management Planning Act, has required "urban water suppliers" to develop written "urban water management plans." While generally aimed at encouraging water suppliers to implement water conservation measures, it also created long-term planning obligations.

In preparing urban water management plans, urban water suppliers must describe the following:

- Existing and planned water supply and demand;
- Water conservation measures and a schedule for implementing and evaluating such measures; and

[1] *Landscape Requirements City of Moreno Valley, California,* City of Moreno Valley.

- Water shortage contingency measures.

The Urban Water Management Planning Act requires that urban water suppliers use a 20-year planning horizon and update the data in the urban water plans every five years.

In preparing their 20-year management plans, water suppliers must directly address the subject of future population growth. The suppliers must also identify sources of supply to meet demand. The plan must "identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier." In identifying these future water sources, the suppliers need not conduct environmental review.

Senate Bill 901: Water Supply and Demand Reliability Assessment (Cal. Water Code Section 10910). Signed into law on October 16, 1995, Senate Bill 901 (SB 901) requires every urban water supplier to identify as part of its UWMP the existing and planned sources of water available to the supplier over a prescribed five-year period. SB 901 requires additional information to be included as part of an urban water management plan if groundwater is identified as a source of water available to the supplier. Provisions of SB 901 would require an urban water supplier to include in the plan a description of all water supply projects and programs that may be undertaken to meet total project water use. A city or county shall request each public water system serving a project to assess the projected water demand associated with said project and an assessment of whether the projected water demand associated with selected projects was included as part of the most recent UWMP. As part of this assessment, the public water system is required to indicate whether its total projected water supplies available during normal, single-dry, and multiple-dry water years will meet the project demand associated with the proposed WLC project, in addition to the public water system's existing and planned uses.

Pursuant to Section 10912 of the State Water Code, a "project" is specifically defined as development meeting any of the following criteria:

- 500 or more dwelling units;
- Commercial center employing more than 1,000 persons or having more than 500,000 square feet;
- Office building employing more than 1,000 persons or having more than 250,000 square feet;
- A hotel/motel with 500 or more rooms;
- An industrial, manufacturing, processing plant, or industrial park employing more than 1,000 persons or occupying more than 40 acres, or having more than 650,000 square feet of floor area;
- A mixed-use project that would demand an amount of water equal to the amount of water required by a 500-dwelling unit project; or
- In areas where the public water system has fewer than 5,000 service connections, any development that would increase water demand by 10 percent or greater in the number of existing service connections, or in the case of a mixed-use development, an increase in water required by residential development representing a 10 percent or greater increase in the number of existing service connections.

After receiving such information, cities and counties may agree or disagree with the conclusions of the water purveyors, but cannot approve projects in the face of documented water shortfalls without first making certain findings.

The proposed WLC project is an Industrial Specific Plan that would meet the definition of a "project" and the water purveyor (EMWD) is therefore required to conduct a Water Supply Assessment (included as Appendix J) to indicate a reliable supply of water for the proposed WLC project.

Senate Bill 610: Water Supply Planning (Cal. Water Code Section Sections 10910 through 10915). Signed into law October 9, 2001, Senate Bill 610 (SB 610) resulted in amendments to Section 21151.9 of the Public Resources Code. Additionally, several sections of the Water Code were amended, one was repealed, while portions of one section were added and/or repealed. Revising provisions established by SB 901 and SB 610 requires that any city or county having determined that a project is subject to CEQA identify any public water systems that may supply water for the project and to request those public water systems to prepare a specified water supply assessment if the project exceeds the specified threshold for a water supply assessment (WSA). Such an assessment would include, among other information, the following:

- Identification of existing water entitlements, water rights, or water service contracts relevant to the water supply identified for a proposed WLC project; and
- The amount of water received pursuant to such entitlements, rights, or contracts.

SB 610 requires the public water system, city, or county to submit plans for acquiring the required water supply for the proposed WLC project if the WSA concludes that water supplies are or will become insufficient. Any such WSA and other information would be included in the environmental document prepared for the project pursuant to CEQA. A WSA[1] was prepared for the proposed WLC project to identify existing water entitlements, water rights, and/or water service contracts relevant to the water supply as it relates to the operation of the proposed WLC project.

City of Moreno Valley General Plan. The following policies within the *Community Development Element* and *Conservation Element* of the *City of Moreno Valley General Plan* pertain to utilities and are applicable to the proposed WLC project.

Community Development Element Policies

Policy 2.11.1 Permit new development only where and when adequate water services can be provided.

Policy 2.13.1 Limit the amount of development to that which can be adequately served by public services and facilities, based upon current information concerning the capability of public services and facilities.

Policy 2.13.2 Unless otherwise approved by the City, public water, sewer, drainage and other backbone facilities needed for a project phase shall be constructed prior to or concurrent with initial development within that phase.

Policy 2.13.3 It shall be the ultimate responsibility of the sponsor of a development project to ensure that all necessary infrastructure improvements (including system-wide improvements) needed to support project development are available at the time that they are needed.

The following changes have been made in response to Comment F-13-32 in Letter F-13 from Johnson & Sedlack on Behalf of Sierra Club, Moreno Valley Group & Residents for a Livable Moreno Valley.

[1] *Water Supply Assessment for the World Logistics Center Specific Plan*, EMWD, March 21, 2012.

Conservation Element Policies and Objectives

Policy 7.3.1 Require water-conserving landscape and irrigation systems through development review. Minimize the use of lawn within private development, and within parkway areas. The use of mulch and native and drought-tolerant landscaping shall be encouraged.

Policy 7.3.2 Encourage the use of reclaimed wastewater, stored rainwater, or other legally acceptable non-potable water supply for irrigation.

Objective 7.5 Encourage efficient use of energy resources.

Policy 7.5.5 Encourage the use of solar power and other renewable energy systems.

4.16.1.3 Methodology

The WSA is based on evaluating the existing water supply available to the City, future water supply that is anticipated to be available to the City, and the identification of existing water demand and future demand with the development of the proposed WLC project. The analysis also identifies water conservation measures that would be incorporated by the proposed WLC project to reduce the project's total water demand, with special reference to outdoor water usage and associated landscaping systems.

4.16.1.4 Thresholds of Significance

The following thresholds of significance regarding impacts to utilities and service systems are based on the recommended questions contained in *Guidelines for California Environmental Quality Act* (as amended through January 1, 2011). A project would have a significant impact on the provision of utilities or service systems related to water supply if it would result in any of the following:

- Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; and/or
- Have insufficient water supplies available to serve the project from existing entitlements and resources, or need new or expanded entitlements.

For the purpose of this EIR, significant and unavoidable impacts would occur if the aforementioned conditions cannot be overcome by reasonable design, construction, and maintenance practices.

4.16.1.5 Less than Significant Impacts

4.16.1.5.1 Construction or Expansion of Water Treatment Facilities

Threshold	Would the proposed WLC project require the construction of new water treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?

As previously identified, Metropolitan currently does not have surplus water available, due in part to pumping restrictions imposed on the SWP to avoid and minimize impacts to Federal- and State-protected fish species in the Delta. Imported sources of water will be supplemented by an increase in desalination of brackish groundwater, recycled water use, and water use efficiency. Metropolitan and the EMWD have analyzed the reliability of water delivery through the SWP and the Colorado River

Aqueduct. Metropolitan's IRP and 2010 RUWMP conclude that, with the storage and transfer programs developed by Metropolitan, there will be a reliable source of water to serve its member agencies' needs through 2035. Based on the WSA prepared for the proposed WLC project, water demand for the proposed on-site uses would total approximately 1,991.25 AFY.[1] As identified in previously referenced Table 4.16.A, anticipated water supplies for the EMWD total 213,900 and 302,200 AFY in 2015 and 2035. The water demand required for the proposed WLC project totals 0.93 and 0.66 percent of the 2015 and 2035 projected EMWD supplies.

The EMWD's *2010 Urban Water Management Plan* and Metropolitan's *2010 Regional Urban Water Management Plan*[2] have stated that, with the addition of all existing and planned water supplies, it would have the ability to meet all of its member agencies' projected supplemental demand through 2035, despite the latest ruling regarding the allocation of SWP water. This is based on continued commitment to conservation programs, water recycling, and development of local water resources.

While the EMWD is capable of meeting all of its member agencies' projected demand through 2035, other efforts are taken to further reduce the retail demand due to demographics change and population growth. Passive conservation efforts already implemented by the EMWD include adherence to the plumbing code and installation of low-flow toilets and showerheads in all new construction. In addition to passive programs, active conservation programs/measures are also implemented. The EMWD has implemented all of the California Urban Water Conservation Council (CUWCC) and Best Management Practices (BMPs). The CUWCC was created to increase efficient water use throughout the State through partnership with urban water agencies (including the EMWD), public interest organizations, and private entities. In 1992, the EMWD signed the CUWCC's Memorandum of Understanding (MOU) Regarding Water Conservation in California and committed to developing and implementing fourteen comprehensive BMPs for urban water management.

The BMPs correspond to the fourteen Demand Management Measures (DMMs) listed in the Water Code Section 10631 (f) and include the following:

- Water survey programs for single-family residential and multifamily customers;
- Plumbing retrofits;
- Distribution system water audits, leak detection, and repair;
- Metering with commodity rates;
- Large landscape water audits and incentives;
- High-efficiency washing machine rebates;
- Public information;
- School education;
- Commercial, industrial, and institutional water conservation;
- Wholesale agency programs;
- Conservation pricing;
- Conservation corridor;
- Water waste prohibition; and
- Ultra-low flush toilet replacements.

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1 0.75 acre-foot per acre × 2,655 acres = 1,991.25 acre-feet per year.

2 *The Metropolitan Water District of Southern California Regional Urban Water Management Plan,* Metropolitan Water District of Southern California, November 2010.

With implementation of passive and active conservation measures, the EMWD can significantly reduce its retail water demand and continue to do so in the future.

As previously identified, Metropolitan has analyzed the reliability of water delivery through the SWP and the Colorado River Aqueduct. Metropolitan's IRP and 2010 RUWMP conclude that, with the storage and transfer programs developed by Metropolitan, there will be a reliable source of water to serve its member agencies' needs through 2035.

The amount of water demand would be within the existing available supply even with a reduction in deliveries from the SWP. Imported sources of water will be supplemented by an increase in desalination of brackish groundwater, recycled water use, and water use efficiency, and implementation of aggressive conservation measures by the EMWD. The proposed WLC project would not require the construction of new water treatment facilities or expansion of existing facilities, which could cause significant environmental effects.

Annually, a 5-year Capital Improvement Plan (CIP) is prepared by the EMWD. The EMWD's CIP outlines specific projects and their funding sources. Each project is also submitted individually to the Board for authorization and approval. This allows the EMWD to match needed facilities with development trends accurately. Funding for the EMWD's microfiltration plants, distribution pipes, and the recharge and recovery program is listed in the most recent EMWD CIP.

All necessary water distribution facilities would be installed simultaneously with required roadway frontage improvements for each phase of development of the proposed WLC project. Therefore, the connection to the existing water delivery system would not result in substantial disturbance of existing roadways or water facilities. As previously identified, the potable water demand that would be required for the proposed WLC project would total 1,991.25 AFY. The amount of water demand would be within the existing available supply even with a reduction in deliveries from the SWP. Imported sources of water will be supplemented by an increase in desalination of brackish groundwater, recycled water use, and water use efficiency, and implementation of aggressive conservation measures by the EMWD. The proposed WLC project would not require the construction of new water treatment facilities or expansion of existing facilities, which could cause significant environmental effects.

It should be noted that the water consumption estimates in this section for future logistics uses within the WLCSP are likely overestimated by a significant factor, as a result of the emphasis on xeriscape or low-impact development (i.e., water conserving) design in the WLCSP. Sections 1.3.2 and 5.4) of the Specific Plan indicates that project design will incorporate features such as low-flow faucets and fixtures, rainwater harvesting systems for irrigation (where practical), and native non-irrigated landscaping to reduce the project's reliance on water. The size and composition of the landscape palette and the landscaping plan of the Specific Plan were developed in consultation with Robert Perry, a well-known horticultural scientist with many years of experience with drought-tolerant and low-water maintenance landscaping. Although water consumption on the WLC property will likely be much lower than anticipated, the analysis of environmental impacts relative to water consumption used a "worst-case" scenario as outlined in the WSA prepared by the EMWD (March 21, 2012).

Adherence to standard requirements identified by EMWD and the City associated with the design and installation of new water infrastructure, including the additional water storage tanks and connections to existing and future water infrastructure, would ensure that no significant impacts would result from the construction or operation of the proposed WLC project. Therefore, impacts related to this issue would be less than significant and no mitigation measures would be required other than those measures recommended in other sections addressing potential impacts of off-site improvements (e.g., cultural resources and biological resources).

In summary, development of the proposed WLC project will not result in the need for the construction of new water treatment facilities by the Eastern Municipal Water District, Metropolitan Water District of Southern California, or others. However, it will result in the need for several new water storage reservoirs, as shown in previously referenced Figure 3.7, *Offsite Improvement Areas*, and Figure 3.13, *Water System*.

4.16.1.6 Significant Impacts

4.16.1.6.1 Adequate Water Supply

Threshold	Would the proposed WLC project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

A project-specific WSA[1] was prepared for the proposed WLC project to assess the water supply availability to the project site to satisfy the requirements under SB 610 and to make a determination that adequate water supplies are and will be available to meet the water demand associated with the proposed WLC project. In accordance with Water Code Section 10910(d) – (f), the WSA identifies:

- Any existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed WLC project, and provides a description of the quantities of water received in prior years by the public water system, under existing water supply entitlements, water rights, or water service contracts.
- If no water has been received in prior years by the public water system, identify other public water systems or water service contract holders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts to the same source of water as the public water system.
- If groundwater is included in the proposed supply, identify the groundwater basin or basins from which the proposed WLC project will be supplied, and include any applicable documentation of adjudicated rights to pump. If the basin is not adjudicated, regardless of whether the basin has been identified as over-drafted, provide a detailed description and analysis of the amount and location of groundwater pumped by the public water system for the past five years from any groundwater basin from which the proposed WLC project will be supplied, and provide a detailed description and analysis of the amount and location of groundwater from the basin or basins from which the proposed WLC project will be supplied to meet the projected water demand associated with the proposed WLC project.

There has been a shift in the water demand patterns in the last 15 years, as the residential market has replaced the agricultural market as the largest local consumer of water. Metropolitan, based on its 2010 RUWMP,[2] has stated that, with the addition of all water supplies existing and planned, it would have the ability to meet all of its member agencies' projected supplemental demand through 2035 even under a repeat of a worst drought scenario. Based on this assertion, the EMWD has stated it is able to meet an increased demand for water over the next 20 years, even during drought conditions. This is based on continued commitment to conservation programs, additional water recycling, and continued development of local water resources.

It should be noted that the project site currently contains several non-potable agricultural water wells, but no yields from these wells were used to calculate water supply or demand related to the proposed project.

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1 *Water Supply Assessment for the World Logistics Center Specific Plan*, EMWD, March 21, 2012.
2 IRPSIM is a sophisticated water supply and demand-balancing model that utilizes 77 sequential hydrologies to determine variations in supply and demand due to changes in weather conditions.

The EMWD continues to work closely with Metropolitan in the implementation of water management plans as a means of ensuring the reliability of the EMWD's water supplies. Efforts to ensure reliable water supplies include the preparation and/or implementation of Groundwater Management Plans, Desalination Program, Seasonal Storage, and Conjunctive Use Water Recycling. The EMWD's 2010 UWMP presents fifteen DMMs related to water conservation and water recycling programs split into two types (Foundational and Programmatic).

The potable water demand estimated for the proposed WLC project is within the limit of retail growth projected by the EMWD. Table 4.16.B presents the EMWD's total water use. To develop the projections used in the WSA, the EMWD used a development-tracking database that assesses future water demands for specific projects. The EMWD uses this database to help plan for future water supply and infrastructure needs by monitoring new projects through various stages of development. Changes in density and land use are also tracked in this database for planning purposes.

Table 4.16.B: EMWD Average Water Demand (2010–2035)

	Actual	Projected				
Demand Sources (acre-feet/year)	**2010**	**2015**	**2020**	**2025**	**2030**	**2035**
Retail Potable Water Sales	77,700	113,800	120,700	136,100	150,300	162,200
Water Sales to Other Agencies	27,100	47,600	61,600	65,000	69,000	72,400
Other Water Uses/Losses	49,900	52,500	59,100	64,200	66,300	67,600
Total Average Demand	**154,700**	**213,900**	**241,400**	**265,300**	**285,600**	**302,200**

Source: *Water Supply Assessment, Table 9*, EMWD, March 21, 2012.

The EMWD's *2010 UWMP* also discusses the supply reliability for the EMWD during dry years. The supply for dry years is driven by demand. Demand increases slightly (less than 2%) during dry years, primarily due to the increased demand in winter for landscaping or agricultural water, and can be decreased up to 10 percent due to conservation as dry periods are extended. Tables 4.16.C, 4.16.D, and 4.16.E present estimates of demand from 2015 to 2035 in five-year increments for an average year, single dry year, and multiple dry years, respectively.

Neither groundwater production nor recycled water deliveries are expected to increase or decrease significantly during dry years. The EMWD depends on Metropolitan to supply additional water during dry years. Based on Metropolitan's 2010 RUWMP, the EMWD is confident of its ability to meet customer demands beyond the next 20 years in all reasonably predictable hydrological scenarios. For water shortages and interruptions, the plans and policies outlined in the RUWMP will be implemented.

Table 4.16.C: EMWD Water Resources, Average Year Hydrology (2015–2035)

Water Conditions [1]	**2015**	**2020**	**2025**	**2030**	**2035**
Metropolitan Water District	149,300	170,700	190,700	210,000	226,200
Recycled Water	43,900	50,000	53,900	54,900	55,300
Groundwater	13,200	13,200	13,200	13,200	13,200
Existing Desalter	7,500	7,500	7,500	7,500	7,500
Existing Total Supplies	**213,900**	**241,400**	**265,300**	**285,600**	**302,200**
Total Projected Demand	**213,900**	**241,400**	**265,300**	**285,600**	**302,200**

[1] based on a repeat of 2004–2009 conditions
Source: *Water Supply Assessment, Table 11*, EMWD, March 21, 2012.

Table 4.16.D: EMWD Water Resources, Single Dry Year Hydrology (2015–2035)

Water Conditions [1]	2015	2020	2025	2030	2035
Metropolitan Water District	155,300	177,600	198,300	218,300	235,100
Recycled Water	45,500	51,800	55,800	56,900	57,300
Groundwater	13,200	13,200	13,200	13,200	13,200
Existing Desalter	7,500	7,500	7,500	7,500	7,500
Existing Total Supplies	**221,500**	**250,100**	**274,800**	**295,900**	**313,100**
Total Projected Demand	**221,500**	**250,100**	**274,800**	**295,900**	**313,100**

[1] based on a repeat of 1977 conditions
Source: *Water Supply Assessment, Table 12*, EMWD, March 21, 2012.

Table 4.16.E: EMWD Water Resources, Multiple Dry Years Hydrology (2015–2035)

Water Conditions [1]	2015	2020	2025	2030	2035
Metropolitan Water District	156,600	179,000	199,800	219,900	236,900
Recycled Water	45,800	52,200	56,200	57,300	57,700
Groundwater	13,200	13,200	13,200	13,200	13,200
Existing Desalter	7,500	7,500	7,500	7,500	7,500
Existing Total Supplies	**223,100**	**251,900**	**276,700**	**297,900**	**315,300**
Total Projected Demand	**223,100**	**251,900**	**276,700**	**297,900**	**315,300**

[1] based on a repeat of 1990–1992 conditions
Source: *Water Supply Assessment, Table 13*, EMWD, March 21, 2012.

NOTE: The following revision has been added in response to Comment F-1-74 in Letter F-1 from the Center for Biological Diversity/San Bernardino Valley Audubon Society and F-11-44 in Letter F-11 from the Sierra Club.

The Water Supply Assessment considered the impact of climate change on water supplies. Climate change has the potential to affect not only local demand and supplies, but to reduce the amount of water available for import. Potential changes that may impact water supply include:

- Warmer temperatures leading to higher demand for water within EMWD's service area and throughout California;
- Reduction in the Sierra Nevada snow pack;
- Increased intensity and frequency of extreme weather events; and
- Rising sea levels resulting in increased risk of damage from storms in the Delta, high tide event and the erosion of levees in the Delta.

One of the outcomes of climate change could be more frequent limitations on imported supplies. To limit the impact of climate change, EMWD's long term planning focuses on the development of reliable local recourses and the implementation of water use efficiency. This includes the full utilization of recycled water and the recharge of local groundwater basins to increase supply reliability during periods of water shortage. EMWD is also focused on reducing demand for water supplies, especially outdoors. Increasing the use of local resource and reducing the need for imported water has the dual benefit of not only improving water quality reliability, but reducing the energy required to import water to EMWD's service area. The project developer is committed to water use efficiency and minimizing the use of potable water for landscape irrigation by using low water use fixtures, drought tolerant plants and recycled water where available as outlined in Mitigation Measure 4.16.1.6.1B.

It is anticipated that the majority of water for future development would be supplied by imported water from Metropolitan, recognizing the following conditions:

- The ability of Metropolitan to meet the demands of member agencies as described in the 2010 RUWMP as the majority of EMWD's current and future supply rely on Metropolitan's supplies. This assessment is based on representations by Metropolitan that it will provide the water requested by the EMWD for the next 20 years under the conditions set forth in Water Code Section 10910 as authorized by Water Code Section 10631(k). This assessment is subject to review, modification, or rescission in the event that regulations, court decisions, or other events reduce or impair Metropolitan's ability to provide such water.
- The cost of new water supplies will continue to increase. The developer of this project is required to help fund the acquisition of new water supplies, new treatment or recycled water facilities, and water efficiency measures for existing customers to develop new water supplies.
- New customers may also be required to pay a higher commodity rate for water used than existing customers to offset the rising costs to the EMWD for new water supplies.
- The developer will install water-efficient devices such as low-flow toilets and landscaping according to the requirements of the EMWD's water use efficiency ordinance(s) at the time of construction to reduce the impact of this project on water supplies.

Metropolitan does not place imported water limits on a member agency, but predicts the future water demand based on regional growth information. Metropolitan stated in its 2010 RUWMP that, with the addition of all water supplies, existing and planned, Metropolitan would have the ability to meet all of its member agencies' projected supplemental demand through 2035 even under a repeat of historic drought scenarios. For any short-term water shortages and interruptions caused by disaster or unprecedented drought, the plans and policies outlined in the 2010 RUWMP will be implemented.

The proposed WLC project may be conditioned by the City to construct off-site and on-site water facilities needed to distribute water throughout the project area. A plan of service for the proposed WLC project would be approved by the EMWD that would identify specific on-site improvements. The nearest recycled water line is a 24-inch transmission main located approximately 0.25 mile southwest of the project site, at the intersection of Redlands Boulevard and Cactus Avenue. Although currently active recycled water lines are not adjacent to the project site, in the future, it may be possible to serve this project site with recycled water. Irrigated landscaped areas of the proposed WLC project site will be designed to connect to the recycled water system and would utilize recycled water in landscape areas to the extent feasible. EMWD policy recognizes recycled water as the preferred source of supply for all non-potable water demands, including irrigation of recreation areas, green-belts, open space common areas, commercial landscaping, and supply for aesthetic impoundment or other water features. The majority of irrigated landscaped areas within the project site will be designed to use recycled water to the greatest extent possible when it becomes available.

Water Demand Based on the Existing General Plan Land Uses for the Project Site. As noted in Section 3.0, *Project Description*, the Community Development Element[1] of the City's General Plan currently designates the project site as a mix of residential, commercial, business park, and open space land uses. These land use designations are based on the previously approved (1992) Moreno Highlands Specific Plan (MHSP) and were used in developing EMWD's 2010 UWMP. Table 4.16.F summarizes the current land use designations at the project site, their associated acreages, and expected water demand from the 1992 MHSP EIR. The EIR prepared for the MHSP indicated that

[1] *City of Moreno Valley General Plan Community Development Element,* City of Moreno Valley, July 11, 2006.

project would consume 11.8 million[1] gallons per day (mgd) or 9,840 acre-feet/year (AFY) of water at buildout of all the residential and non-residential uses.

Table 4.16.F: Moreno Highland Specific Plan Land Use Designations and Acreages

Land Use Designation	Acreage	Demand (AFY)
Residential Community		
Residential (7,763 dwelling units)	1,359.3	4,315
Parks and Open Space	701.9	3,159
Neighborhood Commercial	10.0	22
Cemetery	16.5	74
Public Facilities	347.7	1,168
Planned Business Center		
Business Park	360.8	271
Mixed Use	80.5	218
Community Commercial	16.0	36
Parks and Open Space	77.9	351
Public Facilities	67.4	226
Total	**3,038**	**9,840**

Source: Moreno Highlands Specific Plan, 1992.

The WSA prepared for the proposed project by the EMWD concluded that the water demand for the proposed on-site uses would be approximately 1,991.25 AFY.[2] The EMWD considers this a "worst-case" estimate based on the total acres and amount of square footage of warehousing proposed by the project. This estimate does not take into account the proposed project landscaping design with xeriscape (drought-tolerant plants) and on-site collection of runoff and channeling it to landscaped areas to minimize irrigation on the interior of the project site. For example, the "Water Budget Technical Memorandum' prepared by CH2MHill (see Appendix N) in September 2011 for the WLC project indicates that actual water usage of on-site buildings, based on the specific development characteristics of the WLC Specific Plan, would be on the order of 450 AFY, which is less than a quarter of the amount estimated by EMWD; however, this estimate does not include on-site irrigation of landscaping and could only be achieved if all on-site landscaping was irrigated by collection and distribution of on-site runoff from roofs and hardscape areas.

Taking into account the proposed water xeriscape landscaping plan, it is likely that actual water use for development within the WLC Specific Plan will be substantially less than the worst-case EMWD estimate. Therefore, for the purposes of analysis in this EIR, both the CH2MHill figure of 450 AFY and the EMWD's worst-case estimate of 1,991 AFY figure will be used relative to water consumption. Under either scenario, the anticipated water demand for the proposed WLC project is substantially less than what is identified above for the General Plan land uses and what was used in the formulation of the 2010 UWMP. As identified in previously referenced Table 4.16.A, anticipated water supplies in the EMWD total 213,900 and 302,200 AFY in 2015 and 2035, respectively. The water demand required for the proposed WLC project would total 0.93 and 0.66 percent of the EMWD's 2015 and 2035 supplies under worst-case conditions. The demand estimated for this project is substantially less and therefore still within the limit of growth projected in the 2010 UWMP.

1 Based on 27,015 population times 200 gallons/person/day and 24,019 jobs at buildout

2 *Water Supply Assessment Report for the World Logistics Center Specific Plan in Moreno Valley,* Eastern Municipal Water District, March 21, 2012.

When compared to the currently approved MHSP, there would be an 80 percent decrease in projected water demand (7,849 AFY) with the development of the proposed WLC project. The site's water usage would decrease under the current development plan for the proposed WLC project and it would remain lower than what is anticipated in the General Plan and the 2010 UWMP. Additionally, the increased water demand for the site has been analyzed by the WSA, which determined that a suitable water supply exists for the proposed WLC project well into the future.

The project's water consumption represents substantially less than 1 percent of the consumption yearly capacity and because the EMWD indicates that water to service the project's proposed industrial uses is available, no significant water supply impacts would occur with implementation of the industrial use, and no mitigation would be necessary.

Metropolitan is currently engaged in planning processes that will identify solutions that, when combined with the rest of its supply portfolio, will ensure a reliable long-term water supply for its member agencies, the EMWD has determined that it will be able to provide adequate water supply to meet the potable water demand for the project in addition to existing and future users. However, until these supplies are secured, potential impacts of the proposed project on regional water supplies may be significant, and mitigation is required.

Specific Plan Design Features. Section 6.0 of the Specific Plan requires the careful use of xeriscape or drought-tolerant vegetation with minimal mechanical irrigation to minimize water use for landscaping. Sections 4.2 and 5.4 require implementation of water-conserving landscaping and Section 5.2.3 provides architectural design guidelines that will help minimize the consumption of water for landscape irrigation.

Mitigation Measures. The following measures are recommended to help ensure that the proposed WLC project will have less than significant impacts on long-term regional water supplies.

4.16.1.6.1A Prior to approval of a precise grading permit for each plot plan for development within the World Logistics Center Specific Plan (WLCSP), the developer shall submit landscape plans that demonstrate compliance with the World Logistics Center Specific Plan, the State of California Model Water Efficient Landscape Ordinance (AB 1881), and Conservation in Landscaping Act (AB 325). This measure shall be implemented to the satisfaction of the Planning Division. Said landscape plans shall incorporate the following:

- Use of xeriscape, drought-tolerant, and water-conserving landscape plant materials wherever feasible and as outlined in Section 6.0 of the World Logistics Center Specific Plan;
- Use of vacuums, sweepers, and other "dry" cleaning equipment to reduce the use of water for wash down of exterior areas;
- Weather-based automatic irrigation controllers for outdoor irrigation (i.e., use moisture sensors);
- Use of irrigation systems primarily at night or early morning, when evaporation rates are lowest;
- Use of recirculation systems in any outdoor water features, fountains, etc.;
- Use of low-flow sprinkler heads in irrigation system;

- Provide information to the public in conspicuous places regarding outdoor water conservation; and
- Use of reclaimed water for irrigation if it becomes available.

4.16.1.6.1B All buildings shall include water-efficient design features outlined in Section 4.0 of the World Logistics Center Specific Plan. This measure shall be implemented to the satisfaction of the Land Development/Public Works. These design features shall include, but not be limited to the following:

- Instantaneous (flash) or solar water heaters;
- Automatic on and off water facets;
- Water-efficient appliances;
- Low-flow fittings, fixtures and equipment;
- Use of high efficiency toilets (1.28 gallons per flush [gpf] or less);
- Use of waterless or very low water use urinals (0.0 gpf to 0.25 gpf);
- Use of self-closing valves for drinking fountains;
- Infrared sensors on drinking fountains, sinks, toilets and urinals;
- Low-flow showerheads;
- Water-efficient ice machines, dishwashers, clothes washers, and other water-using appliances;
- Cooling tower recirculating system where applicable;
- Provide information to the public in conspicuous places regarding indoor water conservation; and
- Use of reclaimed water for wash down if it becomes available.

4.16.1.6.1C Prior to approval of a precise grading permit for each plot plan, irrigation plans shall be submitted to and approved by the City demonstrating that the development will have separate irrigation lines for recycled water. All irrigation systems shall be designed so that they will function properly with recycled water if it becomes available. This measure shall be implemented to the satisfaction of the City Planning Division and Land Development Division/Public Works.

Level of Impact After Mitigation. With implementation of the recommended mitigation measures, expected impacts to water supply over the long term will be reduced to less than significant levels.

4.16.1.6.2 Storm Water Drainage Requirements

Threshold	Would the proposed WLC project result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

As identified in the *Draft Master Plan of Drainage Report for World Logistics Center Specific Plan and Environmental Impact Report*[1] (Draft Drainage Report) and Section 4.9, *Hydrology and Water Quality*, the proposed WLC project storm water flows from the project site eventually drain into the Perris Valley Storm Channel (PVSC) then into Reach 3 of the San Jacinto River. The storm channel is owned and maintained by the Riverside County Flood Control and Water Conservation District (RCFCWCD). Flows routed to the PVSC are transported through Perris Valley and ultimately to the San Jacinto River. Flows are then conveyed through the San Jacinto River, Canyon Lake, again to the San Jacinto River (Reach 1), and ultimately to Lake Elsinore. In the event Lake Elsinore is at or beyond capacity, flows continue through Temescal Creek, the Santa Ana River (Reaches 1–3) and then to the Pacific Ocean.

It is anticipated that the development of these logistics warehouse facilities would include the construction of buildings, parking areas, sidewalks, roads and other infrastructure such as water, recycled water, and sewer infrastructure features. Because the development of the proposed WLC project would introduce a greater percentage of impervious surfaces, the post-development flow volumes generated on site are anticipated to be substantially higher than the pre-development flows.

Conditions resulting from this change would include increased runoff volumes and velocity; reduced infiltration; increased flow frequency, duration, and peak; shorter time to reach peak flow; and degradation in water quality. The majority of the proposed WLC project area currently has a low runoff coefficient, meaning that runoff during storms represents a relatively small portion of the total rainfall. The majority of the precipitation, particularly in smaller storms, infiltrates into the subsurface. The development of the proposed WLC project with impervious surfaces (such as roadways, parking lots, and buildings) would result in a condition in which nearly all rainfall becomes runoff. A significant impact would occur in the event that post-development storm water flows are greater than pre-development storm water flows leaving the site.

As detailed in the *Draft Master Plan of Drainage Report,*[2] the storm water runoff from the proposed WLC project site generally flows in a southerly direction toward the San Jacinto River. A topographic divide generally located west of Theodore Street separates storm water flows to the San Jacinto River in two directions. Runoff east of the divide flows at a gradient ranging from 1 to 2 percent toward the San Jacinto Wildlife Area (SJWA) and ultimately drains toward the Gilman Hot Springs hydro-subarea; and runoff west of the divide flows to the Perris Valley Storm Drain at a gradient ranging from 1 to 2 percent and ultimately drains toward the Perris Valley hydro-subarea. Both hydro-subareas eventually flow to the San Jacinto River, approximately 10 miles south of the project site. The project site is located in the Moreno Valley drainage area and is tributary to the San Jacinto River.

The westerly portion of the proposed WLC project site is located within the Moreno Master Drainage Plan (MMDP). The existing MMDP indicates that storm flows north of SR-60 will be routed to the proposed Sinclair Detention Basin. Flows released from the proposed basin will pass under SR-60 through the existing culverts and be conveyed to the drainage system identified as Line “F” in MMDP. The proposed basin will not be constructed prior to the proposed WLC project; therefore, this analysis

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1 *Draft Master Plan of Drainage Report for World Logistics Center Specific Plan and Environmental Impact Report*, CH2M Hill, September 2014.

2 *Ibid.*

assumes that the Sinclair Detention Basin is not in place prior to construction and operation of the proposed WLC project.

As detailed in the *Draft Master Plan of Drainage Report*, storm flows originating from the Badlands reaching SR-60 are conveyed through a series of five culverts under SR-60 between Redlands Boulevard and Theodore Street, to earthen ditches that flow in a southerly direction. Based on the Logistic Building Runoff Management Plan (LBRMP) prepared by RBF in 2008, some of the culverts were partially blocked by sediment and debris allowing little flow from the culverts to enter the proposed WLC project site thus attenuating the flow during a 100-year storm event. Drainage peak flow rates from water ponds north of SR-60 are reduced due to the capacity of the existing culverts. As part of the construction of the Highland Fairview Corporate Park (HFCP) project, these existing culverts were combined into a 12-foot by 8-foot reinforced concrete box (RCB).[1] The RCB drains to the south along the west side of the logistics building within the HFCP project. A 36-inch and 42-inch storm drain underlying Eucalyptus Avenue join the RCB. The outflow from the drainage system sheet flows via a spreading area in to the agricultural land downstream. Farther south, the agricultural land drains to a RCFCWCD earthen channel at Redlands Boulevard, which flows to a Greenbelt Channel located south of Cactus Avenue and East of Redlands Boulevard and ultimately drains to the Perris Valley Storm Drain. Along the east side of Redlands Boulevard from Dracaea Street to the earthen channel collects flows from the west side of the project boundary. The v-ditch also outlets to the existing RCFCWCD earthen channel.

Open ditches along the Theodore Street convey runoff from adjacent areas. A series of existing drainage culverts crosses Gilman Springs Road conveying off-site runoff from the Badlands area onto the project site. Four of these culverts drain into somewhat defined natural drainage courses and drain into the SJWA. The existing culverts along Gilman Springs Road are undersized and therefore inadequate. The culverts provide some level of peak flow mitigation under a 100-year storm event; however, runoff will pond and overtop the road crossing onto the eastern portion of the proposed WLC project site. Therefore, the existing drainage courses in this area are undersized for the 100-year flow.

Previously referenced Tables 4.9.L, 4.9.M and 4.9.N (Section 4.9, *Hydrology and Water Quality*) identify changes in the flows, velocities, and volume of storm water runoff that would result from the development of buildings and impermeable surfaces without and with the development of the on-site basins. Due to the installation of impervious surfaces on the project site, the post-development flows would be higher than the pre-development flows. To avoid a significant impact to the existing drainage capacity, the post-development flows coming from the proposed WLC project site are required to be equal to or less than pre-development flows.[2] To reduce flows to below or equal to pre-development conditions, the on-site storm water flows would be routed to a series of on-site detention and infiltration basins[3] by phase before flows are routed off site. While the increase in impervious surfaces attributable to the proposed WLC project would contribute to a greater volume and higher velocity of storm water flows, the proposed WLC project's detention and infiltration basins would accept and accommodate runoff that would result from project construction at pre-project conditions (previously referenced Tables 4.9.L, 4.9.M, and 4.9.N).

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1 The drainage facilities planned in the RCFCWCD MMDP (dated April 1991) were considered and incorporated in to the RCB storm drain system.

2 As part of the MS4 Permit issuance requirements, projects must identify any Hydrologic Conditions of Concern and demonstrate that changes to hydrology are minimized to ensure that post-development runoff rates and velocities from a site do not adversely impact downstream erosion, sedimentation or stream habitat.

3 A detention basin is an area where excess storm water is stored or held temporarily and then slowly drains when water levels in the receiving channel recede. In essence, the water in a detention basin is temporarily detained until additional room becomes available in the receiving channel.

As identified in the *Draft Master Plan of Drainage Report*[1] prepared for the project, the hydrology analysis consisted of dividing the area into six existing and proposed off-site and on-site tributary areas (A through F; refer to previously referenced Figure 4.9.1). There are five proposed drainage systems to be constructed as part of the proposed WLC project and are identified as Line A (consistent with Line F in the MMDP), Line B, Line C, Line D, and Line F as depicted in previously referenced Figure 4.9.4. Hydrologic modeling results identify that the 100-year 3-hour storm provides the highest peak flows.

The land uses and roadway facilities proposed under the Specific Plan would require modifications to the existing sub watersheds of the project vicinity. Table 4.16.G provides a comparison of the existing and proposed drainage areas and shows the proposed modifications to the existing sub watersheds would not substantially alter the existing drainage pattern of the project vicinity. A comparison of the total area in acres shows no change.

Table 4.16.G: Comparison of Existing and Proposed Drainage Areas

Existing Condition			Proposed Condition		
Watershed	**Area (acres)**	**Hydro-subarea**	**Watershed**	**Area (acres)**	**Hydro-subarea**
A	2,657	Perris Valley	A	2,746	Perris Valley
B	1,361	Gilman Hot Springs	B	1,147	Gilman Hot Springs
C	1,061	Gilman Hot Springs	C	1,149	Gilman Hot Springs
D	965	Gilman Hot Springs	D	1,013	Gilman Hot Springs
E	2,510	Gilman Hot Springs	E	2,545	Gilman Hot Springs
F	445	Gilman Hot Springs	F	399	Gilman Hot Springs
Total	**8,999**			**8,999**	

Source: Table 4.1, Draft Master Plan of Drainage Report, CH2MHILL, September 2014

To adequately contain and store the greatest volume that would be generated during the 2-year, 5-year, 10-year, and 100-year storm events (i.e., 100-year 3-hour storm event), the project site would require the construction of on-site detention and infiltration basins, on-site culverts, and on-site energy dissipaters. Table 4.16.H provides a comparison of the existing and proposed storm water runoff for the 100-year 3-hour storm events. As shown in Table 4.16.H, the proposed WLC project site in the existing condition currently discharges at a rate of 2,470 cfs to the Perris Valley Hydro-Subarea and 5,250 cfs to the Gilman Hot Springs Hydro-Subarea. With the installation of the on-site detention basins, culverts, and energy dissipaters, expected discharges that would occur as a result of development of the site under the Specific Plan would discharge at a rate of 2,170 cfs to the Perris Valley Hydro-Subarea and 4,665 cfs to the Gilman Hot Springs Hydro-Subarea, which is less than the existing condition.

Table 4.16.H: Comparison of Existing and Proposed Storm Water Runoff for 100-Year 3-Hour Storm Event

Hydro-Subarea	Watershed	Existing Condition	Proposed Condition
		Peak Discharge (cfs)	
Perris Valley	A	2,470	2,170
Gilman Hot Springs	B	1,130	930
	C	820	750
	D	815	795

[1] *Draft Master Plan of Drainage Report for World Logistics Center Specific Plan and Environmental Impact Report*, CH2M Hill, September 2014.

Table 4.16.H: Comparison of Existing and Proposed Storm Water Runoff for 100-Year 3-Hour Storm Event

Hydro-Subarea	Watershed	Existing Condition	Proposed Condition
		Peak Discharge (cfs)	
	E	1,990	1,800
	F	495	390
	Total	**5,250**[1]	**4,665**

Source: Table 4-2 Draft Drainage Report, CH2MHill, September 2014

Specific Plan Design Features. The preceding information has outlined the Drainage Master Plan (DMP) for the proposed WLCSP. The DMP is designed to retain increased on-site runoff that will occur due to the presence of more impervious surfaces (e.g., roofs, parking lots, and streets) and channel it to landscaped areas. The DMP is also designed to prevent off-site runoff from exceeding that which occurs under existing conditions. Section 6.0 of the Specific Plan requires the careful use of xeriscape or drought-tolerant vegetation with minimal mechanical irrigation to minimize water use for landscaping. Sections 4.2 and 5.4 require implementation of water-conserving landscaping, and Section 5.2.3 provides architectural design guidelines that will help minimize the consumption of water for landscape irrigation.

In addition to the Specific Plan design features, the following mitigation is recommended to ensure that impacts associated with project-related drainage capacity are reduced to less significant levels.

Mitigation Measures. Implementation of **Mitigation Measure 4.16.1.6.2A** would ensure that the proposed WLC project would not result in storm water drainage flows that would require the construction of new storm water drainage facilities or expansion of existing storm water drainage facilities that would in turn cause significant environmental effects.

4.16.1.6.2A Each Plot Plan application for development shall include a concept grading and drainage plan, with supporting engineering calculations. The plans shall be designed such that the existing sediment carrying capacity of the drainage courses exiting the project area is similar to the existing condition. The runoff leaving the project site shall be comparable to the sheet flow of the existing condition to maintain the sediment carrying capacity and amount of available sediment for transport so that no increased erosion will occur downstream. This measure shall be implemented to the satisfaction of the City Land Development Division/Public Works.

Level of Significance after Mitigation. Adherence to **Mitigation Measure 4.16.1.6.2A** would result in the project's compliance with the City's existing storm water infrastructure requirements, reducing the potential impact associated with storm water drainage capacity to a less than significant level. Discussion of hydrological impacts from construction and operation of the WLC project are addressed in Section 4.9.6.1, *Construction-Related Water Quality Impacts,* and Section 4.9.6.2, *Operational Water Quality Impacts.*

4.16.1.7 Cumulative Impacts to Water Supply Services

The cumulative area for water supply-related issues is the EMWD service area (previously referenced Figure 4.16.1). Existing and future development within the EMWD's service area would demand additional quantities of water. The adopted UWMP (2010) projects population within the EMWD

service area to increase to 1,111,729 persons by the year 2035. Increases in population, square footage, and intensity of uses would contribute to increases in the overall regional water demand. The anticipated conversion of water-intensive uses (i.e., agriculture) and the implementation of existing water conservation measures and recycling programs would reduce the need for increased water supply.

As previously identified, Metropolitan will continue to rely on the plans and policies outlined in its RUWMP and IRP to address water supply shortages and interruptions (including potential shut downs of SWP pumps) to meet water demands. An aggressive campaign for voluntary conservation and recycled water usage, curtailment of groundwater replenishment water and agricultural water delivery are some of the actions outlined in the RUWMP. As previously stated, Metropolitan currently does not have surplus water available, due in part to pumping restrictions imposed on the SWP in place to avoid and minimize impacts to Federal- and State-protected fish species in the Delta. However, Metropolitan has analyzed the reliability of water delivery through the SWP and the Colorado River Aqueduct. Metropolitan's IRP and RUWMP conclude that, with the storage and transfer programs developed by Metropolitan, there will be a reliable source of water to serve its member agencies' needs through 2035. The EMWD would have water supplies for projected growth through 2035 in wet, dry, and multiple-dry years, so cumulative impacts to water supply would be less than significant. The proposed WLC project would connect to existing conveyance infrastructure and adequate treatment capacity is available, so the proposed WLC project would not make a significant contribution to any cumulatively considerable impacts on water supply or infrastructure.

With implementation of the WLC Specific Plan as proposed and **Mitigation Measures 4.16.6.1A** through **4.16.6.1C**, potential cumulative impacts to regional long-term water supplies will not be cumulatively considerable.

4.16.2 Wastewater Services

4.16.2.1 Existing Setting

The EMWD and the Edgemont Community Services District (ECSD) provides wastewater (sewer) services in the City of Moreno Valley. The EMWD provides wastewater treatment, collection, and disposal service to most of the City and surrounding area and the ECSD provides sewer service to a small area in the southwestern portion of the City limits. The EMWD owns, operates, and maintains four regional water reclamation facilities including the Moreno Valley Regional Water Reclamation Facility (MVRWRF). The MVRWRF facility is located south of the City limits and east of Perris Boulevard, south and adjacent to Mariposa Avenue. The MVRWRF treats domestic, commercial, and industrial wastewater, and currently accepts an average daily flow of approximately 11.2[1] mgd, with an existing capacity of approximately 16 mgd.[2] Reclaimed water from the MVRWRF is primarily used to irrigate agriculture lands, greenbelts, and median strip areas. The existing development on the site (seven residences and associated farming facilities) is served by private septic tank systems. An existing sewer pipeline is located underlying Redlands Boulevard along the western perimeter of the project limits and Fir Avenue along the northern perimeter of the project limits.

NOP/Scoping Comments. No comments were received during the scoping period specifically regarding wastewater service.

[1] Plus 0.4 mgd diverted to the Perris Valley Regional Water Reclamation Facility.
[2] Eastern Municipal Water District Moreno Valley Regional Water Reclamation Facility, http://www.emwd.org/modules/.aspx?documentid=1423, website accessed April 3, 2012.

4.16.2.2 Existing Policies and Regulations for Wastewater Services

Federal Water Pollution Control Act The major piece of Federal legislation dealing with wastewater is the Federal Water Pollution Control Act, which is designed to restore and preserve the integrity of the nation's waters. In addition to the Federal Water Pollution Control Act, other Federal environmental laws have a bearing on the location, type, planning, and funding of wastewater treatment facilities.

Regional Water Quality Control Board. Operation of the MVRWRF is subject to regulations set forth by the California Department of Health Services (DHS) and the Regional Water Quality Control Board (RWQCB). NPDES permits are required for operators of publically owned treatment works, municipal separate storm sewer systems (MS4s), construction, projects, and industrial facilities who discharge to surface waters within the City.

City of Moreno Valley General Plan. The following are policies in the City's General Plan that pertain to wastewater services and are applicable to the proposed WLC project:

Community Development Element

Policy 2.12.1 Prior to the approval of any new development application, ensure that adequate septic or sewer service capacity exists or will be available in a timely manner.

Policy 2.13.1 Limit the amount of development to that which can be adequately served by public services and facilities, based upon current information concerning the capability of public services and facilities.

Policy 2.13.2 Unless otherwise approved by the City, public water, sewer, drainage and other backbone facilities needed for a project phase shall be constructed prior to or concurrent with initial development within that phase.

Policy 2.13.3 It shall be the ultimate responsibility of the sponsor of a development project to ensure that all necessary infrastructure improvements (including system-wide improvements) needed to support project development are available at the time that they are needed.

4.16.2.3 Methodology

The methodology of determining wastewater service impacts is based on evaluating the existing wastewater infrastructure and capacity available to the City, future wastewater demand and capacity that is anticipated to be available to the City, and the identification of existing wastewater demands and future wastewater demands with the development of the proposed WLC project.

4.16.2.4 Wastewater Services Thresholds of Significance

The proposed WLC project is considered to have a significant impact on wastewater services if any of the following occurs:

- The project would exceed wastewater treatment requirements of the Santa Ana Regional Water Quality Control Board;
- The project would result in a determination by the wastewater treatment provider, which serves or may serve the project, that it lacks adequate capacity to serve the project's projected demand in addition to the provider's existing commitments; and/or

- The project would require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

4.16.2.5 Less than Significant Impacts

4.16.2.5.1 Wastewater Treatment Requirements

Threshold	Would the proposed WLC project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Local governments and water districts are responsible for complying with Federal regulations, both for wastewater plant operation and the collection systems (e.g., sanitary sewers) that convey wastewater to the wastewater treatment facility. Proper operation and maintenance is critical for sewage collection and treatment as impacts from these processes can degrade water resources and affect human health. For these reasons, publicly owned treatment works (POTWs) receive Waste Discharge Requirements (WDRs) to ensure that such wastewater facilities operate in compliance with water quality regulations set forth by the State. WDRs, issued by the State, establish effluent limits on the kinds and quantities of pollutants that POTWs can discharge. These permits also contain pollutant monitoring, recordkeeping, and reporting requirements. POTWs that intend to discharge into the nation's waters must obtain a WDR prior to initiating discharge.

The proposed WLC project would result in a connection to the sewer line underlying Redlands Boulevard in the vicinity of the intersection of Redlands Boulevard and Brodiaea Avenue. It is anticipated that all wastewater generated by the proposed WLC project would be routed to and treated by the MVRWRF. The MVRWRF is considered to be a POTW, so operational discharge flows treated at the MVRWRF would be required to comply with waste discharge requirements contained within the WDRs for that facility. Compliance with condition or permit requirements established by the City, and waste discharge requirements at the MVRWRF would ensure that discharges into the wastewater treatment facility system from the operation of the proposed WLC project would not exceed applicable Santa Ana RWQCB wastewater treatment requirements. Expected wastewater flows from the proposed WLC project will not exceed the capabilities of the serving treatment plant, so no significant impact related to this issue would occur and no mitigation would be required.

4.16.2.5.2 Wastewater Treatment Capacity and/or New or Expanded Wastewater Treatment Facilities

Threshold	Would the proposed WLC project result in a determination by the wastewater treatment provider, which serves or may serve the project, that it lacks adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
Threshold	Would the proposed WLC project require the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

As previously noted, the proposed WLC project would connect to the existing sewer pipeline underlying Redlands Boulevard in the vicinity of the intersection of Redlands Boulevard and Brodiaea Avenue. Wastewater flows from the proposed WLC project site would be handled by the EMWD and would be conveyed to the MVRWRF located in the southwestern portion of the City, southwest of the

proposed WLC project site. Current capacity at this facility is 16 mgd[1] with an existing average inflow of approximately 11.2 mgd.[2] Under current conditions, the average daily surplus treatment capacity is approximately 4.5 mgd. Generally, water use and wastewater flows are related in that wastewater is generated from indoor water uses.

Flow from the Logistics Development is based on a factor of water use equivalent to 0.01 gpd/sf. These values were determined based on a water demand analysis and benchmarking study conducted to determine water generation factors for similar facilities as outlined in the Technical Memorandum titled *World Logistics Center Water Demands and Waste Water Generation for Buildings* dated March 13, 2012. Since this study is for Specific Plan purposes and because these wastewater generation factors are less than rates used to cover the broad spectrum of light industrial uses, a facility sizing factor was added. This factor is 2.0 times the 0.01 gpd/sf for a wastewater generation factor of 0.02 gpd/sf. Based on a square footage of 40.6 million, the wastewater generated from the logistics uses on the site is 812,000 gpd. An additional 5,100 gpd of flow was added to account for the in-project fueling station. Thus, the total wastewater generated from the site is 817,100 (0.82 mgd). The additional wastewater treatment demand of 0.82 mgd resulting from development of the proposed WLC project totals approximately 18.2 percent of current surplus treatment capacity. Improvements planned for the MVRWRF facility would increase capacity at this facility from 16 mgd to 18 mgd with an ultimate expansion of this facility of 41 mgd. The planned expansion of the MVRWRF to increase capacity from 16 mgd to 18 mgd was completed in December 2013.[3] Impacts associated with wastewater facilities would be less than significant because the amount of wastewater generated by the project would be within the existing surplus treatment capacity at the MVRWRF. The proposed WLC project would not require the construction of new wastewater treatment facilities or expansion of existing facilities, which could cause significant environmental effects. Therefore, impacts associated with wastewater facilities would be less than significant and no mitigation is required.

4.16.2.6 Significant Impacts

No impacts related to wastewater services or facilities have been identified as significant for the proposed WLC project.

4.16.2.7 Cumulative Impacts to Wastewater Facilities

The cumulative area for wastewater-related issues is the MVRWRF service area (previously referenced Figure 4.16.1). Cumulative population increases and development within the area serviced by the MVRWRF would increase the overall regional demand for wastewater treatment service. The previous treatment capacity at the MVRWRF was 16 mgd. Improvements to this facility have increased capacity at this facility to 21 mgd. Ultimate expansion of this facility is expected to be 41 mgd. The MVRWRF is expected to have adequate capacity to service the City's wastewater needs through 2030. Any proposed changes to capacity of the MVRWRF or any facility maintained by EMWD are reviewed throughout the year. EMWD has a funding and construction mechanism in place that ensures improvements to EMWD facilities occurs in a timely manner. This funding mechanism is referred to as EMWD's Sewer Financial Participation Charge Program. For all new development within the EMWD service area, the Sewer Financial Participation Charge is allocated to assist in the financing of any future collection and disposal facilities and any future sewer treatment plant facilities.

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1 *5.13 Public Services and Utilities*, City of Moreno Valley General Plan Final EIR, July 2006.

2 Eastern Municipal Water District Moreno Valley Regional Water Reclamation Facility, http://www.emwd.org/modules/.aspx?documentid=1423, website accessed April 2, 2012.

3 Approval and Authorize an Amendment (246,044) to the Agreement with Carollo Engineers for Constuction Management and Engineering Support Services During Construction of the MVRWRF, Eastern Municipal Water District, July 2, 2014, http://www.emwd.org/home/showdocument?id=10415.

Cumulative development would not exceed the capacity of the wastewater treatment system because the MVRWRF would expand as growth occurred.

The proposed WLC project would not have a cumulatively significant impact on wastewater infrastructure because the proposed WLC project would not require the expansion of existing infrastructure, only connections to existing infrastructure would be required by the project. By adhering to the wastewater treatment requirements established by the Santa Ana RWQCB through the NPDES permit, wastewater from the project site that is processed through the MVRWRF would meet established standards. As the wastewater from all development within the service area of the MVRWRF would be similarly treated under the NPDES, no cumulatively significant exceedance of Santa Ana RWQCB wastewater treatment requirements would occur.

4.16.3 Solid Waste Services

4.16.3.1 Existing Setting for Solid Waste Services

Solid waste disposal and recycling services for the proposed WLC project site would be provided by Waste Management of the Inland Empire. [1] Waste Management of the Inland Empire separates and markets recyclable materials collected within its service area. Solid wastes would primarily be transported to the Badlands Sanitary Landfill located at 31125 Ironwood Avenue in Moreno Valley. Additionally, Waste Management of the Inland Empire will also use other County landfills in the area, such as the Lamb Canyon Landfill on County land near the City of Beaumont and the El Sobrante Landfill in the City of Corona. The Badlands Sanitary Landfill is designated a Class III landfill run by the County of Riverside.[2] Waste types accepted at the Badlands Sanitary Landfill include agricultural, construction/demolition, industrial, mixed municipal, and tires.

The Badlands Sanitary Landfill currently has a permitted capacity of 33.5 million cubic yards with a remaining capacity of 14.7 million cubic yards.[3] The tonnage of any mass of solid waste is dependent on the material (e.g., metals, paper, and green waste) and its density (compacted or uncompacted). Utilizing conversion factors from various jurisdictions, one cubic yard of compacted municipal solid waste typically weighs 750 pounds (0.37 ton).[4] Based on this conversion factor, remaining space at the Badlands Sanitary Landfill totals approximately 5.45 million tons with an estimated closure date of January 2024. The maximum daily permitted throughput of this facility is 4,000 tons/day. The Badlands Sanitary Landfill currently accepts approximately 1,683 tons/day.[5]

Recyclable materials collected by Waste Management of the Inland Empire are handled at the Moreno Valley Transfer Station owned and operated by Waste Management, Inc. The Moreno Valley Transfer Station is a large volume transfer and processing facility that accepts the following waste types: construction and demolition materials, green materials, metals, and mixed municipal waste. The Moreno Valley Transfer Station currently has a permitted capacity of 2,600 tons per day and currently accepts 2,000 tons per day. This facility currently has the capacity to accept an additional 600 tons per day.

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1 Trash service in the City of Moreno Valley is mandatory and Waste Management of Inland Valley is the only solid waste service provider.

2 Class III landfills are required to be located where adequate separation can be provided between non-hazardous solid waste and surface and subsurface waters. This class of landfill is not permitted to accept hazardous waste.

3 *Badlands Sanitary Landfill Facility/Site Summary Details,* CalRecycle website, http://www.calrecycle.ca.gov///AA-0006//, website accessed April 2, 2012.

4 http://www.recyclemaniacs.org/doc/measurement-tracking/CURC-profile-input-form-with-conversion-guide.xls, website accessed December 21, 2011.

5 Based on 2011 average; e-mail correspondence with John Farrar, Administrative Services Assistant, County of Riverside Waste Management Department, December 21, 2011.

NOP/Scoping Comments. No comments were received during the scoping period specifically regarding solid waste service.

4.16.3.2 Existing Policies and Regulations

Assembly Bill 939 (AB 939) California Integrated Waste Management Act. AB 939 was signed into law in 1989 and established a 50 percent waste reduction requirement for cities and counties by the year 2000, along with a process to ensure environmentally safe disposal of waste that could not be diverted. Jurisdictions select and implement the combination of waste prevention, reuse, recycling, and composting that best meets the needs of their residents while achieving the diversion requirements of the Act. Cities and counties also have the flexibility to work cooperatively toward the 50 percent goal by forming a regional agency. According to the provisions of the Act, in the year 2000, waste-to-energy or biomass conversions may contribute 10 percent toward the goal, with the remaining 40 percent accomplished through source reduction, recycling, and composting. The statute also allows a time extension to meet these goals for cities and counties that experience adverse market or economic conditions.

Assembly Bill 1327 (AB 1327) California Solid Waste Reuse and Recycling Access Act of 1991. Signed into law in 1991, AB 1327 added Chapter 18 to Part 3 of Division 30 of the Public Resources Code. Chapter 18 required the California Integrated Waste Management Board (CIWMB) to develop a model ordinance for adoption of recyclable materials in development projects. Local agencies were then required to adopt the model, or ordinances of their own, in order to govern adequate areas for collection and loading of recyclable materials in development projects by September 1, 1993. If a local agency had not adopted a model ordinance by that date, the CIWMB model would be adopted and enforced by the local agency.

Senate Bill 1016 (SB 1016). As previously identified, the California Integrated Waste Management Act of 1989 (AB 939) requires each jurisdiction to divert 50 percent of its solid waste from being disposed in landfills. The new per capita disposal measurement system (SB 1016, Wiggins, Chapter 343, Statutes of 2008) became effective January 1, 2009. It builds on AB 939 compliance requirements by implementing a simplified measure of local jurisdictions' performance. SB 1016 accomplishes this by changing to a disposal-based indicator: the per capita disposal rate, which uses only two factors: a jurisdiction's population and its disposal as reported by disposal facilities. SB 1016 changes how each jurisdiction's progress is measured to reach the 50 percent goal for diverting waste from landfills. This measurement is no longer determinative of compliance. In order for the CIWMB and jurisdictions to more properly focus on successful program implementation, SB 1016 shifts from the historical emphasis on using calculated generation and estimated diversion to using annual disposal as a factor when evaluating jurisdictions' program implementation.

Riverside County Integrated Waste Management Plan. The Riverside Countywide Integrated Waste Management Plan (RCIWMP), adopted by the Riverside County Board of Supervisors on January 14, 1997, and approved by the CIWMB on September 23, 1998, outlines the goals, policies, and programs the County and its cities, including the City of Moreno Valley, would implement to create an integrated and cost-effective waste management system that complies with the provisions of AB 939 and its diversion mandates. The RCIWMP is composed of the Riverside Countywide Summary Plan, the Source Reduction and Recycling Element (SRRE) for the County and each of its cities, the Nondisposal Facility Element (NDFE) for the County and each of its cities, the Household Hazardous Waste Element (HHWE) for the County and each of its cities, and the Riverside Countywide Siting Element.

City of Moreno Valley General Plan. The following are policies and programs in the City's General Plan that pertain to solid waste and are applicable to the proposed WLC project:

Conservation Element

Policy 7.8.1 Encourage recycling projects by individuals, non-profit organizations, or corporations and local businesses, as well as programs sponsored through government agencies.

Program 7-1 Support regional solid waste disposal efforts by the County of Riverside.

4.16.3.3 Methodology

The solid waste analysis is based on evaluating the existing capacity of nearby landfills that serve the City, future solid waste capacity that would be available to the City, and the identification of existing solid waste demand and future solid waste demand associated with the development of the proposed WLC project. The analysis also identifies existing City goals, policies, and programs that the City implements to reduce generated waste.

4.16.3.4 Solid Waste Services Thresholds of Significance

Based on Appendix G of the *CEQA Guidelines,* a project is considered to have a significant impact on solid waste services if it results in either of the following:

- The project would be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs; and/or
- The project would fail to comply with applicable Federal, State, and local statutes and regulations related to solid waste.

4.16.3.5 Less than Significant Impacts

The following solid waste impacts were determined to be less than significant. Adherence to established regulations, standards, and policies would reduce potential solid waste impacts to a less than significant level.

4.16.3.5.1 Solid Waste Facilities

Threshold	Would the proposed WLC project be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?

Solid waste collection is a "demand-responsive" service and current service levels can be expanded and funded through user fees without difficulty. The proposed WLC project is anticipated to generate approximately 104.6 tons of solid waste per day (38,164 tons/year).[1] Solid waste from the proposed WLC project would be hauled by Waste Management of Inland Valley and transferred to the Badlands Sanitary Landfill, located in Moreno Valley. The Badlands Sanitary Landfill has a daily permitted throughput of 4,000 tons per day, a remaining capacity of 14,730,025 cubic yards, and an

[1] South Coast Air Quality Management District. CalEEMod Manual, Appendix D, Table 10.1, Solid Waste Disposal Rate for Unrefrigerated Warehouse. http://www.aqmd.gov/caleemod/user's-guide. Calculation: 0.94 tons/thousand square feet/year × 40,600 thousand square feet = 38,164 tons per year.

estimated closure date of 2024.[1] The average daily throughput at the Badlands Sanitary Landfill for 2011 is estimated at 1,683 tons/day[2] with a current surplus capacity totaling 2,317 tons/day.

The volume of solid waste generated by the proposed WLC project per day represents 2.6 percent of the current permitted throughput and 4.5 percent of the current surplus capacity at the Badlands Sanitary Landfill. As adequate daily surplus capacity exists at the receiving landfill, development of the proposed WLC project would not significantly affect current operations or the expected lifetime of the landfill serving the project area. No significant solid waste disposal impact would occur and no mitigation is required.

4.16.3.5.2 Solid Waste Reduction

Threshold	Would the proposed WLC project fail to comply with applicable federal, state, and local statutes and regulations related to solid waste?

Federal, State and local governments have enacted a variety of laws and established programs to deal with the transport, use, storage, and disposal of hazardous materials to reduce the risks to public health and the environment. These laws and programs supplement existing regulations designed to control the contamination of air and water resources. There are no active landfills operating in Riverside County that accept hazardous wastes. Hazardous wastes generated within the County are disposed of at distant “Class I” landfills. The DHS regulates companies that haul hazardous waste. The California Highway Patrol (CHP) is responsible for the inspection of motor carriers that haul hazardous wastes. Inspections are made on roadways, at freeway truck scales and truck yards. The shipment of hazardous materials by truck or rail is regulated by Federal safety standards under the jurisdiction of the USDOT. Federal safety standards are also included in the California Administrative Code, Environmental Health Division. The EPA ensures that containers of hazardous materials are properly labeled with instructions for use. The California Department of Industrial Relations, Cal-OSHA Division regulates the use of hazardous materials in the workplace. Regulations governing the storage and use of hazardous materials are also contained in the Uniform Building Code and the Uniform Fire Code. The Hazardous Materials Branch (HMB) of the Environmental Health Services Division of the Riverside County Health Department operates a hazardous waste program. The HMB inspects those involved in generating, hauling, storage, treating, and disposing of these wastes. The HMB also operates mobile household hazardous waste roundups and checks loads at local landfills for hazardous wastes.

The City of Moreno Valley is responsible for meeting the requirements of AB 939 and SB 1016, which includes a 50 percent reduction in disposal by the start of 2000 and preparation of a solid waste reduction plan to help reduce the amount of solid waste disposed of at the landfills. Programs implemented by the City of Moreno Valley to satisfy the mandated reduction in solid waste include, but are not limited to, the following:

- Public outreach via print and electronic media (public education);
- Municipal solid waste ordinances and product and landfill bans (policy incentives); and
- Operation of material recovery and composting facilities (facility recovery).

The proposed WLC project would be required to coordinate with the waste hauler to develop collection of recyclable materials for the project on a common schedule as set forth in applicable

[1] *Badlands Sanitary Landfill Facility/Site Summary Details,* CalRecycle website, http://www.calrecycle.ca.gov/SWFacilities//AA-0006//, website accessed April 2, 2012.

[2] Based on 2011 average; e-mail correspondence with John Farrar, Administrative Services Assistant, County of Riverside Waste Management Department, December 2, 2012.

local, regional, and State programs. Recyclable materials that would be recycled by the project include paper products, glass, aluminum, and plastic.

Additionally, the proposed WLC project would be required to comply with applicable elements of AB 1327, Chapter 18 (California Solid Waste Reuse and Recycling Access Act of 1991) and other applicable local, State, and Federal solid waste disposal standards, thereby ensuring that the solid waste stream to the Badlands Sanitary Landfill is reduced in accordance with existing regulations. Impacts are considered less than significant and require no mitigation.

4.16.3.6 Significant Impacts

No impacts related to solid waste services or facilities have been identified as significant for the proposed WLC project; therefore, no mitigation is required.

4.16.3.7 Cumulative Impacts to Solid Waste Services

AB 939 mandates the reduction of solid waste disposal in landfills. While the Badlands Sanitary Landfill has an estimated closure date of 2024, as previously identified, the City's waste hauler will also use other County landfills in the area (e.g., Lamb Canyon Landfill and El Sobrante Landfill). The estimated closure date of the Lamb Canyon Landfill is 2023 and the estimated closure date of the El Sobrante Landfill is 2030. With planned expansion activities of landfills in the project vicinity and projected growth rates contained in the City's General Plan EIR, sufficient landfill capacity would exist to accommodate future disposal needs through City buildout in 2030. Therefore, buildout of the City General Plan would not create demands for solid waste services that would exceed the capabilities of the County's waste management system. Consequently, cumulative impacts associated with solid waste within the City would be considered less than significant.

4.16.4 Energy Consumption

This section discusses the conditions that exist on the project site and the regulatory framework that governs the supply and demand for direct and indirect energy requirements. Appendix F of the *CEQA Guidelines* describes the energy conservation information and analyses that should be included in an EIR, including emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. Energy conservation is defined in terms of decreased reliance on natural gas and oil, decreased per capita energy consumption, and increased reliance on renewable energy sources.

4.16.4.1 Existing Setting

Electricity. Southern California Edison (SCE) currently has two existing 115 kilovolt (kV) overhead power transmission lines within the proposed WLC project limits. One is located along Gilman Springs Road from the south to Eucalyptus Avenue, then east on Eucalyptus Avenue to Theodore Street and then north on Theodore Street across SR-60. The second 115 kV transmission line is located along Brodiaea Avenue from the west to Davis Road then southeast into the San Jacinto Wildlife Area. In the project area, SCE also maintains 12 kV overhead distribution lines along Redlands Boulevard, Theodore Street, and Alessandro Boulevard just west of the project site.

The proposed WLC project would be supplied electricity by Moreno Valley Electric Utility (MVEU). MVEU currently has an existing electrical substation west of the project area at the southwest corner of Moreno Beach Drive and Cottonwood Avenue. This substation currently has a capacity to distribute 28 megawatts (MW) of electricity based on two existing 28 MW units (i.e., if one unit goes off, the other unit still maintains capacity to handle the demand). Ultimate capacity of this substation is 90

MW based on four 28 MW units. The current peak load for this substation is 22 to 26 MW; therefore, there is an existing 2 to 6 MW surplus capacity available. MVEU has underground 12 kV distribution lines along Cottonwood Avenue from the west to Redlands Boulevard, then north along Redlands Boulevard to Fir Street (now Eucalyptus Avenue), and then east along Eucalyptus Avenue to Theodore Street. The existing underground conduit underlying Eucalyptus Avenue currently serves the existing Skechers warehouse, office, and factory store. It should be noted that the MVEU indicated these assumptions are valid at this time, but could change if other development occurs before the proposed project.

Natural Gas. The proposed WLC project would be supplied natural gas by the Southern California Gas Company (SCGC). SCGC currently maintain a 4-inch medium-pressure service line underlying Redlands Boulevard that runs from SR-60 on the north to Cactus Avenue on the south and then runs west along Cactus Avenue with a stub-out to the north at Merwin Street. SCGC has low-pressure facilities that serve the residential areas located west of Redlands Boulevard and southwest of Merwin Street and Bay Avenue.

Throughout the proposed WLC project area, there are existing high-pressure natural gas transmission mains ranging in diameters of 16 inches up to 36 inches. SCGC currently maintains two 30-inch diameter transmission pipelines traversing the project site that run in an east-west direction and are located north and south of Alessandro Boulevard. There are also three transmission pipelines (a 16-inch, 30-inch, and 36-inch diameters) that run in a north-south direction along Virginia Street, south of Alessandro Boulevard. The 36-inch diameter pipeline also runs east from Virginia Street parallel with the 30-inch pipeline that runs south of Alessandro Boulevard.

Within the proposed WLC project site, SCGC maintains a gas line blow-down facility and flow metering station at Alessandro Boulevard and Virginia Street. Further south on Virginia Street, the San Diego Gas and Electric Company (SDG&E) maintains a natural gas compression station, known as the Moreno Compressor Station, which supplies gas to San Diego via 16-inch, 30-inch, and 36-inch transmission pipelines that continue to the south. SCGC has a gas transmission regulator station located at the southeast corner of Gilman Springs Road and Laurene Lane east of the proposed WLC project site.

Questar currently maintains a 16-inch gas transmission pipeline that underlies Alessandro Boulevard from Gilman Springs Road to Theodore Street, where it heads south to the Maltby Avenue alignment and then heads west toward Redlands Boulevard.

NOP/Scoping Comments. There were no specific comments regarding energy systems during the scoping process.

4.16.4.2 Existing Policies and Regulations

4.16.4.2.1 Federal Regulations

Energy Policy and Conservation Act. The Energy Policy and Conservation Act of 1975 sought to ensure that all vehicles sold in the U.S. would meet certain fuel economy goals. Through this Act, Congress established the first fuel economy standards for on-road motor vehicles in the U.S. Pursuant to the Act, the National Highway Traffic and Safety Administration (NHTSA), which is part of the U.S. Department of Transportation (USDOT), is responsible for establishing additional vehicle standards and for revising existing standards. Since 1990, the fuel economy standard for new passenger cars has been 27.5 mpg. Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 mpg. The Corporate Average Fuel

Economy (CAFE) program, administered by the EPA, was created to determine vehicle manufacturers' compliance with the fuel economy standards. The EPA calculates a CAFE value for each manufacturer based on city and highway fuel economy test results and vehicle sales. Based on the information generated under the CAFE program, the USDOT is authorized to assess penalties for noncompliance.

Energy Policy Act of 1992. The Energy Policy Act (EPAct) of 1992 was passed to reduce the country's dependence on foreign petroleum and improve air quality. EPAct includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. EPAct requires certain Federal, State, and local governments and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are also included in EPAct. Federal tax deductions will be allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the act to consider a variety of incentive programs to help promote AFVs.

Energy Policy Act of 2005. The Energy Policy Act of 2005 includes provisions for renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a Federal purchase requirement for renewable energy.

4.16.4.2.2 State Regulations

California Code of Regulations Title 24, Part 6. Enacted in 1978, this part of the California Code established energy efficiency standards for residential and nonresidential buildings in response to a legislative mandate to reduce California's energy consumption. These standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The most recent standards were adopted and went into effect January 1, 2010.[1] Such standards include the provision of cool roofs, demand control ventilation, skylights for day-lighting in buildings, thermal breaks for metal building roofs, and lighting power limits. These standards are expected to reduce the growth in electricity use of residential and non-residential buildings. Continual updates to Title 24 along with the State's implementation of AB 1493 and SB 1368 will have a major impact on the State's attainment of the AB 32 goals.

California Code of Regulations Title 24, Part 11. This part of the California Code is known as the California Green Building Standards Code (CALGreen Code) and was enacted to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts with positive environmental impacts and through encouragement of sustainable construction practices. The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC). This update to Part 11 of Title 24 of the California Code of Regulations was effective January 1, 2011.

California Code of Regulations Titles 14 and 27. These parts of the California Code require energy efficient practices as part of solid and hazardous waste handling and disposal.

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[1] *Nonresidential Compliance Manual for California's 2008 Energy Efficiency Standards*, California Energy Commission, effective January 1, 2010, http://www.energy.ca.gov/title24/2008standards/index.html, website accessed on March 4, 2010.

4.16.4.2.3 Regional and Local Regulations

City of Moreno Valley General Plan. The City's General Plan Chapter 9 (Goals and Objectives) establishes goals and objectives to guide development within the City. Specific policies associated with energy facilities relevant to the proposed WLC project include:

Objective 7.5 Encourage efficient use of energy resources.

Policy 7.5.1 Encourage building, site design, and landscaping techniques that provide passive heating and cooling to reduce energy demand.

Policy 7.5.5 Encourage the use of solar power and other renewable energy systems.

Policy 7.7.2 Require new electrical and communication lines to be placed underground.

4.16.4.3 Methodology

The energy analysis is based on evaluating the existing energy supply available to the City, future energy supply that is anticipated to be available to the City, and the identification of existing electricity and natural gas demand and future demand with the development of the proposed WLC project. The analysis also identifies energy conservation measures that would be incorporated by the proposed WLC project to reduce the project's total energy demand.

4.16.4.4 Thresholds of Significance

Appendix G of the *CEQA Guidelines* (2011) does not include thresholds to determine potential environmental impacts resulting from project-related electrical and natural gas demand and use. However, Appendix F of the *CEQA Guidelines* (2011) provides guidance on what should be considered in an EIR's discussion of energy impacts. This includes but is not limited to energy-consuming equipment and processes operation; total energy requirements of the project by fuel type and end use; energy conservation equipment and design features; and identification of energy supplies that would serve the project. Consideration of environmental impacts includes an evaluation of the project's energy requirements and energy use during operation and the degree to which the project complies with current energy standards. The guidance suggests that particular emphasis be placed on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy (see Public Resources Code section 21100(b) (3)).

4.16.4.5 Less Than Significant Impacts

Based its size, energy impacts of the WLC project are potentially significant.

4.16.4.6 Significant Impacts

Impact 4.16.4.6.1 Construction or Expansion of Electrical and Natural Gas Facilities

Threshold	Would the proposed WLC project require the construction of new electrical and/or natural gas facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?

Based on calculations contained Tables 4.16.I and 4.16.J, the proposed WLC project would consume approximately 376,426 megawatt-hours (MWh) of electricity and almost 14.6 million cubic feet of natural gas per year. The estimated electrical demand assumes no on-site electrical generation by photovoltaic panels.

Table 4.16.I: Electrical Demand and Consumption

Land Use Type	% of Total Square Footage	Building Area (sf)	Electrical Demand Factor (w/sf)[1]	Electrical Demand (MW)	Electrical Consumption (MWh/Yr)[2]
Logistics (including offices)	100	40.6 million	1.68	68.2	376,426.3
Total	**100**	**40,600,000**	**—**	**68.2**	**376,426.3**

[1] Electric demand factors based on electric utility demand information from Moreno Valley Electric Utility
[2] Assumes a 63% load factor for all use types. Assumes Logistics and Office Space will operate 24 hours per day 7 days per week or 8,760 hours per year.
sf = square feet, w = watts, MW = Megawatts MWh = megawatt-hours
Source: Technical Memorandum – Dry Utilities, Utility Specialists, October 24, 2013.

Table 4.16.J: Natural Gas Demand and Consumption

Land Use Type	% of Total Square Footage	Building Area (sf)	Natural Gas Consumption Factor (cf/yr/sf)[1]	Natural Gas Consumption (cf/yr)
Logistics	97	39,382,000	—	—
Office Space	3	1,218,000	12.00	14,616,000
Total	**100**	**40,600,000**	**—**	**14,616,000**

cf = cubic feet.
Source: Technical Memorandum – Dry Utilities, Utility Specialists, October 24, 2013.

The WLC Specific Plan requires future installation of solar photovoltaic panels on the roof of each warehouse building to offset the energy demands of the office portion of the building. The following utility improvements are based on a “worst-case” assumption that on-site solar electrical generation is not available and electrical service would have to be provided by MVEU. In addition, partial or complete connection to the existing electrical grid may be necessary even with roof-mounted solar photovoltaic panels so there is redundancy (backup) in case of an emergency or during nighttime when no on-site power is being generated (i.e., some warehouses may operate 24/7). At this time, it is not anticipated that any uses will install sufficient on-site power generation and storage to be totally independent of the existing electrical grid.

A number of SCE facilities would still require relocation and expansion of MVEU facilities in order to provide network backup (i.e., if the solar generation equipment were to fail) and accommodate the potential increase in electrical demand no matter the contribution of project alternative energy generated. Power poles, guy poles, and guy anchors for the existing overhead 115 kV line along Theodore Street and Gilman Springs Road will need to be relocated at the time these roadways are widened. The portion of the existing 115 kV line along Eucalyptus Avenue may also need to be relocated into the new Eucalyptus Avenue alignment between Theodore Street and Gilman Springs Road at the time the roadway is constructed. The existing 115 kV line along Brodiaea Avenue may be able to be protected in place except for a few hundred feet where the transmission line intersects with the new Merwin Street, which will need to be relocated to accommodate street and storm drain channel improvements.

The existing 12 kV overhead power distribution lines along Redlands Boulevard will need to be undergrounded when the roadway is developed to its ultimate width. The existing 12 kV overhead power feeder lines located along Theodore Street and Alessandro Boulevard will need to be relocated and undergrounded as these roadway improvements take place during the development of the proposed WLC project. The existing 12 kV overhead power feeder line running south along Virginia Street to the Moreno Compressor Station (planned as Open Space) will be protected in place. The existing overhead service lines from the Theodore Street 12 kV line along Dracaea Avenue to the east and along Cottonwood Avenue to the west can be abandoned when existing on-site residences served by these facilities are abandoned. Per SCE requirements, SCE 12 kV undergrounded lines

cannot be in a common trench with MVEU facilities and require a separate underground facility with a minimum 6 feet from other utility lines.

Based on the *Technical Memorandum – Dry Utilities World Logistics Center, Moreno Valley, CA*, (Utility Specialists, October 24, 2013) prepared for the proposed WLC project, construction of the first three logistics buildings that would occur during the initial phase of construction can be served by the existing MVEU substation at Cottonwood Avenue and Moreno Beach Drive, as long as capacity is still available at that station. Subsequent buildings in Phase 1 of construction will require the expansion of this substation. The expansion that would occur to meet this demand would be the addition of two new 28 MW transformer units which can be accommodated within the existing substation property. New 12 kV underground feeder circuits, including trenching, conduit, electrical vaults, and conductors will need to be installed from the substation to the proposed WLC project site. These improvements will occur along Cottonwood Avenue, along Moreno Beach Drive, and along Alessandro Boulevard, Brodiaea Avenue, and Cactus Avenue. These improvements are expected to take place concurrently with roadway construction.

To meet the proposed WLC project's ultimate annual demand of 376,426 MW, a new 112 MW substation will be constructed within the project limits at a central location near one of SCE's 115 kV transmission lines that will feed power to the substation. The *Dry Utilities* memo for the project indicates two potential locations; the first adjacent to the SCE transmission lines along Gilman Springs Road, and the other adjacent to the SCE transmission lines along Brodiaea Avenue. Impacts of constructing the new station at either of these on-site locations may be the same.

SCE will require approximately 2 acres for a switching station near the new 112 kV substation proposed by MVEU to serve the proposed WLC project. All MVEU primary distribution conductors within the project will be installed within underground conduits and vaults within the public roadway rights-of-way or within easements as a joint trench with telephone, cable television, and natural gas. Since the installation or relocation of electrical facilities would take place concurrently with roadway construction and/or within dedicated easements, or protected in place, the construction of these facilities would not result in significant environmental effects. Previously referenced Figure 3.16 depicts the proposed electrical facilities assuming 100 percent backup electrical service to the WLC site.

SCGC has indicated that the existing 4-inch medium-pressure line underlying Redlands Boulevard and Cactus Avenue can be extended into and looped around the proposed WLC project roadway alignments to serve the proposed development. New two-inch gas lines will also be installed to accommodate the proposed WLC project's demand. No gas lines will be installed on Gilman Springs Road since all buildings will be served from the interior gas lines. Natural gas facilities will be installed in the public street rights-of-way and easements as a joint trench with telephone, cable TV and electrical services. The gas main in Eucalyptus Avenue will be on the south side of the street and in its own trench as it was not included in the common trench installed to serve the Skechers building.

Relocation of natural gas transmission lines within the proposed WLC project into public street rights-of-way and easements will be necessary to support site development and grading. These include 11,100 feet of the 30-inch gas pipeline in Cottonwood Avenue from Redlands Boulevard to Theodore Street and then southeast to Virginia Street and Alessandro Road intersection; 1,900 feet of 30-inch gas line from Gilman Springs Road at Lisa Lane southwest to Alessandro Boulevard; 1,000 feet of 16-inch gas line owned by Questar from Gilman Springs Road southwest to Alessandro Road and 4,000 feet of 16-inch gas line owned by Questar on the Maltby Avenue alignment from Merwin Street to Theodore Street. The remaining transmission gas lines are anticipated to be protected in place within the proposed streets or easements between buildings. The regulator station located at the southeast corner of Gilman Springs Road and Laurene Lane east of the proposed WLC project will need to be relocated as part of the widening of this road. The gas facility on Alessandro Boulevard

and Virginia Street will remain in place as the project develops in this area. The SDG&E natural gas compression station on Virginia Street south of the project site, known as the Moreno Compressor Station, along with a smaller facility on Virginia Street at Boadicea Avenue will be protected in place. Since the installation or relocation of natural gas facilities would take place concurrently with roadway construction and or within dedicated easements, or protected in place, the construction of these facilities would not result in significant environmental effects. Previously referenced Figure 3.16 depicts the proposed natural gas facilities.

The supply of natural gas and electricity is demand-responsive. The project proponent would be required to meet the service requirements of these utility providers, which would ensure that a less than significant impact related to the provision of power would result from development of the proposed logistics uses.

Additionally, the proposed WLC project would be required to adhere to Title 24, Part 6, of the California Code of Regulations, which identifies energy efficiency standards for residential and nonresidential buildings. These standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The most recent standards were adopted and went into effect January 1, 2011. The 2011 standards for residential and non-residential buildings are expected to reduce the growth in electricity use and reduce the growth in natural gas use. Such standards include the provision of cool roofs, demand control ventilation, skylights for day-lighting in buildings, thermal breaks for metal building roofs and lighting power limits.

Specific Plan Design Features. As noted in Section 3.5.9.1 of the Project Description, the project intends to achieve applicable elements of certification from the U.S. Green Building Council Leadership in Energy and Environmental Design (LEED), and encourages LEED Certification. The project will encourage sophisticated construction techniques that will provide pollution prevention and control such as noise, air quality, erosion and sediment controls. Both site planning and future building design will encourage current best practices for use of recycled materials and products, such as recycled steel, and crushed concrete and pavement materials. The use low-emitting VOC building materials will be used on site.

Compliance with such standards would be reviewed before the issuance of a building permit by the City. Because the proposed WLC project would be required to adhere to standards contained in Title 24 in addition to requirements set forth by the respective utility providers, development of the proposed WLC project would not result in the wasteful, inefficient or unnecessary consumption of energy.

NOTE: The following addition is in response to Comment F-13-32 in Letter F-13 from the Sierra Club et al.

The WLCSP will require extensive energy conservation measures, solar energy systems, and underground utilities to be installed on future development. In these ways, the WLC project is consistent with General Plan Objective 7.5 and Policies 7.5.1, 7.5.5, and 7.7.2.

NOTE: The following measures include many of the mitigation recommendations in Comment E-2A-25 in Letter E-2A from the City of Riverside.

Mitigation Measures. Even with implementation of the WLCSP design measures regarding energy conservation, the following specific measures are recommended to help ensure that potential impacts of the WLC project relative to energy use will remain at less than significant levels:

4.16.4.6.1A Each application for a building permit shall include energy calculations to demonstrate compliance with the California Energy Efficiency Standards confirming that each new structure meets applicable Building and Energy Efficiency Standards. The plans shall also ensure that buildings are in conformance with the State Energy Conservation Efficiency Standards for Nonresidential buildings (Title 24, Part 6, Article 2, California Administrative Code). This measure shall be implemented to the satisfaction of the Building and Safety and Planning Divisions. Plans shall show the following:

- Energy-efficient roofing systems, such as “cool” roofs, that reduce roof temperatures significantly during the summer and therefore reduce the energy requirement for air conditioning.
- Cool pavement materials such as lighter-colored pavement materials, porous materials, or permeable or porous pavement, for all roadways and walkways not within the public right-of-way, to minimize the absorption of solar heat and subsequent transfer of heat to its surrounding environment.
- Energy-efficient appliances that achieve the 2008 Appliance Energy Efficiency Standards (e.g., EnergyStar Appliances) and use of sunlight-filtering window coatings or double-paned windows.

4.16.4.6.1B Prior to the issuance of any building permits within the World Logistics Center Specific Plan, each project developer shall submit energy calculations used to demonstrate compliance with the performance approach to the California Energy Efficiency Standards to the Building and Safety and Planning Divisions that shows each new structure meets the applicable Building and Energy Efficiency Standards. Plans may include but are not necessarily limited to implementing the following as appropriate:

- High-efficiency air-conditioning with electronic management system (computer) control.
- Variable Air Volume air distribution.
- Outside air (100 percent) economizer cycle.
- Staged compressors or variable speed drives to flow varying thermal loads.
- Isolated High-efficiency air-conditioning zone control by floors/separable activity areas.
- Specification of premium-efficiency electric motors (i.e., compressor motors, air handling units, and fan-coil units).
- Use of occupancy sensors in appropriate spaces.
- Use of compact fluorescent lamps in place of incandescent lamps.
- Use of cold cathode fluorescent lamps.
- Use of Energy Star exit lighting or exit signage.
- Use of T-8 lamps and electronic ballasts where applications of standard fluorescent fixtures are identified.
- Use of lighting power controllers in association with metal-halide or high-pressure sodium (high intensity discharge) lamps for outdoor lighting and parking lots.
- Use of skylights (may conflict with installation of solar panels in some instances).

- Consideration of thermal energy storage air conditioning for spaces or hotel buildings, meeting facilities, theaters, or other intermittent-use spaces or facilities that may require air-conditioning during summer, day-peak periods.

4.16.4.6.1C Prior to the issuance of a building permit, new development shall demonstrate that each building has implemented the following:

1) Install solar panels with a capacity equal to the peak daily demand for the ancillary office uses in each warehouse building;

2) Increase efficiency for buildings by implementing either 10 percent over the 2008 Title 24's energy saving requirements or the Title 24 requirements in place at the time the building permit is approved, whichever is more strict; and

3) Require the equivalent of "Leadership in Energy and Environmental Design Certified" for the buildings constructed at the World Logistics Center based on Leadership in Energy and Environmental Design Certified standards in effect at the time of project approval.

This measure shall be implemented to the satisfaction of the Building and Safety and Planning Divisions.

4.16.4.7 Cumulative Impacts to Energy Facilities

As indicated in Section 4.16.4.6.1, the proposed WLC project would not result in significant impacts related to energy consumption with implementation of the WLC Specific Plan as proposed, and with the recommended project-specific mitigation measures. The project will adhere to Title 24, Part 6, of the CCR, which identifies state energy efficiency standards. Adherence to these energy efficiency standards would reduce the amount of energy consumed by the proposed WLC project. The WLCSP will require future development to install solar photovoltaic panels on the roof of each building to meet the electrical demand of the office portion of each warehouse building. The proposed WLC project will implement "green building" characteristics and its design will help reduce energy consumption. With these measures, the WLC project will not make a significant contribution to cumulative energy facility impacts.

5.0 OTHER CEQA TOPICS: TABLE OF CONTENTS

TABLE

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NOTE TO READERS. *Revisions have been made to this section to reflect changes in Programmatic DEIR Sections 2 through 4 in response to comments on the DEIR and as a result of changes in the WLC project.*

5.0 OTHER CEQA TOPICS

Section 15126 of the *CEQA Guidelines* requires that all aspects of a project must be considered when evaluating its impacts on the environment, including planning, acquisition, development, and operation. As part of this analysis, the EIR must also identify (1) significant environmental effects of the proposed WLC project; (2) significant environmental effects that cannot be avoided if the proposed WLC project is implemented; and (3) growth-inducing impacts.

5.1 SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROPOSED WLC PROJECT IS IMPLEMENTED

Table 5.A illustrates the significant unavoidable impacts anticipated to result from the proposed WLC project, even with implementation of the project-specific mitigation measures identified in the Section 4.0 analyses.

Table 5.A: Significant Environmental Effects Which Cannot Be Avoided

Topic	Type of Impact	Impact
Aesthetics	Scenic Vistas	The DEIR originally indicated no feasible mitigation was available to mitigate for the direct impacts associated with the loss of existing viewsheds in the area. Mitigation was modified/added to help reduce these impacts.
Aesthetics	Scenic Resources and Scenic Highways	The DEIR originally indicated no feasible mitigation was available to mitigate the changes to existing viewsheds from SR-60 and from Gilman Springs Road, both considered local scenic roads by the City. Mitigation was modified/added to help reduce these impacts. With this mitigation, these impacts are consistent with relevant General Plan policies regarding views.
Aesthetics	Substantial degradation of the existing visual character or quality of the site and its surroundings	The DEIR originally indicated no feasible mitigation was available to mitigate for the direct impacts associated with the substantial change in visual character from agriculture to high cube warehouse uses with building heights of 60 to 80 feet. Mitigation was modified/added to help reduce these impacts.
Aesthetics	Cumulative Aesthetic Impacts	The cumulative effect of development in the region will continue to result in the modification of existing viewsheds especially along SR-60. Construction of the proposed WLC project, in conjunction with other planned development, would contribute to the obstruction of existing views. Even with the revised mitigation measures, the project's cumulative impact will not be reduced to a less than significant level.
Air Quality	Construction Air Pollutant Emissions	Construction activities would result in exceedance of SCAQMD threshold for VOC, CO, NO_X, PM_{10}, and $PM_{2.5}$. Even after application of mitigation measures, estimated air pollutant emissions during construction activities would remain significant and unavoidable for NO_X, and PM_{10} and localized PM_{10} concentrations.
Air Quality	Operational Air Pollutant Emissions	No feasible mitigation is available. Estimated air pollutant emissions during operation of the project will remain significant

Table 5.A: Significant Environmental Effects Which Cannot Be Avoided

Topic	Type of Impact	Impact
		and unavoidable for VOC, CO, NO_X, PM_{10}, and $PM_{2.5}$ and localized PM_{10} concentrations.
Air Quality	Consistency with Air Quality Management Plan (AQMP)	The project will produce significant amounts of air pollutants on a daily and cumulative basis, both during construction and operation. Even with implementation of proposed mitigation, emissions will result in exceedances that are not consistent with implementation of the current AQMP.
Air Quality	Cumulative Air Pollutant Emissions	The Basin is in nonattainment for PM_{10} and ozone at the present time. Construction of the proposed WLC project, in conjunction with other planned developments within the cumulative study area, would contribute to the existing nonattainment status. Therefore, the proposed WLC project would exacerbate nonattainment of air quality standards within the SCAQMD and contribute to adverse cumulative air quality impacts.
Air Quality	Sensitive Receptors	Residents inside the project boundary could be exposed to significant short-term and long-term PM_{10} concentrations on an ongoing basis. The health effects from short-term PM exposure include irritation of the eyes, nose, throat,; coughing, and chest tightness; and aggravation of existing lung diseases. Long-term exposure can reduce lung functions; chronic bronchitis; changes in lung morphology; and/or death. Even with mitigation measures air quality impacts from the project will be significant and unavoidable.
NOTE: Climate change was removed as a cumulative impact because the project can take credit for regional GHG emission reductions from the State's cap-and-trade program involving refineries and diesel truck fuel.		
Land Use and Planning	Divide an existing neighborhood (impacts on existing residences)	The site contains seven rural residences that cannot be effectively buffered against the impacts of adjacent warehouse buildings and operations (i.e., air pollution and health risks). Mitigation was added to help reduce noise, dust and other air pollutant-related impacts on the rural residences.
Noise	Short-Term Construction Noise	Project construction will create significant noise levels for on-site uses and off site away from the project site due to construction vehicle travel.
Noise	Long-Term Traffic Noise	Residential land uses along a number of local roadways will experience noise levels that are projected to exceed City standards from project-related traffic. Potential noise attenuation improvements may not be physically or economically feasible due to building and roadway constraints.
Noise	Cumulative Noise Levels	Noise from project-related traffic and cumulative development will eventually exceed City noise standards and the project will make a substantial contribution to that cumulative impact.
Transportation	Off-Site Impacts to TUMF Facilities	These are impacts requiring improvements and changes to roads that are part of the TUMF Regional System of Highways and Arterials, some of which are under the jurisdiction of Moreno Valley and others are located in other jurisdictions. The developer shall be responsible for paying the TUMF fees in effect at the time of approval. These payments shall constitute the developer's mitigation of project impacts to this category of roads. The City shall work with the other member agencies of WRCOG to program TUMF funds to implement the mitigation measures identified in 4.15.AT through 4.15.AY pertaining to TUMF facilities outside the jurisdiction of the City of Moreno Valley. To the extent

Table 5.A: Significant Environmental Effects Which Cannot Be Avoided

Topic	Type of Impact	Impact
		that TUMF fees provided by the developer are used to implement the recommended improvements the project's impacts would be less-than-significant. However, because the City does not have direct control over TUMF funding the City cannot ensure that the identified improvements would be made. The project's impacts on these facilities must be considered significant and unavoidable.
Transportation	Off-Site Improvements to Roads Outside the Jurisdiction of the City and Not Part of the TUMF Program	These are impacts requiring improvements to transportation facilities that are under the jurisdiction of Riverside County, Caltrans, and other municipalities and that are not included in the TUMF Regional System of Highways and Arterials. The City does not have cooperative agreements with neighboring jurisdictions that would serve as a mechanism for collecting and distributing developer funds to cover the cost of cross-jurisdictions mitigation measures, other than the TUMF program. To the extent that the City is able to establish such a mechanism and the other jurisdiction constructs the recommended improvement, the project's impacts would be less-than-significant. However, because the City cannot guarantee that such a mechanism will be established and does not have direct control over facilities outside of its jurisdiction the City cannot ensure that the identified improvements would be made. The project's impacts on these facilities must be considered significant and unavoidable. Similarly, the City has not entered into an agreement with Caltrans for the collection of developer funds for improvements to the state highway system other than freeway interchange improvements funded through the TUMF program. Nor has Caltrans established a program to collect fair-share contributions to freeway improvements such as those identified in EIR Tables 4.15.AX and 4.15.BA (TIA tables 40 and 68). The City shall work with Caltrans to establish a mechanism for collecting funds from developers for use in funding needed freeway improvements. However, since at the present time no such mechanism exists that would ensure that WLC funds contributed to Caltrans or any other state agency would be used to implement specific improvements that mitigate WLC impacts, and there is no mechanism by which the City can construct or guarantee the construction of any improvements to the freeway system by itself, the project's impacts on the state highway system must be considered significant and unavoidable.

1 The DEIR originally indicated there was no mechanism for the mitigation of impacts to the loss of 25 acres of Unique Farmland and/or existing agricultural operations. The acquisition of an offsite agricultural conservation easement was added as mitigation which will reduce the project's impact to State Designated Farmland to a less than significant level.

5.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES WHICH WOULD BE CAUSED BY THE PROPOSED PROJECT SHOULD IT BE IMPLEMENTED

Section 15126(c) of the *CEQA Guidelines* mandates that the EIR must address any significant irreversible environmental changes which would be involved in the proposed action should it be implemented. An impact would fall into this category if it resulted in any of the following:

1. The project would involve a large commitment of non-renewable resources;

2. The primary and secondary impacts of the project would generally commit future generations of people to similar uses;
3. The project involves uses in which irreversible damage could result from any potential environmental incidents associated with the project; and/or
4. The project will consume large amounts of energy that are produced from non-renewable fossil fuels, although the WLC Specific Plan indicates the proposed uses will efficiently consume energy and water resources.

Determining whether the proposed WLC project may result in significant irreversible effects requires a determination of whether key resources would be degraded or destroyed in such a way that there would be little possibility of restoring them. The project site is generally marginal agricultural land; however, as identified within the City's General Plan, the City anticipates the eventual conversion of agricultural uses to urban uses and the proposed WLC project would permanently alter the site by converting predominantly agricultural uses to urban warehousing. This is a significant irreversible environmental change that would occur as a result of project implementation. Because no significant mineral resources were identified within the project limits, no significant impacts related to this issue would result from development of the project site. Natural resources in the form of construction materials would be utilized in the construction of the proposed WLC project and energy resources in the form of electricity and natural gas would be used during the long-term operation of the project; however, their use is not expected to result in a negative impact related to the availability of these resources. Existing scenic vistas were identified as being visible from the project limits. Implementation of the proposed WLC project would result in the obstruction of views of the Badlands, Mt. Russell and Mystic Lake/San Jacinto Wildlife Preserve from the nearest sensitive visual receptors and those traveling along roadways in the project vicinity. This is a significant and irreversible environmental change that would occur as a result of project implementation. Cumulatively, future development along SR-60 would also result in the obstruction of the existing views of surrounding mountains and visual features.

In addition, this logistics warehouse project, in concert with the other built or approved industrial warehouse projects to the north and west, will fundamentally change the character and land use pattern of this portion of the City. Many of the project-specific impacts are addressed, as outlined above, but the land use change represented by this and other industrial projects represents a substantial irreversible change in community character for this area.

5.3 GROWTH-INDUCING IMPACTS

The project area is largely vacant undeveloped land, although there are seven existing single-family homes in various locations on the proposed WLC project site along with associated ranch/farm buildings. The site has been farmed since the early 1900s and has supported dry (non-irrigated) farming, livestock grazing, and limited citrus groves. Much of the site continues to be used for dry farming.

The northern side of the proposed WLC project site abuts SR-60 and the eastern side abuts Gilman Hot Springs Road. Additionally, the southwestern portion of the project site is adjacent to existing single-family residential uses at the intersection of Redlands Boulevard and Alessandro Boulevard. With implementation of the General Plan Amendment and new Specific Plan, the project has the potential to induce or create conditions that would accelerate development of vacant parcels in the surrounding area from the creation of new employment opportunities and increasing the demand for goods and services.

The following changes have been made due to revision to the Specific Plan project size.

The City's population has grown steadily over the past decades. Population projections developed by SCAG estimate the City's population will reach approximately 213,700 persons by the year 2020 and approximately 255,200 persons by the year 2035. The extent to which the new jobs created by a project are filled by existing residents is a factor that tends to reduce the growth-inducing effect of a project. Construction of the proposed WLC project will create short-term construction jobs. These short-term positions are anticipated to be filled by workers who, for the most part, reside in the project area; therefore, construction of the proposed WLC project will not generate a permanent increase in population within the project area. Development envisioned under the proposed Specific Plan consists of approximately 40.6 million square feet of logistics warehouse and general warehouse facilities.

Development of the proposed high-cube logistics warehouse and general warehouse facilities will create jobs in the local economy. It is estimated that the WLCSP project would result in approximately 27,684 new job opportunities (20,300 on-site jobs plus 7,384 direct/induced jobs). The new employment opportunities resulting from development of the proposed high-cube logistics warehouse and general warehouse uses will raise the City's current jobs-to-housing ratio by providing additional jobs to local residents. While the place of residence of the persons accepting employment provided by the proposed uses is uncertain, due to the City's projected jobs/housing ratio, it is reasonable to assume that a large percentage of these jobs would be filled by persons already living within the City or project area. The project does not include a residential component. The proposed WLC project is located within an area that is currently largely vacant and planned for mix of residential, commercial, business park, and open space land uses in accordance with the General Plan Community Development Element. The proposed WLC project includes a General Plan Amendment to change the existing mix of land use designations to Logistics Development and Light Logistics. Therefore, no significant increase in population of the City would result from the development or operation of the proposed WLC project.

The *Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California* ("Study," DTA 2013) estimates that approximately 7,384 indirect/induced jobs will be created in the County, of which 3,692 jobs are projected to be within the City as a result of project implementation. While the specific location of the potential additional indirect/induced jobs created within the County cannot be specifically determined, it is reasonable to assume that a large percentage of these jobs will be support service jobs and are likely to be located in the proposed WLC project vicinity, and therefore the City. As detailed in the Study, total recurring revenues available to the City are estimated at approximately $11,272,323 per year. The greatest percentage of revenue is attributed to the Property Tax In-Lieu of Vehicle License Fee (40.1%), followed by Secured Property Tax (29.1%), and Business Receipts Tax and Licenses (10.7%). Total recurring costs to the City are estimated at approximately $5,473,736 per year. The greatest percentage of cost is attributed to the Police Services (36.4%), followed by Infrastructure and Parks Maintenance Costs (33.2%), and Fire Services (13.5%).

Project recurring annual fiscal surplus that would be available to the City is estimated at $5,798,587 which is equal to 2.06 times the project annual City General Fund costs.

The following changes have been made due to revision to the Specific Plan project size.

The project proposes to eliminate the potential for 7,700 units of residential housing planned under the Moreno Highlands Specific Plan, although this anticipated change is already included in the City's current Housing Element which has been certified by HCD. This change would incrementally reduce the population and housing growth potential for this property from that projected in the current SCAG regional growth forecast. However, the project would add 40.6 million square feet of logistics warehouse space in the eastern portion of the City. Since the City currently has a jobs-to-housing ratio substantially lower than the region (i.e., SCAG region), it is likely that much of the employment that would be generated by this project can be accommodated by the existing workforce in the City

and surrounding area. In that way, the project is growth-inducing in terms of employment. Due to relatively high vacancy rates in the City, it is also likely that the housing needs of new employees that do not already live in the City (i.e., own or rent) could largely be accommodated by the City's existing housing stock. Therefore, the proposed WLC project would only produce modest (i.e., not significant) growth inducement within Moreno Valley.

As previously noted, the specific location of the additional indirect jobs created within the County cannot be specifically determined; however, it is likely that some percentage of these jobs will be support service jobs and are likely to be located in the project vicinity. The Study assumes that one-half of these indirect jobs will be located within the City. The Study indicates that the creation of new jobs to the City will lead to more consumer spending by employees in existing retail establishments within the City, as well as new retail development that will be attracted to the City as a result of this spending. Job creation also results in increased tax revenues to the City through increased property taxes and sales taxes associated with development of the proposed WLC project. However, it is important to note that because of the difference in timing of the development of the various phases of the proposed WLC project, the number of employees summarized above will not be realized at the same time.

Development of the proposed WLC project is projected to create approximately 16,521 construction-related jobs within the City. Similar to recurring employment (i.e., permanent), it is likely that a large percentage of these jobs will be located in the general vicinity of the proposed WLC project and therefore within the City.

The proposed WLC project does not include a residential component; therefore, the jobs generated by the proposed WLC project would not need to support new households as a result of direct employment or indirect employment. Based on the potential increase in jobs (additional 20,300 direct jobs) within the City and no substantial increase in population as a result of the project, the City's jobs-to-housing ratio would improve from the existing (2011) ratio of 0.45 to 0.88, thus achieving a greater jobs-to-housing balance within the City. As development of the proposed WLC project is expected to occur over the course of many years, the jobs-to-housing ratio will not be significantly changed immediately. The City's current jobs-to-housing ratio is exceptionally low when compared to SCAG standards; therefore, the need for employment is immediate. A balance between jobs and housing within the City would have a positive impact by decreasing costs associated with commuting, traffic congestion, air pollution, and improves the standard of living. It also provides savings and a better quality of life to consumers in the operation and maintenance of automobiles, lessening commute times and saving to local public agencies in terms of the need to construct and maintain new road improvements.

Streets, water and sewer utilities, and municipal services would be extended to serve the proposed WLC project. The proposed WLC project will benefit other development projects in the project area, and therefore, could potentially induce additional business and job growth by removing an impediment to growth, such as a lack of basic infrastructure or services. However, the proposed WLC project is located proximate to other existing warehouse, commercial, and residential uses. Therefore, the project will necessitate extension of major infrastructure, however, the project will not result in substantial population growth that has not already been planned for in the City's General Plan. As the type and intensity of use proposed for the project site would be consistent once implementation of the General Plan Amendment and Zone Change take place, and because the improvements necessary for development of the site would not facilitate growth that has not been anticipated in the project area, no significant growth-inducing effect would occur, and no mitigation is required.

5.4 URBAN DECAY

A detailed analysis of potential employment and fiscal impacts of the project is provided in Section 4.13, *Population, Housing, and Employment*. This analysis concludes the proposed project is not expected to cause or contribute to any conditions of urban decay within the City of Moreno Valley.

5.5 ENERGY CONSUMPTION

A detailed analysis of energy consumption, according to Appendix F of the *CEQA Guidelines*, is included in Section 4.16, *Utilities and Service Systems*.

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6.0 ALTERNATIVES: TABLE OF CONTENTS

FIGURE

TABLES

NOTE TO READERS. *This section has been revised based on changes to the WLC Specific Plan and in response to comments on the Programmatic DEIR, mainly taking out the CDFW Conservation Buffer Area in the No Project/General Plan Alternative.*[1]

6.0 ALTERNATIVES TO THE PROPOSED PROJECT

6.1 INTRODUCTION

An EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment. In compliance with *CEQA Guidelines* Section 15126.6(a), this Draft EIR must also describe "a range of reasonable alternatives to the project, or to the location of the project which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project." The EIR need not consider every conceivable alternative; rather it must consider a reasonable range of potentially feasible alternatives to the project, or to the location of the project, which would avoid or substantially lessen significant effects of the project, even if "these alternatives would impede to some degree the attainment of the project objectives, or would be more costly" (CEQA *Guidelines Section* 15126.6(b)). The discussion of project alternatives must "include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project." An EIR must evaluate a "No Project" alternative in order to allow decision-makers to compare the effect of approving the project to the effect of not approving the project.

The City of Moreno Valley (City), acting as the CEQA Lead Agency, is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. The range of alternatives addressed in an EIR is governed by a "rule of reason," which requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. Of the alternatives considered, the EIR need examine in detail only those the Lead Agency determines could feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project. Per *CEQA Guidelines* Section 15364, "feasible" has been defined as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors."

6.1.1 Summary of the Proposed Project

NOTE: The following changes have been made due to revisions to the Specific Plan project size.

The proposed World Logistics Center (WLC) project is generally located in the eastern portion of the City in northwestern Riverside County. The project site is immediately south of SR-60, between Redlands Boulevard and Gilman Springs Road (the easterly city limit), extending to the southerly city limit. Previously referenced Figure 1.1 in the *Executive Summary* depicts the location of the proposed project within the region and the City. The major roads that currently provide access to the project site are Redlands Boulevard, Theodore Street, Alessandro Boulevard, and Gilman Springs Road.

The overall project site covers 3,818 acres in the Rancho Belago area of the City of Moreno Valley. It includes 3,714 acres of land, which is the subject of various entitlements, plus 104 acres of land affected by off-site improvements needed to support the proposed development. The proposed entitlements are summarized below.

A General Plan Amendment is proposed covering 3,714 acres, which redesignates approximately 70 percent of the area (2,610 acres) for logistics warehousing (new LD and LL zones) and the remaining 30 percent (1,104 acres) for permanent open space and public facilities. The following elements of

[1] *Comment G-95-83 in Letter G-95 from Thomas Thornsley.*

the General Plan are included in the proposed Amendment: Community Development (land use); Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and the General Plan Goals and Objectives.

A new Specific Plan (September 2014) will be adopted to govern development of the World Logistics Center for the 2,610 acres. A separate zoning amendment will also be processed and adopted to rezone 1,104 acres for open space and public facilities uses and to incorporate the Specific Plan into the City's Zoning Map.

In addition to the General Plan Amendment, Specific Plan, and Zone Change, the project includes a Tentative Parcel Map covering 1,539 acres (property owned by the project applicant, Highland Fairview) within the project site. This subdivision map is for financing purposes only and will not confer any development rights to the property owner.

The project includes pre-annexation zoning for an 85-acre parcel of land within the project area.

Finally, a Development Agreement between the City and Highland Fairview (the project applicant) is included as one of the project entitlements. The details of all the project entitlements are included in Section 3.4 of the EIR, *Project Characteristics*.

The land owned by the California Department of Fish and Wildlife (CDFW; formerly California Department of Fish and Game [CDFG]) immediately south of the WLC Specific Plan property is utilized for dry farming agriculture and forms the northern end of the San Jacinto Wildlife Area (SJWA). The SJWA contains a wide diversity of birds and other wildlife in and around Mystic Lake. The project proposes an amendment to the General Plan to designate this area as Open Space from its current residential and industrial land use designations.

6.1.2 Project Objectives

NOTE: The following changes have been made due to revisions to the Specific Plan project size.

The primary purposes of the proposed project are to 1) establish the 2,610–acre WLC Specific Plan land use designations and development standards that will direct the development of a world-class corporate park specifically designed to support the logistics warehouse and operational needs of large companies and corporate users; and 2) designate 1,084 acres of vacant land owned by the CDFW as Open Space in the City's General Plan to ensure the continued and intended purpose of the SJWA. The WLC Specific Plan outlines the following overall objectives for development proposed in the Specific Plan:

- Create substantial employment opportunities for the citizens of Moreno Valley and surrounding communities.
- Provide the land use designation and infrastructure plan necessary to meet current market demands and to support the City's Economic Development Action Plan.
- Create a major logistics center with good regional and freeway access.
- Establish design standards and development guidelines to ensure a consistent and attractive appearance throughout the entire project.
- Establish a master plan for the entire project area to ensure that the project is efficient and business-friendly to accommodate the next-generation of logistics buildings.
- Provide a major logistics center to accommodate a portion of the ever-expanding trade volumes at the Ports of Los Angeles and Long Beach.

- Create a project that will provide a balanced approach to the City's fiscal viability, economic expansion, and environmental integrity.
- Provide the infrastructure improvements required to meet project needs in an efficient and cost-effective manner.
- Encourage new development consistent with regional and municipal service capabilities.
- Significantly improve the City's jobs/housing balance and help reduce unemployment within the City.
- Provide thousands of construction job opportunities during the project's buildout phase.
- Provide appropriate transitions between on-site and off-site uses.

6.1.3 Summary of Proposed Project Significant Impacts

NOTE: The following changes have been made to the project-related significant impacts due to the revised agricultural and air quality reports (refer to Sections 4.2 and 4.3 in this EIR).

The analysis provided in Section 4.0 determined that, despite the implementation of mitigation measures, significant environmental impacts would result from the construction and operation of the proposed project. To satisfactorily provide the CEQA-mandated alternatives analysis, the alternatives considered must reduce any of the following project-related significant unavoidable impact(s):

- Aesthetics: Loss of views, scenic highways, and visual character;
- Air Quality: Short-term emissions of VOC, NO_x, CO, and PM_{10} in excess of SCAQMD daily limits during construction and localized PM_{10} concentrations;
- Air Quality: Long-term emissions of CO, VOC, $NO_{X,}$ PM_{10}, and $PM_{2.5}$ resulting from increased vehicular trips and operation of the proposed on-site uses and localized PM_{10} concentrations;
- Air Quality: Inconsistent with AQMP due to change in land uses from existing General Plan;
- Air Quality: Short-term emissions from VOC, NOx, CO, and PM_{10} cumulatively exacerbating the nonattainment of air quality standards within the Basin.
- Air Quality: Long-term emissions of ozone, PM_{10} and $PM_{2.5}$ cumulatively exacerbating the nonattainment of air quality standards within the Basin.
- Land Use: Impacts to onsite residences from adjacent warehouse development;
- Noise: On-site and off-site levels of project-related traffic noise; and
- Transportation: Project contributions to cumulatively considerable impacts to various extra-territorial facilities, various TUMF facilities, and State-controlled transportation facilities.

6.2 ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD FOR DETAILED ANALYSIS

NOTE: The following changes have been made due to revisions to the Specific Plan project size.

In determining an appropriate range of alternatives to be evaluated in the EIR, three possible alternatives were considered and rejected because they could not accomplish the basic objectives of the project as listed above or they were considered infeasible. Per the *CEQA Guidelines* (Section 15126.6(c)), factors that may be considered when addressing the feasibility of alternatives include failure to meet most of the stated project objectives, infeasibility, or inability to avoid significant

environmental effects. The purpose of the proposed project is to establish the 2,610-acre WLC Specific Plan that will result in the development of 40.6 million square feet of high-cube logistics warehouse uses and designation of 1,085 acres of vacant land owned by CDFW as Open Space. The proposed project would provide for and expand employment and revenue opportunities within the City.

The following development scenarios were considered and rejected as potential alternatives to implementation of the proposed project:

- All Residential Use Alternatives; and
- Mixed Use Alternatives that emphasize residential uses.

Based on Section 15126.6 of the *CEQA Guidelines*, these alternatives were rejected based on the criteria of not feasibly attaining most of the basic objectives of the project while reducing or avoiding any of the significant effects of the proposed project. The reason or reasons for not selecting each of the rejected alternatives are discussed below.

6.2.1 All Residential Uses[1]

A number of residential uses, including very low density (2-acre or 5-acre lots) were considered prior to deciding on all warehousing uses, but it was concluded that any residential alternatives, or alternatives that emphasized residential uses, would further exacerbate the City's jobs/housing imbalance and did not meet any of the project goals. In addition, the City's Economic Strategy Plan excludes additional residential development in this area. For these reasons, all Residential Use Alternatives were rejected for further analysis. However, an evaluation of the largely residential Moreno Highlands Specific Plan (MHSP) was provided under the No Project/Existing General Plan alternative (see below).

6.2.2 Mixed Use Alternatives

The EIR examines two Mixed Use Alternatives with varying amounts of residential and non-residential uses. The No Project-Existing General Plan Alternative is based on the approved mixed use MHSP. In addition, Alternative 3 (Mixed Use B) evaluates the impacts of substituting logistics warehouse uses for the non-residential uses currently included in the MHSP. After extensive evaluation, it was concluded that any reasonable combination of residential and non-residential uses (i.e., light industrial, business park, office, commercial) would result in impacts similar to those of the MHSP, Alternative 2 (mixed non-residential uses but no residential uses), or Alternative 3 (Moreno Highlands Specific Plan with logistics warehousing as the main non-residential use). For this reason, no other Mixed Use Alternatives were considered further in this analysis.

6.3 ALTERNATIVES ANALYSIS

NOTE: Changes were made to the project alternatives as a result of the reduction in the proposed project site by 100-acres which resulted in reductions of land uses for certain alternatives as indicated below and shown in Tables 6.A and 6.B, as well as subtraction of 910 acres from the Moreno Highlands Specific Plan due to the purchase of land by the State for conservation purposes.

[1] Ones that are exclusively residential or ones that emphasize residential uses.

6.3.1 Summary of Alternatives

The following alternatives have been identified and evaluated to provide decision-makers with a reasonable range of alternatives that would eliminate or reduce the impacts of the project. Factors considered in selecting the alternatives include site suitability, availability of infrastructure, other plans or regulatory limitations, economic viability, and whether the project proponent can reasonably acquire, control, or otherwise have access to the alternative site. An EIR need not consider an alternative whose impact cannot be reasonably ascertained and whose implementation is remote or speculative. In accordance with *CEQA Guidelines*, the alternatives considered in this EIR include those that 1) could accomplish most of the basic objectives of the project, 2) are reasonably feasible given the nature of the project and surrounding land uses, and 3) could avoid or substantially lessen one or more of the significant effects of the project. It should also be noted that alternatives proposed in the DEIR are theoretical and may never be developed even if approved. The following development scenarios have been identified as potential alternatives to implementation of the proposed project:

- No Project/No Build Alternative;
- No Project/Existing General Plan (modified Moreno Highlands Specific Plan);
- Alternative 1: Reduced Density (28 MSF or 30 percent less logistics warehousing);
- Alternative 2: Mixed Use A – Warehousing/Business Park/Office/Commercial;
- Alternative 3: Mixed Use B – MHSP with logistics warehousing; and
- Alternative Sites: Moving the project to some other available site.

Tables 6.A and 6.B summarize the alternatives. Table 6.C shows the current land use designations.

Table 6.A: Summary of Analyzed Alternatives

Project Alternative	Alternative Description
No Project/No Build ("baseline" conditions)	*The following changes have been made due to revision to the Specific Plan project size.* The proposed WLC Specific Plan would not be developed with 2,610 acres proposed for high-cube logistics warehouse. No development would occur and the majority of the site would remain in dry farming, with a small amount in rural residential uses.
No Project/Existing General Plan (modified Moreno Highlands Specific Plan)	The following changes have been made in response to comments on the DEIR. This alternative would result in development of the project with the land uses currently shown in the City's General Plan which currently designates the project area as a mix of residential, commercial, business park, and open space land uses. The 3,038-acre Moreno Highlands Specific Plan (MHSP) is a master planned, mixed-use community that originally consisted of 7,763 residential units on approximately 2,435 acres and approximately 603 acres of business, retail, institutional, and other uses. During review of the DEIR, a comment was made that the MHSP could not be built as originally approved because since that time the State had purchased 1000 acres as a buffer for the San Jacinto Wildlife Area. Therefore, the portion of the MHSP that could be built today would consist of up to 4,051 residential dwelling units on approximately 709.3 acres and approximately 603 acres of business, retail, institutional, and other uses. In addition, the 1,085 acres owned by the CDFW are currently designated as Residential, Public Facilities, and Open Space in the City's General Plan and would be designated as permanent Open Space under this alternative, similar to the proposed project.
Alternative 1 Reduced Density	*The following changes have been made due to revision to the Specific Plan project size.* This alternative would develop approximately 28 million square feet of logistics warehousing (approximately 30% less than under the proposed project) on the 2,610 acres of land under the Specific Plan, including 74.3 acres for open space. The 1,085 acres owned by the CDFW would be designated as Open Space in the City's General Plan, similar to the proposed project.

Table 6.A: Summary of Analyzed Alternatives

Project Alternative	Alternative Description
Alternative 2 Mixed Use A	This alternative would result in development of the entire property with a mix of 1,400 acres of logistics warehousing (22 million square feet), 1,000 acres of light manufacturing, assembly, or business park uses (20 million square feet), 50 acres of retail commercial uses (500,000 square feet), 100 acres of professional or medical office uses (1 million square feet), and 70 acres of open space. The 1,085 acres owned by the CDFW would be designated as Open Space in the City's General Plan, similar to the proposed project.
Alternative 3 Mixed Use B	This alternative would develop the project site similar to the land use plan of the MHSP but with 10 million square feet of logistics warehousing on the 603 acres proposed for business, retail, institutional, and other uses under the MHSP. The 1,085 acres owned by the CDFW would be designated as Open Space in the City's General Plan, similar to the proposed project.
Alternative Sites	This alternative would relocate development under the proposed project to another site of 2,610 acres in the surrounding region. This analysis included potential sites in nearby cities and several unincorporated sites in the general project area.

NOTE: The following changes to the table have been made due to revision to the Specific Plan project size.

Table 6.B: Alternatives to the World Logistics Center Specific Plan

Alternative	Logistics Warehousing	Light Industrial	Retail Commercial	Office	Other
Proposed Project	2,610 acres 40.6 MSF (100%) 0.28 FAR	0 acres 0 SF	0 acres 0 SF	0 acres 0 SF	74.3 acres Open Space
No Project/No Build (baseline)	0 acres 0 SF (0%)	0 acres 0 SF	0 acres 0 SF	0 acres 0 SF	2,610 acres Agriculture
No Project/Plan Modified Moreno Highlands Specific Plan[1]	0 acres 0 SF (0%)	361 acres (BP)	106.5 acres 1.1 MSF (various) 0.23 FAR	0 acres 0 SF	709.3 acres Residential 4,051 units 861 acres Open Space and Public Facilities
Alternative 1 Reduced Density	2,610 acres 28 MSF (70%) 0.25 FAR	0 acres 0 SF	0 acres 0 SF	0 acres 0 SF	74.3 acres Open Space
Alternative 2 Mixed Use A	1,400 acres 22 MSF (54%) 0.36 FAR	1,000 acres 20 MSF 0.46 FAR	50 acres 0.5 MSF 0.23 FAR	100 acres 1.0 MSF 0.23 FAR	70 acres Open Space
Alternative 3 Mixed Use B[2]	603 acres 10 MSF (25%) 0.38 FAR	0 acres 0 SF	0 acres 0 SF	0 acres 0 SF	1,146 acres Residential 6,532 units 861 acres Open Space and Public Facilities
Alternative Sites	2,610 acres 40.6 MSF (100%) 0.28 FAR	0 acres 0 SF	0 acres 0 SF	0 acres 0 SF	0 acres 0 SF

FAR = Floor Area Ratio (gross) M = million SF = square feet MHSP = Moreno Highlands Specific Plan BP = business park

1 See Table 6.C below ("Other" includes public facilities, cemetery, open space, etc.).

2 Assumes residential land uses similar to MHSP but with logistics warehousing on land designated for non-residential uses ("Planned Business Center") under the Specific Plan.

NOTE: the following table was revised in response to Comment G-95-83 in Letter G-95 from Thomas Thornsley.

Table 6.C: Moreno Highlands Specific Plan (Land Use Designations) modified table

Land Use	Original Acreage[1]	Modified Acreage[2]
Residential Community		
Residential (dwelling units)	1,359.3 (7,763)	709.3 (4,051)
Parks and Open Space	701.9	352.0
Neighborhood Commercial	10.0	10.0
Cemetery	16.5	16.5
Public Facilities	347.7	347.7
Subtotal Residential	**2,435.5**	**1,435.5**
Planned Business Center		
Business Park	360.8	360.8
Mixed Use	80.5	80.5
Community Commercial	16.0	16.0
Parks and Open Space	77.9	168.7
State Conservation Land (SJWA)	0.0	910.0
Public Facilities	67.4	67.4
Subtotal Non-Residential	**602.6**	**1,602.6**
Project Total	**3,038.0**	**3,038.0**

1 MHSP adopted by City Council March 17, 1992.
2 Based on removal of 910 acres purchased by the State as a buffer for the San Jacinto Wildlife Area.

6.3.2 Environmental Impacts That Are Similar to the Proposed Project

Eight of the seventeen environmental issues for all the alternatives considered would result in a similar level of impact when compared to the project. Rather than repeat a discussion of these non-significant impacts under each alternative, a summary of these impacts is presented below.

- Agricultural Resources
- Biological Resources
- Hydrology and Water Quality
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Land Use and Planning
- Mineral and Forestry Resources
- Public Services/Recreation

The level of impact associated with these topics would be similar if developed as proposed by the project or if developed with any of the alternatives. Where impacts related to any of these issues do differ among project alternatives, an appropriate discussion is provided for the respective alternative.

6.3.2.1 Agricultural and Forestry Resources

Development of any of the alternatives, with the exception of the Off-Site Alternative, would have similar agricultural-related impacts. The Moreno Valley General Plan policies and zoning designations support agriculture only as an interim use. No land in the City is designated solely for agricultural use or for agricultural preservation and no property within the City limits is located within a Williamson Act contract area. As such, no impacts related to Williamson Act land would occur with implementation of

any of the alternatives. As identified in Sections 4.2.6.1 and 4.2.6.2 of the EIR, the development of the project site with urban uses would result in the conversion of State- and locally-designated Farmland (Unique Farmland and Farmland of Local Importance, respectively). With implementation of the revised mitigation, including acquisition of an offsite conservation easement for the loss of unique farmland, impacts to agricultural resources would be reduced to less than significant levels. Therefore, compared with the proposed project, all on-site alternatives would have less than significant impacts on agricultural resources.

There are no lands within the City of Moreno Valley designated as forest or forestland, according to the Fire and Resource Assessment Program mapping system maintained by the California Department of Forestry and Fire Protection. Therefore no impacts related to forestry resources would occur and no mitigation is required.

6.3.2.2 Biological Resources

All build alternatives would require site development resulting in the grading of the entire project site. According to the project biological report, the project area does not contain any wildlife movement corridors or linkages. The project biological report concluded that development of the project as proposed would not have any significant impact on wildlife movement in the area, and would not fragment habitat or adversely affect wildlife movement through the surrounding areas. Therefore, all on-site build alternatives would also similarly have a less than significant impact on wildlife movement and corridors.

Burrowing owl, a species of concern, was identified within the southern portion of in the WLCSP project site and offsite facilities during focused surveys conducted in 2013. Based on available research and expected site conditions, the project and all on-site alternatives may create potentially significant impacts on wildlife, including listed species, from diesel particulate emissions and toxic air contaminants related to truck exhaust (although somewhat reduced by prevailing winds), increased roadkill on Gilman Springs Road and new roadkill on future local streets close to the SJWA, and increased indirect impacts from additional lighting and noise. No federal or state endangered/species were detected on the project site during the focused biological resource surveys. However, it is likely that one or more endangered or threatened species or bird or other wildlife may be present on the SJWA property near the project site at various times of the year. With implementation of the recommended Mitigation Measures 4.4.6.1A through 4.4.6.1C, impacts to listed species will be reduced to less than significant levels for all on-site alternatives.

The project site is within the Stephen's Kangaroo Rat Habitat Conservation Plan (SKR HCP) Fee Area, but is not within a Stephen's Kangaroo Rat Core Area. Focused surveys for SKR are not required for this project as it lies within the SKR Fee Area; therefore, under the SKR HCP, only payment of a local mitigation fee is required.

The project area is located within the Reche Canyon/Badlands Area of the MSHCP. Development of the project area would not conflict with the conservation goals established by the MSHCP for Cell Group X or Cell Group E. In addition, no conflict from development would occur in relation to the Reche Canyon/Badlands Area Plan, the Area Plan Subunit 4, the Area Plan Subunit 3, Proposed Core 3, or Existing Core H. No development is proposed within the portion of the project area that lies within Cell Group D and the SJWA. This area is already owned by the State and managed by the CFDW. However, development that will be adjacent to the SJWA property may cause significant indirect impacts to species within the SJWA, which will require mitigation (i.e., designing an appropriate buffer along this "urban edge" will help minimize potential impacts on the SJWA). The project is adjacent to the SJWA and is subject to the project guidelines provided in MSHCP Section 6.1.4 (Guidelines Pertaining to the Urban/Wildlands Interface). Development occurring on the project site is also required to adhere to the Best Management Practices (BMPs) found in Appendix C of the

MSHCP. The project site is not located within any Amphibian, Mammalian, or Special Linkage Areas identified by the MSHCP. The project site is in an area requiring burrowing owl surveys, is within the MSHCP Criteria Area Species Survey Area (CASSA), and is within the Narrow Endemic Plant Species Survey Area (NEPSSA); however, surveys performed for the site confirmed such plants do not exist on the project site. From available information, potential indirect impacts to avian and other biological resources within Mystic Lake and the SJWA will be reduced to less than significant levels by the creation of a 250-foot on-site setback or buffer area in Mitigation Measure 4.4.6.1A, which will be in addition to the existing setback provided by the CDFW Conservation Buffer Area just south of the proposed development area.

The MSHCP and its Implementation Agreement contain a fee mitigation program pursuant to which local agencies collect development impact fees and remit such fees to the Riverside Conservation Authority (RCA). These fees are in turn used to acquire lands that are suitable for habitat preservation for species covered by the MSHCP. Payment of the local MSHCP mitigation fee will be required of the project and all on-site alternatives prior to the issuance of building permits. Participation in the MSHCP and contribution of MSHCP fees provides compensation for the loss of raptor foraging habitat due to approved projects. Typically, a project proponent would participate as outlined in the MSHCP, so that loss of raptor foraging habitat is typically considered to be less than significant and no mitigation is required.

The project is consistent with the major MSHCP requirements relative to core areas, criteria cells, threatened and endangered species. In addition, the project complies with the MSHCP guidelines for urban/interface, riparian/riverine areas, or related buffers (with implementation of Mitigation Measures 4.4.6.1A, 4.4.6.1B, 4.4.6.2A, and 4.4.6.2B). In addition, future development will be required to demonstrate that it is also consistent with all MSHCP requirements, including indirect impacts such as lighting, noise, and air pollution effects, which shall be implemented through adherence to Mitigation Measures 4.4.6.3A through 4.4.6.3C and 4.4.6.4A through 4.4.6.4J.

With implementation of Mitigation Measures 4.4.6.1A and 4.4.6.1B, 4.4.6.2A and 4.4.6.2B, 4.4.6.3A through 4.4.6.3C, and 4.4.6.4A through 4.4.6.4J, potential impacts related to MSHCP consistency will be reduced to less than significant levels for all on-site alternatives.

A formal jurisdictional delineation (JD) was conducted within the WLCSP and offsite facilities by MBA in September 2007 and again in March 2012. A total of 15 primary drainage features were identified during these combined surveys. The 2013 JD report concludes that two drainage features (Drainage 12 and 15) have been determined to be jurisdictional waters of the U.S. under Section 404 and 401 of the CWA. Drainages 7, 8, 9, 12, and 15 were determined to be waters of the state and subject to the jurisdiction of both the CDFW and RWQCB. A number of sub-drainages or tributaries were also identified. Implementation of Mitigation Measures 4.4.6.3A through 4.4.6.3C will ensure there will be no significant impacts to Waters of the U.S. or Waters of the State as a result of future development within the project.

One catch basin and portions of Drainage Feature 7 and 9 on the project site are considered riparian/areas, as defined by the MSHCP. If impacts to any of these areas cannot be avoided, a DBESP report and relevant mitigation will be required by the RCA for the project and all on-site alternatives. The project area does not contain habitat suitable for sensitive riparian species, such as least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo. Additionally, no vernal pools or ephemeral ponds were observed on the project area and no suitable habitat for any fairy shrimp species was identified on site. The project area currently contains extensive raptor foraging habitat, which is considered a type of sensitive natural community. Impacts to the large amount of raptor foraging habitat is a significant impact that requires mitigation.

The project may have a potentially significant indirect impact on Mystic Lake from diesel fuel emissions and nitrogen deposition. However, it is anticipated that indirect impacts from diesel fuel emissions and nitrogen deposition would be reduced under all other alternatives as each would result in a reduction in the number of diesel trucks and resultant diesel emissions.

With implementation of Mitigation Measures 4.4.6.1A and 4.4.6.1B, 4.4.6.2A and 4.4.6.2B, 4.4.6.3A through 4.4.6.3C, and 4.4.6.4A through 4.4.6.4J, potential impacts to riparian habitat or other sensitive natural communities, including on-site drainages, will be reduced to less than significant levels for all on-site alternatives.

No USFWS designated Critical Habitat for any species is located within the project area; therefore, no further action with regard to Critical Habitat is necessary. Extensive surveys were completed in 2005 2010, 2012, and 2013 and concluded that Los Angeles pocket mouse was not present. However, to ensure that no impacts occur, Mitigation Measure 4.4.6.4E has been recommended.

For those species that are not covered by the take and incidental take provisions of the MSHCP (e.g., burrowing owl), the MSHCP requirements dictate that further protective action be taken. Burrowing owl, a species of concern, was identified within the southern portion of in the WLCSP project site and offsite facilities during focused surveys conducted in 2013. Because suitable habitat is present within the project area for the burrowing owl and because the species is highly mobile, a potential exists that, at some future date prior to project development, this species may occupy the development sites. This is a potentially significant impact requiring mitigation. Implementation of Mitigation Measures 4.4.6.4A through 4.4.6.4E would reduce impacts to burrowing owl and migratory bird species, and Los Angeles pocket mouse to less than significant levels for all on-site alternatives.

The only substantial differences among the built alternatives and the No Project/Existing General Plan (Moreno Highlands Specific Plan) is that any residential uses proximate to the San Jacinto Wildlife Area may incrementally increase adverse impacts by introducing domestic dogs and cats into the area that might prey on native wildlife.

6.3.2.3 Cultural Resources

Development of any of the identified build alternatives would result in extensive ground-disturbing activities affecting the entire project site, and similar cultural resource impacts would be anticipated when compared to the proposed project. There is no evidence to suggest that the project site has ever been utilized for human burials. In the unlikely event that human remains are discovered during grading or construction activities within the project site, compliance with State law (Health and Safety Code § 7050.5) (HSC § 7050.5) would be required. Compliance with existing State law would ensure that impacts related to the discovery of buried human remains would be less than significant and no mitigation is required. The *Cultural Resources Assessment* prepared for the proposed project concluded that it is possible that unknown cultural resources could be discovered during project-related construction. Adherence to Mitigation Measures 4.5.6.1A through 4.5.6.1E will reduce potential impacts to archaeological resources to less than significant levels for all on-site alternatives.

Mitigation Measure 4.5.6.1A requires surveying the seven occupied residential parcels for archaeological resources since these properties could not be surveyed at the time the EIR was prepared. These surveys will identify the potential for significant historical resources on these properties. In addition, Mitigation Measure 4.5.6.2A will further reduce the potential impacts of the project on historical resources for all on-site alternatives.

As described in the *Paleontological Resources Assessment*, no paleontological resources were observed during the field survey. However, the project site is considered to have a moderate paleontological sensitivity; therefore, impacts are considered potentially significant and mitigation is

required. Adherence to Mitigation Measures 4.5.6.3A and 4.5.6.3B will reduce potential impacts to paleontological resources to less than significant levels for all on-site alternatives.

6.3.2.4 Geology and Soils

Development of any of the on-site build alternatives would have similar geologic and soil-related impacts. Although no active faulting was observed, some local discontinuous fracturing was observed and documented. The A-P Earthquake Fault Zone is located on the eastern border of the project site (refer to Figure 4.6.1 of the EIR). Adherence to Mitigation Measures 4.6.6.1A through 4.6.6.1C, as well as other requirements identified and required by the City, will ensure fault rupture hazards are reduced to a less than significant level for all on-site alternatives.

The level of potential ground motion is considered moderate to high in the City of Moreno Valley and, therefore, in the project area. In accordance with the City's General Plan Safety Element (Objective 6.1),[1] project development, as well as alternatives, will require geological and geotechnical investigations by State-licensed professionals. The geotechnical investigations will provide design considerations and earthwork recommendations to ensure that ground shaking impacts are appropriately mitigated. In addition, California Code of Regulations (CCR), Title 24, also known as the California Building Standards Code, contains building design and construction requirements relating to fire and life safety, and structural safety. The California Building Code (CBC) also includes standards designed to ensure that structures within California are built to withstand expected levels of seismic activity for each earthquake region throughout the State. Adherence to Mitigation Measure 4.6.6.2A, as well as other requirements identified and required by the City, will ensure ground shaking hazards are reduced to a less than significant level for all on-site alternatives.

On-site soils are identified as having a moderate to low shrink-swell potential. Implementation of Mitigation Measures 4.6.6.3A through 4.6.6.3D, and adherence to actions identified in subsequent geotechnical investigations, as well as other requirements identified and required by the City, will ensure that the potential impact from expansive soils are reduced to a less than significant level for all on-site alternatives.

NOTE: The following changes have been made due to revision to the Specific Plan project size.

A large older landslide has been mapped primarily off site on the northeasterly flanks of Mount Russell, near the southwest portion of the property. The landslide appears to have originated on the higher slopes off site and moved northeast, partially onto the subject property. The Specific Plan designates 74.3 acres in the southwestern portion of the property as open space. This 74.3 acres includes the steepest slopes on site (i.e., the Mount Russell foothills), which will reduce the potential for significant landslide or rockfall impacts on the project to less than significant levels; therefore, no mitigation is needed. Because this condition exists, it is anticipated that all other on-site alternatives would also restrict development within this area resulting in a less than significant impact, similar to the proposed project.

Development of the site would require the movement of on-site soils. Portions of the site have been and are being used for dry farming, and several rural residences are present. Prior to the issuance of grading permits, the project proponent will be required to prepare and submit detailed grading plans as each phase is developed. These plans will be prepared in conformance with applicable standards of the City's Grading Ordinance. Soils covering the project site have a slight-to-high erosion hazard potential and because the project would be required to adhere to the City's Grading Ordinance, obtain an NPDES Permit, prepare an SWPPP and a WQMP, construction and operational impacts

[1] Moreno Valley General Plan, Chapter 9 Goals and Objectives, pg. 9-30.

associated with soil erosion hazards are considered to be less than significant for all on-site alternatives, and no mitigation is required.

Septic tanks would not be used under any of the on-site alternatives as existing sewer infrastructure is readily available to serve any on-site development.

None of the on-site alternatives propose any activity known to cause damage by subsidence (e.g., oil, gas, or groundwater extraction). The project site is underlain by relatively dense alluvial and dense sedimentary bedrock materials at depth and the potential for settlement is considered low. Because the project site does not exhibit characteristics of a high potential for subsidence or settlement, impacts are considered less than significant. No mitigation is required.

The potential for liquefaction generally occurs during strong ground shaking within relatively cohesionless loose sediments where the groundwater is typically less than 50 feet below the surface. Because the project site does not exhibit characteristics of a high potential for liquefaction induced settlement (i.e., relatively dense soils with groundwater levels in excess of 100 feet), impacts are considered less than significant for all on-site alternatives. No mitigation is required.

6.3.2.5 Hazards/Hazardous Materials

Development of the any of the on-site build alternatives would result in the on-site handling of hazardous substances, both during project construction and operation. It is assumed that, like any current use, these substances would continue to be used in accordance with applicable local, State, and Federal standards. There are no existing or proposed schools within a quarter mile of the proposed project site and the site is not identified on the DTSC's hazardous materials sites. Air traffic-related hazards would not occur at the proposed project site as it is not located within the safety hazard zones of March Air Reserve Base.

A portion of the project area is mapped as a very high fire hazard area, while the Badlands directly east of the project area are considered a High Fire Hazard Area.[1] Development of the eastern portion of the project could expose persons or property to wildland fire risks given the designation of a portion of the project area as a Very High Fire Hazard Area. Regardless of these designations, all new structures in the project area must be constructed in compliance with Title 24 of the California Code of Regulations to safeguard life and property from fire hazards, including the installation of automated fire suppression systems. Compliance with these standards would be enforced during building permit review and the construction inspection period for all on-site alternatives. Given the proximity of Station #58 and with all new structures constructed in compliance with Fire and Building Code regulations, the susceptibility and exposure of the project to wildland fires would be limited. The WLCSP addresses potential impacts related to future fire protection services for this area by including a new fire station site. In addition, buildings will be setback from the western side of Gilman Springs Road due to the location of the San Jacinto Fault through this area, which will further reduce the potential for project fire risks. Implementation of these measures will help reduce potential wildland fire risks to a less than significant level, and no additional mitigation is required.

All on-site alternatives will be designed, constructed, and maintained in accordance with applicable standards associated with vehicular access, ensuring that adequate emergency access and evacuation will be provided. Construction activities that may temporarily restrict vehicular traffic would be required to implement appropriate measures to facilitate the passage of persons and vehicles through/any required road closures. Compliance with existing regulations for emergency access and

[1] Letters from Fire Chief dated May 4 and June 27, 2011, and City of Moreno Valley General Plan, Final Program EIR, Section 5.5 Hazards, Figure 5.5-2.

evacuation will ensure that impacts related to this issue are less than significant, and no mitigation is required.

Due to the suspected age of the rural residential structures on the site, it is possible that demolition of these structures may involve asbestos-containing materials (ACMs) and/or lead-based paint (LBP). Demolition of these structures may need to be supervised or conducted by contractors certified to remove and dispose of ACMs and/or LBP.

In addition, Alternatives 1, 2, and 3 include a liquefied natural gas/compressed natural gas (LNG/CNG) fueling station to be constructed somewhere in the Logistics Development (LD) land use area. This LNG/CNG facility is referred to as "logistics support" in the WLC Specific Plan. It would sell natural gas to fuel vehicles serving or visiting the project. This facility is not proposed under the No Project/No Build Alternative or the No Project/Existing General Plan Alternative. Since this facility would store natural gas under liquefied and/or compressed conditions, there is a potential for fire and/or explosion, creating a potentially significant hazards impact requiring mitigation.

With implementation of Mitigation Measures 4.8.6.1A and 4.8.6.1B, impacts associated with potential hazardous materials in existing rural residential structures (all on-site alternatives) or from the proposed fueling facility will be reduced to less than significant levels for Alternatives 1, 2, and 3.

6.3.2.6 Hydrology and Water Quality

As with the proposed project, the development of any of the on-site alternatives would require the modification of the existing on-site pattern of drainage and would require the installation of drainage improvements that may include on-site collection/routing pipes, landscaped swales, sand filters, and porous pavement features.[1] While the extent of the impermeable surfaces (rooftops, driveways, parking areas, etc.) required under each alternative is reduced from that required for the proposed project, the environmental impact of these improvements would be similar. All local, State, and Federal policies and regulations pertaining to surface water and groundwater resources would remain in effect under these alternatives. Sedimentation and erosion from any on-site development has the potential to affect water quality. Similar to the proposed project, the construction of any on-site use would be required to follow applicable NPDES requirements, including the preparation of and adherence to an SWPPP and BMPs.[2] These requirements have been incorporated as Mitigation Measures 4.9.6.1A through 4.9.6.1C (refer to Section 4.9.6.1 of the EIR) and Mitigation Measures 4.9.6.2A through 4.9.6.2C (refer to Section 4.9.6.2 of the EIR). As with the proposed project, runoff from paved surfaces, especially during "first-flush" events, may be contaminated by sediment, debris, and other contaminants. A standard condition with any such development would be preparation and implementation of a Water Quality Management Plan, which would effectively mitigate post-construction water quality impacts from the developed area. This requirement has been incorporated as Mitigation Measure 4.9.6.2A (refer to Section 4.9.6.2 of the EIR). The project site is not identified as a groundwater recharge area, so none of the on-site alternatives would interfere with groundwater recharge. Anticipated on-site flows would be routed to the onsite and off-site water quality features such as vegetated swales, clarifiers, and sand filters to protect downstream water quality.

New development is required to maintain off-site flows to below or equal to pre-development conditions, and this is incorporated as Mitigation Measure 4.9.6.1A (refer to Section 4.9.6.1). The project site is not located within a flood zone and the project site is not susceptible to mudslides, tsunamis, seiches, or flooding as a result of dam or levee failure. Similar to the proposed project,

[1] *Draft Master Plan of Drainage Report for World Logistics Center Specific Plan and Environmental Impact Import,* CH2MHILL, September 2014.
[2] *Preliminary Water Quality Management Plan for World Logistics Center Specific Plan,* CH2MHILL, September 2014.

potential impacts related to hydrology and water quality would be less than significant for all on-site alternatives.

6.3.2.7 Land Use and Planning

Like the proposed project, these alternatives would comply with applicable provisions of local and regional plans (e.g., Water Quality Control Plan and Air Quality Management Plan). However, the proposed project was not included as part of the 2007 AQMP and is considered to not be consistent with the AQMP. This is a significant and unavoidable impact. Compliance with applicable City policies related to development within the project site would ensure that on-site alternative uses would be compatible with existing development in the project area. Land uses associated with less intense alternatives may have less impact on existing on-site land uses compared to the proposed project, depending on the types of uses proposed.

6.3.2.8 Mineral Resources

There are no lands within the City of Moreno Valley designated by the California Department of Conservation as known significant resource areas, defined by the state as Mineral Resources Zone 2 areas. As identified in the City's General Plan, lands within the City of Moreno Valley and its Sphere of Influence are designated MRZ-3 and MRZ-4 zones, which are not defined as significant mineral resource areas. Development of the project site with any build alternatives would not result in the loss of or reduce the availability of mineral resources or the resource base from which they would be derived. Compared with the proposed project, no greater impact would occur for any of the on-site project build alternatives.

6.3.2.9 Public Services/Recreation

As with the proposed project, none of the build alternatives would include a residential component (with the exception of the No Project/Existing General Plan Alternative) and potential jobs generated by the build alternatives would be filled to some degree by people already residing in the City, similar to the proposed project. Therefore, there would be no increase in existing population and no increase in demand for park and recreation facilities resulting from development of Alternatives 1 or 2. Alternative 3 would have increased population from new housing under the MHSP land use plan; it would also have parks to serve those new residents. Because no increase in demand for City recreational facilities would occur, impacts associated with recreation for any of the build alternatives would be similar in magnitude as the proposed project. Compared with the proposed project, no greater impact would occur for any of the project build alternatives.

6.3.3 Description and Impact Analysis of Alternatives

The following discussion compares the impacts of each alternative with the impacts of the proposed project, as detailed in Sections 4.1 through 4.16 of this EIR. A conclusion is provided as to whether each alternative would result in one of the following:

- Reduction or elimination of the impact;
- A greater impact than the project;
- The same impact as the project; or
- A new impact in addition to the impacts of the proposed project impacts.

6.3.4 No Project/No Build Alternative

NOTE: The following changes have been made due to revision to the Specific Plan project size.

Under the No Build Alternative, no development would take place within the project limits. No ground-disturbing activities would take place, nor would any form of structure or facility be erected. Impacts associated with this alternative, when compared to the proposed project, would not occur. In the absence of development, no impacts would occur and this alternative would be the environmentally superior alternative. However, prohibiting development of the site, as suggested by this alternative, would not fulfill any of the primary objectives of the proposed project. Retention of the project site in its current condition would not create a high cube logistics facility consisting of approximately 2,610 acres of high-cube warehouse uses and it would not expand employment opportunities within the City and surrounding area. This alternative provides a baseline comparison to the proposed project.

Impact Analysis. The No Project/No Build Alternative would not result in any new physical environmental effects. However, this alternative would not meet any of the project objectives as identified in Table 6.D.

Note: The objectives outlined in this table did not correspond to the Project Objectives outlined in the Project Description of the DEIR, therefore, they are being corrected at this time.

Table 6.D: Comparison of No Project/No Build Alternative to the Project Objectives

Project Objectives	Does the Alternative Meet the Project Objectives?
Create substantial employment opportunities for the citizens of Moreno Valley and surrounding communities.	No
Provide the land use designation and infrastructure plan necessary to meet current market demands and to support the City's Economic Development Action Plan.	No
Create a major logistics center with good regional and freeway access.	No
Establish design standards and development guidelines to ensure a consistent and attractive appearance throughout the entire project.	No
Establish a master plan for the entire project area to ensure that the project is efficient and business-friendly, accommodating the next-generation of logistics buildings.	No
Provide a major logistics center to accommodate a portion of the ever-expanding trade volumes at the Ports of Los Angeles and Long Beach.	No
Create a project that will provide a balanced approach to the City's fiscal viability, economic expansion, and environmental integrity.	No
Provide the infrastructure improvements required to meet project needs in an efficient and cost-effective manner.	No
Encourage new development consistent with regional and municipal service capabilities.	No
Significantly improve the City's jobs/housing balance and help reduce unemployment within the City.	No
Provide thousands of construction job opportunities during the project's buildout phase.	No
Provide appropriate transitions or setbacks between on-site and off-site uses.	No

6.3.5 No Project/Existing General Plan Alternative

This section has been revised in response to Comment G-95-83 in Letter G-95 from Thomas Thornsley. The CDFW Conservation Buffer Area (approximately 1,000 acres) has been removed from this alternative analysis. The 1,000 acre CDFW Conservation Buffer Area is approximately 33 percent of the existing General Plan. Therefore, this analysis was revised by reducing impacts estimated in the original DEIR by approximately 33 percent.

Pursuant to CEQA (§15126.6[e][2]), the No Project Alternative should discuss what would reasonably be expected to occur, based on current plans and consistent with available infrastructure and community services, in the foreseeable future. It is reasonable in the event the proposed project were not approved, the site would be developed in accordance with the existing General Plan land uses in the future.

The No Project/Existing General Plan Alternative would result in development of the project with the land uses currently shown in the City's General Plan. The City's General Plan currently designates the project area as a mix of residential, commercial, business park, and open space land uses in accordance with the MHSP. The approved 2,038-acre MHSP (without the CFDW Conservation Buffer Area) is a master planned, mixed-use community, consisting of up to 4,051 residential dwelling units on approximately 1,435 acres and approximately 603 acres of business, retail, institutional, and other uses. The 1,085 acres owned by the CDFW are currently designated as Residential, Public Facilities, and Open Space in the City's General Plan however, as it is owned by the CDFW, this area would not be developed and the property will not remain with these designations as part of this alternative.

The following impact analysis for this alternative evaluates the same seventeen environmental topics addressed for the proposed project as contained in Sections 4.1 through 4.16 of this EIR.

Impact Analysis. Eight environmental issues would have impacts similar to those identified for the proposed project. These include the following:

- Agricultural and Forestry Resources
- Cultural Resources
- Biological Resources
- Geology and Soils
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Recreation

Impacts associated with these topics would be similar to the proposed project because development of the site under the No Project/Existing General Plan Alternative would result in a similar footprint of development. For this reason, impacts to these land-oriented impact topics would be similar resulting in the same level of impact. The remaining environmental issues would, in some cases, result in similar impacts, but would be different enough to be discussed separately.

Aesthetics: The No Project/Existing General Plan Alternative would introduce a variety of residential and non-residential buildings on the site that would be much lower in height than the proposed WLC project in conformance with City Development Code standards. As a result, views of surrounding uplands from adjacent roadways (e.g., Redlands Boulevard, SR-60, and Gilman Springs Road) would not be blocked and aesthetic impacts would likely be less than significant, subject to architectural and design review of actual proposed buildings in the future. Development under this alternative would reduce potential aesthetic impacts to less than significant levels.

Air Quality: The No Project/Existing General Plan Alternative would require site grading and construction similar to that required of the proposed project. As identified in Section 4.3 of this EIR, short-term construction emission impacts associated with construction activities on the project site

were significant and unavoidable for all criteria pollutants with the exception of SO_X. Since the No Project/General Plan Alternative would require that the same amount of land be graded, it would require similar grading and construction activities on site. Therefore, it is reasonable to anticipate that short-term construction emission impacts would also be significant and unavoidable for all criteria pollutants, with the exception of SO_X, under this alternative. Air quality impacts associated with the remaining criteria pollutants would significant and unavoidable with this alternative, similar to what was identified for the proposed project.

Under the No Project/Existing General Plan Alternative, the site would be developed with approximately 361 acres of business park uses, 106.5 acres of professional/medical office uses, and up to 4,051 residential units on 709.3 acres. Based on these land uses, the No Project/Existing General Plan Alternative would generate approximately 119,667 daily vehicle trips. The total trip generation associated with this alternative is approximately 72 percent higher than that identified for the proposed project.

Similar to the proposed project, the traffic increase under this alternative contributes to significant and unavoidable emissions of CO, VOC, NO_x, PM_{10}, and $PM_{2.5}$ based on SCAQMD daily air quality significance thresholds. Therefore, this alternative would also have significant and unavoidable impacts on local air quality. The long-term air quality impacts resulting from this alternative would still contribute criteria pollutants to an air basin that is in nonattainment for these criteria pollutants, similar to the proposed project. As identified in Table 6.E, long-term operational air pollutant emissions associated with the No Project/Existing General Plan Alternative would exceed SCAQMD emissions thresholds for all criteria pollutants, with the exception of SO_X.

When compared with the proposed project, emissions of NOx and PM_{10} associated with the No Project/Existing General Plan Alternative would decrease and emissions of CO and VOC would increase. $PM_{2.5}$ emissions are similar for both the project and the No Project. Similar to the proposed project, the generation of these emissions would still result in a cumulative contribution of air pollutants in a nonattainment basin; therefore, impacts remain significant and unavoidable.

Note: The air pollutant and greenhouse gas emissions for this alternative were revised, as the dwelling units assumed in the DEIR (7,283 units), was changed to 4,051 units. In addition, the home-work trip length was increased from 10 miles to 27 miles (see the 2015 Air Quality, Greenhouse Gas, and Health Risk Assessment Report).

Table 6.E: No Project/Existing General Plan Alternative Operational Emissions

Source	Pollutant Emissions, lbs/day					
	CO	VOC	NO_X	SO_X	PM_{10}	$PM_{2.5}$
Proposed Project (mitigated; without existing)	1,396	593	1,097	NA	1,121	304
No Project/Existing General Plan	3,494	765	712	14	973	300
Net Change (no project minus proposed)	+2,098	+172	-385	NA	-148	-4
SCAQMD thresholds	**550**	**55**	**55**	**150**	**150**	**55**
Alternative exceeds thresholds?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**

Source: Air Quality, Greenhouse Gas, and Health Risk Assessment Report, 2015

Global Climate Change: GHG emissions associated with the No Project/Existing General Plan Alternative are correspondingly decreased as this alternative does not include a logistics warehouse component. As identified in Table 6.F, the No Project/Existing General Plan Alternative would

generate metric tons of 2,601 uncapped CO_2 equivalent[1] (mt CO_2e), which is approximately 58 percent less than what was identified for the proposed project.

Table 6.F: Comparison of Greenhouse Gas Emissions

Type of Development	AB 32 Capped Annual Mitigated $MTCO_2e$ Emissions	Uncapped Annual Mitigated $MTCO_2e$ Emissions	Change from Uncapped Project Emissions
Proposed Project	372,073	6,210	0%
No Project/No Build[1]	59	0	-100%
No Project/General Plan[2]	264,089	2,601	-58%
Alternative 1: Reduced Density	260,451	4,347	-30%
Alternative 2: Mixed Use A	574,763	6,856	+10%
Alternative 3: Mixed Use B	222,235	2,925	-53%
Alternative Sites	372,073	6,210	0%

$MTCO_2e$ is metric tons of carbon dioxide equivalents, which is a standard unit of measure for greenhouse gases.
[1] Estimated based on existing tractor uses.
[2] Based on approved Moreno Highland Specific Plan.
Source: *Air Quality, Greenhouse Gas, and Health Risk Assessment*, 2015 (see Appendix D); construction emissions excluded.

Hazards and Hazardous Materials: Development of the No Project/Existing General Plan Alternative would still result in the on-site handling of hazardous substances, both during project construction and operation. It is reasonable to assume that, like any current use, these substances would continue to be used in accordance with applicable local, State, and Federal standards. Impacts associated with the transport or use of hazardous materials or potential upsets or accidents would not be increased in magnitude because the intensity of development is still below what is envisioned under the proposed project. Therefore, it is not expected that increased quantities of hazardous materials would be present on site. With the adherence to existing hazardous materials regulations, impacts associated with hazards and hazardous materials under the No Project/Existing General Plan Alternative would remain less than significant.

Under this alternative, a liquefied natural gas/compressed natural gas (LNG/CNG) fueling station would not be constructed on the site, so there would be no potential for fire and/or explosion involving natural gas. Therefore, this impact is reduced from that identified under the proposed project.

Noise: The No Project/Existing General Plan Alternative would result in the construction of a mix of residential, commercial, business park, and open space land uses in accordance with the MHSP. As identified in Section 4.12 of this EIR, short-term construction noise impacts associated with the development of the project site were significant and unavoidable for both on-site and off-site uses. Since the No Project/Existing General Plan Alternative would require similar site development during construction, short-term construction noise impacts would also be significant and unavoidable and similar in magnitude compared to the proposed project. The increase in project-related traffic under the No Project/Existing General Plan Alternative would result in an increase in traffic-related noise. When compared to the proposed project, noise impacts associated with the No Project/Existing General Plan Alternative would be increased in magnitude as there would be a reduction in vehicles.

[1] Carbon dioxide equivalent (CO_2e) is an internationally accepted measure that expresses the amount of other greenhouse gases (e.g., methane and nitrous oxide) in terms of the amount of carbon dioxide (CO_2). The CO_2e measure is used as a way to measure the warming potential of a greenhouse gas as compared to CO_2.

However, impacts would remain significant and unavoidable as some noise would still be generated under this alternative and there is no feasible mitigation to reduce noise impacts.

Population and Housing: The No Project/Existing General Plan Alternative would result in the development of up to 4,051 residential dwelling units on 709.3 acres and approximately 603 acres of business, retail, institutional, and other uses. Based on the California Department of Finance Population and Housing Estimates,[1] the City of Moreno Valley is estimated to have approximately 3.783 persons per household. Based on this figure, the construction of up to 4,051 residential dwelling units is projected to increase the City's population by approximately 15,325 persons resulting in a direct population increase in the City. This level of population growth is not accounted for with the proposed project and potential impacts related to population growth are greater than that identified for the proposed project. Construction of the development envisioned under this alternative would create temporary construction jobs, and some portion of these jobs would be likely filled by people already residing within the City. Utilizing an employment factor of one employee for every 629 square feet of commercial retail/service space,[2] the No Project/Existing General Plan Alternative is anticipated to generate approximately 1,749 commercial service jobs.[3] Utilizing an employment factor of one employee for every 1,548 square feet of business park (light industrial) space,[4] the No Project/Existing General Plan Alternative is anticipated to generate approximately 5,103 business park jobs.[5] Under this alternative, additional jobs would be generated by the introduction of commercial retail/service uses (addition of 1,749 jobs) and business park uses (addition of 5,103). When this alternative is compared to the proposed project, the number of new jobs in the City would be a 72 percent decrease from the proposed project (6,852 jobs opposed to approximately 24,000 jobs).

The No Project/Existing General Plan Alternative would result in a decreased number of jobs created from the development of commercial retail/service and business park uses in comparison to the proposed project. However, a large influx of new residents to the City is anticipated due to the construction of up to 4,051 residential dwelling units envisioned by this alternative. The project would not directly affect population growth as compared with new residential development, because it is not creating homes. While the proposed project would generate employment opportunities, the jobs created are not expected to induce substantial growth in the City or region over and above the growth anticipated by the City's General Plan and the SCAG's regional growth forecasts. Population and housing impacts under this alternative would be greater in magnitude when compared to the proposed project. Therefore, impacts associated with this issue would be greater.

Public Services: Unlike the proposed project, demands on schools, parks, other public facilities, law enforcement, and fire protection services would be greater in magnitude as residential uses (impacts to schools and parks) are proposed under this alternative. Like the proposed project, development under this alternative would require payment of development impact fees for schools, police services, and fire services. The payment of development impact fees would be expected to offset impacts to these public services that would result from the development of this alternative. Therefore, when compared to the proposed project, impacts associated with public services would remain less than significant with the payment of development impact fees and increased property tax revenues.

Unlike the proposed project, the No Project/Existing General Plan Alternative proposes the construction of residential uses. Therefore, implementation of this alternative would result in an

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1 State of California, Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011 and 2012, with 2010 Benchmark.* Sacramento, California, May 2012.

2 *Table IIB Average Number Employee per Square Foot, Employment Density Report*, Southern California Association of Governments, Natelson Company, Inc, October 2001.

3 Utilizing 1 employee/629 square feet of service use × 1,100,000 square feet of commercial retail/service use = 1,749 jobs.

4 *Table IIB Average Number Employee per Square Foot, Employment Density Report*, Southern California Association of Governments, Natelson Company, Inc, October 2001.

5 1 employee/1,548 square feet of business park (light industrial) use × 7,900,000 square feet of service use = 5,103 jobs.

increase in existing population and a corresponding increase in demand for park and recreation facilities resulting from development. Because a potential increase in demand for recreational facilities would occur, impacts associated with recreation for this alternative would be greater in magnitude as compared to the proposed project, but would still be expected to be less than significant with the provision of parkland and open space as part of the alternative project, increased property tax revenues, and payment of park fees as applicable.

Traffic: As indicated in Table 6.G, the No Project/Existing General Plan Alternative would generate approximately 119,668 daily vehicle trips. Compared to the proposed project, the No Project/Existing General Plan Alternative, which assumes development of existing General Plan uses, would result in an increase of 72 percent of daily traffic trips. The increase in traffic may cause an existing intersection or roadway segment to operate at a deficient LOS. While significant traffic impacts may occur under this alternative, these impacts would be mitigated in a manner similar to those of the proposed project. However, despite the identification of mitigation measures, certain freeway segments and interchange improvements would not be under the jurisdiction of the City and cannot be guaranteed to be in place when development under this alternative would become operational. Therefore, when compared to the proposed project, traffic impacts would be greater due to the additional trip generation. However, the resulting impact significance would be similar and would remain significant and unavoidable until the improvements are in place.

Table 6.G: Comparison of Average Daily Trips

Type of Development	Average Daily Trips	Change
Proposed Project[1]	69,542	
No Project/No Build	314	-99.6%
No Project/Existing General Plan[2]	119,668	+72%
Alternative 1: Reduced Density	48,321	-28%
Alternative 2: Mixed Use A	208,988	+201%
Alternative 3: Mixed Use B	78,985	+14%
Alternative Sites	69,542	0%

[1] Based on WLC project traffic study by Parsons Brinckerhoff dated September 2014.
[2] Based on modified Moreno Highland Specific Plan (see Table 6.C).
Source: Parsons Brinckerhoff estimates based on project traffic study, September 2014 (see Appendix D).

Utilities and Service Systems: Existing utility infrastructure for storm water and wastewater is present in adjacent roadways or parcels. Like the proposed project, the applicant would connect to existing utility infrastructure subject to the terms and conditions of the City, EMWD, and RCFCWCD. As indicated in Table 6.H, the No Project/Existing General Plan Alternative would generate approximately 1,569,083 gallons of wastewater per day, which is almost nine times the amount of wastewater that would be generated by the proposed project. Similar to the proposed project, development under this alternative would be required to pay infrastructure fees and obtain approval from the wastewater treatment provider that would ensure there is excess capacity for the wastewater that would be generated by the proposed development. Therefore, impacts related to wastewater and wastewater treatment would remain less than significant when compared to the proposed project.

Table 6.H: Comparison of Average Wastewater Generation

Type of Development	Gallons per day
Proposed Project	286,459
No Project/No Build	2,156
No Project/Existing General Plan (MHSP)	1,569,083
Alternative 1: Reduced Density	198,376

Table 6.H: Comparison of Average Wastewater Generation

Type of Development	Gallons per day
Alternative 2: Mixed Use A	1,830,000
Alternative 3: Mixed Use B	1,681,656
Alternative Sites	286,459

Source: EIR Section 16 and Sewage Generation Rates, Draft CEQA Thresholds Guide, 2006.

The development of the existing General Plan land uses associated with this alternative would also require the installation of water supply infrastructure to serve the project site. As indicated in Table 6.I, the No Project/Existing General Plan Alternative would require approximately 4,888,456 gallons of water per day, which is almost three times what would be required by the proposed project. When compared to the proposed project, water usage demands would be substantially increased in magnitude.

Table 6.I: Comparison of Average Water Use

Type of Development	Gallons per day
Proposed Project	1,761,260
No Project/No Build	5,569
No Project/Existing General Plan (MHSP)	4,888,456
Alternative 1: Reduced Density	1,202,011
Alternative 2: Mixed Use A	3,420,000
Alternative 3: Mixed Use B	5,196,801
Alternative Sites	1,761,260

Source: DEIR Section 16 and *Water System Planning and Design Principle Guidelines Criteria,* Eastern Municipal Water District, February 2006.

Like the proposed project, the No Project/Existing General Plan Alternative would also generate solid waste. As identified in Table 6.J, this alternative would generate 17,494 tons of solid waste per year, which is 47 percent less than what the proposed project would generate. Therefore, demands on solid waste services and landfill capacity would be decreased in magnitude. Similar to the proposed project, development under the No Project/Existing General Plan Alternative would be required to adhere to the provisions of the solid waste provider that would service the project site. When compared to the proposed project, solid waste impacts under this alternative would remain less than significant.

Table 6.J: Comparison of Average Solid Waste Generation

Type of Development	Tons per year
Proposed Project	37,016
No Project/No Build	125
No Project/Existing General Plan	17,494
Alternative 1: Reduced Density	30,786
Alternative 2: Mixed Use A	481,344
Alternative 3: Mixed Use B	116,880
Alternative Sites	37,016

Source of proposed project and alternative sites: Table 10.1 of the CalEEMod manual
Source: DEIR Section 16 and *Estimated Solid Waste Generation Rates,* California Integrated Waste Management Board, http://www.ciwmb.ca.gov/WASTECHAR/WasteGenRates/Commercial.htm, website accessed December 3, 2012.

Cumulative Impacts: Similar to the proposed project, this alternative would contribute toward the permanent conversion of farmland, air quality operational emissions, short-term and long-term noise impacts, and increased traffic operations on local roadways and at local intersections. Although this alternative would have a greater amount of traffic, the amount of operational emissions would be

reduced in magnitude from that identified for the proposed project as this alternative does not include a logistics warehouse component. Because there are no feasible mitigation measures to reduce the cumulative impacts associated with long-term operational air pollutant emissions, noise, and increased traffic, long-term air quality and traffic impacts would remain significant and unavoidable.

Impact Conclusions. Under the No Project/Existing General Plan Alternative, impacts related to short-term construction-related air quality would be similar to the proposed project as the same amount of land would be disturbed and the same mix of equipment would be utilized. Long-term operational-related air quality impacts would be reduced from that identified for the proposed project but would remain significant and unavoidable. Under this alternative, population and housing impacts would be greater in magnitude as residential uses are proposed. Similar to the proposed project, the associated increases in employment are accounted for in the City General Plan and other applicable local and regional plans.

The development of the No Project/Existing General Plan Alternative would have increased demands on public services and recreation facilities due to the residential component and population growth, however, the payment of fees, provision of onsite parkland and open space, higher property tax revenues, and adherence to development requirements would reduce these impacts to a less than significant level. Water supply availability is expected to be available although water demand is increased. Water demand was determined to be available for the proposed project. Because of the increase in vehicle trips achieved under this alternative, impacts to the operation of local roadways and intersections would be proportionally greater that what was identified for the proposed project; therefore, long-term traffic impacts would remain significant and unavoidable. Traffic-related noise would be greater in magnitude and noise impacts would be significant and unavoidable like the proposed project.

Meets Project Objectives. Under this alternative, only some of the proposed project objectives would be met as a variety of uses would be built, as shown in Table 6.K. Development of this alternative would provide new employment opportunities for residents of Moreno Valley but not nearly to the degree as the proposed project.

Note: The objectives outlined in this table did not correspond to the Project Objectives outlined in the Project Description of the DEIR; therefore, they are being corrected at this time.

Table 6.K: Comparison of No Project/Existing General Plan Alternative to the Project Objectives

Project Objectives	Does the Alternative Meet the Project Objectives?
Create substantial employment opportunities for the citizens of Moreno Valley and surrounding communities.	No
Provide the land use designation and infrastructure plan necessary to meet current market demands and to support the City's Economic Development Action Plan.	No
Create a major logistics center with good regional and freeway access.	No
Establish design standards and development guidelines to ensure a consistent and attractive appearance throughout the entire project.	Yes
Establish a master plan for the entire project area to ensure that the project is efficient and business-friendly, accommodating the next-generation of logistics buildings.	No
Provide a major logistics center to accommodate a portion of the ever-expanding trade volumes at the Ports of Los Angeles and Long Beach.	No
Create a project that will provide a balanced approach to the City's fiscal viability, economic expansion, and environmental integrity.	No

Table 6.K: Comparison of No Project/Existing General Plan Alternative to the Project Objectives

Project Objectives	Does the Alternative Meet the Project Objectives?
Provide the infrastructure improvements required to meet project needs in an efficient and cost-effective manner.	No
Encourage new development consistent with regional and municipal service capabilities.	Yes
Significantly improve the City's jobs/housing balance and help reduce unemployment within the City.	Yes
Provide thousands of construction job opportunities during the project's buildout phase.	No
Provide appropriate transitions or setbacks between on-site and off-site uses.	Yes

6.3.6 Alternative 1: Reduced Density

NOTE: The following changes have been made due to revision to the Specific Plan project size.

With the intent of avoiding or substantially reducing significant impacts, and in particular the significant impacts that cannot be reduced to a less than significant level through implementation of mitigation measures created by the project's traffic, air quality, and noise impacts, the City has considered a Reduced Density Alternative. This alternative includes development of the project site with approximately 28 million square feet of logistics warehousing, including 74.3 acres for open space. The 1,085 acres owned by the CDFW would be designated as Open Space in the City's General Plan, similar to the proposed project. Under this alternative, the proposed logistics uses would represent a net decrease of approximately 31 percent (28 million square feet) as compared with the proposed project.

Because of the large area, approximately 2,610 acres, of the proposed project that is proposed for development, public facilities, or off-site improvements, a variety of reduced density alternatives could be considered that might substantially reduce or eliminate one or more of the significant and unavoidable impacts of the proposed project. For example, warehousing development on the site would have to be reduced to approximately one percent of the project site, or 400,000 square feet, of the WLC project's proposed high-cube logistics warehouse building area in order to eliminate significant and unavoidable impacts associated with air quality in order to reduce air pollution emissions to less than applicable SCAQMD thresholds. The only way this could logically occur would be to develop a small portion of the site (i.e., less than one percent) and leave the rest of the site vacant. In addition, even this substantial reduction in the proposed high-cube logistics warehouse building area and/or developable area would not eliminate the proposed project's other significant and unavoidable impacts associated with aesthetics, air quality, noise, and transportation listed above in 6.1.3. Any of the viable alternatives that are examined in this EIR would entail some type of development on all or most of the project site, rather than development of an illogically small portion of the site (i.e., one percent).

Impact Analysis. The following nine environmental issues would have impacts similar to those identified for the proposed project:

- Aesthetics
- Agricultural and Forestry Resources
- Cultural Resources
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources

- Biological Resources
- Geology and Soils
- Recreation

Impacts associated with these topics would be similar to the proposed project because development of the site under Alternative 1 would result in a similar footprint of development but with less square footage for logistics warehouse buildings. For this reason, impacts to these land-oriented impact topics would be similar resulting in the same level of impact.

As identified in Section 4.1 of this EIR, the proposed project would result in significant and unavoidable impacts associated with scenic vistas, local scenic roads, character of the site and surroundings, and cumulatively considerable aesthetic impacts. Implementation of this alternative would result in development of the same high-cube logistics land uses, building heights and mass, but at a level equivalent to 70 percent of the proposed project. For this reason, and in the same exact manner as the proposed project, this alternative would result in significant and unavoidable impacts associated with scenic vistas, local scenic roads, character of the site and surroundings, individually and on a cumulatively considerable basis.

As identified in Section 4.2 of this revised EIR, the proposed project would not result in significant impacts associated with the loss of unique farmland, the elimination of existing agricultural operations, or cumulatively considerable agricultural resources impacts with implementation of the recommended mitigation, including acquisition of an offsite agricultural conservation easement. Implementation of this alternative would result in development on the same existing agricultural lands, but each development site would be developed at a level equivalent to 70 percent of the proposed project. Therefore, this alternative would not result in significant impacts associated with the loss of unique farmland, the elimination of existing agricultural operations, and on a cumulatively considerable basis.

The remaining environmental issues would, in some cases, result in similar impacts, but would be different enough to be discussed separately as follows.

Air Quality: Because the amount of land to be graded with Alternative 1 would be the same to that of the proposed project, the same quantity of construction equipment would be used and a similar quantity of building materials would be used during earthmoving activities. Therefore, construction emissions from the development of Alternative 1 would be similar as the proposed project; perhaps slightly decreased. As identified in Section 4.3 of this EIR, the proposed project would result in significant and unavoidable air quality impacts from CO, VOC, NO_X, and PM_{10} air pollution emissions and localized PM_{10} concentrations. Implementation of this alternative would result in development on the same land areas, but each development site would be developed at a level equivalent to 70 percent of the proposed project. For this reason, and in approximately the same manner as the proposed project, the Reduced Density Alternative would result in significant and unavoidable air quality impacts from CO, VOC, NO_X, and PM_{10} emissions during project construction.

Assuming the same level of mitigation as the proposed project, there would be no cancer risks associated with this alternative since the use of new technology diesel engines do not contribute to cancer risk as described in Section 4.3.

Under this alternative, average daily traffic volumes would be reduced by approximately 30 percent in comparison with the proposed project. As indicated in Table 6.L, the volume of each operational pollutant emitted during operation of this alternative would be correspondingly reduced. However, operational emissions for CO, VOC, NO_X, PM_{10}, and $PM_{2.5}$ would exceed daily SCAQMD thresholds for air pollution emissions as shown in Table 6.L, in the same manner as the proposed project. Although the application of green building design principles may reduce emissions from building

operations (such as heating and cooling), such standards and principles would not reduce CO, VOC, NO_X, PM_{10}, and $PM_{2.5}$ emissions to below SCAQMD thresholds.

NOTE: The Alternative 1 air pollutant and greenhouse gas emissions have decreased because part of the emissions were based on a percentage of the project's emissions (which have decreased) and the other emissions were remodeled.

Table 6.L: Alternative 1 Operational Emissions

Source	Pollutant Emissions, lbs/day					
	CO	VOC	NO_X	SO_X	PM_{10}	$PM_{2.5}$
Proposed Project	1,396	593	1,097	21	1,121	304
Alternative 1	977	415	768	15	785	213
Net Change (Alternative minus proposed)	-419	-178	-329	-6	-336	-91
SCAQMD thresholds	550	55	55	150	150	55
Alternative 1 exceeds thresholds?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**

Source: Air Quality, Greenhouse Gas, and Health Risk Assessment, 2015.

As shown in Table 6.L, the volume of operational air pollutant emissions would be reduced when compared to the proposed project. As identified in Section 4.3 of this EIR and as stated above, the proposed project would result in air quality impacts from CO, VOC, NO_X, PM_{10}, and $PM_{2.5}$ operational emissions that cannot be mitigated to below SCAQMD thresholds, resulting in significant and unavoidable impacts. Similarly, the Reduced Density Alternative would result in air quality impacts from CO, VOC, NO_X, PM_{10}, and $PM_{2.5}$ operational emissions that cannot be mitigated to below SCAQMD thresholds, resulting in significant and unavoidable impacts in approximately the same manner as the proposed project.

Global Climate Change: As identified in Section 4.7 of this EIR, the proposed project would generate approximately 6,200 $MTCO_2e$ per year at buildout from uncapped operational sources after mitigation, resulting in a less than significant impact. As identified in Table 6.F, the Reduced Density Alternative would generate 4,347 $MTCO_2e$ per year of uncapped emissions. GHG emissions resulting from operation of the uses envisioned under the Reduced Density Alternative would be correspondingly reduced in comparison to the proposed project, as this alternative would reduce the number of daily traffic trips and energy consumed by approximately 30 percent. Although the Reduced Density Alternative would generate approximately 30 percent less GHG than the proposed project, impacts associated with cumulative global climate change would remain less than significant in approximately the same manner as the proposed project, since it is assumed that this alternative would incorporate similar mitigation as for the project.

Noise: As identified in Section 4.12 of this EIR, construction-related noise impacts of the proposed project were reduced through mitigation measures. However, construction-related noise impacts within the Specific Plan area and off-site construction area would remain significant and unavoidable, even with implementation of the mitigation measures. Under the Reduced Density Alternative, the same amount of land would be disturbed, the same quantity of construction equipment would be used, and a similar quantity of building materials would be used. Therefore, noise impacts associated with the construction of this alternative would be the same as those identified under the proposed project, but would likely occur over a shorter period of time due to the reduced square footage`. As identified in Section 4.12 of this EIR and as stated above, the proposed project would result in construction-related noise impacts within the Specific Plan area and off-site construction area that cannot be mitigated to below a level of significance. Consequently, impacts would remain significant and unavoidable. With the implementation of mitigation identified for the proposed project, the short-term construction-related noise impacts associated with the Reduced Density Alternative would also remain significant and unavoidable in the same exact manner as the proposed project, as

construction noise is not able to be reduced to noise levels less than 60 dBA (L_{eq}). As with the proposed project, the noise generated under the Reduced Density Alternative would also be generated during loading/unloading, truck movements on roadways, and parking lot activities.

As identified in Section 4.12 of this EIR under the proposed project, the increase in future traffic noise along certain local roadway segments would increase beyond the threshold of perception resulting in an impact and the need for mitigation. However, as stated in the EIR, there are no feasible mitigation measures to reduce noise levels to below significant levels. The reduction in project-related traffic under the Reduced Density Alternative (i.e., minus approximately 30%) would result in a similar decrease in long-term traffic noise due to the reduction of traffic trips to the project site. However, under this alternative, the future increases in traffic-related noise would have a similar effect on local roadway segments, resulting in significant impacts in approximately the same manner as the proposed project. Although this alternative's contribution to future traffic noise would be reduced, thereby reducing overall mobile source noise impacts within the area, even with a reduction in overall mobile source noise, roadway noise along certain roadway segments would remain significant and unavoidable in approximately the same manner as the proposed project.

Population and Housing: This alternative would result in the development of approximately 28 million square feet of logistics space. Utilizing an employment factor of one employee for every 1,667 square feet of logistics space,[1] the Reduced Density Alternative is anticipated to generate approximately 16,797 jobs.[2] It is anticipated that most of these jobs would be filled by persons already residing in the area; therefore, no significant population increase would occur with the development of these logistics jobs. When this alternative is compared to the proposed project, the number of new jobs would be approximately 30 percent less than the proposed project. Similar to the proposed project, impacts related to population and housing would remain less than significant as this alternative would continue the existing development trend envisioned by the City. This alternative would not improve the City's jobs/housing ratio to nearly the same degree as the proposed project.

Public Services: Demands on schools, parks, other public facilities, law enforcement, and fire protection services would be incrementally less but in general similar in magnitude as that associated with the proposed project as no residential uses (and corresponding impacts to schools and parks) are proposed under this alternative. Like the proposed project, development under this alternative would require payment of development impact fees for schools, police services, and fire services. The increase in property taxes and payment of development impact fees would offset impacts to public services that may result from the development of the uses envisioned under this alternative. Similar to the proposed project, impacts associated with public services would remain less than significant.

Traffic: As identified in Section 4.15 of this EIR, the proposed project would result in significant impacts to freeways and interchanges in the baseline condition and future year (2022, 2030, and 2035) time horizons. Because improvements to freeways and interchanges are under the authority of Caltrans, it is uncertain if improvements to these roadways would be constructed prior to when project impacts would occur, resulting in a significant and unavoidable significant to freeways and interchanges. As identified in previously referenced Table 6.G, the Reduced Density Alternative would generate approximately 48,321 total vehicle trips, which is approximately 30 percent less than the total trip generation for the proposed project (69,542 total vehicle trips). The reduction in traffic under the Reduced Density Alternative (i.e., minus approximately 30%) would result in a similar decrease in traffic volumes on local roadways. However, under this alternative, the future increases in traffic volumes would have a similar effect on freeways and interchanges, resulting in significant impacts similar to those identified for the proposed project. Since the City does not have control over when freeway improvements would occur, traffic impacts to freeways and interchanges would remain

[1] Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California, David Taussig & Associates, Inc., September 2014.

[2] 1 employee/1,667 square feet of logistics uses × 28,000,000 square feet of logistics use = - 16,797 logistics jobs.

significant and unavoidable in approximately the same manner as the proposed project, until such improvements can be installed or constructed by Caltrans.

Utilities and Service Systems: Limited storm water and wastewater infrastructure is currently located in adjacent roadways or parcels within the project area. Like the proposed project, development under this alternative would be required to provide necessary infrastructure to support the future development of the site. The resulting development under this alternative would be subject to the terms and conditions of the City and EMWD. Similar to the proposed project, development under the Reduced Density Alternative would also include implementation of master plans for potable water, sewer, recycled water, and drainage for the project study area. Since the development under this alternative would be similar in use and size to the proposed project, it is anticipated that the same type and quantity of utility infrastructure would be required for the area. Therefore, implementation of these master plans under this alternative would have similar impacts to those identified for the proposed project.

The development of the Reduced Density Alternative would require the installation of water supply infrastructure of a size and extent needed to serve the proposed project. As indicated in previously referenced Table 6.I, the amount of water demand associated with the Reduced Density Alternative (1,202,011 gallons per day) would be 32 percent less than that required for the proposed project. Similar to the proposed project, development under this alternative would be required to obtain verification from the water purveyor that water is available to serve the development. Since this alternative would utilize less water than the proposed project and because EMWD has stated that water supply required for the proposed project is available, it is reasonable to conclude that if this alternative was built, adequate water would be available. Therefore, impacts related to water usage and water treatment/conveyance facilities would remain less than significant with mitigation implemented, similar to the proposed project.

As identified in previously referenced Table 6.H, the Reduced Density Alternative would generate approximately 198,376 gallons of wastewater per day, which is approximately 30 percent less than that generated by the proposed project. This alternative's demands on wastewater treatment and capacity at existing wastewater treatment facilities would be reduced in magnitude. Similar to the proposed project, development under this alternative would be required to pay infrastructure fees and obtain approval from the wastewater treatment provider that would ensure there is excess capacity for the wastewater that would be generated by the proposed development. Therefore, like the proposed project, adherence to existing requirements identified by the City and EMWD would result in impacts remaining at a less than significant level.

Like the proposed project, the Reduced Density Alternative would also generate solid waste. As identified in previously referenced Table 6.J, the Reduced Density Alternative would generate 30,786 pounds of solid waste per day, which is approximately 30 percent less than what the proposed project would generate. The reduction in solid waste generated by the uses under this alternative would have a reduced demand of solid waste services and landfill capacity. Therefore, demands on solid waste services and landfill capacity would be reduced in magnitude. However, similar to the proposed project, development under the Reduced Density Alternative would be required to adhere to the provisions of the solid waste provider that would service the project site. As with the proposed project, solid waste impacts would remain less than significant.

Cumulative Impacts: The Reduced Density Alternative would contribute to the permanent conversion of farmland, but the proposed mitigation, including acquisition of an offsite agricultural conservation easement, will reduce impacts to less than significant levels, as also reduce the cumulative impacts associated with the conversion of farmland, cumulative impacts associated with farmland conversion to less than significant levels, similar to the proposed project. Although the amount of operational air pollutant emissions would be reduced in magnitude, because there are no

feasible mitigation measures to reduce long-term air pollutant operational emissions, cumulative impacts would remain significant and unavoidable in approximately the same manner as the proposed project.

The Reduced Density Alternative would reduce traffic volumes that would occur in the project vicinity. However, the additional traffic associated with this alternative would contribute to deficient levels of service on freeway segments during the lifetime of the project. Since the City is not in control of when freeway improvements are made, impacts associated with deficient LOS on freeway segments would remain significant and unavoidable in approximately the same manner as the proposed project, until such time that the freeway improvements are installed or constructed by Caltrans. Similarly, noise generated from traffic on roadway segments within the project area may result in certain roadway segments experiencing noise levels beyond the City's noise standard. Implementation of the identified mitigation measures would reduce noise but it would not reduce noise levels to a less than significant level. Therefore, cumulative impacts associated with traffic noise levels would remain significant and unavoidable in approximately the same manner as the proposed project.

As identified in Section 4.1 of this EIR, the proposed project would result in significant and unavoidable impacts associated with scenic vistas, local scenic roads, character of the site and surroundings, and cumulatively considerable aesthetic impacts. Implementation of this alternative would result in development of the same high-cube logistics land uses, building heights and mass, but at a level approximately 70 percent of the proposed project. For this reason, and in the same manner as the proposed project, this alternative would result in significant and unavoidable impacts associated with scenic vistas, local scenic roads, character of the site and surroundings, and on a cumulatively considerable basis.

Impact Conclusions. Under the Reduced Density Alternative, development of the same high-cube logistics land uses, building heights and mass, but at a floor area level approximately 70 percent of the proposed project, would be constructed resulting in significant and unavoidable impacts associated with scenic vistas, local scenic roads, character of the site and surroundings, and on a cumulatively considerable basis in the same exact manner as the proposed project. Impacts related to short-term construction-related air quality would be the same as the proposed project, because the same amount of land would be disturbed and the same mix of equipment would be utilized. The Reduced Density Alternative would result in significant and unavoidable air quality impacts from CO, VOC, NO_X, PM_{10}, and $PM_{2.5}$ emissions during project construction, in the same exact manner as the proposed project. Long-term operational-related air quality impacts would be incrementally reduced when compared to the project, but the emissions cannot be mitigated to below SCAQMD thresholds and would remain significant and unavoidable in approximately the same manner as the proposed project. Similarly, impacts related to short-term construction-related noise cannot be mitigated to a less than significant level and would be significant and unavoidable in the exact same manner as the proposed project. Although traffic-related noise would be reduced when compared to the project, impacts would have a similar effect on local roadway segments and would remain significant and unavoidable as there are no feasible mitigation measures that would be able to reduce impacts to a less than significant level, in approximately the same manner as the proposed project. Under this alternative, the volume of water required and the amount of wastewater and solid waste generated would be reduced in comparison to the proposed project and the decrease in the amount of logistics uses would result in a reduction of permanent jobs that would be created. Consequently, this alternative would have incrementally reduced demands on public services, recreation, and water use. Similar to the proposed project, increased property tax revenues, the payment of fees, and adherence to City development and utility requirements would reduce these impacts to less than significant levels.

Because of the decrease in vehicle trips achieved under this alternative, impacts to the operation of local roadways and intersections would be proportionally reduced from those identified for the proposed project. However, under this alternative, the future increases in traffic volumes would have

a similar effect on freeways and interchanges, resulting in significant impacts similar to those identified for the proposed project. Since the City does not have control over when freeway improvements would occur, traffic impacts to freeways and interchanges would remain significant and unavoidable for impacts associated with freeway segments in approximately the same manner as the proposed project, as the City does not have control of when such freeway improvements can be installed or constructed by Caltrans.

In summary, the Reduced Density Alternative would incrementally reduce almost all of the project impacts by reducing the total square footage of development. However, all of the impacts identified as significant and unavoidable under the proposed project, including aesthetics, air quality, noise, and traffic would still be significant and unavoidable under this alternative.

Meets Project Objectives. As shown in Table 6.M, under this alternative, some of the project objectives are met, but not nearly to the same degree as the proposed project.

Note: The objectives outlined in this table did not correspond to the Project Objectives outlined in the Project Description of the DEIR; therefore, they are being corrected at this time.

Table 6.M: Comparison of Reduced Density Alternative to the Project Objectives

Project Objectives	Does the Alternative Meet the Project Objectives?
Create substantial employment opportunities for the citizens of Moreno Valley and surrounding communities.	Not to the same degree as the proposed project
Provide the land use designations and infrastructure plans necessary to meet current market demands and to support the City's Economic Development Action Plan.	Not to the same degree as the proposed project
Create a major logistics center with good regional and freeway access.	Not to the same degree as the proposed project
Establish design standards and development guidelines to ensure a consistent and attractive appearance throughout the entire project.	Yes
Establish a master plan for the entire project area to ensure that the project is efficient and business-friendly, accommodating the next-generation of logistics buildings.	Yes
Provide a major logistics center to accommodate a portion of the ever-expanding t rave volumes at the Ports of Los Angeles and Long Beach.	Not to the same degree as the proposed project
Create a project that will provide a balanced approach to the City's fiscal viability, economic expansion, and environmental integrity.	Not to the same degree as the proposed project
Provide the infrastructure improvements required to meet project needs in an efficient and cost-effective manner.	Not to the same degree as the proposed project
Encourage new development consistent with regional and municipal service capabilities.	Not to the same degree as the proposed project
Significantly improve the City's jobs/housing balance and help reduce unemployment within the City.	Not to the same degree as the proposed project
Provide thousands of construction job opportunities during the project's buildout phase.	Not to the same degree as the proposed project
Provide appropriate transitions or setbacks between on-site and off-site uses.	Yes

6.3.7 Alternative 2: Mixed Use A

With the intent of avoiding or substantially reducing significant impacts created by the project's traffic, air quality, and noise impacts, the City has considered Mixed Use A Alternative. This alternative

includes development of the project site with approximately 1,410 acres of logistics warehousing (22 million square feet), 1,000 acres of light industrial uses (20 million square feet), 50 acres of retail commercial uses (500,000 square feet), 100 acres of professional or medical office uses (1.0 million square feet), and 150 acres of open space. The 1,085 acres owned by the CDFW would be designated as Open Space in the City's General Plan, similar to the proposed project.

Impact Analysis. The following nine environmental issues would have impacts similar to those identified for the proposed project:

- Aesthetics
- Agricultural and Forestry Resources
- Cultural Resources
- Biological Resources
- Geology and Soils
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Recreation

The remaining environmental issues would, in some cases, result in similar impacts, but would be different enough to be discussed separately.

Air Quality: Because the amount of land to be graded with Alternative 2 would be similar to that of the proposed project, a similar mix of equipment as the proposed project would operate during earthmoving activities. Therefore, construction emissions from the development of Alternative 2 would be similar to the proposed project, which is significant and unavoidable for CO, VOC, NO_X, and PM_{10}.

Assuming the same level of mitigation as the proposed project, there would be no cancer risks associated with this alternative since the use of new technology diesel engines do not contribute to cancer risk as described in Section 4.3.

As indicated in Table 6.N, the volume of each operational pollutant emitted during operation of this alternative would be correspondingly increased due to the substantial increase in traffic from this alternative relative to the proposed project. Like the proposed project, operational emissions for CO, VOC, NO_X, PM_{10}, and $PM_{2.5}$ would still exceed daily SCAQMD thresholds. Application of green building design principles could reduce emissions from building operations such as heating and cooling; however, such standards and principles would not reduce CO, VOC, NO_X, PM_{10}, and $PM_{2.5}$ emissions to below SCAQMD thresholds.

NOTE: The Alternative 2 air pollutant and greenhouse gas emissions have decreased because part of the emissions were based on a percentage of the project's emissions (which have decreased) and the other emissions were remodeled.

Table 6.N: Alternative 2 Operational Emissions

Source	Pollutant Emissions, lbs/day					
	CO	VOC	NO_X	SO_X	PM_{10}	$PM_{2.5}$
Proposed Project	1,396	593	1,097	21	1,121	304
Alternative 2	5,683	1,307	1,794	35	2,135	603
Net Change (Alternative minus project)	+4,287	+714	+697	+14	+1,014	+299
SCAQMD thresholds	550	55	55	150	150	55
Alternative 2 exceeds thresholds?	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**

Source: Air Quality, Greenhouse Gas, and Health Risk Assessment, 2015.

The volume of operational air pollutant emissions would be increased when compared to the proposed project during operations only and impacts would remain significant and unavoidable.

Global Climate Change: This alternative would generate 6,856 metric tons of uncapped GHG emissions resulting from operation of the uses envisioned under the Mixed Use A Alternative would be approximately 10 percent higher than those of the proposed project (see Table 6.F). The Mixed Use A Alternative would generate more greenhouse gas than the proposed project; impacts associated with cumulative global climate change would be less than significant.

Noise: Under the proposed project, construction-related noise impacts were mitigated through adherence to the identified mitigation measures. However, even with the mitigation measures, construction-related noise impact within the Specific Plan area and off-site construction area would remain significant and unavoidable. Under the Mixed Use A Alternative, a similar amount of land would be disturbed; therefore, noise impacts associated with the construction of this alternative would be similar to those identified under the proposed project. With the implementation of mitigation identified for the proposed project, the short-term construction-related noise impacts associated with this alternative would still remain significant and unavoidable as construction noise is not able to be reduced to below noise levels less than 60 dBA (L_{eq}). As with the proposed project, the noise generated under the Mixed Use A Alternative would be generated during loading/unloading, trash compacting, truck movements on roadways, and parking lot activities. The operation-related noise impacts associated with this alternative would remain less than significant with implementation of the mitigation measures, as identified for the proposed project.

The increase in project-related traffic under this alternative would result in an incremental increase in long-term traffic noise due to an increase of traffic trips to the project site. Under the proposed project, the increase in future traffic noise along certain local roadway segments would increase beyond the threshold of perception resulting in the need for mitigation. However, as stated in the EIR, there are no feasible mitigation measures to reduce noise levels to below appropriate levels. Under this alternative, future increases in traffic-related noise would have a similar effect on local roadway segments. When compared to the proposed project, this alternative's contribution to future traffic noise would be increased, thereby increasing overall mobile source noise impacts within the area. It is anticipated that roadway noise along certain roadway segments would remain significant and unavoidable.

Population and Housing: The Mixed Use A Alternative would result in the development of 22 million square feet of logistics warehousing, 20 million square feet of light industrial uses, half a million square feet of retail commercial uses, one million square feet of professional/medical office uses, and 150 acres of open space. Utilizing an employment factor of one employee for every 1,667 square feet of logistics space,[1] the logistics warehousing component of the Mixed Use A Alternative is anticipated to generate approximately 13,197 jobs.[2] Utilizing the same employment factor of one employee for every 1,667 square feet of light industrial uses, the light industrial component of the Mixed Use A Alternative is anticipated to generate approximately 11,998 jobs.[3] Utilizing employment factors of one employee for every 628 square feet of commercial use and one employee for every 481 square feet of office use,[4] this alternative would additionally create up to 2,875 jobs (796 retail jobs[5] and 2,079

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1 Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California, David Taussig & Associates, Inc., September 2014.

2 1 employee/1,667 square feet of logistics uses × 22 million square feet of logistics use = 13,197 logistics jobs.

3 1 employee/1,667 square feet of light industrial uses × 20 million square feet of light industrial use = 11,998 light industrial jobs.

4 *Table II-B Average Employees Per Acre*, Southern California Association of Governments Employment Density Study, The Natelson Company, October 31, 2001.

5 1 employee/628 square feet of commercial uses × 500,000 square feet of commercial uses = 796 retail jobs.

office jobs).[1]. Many of the logistics warehousing, light industrial, and retail jobs are likely to be filled by persons already residing in the area.

However, unlike logistics, light industrial, and retail jobs, which can often be filled by most working adults, professional/medical office jobs under this alternative may require the employment of persons in specialized fields, which may not include persons already living in the area. Persons from outside of the area may be required to relocate to Moreno Valley to fill positions in the office space, resulting in an incremental population increase in the City. When this alternative is compared to the proposed project, the number of new residents would be higher than that identified for the proposed project. Under this alternative, up to approximately 28,070 jobs could be created. The number of new jobs in the City would be 17 percent greater than the proposed project (24,000 potential jobs). However, similar to the proposed project, impacts related to population and housing would remain less than significant as this alternative would continue the existing development trend envisioned by the City.

Public Services: As discussed above, the Mixed Use A Alternative could result in an incremental population increase within the City. Because of the increased amount of office development that would occur within the project limits, demands on schools, parks, other public facilities, law enforcement, and fire protection services would be greater in magnitude than what was identified for the proposed project. However, similar to the proposed project, development under this alternative would result in higher property tax revenues and payment of development impact fees for schools, police services, and fire services. The payment of development impact fees would offset any impacts to these public services that may result from the development of this alternative. Therefore, when compared to the proposed project, impacts associated with public services would remain less than significant with the payment of development impact fees.

Traffic: As identified in previously referenced Table 6.G, this alternative would generate approximately 208,988 total traffic trips. In comparison to the proposed project, this alternative would almost triple total traffic trips. With such an increase in traffic, an increase in volumes on nearby roads and intersections would be greater in magnitude when compared to the proposed project. Impacts to LOS at nearby intersections and roadway segments would occur under the Mixed Use A Alternative to an even greater degree than under the proposed project, and would require even more extensive mitigation. The addition of traffic volumes associated with this alternative could result in deficient LOS at many more intersections in the project vicinity during the lifetime of the development. While significant traffic impacts may occur under this alternative, these impacts would be mitigated in a manner similar to those of the proposed project. Even if mitigation measures were identified for all these intersections, certain roadway improvements would not be under the jurisdiction of the City and cannot be guaranteed to be in place when development under this alternative would become operational. Therefore, as identified for the proposed project, traffic-related impacts would remain significant and unavoidable under the Mixed Use A Alternative.

Utilities and Service Systems: Like the proposed project, development under the Mixed Use A Alternative would connect to existing utility infrastructure subject to the terms and conditions of the City and EMWD. As indicated in previously identified Table 6.H, this alternative would generate approximately 1,830,000 gallons of wastewater per day, which is over six times what the proposed project would generate (286,459 gallons of wastewater per day). When compared to the proposed project, wastewater treatment demand would be increased in magnitude as more wastewater would be generated under this alternative. However, like the proposed project, adherence to existing requirements identified by the City and EMWD may result in impacts remaining at a less than significant level.

[1] 1 employee/481 square feet of office uses × 1 million square feet of office uses = 2,079 office jobs.

The development of the warehousing, light industrial, commercial, and office uses associated with this alternative would also require the installation of water supply infrastructure to serve the project site. As previously indicated in Table 6.I, the Mixed Use A Alternative would require approximately 3,420,000 gallons of water per day, which is almost twice as much as would be required by the proposed project (1,761,260 gallons of water per day). When compared to the proposed project, water usage demands would be increased. However, similar to the proposed project, development under this alternative would be required to obtain verification from the water purveyor that water is available to serve the development. Therefore, impacts related to water usage and water treatment/ce facilities would remain less than significant when compared to the proposed project.

Like the proposed project, the Mixed Use A Alternative would also generate solid waste. As previously identified in Table 6.J, this alternative would generate 481,344 pounds of solid waste per day, which is over thirteen times as much as the proposed project would generate (37,016 pounds of solid waste per day). Therefore, demands on solid waste services and landfill capacity would be increased in magnitude. Similar to the proposed project, development under the Mixed Use A Alternative would be required to adhere to the provisions of the solid waste provider that would service the project site. As with the proposed project, solid waste impacts under this alternative would remain less than significant.

Cumulative Impacts: Similar to the proposed project, this alternative would contribute toward the permanent conversion of farmland, long-term operational air pollutant emissions, and increased traffic operations on local roadways and at local intersections. The amount of operational air pollutant emissions and traffic would be increased in magnitude and there are no mitigation measures that would reduce long-term air quality operational impacts to below SCAQMD thresholds. Likewise, there are no mitigation measures that would reduce impacts associated with increased traffic in the area. Therefore, cumulative impacts associated with long-term air quality and long-term traffic would remain significant and unavoidable. Similarly, noise generated from traffic on roadway segments within the project area may result in certain roadway segments experiencing noise levels beyond the City's noise standard. Implementation of the identified mitigation measures would reduce noise but it would not reduce noise levels to a less than significant level. Therefore, cumulative impacts associated with traffic noise levels would remain significant and unavoidable. This alternative would also require the development of the project site. The revised EIR contains mitigation (acquisition of an offsite agricultural conservation easement) that would reduce the cumulative impacts associated with the conversion of Unique Farmland, cumulative impacts associated with farmland conversion to less than significant levels.

Impact Conclusions. Under this alternative, impacts related to short-term construction-related air quality and noise impacts would remain significant and unavoidable, similar to the proposed project. Long-term air quality operational impacts under this alternative would be increased in magnitude, remain significant and unavoidable, and would result in similar conditions as identified for the proposed project. The Mixed Use A Alternative would decrease the amount of logistics warehousing and would add light industrial, commercial, and office uses that would generate more permanent and more varied jobs than the proposed project, but some uses may require skilled workers who are not current residents of the City. The office uses proposed under this alternative may incrementally increase the total number of people that would be added to the City's population and could have greater demands on public services and recreation. However, the increased property tax revenues, payment of fees, and dedication of parkland would reduce these impacts to a less than significant level. This alternative would increase the amount of wastewater generated, increase the amount of potable water required, and increase the amount of solid waste produced on site. Similar to the proposed project, adherence to utility requirements would reduce these impacts to less than significant levels. Because of the increase in vehicle trips resulting from this alternative, impacts to the operation of local roadways and intersections would be proportionally increased from the proposed project and remain significant and unavoidable.

Because of the increase in vehicle trips under this alternative, impacts to the operation of local roadways and intersections would be proportionally increased from what was identified for the proposed project. Long-term traffic impacts would remain significant and unavoidable for impacts associated with freeway segments as the City does not have control of when such freeway improvements would occur. Similarly, traffic-related noise would be increased in magnitude and cannot be mitigated to a less than significant level in a manner similar to the proposed project.

In summary, the Mixed Use A Alternative would increase employment opportunities but would substantially increase traffic, noise, and air quality impacts. All the impacts identified as significant under the proposed project, including air quality health risks, would still be significant under this alternative.

Meets Project Objectives. Under this alternative, four of the proposed project objectives are not met as shown in Table 6.O.

Note: The objectives outlined in this table did not correspond to the Project Objectives outlined in the Project Description of the DEIR; therefore, they are being corrected at this time.

Table 6.O: Comparison of the Mixed Use A Alternative to the Project Objectives

Project Objectives	Does the Alternative Meet the Project Objectives?
Create substantial employment opportunities for the citizens of Moreno Valley and surrounding communities.	Yes
Provide the land use designation and infrastructure plan necessary to meet current market demands and to support the City's Economic Development Action Plan.	Yes
Create a major logistics center with good regional and freeway access.	No
Establish design standards and development guidelines to ensure a consistent and attractive appearance throughout the entire project.	Yes
Establish a master plan for the entire project area to ensure that the project is efficient and business-friendly, accommodating the next-generation of logistics buildings.	Yes
Provide a major logistics center to accommodate a portion of the ever-expanding trade volumes at the Ports of Los Angeles and Long Beach	No
Create a project that will provide a balanced approach to the City's fiscal viability, economic expansion, and environmental integrity.	No
Provide the infrastructure improvements required to meet project needs in an efficient and cost-effective manner.	No
Encourage new development consistent with regional and municipal service capabilities.	Yes
Significantly improve the City's jobs/housing balance and help reduce unemployment within the City.	Yes
Provide thousands of construction job opportunities during the project's buildout phase.	Yes
Provide appropriate transitions or setbacks between on-site and off-site uses.	Yes

6.3.8 Alternative 3: Mixed Use B

This alternative would develop the project site similar to the land use plan of the Moreno Highlands Specific Plan (MHSP) but with 10 million square feet of logistics warehousing on the 603 acres proposed for business, retail, institutional, and other uses under the MHSP. The 1,085 acres owned by the CDFW would be designated as Open Space in the City's General Plan, similar to the proposed project.

Impact Analysis. Many of the environmental impacts of this alternative would be equivalent to those identified for the No Project/Existing General Plan Alternative, the main differences being traffic, health risks, and greenhouse gas emissions.

Air Quality: Alternative 3 would require site grading and construction similar to that required of the proposed project. As identified in Section 4.3 of this EIR, short-term construction emission impacts associated with construction activities on the project site were significant and unavoidable for all criteria pollutants with the exception of SO_X. Since Alternative 3 would require that the same amount of land be graded, it would require similar grading and construction activities on site. Therefore, it is reasonable to anticipate that short-term construction emission impacts would also be significant and unavoidable for all criteria pollutants, with the exception of $PM_{2.5}$ and SO_X, under this alternative. Air quality impacts associated with the remaining criteria pollutants would significant and unavoidable with this alternative, similar to what was identified for the proposed project.

Under Alternative 3, the site would be developed at the same residential density and intensity as the MHSP but would have 10 million square feet of logistics warehousing on 603 acres instead of the mixed non-residential uses proposed under the MHSP. Based on these land uses, Alternative 3 would generate approximately 78,985 daily vehicle trips (see Table 6.G) compared to 69,542 trips from the proposed project (a 14% increase).

NOTE: Alternative 3 air pollutant and greenhouse gas emissions have decreased because part of the emissions were based on a percentage of the project's emissions (which have decreased) and the other emissions were remodeled.

Table 6.P: Alternative 3 Operational Emissions

Source	Pollutant Emissions, lbs/day					
	CO	VOC	NOx	SOx	PM_{10}	$PM_{2.5}$
Proposed Project	1,396	593	1,097	21	1,121	304
Alternative 3	2,912	569	762	15	960	278
Net Change (Alternative minus project)	+1,516	-24	-335	-6	-161	-26
SCAQMD thresholds	550	55	55	150	150	55
Alternative 3 exceeds thresholds?	**Yes**	**Yes**	**Yes**	No	**Yes**	**Yes**

Source: Air Quality, Greenhouse Gas, and Health Risk Assessment, 2015.

The volume of each operational pollutant emitted during operation of this alternative would be incrementally increased due the proposed mix of land uses. Therefore, this alternative would also have significant and unavoidable impacts on local air quality. The long-term air quality impacts resulting from this alternative would still contribute criteria pollutants to an air basin that is in nonattainment for these criteria pollutants, similar to the proposed project. As identified in previously referenced Table 6.P, long-term operational air pollutant emissions associated with Alternative 3 would exceed SCAQMD emissions thresholds for all criteria pollutants, with the exception of SO_X.

Assuming the same level of mitigation as the proposed project, there would be no cancer risks associated with this alternative since the use of new technology diesel engines do not contribute to cancer risk as described in Section 4.3.

When compared with the proposed project, air quality impacts associated with Alternative 3 would be mixed in that criteria pollutants would be higher but diesel particulate matter and truck-related emissions would be less, and potential health risks would be shifted from existing to future residents; more residents could be exposed to health risks. Similar to the proposed project, the generation of

these emissions would still result in a cumulative contribution of air pollutants in a nonattainment basin; therefore, impacts remain significant and unavoidable.

Global Climate Change: GHG emissions associated with Alternative 3 are substantially decreased. As identified in previously referenced Table 6.F, Alternative 3 would generate uncapped emissions of 2,925 metric tons of carbon dioxide equivalents, which is approximately half (53%) of that identified for the proposed project.

Noise: Under the proposed project, construction-related noise impacts were mitigated through adherence to the identified mitigation measures. However, even with the mitigation measures, construction-related noise impact within the Specific Plan area and off-site construction area would remain significant and unavoidable. Under the Mixed Use B Alternative, a similar amount of land would be disturbed; therefore, noise impacts associated with the construction of this alternative would be similar to those identified under the proposed project. With the implementation of mitigation identified for the proposed project, the short-term construction-related noise impacts associated with this alternative would still remain significant and unavoidable as construction noise cannot be reduced to noise levels less than 60 dBA (L_{eq}). As with the proposed project, the noise generated under the Mixed Use B Alternative would be generated during resident trips to and from the project, as well as non-residential loading/unloading, trash compacting, truck movements on roadways, and parking lot activities. The operational-related noise impacts associated with this alternative would be significant and adverse, even with implementation of the mitigation measures, similar to the proposed project.

Population and Housing: The Mixed Use B Alternative would result in the development of 6,532 residential units on 1,146 acres, plus 10 million square feet of logistics warehousing and 150 acres of open space. Utilizing an employment factor of one employee for every 1,667 square feet of logistics space,[1] the logistics warehousing component of the Mixed Use B Alternative is anticipated to generate approximately 6,000 jobs.[2] Utilizing a household size of 3.8 persons per unit, it is estimated this alternative would generate 24,821 new residents in the City as well. The number of new jobs in the City would be 82 percent less than the proposed project (24,000 potential jobs). This alternative would eventually have a jobs/housing ratio of 0.22, which is much lower than the existing job/housing ratio of the City. Therefore, this alternative would have substantially greater impacts related to population and housing compared to the proposed project.

Public Services: As discussed above, the Mixed Use B Alternative could result in a substantial population increase within the City. Because of the increased population, demands on schools, parks, other public facilities, law enforcement, and fire protection services would be greater in magnitude than what was identified for the proposed project. Similar to the proposed project, development under this alternative would provide increased property tax revenues and payment of development impact fees for schools, police, fire, and recreation services. The payment of development impact fees would offset any impacts to these public services that may result from the development of this alternative. Therefore, when compared to the proposed project, impacts associated with public services would remain less than significant with the payment of development impact fees.

Traffic: As identified in previously referenced Table 6.G, this alternative would generate approximately 78,985 total traffic trips, which is approximately 12 percent more than the proposed project. This would incrementally increase traffic and impacts to LOS at nearby intersections and roadway. The addition of traffic associated with this alternative could result in deficient LOS at more intersections in the project vicinity during the lifetime of the development. While significant traffic impacts may occur under this alternative, these impacts would be mitigated in a manner similar to those of the proposed project. Even if mitigation measures were identified for all these intersections,

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1 Fiscal and Economic Impact Study World Logistics Center Moreno Valley, California (David Taussig & Associates, Inc., September 2014.

2 1 employee/1,667 square feet of logistics uses × 10 million square feet of logistics use = 5,999 logistics jobs.

certain roadway improvements would not be under the jurisdiction of the City and cannot be guaranteed to be in place when development under this alternative would become operational. Therefore, as identified for the proposed project, traffic-related impacts would remain significant and unavoidable under the Mixed Use B Alternative.

Utilities and Service Systems: Like the proposed project, development under the Mixed Use B Alternative would connect to existing utility infrastructure subject to the terms and conditions of the City and EMWD. As indicated in previously identified Table 6.H, this alternative would generate approximately 1,681,656 gallons of wastewater per day, which is more than a six-fold increase to what the proposed project would generate (286,459 gallons of wastewater per day). When compared to the proposed project, wastewater treatment demand would be substantially increased under this alternative, but adherence to existing requirements identified by the City and EMWD would likely result in less than significant impacts with planned expansion of wastewater treatment capacity.

The development of logistics rather than commercial and other non-residential uses under the MHSP would require the installation of water supply infrastructure to serve the project site. As previously indicated in Table 6.I, the Mixed Use B Alternative would require approximately 5,196,801 gallons of water per day, which is over three times what would be required by the proposed project (1,761,2601 gallons of water per day). When compared to the proposed project, water usage demands would be substantially increased. Similar to the proposed project, development under this alternative would be required to obtain verification from the water purveyor that water is available to serve the development. Therefore, impacts related to water usage and water treatment/conveyance facilities are assumed to remain at less than significant levels similar to the proposed project.

Like the proposed project, the Mixed Use B Alternative would also generate solid waste. As previously identified in Table 6.J, this alternative would generate 116,800 tons of solid waste per year, which is almost three times more than what the proposed project would generate (37,016 tons of solid waste per year). Therefore, demands on solid waste services and landfill capacity would be substantially increased. Similar to the proposed project, development under the Mixed Use B Alternative would be required to adhere to the provisions of the solid waste provider that would service the project site. As with the proposed project, solid waste impacts under this alternative would remain less than significant.

Cumulative Impacts: Similar to the proposed project, this alternative would contribute toward the permanent conversion of farmland, air quality operational emissions, short-term and long-term noise impacts, and increased traffic operations on local roadways and at local intersections. This alternative would have slightly more traffic and operational emissions. Because there are no feasible mitigation measures to reduce the cumulative impacts associated with long-term operational air pollutant emissions, short-term and long-term noise, and increased traffic, these impacts would remain significant and unavoidable. Alternative 3 would also require the development of the project site. Since there is no feasible mitigation that would reduce the cumulative impacts associated with the conversion of farmland, cumulative impacts associated with farmland conversion would remain significant and unavoidable.

Impact Conclusions. Under Alternative 3, impacts related to short-term construction-related air quality would be similar to the proposed project as the same amount of land would be disturbed and the same mix of equipment would be utilized. Long-term operational-related carbon monoxide emissions would be higher than the proposed project and would remain significant and unavoidable. Like the proposed project, long-term air quality relative to criteria pollutants would still be significant, with the exception of SO_X. Assuming the same level of mitigation as the proposed project, there would be no cancer risks associated with this alternative since the use of new technology diesel engines do not contribute to cancer risk as described in Section 4.3.

The development of Alternative 3 would have increased demands on public services and recreation facilities to serve future residential uses. However, increased property tax revenues, payment of development impact fees, and adherence to development requirements would reduce these impacts to a less than significant level. Water supply availability is expected to be available as water demand is expected to be the same. Water demand was determined to be available for the proposed project. There would be an increase in vehicle trips under this alternative, and impacts to the operation of local roadways and intersections would be similarly increased compared to that identified for the proposed project; therefore, long-term traffic impacts would remain significant and unavoidable. Development of this alternative would provide new employment opportunities and homes for residents of Moreno Valley, but new employment opportunities would be significantly reduced compared to the proposed project.

In summary, the Mixed Use B Alternative would incrementally increase traffic and not improve the City's jobs/housing balance over the long-term. However, this is the only alternative that would reduce a significant impact of the project (aesthetics – views) by substantially reducing the amount of warehousing on the site and replacing it with residential uses. Views of the area would still transition from vacant agricultural land to suburban development, but it would have a residential appearance compared to the proposed project. All the other impacts identified as significant under the proposed project, including likely air quality health risks, would still be significant under this alternative.

Meets Project Objectives. This alternative would not meet most of the objectives of the project related to employment and land use, as shown in Table 6.Q, and would not establish a major regional logistics center in this portion of the City.

NOTE: The objectives outlined in this table did not correspond to the Project Objectives outlined in the Project Description of the DEIR; therefore, they are being corrected at this time.

Table 6.Q: Comparison of Alternative 3 to the Project Objectives

Project Objectives	Does the Alternative Meet the Project Objectives?
Create substantial employment opportunities for the citizens of Moreno Valley and surrounding communities.	No
Provide the land use designation and infrastructure plan necessary to meet current market demands and to support the City's Economic Development Action Plan.	No
Create a major logistics center with good regional and freeway access.	No
Establish design standards and development guidelines to ensure a consistent and attractive appearance throughout the entire project.	Yes
Establish a master plan for the entire project area to ensure that the project is efficient and business-friendly, accommodating the next-generation of logistics buildings.	No
Provide a major logistics center to accommodate a portion of the ever-expanding trade volumes at the Ports of Los Angeles and Long Beach.	No
Create a project that will provide a balanced approach to the City's fiscal viability, economic expansion, and environmental integrity.	No
Provide the infrastructure improvements required to meet project needs in an efficient and cost-effective manner.	No
Encourage new development consistent with regional and municipal service capabilities.	No
Significantly improve the City's jobs/housing balance and help reduce unemployment within the City.	Yes

Table 6.Q: Comparison of Alternative 3 to the Project Objectives

Project Objectives	Does the Alternative Meet the Project Objectives?
Provide thousands of construction job opportunities during the project's buildout.	No
Provide appropriate transitions or setbacks between on-site and off-site uses.	Yes

6.3.9 Alternative Sites Analysis

NOTE: The following changes have been made due to revision to the Specific Plan project size.

This alternative examines different sites in the surrounding region to determine if an alternative location would reduce or eliminate one or more significant impacts of the project. This analysis must be based on feasible sites that could realistically support the proposed project (i.e., a contiguous 2,610-acre site for 40.6 million square feet of high-cube and light logistics warehouse uses as envisioned by the WLC Specific Plan). The surrounding jurisdictions were contacted to identify potential alternative sites for the proposed project. Figure 6.1 shows the locations of the various jurisdictions that were contacted and/or analyzed in this evaluation and Table 6.R presents the results of that analysis.

Table 6.R indicates that there are no feasible alternative sites in the surrounding or nearby jurisdictions that could support the proposed project (i.e., that have enough vacant land zoned or available for logistics warehousing with good freeway and/or rail access). Therefore, none of these sites will be evaluated further.

Table 6.R: Evaluation of Potential Alternative Sites

Jurisdiction/Map Reference*	Contact/Results
City of Moreno Valley	John Terell, the City's former Community Development Director, indicated there are no sites available within the City that have nearly that amount of vacant land planned or designated for industrial-related uses, which is why the WLC project is being proposed on the current site as this is the largest available vacant land left in the City (personal communication, December 2012).
City of Banning	Zai Abu Bakar, Community Development Director, indicated that the City does not have any vacant industrial property that large (personal communication, November 21, 2012). The City of Banning has a number of much smaller parcels (50–100 acres) zoned for industrial use along the I-10 Freeway corridor, but these are not contiguous and are under multiple ownerships. Therefore, there is no alternative site for the proposed project within the City of Banning.
City of Beaumont	Rebecca Deming, Director of Planning, indicated "the City does have some vacant industrial zoning and Specific Plan Zoning for industrial areas along the 60 freeway" (personal communication, November 26, 2012). A review of the City's online mapping indicates the following three potential sites of contiguous vacant land with freeway access that could support industrial uses: A. South of SR-60/East of SR-79: Site consists of 319 acres planned for general/community commercial and industrial uses, but with scattered rural residential uses adjacent to many of the vacant parcels. B. North of SR-60/West of I-10/South of Oak Valley Parkway: Site consists of approximately 463 acres planned for a variety of residential uses under the Oak Valley Specific Plan. C. South of SR-60/West of I-10/North of West 4th Street: Site includes 193 acres just

Table 6.R: Evaluation of Potential Alternative Sites

Jurisdiction/Map Reference*	Contact/Results
	west of new commercial center and planned for "urban village overlay" with industrial along the freeway. Even the largest site (B) is less than 20 percent of the size of the WLC project site in Moreno Valley, and even all together the three sites total 974 acres which is 36 percent of the WLC project site. None of the sites is owned by the developer; Site B is under single ownership, while the other two are under multiple ownership. Based on this information, there are no feasible alternatives sites in the City of Beaumont for the proposed project.
City of Calimesa	Gus Romo, Community Development Director, was contacted and indicated there are not 2,600 acres designated or that have the potential to be zoned for warehouses in Calimesa (personal communication, November 21, 2012). Therefore, there is no alternative site for the proposed project within the City of Calimesa.
City of Menifee	Patti Nahill, contract City Planner, indicated that there was no place in the City with 2,600 vacant acres available for industrial uses (personal communication, November 27, 2012). The City was incorporated on October 1, 2008, and is still working on its General Plan, so the applicable zoning would be Industrial Park (IP). There are three areas in the City with vacant land that could support industrial uses: A. East of I-215 North of Scott Road: Approximately 280 acres with suburban and rural residential uses adjacent to the north and south, and an approved Specific Plan (140 acres) to the east. These areas have multiple owners. B. West of I-215 North of Scott Road: Approximately 600 acres with rural residential to the north, west, and south. This area has multiple owners. C. North Menifee Specific Plan: This area is only 120 acres and the current land use designation is Specific Plan, but the underlying zoning was industrial. This area is under single ownership. Even the largest area (A) is only 22 percent of the size of the WLC project site in Moreno Valley, and even all together the three areas only total 1,000 acres which is 37 percent of the WLC project site. None of the sites is owned by the developer; Area C is under single ownership, while the other two areas are under multiple ownership. Based on this information, there are no feasible alternative sites available in the City of Menifee for the proposed project.
City of Perris	According to the City's website (www.cityofperris.org), the Perris Valley Commerce Center Specific Plan (adopted January 2012) east of I-215 has 1,866 total acres designated for light industrial uses, but some of this area is already developed or planned/approved for development. If this entire area were dedicated to high cube logistics warehousing, it would represent about two-thirds of the land within the proposed WLC Specific Plan. This land is also under ownership of hundreds of individual owners, and the vacant land is not in large contiguous blocks. Therefore, there is no feasible alternative site for the proposed project within the City of Perris.
City of Riverside	Steve Hayes, City Planner, indicated there were no sites close to the required size within the City limits. The only large sites he was aware of were less than 50 acres each and not contiguous with each other (personal communication, November 26, 2012). Therefore, there is no feasible alternative site for the proposed project within the City of Riverside.
City of San Jacinto	Asher Hartel, former Planning Director (retired), said the City of San Jacinto did not have the required amount of vacant land available zoned for industrial use in the City, and there are no freeways or rail service immediately available to the City. He did say the City's "Gateway" area in the northwestern portion of the City, along Ramona Expressway, had approximately 1,700 acres and is mostly vacant, but the property is designated for a mix of residential, commercial, and business park uses in the General Plan, and any non-residential uses would have to be high employment generators (personal communication, November 27, 2012). Therefore, there is no feasible alternative site for the proposed project within the City of San Jacinto.

Table 6.R: Evaluation of Potential Alternative Sites

Jurisdiction/Map Reference*	Contact/Results
County of Riverside	Frank Coyle, former Deputy Director, Advanced Planning Division Riverside County Planning Department, suggested the County's GIS Department could identify all vacant unincorporated land zoned Light Industrial or Business Park along the I-215 corridor south of Moreno Valley to the City of Perris (personal communication, November 21, 2012). Larry Ross with the County's GIS Department said its research shows a total of 1,280 acres of vacant land designated for light industrial or business park uses where warehousing would be appropriate (see Figure 6.1)(personal communication, November 26, 2012 and data/mapping info sent November 29, 2012). This land constitutes hundreds of parcels under separate ownerships distributed along the west side of I-215 from Nandina Avenue south to Nuevo Road. This "corridor" land is spread out up to a half mile away from the freeway and is not in large contiguous blocks, and it is adjacent to many rural residential parcels and uses. In addition, it is less than half the size needed for a similar amount of logistics warehousing development as under the proposed project. For these reasons, it would be infeasible to consolidate and propose development of industrial-zoned unincorporated land along this portion of I-215. In addition to the I-215 corridor, the "Villages of Lakeview" property located south of Mystic Lake off of Ramona Expressway is at least one additional potential site in the general project area that has sufficient acreage to accommodate the WLC project. This property has already been proposed for a variety of residential uses (11,350 units on 2,800 acres) but the EIR for that project was successfully challenged in court this year (Riverside County EIR 471). While the property is large enough, it is already proposed for residential development so it would be infeasible to use this property to support development equivalent to the proposed project. Although it is relatively far from the project area (approximately 22 miles to the west-northwest along the east side of I-15 south of SR-60), the Mira Loma area of the County supports a variety of large warehouses and has rail service available, so it is a potential location for additional logistics warehouses. The Jurupa Area Plan indicates that warehouse uses are allowed only in the area bounded by San Sevaine Channel from Philadelphia Street southerly to Galena Street on the east, Galena Street from the San Sevaine Channel to Riverside Drive, then Riverside Drive westerly to Milliken Avenue, then Milliken Avenue north to Philadelphia Street on the west, and Philadelphia Street easterly to the San Sevaine Channel on the north. A visual inspection of aerial photographs of the Mira Loma area indicates the largest individual vacant parcel or group of adjacent vacant parcels in this area occupies approximately 800 acres, most of which is currently being used for agriculture (i.e., vineyards)(east of I-15 on both sides of Bellegrave Avenue). Otherwise, there are no vacant parcels of more than 100 acres in size in this area (not shown in Figure 6.1).
City of Jurupa Valley (not shown in Figure 6.1)	The newly incorporated City of Jurupa Valley, located south of SR-60 just west of the City of Riverside, also has vacant industrial-zoned land available for warehousing, but all currently vacant parcels are 50 acres or less in size and not contiguous as to be able to form a parcel nearly large enough to support the proposed project (Ernest Perea, former City contract planner, personal communication, January 4, 2013).
March Joint Powers Authority	The March JPA website (www.marchjpa.com) indicates there is a total of approximately 750 acres of developable land west of I-215, north of Van Buren Boulevard and south of Alessandro Boulevard within the MJPA. At present, this land is planned for a mixture of business park, commercial, industrial, public facilities, and open space uses. Even if all this land was committed to logistics warehousing, it would only represent 28% of the WLC project site. Therefore, an alternative site for the proposed project on March JPA property is infeasible.

* See Figure 6.1

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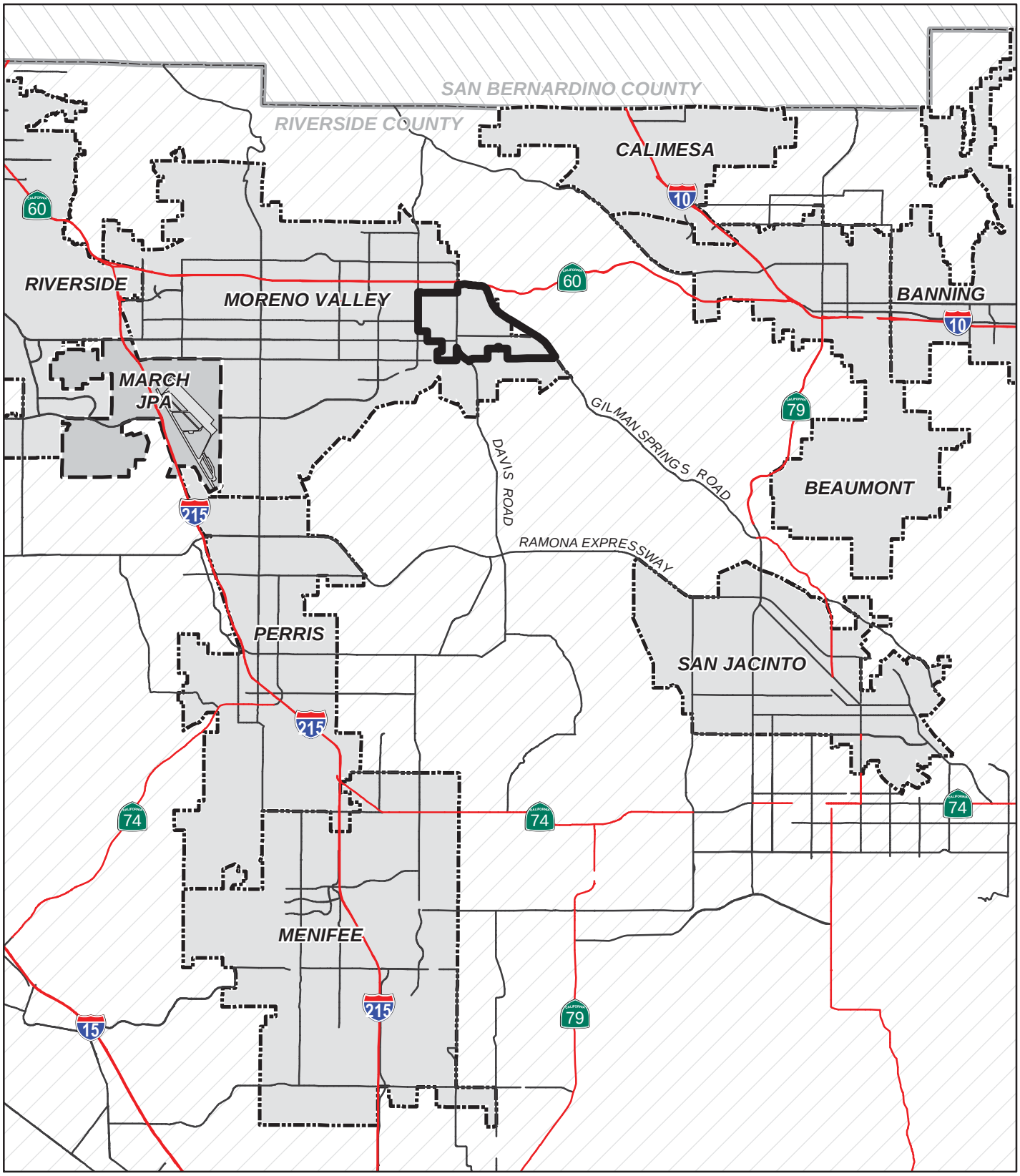

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Project Boundary

Cities

Riverside County

San Bernardino County

FIGURE 6.1

World Logistics Center Specific Plan Project
Environmental Impact Report

Alternative Sites Analysis

SOURCE: Riverside County, 2011.

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6.4 COMPARISON OF PROJECT ALTERNATIVES

The following discussion compares the impacts of each alternative with the impacts of the proposed project, as detailed in Sections 4.1 through 4.16 of this EIR. Table 6.S compares the impacts of the alternatives with those of the proposed project. This table identifies whether the alternative results in (1) a reduction of the impact; (2) a greater impact than the project; or (3) the same impact as the project.

Table 6.S: Comparison of Alternatives to the Proposed Project

Environmental Issue	Proposed Project	No Project No Build	No Project Existing General Plan	Alt. 1 Reduced Density	Alt. 2 Mixed Use A	Alt. 3 Mixed Use B
Aesthetics	SIG	NI	←LTS	=	=	←LTS
Agricultural and Forest Resources	LTS/mit	NI	=	=	=	=
Air Quality	SIG	NI	SIG	←SIG	→SIG/+	SIG
Biological Resources	LTS/mit	NI	=	=	=	=
Cultural Resources	LTS/mit	NI	=	=	=	=
Geology and Soils	LTS/mit	NI	=	=	=	=
Global Climate Change	LTS/mit	NI	LTS	LTS/mit	LTS/mit	LTS/mit
Hazards and Hazardous Materials	LTS/mit	NI	=	=	=	=
Hydrology and Water Quality	LTS/mit	NI	=	=	=	=
Land Use and Planning	SIG	NI	LTS	=	=	=
Mineral Resources	NI	=	=	=	=	=
Noise	SIG	NI	←SIG	←SIG	←SIG	←SIG
Population, Housing, and Employment	LTS	NI	+	=	=	+
Public Services (police, fire, schools, parks)	LTS/mit	NI	=	=	=	=
Transportation and Traffic	SIG	NI	→SIG	←SIG	→SIG+	→SIG
Utilities and Service Systems (water, wastewater, etc.)	LTS/mit	NI	=	=	=	=

Proposed Project
NI: No Impact
LTS: Less than Significant Impact
LTS/mit: Less than Significant Impact with Mitigation
SIG: Significant Impact with or without Mitigation

Project Alternatives
= Compared with the proposed project, no change in the significance of impact will occur.
→ Compared with the proposed project, the significance of the impact is increased.
← Compared with the proposed project, the significance of the impact is reduced.
\+ Compared with the proposed project, a new impact has been identified.
←SIG Compared with the proposed project, the volume or extent of the impact is reduced, yet still significant.

6.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

As detailed above in Table 6.S, the No Project/Existing General Plan Alternative has mixed impacts relative to the proposed project; it reduces aesthetic impacts to less than significant levels but worsens the jobs/housing ratio by introducing more housing than employment-generating uses. The

Reduced Density Alternative incrementally reduces a number of impacts of the proposed project (e.g., traffic, air quality, and noise) but cannot reduce them to less than significant levels even with mitigation. The Mixed Use A Alternative substantially increases traffic and related impacts compared to the project impacts, but it does not create any additional significant impacts. The Mixed Use B Alternative would incrementally increase traffic and would not improve the jobs/housing balance. In addition, this alternative would also worsen the jobs/housing ratio of the City by allowing the construction of many more homes than job-creating land uses. Regarding air quality impacts (criteria pollutants), development of any land uses would likely exceed SCAQMD thresholds mainly due to the size of the proposed project site.

The *CEQA Guidelines* (Section 15126.6 (e[2]) requires that an environmentally superior alternative be identified in the EIR. Based on the analysis in this section and the summary contained in Table 6.S, Alternative 1 – Reduced Density – is the only alternative that reduces traffic, air quality, and related impacts by reducing the total square footage of warehousing by approximately 30 percent. Alternative 3—Mixed Use B—is the only alternative that would reduce a significant impact of the proposed project (i.e., aesthetics – views). However, it would worsen the jobs/housing balance of the City over the long term. For these reasons, Alternative 1 – Reduced Density —has been deemed to be environmentally superior to the proposed project. However, none of the alternatives achieves the objectives of the project to nearly the same degree as the proposed project.

Table 6.T compares Alternative 1 to the project objectives and indicates that Alternative 1 does not meet most of the major goals of the proposed project mainly because of the reduced total square footage by 30 percent, which also reduces the amount of new employment and property tax revenues generated to the City.

NOTE: The objectives outlined in this table did not correspond to the Project Objectives outlined in the Project Description of the DEIR; therefore, they are being corrected at this time. In addition, some numerical changes result from the changes to the Specific Plan area.

Table 6.T: Comparison of the Environmentally Superior Alternative to the Project Objectives

Project Objectives	Degree to Which Alternative 1 Satisfies the Project Objectives
Create substantial employment opportunities for the citizens of Moreno Valley and surrounding communities.	**Not to the Same Degree as the Proposed Project.** This alternative would provide only 16,797 new employees compared to 24,000 from the proposed project (30% less).
Provide the land use designation and infrastructure plan necessary to meet current market demands and to support the City's Economic Development Action Plan.	**Not to the Same Degree as the Proposed Project.** The alternative introduces substantially less employment-generating uses on the site which is not consistent with the City's Economic Strategic Plan.
Create a major logistics center with good regional and freeway access.	**Not to the Same Degree as the Proposed Project.** The alternative would allow 28 MSF of logistics warehousing near the SR-60 Freeway but it would less attractive as a major regional logistics center compared to the proposed project.
Establish design standards and development guidelines to ensure a consistent and attractive appearance throughout the entire project.	**Meets Objective.** Development of the project area under this alternative would most likely proceed under some form of specific plan, which would help ensure future development was consistent with a comprehensive plan for the area.
Establish a master plan for the entire project area to ensure that the project is efficient and business-friendly, accommodating the next-generation of logistics buildings.	**Meets Objective.** The alternative would develop a smaller amount of logistics warehousing compared to the proposed project, but it would still be master planned, most likely under a specific plan.

Table 6.T: Comparison of the Environmentally Superior Alternative to the Project Objectives

Project Objectives	Degree to Which Alternative 1 Satisfies the Project Objectives
Provide a major logistics center to accommodate a portion of the ever-expanding trade volumes at the Ports of Los Angeles and Long Beach.	**Not to the Same Degree as the Proposed Project.** The alternative would allow 28 MSF of logistics warehousing vs. 40.6 MSF for the proposed project.
Create a project that will provide a balanced approach to the City's fiscal viability, economic expansion, and environmental integrity.	**Not to the Same Degree as the Proposed Project.** The alternative would not provide nearly as much new warehouse capacity to form a regional port-oriented logistics center compared to the proposed project.
Provide the infrastructure improvements required to meet project needs in an efficient and cost-effective manner.	**Not to the Same Degree as the Proposed Project.** The alternative would produce 30% less employment than under the proposed project, and would also provide less property tax revenue and be able to pay for less public improvements and infrastructure compared to the proposed project.
Encourage new development consistent with regional and municipal service capabilities.	**Not to the Same Degree as the Proposed Project.** It is unclear if a substantially reduced logistics warehousing project could afford to provide the necessary infrastructure to support the planned development compared to the proposed project.
Significantly improve the jobs/housing balance and help reduce unemployment within the City.	**Not to the Same Degree as the Proposed Project.** This alternative would provide only 16,797 new employees compared to 24,000 from the proposed project (30% less).
Provide thousands of construction job opportunities during the project's buildout phase.	**Not to the Same Degree as the Proposed Project.** The alternative would not provide as much work for as many construction workers compared to the proposed project
Provide appropriate transitions or setbacks between on-site and off-site uses.	**Meets Objective.** A smaller logistics warehouse project may be able to provide equal or greater transitions and buffers from existing off-site residential uses compared to the proposed project.

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7.2 ACRONYMS AND ABBREVIATIONS

§	Section
§§	Subsection
°C	degrees Celsius
°F	degrees Fahrenheit
$\mu g/m^3$	Micrograms per cubic meter
AAQS	Ambient Air Quality Standards
AB	Assembly Bill
ACC	Andrew Chang and Company
ACM	Asbestos-Containing Material
AF	acre-feet
AFRES	Air Force Reserve
AFV	Alternative Fuel Vehicle
AFY	acre feet per year
AICUZ	Air Installation Compatible Use Zone
ALUC	Airport Land Use Commission
ALUP	Airport Land Use Plan
amsl	above mean sea level
A-P Act	*Alquist-Priolo Earthquake Fault Zoning Act*
APN	Assessor's Parcel Number
AQMP	Air Quality Management Plan
AST	Aboveground Storage Tank
Basin	South Coast Air Basin
BAU	Business As Usual
BDCP	Bay Delta Conservation Plan
BMP	Best Management Practice
BP	Business Park
BV&A	Bear Valley and Alessandro Development Company
BVIC	Bear Valley Irrigation Company
BVLWC	Bear Valley Land and Water Company

CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CalFire	California Department of Forestry and Fire Protection
CALGreen Code	California Green Building Standards Code
California Register	California Register of Historic Resources
Caltrans	California Department of Transportation
CAPSSA	Criteria Area Plant Species Survey Area
CARB	California Air Resources Board
CASQA	California Stormwater Quality Association
CASSA	Criteria Area Species Survey Area
CAT	California Climate Action Team
CBC	California Building Code
CBOC	California Burrowing Owl Consortium
CBSC	California Building Standards Commission
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFG	California Department of Fish and Game, former name of the California Department of Fish and Wildlife
CDFW	California Department of Fish and Wildlife, formerly known as the California Department of Fish and Game
CDGB	Community Development Block Grant
CDMG	California Department of Mines and Geology
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response Compensation Liability Act
CESA	California Endangered Species Act
CFCs	chlorofluorocarbons
CFR	Code of Federal Regulations

CFS	calls for service
cfs	cubic feet per second
CGP	Construction General Permit
CGS	California Geological Survey
CH_4	Methane
CHP	California Highway Patrol
CIP	Capital Improvement Plan
CIWMB	California Integrated Waste Management Board
CLUP	Comprehensive Land Use Plan
CNDDB	California Natural Diversity Data Base
CNEL	Community Noise Equivalent Level
CNG	Compressed Natural Gas
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
COA	Coordinated Operations Agreement
CPD	(HUD Office of) Community Planning and Development
CPUC	California Public Utilities Commission
CRA	California Resource Agency
CRA	Cultural Resource Assessment
CSC	California Species of Concern
CUPA	Certified Unified Program Agency
CUWCC	California Urban Water Conservation Council
CVC	California Vehicle Code
CVP	Central Valley Project
CWA	(Federal) Clean Water Act
CWC	California Water Code
DAMP	Drainage Area Management Plan

dB	decibel
dBA	decibel on the A-weighted scale
DBESP	Determination of a Biologically Equivalent or Superior Preservation
DCIA	Directly Connected Impervious Area
DE	Diesel Emissions
DEH	Department of Environmental Health
DHS	(California) Department of Health Services
DIF	Development Impact Fee
DMM	Demand Management Measure
DMP	Drainage Master Plan
DOC	(California) Department of Conservation
DOF	(California) Department of Finance
DTA	David Taussig & Associates, Inc.
DTSC	(California) Department of Toxic Substance Control
DWR	(California) Department of Water Resources
e.g.	*exemplī grātiā*, for example
ECSD	Edgemont Community Services District
EDR	Environmental Data Resources
EIC	Eastern Information Center
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EMWD	Eastern Municipal Water District
EPA	U.S. Environmental Protection Agency
EPAct	Energy Policy Act
ESA	Environmental Site Assessment
ESG	Emergency Solutions Grant
FAA	Federal Aviation Administration
FAR	Floor Area Ratio
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act

FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
ft	foot/feet
FTA	Federal Transit Administration
FTE	full-time equivalent
GCC	Global Climate Change
GHG	Greenhouse gas
GIS	Geographic Information Systems
GPA	General Plan Amendment
gpd	gallons per day
gpf	gallons per flush
GWP	Global Warming Potential
HANS	Habitat Evaluation and Acquisition Negotiation Strategy
HCD	(California) Department of Housing and Community Development
HCM	*Highway Capacity Manual*
HCP	Habitat Conservation Plan
HFCP	Highland Fairview Corporate Park
HHWE	Household Hazardous Waste Element
HI	Hazard Indices
HMB	Hazardous Materials Branch
HMBEP	Hazardous Materials Business Emergency Plan
HMMA	Hazardous Materials Management Act
HMMP	Habitat Mitigation and Monitoring Plan
HNL	Hourly Noise Level
HOME	HOME Investment Partnership
HOPWA	Housing Opportunities for Persons with AIDS
hp	horsepower
HRA	Health Risk Assessment
HSA	Hydrologic Subarea

HSC	Health and Safety Code
HUD	Housing and Urban Development
HVAC	Heating, Ventilating, and Air Conditioning
HWCL	Hazardous Waste Control Law
Hz	hertz
i.e.	*id est*, that is
IMPLAN	Impact Analysis for Planning
IPCC	United Nations Intergovernmental Panel on Climate Change
IRP	Integrated Resources Plan
IS	Initial Study
ITE	Institute of Transportation Engineers
kV	kilovolt
LAFCO	Local Agency Formation Commission
LAPM	Los Angeles pocket mouse
LBP	Lead-Based Paint
LBRMP	Logistic Building Runoff Management Plan
lbs	pounds
LCC	Land Capability Classification
LD	Logistics Development
L_{dn}	day-night average noise
LE	Land Evaluation
LEED	Leadership in Energy and Environmental Design
L_{eq}	Equivalent continuous sound level (L_{eq})
LESA	(California) Land Evaluation and Site Assessment
LHMP	Local Hazard Mitigation Plan
LI	Light Industrial
LID	Low Impact Development
LL	Light Logistics
L_{max}	maximum noise level
LNG	Liquefied Natural Gas

LNG/CNG	liquefied natural gas/compressed natural gas
LOS	Level of Service
~~LS~~	~~Logistics Support~~
LSA	LSA Associates, Inc.
LST	Local Significance Threshold
MARB	March Air Reserve Base
MATES	Multiple Air Toxics Exposure Study
MBA	Michael Brandman Associates
MBTA	Migratory Bird Treaty Act
MC	Municipal Code
Metropolitan	Metropolitan Water District of Southern California
mgd	million gallons per day
MHSP	Moreno Highlands Specific Plan
MICR	maximum individual cancer risk
MIP	March Inland Port
MJPA	March Joint Powers Authority
mm/yr	millimeters per year
MMDP	Moreno Master Drainage Plan
MMRP	Mitigation Monitoring and Reporting Program
mmt	million metric tons
MOU	Memorandum of Understanding
mpg	miles per gallon
mph	miles per hour
MPO	Metropolitan Planning Organization
MPOA	Master Property Owners Association
MPT	Master Plan of Trails
MRZ	Mineral Resource Zone
MS4	Municipal Separate Storm Sewer Systems
MSHCP	(Western Riverside County) Multiple Species Habitat Conservation Plan
mt	metric tons

mty	metric tons per year
MVEU	Moreno Valley Electric Utility
MVFD	Moreno Valley Fire Department
MVHS	Moreno Valley Historical Society
MVPD	Moreno Valley Police Department
MVRWRF	Moreno Valley Regional Water Reclamation Facility
MVUSD	Moreno Valley Unified School District
MW	megawatt
MWh	megawatt-hours
N_2O	nitrous oxide
NA	Native American
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NAIOP	National Association of Industrial and Office Properties
National Register	National Register of Historic Places
NCCP	Natural Communities Conservation Plan
NDDB	Natural Diversity Data Base
NDFE	Nondisposal Facility Element
NEPA	National Environmental Policy Act
NEPSSA	Narrow Endemic Plant Species Survey Area
NFIP	National Flood Insurance Program
NFPA	National Fire Protection Association
NHPA	National Historic Preservation Act
NHTSA	Highway Traffic and Safety Administration
NMFS	National Marine Fisheries Service
NO_2	Nitrogen Dioxide
NOI	Notice of Intent
NOP	Notice of Preparation
NO_X	Oxides of Nitrogen
NPDES	National Pollutant Discharge Elimination System

NRCP	Noise Reduction Compliance Plan
NRCS	Natural Resource Conservation Service
O_3	Ozone
OEHHA	Office of Environmental Health Hazard Assessment
OHP	Office of Historic Preservation
OHWM	Ordinary High Water Mark
OMB	(White House) Office of Management and Budget
OPR	Office of Planning and Research
OS	Open Space
PAH	Polycyclic Aromatic Hydrocarbon
Pb	Lead
PCBs	polychlorinated biphenyls
PEA	Preliminary Environmental Assessment
PM_{10}	Particulate Matter with a Diameter of 10 Microns or Less
$PM_{2.5}$	Particulate Matter with a Diameter of 2.5 Microns or Less
POTWs	Publicly Owned Treatment Works
POU	Publically Owned Utility
ppb	parts per billion
ppm	parts per million
PSB	Public Safety Building
PUC	Public Utilities Commission
PVC	Polyvinyl Chloride
PVCCSP	Perris Valley Commerce Center Specific Plan
PVSC	Perris Valley Storm Channel
PWC	Public Works Committee
PWQMP	Preliminary Water Quality Management Plan
PZ	Pressure Zone
q.v.	*quod vidē*, which see (presented elsewhere in the document)
RCA	Resource Conservation Agency
RCB	reinforced concrete box

RCC	Riverside Community College
RCFCWCD	Riverside County Flood Control and Water Conservation District
RCFD	Riverside County Fire Department
RCIP	Riverside County Integrated Project
RCIWMP	Riverside Countywide Integrated Waste Management Plan
RCP	Regional Comprehensive Plan
RCRA	Resource Conservation and Recovery Act
RCSD	Riverside County Sheriff's Department
RCTC	Riverside County Transportation Commission
RHNA	Regional Housing Needs Assessment
RivTAM	Riverside County Traffic Analysis Model
ROG	Reactive Organic Gas
RPR	(California) Rare Plant Ranking
RPS	Renewables Portfolio Standard
RPW	Relatively Permanent Water
RSHA	Regional System of Highways and Arterials
RTA	Riverside Transit Agency
RTIP	Regional Transportation Improvement Plan
RTP	Regional Transportation Plan
RUWMP	Regional Urban Water Management Plan
RWQCB	Regional Water Quality Control Board
SA	Site Assessment
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCGC	Southern California Gas Company
SCS	Sustainable Communities Strategy
SDG&E	San Diego Gas and Electric

SEDAB	Southeast Desert Air Basin
sf	square foot/feet
SF_6	Sulfur Hexafluoride
SHMA	Seismic Hazards Mapping Act
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SJUSD	San Jacinto Unified School District
SJWA	San Jacinto Wildlife Area
SKR	Stephens' kangaroo rat
SKR HCP	Stephens' Kangaroo Rat Habitat Conservation Plan
SMARA	Surface Mining and Reclamation Act
SO_2	Sulfur Dioxide
SO_X	Sulfur Oxides
SP	Service Population
SR-60	State Route 60
SRRE	Source Reduction and Recycling Element
SSURGO	Soil Survey Geographic
STC	Sound Transmission Class
SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan
SWQCB	State Water Quality Control Board
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
TAF	thousand acre-feet
TASAS	Traffic Accident Surveillance and Analysis System
TCM	Transportation Control Measures
TCP	Traditional Cultural Place
TDM	Transportation Demand Management
TDS	Total Dissolved Solids

TIA	Traffic Impact Analysis
TIS	Traffic Impact Study
TMDL	Total Maximum Daily Load
TNW	Traditional Navigable Water
tpy	tons per year
TRI	Toxics Release Inventory
TUMF	Transportation Uniform Mitigation Fee
UBC	Uniform Building Code
UC	University of California
UNFCCC	United Nations Framework Convention on Climate Change
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USDOT	United States Department of Transportation
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	Underground Storage Tank
UWMP	Urban Water Management Plan
VAV	Variable Air Volume
VIA	Visual Impact Assessment
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds
VRP	Visibility-Reducing Particles
WDR	Wastewater Discharge Requirement
WLC	World Logistics Center
WLCSP	World Logistics Center Specific Plan
WQMP	Water Quality Management Plan
WRCOG	Western Riverside Council of Governments
WSA	Water Supply Assessment
WSP	Water Shortage Plan
ZOI	Zone of Influence

7.3 GLOSSARY OF GENERAL TERMS

Acre-Foot. An acre-foot is the quantity of volume of water that covers one acre to a depth of one foot; equal to 43,560 cubic feet or 325,851 gallons.

Aesthetics. The perception of artistic elements, or elements in the natural or human-made environment that are pleasing to the eye.

Air Quality Criteria. Air quality criteria are the levels of pollution and length of exposure at which adverse effects on health and welfare occur.

Air Quality Standards. Air quality standards are the prescribed level of pollutants in the outside air that cannot be exceeded legally during a specified time in a specified geographical area.

Ambient Noise. Ambient noise is the composite of noise from all sources near and far. The ambient noise level constitutes the normal or existing level of environmental noise at a given location.

Applicant. An applicant is a person who proposes to carry out a project that needs a lease, permit, license, certificate, or other entitlement, for use or financial assistance from one or more public agencies.

Arterial. An arterial is a major street carrying the traffic of local and collector streets to and from freeways and other major streets, with controlled intersections and generally providing direct access to non-residential properties.

Attainment. Attainment means that there is compliance with State and Federal ambient air quality standards within an air basin.

A-Weighted Decibel (dBA). The dB on the A-weighted scale is the sound level obtained by use of A-weighting. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.

California Environmental Quality Act (CEQA). Enacted in 1970, CEQA requires State and local agencies to estimate and evaluate the environmental implications of their actions. It aims to prevent environmental effects of the agency actions by requiring agencies, when feasible, to avoid or reduce the significant environmental impacts of their decisions. If a proposed activity has the potential for a significant adverse environmental impact, an environmental impact report (EIR) must be prepared and certified as to its adequacy before taking action on the proposed project (*California Public Resources Code* §§21000 et seq.)

Capacity. The maximum rate of flow at which vehicles can be reasonably expected to traverse a point or uniform segment of a lane or roadway during a specified time period under prevailing roadway, traffic, and control conditions.

Collector. Relatively low-speed, low-volume street that provides circulation within and between neighborhoods. Collectors usually serve short trips and are intended for collecting trips from local streets and distributing them to the arterial network.

Community Noise Equivalent Level (CNEL). A 24-hour energy equivalent level derived from a variety of single-noise events, with weighting factors of 5 and 10 dBA applied to the evening (7 p.m. to 10 p.m.) and nighttime (10 p.m. to 7 a.m.) periods, respectively, to allow for greater sensitivity to noise during these hours.

Congestion Management Plan (CMP). A mechanism employing growth management techniques, including traffic level of service requirements, standards for public transit, trip reduction programs involving transportation systems management and jobs/housing balance strategies, and capital improvement programming, for the purpose of controlling and/or reducing the cumulative regional traffic impacts of development.

Cumulative Impact. As used in CEQA, the total impact resulting from the accumulated impacts of individual projects or programs over time.

Day-Night Average Level (L_{dn}). The average equivalent A-weighted sound level during a 24-hour day, obtained after the addition of 10 decibels to sound levels in the night after 10 p.m. and before 7 a.m. (Note: CNEL and L_{dn} represent daily levels of noise exposure averaged on an annual or daily basis, while L_{eq} represents the equivalent energy noise exposure for a shorter time period, typically one hour.)

Decibel (dB). The decibel (dB) is the unit of level that denotes the ratio between two quantities that are proportional to power; the number of decibels is 10 times the logarithm (to the base 10) of this ratio.

Emission Standard. The maximum amount of pollutant legally permitted to be discharged from a single source, either mobile or stationary.

Environment. In CEQA, the environment are "the physical conditions which exist within the area which will be affected by a proposed project, including land, air, water, mineral, flora, fauna, noise, and objects of historic or aesthetic significance."

Environmental Impact Report (EIR). A report required pursuant to the California Environmental Quality Act that assesses all the environmental characteristics of an area, determines what effects or impacts will result if the area is altered or disturbed by a proposed action, and identifies alternatives or other measures to avoid or reduce those impacts.

Equivalent Energy Level (L_{eq}). L_{eq} is the sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. L_{eq} is typically computed over 1-hour, 8-hour, and 24-hour sample periods.

Feasible. To be feasible, according to CEQA, means to be capable of being accomplished in a successful manner within a reasonable time taking into account economic, environmental, social, and technological factors.

Findings. Findings required by CEQA are the conclusions made regarding the significance of a project in light of its environmental impacts. A Statement of Overriding Considerations does not obviate the need to make other required CEQA findings.

Floor Area Ratio (FAR). The FAR is the gross floor area permitted on a site divided by the total net area of the site, expressed in decimals to one or two places. For example, on a site with 10,000 net square feet of land area, a floor area ratio of 1.0 will allow a maximum of 10,000 gross square feet of building floor area to be built. On the same site, an FAR of 1.5 would allow 15,000 square feet of floor area; an FAR of 2.0 would allow 20,000 square feet; and an FAR of 0.5 would allow 5,000 square feet. Also commonly used in zoning, FARs typically are applied on a parcel-by-parcel basis as opposed to an average FAR for an entire land use or zoning district.

Floor Area, Gross. The sum of the horizontal areas of the several floors of a building measured from the exterior face of exterior walls, or from the centerline of a wall separating two buildings, but not including any space where the floor-to-ceiling height is less than six feet. Some cities exclude specific kinds of space (e.g., elevator shafts and parking decks) from the calculation of gross floor area.

Freeway. A freeway is a high-speed, high-capacity, limited-access road serving regional and countywide travel. Such roads are free of tolls, as contrasted with turnpikes or other toll roads. Freeways generally are used for long trips between major land use generators. Major streets cross at a different grade level.

Incorporation by Reference. "Incorporation by reference" is a CEQA term meaning reliance on a previous environmental document for some portion of the environmental analysis of a project. See *CEQA Guidelines* §15150.

Initial Study. An Initial Study is a preliminary CEQA analysis that can be prepared by a Lead Agency to determine whether an EIR or Negative Declaration must be prepared, and identifying the significant environmental effects to be analyzed in an EIR.

Land Use. Any land use is the determination by a governing authority of the use to which land within its jurisdiction may be put so as to promote the most advantageous development of the community.

Lead Agency. The lead agency is the public agency that has the principal responsibility for carrying out or approving a project. The Lead Agency decides whether an EIR or Negative Declaration is required for a project, and causes the appropriate document to be prepared.

Level of Service (LOS). LOS is a qualitative measure describing operational conditions within a traffic stream and how motorists and/or passengers perceive them.

Maximum Noise Level (L_{max}). The maximum A-weighted sound levels measured on a sound level meter, during a designated time interval, using fast time averaging.

Mitigation Measure. A mitigation measure is a change in a project designed to avoid, minimize, rectify, reduce, or compensate for a significant environmental impact.

Mitigation Monitoring and Reporting Program (MMRP). When a lead agency adopts a mitigated negative declaration or an EIR, it must adopt a program of monitoring or reporting which will ensure that mitigation measures are implemented. (See CEQA Statute §21081.6(a) and *CEQA Guidelines* §§15091(d) and 15097.)

Noise. Noise is any sound that is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying (unwanted sound).

Noise Contours. Noise contours are lines drawn about a noise source indicating equal levels of noise exposure.

Notice of Determination (NOD). An NOD is a brief notice filed with the State Clearinghouse to document project approval. The filing of the NOD starts the statute of limitations period. (See *CEQA Guidelines* §15373.)

Notice of Preparation (NOP). An NOP is a brief notice to notify the public, Responsible and Trustee Agencies that an EIR is being prepared for a project. The notice serves to solicit guidance from those agencies and the public about the scope and content of the environmental information to be included in the EIR. (See *CEQA Guidelines* §15375.)

Peak Hour. The hour of highest traffic volume on a given section of roadway between 7:00 a.m. and 9:00 a.m. or between 4:00 p.m. and 6:00 p.m.

Programmatic EIR. A programmatic EIR is an EIR that examines the impacts that would result from a conceptual plan or policy action envisioned by the lead agency, which is carried out at a more general level of analysis based upon the development information available. (See C*EQA Guidelines* §15161.)

Project. According to CEQA, a project is the whole of an action that has the potential to result in significant environmental change in the environment, directly or ultimately. (See *CEQA Guidelines* §15378.)

Project Description. A project description describes the basic characteristics of the project including location, need for the project, project objectives, technical and environmental characteristics, project size and design, project phasing and required permits. The level of detail provided in the project description varies according to the type of environmental document prepared.

Project EIR. A project EIR is an EIR that examines the impacts that would result from development of a specific project. (See C*EQA Guidelines* §15161.)

Public Hearing. A public hearing is a mechanism for providing the public an opportunity to comment on and present evidence relating to a proposed project and its Draft EIR.

Responsible Agencies. According to CEQA, responsible agencies are all public agencies other than the Lead Agency that have discretionary approval power over the project. (See *CEQA Guidelines* §15381.)

Reviewing Agencies. Reviewing agencies are local, State, and Federal agencies with jurisdiction over the project area or resources potentially affected by the project. Cities and counties are also considered reviewing agencies.

Scoping Meeting. A scoping meeting is an optional meeting pursuant to CEQA in which the lead agency meets with members of the public or agency representatives after the Notice of Preparation has been issued to discuss environmental issues related to a project. Scoping sessions provide the opportunity to discuss environmental issues, project alternatives and potential mitigation measures that may warrant in-depth analysis in the environmental review process.

Sensitive Receptors. Sensitive receptors are people or institutions with people that are particularly susceptible to illness from environmental pollution, such as the elderly, very young children, people already weakened by illness (e.g., asthmatics), and persons engaged in strenuous exercise.

Significant Effect on the Environment. A significant effect on the environment means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance (*CEQA Guidelines* §15382).

Thresholds of Significance. Thresholds of significance are criteria for each environmental issue area to assist with determinations of significance of project impacts. They are based on *CEQA Guidelines* Appendix G.

Trustee Agency. According to CEQA, a Trustee agency is a State agency that has jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California. (See *CEQA Guidelines* §15386.)

Volume (Transportation). The volume of traffic is the total number of vehicles that pass over a given point or section of a roadway during a given time interval. Volumes may be expressed in terms of annual, daily, hourly, or sub-hourly periods.

Wastewater. Wastewater is water carrying dissolved or suspended solids from homes, farms, businesses, and industries. The wastewater treatment process includes any process that modifies characteristics of the wastewater, usually for the purpose of meeting effluent standards.

Zoning. Regulation by zone districts of the height, use, and area of structures, the use of land, and the density of population and intensity of allowable uses.

7.4 GLOSSARY OF PROJECT-SPECIFIC DEFINITIONS

The following definitions are excerpts from Section 3.4, *Project Description*.

Annexation Area: This term refers to an 85-acre parcel located adjacent to Gilman Springs Road that is to be annexed into the City of Moreno Valley. The parcel is already within the City's adopted Sphere of Influence adopted on November 21, 1985.

CDFW Conservation Buffer Area: This term refers to a 910-acre parcel owned by the State of California as part of the San Jacinto Wildlife Area (SJWA). This land is within the City of Moreno Valley and is included in the approved Moreno Highlands Specific Plan. That plan designates this property for a broad mix of urban uses including suburban residential, schools, parks, and roads. This land was purchased by the State in 1991 to act as a buffer between the sensitive biological resources of the SJWA and the future urban development under the Moreno Highlands Specific Plan. This land has been actively farmed for many decades and most of it remains in active production. The southwestern portion contains areas of non-native grasslands, although aerial photographs show that

this area has been intermittently tilled over the last 80 years. This property is included in the General Plan Amendment and the Zone Change to replace the current urban land uses that are permitted and replace them with Open Space and Public Facility designations. This property is not within the proposed World Logistics Center Specific Plan. This Buffer Area is a large part of the "Other Project Areas" described herein.

General Plan Amendment: One of the proposed entitlements is a General Plan Amendment (GPA) that will permit the establishment of logistics land uses on the 3,714-acre property located east of Redlands and south of SR-60. The following General Plan Elements will be amended: Community Development; Circulation; Parks, Recreation, and Open Space; Safety; Conservation; and General Plan Goals and Objectives. The GPA will replace the current Moreno Highland Specific Plan/General Plan Designations with the following land use designations: (a) 2,610 acres for high cube logistics development; (b) 1,084 acres of Open Space; and (c) 20 acres for Public Facilities.

Moreno Highlands Specific Plan: This term refers to the currently approved Specific Plan that covers 3,038 acres of the project area. This Specific Plan permits the development of a master planned, mixed-use community consisting of up to 7,763 residential dwelling units and approximately 603 acres of business, retail, institutional, and other uses. This development will be replaced with the World Logistics Center Specific Plan and 1,104 acres of Open Space and Public Facilities uses.

Off-site Analysis Zone: This term refers to an approximately 1,000-foot wide zone adjacent to the south and east boundaries of the Specific Plan area that was studied by Michael Brandman Associates (MBA) as part of the assessment of potential impacts on biological resources. It covers approximately 1,637.5 acres.

Off-site Improvement Areas: Development under the Specific Plan will require construction of a number of offsite infrastructure improvements covering approximately 104 acres of land adjacent to the Specific Plan Site including, but not limited to the following facilities (see Figure 3.7):

- Debris Basins easterly of Gilman Springs Road;
- Water reservoirs and access roads located northeast, north, and west of the project site;
- SR-60 interchange improvements; and
- Roadway, water, sewer, drainage, and utility improvements extending north and west from the project.

Other Project Areas: The San Diego Gas & Electric Company (SDG&E) and the Southern California Gas Company (SCGC) own a total of 194 acres of land immediately south of the Specific Plan site. These properties are included in the proposed General Plan Amendment and the Zone Change to designate them for Open Space and Public Facilities uses. These designations are consistent with present uses. These properties are not within the proposed World Logistics Specific Plan. Approximately 174 acres of the land owned by SDG&E will be designated as Open Space. Nineteen acres of SDG&E land and one acre of SCGC land will be designated as Public Facilities.

Project Site or Project Area: This term refers to the entire 3,818-acre area covered by the EIR encompassed by: (a) the Specific Plan Area (2,610 acres); (b) the CDFW Conservation Buffer Area (910 acres); c) the Public Facilities Lands area (194 aces); and (d) the Off-site Improvement Area on 104 acres.

Proposed Project or World Logistics Center Project: General term applied to all of the entitlements outlined above that are addressed in this EIR, including:

WLC Specific Plan .....2,610 acres
General Plan Amendment.....3,714 acres
Zone Change .....3,714 acres
Tentative Parcel Map .....1,539 acres
Annexation .....85 acres
Off-site improvements.....104 acres

Specific Plan Site: Approximately 2,610 acres of the project area are included in the proposed World Logistics Center (WLC) Specific Plan, located generally south of the SR-60 Freeway, east of Redlands Boulevard, west of Gilman Springs Road, and north of the San Jacinto Wildlife Area.

State Lands: Refers to lands owned by the State of California and includes the San Jacinto Wildlife Area (SJWA) located south of the Specific Plan Site, and the Lake Perris State Recreation Area (LPSRA) located southwesterly of the Specific Plan Site.

Tentative Parcel Map Area: A Tentative Parcel Map is being processed to subdivide 1,539 acres of the project for financing purposes only. This property is owned by the project applicant. Approval of the map will confer no development rights to the property.

WLC Specific Plan: The WLC Specific Plan proposes a master-planned logistics campus to include up to 40.4 million square feet of high-cube logistics warehousing, up to 200,000 square feet of light logistics uses, a site for logistics support uses (LS designation) and 74.3 acres of Open Space in the southwest corner of the site. The Specific Plan includes extensive development standards, design guidelines and review procedures for all development within the project.

World Logistics Center Project: The term refers to all related development and planning activities currently proposed by Highland Fairview in the Rancho Belago area of the eastern end of the City of Moreno Valley. The WLC property is generally located south of the State Route 60 freeway, east of Redlands Boulevard, west of Gilman Springs Road, and north of Mystic Lake and the San Jacinto Wildlife Area.

Zone Change: The project includes a Zone Change covering 3,714 acres which will designate 1,084 acres of land for Open Space (CDFW and SDG&E properties), 20 acres for Public Facilities (SDG&E, SCGC properties) and 2,610 acres for the World Logistics Center Specific Plan.

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